

Oxford
LINGUISTICS

THE JARAWARA LANGUAGE OF SOUTHERN AMAZONIA

R. M. W. DIXON



The Jarawara Language of Southern Amazonia

By the same author

BOOKS ON LINGUISTICS

Linguistic science and logic

What *is* language? A new approach to linguistic description

The Dyirbal language of North Queensland

A grammar of Yidiñ

The languages of Australia

Where have all the adjectives gone? and other essays in semantics and syntax

Searching for Aboriginal languages, memoirs of a field worker

A grammar of Boumaa Fijian

A new approach to English grammar, on semantic principles

Words of our country: stories, place names and vocabulary in Yidiny,
the Aboriginal language of the Cairns-Yarrabah region

Ergativity

The rise and fall of languages

Australian languages: their nature and development

with W. S. Ransom and Mandy Thomas

Australian Aboriginal words in English, their origin and meaning

with Grace Koch

Dyirbal song poetry, the oral literature of an Australian rainforest people

BOOKS ON MUSIC

with John Godrich

Recording the blues

with John Godrich and Howard Rye

Blues and gospel records, 1890–1943

NOVELS (under the name Hosanna Brown)

I spy, you die

Death upon a spear

EDITOR OF BOOKS ON LINGUISTICS

Grammatical categories in Australian languages

Studies in ergativity

with Barry J. Blake

Handbook of Australian languages, Vols 1–5

with Martin Duwell

The honey ant men's long song, and other Aboriginal song poems

Little Eva at Moonlight Creek: further Aboriginal song poems

with Alexandra Y. Aikhenvald

The Amazonian languages

Changing valency: case studies in transitivity

Areal diffusion and genetic inheritance: problems in comparative linguistics

Word, a cross-linguistic typology

Studies in evidentiality

Adjective classes, a cross-linguistic typology

with Alexandra Y. Aikhenvald and Masayuki Onishi

Non-canonical marking of subjects and objects

The Jarawara Language of Southern Amazonia

R. M. W. Dixon

Research Centre for Linguistic Typology

La Trobe University

with the assistance of

Alan R. Vogel

Summer Institute of Linguistics

Porto Velho, Brazil

OXFORD
UNIVERSITY PRESS

OXFORD

UNIVERSITY PRESS

Great Clarendon Street, Oxford OX2 6DP

Oxford University Press is a department of the University of Oxford.

It furthers the University's objective of excellence in research, scholarship,
and education by publishing worldwide in

Oxford New York

Auckland Bangkok Buenos Aires Cape Town Chennai

Dar es Salaam Delhi Hong Kong Istanbul Karachi Kolkata

Kuala Lumpur Madrid Melbourne Mexico City Mumbai Nairobi

São Paulo Shanghai Taipei Tokyo Toronto

Oxford is a registered trade mark of Oxford University Press
in the UK and in certain other countries

Published in the United States

by Oxford University Press Inc., New York

© Oxford University Press, 2004

The moral rights of the author have been asserted

Database right Oxford University Press (maker)

First published 2004

All rights reserved. No part of this publication may be reproduced,
stored in a retrieval system, or transmitted, in any form or by any means,
without the prior permission in writing of Oxford University Press,
or as expressly permitted by law, or under terms agreed with the appropriate
reprographics rights organization. Enquiries concerning reproduction
outside the scope of the above should be sent to the Rights Department,
Oxford University Press, at the address above

You must not circulate this book in any other binding or cover
and you must impose this same condition on any acquirer

A catalogue record for this title is available from the British Library

Library of Congress Cataloging in Publication Data
(Data available)

ISBN 0-19-926256-X (hbk)

0-19-926257-8 (pbk)

10 9 8 7 6 5 4 3 2 1

Typeset by Newgen Imaging Systems (P) Ltd., Chennai, India

Printed in Great Britain

on acid-free paper by Biddles Ltd., King's Lynn

This publication has been supported by La Trobe University

Internet: <http://www.latrobe.edu.au>



Preface

In August 1987, I read the grammatical descriptions in the first volume of the *Handbook of Amazonian Languages* (Derbyshire and Pullum 1986) and became fascinated. I'd studied grammars of languages from every part of the world, but these were different. They were also tantalizing, providing a glimpse of some unusual feature but not a full or satisfying description of it. The *Handbook* provoked in me an irresistible desire to undertake fieldwork in Amazonia, and try to write a comprehensive grammar of one of these intriguing languages. The present volume is the result.

It wasn't easy to get started. Des Derbyshire told me who to write to in Brazil but warned that they probably wouldn't reply (since they scarcely ever did), and they didn't. Yonne Leite, from the Museu Nacional in Rio de Janeiro, did write back, and provided useful advice. Jim Wheatley, Director of Tribal Affairs at SIL in Brasília, was simply wonderful. He told me precisely where and when to go, who to talk to, and what languages were most in need of study. In early 1991 I spent time at the Museu Goeldi in Belém, at the Museu Nacional and the Universidade Federal in Rio, at the Universidade Estadual in Campinas, and at the SIL Centers in Brasília, Belém, and Porto Velho. Everyone was friendly and helpful—Jim Wheatley, Sally and Ed Koehn, Lorraine Bridgeman, Helen Weir, Aryon Rodrigues, Cheryl and Al Jensen, Denny Moore, Luciana Storto, Yonne Leite, Charlotte Emmerich, Ruth Monserrat, Lucy Seki, Sharon Reece, and many more.

Alan Vogel met me at the airport in Porto Velho and, within ten minutes, invited me to work on his field language, Jarawara. After a few days' consideration of all the possibilities, I accepted and we undertook a preliminary visit to two Jarawara villages and also to the Banawá village.

Lucy Seki, from the Universidade Federal de Campinas, generously agreed to sponsor me for a research visa. The request was forwarded on to the local official of the Fundação Nacional do Índio (FUNAI) in Lábrea, and he asked the Jarawara whether they wanted me to come and work on their language (they did). Meanwhile, I was busy learning a bit of Portuguese.

I have undertaken six field trips in the Jarawara village of Casa Nova, ranging from three to twelve weeks in extent, in 1992, 1993, 1994, 1995, 1999, and 2003. Sometimes I was in the village at the same time as Alan Vogel, other times without him. We have discussed every aspect of the grammar and shared texts and other materials. The writing of such a complex grammar has been a lengthy task; some chapters have been through eight distinct drafts (often being completely rewritten) and none has had less than four drafts. Some of the results have already been published in Dixon (1995, 1999*a*, 1999*b*, 2000*b*, 2000*c*, 2001, 2002, 2003*a*) and in Dixon and Vogel (1995).

Besides those mentioned above I owe a special debt of gratitude to Alexandre Couto, to Kelly and Priscilla Smith, to Al and Donna Lee, and to Rodolfo and Beatrice Senn for their friendship and help. Shirley Chapman and Arlene Agnew were generous in providing information on Paumarí and Kulina respectively. At a Workshop on Arawá Languages organized by Dan Everett at Porto Velho in July and August 1993, I benefited from presentations by Fred and Paula Boley on Dení, by Barbara and Robert Campbell on Jamamadí, by Marcia Suzuki on Sorowahá, and by Ernest Buller on Banawá (he has since been generous in answering my critical queries about Banawá through correspondence).

Juliette Blevins and Andrew Butcher read an early draft of the phonology chapter; Willem Adelaar, Bernard Comrie, Timothy Curnow, Matthew Dryer, and Antoine Guillaume read the whole of the final draft, while Randy LaPolla, Sérgio Meira, and Tom Payne read parts of it; all provided perceptive and helpful comments. Alexandra Aikhenvald has been a tower of inspiration and advice; she read the whole grammar through twice—some years apart—and supplied the most cogent and enhancing comments. I also owe a debt to Andrew Hardie for drawing the maps and Adam Bowles for meticulous proof-checking. Professor Michael Osborne, Vice-Chancellor and President of La Trobe University, provided an intellectually convivial home for the Research Centre for Linguistic Typology. I thank him, and my colleagues in RCLT, for the academic ambience which made completing this study such an agreeable occupation.

Writing the grammar has been a joyous experience—because of the intellectual pleasure of working out such a magnificent system, and because of the wonderful times I have had in the village of Casa Nova (a Jarawara settlement of about fifty people, deep in the Amazonian jungle). Every single person made me welcome, and provided patient and thoughtful language instruction; put simply, we had a ball. There were eight or ten men who were superlative consultants. When other activities permitted they would pop in to the thatched hut which they had built for me, and we would check a few difficult lexemes, record a text, transcribe all or part of a text, ponder over grammatical points and test out some sentences I had constructed on the basis of my preliminary generalizations, or just have a chat. Whatever worth this grammar has owes an immeasurable debt to Mito (and his wife Bainafira), Soki, Botenawaa, Kamo, Kakai, Wero, Manowaree, and also my dear companion Motobi (murdered by the neighbouring Jamamadí tribe in 2000), among others. The Towisawa (Village Chief), Okomobi, is the tops. When he was in the village, Okomobi was unstinting in his friendship and in his help—recording, transcribing, explaining. Sometimes he was away for some days or weeks. I got along pretty well with the assistance of other speakers, but there was always a residue of tricky points that had evaded understanding. Within a few hours of Okomobi's return, he would have carefully listened, and tidied up all the problems.

R.M.W. Dixon

*Canberra, November 1993–
Melbourne, August 2003*

Contents

List of Plates xvi

List of Tables xvii

Organization and Cross-references xviii

Abbreviations and Conventions xix

Map 1 Approximate locations of languages of the Arawá family xxii

Map 2 Location of Madi dialects, and of Paumarí xxiii

1 Introduction: The Language and its Speakers 1

1.1 Linguistic type 1

1.2 Historical background 2

1.3 The Jarawara 4

1.4 Kinship and marriage 7

1.5 Linguistic affiliation 7

1.5.1 The Madi language 8

1.5.2 The Arawá language family 11

1.5.3 Areal influence from neighbouring languages 12

1.6 Basis for this study 13

1.7 Chance of survival 14

2 Phonology 16

2.1 Vowels 16

2.2 Consonants 17

2.2.1 Historical development 19

2.3 *w* and *o* 20

2.4 Phonotactics 23

2.5 Loans 25

2.6 Stress 27

2.7 Grammatical and phonological words 28

2.8 Long vowels 32

2.9 Phonological rules 36

2.9.1 Lenition of *k* (rules P1 and P2) 36

2.9.2 Front raising of *a* (rules P3 and P4) 38

2.9.3 The morphophoneme *l* (rule P5) 40

2.9.4 Assimilation of *-ka-* to *-ko-* after *o* (rule P6) 43

2.9.5 Assimilation of *-a-* to *-e-* next to *e* (rule P7) 49

- 2.9.6 Omission of *-h-* and of *-hV-* (rules P8 to P14) 50
- 2.9.7 Restriction that only one *-hV-* syllable may be omitted from any word 56
- 2.9.8 Final *-ha* in lexemes 57
- 2.9.9 Ordering of rules 58
- 2.10 Other phonological processes 64
 - 2.10.1 Vowel assimilation 64
 - 2.10.2 Analogical extension from 1sg *o-* to 2sg *ti-* 65
 - 2.10.3 Shortening 66
 - 2.10.4 Haplology 66
 - 2.10.5 Reduction of *-a-risa* to *-isa* 67
- 2.11 The glottal stop 67
- Appendix: summary of phonological rules 68
- 3 Grammatical Overview 70
 - 3.1 Homonyms and relative lack of redundancy 71
 - 3.2 Number and animacy 74
 - 3.3 Word classes 75
 - 3.3.1 Pronouns 76
 - 3.3.2 Nouns 78
 - 3.3.3 Verbs 81
 - 3.4 Basic clause structure 84
 - 3.4.1 A-constructions and O-constructions 87
 - 3.5 Predicate structure 88
 - 3.6 Noun phrase structure 90
 - 3.7 Complement clauses 91
 - 3.8 Dependent clauses 93
 - 3.9 Other clause types 94
- 4 Predicate Structure: General 95
 - 4.1 Inventory of predicate elements 95
 - 4.1.1 Verbal reduplication 99
 - 4.2 Vowel alternations to mark gender 100
 - 4.3 *to-* and the first prefix slot 102
 - 4.4 The third pronominal position 105
 - 4.4.1 Intransitive clauses and transitive A-constructions with no secondary verb 106
 - 4.4.2 Transitive O-constructions with no secondary verb 107
 - 4.4.3 With a secondary verb 109
 - 4.4.4 When there is no mood 110

- 4.4.5 Complement clause supplying third pronominal position 111
- 4.4.6 Possessor filling third pronominal position 112
- 4.5 Verbs and auxiliaries 114
 - 4.5.1 The verbal auxiliary 114
 - 4.5.2 Forms of verbs 119
 - 4.5.3 The inner suffix *-ri* 124
- 5 Predicate Structure: Miscellaneous Suffixes 127
 - 5.1 The four auxiliaries 128
 - 5.2 The types of miscellaneous suffix 132
 - 5.3 Summary of miscellaneous suffixes 134
 - 5.3.1 Criteria for recognizing echelons 137
 - 5.4 First echelon (F1): normal suffixes 138
 - 5.5 Second echelon (F2): normal suffixes 152
 - 5.6 Third echelon (F3): prefix-retaining auxiliary-taking suffixes 155
 - 5.7 Fourth echelon (F4): prefix-poaching auxiliary-taking suffixes 157
 - 5.8 Fifth echelon (F5): auxiliary-bound suffixes 175
 - 5.9 Sixth echelon (F6): normal suffixes 180
 - 5.10 Extra-echelon suffixes 189
 - Appendix 194
- 6 Predicate Structure: The Tense-Modal System 195
 - 6.1 Forms 196
 - 6.1.1 Internal reconstruction (*a*): initial *-hV-* syllable 198
 - 6.1.2 Internal reconstruction (*b*): remainder of suffix forms 201
 - 6.2 Meanings 203
 - 6.2.1 Evidentiality (including mirative) 203
 - 6.2.2 Past tenses 207
 - 6.2.3 Intention and future 211
 - 6.2.4 Irrealis and hypothetical 215
 - 6.2.5 Reported 217
 - 6.2.6 Analysis of the non-past modalities? 219
 - 6.3 Tense-modal following mood 220
 - 6.4 Aspect/time lexemes *hibati* ‘completed’ and *hibajata* ‘close in time’ 223
- 7 Predicate Structure: Secondary Verbs, Mood, and Negation 226
 - 7.1 Secondary verbs 226
 - 7.1.1 *ama* ‘extended action or state’ 228
 - 7.1.2 *awine/awa* ‘seems’ 232

7.2	Mood suffixes	233
7.2.1	Indicative mood suffixes: declarative <i>-ke/-ka</i> and backgrounding <i>-ⁱni/-ne</i> (plus <i>-ra/-^era</i>)	234
7.2.2	Counterfactual <i>-ⁱkani/-kani</i> and climax <i>-ⁱnihi/-noho</i>	236
7.2.3	Immediate <i>-ⁱbe(ja)/-ba(ja)</i>	239
7.2.4	Unusual, take no responsibility for <i>-ⁱmakoni/-mako</i>	241
7.2.5	Contrastive negator <i>-rihi/-rihi</i>	243
7.3	Negation	245
8	Verbal Derivations: Causative and Applicative	248
8.1	Causative <i>na- ~ niha-</i>	248
8.1.1	Form	248
8.1.2	Syntax	250
8.1.3	Semantics	253
8.2	Applicative <i>ka-</i>	254
8.2.1	Transitivizing sense	255
8.2.2	Semantic senses	258
8.2.3	Review	265
9	Verbal Reduplication	267
9.1	Form	268
9.2	Grammatical properties	269
9.3	Functions	274
9.3.1	Semantic modification of a verb	274
9.3.2	Iterative	278
10	Noun Phrase Structure	280
10.1	Overview	280
10.1.1	Summary of noun phrase structure	281
10.1.2	Contrastive marker <i>taa</i>	283
10.1.3	Gender	284
10.1.4	Person	287
10.1.5	Animacy and number	289
10.1.6	The head of a noun phrase	290
10.2	Complex noun phrases	292
10.3	Post-predicate noun phrases	293
10.4	Alienable possession	295
10.4.1	Kinship possession	298
10.5	Augment modifier and ‘another’	301
10.5.1	<i>mee</i> : augment modifier and 3nsg pronoun	301
10.5.2	<i>one/owa</i> ‘another’	303

- 10.5.3 *mee* and *one/owa* 304
- 10.5.4 Non-singular forms of nouns 304
- 10.5.5 Summary of properties of *mee* 306
- 10.6 Predicate suffixes on noun phrases 306
- 11 Possessed Nouns, and Adjectives 310
 - 11.1 Possessed nouns 310
 - 11.1.1 Gender assignment on possessed nouns within a noun phrase 314
 - 11.1.2 Historical origin of gender forms for possessed nouns 316
 - 11.1.3 Singular pronominal possessors with possessed nouns 325
 - 11.1.4 Reflexive use of possessed nouns 328
 - 11.1.5 *hine/hiwa* ‘just’ and reflexive 330
 - 11.1.6 The collective/reciprocal construction 332
 - 11.2 Adjectives 335
 - 11.2.1 Membership 335
 - 11.2.2 Grammatical functions 337
 - 11.2.3 Distinguishing adjectives from possessed nouns 339
 - 11.2.4 Distinguishing adjectives from nominalized verbs 341
- Appendix: list of possessed nouns 343
- 12 Demonstratives and Related Forms 361
 - 12.1 Demonstratives 361
 - 12.1.1 Nominal demonstratives 362
 - 12.1.2 Adverbial demonstratives 366
 - 12.2 Anaphoric elements 369
 - 12.2.1 Specifiers *afa/efe* and *ifa/ife* 369
 - 12.2.2 Non-pivot anaphoric element *fee* ~ *hee* 371
 - 12.3 *fara/fare* ‘the very one’ and *bara/bare* ‘a different one’ 373
 - 12.4 Locational nouns 375
- 13 Copula Clauses 377
 - 13.1 Core arguments 377
 - 13.2 Relational meanings 378
 - 13.3 Morphology 381
 - 13.4 Syntax 383
 - 13.5 Homonyms and cognates 385
 - 13.6 Other verbs ‘exist’ 385

- 14 Structure of a Verbal Main Clause 387
 - 14.1 Order of constituents 387
 - 14.2 Clause-initial elements 388
 - 14.2.1 Interjections 389
 - 14.2.2 Discourse-time markers 389
 - 14.3 Clause-final elements 393
 - 14.4 Direct and indirect speech 393
 - 14.4.1 Direct speech 393
 - 14.4.2 Indirect speech 395
- 15 Commands and Questions 396
 - 15.1 Commands 396
 - 15.2 Imperatives 397
 - 15.2.1 Form 397
 - 15.2.2 Person and gender 399
 - 15.2.3 Meaning 400
 - 15.3 Content questions 402
 - 15.3.1 *himata* 'what' 403
 - 15.3.2 *hibaka* (f); *hibeke*, *hibake*, or *hike* (m) 'who' 405
 - 15.3.3 *hibaka* or *hika* 'where' 407
 - 15.3.4 Interrogative verb *ee -na-* 'what about, etc.' 407
 - 15.3.5 'When' 409
 - 15.3.6 Noun phrase plus *-ra* 'where' 409
 - 15.4 Polar questions 410
 - 15.4.1 Polar interrogatives with *-ⁱni(hi)*/nothing 411
 - 15.4.2 Polar interrogative future marker *-ⁱbana/-bana* 413
 - 15.4.3 Polar interrogatives with *awine/awa* 414
 - 15.4.4 Polar interrogatives with *ama* 415
 - 15.4.5 Time reference 415
- 16 A-Constructions and O-Constructions 417
 - 16.1 Syntactic pivots 417
 - 16.2 The two transitive constructions in Jarawara 418
 - 16.2.1 Basic properties of A-constructions and O-constructions 419
 - 16.2.2 Difficulties with a passive or antipassive interpretation 421
 - 16.3 Exemplification of discourse role 423
 - 16.4 The structure of O-constructions 433
 - 16.4.1 Intransitive clauses 435
 - 16.4.2 Transitive A-constructions 435
 - 16.4.3 Transitive O-constructions 436

- 16.4.4 Exemplification of contrast between A-constructions and O-constructions 439
- 16.4.5 With a secondary verb 440
- 16.5 Comparison with other Arawá languages 443
- 17 Complement Clauses 446
 - 17.1 Mode of use 447
 - 17.2 Structure 448
 - 17.3 O-constructions and complement clauses 452
 - 17.4 Types of complement clause construction 454
 - 17.5 Modification of a complement clause 455
 - 17.6 Pronominal raising 456
 - 17.7 Shared arguments 460
- 18 Dependent Clauses 462
 - 18.1 Structure and marking 463
 - 18.1.1 Structure 463
 - 18.1.2 Marking on postposed dependent clauses 464
 - 18.1.3 Marking on preposed dependent clauses 466
 - 18.1.4 Tense-modal specification in dependent clauses 468
 - 18.2 Shared arguments 472
 - 18.3 Meaning 477
 - 18.4 Noun phrases as dependent clauses 480
- 19 Nominalized Clauses 482
 - 19.1 Structure 482
 - 19.2 Meaning 484
 - 19.3 Function 485
- 20 Peripheral Markers *jaa* and *ni-jaa* 488
 - 20.1 Noun phrase followed by *jaa* 489
 - 20.2 Noun phrase followed by *ni-jaa* 492
 - 20.3 With nominalized clauses 494
 - 20.4 After main clauses and dependent clauses 497
- 21 Other Peripheral Markers 498
 - 21.1 *kaa(ro/ri)* ‘along, through, because, etc.’ 498
 - 21.1.1 With noun phrases 498
 - 21.1.2 With nominalized clauses 500
 - 21.2 *tabijo* ‘due to the absence/lack of’ 502
 - 21.3 *namoni* ‘taking news of’ 504
 - 21.4 *ni-ma* and *ti-ma* ‘be similar to, be the same as’ 505

- 22 The Relational Noun *ihī/ehene* 'Due to, Because of' 509
 - 22.1 Form 509
 - 22.2 With a peripheral NP 511
 - 22.3 With a clause 513
 - 22.4 With a core NP 514
 - 22.5 Idioms 515
- 23 List Constructions 517
 - 23.1 Grammatical properties 518
 - 23.2 Meaning and use 523
- 24 Syntactic Organization 525
 - 24.1 Relative clauses 525
 - 24.2 Conjunction by juxtaposition 528
 - 24.3 Contrasting the properties of clause types 529
 - 24.4 The *-ro/-ri* ending 531
- 25 Word Class Derivations 532
 - 25.1 Deriving possessed nouns 532
 - 25.2 Deriving free nouns 533
 - 25.3 Deriving verbs 536
 - 25.4 Deriving adjectives 538
- 26 Topics in Semantics 539
 - 26.1 Noun semantics 539
 - 26.1.1 Generic nouns 539
 - 26.1.2 Compound names 540
 - 26.2 Verb Semantics 541
 - 26.2.1 Suppletive verb forms 543
 - 26.2.2 Inflecting and non-inflecting subclasses 546
 - 26.2.3 Transitivity 549
 - 26.2.4 Semantic roles and syntactic functions 550
 - 26.2.5 Semantic characteristics 557
 - 26.2.6 Examples of semantic sets 561
 - 26.2.7 Verbal idioms 563
 - 26.3 Formulaic expressions 564
- 27 Prehistory 566
 - 27.1 Features to be explained 566
 - 27.2 Tentative historical scenario 570
 - 27.3 Other points in need of explanation 581

Texts 583

Text 1: The story of Siko's burial 583

Text 2: The Branco who got an ant in his pants 591

Text 3: How to make a bark canoe 604

References 612

Vocabulary 615

List of Affixes 630

Index 633

List of Plates (between pages 8 and 9)

1 The Jarawara village of Casa Nova in 1993, with four houses grouped around the village square. In top centre, just above the airstrip, is the house of missionary linguist Alan Vogel and his family (with a metal roof). The author's small thatched hut is to the left of the Vogel residence. After Siko, an old shaman, died in March 1994, the village was relocated to the top side of the airstrip (§1.3).

2 Motobi stands in the Casa Nova village square, with a hunting dog and his pet tapir (1993).

3 On a Saturday in August 1993, almost everyone in the village of Casa Nova walked an hour through the forest to the Fahabiri stream. Here Kamo shakes into the water a basket full of the crushed bark of *kona*, the tinguí vine, which spreads out and stuns the fish (§1.3).

4 A few minutes later, a hunter shoots a fish which has been stunned into somnambulance by the crushed *kona* bark.

5 The author transcribes a Jarawara text with the help of Okomobi, village chief and teacher without parallel (1993).

6 The shaman Siko and his wife Amoro (1993). Text 3, on how to make an olden-days bark canoe, was recorded by Siko. Text 1 tells of Siko's death and burial.

7 The last shaman in the village of Casa Nova, João, carries home a piece of timber for a house frame in 1999, at about the age of seventy-five. (He died in 2002).

8 The prime foodstuff is *fowa* (bitter manioc). The roots are soaked in a stream for three days, then peeled, pulped and pressed in a squeezer to remove the poisonous component. Finally, it is—as shown here—roasted on a large metal pan, producing manioc flour, which has a pleasant nutty taste (§1.3). Each village is provided by the Fundação Nacional do Índio with one metal roasting pan.

List of Tables

1.1	Cognate percentages between the Arawá languages	12
2.1	The Jarawara consonant system	17
3.1	Pronominal forms	77
3.2	Main contrasting properties of A-constructions and O-constructions	87
4.1	Predicate slots filled for different choices of pivot and of tense-modal	106
4.2	Prefixed forms of vowel-initial inflecting verbs	119
5.1	Types of miscellaneous suffixes	127
6.1	Forms of tense-modal suffixes	197
10.1	Structure of the noun phrase	281
10.2	Types of possessive marking for kin terms	299
11.1	Gender on the possessed noun in a noun phrase with one possessed noun	315
11.2	Gender on possessed nouns in a noun phrase with two or more possessed nouns	315
11.3	Sample data on possessed nouns	317
11.4	Distribution of forms of possessed nouns in Jarawara	322
11.5	Comparison of possessed forms of possessed nouns	327
12.1	Forms of nominal and adverbial demonstratives	361
16.1	Contrasting properties of A-constructions and O-constructions	420
16.2	Structure of an intransitive predicate	435
16.3	Structure of the predicate of an A-construction	436
16.4	Structure of the predicate of an O-construction	437
16.5	Structure of an intransitive predicate with a secondary verb	440
16.6	Structure of the predicate of an A-construction with a secondary verb	440
16.7	Structure of the predicate of an O-construction with a secondary verb	441
16.8	Distribution of A-constructions and O-constructions in Arawá languages	444
17.1	Types of complement clause constructions	454
17.2	Possibilities for pronominal raising	458
24.1	Contrastive properties of clause types	530
27.1	Filling the third pronominal position when there is no secondary verb	568
27.2	Filling the third pronominal position after Step C	577

Organization and Cross-references

Chapter 3 provides a quick overview of the main points of the grammar of Jarawara. Later chapters each deal in turn with a particular grammatical topic, and assume familiarity with the information given in chapter 3.

Chapter 1 provides background information. Chapter 2 is a detailed discussion of the phonology. It is not necessary to read the whole of chapter 2 before consulting the grammatical chapters. The reader is, however, recommended to look at §§2.1–2 and §§2.6–7, and then to glance through some of the phonological rules set out in §2.9 (and summarized in the appendix to chapter 2) to gain a general idea of the kinds of phonological processes that apply throughout the grammar of Jarawara.

Cross-references are of three types:

those preceded by § refer to chapter and section number; for example, §17.6 refers to section 6 of chapter 17;

those preceded by T refer to sentences from the three texts included at the end of the book; for example, T2.31 is sentence 31 of text 2;

those in parentheses refer to examples in the grammar, which are numbered consecutively within each chapter; for example (5.6) is the sixth example in chapter 5.

Abbreviations and Conventions

Boundary symbols

- # word boundary
- boundary between root and affix, or between affixes
- . boundary between phonological words within one grammatical word
(. is also used within a multi-word gloss, e.g. 'look.up')
- + boundary between grammatical words within one phonological word (as mentioned in §2.7, the symbol is often omitted; when auxiliary *na* or negator *ra* is shown without any affix, it should be assumed to be linked by + to the preceding word)
- = clitic boundary

Suffixes which vary for gender are shown as feminine form, then /, then masculine form; for example declarative mood *-ke/-ka*. Some possessed nouns mark gender and are shown in the same way; for example *tame/teme* 'foot' indicates that the f form is *tame* and the m form *teme*. Possessed nouns which do not mark gender are shown either as, for example, *ati/ati* 'voice, language', or just as *ati*.

Main Abbreviations

Syntactic functions

A	transitive subject	O	transitive object	S	intransitive subject
CS	copula subject	CC	copula complement		

Transitivity of verb

tr	transitive	intr	intransitive
----	------------	------	--------------

Past tenses

IP	immediate past	RP	recent past	FP	far past
----	----------------	----	-------------	----	----------

Evidentiality values

e	eyewitness	n	non-eyewitness
---	------------	---	----------------

Genders

f	feminine	m	masculine
---	----------	---	-----------

Number

sg	singular	du	dual number	pl	plural
nsg	non-singular (covering dual and plural)				

Person

1 1st person 2 2nd person 3 3rd person

Pronouns are shown by combinations of Person and Number symbols, plus:

1inc 1st person non-singular inclusive (including addressee)

1exc 1st person non-singular exclusive (excluding addressee)

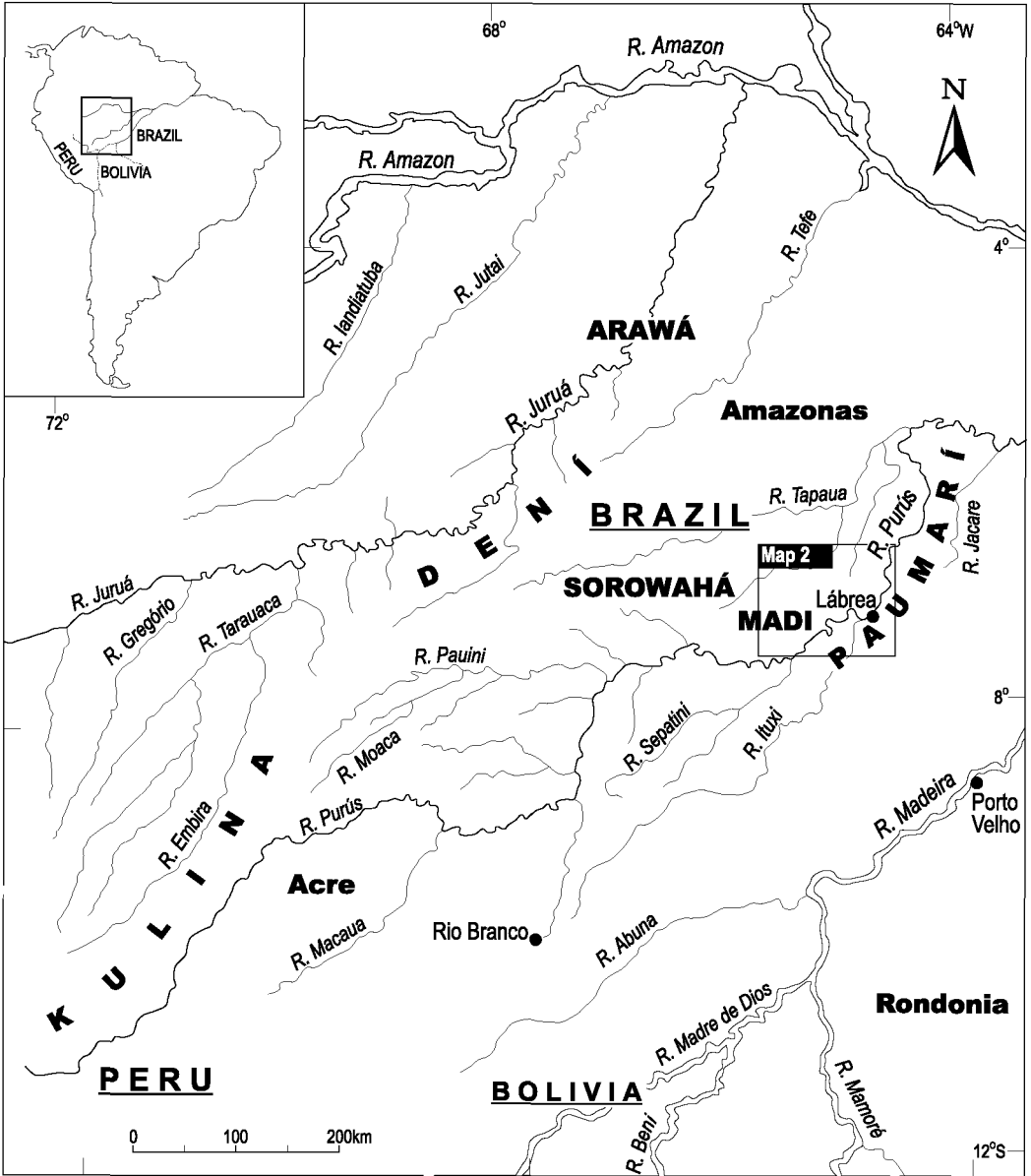
'Pronominal prefixes' are: 1sg *o-*, 2sg *ti-*, and Oc *hi-*.

'Non-pronominal prefixes' are *to-* 'away', applicative *ka-*, and causative *na-* ~ *niha-*.

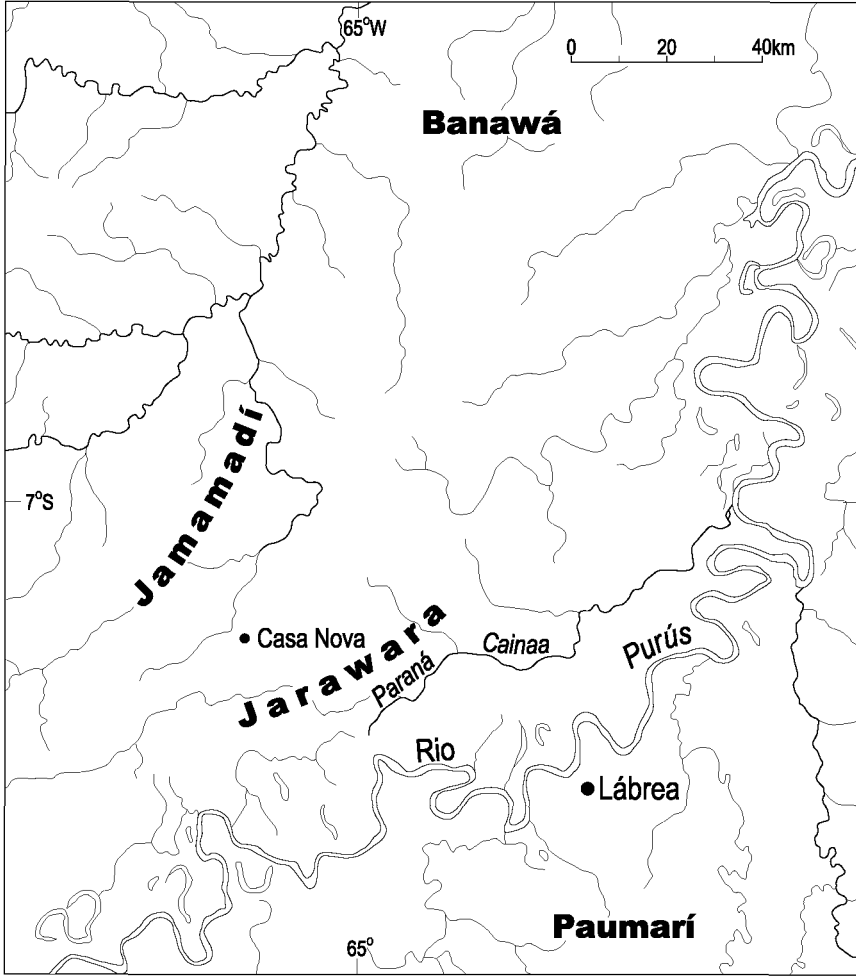
Other Abbreviations

Ac	A-construction	Imm	immediate (imperative)
ACC	accusative	IMMED	immediate mood
an	animate	IMP	imperative
APPLIC	applicative	inan	inanimate
AUG	augment	INT	intention modality
AUX	auxiliary	IRR	irrealis modality
BKG	backgrounding mood	Neg	negative (imperative)
C	consonant	NEG	negator
CAUS	causative	NOM	nominalization
CINT	content interrogative	NOM.INT	nominal interrogative
CNTFACT	counterfactual mood	NP	noun phrase
COMP	complement clause	Oc	O-construction
CONT	continuous	PERI	peripheral
CONTR	contrastive	PFutINT	future polar interrogative
ContrNEG	contrastive negative	PINT	polar interrogative
DEC	declarative mood	PN	possessed noun
DEP	dependent clause	Pos	positive (imperative)
Dis	distant (imperative)	POSS	possessive
DISTRIB	distributive	RECIP	reciprocal
EMPH	emphasis	REDUP	reduplication
F.NSG	feminine non-singular	REL	relative clause
FUT	future modality	REP	reported modality
HABIT	habitual	SPECIF	specifier
HYPOTH	hypothetical modality	UNUSL	unusual modality
		V	vowel

This page intentionally left blank



MAP I. Approximate locations of languages of the Arawá family



MAP 2. Location of Madi dialects, and of Paumarí

This page intentionally left blank

Introduction: The Language and its Speakers

Jarawara, which belongs to the small Arawá language family, is spoken as first language by about 170 Indians who live in seven villages near the Purús River, a major southern tributary of the Amazon, in the state of Amazonas, Brazil.

I.1 LINGUISTIC TYPE

Jarawara has a (C)V syllable structure and an inventory of just eleven consonant and four vowel phonemes. Vowel length is contrastive but has a low functional load. The language is basically agglutinative but there are many morphophonological processes of vowel assimilation and of the omission of an underlying *-h-* or *-hV-* in certain phonological and morphological environments. Jarawara shows multiple lexical and grammatical homonymy.

There is a large class of verbs, with intransitives outnumbering transitives; a high proportion of verbs are ambitransitive, many of type S = O and a handful of type S = A. There is a gender system feminine/masculine (the semantic basis of the non-human members being mostly opaque) with feminine as the unmarked term; all pronouns are cross-referenced on the verb by feminine gender. Almost all free nouns are strictly specified for gender; a set of possessed nouns (referring to parts of the body, plants and the environment, and orientations such as ‘in front of’, in addition to ‘container’, ‘design’, ‘nakedness’, etc.) have feminine and masculine forms and agree in gender with their possessor. There is a small closed class of masculine adjectives. Pronouns distinguish first, second, and third person, singular (sg) and non-singular (nsg) number, and inclusive/exclusive within first person non-singular.

The nucleus of each clause is a predicate which begins with obligatory pronominal element(s) referring to O and A of a transitive verb or to S of an intransitive. Verbs divide into two classes—inflecting verbs which themselves accept prefixes and suffixes, and non-inflecting verbs which must be followed by one of two auxiliaries, to which all affixes are added. There are six prefixes to the verb (in three slots) and over eighty suffixes (in more than twenty slots). Two of the prefixes mark valency-changing derivations, causative and applicative (although applicative also has a number of purely semantic senses). One group of suffixes are straightforward in that they may be added directly to a preceding suffix and a following suffix may be added directly to them. A second group of suffixes can only be added to a preceding suffix-determined auxiliary. For a third group a following suffix can only be added to a following suffix-determined auxiliary. There is just one suffix that combines the properties of the second and third groups.

Following the verbal root we get the following sets of suffixes: (i) about fifty-six ‘miscellaneous’ suffixes such as ‘upriver’, ‘all night’, ‘again’, ‘also’, ‘be the only person to do it’; (ii) tense-modal suffixes, including three past tenses, each with an obligatory evidentiality specification, eyewitness or non-eyewitness (which may also code mirativity), and five non-past modalities—future, intention, irrealis, hypothetical, and reported; (iii) a third pronominal slot which can repeat information about the S, A, or O argument, depending on the clause type

and other factors; (iv) one of two ‘secondary verbs’, indicating ‘extended in time’ or ‘seems’; (v) one of fifteen mood suffixes; (vi) one of six post-mood suffixes (which are basically extrapositions of suffixes from earlier slots). Almost all suffixes have distinct feminine and masculine forms. All suffixes are optional—the only obligatory elements in the predicate are verb root and pronominal elements referring to core participants. Negation is marked in (i) if there is a tense-modal specification at (ii) or a secondary verb at (iv), but in (vi) if neither of these elements is present and there is a mood suffix at (v).

There are two transitive construction types: one (the A-construction) marks the A argument as pivot of the stretch of discourse in which the clause occurs and the other (the O-construction) marks the O argument as pivot. Most verbal suffixes are marked for gender, agreeing with the S argument in an intransitive clause, with the A argument in a transitive A-construction, and in a transitive O-construction agreeing either just with the O argument or with a combination of A and O (some verbal suffixes agreeing with A and others with O).

Jarawara has four morphological markers for imperative (each with two gender forms), relating to positive/negative and immediate/distant (in time or place). There are distinct mood suffixes for polar interrogatives and for content questions. Verbs take five patterns of reduplication, each with a distinct meaning. There are two copula verbs, ‘be’ and ‘become’.

The noun phrase has complex organization, with different structural patterns for alienable possession, kinship possession, and inalienable possession. 1st and 2nd person core arguments are included in the predicate and can also be possessor within an NP. However, a core NP cannot just consist of a 1st or 2nd person pronoun; that is, all NPs are 3rd person. In addition, an NP involving an inalienably possessed noun counts as inanimate. The head of an NP is the alienably possessed noun or the inalienable possessor (these may coincide); the head determines the gender of the NP, for verbal suffix agreement.

There are a number of minor postpositions with specialized meaning (‘due to the lack of’, ‘taking news of’) plus one general postposition, *jaa*, which translates all of ‘at’, ‘in’, ‘to’, ‘from’, and ‘with’, and may also govern nominalized clauses. The notions shown by specific prepositions in a language such as English are realized in Jarawara through possessed nouns; for example, ‘on a table’ is expressed through the free noun *mesa* ‘table’ modified by possessed noun *mese* ‘top surface of’ plus general postposition *jaa*.

Jarawara has a well-defined category of complement clauses which typically function as S argument in a main clause; for example, to translate ‘he went to town twice’ one would literally say ‘his going to town was two’. There is raising of a pronominal argument in A function within a complement clause (which is in S function within the main clause) into the S slot in the main clause. There are also several types of dependent clauses and nominalized clauses, plus relative clauses which are essentially recognizable by lacking the markings which identify other clause types. A sentence in Jarawara will typically include one main and up to three (sometimes more) subordinate clauses.

I.2 HISTORICAL BACKGROUND

In 1500, at the time of the Portuguese invasion, there are thought to have been at least two and a half million Indians living in Brazil (Hemming 1978) speaking between them at least 350 languages (Rodrigues 1986). From that moment, their numbers decreased rapidly. Many died from diseases introduced by Europeans to which they had no immunity (smallpox, the plague, influenza, pleurisy, and various types of fever, etc.). Many were enslaved by the Portuguese and so overworked that they died within a few years. Others were hunted and massacred. The

supply of captive Indians was soon exhausted in the vicinity of European settlements and expeditions were sent up the Amazon and its major tributaries to capture and enslave more distant tribes. There are today only about 150,000 Indians in Brazil, speaking between them about 170 languages, many close to extinction. All tribal Indians (i.e. those living in designated reserves) are classified as ‘minors’ by the government—it is, for instance, an offence to supply them with alcoholic drink.

The first recorded European expedition to pass the mouth of the Rio Purús was in 1542, under the command of Francisco Orellana. However, for the next few centuries most activity was centred on the Amazon itself and more major tributaries such as the Rio Negro and Rio Madeira. Only in the middle of the nineteenth century did Brancos (non-Indian Brazilians) come to settle along the Purús, displacing the original Indian population. Settlement increased at the height of the rubber boom, towards the end of the century, as Brancos penetrated further into the forest along smaller tributaries of the Purús and nearby rivers. The Brazilian rubber boom collapsed early in the twentieth century, when more efficient cultivation became established in Malaya; the Branco population then decreased, but was still maintained along the major rivers.

On either side of the Purús—and for hundreds of miles in every direction—there is original rainforest, with no roads. The river is perhaps half a kilometre wide in the dry season but floods the surrounding forest to a width of up to 15 kilometres in the wet (between November and May). Before the white incursion the forest was fully populated by hunter-agriculturalist Indian tribes. They lived in villages, generally consisting of one large maloca, a conical building 10 metres or so in height in which the whole village (up to a hundred people) would sleep. They would periodically shift to a new village site, a few hours’ or a few days’ travel away, in order to acquire fresh land to clear for gardens and a fresh patch of forest in which to hunt.

At present, Brancos live along the main rivers and Indians in the forests, a few hours’ travel from the river. The current Indian population may be only one-tenth of what it was in pre-colonial days. There are now at least ten times as many Brancos as Indians in the Purús area.

The Jarawara tell of how—a hundred or more years in the past—there was great enmity and fighting. The Brancos killed many Indians, over and above those who succumbed to the new diseases, and the Indians killed a good few Brancos. Several generations ago the two groups established a pattern of coexistence. To an outsider there is in fact little difference between the two lifestyles. Both races live in the same sort of house, sleep in hammocks, have no electricity, carry their water from a nearby stream, and live on a diet which centres on manioc flour, fish, and bananas. The Branco children attend a poor sort of school for three or four years and are barely literate. A few of the Indians have achieved a measure of literacy (generally, without the benefit of formal schooling).

A major difference is religion. The Brancos are practising Catholics and adorn their homes with pictures of saints. When the research for this grammar began, in 1991, the Indians all followed their traditional religion. Many of them still do. However, during the 1990s evangelical missionary teams working among the Jarawara (and among the Jamamadí and Banawá) achieved several score converts to Christianity; the number is steadily growing, particularly among younger people.

But, as elsewhere in the world, the Brancos consider themselves superior and have, to a considerable extent, convinced the Indians of this. Although most Indians live some hours of travel from a Branco settlement they all wear clothes and observe Branco conventions of modesty. They have, within the last few decades, abandoned their traditional malocas for Branco-style houses on stilts, one per family. They observe the days of the week, doing no

work in the gardens on Sunday (although they do fish and hunt on this day). Most of the Indians periodically visit the river to trade with Brancos, or occasionally to work for them. The Indians all know some Portuguese; it is rare to find a Branco who can speak an Indian language (although occasionally a Branco will know the names of some animals and garden plants plus a handful of common expressions). Indeed, the Indians have been told—and some believe—that their languages are inferior. The Paumarí live near the Purús River and have closer contact with Brazilians than the Jarawara. Few of the younger Paumarí speak the full version of their language, using instead Portuguese or—most often—a mixture of Portuguese and Paumarí (Chapman and Derbyshire 1991: 161–2). There are some younger people with fair fluency in Paumarí, which they use in the village. But they tend to disguise this when in contact with Brancos, seemingly ashamed of their linguistic heritage.

Both races are well aware that the Brancos are the dominant group in Brazil, that many Indians have perished, and that Indians must conform to white laws and expectations if they are to survive. As in all such situations, interracial sex and marriage is a one-way affair. Some Brancos take Indian wives but for a Branco woman to voluntarily marry an Indian man is virtually unknown. Indian women sleep with Brancos and not infrequently have children by them which they rear in a village, as Indians; the opposite appears seldom or never to happen.

1.3 THE JARAWARA

Members of the Jarawara tribe live in about seven villages spread through the jungle on the north-west side of the Purús River, just west of the town of Lábrea (the number of villages varies, as new settlements are established and old ones abandoned every few years). Each village is at least an hour's walk from its immediate neighbours with the furthest villages (Nazaré and Casa Nova) being 7–8 hours (40–5 kilometres) apart. In 1992, I accompanied Alan Vogel on a visit to each of these villages, on foot, and the approximate populations at that time were: Casa Nova 43, Yemete 8, Agua Branca 35, São Francisco 35, Mangueira 12, Nazaré 12, Saubinha 6. Note that there has been no anthropological study of the Jarawara (nor of the Jamamadí, Banawá, Paumarí, or Sorowahá, although there is a short study of the Dení by Koop and Lingenfelter 1980); the notes that follow are from personal observation.

The Jarawara state that a few generations ago they were simply hunters and gatherers. The main vegetable foods at that time included *hawa* 'patauá palm' and *fowe*, a herb (the actual plant has not been identified) with a large root that was grated and then treated in much the way that manioc is today. Quite recently they adopted slash-and-burn agriculture, perhaps acquiring it from their neighbours the Apurina, who speak a language of the Arawak family (Arawak people typically have agriculture and this may possibly go back to the proto-Arawak stage).

Today, the tribe is self-sufficient as regards food. In the dry season, during July and August, they clear patches of forest for new gardens and then burn them off. Each garden will last two or three years before it gets choked with weeds and the soil becomes unproductive. The prime foodstuff is *fowa*, bitter manioc (*Manihot esculenta*). After the roots are harvested they are soaked in a stream for about three days, then peeled, pulped, and pressed in a woven cylindrical squeezer to extract the poisonous component. In pre-contact times it was eaten as a dough. Nowadays it is generally roasted on a large metal pan, producing manioc flour, which has a pleasant nutty taste. Other garden crops include sweet manioc (which can be boiled and eaten), maize (sweet corn), sugar cane, yams, sweet potatoes, taro, pineapples, peach palm, onions, ginger, and various kinds of bananas and plantain.

At least 150 species of forest plants have fruits considered edible by the Jarawara, although most are gathered only occasionally. Those that are gathered on a regular basis include (we give the Jarawara name first, then the Portuguese common name, then the English common name in those cases where there is one, then the botanical name):

(i) a number of palm species

fare, açai, assai euterpe palm, *Euterpe* sp.
hasabono, tucumã, star nut palm, *Astrocaryum tucuma*
hawa, patauí, *Jessenia bataua*
kosi, urucuri, *Scheelea maritiana*
jifo, burití, murity palm, *Mauritia* sp.
baje, ubim-baye, *Geonoma* sp.

(ii) others

mowe, castanha-do-pará, Brazil nut, *Bertholletia excelsa*
mato, piquiá, *Caryocar* sp.
siro, uxi, *Endopleura* sp.
sokobono, ituá, a jointfir, *Gnetum* sp.
winika, cajuí, *Anacardium occidentale*
marakosa (a loan word), maracujá, passion fruit, *Passiflora* sp.

The Jarawara have their villages and gardens on land which is never flooded (called *terra firme* in Portuguese) but they hunt and fish in areas which do get flooded. They have a walk of 40 minutes to the wet season port, on the edge of the flood plain, and one of about an hour to the dry season port, on a permanent lake. Throughout the year fish are caught from a canoe either with hook and line (using as bait a worm, a piece of fish, or a piece of roasted fruit) or using a bow and arrow. During the dry season the poisonous bark of *kona*, the tinguí vine (*Paullinia pinnata*), will be crushed and shaken into a medium-sized stream, stunning the fish, which can then easily be secured with bow and arrow. Fish poisoning expeditions are generally held on a Saturday in Casa Nova, almost everyone from the village (including women and children) taking part, as well as some from nearby villages.

The Jarawara hunt game in the forest, now preferring a shotgun over the traditional blowgun with poisoned dart (although this is still used, alongside guns, in the Banawá village). *Kobaya*, the white-collared peccary (caititu in Portuguese, *Tayassu tajacu*), and *sinama*, the large agouti (cutia, *Dasyprocta aguti*), are the most common sources of meat. *Awi*, the tapir (anta, *Tapiris terrestris*), *hijama*, the white-lipped peccary (queixada, *Tayassu pecari*), and two varieties of *bato*, deer (veado), are killed less often but can provide a plentiful supply of meat, some of which may be traded to Brancos on the main river. Turtles, monkeys, and various smaller animals are also eaten.

The Indians keep and breed dogs for hunting and also have some chickens, ducks, and tame pigs around the village. There is usually a monkey tied up as a pet and nowadays there are domestic cats. If the young of a game animal (such as a tapir) is found, it may be reared in the village and eaten once it has attained a reasonable size.

Tobacco leaves are smoked over a fire and pulverized to make a snuff which is sniffed—on an everyday basis—through a short bamboo pipe, by all members of the community beginning at about the age of 7. Cotton is cultivated in gardens and woven into hammocks which are either used by the Indians themselves or traded to Brancos. Some Jarawara have rubber trails, always in flooded areas (where the quality is higher); this is used exclusively for trading with Brancos. Clay pots for water storage, etc. are made in the

village of São Francisco, where there is a good supply of clay, and traded to the Jarawara at other villages. Women weave baskets of various sizes, some for their own use and some for trade.

The Indians' religion involves recognizing that many animals and plants have spirits, in a similar way to people. Survival depends on being able to control the spirits of the forest. Illness is attributed to evil spirits taking away the invalid's soul; a shaman will call on his own spirits to retrieve it. There are two song styles: *jowiri*, sung only by women, and *ajaka*, which is sung by men and also by women; most (or perhaps all) songs relate to the spirit world. The custom of 'female initiation' continues, for girls when they reach puberty. The shaman (or pajé) has had passed on to him an ability to enter the spirit world and it is through him that the people of a village are able to communicate with spirits and practise their religion. When work on this grammar began, there were two shamans in the village of Casa Nova; they died in 1994 (see text 1) and 2002. It seems that no younger people are being made shamans, to continue the tradition.

Traditionally, when an old person died the people would abandon their village and move some distance away to a new location; they would have the benefit of hunting in a new patch of forest and having new land to clear for gardens. There is now an SIL airstrip at the village of Casa Nova, which brings in missionaries and occasionally other visitors. A shaman died in the village in March 1994 and the people simply shifted their village site to the other side of the airstrip. (The other shaman died at the hospital in the town of Lábrea, and there was then felt no necessity to relocate.)

The Purús River rises high in the Andes but most of its journey to the Amazon is over a flat plain. Jarawara territory, although perhaps 3,000 river-kilometres from the Atlantic Ocean, is only 100 metres above sea level. A hillock 10 metres high is a major feature. There are no stones and few rocks; before the Europeans introduced metal implements, axeheads were made from the teeth of the agouti. Traditional canoes were made of bark. These have nowadays been replaced by dug-out canoes, made from the itaúba tree (*Endiandra ita-uba*).

The Jarawara have a symbiotic relationship with Brancos on the Purús River, trading rubber, sorva, brazil nuts, tobacco, baskets, the occasional cotton hammock, manioc sprouts for planting at the beginning of the dry season, and excess manioc flour and meat, in exchange for clothing, metal utensils and tools, nails and wire, kerosene, matches, salt, and some sugar, coffee, and candies. To preserve their ethnic identity and independence they live in the forest, away from Branco settlement. But in order to trade for the goods they require it is necessary to be within easy reach (a day's travel) of the main river.

Each of the three large Jarawara villages has a *towisawa* or chief. This is almost certainly a recent innovation; indeed the Jarawara word *towisawa* comes from *tuxaua* in Portuguese (or perhaps directly from Língua Geral, the Tupinambá-based lingua franca of the nineteenth century). The chief's function is to act as contact person with the outside world—with the Brancos on the main river and with the officials of FUNAI (Fundação Nacional do Índio). He is not a leader or decision maker in the village, although he may be able to regulate behaviour simply by force of personality.

The Jarawara hold two kinds of festa (or party), at which people from several villages congregate. One sort focuses on traditional Jarawara song and dance. The other variety features Brazilian pop music. In every village there are radios and cassette players which are likely to be sounding out day and night (so long as there are batteries available).

The Jarawara's environment is a serene and beautiful place. But there are drawbacks. The main rivers abound in alligators, electric eels, flesh-eating piranhas, and anacondas—giant

boa constrictors in the water which have been known to drag a man from his canoe. In the forest there are poisonous snakes and jaguars, although these usually avoid contact with humans. The flies are appalling. In what is the worst area in the world for malaria, mosquitoes are present by day and are very active by night. Piums, small biting gnats, are everywhere by day, especially close to the major rivers. Then there are biting flies and also chiggers, which burrow under the skin and produce a small red weal. There is great need for suitable medicines, both by the Indians and by linguistic fieldworkers.

When work for this study began (in 1991), the Brazilian government had not yet extended any of its public services to the Jarawara. There were no roads in the jungle, no schools, no medical post, and only occasional visits from nurses or doctors. Occasionally a sanitary team came to spray the Indians' houses against malaria-bearing mosquitoes, but this tended to result in a great increase in the number of cockroaches. Then, in early 2000, the government did establish a medical post, with an occasionally resident nurse, in the village of Casa Nova. (Until then, some medical needs had been dealt with by the missionaries, when they were in the village.)

1.4 KINSHIP AND MARRIAGE

The Jarawara have a classificatory kinship system (basically of the Dravidian type) by which each member of the community is related to everyone else. Each kin term has a basic referent and then a number of extended referents by application of equivalence rules. For instance, a person's same-sex siblings count as equivalent to that person. Thus mother's sister's children and father's brother's children (parallel-cousins) count as equivalent to mother's children and father's children—that is, they are classificatory siblings. Note that cross-cousins (where there is a different-sex link at parents' generation, i.e. mother's brother's children and father's sister's children) are treated quite differently.

Marriages are regulated according to patrilineage. A child belongs to the same patrilineage as their (actual or classificatory) father. By extension, father's brothers (and their children) and father's sisters are in the same patrilineage as ego. But father's sister's children, mother, mother's brothers (and their children), and mother's sister are all in the opposite patrilineage. However, mother's sister's children are in the same patrilineage as ego. One can only marry someone from outside one's own patrilineage. The most common marriage is with an actual or—more often—a classificatory cross-cousin.

1.5 LINGUISTIC AFFILIATION

It will be useful first to distinguish two senses of the term 'language'. When the members of a political group share a way of speaking they will say that this is their 'language₁'. Each nation or tribe is proud of having its own 'language₁'. But it is often the case that two languages₁ are mutually intelligible and—on linguistic criteria—can be regarded as dialects of a single language₂. For instance, each of Swedish, Danish, and Norwegian is spoken by a separate nation and they are thus said to be distinct languages₁, in the political sense of the term. But there is a high degree of mutual intelligibility and they can be regarded as dialects of one language₂, in the linguistic sense.

1.5.1 The Madi language

About four hours' walk (20 kilometres or so) to the north-west of Casa Nova is the main village of the Jamamadí tribe, which has about 250 members. About 60 kilometres to the north-east of Jarawara territory is the main village of the Banawá tribe, with about 120 members; see map 2. The members of these three tribes say that they speak separate languages₁. But Jarawara, Jamamadí, and Banawá are fully mutually intelligible and on linguistic criteria they are closely related dialects of a single language₂. They can be collectively referred to as the Madi language, after the original word for 'people'. Each dialect shares 95 per cent vocabulary with its neighbours and the grammars are equally close. Jarawara and Banawá seem a little more similar to each other than either is to Jamamadí—the relationship between the dialects is not unlike that between British English, Australian English, and American English.

It is relevant to enquire what is the criterion for a group of people constituting a tribe in this part of Amazonia, since there is no overall chief or overt political organization. Each of Jarawara, Banawá, and Jamamadí considers itself to be a unified social group, speaking the same language₁ (dialect differences, including intonation, are looked upon as an important mark of group membership). People generally maintain friendly relationships with others in the same tribe, frequently visit other villages, invite each other to festas, and so on. They will also generally marry within the tribe.

The name Jarawara is basically a name in Portuguese (beginning with the Portuguese sound [ʒ], which does not occur in Jarawara) used by Brancos in reference to the tribe (and—nowadays—by the tribe in reference to itself when talking to outsiders); it is likely to be based on the Língua Geral forms *jara* 'white people, Brancos' and *wara* 'eat'. The Jarawara refer to themselves, among themselves, as *Ee jokana* 'we (inclusive) the real people'.

The Banawá are simply named after the Brazilian name for the river they now live on (having moved there about 1950). They themselves name the river *Kitia* and call themselves *Kitia-ka-mee* (literally 'those who belong to the Kitia'). Before they came to live on the Banawá they were called by a different name, *Munia*. The name Jamamadí is used by that tribe themselves and also by outsiders (the initial consonant will be pronounced as lamino-palatal stop [ʃ] or semi-vowel [y] when used as a word in Jamamadí and as alveo-palatal fricative [ʒ] when used as a word in Portuguese). It is a compound of two words in this language, *jama* 'forest' and *madi* 'people'.

Interestingly, the Paumarí, a neighbouring Arawá tribe who live on the Purús River itself, use the label 'Jamamadí' to cover all of Jarawara, Jamamadí, and Banawá; that is, they use the one name for all speakers of what is here called the Madi language₂.

Each of the Madi-speaking tribes has a name for each of the other two, but these are slightly derogatory and would not normally be used in the presence of a member of the named tribe. Both the Jarawara and the Jamamadí call the Banawá *Bato-jafi*. The Jarawara call the Jamamadí *wahati* and the Banawá call them *wati* (this may be the noun 'liver' or it could be a homonym of it). The Banawá call the Jarawara *Jarawa-mee* and the Jamamadí call them *Amara* (which is the name of a palm tree).

The name 'Kanamati' is also associated with this region. A map produced in 1991 by Fundação Nacional do Índio delineates the 'Área indígena Jarawara/Jamamadí/Kanamati'; speakers have variously told me that Kanamati is 'an error' or 'another name for Jamamadí'. (There is a Kanamari language, belonging to the Katukina family, on the Juruá River; this is certainly a different entity—see Loukotka 1968: 193–4, Rodrigues 1986: 79–81.)

The first written reference to the Jamamadí tribe is from 1845, when Manuel Urbana da Encarnação noted names of tribes along the Purús, including ‘Iamanadi: esta Nação tem muitas malocas, e dela sairem seis para a margem do rio’ [Iamanadi: this nation has many communal houses, and six (sc. people) came from them to the bank of the river] (de Matos 1979: 171). (He also noted, at Lake Capatini (just off the Purús), a group called ‘Quaruná’. Kroemer 1985: 46 mis-copied this name as ‘Quaraná’ and gratuitously identified it as a version of Jarawara; in fact there is no known recording of the name Jarawara before the 1960s.)

In 1852 Seraphim da Silva Salgado stated, in a report of his exploration of the Purús River: ‘September. Continuing to ascend the river during the 1st, 2nd, and 3rd, on the 4th passed the mouth of the igarapé Macuiany, said to be inhabited by a horde of cannibals, of the tribe Jamamadi, to the number of about four hundred. Thus we went on until the 11th, when we passed another igarapé, the Euacá, on the left, in which also there are numerous Jamamadi Indians. In the mouth of this stream, and on an adjacent beach, there was an encampment of more than a hundred people who had been drawn together by hearing our *réveille*’ (Spruce 1864: 346).

The following year A. R. Wallace reported: ‘Of the Indians found on the banks of this river [the Purús] I have been able to get some information. Five tribes are met with by the traders:— 1. Múras, from the mouth to sixteen days’ voyage up. 2. Purupurús [Paumarí], from thence to about thirty days’ voyage up. 3. Catauxís, in the district of the Purupurús, but in the igaripés and lakes inland. 4. Jamamarís, inland on the west bank. 5. Jubirís, on the river-banks above the Purupurús’ (Wallace 1853/1911: 356). Note that none of Encarnação, Salgado, and Wallace recorded any vocabulary.

There are six vocabularies labelled ‘Jamamadi’ or ‘Yamamadi’:

(a) The German ethnologist Ehrenreich (1897: 67–71) gives a list of about 247 words which he recorded in ‘Yamamadi (or Kapinamari)’; these are accorded a careful phonetic transcription. He states that the tribe shuns major rivers, preferring to live on ‘terra firma’ in the thick jungle and that they inhabit the left bank of the Purús from Mamoria Mirim to the Pauini, stretching as far as the Juruá in the west.

(b) Steere (1903: 373–87) includes 57 words in ‘Jamamadi’ in the report of his natural history and anthropology collecting expedition; these are well transcribed. He states, ‘as near as I could learn, the Jamamadí are now reduced to two or three small settlements (and they do not number probably more than 100 persons in all) . . . all on the Marmorea Mirí, which is their ancient seat (about latitude 8 south, longitude 67 west from Greenwich). They appear to have first come in contact with the rubber gatherers and civilisation about thirty years ago, but in this time have become greatly reduced in numbers. Though having many customs like those of the neighbouring tribes, they differ from them in language, in using the blow gun, in the form of their dwellings [one large maloca for a whole village] and their canoes, in the character of their headdress and other ornaments, and doubtless in many other ways which a longer stay would have made manifest’ (p. 373, conflated with p. 380).

(c) William C. Farabee was in Brazil from 1913 until 1916 on a collecting expedition for the University of Pennsylvania Museum. He took down two different vocabularies, each labelled ‘Jamamadi’; these are rather well transcribed.

(i) Farabee’s manuscript notebook 11 includes about 75 words;

(ii) His manuscript notebook 15 has about 120 words.

(d) Rivet and Tastevin (1938–9) have a comparative word list of Arawá languages. Materials on Jamamadí include the words recorded by Ehrenreich and Steere plus original materials, some taken down by the missionary Tastevin in 1912 ‘à Bello Monte, en amont de Marary,

de la bouche d'une Indienne Yamamadi, appartenant à la tribu qui vit entre le Chiruan et le Paûini' [at Bello Monte, upstream from Marary, from the mouth of a Yamamadi Indian, belonging to the tribe which lives between the Chiruan and the Paûini] and some recorded by Tastevin in January 1922 at the Rio Chiruan from a Branco who employed the Yamamadi. Rivet and Tastevin (1938: 76) state: 'Les Yamamadí, Jamamadí ou Jamamandi, qu'Ehrenreich appelle aussi Kapinamari et que les Ipuriná dénomment Kapaná... et les Kanamari Kólô, vivent dans les forêts situées entre le Purús et le Juruá, dans un territoire limité par le Matoria-mirim, le Paûini, affluents du Purús et le Chiruan, affluent du Juruá' [the Yamamadí, Jamamadí, or Jamamandi, who Ehrenreich also calls Kapinamari and who the Ipuriná name Kapaná... and the Kanamari Kólô, live in the forests located between the Purús and the Juruá, in a territory delimited by the Matoria-mirim, the Paûini, tributaries of the Purús, and the Chiruan, a tributary of the Juruá].

(e) Monserrat and da Silva (1991) is a 28-page vocabulary of a 'Jamamadí' group (who are said to call themselves Sivakoedeni). These Jamamadí live on the Rios Kapana, Pauini, and Santo Antonio, tributaries of the Purús.

In fact these six vocabularies relate to two different languages. Lists (a), (b), and (c-i) are plainly the Jamamadí that is a dialect of the Madi language, whereas (c-ii), (d), and (e) are from a different group, also calling themselves Jamamadí ('people of the forest'), who speak a dialect of Kulina-Dení, a different Arawá language. This can be illustrated with a sample of six words. The Jamamadí (dialect of Madi) material is from Campbell and Campbell (1992) and the Dení is from Koop and Koop (1985).

	'nose'	'arm'	'foot'
Jamamadí (dialect of Madi language)	-widi	-mano	-tame/-teme
(a) Ehrenreich (1897)	auidi	ã-manu	ã-ðãmã
(b) Steere (1903)	wīdī	mānū'	tě'mě
(c-i) Farabee, notebook 11	iwidi	emanu	těme
(c-ii) Farabee, notebook 15	iwani	epihi	iyomori
(d) Rivet and Tastevin (1938-9)	i-w-ena	i-bihi	amuri
(e) Monserrat and da Silva (1991)	ivene	ibihī	ivamori
Dení (dialect of Kulina-Dení language)	-iwene	-bihī	-amori
	'dog'	'water'	'maize'
Jamamadí (dialect of Madi language)	jomahi	faha	kimi
(a) Ehrenreich (1897)	yumahi	pãhã	kemi
(b) Steere (1903)	jūmai'	pãhã'	kimī'
(c-i) Farabee, notebook 11	jomahi	foaha	—
(c-ii) Farabee, notebook 15	[kawě]	patso	—
(d) Rivet and Tastevin (1938-9)	meze	patsu	tapa
(e) Monserrat and da Silva (1991)	mese	paso	tapa
Dení (dialect of Kulina-Dení language)	meze	pats ^h o	tapa

The initial vowel in some body part terms is a possessive pronominal prefix.

Chandless (1869: 304), in his account of a journey up the River Juruá, states that he reached a bend that is 'the point where the Juruá most nearly approaches the Purús; the distance being,

according to my maps, 104 geographical miles in a direction a little S. of S.E. from this bend to near the mouth of the Pauynim on the Purûs . . . The Indians . . . now existing here are of tribes warlike, numerous and intractable; the Hypurinás [Apurina] near the Purûs, the Culinos [Kulina] near the Juruá, and the Jamamadýs* in the centre' (the note * states 'The Culinos and Jamamadýs may possibly be the same tribe under different names; the latter, at any rate, like the former, are said not to use canoes at all'). This is a location squarely within modern-day Kulina-Dení territory and it is likely to be the same group as the Kulina-Dení Jamamadi recorded by Farabee (in his notebook 15), by Rivet and Tastevin, and by Monserrat and da Silva.

Note that the Madi-speaking Jamamadí are today mostly about 50 kilometres east of the Mamoriazinho (or Mamoria Mirim), although some do live on tributaries of the Mamoriazinho. They say that some time ago they incorporated a smaller group, which originally lived on the Mamoriazinho; this may be the relic of the Jamamadi visited by Ehrenreich and Steere.

Linguistic missionaries from the Summer Institute of Linguistics have been learning and recording dialects of the Madi language during recent years; they are preparing three translations of the New Testament, into Jamamadí, Banawá, and Jarawara. Robert and Barbara Campbell have worked with the Jamamadí dialect continuously since 1963; their publications are Robert Campbell (1977, 1988) and Barbara Campbell (1985, 1986). In 1992 the Campbells produced a draft vocabulary with about 2,300 entries (but, unfortunately, omitting gender specification of free nouns). Ernest and Barbara Buller have been working on Banawá since 1987; the 1992 edition of their draft vocabulary has about 1,300 entries. There is also a paper by Buller, Buller, and Everett (1993) on Banawá phonology (but their list of phonemes omits the voiceless bilabial fricative). Matteson (1972: 222–4) includes some words in 'Jamamadí', supplied by the Campbells, and some in 'Jaruará', supplied by Joyce Kerr, an SIL missionary who spent a little time with the Jarawara in the 1960s. Alan Vogel has worked on Jarawara since 1987; he completed an MA thesis on the gender system (Vogel 1989) and has an extensive computerized vocabulary.

Each of Jamamadí and Banawá has one large main village and a number of smaller outlying settlements; I have not been able to obtain information about dialect differences (if any) within these tribes. The Jarawara live in three largish and four small villages a fair distance apart; there is no one centre. As might be expected, there are a few dialect differences between the villages (and even some between different family groups in the same village). For instance, the samaúma or kapok ceiba tree (*Ceiba pentandra*) is called *wasina* at Casa Nova but *fasina* at Agua Branca; the pium fly is called *awarika* at Casa Nova but *amarika* at São Francisco. The loan word *fitá* 'cassette tape' is assigned feminine gender at Casa Nova but is masculine at Nazaré. Overall, the dialect differences within Jarawara are rather minor.

1.5.2 The Arawá language family

The Arawá language family was first posited by Brinton (1891: 293) on the basis of vocabularies of Arawá and Paumarí. It consists of five languages. Besides the Madi language (with dialects Jarawara, Jamamadí, and Banawá—see map 2) these are: (a) Paumarí, spoken by about 200 people (out of an ethnic group of around 600); (b) Sorowahá, spoken by about 100 people; (c) Kulina-Dení, spoken by about 3,000; and (d) Arawá, which has been extinct since the 1880s. All five languages are spoken around the Purús and Juruá rivers and all are in the

TABLE 1.1 Cognate percentages between the Arawá languages

Paumarí				
50	Madi			
34	37	Sorowahá		
43	61	34	Kulina-Dení	
54	79	53	72	Arawá

state of Amazonas, Brazil, except for the language with the most speakers, Kulina-Dení, which extends to the neighbouring state of Acre and over into Peru—see map 1.

Cognate percentages between the languages on a 115-item lexical list (80 nouns, 4 adjectives, 31 verbs) are in table 1.1. Note that the Arawá figures are based on Chandless's (1869) list of *c.*50 words and here the denominator varies between 19 and 25; these figures have a lower reliability than the others. As mentioned before, the three Madi dialects—Jarawara, Jamamadí, and Banawá—share about 95 per cent vocabulary, have very similar grammars, and are fully mutually intelligible.

Kulina and Dení have in the past been recognized as different languages (see, among others, Dixon 1999*a*). However, detailed examination of the available materials suggests that a single language is involved, consisting of a chain of mutually intelligible dialects, extending from about latitude 3 degrees S on the River Juruá down to about latitude 11 degrees on the River Purús. Dení is simply a name for a north-easterly dialect of the language; other dialect names include Kulina/Culina, Kolina, Culino, Curina, Jamamadi, and Madija/Madiha. Each dialect has 75–90 per cent vocabulary in common with its neighbours, with the grammars being very similar.

Further information about the Arawá family will be found in Dixon (1995: 289–91; 1999*a*; forthcoming *a*); see also Loukotka (1968: 194–6) and Rodrigues (1986: 71–2). Note that there have been a number of attempts to establish a genetic link between languages of the Arawá family and those of the Arawak family (sometimes called Maipuran). None has the slightest claim to scientific validity—see the critical assessment in Dixon (1995: 289–90) and Dixon and Aikhenvald (1999: 12–15).

1.5.3 Areal influence from neighbouring languages

The main language in contact with Jarawara is Apurina from the Arawak family, which extends for a considerable distance on both sides of the Purús River. Unfortunately, very little material has been published on this language, so that it has not been possible to make any significant investigation of areal influences in the Purús region.

Comparing the lexicon of Jarawara with a manuscript vocabulary of Apurina by Wilbur Pickering (in the SIL Porto Velho archives) and with some lexical material made available by Sidney da Silva Facundes (who in 2000 completed a Ph.D. dissertation on Apurina at SUNY, Buffalo) it is clear that there are a very small number of lexemes in common. The following have been noted:

(i) 'Clothing' is *makari* in Jarawara and Banawá, and also in Paumarí (but *bora* in Jamamadí). It is *makasi* in Dení. These forms may be independent borrowings from Apurina, where 'clothing' is *manka-* (from proto-Arawak **maka-*) and possible suffixes to it are *-ri* and *-ji* (also of proto-Arawak origin).

(ii) The word for ‘banana’ in Apurina is *txipari*. The following forms in Arawá languages and dialects are probably independent loans from the same Apurina word:

jifari in Jarawara and Banawá *sibati* in Jamamadí
sipatihí in Paumarí *dzipari* in Dení
siari in Sorowahá

(iii) The fish poison *tinguí* is *?akona* in Paumarí, *konaha* in Sorowahá, and *kona* in Madi. Another fish poison, *timbó*, is *kunã* in Apurina (and has cognate names in a number of Arawak languages spoken north of the Amazon—*kuna* in Baniwa, Bare, and Wapishana, *ku.na* in Tariana, *ikun* in Palikur, and *uku* in Wapishana; Alexandra Aikhenvald, p.c.). This is likely to be a loan from an Arawak language into Arawá.

(iv) ‘Piranha’ is *oma* in Apurina (and was in proto-Arawak, see Payne 1991: 416) and in Madi, but in no other Arawá language. This is very likely to be a loan from Apurina into Madi.

(v) ‘Sweet corn, maize, milho’ is *kimi* in Apurina, and in two Arawá languages—Madi and Sorowahá. It could be a loan in either direction.

(vi) ‘Traira, lungfish’ is *sako* in Jarawara and Jamamadí (and *sakofana* is reported for Banawá—note that *fana* is ‘female’) and *sauko* in Apurina. This could also be a loan in either direction.

(vii) The onomatopoeic name *koka* ‘woodpecker’ occurs in Jarawara, Jamamadí, and Kulina-Dení. Apurina has *kokã(ru)* and *kõkaana*. In this instance the term could well have been borrowed from an Arawá language into Apurina. Or it may be an independent onomatopoeic creation in each language.

(viii) Jarawara has *kokowi* as the name for a type of hawk and Paumarí has *kokoi* (in the Dení dictionary *kokowi* is given as just ‘type of bird’). Apurina has *kokai* and *kokaya* ‘hawk’. This might be a loan from an Arawá language into Apurina.

(ix) Payne (1991: 424) gives **kuhku* as the proto-Arawak term for ‘uncle [mother’s brother], father-in-law’. The proto-Arawá term is *koko*. A similar form is found in other Amazonian languages and is certainly an areal feature. (Noble 1965: 1 reports that von Martius classified American languages into a number of groups: ‘One of these was the “Guck or Coco” group, whose members had similar terms for “mother’s brother”. All the Arawakan languages listed by von Martius are in this group together with Macusi, a Carib language, and some remotely related languages.’ Note that Noble illicitly includes the Arawá family as part of his ‘Arawakan’.)

Recent loans into Jarawara from Portuguese are discussed in §2.5.

1.6 BASIS FOR THIS STUDY

After almost three decades of work on the Aboriginal languages of Australia, and fieldwork in the 1980s on the Boumaa dialect of Fijian (together with some theoretical works, such as Dixon 1994), in 1991 I ventured into Amazonia to undertake fieldwork there. Alan Vogel invited me to join him at his missionary location in the Jarawara village of Casa Nova, and to write a grammar of that language.

This description is based on a considerable corpus of texts, from about twelve speakers, which I have recorded and explicated, with the assistance of linguistic consultants. The basic technique is to try to understand and analyse the texts, arriving at inductive generalizations which are then checked and refined through elicitation. In this approach elicitation is used sparingly, as a final step; and it always involves asking about a putative sentence in Jarawara

(rather than presenting a sentence in Portuguese and asking how to translate this into Jarawara). Alongside textual analysis, participant observation plays a considerable role. I have a fair knowledge of the language and try to understand what people say around me, as well as attempting to speak in the language. The Jarawara act as willing teachers, offering corrections and improvements which provide invaluable grammatical data.

Alan Vogel is a linguistic missionary with the Brazil branch of the Summer Institute of Linguistics (called, in Brazil, Sociedade Internacional de Línguaística), also known as Wycliffe Bible Translators. In 2003 he completed a Ph.D. dissertation from the University of Pittsburgh, cast within the Chomskian minimalist framework, which examines how the argument structure of verbs in Jarawara accords with results for English verbs, as set out in works such as Pinker (1989) and Levin (1993).

This grammar was entirely written by me, after considerable discussion with Alan Vogel. Several drafts were read and annotated by Vogel, who supplied further examples from his considerable collection of texts, and from participant observation, and some elicitation. In addition, Vogel provided an excellent dictionary of the language, which was of inestimable help to me while working on the grammar.

Throughout this work there are occasional comparative notes on Jamamadí and Banawá, based on the quite partial information I have been able to gather on these dialects. This is based on (a) a little fieldwork of my own on Jamamadí and Banawá; (b) materials circulated by Robert and Barbara Campbell (on Jamamadí) and by Ernest Buller (on Banawá) at a 1993 Workshop on Arawá Languages, held at the SIL Center, Porto Velho, plus later correspondence with Buller; (c) published and circulated dictionaries and papers—Campbell and Campbell (1992), Barbara Campbell (1985, 1986), Robert Campbell (1977, 1988), Buller and Buller (1992), and Buller, Buller, and Everett (1993). Unfortunately, the information available on Jamamadí and Banawá is, through circumstances over which I have no control, much sparser than I would like; as a result, the comparative notes are often partial and almost always tentative.

I.7 CHANCE OF SURVIVAL

Like thousands of other small groups of indigenous people all over the world, the Jarawara are in a no-win situation.

They are at the present time classified as ‘minors’ by the Brazilian government and an ‘indigenous area’ is designated for their occupation. The government’s Indian agency FUNAI is underfunded and maintains a low-key profile in this region. In early 2000, the Brazilian government did establish a medical post at Casa Nova, with an occasionally resident nurse. This is, of course, a good thing insofar as it extends to the Jarawara the kind of health care which every citizen of Brazil has a right to expect. But the nurse speaks only Portuguese, so that Jarawara women have to learn some Portuguese to communicate with her. This will lead to a small contraction in the domain of use of Jarawara, which may—along with other factors—lead to the eventual decline of the language.

As described above, at present the Jarawara live a semi-traditional life, in the jungle, but within easy reach of Brancos on the main river. Just a few have gone to live in the nearest town, Lábrea (see map 2). If they had more schooling and became more acculturated it is possible that more would move away from villages. With such a small tribe, any hint of a diaspora would mean certain loss of language and culture, and of ethnic identity.

At present every member of the tribe has Jarawara as first language. All the men know some Portuguese but this is only used for communicating with outsiders. When they do marry, men always take a wife from within the tribe. (Some women marry Brancos and go to live on the main river or in Lábrea.)

It is relevant to ask what the effect is of outsiders—missionaries, anthropologists, linguists, social workers, or others—living in tribal villages. If outsiders learn to speak the language their effect is likely to be beneficial, assisting the people's esteem of their own language (it was mentioned above that Brancos on the main river tend to disparage it). However, if the outsiders mostly talk in Portuguese—as is the case with some missionary teams and medical workers—then the effect is likely to be detrimental. Portuguese can be, and should be, a second language. Jarawara (or any other indigenous dialect or language with a small number of speakers) would not survive for more than a generation as second language. As soon as Portuguese came to be used more than 50 per cent of the time in a community, it would burgeon to 100 per cent (as has happened at many places in Brazil and elsewhere).

Realistically, it is unlikely that Jarawara (together with very many other indigenous languages throughout the world) will still be spoken in a hundred years' time. Its chance of longest survival would be enhanced if the government adopted a number of appropriate programmes. First, a properly planned and executed scheme of assistance to the communities, ensuring—among other things—that there are medical posts and schools which are run either by Jarawaras who have received appropriate training, or by outsiders who have received anthropological instruction and are prepared to learn the local language. The school curriculum and method of teaching should be adapted to a village situation, in consultation with members of the tribe. Secondly, there should be a campaign to educate Brancos (on the Purús River and throughout Brazil) to the fact that Indians do have complex languages and well-developed cultures and religions which should be respected. (People are only likely to respect themselves and their own language and institutions if others accord them respect.)

Such a set of programmes—if extended to all indigenous groups that maintain their own language and a modified form of traditional culture—would require a fair number of dedicated and well-trained personnel and cost a fair amount. There appears at present to be little likelihood that any scheme of this sort will be undertaken.

Phonology

Jarawara has a small inventory of phonemes—just eleven consonants and four vowels. Syllable structure follows a simple (C)V pattern. There are contrastive long vowels, but with limited occurrence. Counting a long vowel as two moras and a short vowel as one mora, stress falls on the syllable containing the penultimate mora and every second mora before that, in a phonological word.

Yet, behind this apparently simple façade, the phonology of Jarawara shows a number of complexities, some of which can be explained from a diachronic perspective. There will be reference to information on the other dialects of the Madi language and on other languages of the Arawá family, and to developments from the reconstructed proto-Madi and proto-Arawá systems, where these throw light on the synchronic functioning of Jarawara. For instance, the Banawá and Jamamadí dialects have an initial stress rule, which is posited for proto-Madi, and also as an underlying level of stress in Jarawara. A morphophoneme *I* is posited, which is (oversimplifying slightly) realized as *i* in stressed and as *e* in unstressed syllables, at the underlying level. There is a series of phonological rules that can omit a syllable beginning with *h*, or else just its *h*, when it is unstressed, again at the underlying level. When we investigate ordering between phonological rules, in §2.9.9, we find that certain rules which apply to the same word cannot be ordered with respect to each other but must be allowed to apply simultaneously; each must have the underlying form as input, with neither being able to operate on the output from the other.

2.1 VOWELS

The four-vowel system of proto-Arawá has come through unchanged to Jarawara (as to Jamamadí and Banawá):

	front	back
	unrounded	unrounded
high	i	o
mid	e	
low		a

The back vowel /o/ has no rounding: its major allophone is close-mid unrounded back [ɤ] but it can also be pronounced as close unrounded back [u] (most often, after /k/ and word-finally); it could alternatively be written as ‘u’. In the chart, /o/ is positioned between /i/ and /e/ in height, to draw attention to this allophony. (See §2.3 for a discussion of *w* and *o*, and the proposal that they be regarded as allophones of a single phoneme.)

Phoneme /e/ is always more open than /i/ but the absolute heights of these vowels differ from speaker to speaker. It appears that younger speakers pronounce both vowels lower than do older speakers (with /i/ tending towards [e] and /e/ towards [ɛ]).

The proto-Arawá vowel /e/ has been lost in Paumarí and probably also in Sorowahá (having merged with /i/ in some and with /a/ in most environments). In the development from proto-Arawá to Jarawara, /e/ has behaved differently from the other vowels in that it is often a trigger for vowel assimilation, an /a/ tending to shift to /e/ when followed by /e/ in the next syllable. This is found in two synchronic phonological rules (P3 and P7 in §2.9) and in the diachronic development of tense-modal suffixes (§6.1.1) and of possessed nouns (§11.1). (In the Banawá dialect, there has been some assimilation of /a/ to a preceding /e/. For example, the object forms of nsg pronouns—see table 3.1—have undergone assimilations 1inc *era* > *ere*, 2nsg *dera* > *dere*, 3nsg *mera* > *mere*, with only 1exc *otara* staying as is.)

The low vowel /a/ has a fairly front pronunciation.

There are two rather different circumstances in which vowels become (non-contrastively) nasalized. The first is phonologically conditioned—a vowel is nasalized when next to a nasal consonant (*m*, *n*, or *h*). The second is as a marker of clause boundary—the final syllable of a main clause is pronounced with strong nasalization and with rising pitch (this is typically declarative *-ke/-ka*).

There is a contrast between long and short versions of each of the vowels, although this has a low functional load; it is discussed in §2.8. For discussion of stress, in §2.6, we shall need to refer to moras—a short vowel counts as one mora and a long vowel or vowel sequence (e.g. *aî*) as two moras. (Ladefoged, Ladefoged, and Everett 1997 is a phonetic description of the related Banawá dialect, including acoustic analysis. Buller, Buller, and Everett 1993 and Everett 1995 explore phonological analysis of Banawá.)

2.2 CONSONANTS

The basic consonant system for Jarawara is given in table 2.1; note that Jamamadí and Banawá have the same system with the addition of *d*. Symbols from a practical orthography are employed, with phonetic symbols in square brackets where these differ (using the IPA alphabet except for the palatal semi-vowel for which ‘y’ is used).

TABLE 2.1 The Jarawara consonant system

	apico-dental	apico-alveolar	lamino-palatal	dorso-velar	bilabial	glottal
semi-vowel			[y]		w	
stop	t		j [ʃ]	k	b	(ʔ) [ʔ]
nasal	n				m	
fricative		s [s] ~ [ʃ]			f [ɸ]	
nasal fricative						h
liquid		r [ɾ] ~ [l]				

Comments on the phonetic realization of individual phonemes:

- /b/—generally pronounced voiced [b] but it can be voiceless [p], especially non-initially.
- /t/ and /k/—generally pronounced voiceless, [t] and [k], but can be voiced, [d] and [g], especially when word-initial; /k/ is sometimes pronounced [kʷ].
- /j/ has the basic value of a voiced lamino-palatal stop, [tʃ], but is often elided to a semi-vowel, [y]; the stop pronunciation tends to be preferred next to /i/. In addition to this [y] allophone of /j/, there is a purely phonetic [y] which can be inserted between *i* and *a*, typically at a position where an underlying *h* has been omitted (see §2.9.6). The first, phonemic, [y] alternates with [tʃ], whereas the second [y] alternates with [h] and/or with zero. (Native speakers have been taught to write the phoneme /j/ as ‘y’ and they sometimes also use this letter for the second kind of [y]. For example, underlying *na-tafi-hare* (‘CAUS-wake-IPem’) can lose the *h* to become *natafiare*, which can be pronounced [natafiyare]—see (2.35) in §2.9.6; I have seen a Jarawara youth write this as ‘natafiyare’.)
- /m/ is a bilabial nasal and /n/ an apico-dental nasal.
- /s/ varies between an apico-alveolar fricative [s] and an apico-postalveolar fricative [ʃ]; it is occasionally pronounced as [ts] (which is a historical relic—see §2.2.1), or as [tʃ].
- /f/ is a voiceless bilabial fricative [ɸ].
- /h/ is a glottal fricative with air coming out of both nose and mouth. Like /m/ and /n/, it engenders nasalization of a contiguous vowel.

Nasalization of a vowel next to a glottal fricative is also reported for Tai, Tibeto-Burman, Indo-European, Semitic, and Niger-Congo languages (Matisoff 1975) and for the Amazonian language Warekena (Aikhenvald 1996: 498–9). Since for *h* the constriction is in the throat below the velum, air can perfectly acceptably go out through the nose as well as through the mouth. Indeed, an open velum is the unmarked position, for normal breathing, and it can be suggested that it is open here since there is no phonetic or phonological reason for it to be closed—no phonetic reason in the case of *h* itself, and no phonological reason in the case of the vowels next to *h* (which are naturally nasalized) since Jarawara does not have a nasal/oral contrast for vowels. (See §2.9.6 for statement of the rules under which an underlying *h* may be omitted from surface representation.)

- /r/ has as basic allophone a darkish lateral [ɽ]; this alternates with a tap allophone [ɾ], which is most often pronounced next to an /i/.
- /w/ is a labial-velar semi-vowel; in the diagram it is written between the dorso-velar and bilabial columns (which are placed together for this purpose) since it combines phonetic features of both. Like /o/, /w/ does not involve any lip rounding; for both sounds, the lips are brought together in flat mode.
- // is a glottal stop. This has very restricted distribution. Its phonological status is discussed in §2.11.

As in most languages, sounds additional to those which realize phonemes are found in sound-symbolic expressions—see §14.2.1.

Note that the orthography used here is based on that devised by SIL linguists Robert and Barbara Campbell for the Jamamadí dialect. The only difference is that I prefer ‘j’ for the lamino-palatal stop whereas the Campbells use ‘y’. The letter ‘f’ is plainly the most appropriate choice, from the Roman alphabet, for the bilabial fricative ɸ. The liquid is most often pronounced as [l] in Jarawara and if an orthography were being devised just for this dialect ‘l’ would be the most suitable symbol. However, ‘r’ is used for Jamamadí and Banawá, where rhotic pronunciation is most common, and it seems best to use the same letter, ‘r’, across all

dialects of the Madi language. For the back mid/high vowel either ‘o’ or ‘u’ would be equally appropriate. The Campbells state that they chose ‘o’ since they considered there to be less chance of orthographic confusion between ‘o’ and ‘a’ than between ‘u’ and ‘a’. (Note that ‘o’ is also used in the practical orthography for Paumarí.)

2.2.1 Historical development

The symbols *b*, *t*, *ʃ*, and *k* do appear to reflect the major allophones of the stops in Jarawara. This seems a somewhat odd system, with two voiced and two voiceless sounds. In fact it has an historical explanation.

The system of stops, affricates, and fricatives set out in (I) has been reconstructed for proto-Arawá (see Dixon forthcoming *a*). (There may also have been a glottal stop, a postalveolar affricate *tʃ*, and possibly also a postalveolar fricative *f*.)

(I)	stops			affricates and fricatives	
	bilabial	apico-dental	dorso-velar	apico-alveolar	glottal
voiced	b	d	g	dz	
voiced implosive	ʼb	ʼd			
voiceless	p	t	k	ts	
voiceless aspirated	p ^h	t ^h	k ^h	ts ^h	h

There was also a proto-phoneme that may have been pronounced as [v] or [w] or both, which has become /w/ in Madi; a single liquid covering [r] and [l], which has the same allophones in Madi; and two nasals, /m/ and /n/, that have come through unchanged.

Between proto-Arawá and proto-Madi, the following changes took place (recall that we use *f* for a voiceless bilabial fricative and *j* for a voiced lamino-palatal stop):

b > b	d > d	g > w	dz > j	
ʼb > b initially	ʼd > d			
ʼb > f medially				
p > f	t > t	k > k	ts > s	
p ^h > f	t ^h > t	k ^h > k	ts ^h > s	h > h

This gave a proto-Madi system:

(IIb)	b	d	j
	t	k	
	f	s	h

It is rather likely (although there is no definite evidence) that the changes *ʼb* > *f* and *p^h* > *f* took place in two stages: first, *ʼb* > *p* medially, and *p^h* > *p*, and then all *p* > *f*.

That is, the proto-Arawá system, in (I), would—on this assumption—have first developed into:

(IIa)	b	d	j
	p	t	k
	s		h

We would then have had the change *p* > *f*, yielding system (IIb). This is what is found in Banawá and Jamamadí. However, in Jarawara there has been a further shift *d* > *t*, with

proto-Madi **d* and **t* falling together as modern Jarawara *t*. We then get the modern Jarawara system:

(III) b j
 t k
 f s h

It will be seen that the proto-Arawá system, (I), had some gaps in the dorso-velar column (as is often found). The next postulated stage, (II*a*), had a voicing contrast for bilabial and apico-dental stops. The voiced dorso-velar stop from proto-Arawá, **g*, which probably had a low functional load (as it does in present-day Paumarí and Sorowahá), had lenited to *w*. And the proto-Arawá affricates had developed in different directions: voiced **dz* had become a lamino-palatal stop while voiceless **ts* lost its affrication to become a simple fricative, *s*.

Then, with the suggested change **p > f* we had, in (II*b*) a voicing contrast only for apico-dental stops. After merger of **d* and **t*, modern Jarawara has a stop system consisting of *b*, *t*, *j*, and *k*.

Note that the falling together of **d* and **t* in Jarawara has led to the creation of new homonyms (in a language which already had a large number of homonyms—see §3.1). For instance, the intransitive verb *hati* ‘be burnt’ and the adjective *hadí* ‘ripe’, in the Banawá and Jamamadí dialects, have both become *hati* in Jarawara. Their meanings are similar (although not identical); a major factor in distinguishing the two words is that they belong to different word classes (see §11.2.4).

The nasals and liquid appear to have come through unchanged from proto-Arawá to proto-Madi to Jarawara.

2.3 *w* AND *o*

The structure of a syllable in Jarawara is (C)V with different systems filling the C and V slots. There is one constraint concerning the co-occurrence of C and V, and this concerns *w* and *o*.

It will be useful to study the occurrence—and contrastiveness—of *w* in four environments (where # indicates a word boundary):

- (i) #wV_x, (C)V_xwV_x (ii) #wo, (C)V_xwo
 (iii) (C)owV_x (iv) (C)owo

where V_x indicates *i*, *e*, or *a*, i.e. any vowel other than *o*.

(i) Occurrence of *w* before a vowel other than *o* (and not following *o*)

In this environment we get a contrast between the presence and absence of *w*, both word-initially and word-medially. For instance (amongst many other examples):

abi ‘father’ sai ‘to empty; to hurt; to talk a lot’
 wabi ‘pacu (fish sp.)’ sawi ‘to join in with’

Initially, all of *wa-*, *we-*, and *wi-* are well attested. Medially, *-awa-*, *-awi-*, *-awe-*, *-ewe-*, *-iwe-*, *-iwa-*, and *-iwi-* occur intramorphemically in the corpus while *-ewa-* and *-ewi-* are encountered across morpheme boundaries. (Note that the vowel *e* does have a low functional load, see § 2.4.)

(ii) Occurrence of *w* before *o* (and not following *o*)

In this environment there is no contrast between the presence and absence of *w*. That is, [wo] and [o] are in free variation. For instance, the verb ‘to paddle’ has been heard pronounced as

[ori] and as [wori]. But note that *ori* undergoes partial reduplication like a vowel-initial word (see §2.11), as *o'ori* (and not like a consonant-initial word, which would give the non-occurring *(w)o.wori*).

When the village chief Okomobi was helping me transcribe he first said the verb ‘to be mid-afternoon’ slowly as [wé wó] and then repeated it at normal speed as [wéo].

(iii) Occurrence of *w* after *o* (and before a vowel other than *o*)

Once again, there is no contrast between the presence and absence of *w*; that is, we get free variation between [owa] and [oa], between [owe] and [oe], and between [owi] and [oi]. Careful listening to texts reveals pronunciations both with and without *w* for many words, including:

[owa] ~ [oa]	Isg object pronoun	[kowi] ~ [koi]	‘be deep’
[fowa] ~ [foa]	‘manioc’	[mowe] ~ [moe]	‘flower’

(iv) Occurrence of *w* between two *o* vowels

This is not attested. Note that we do get sequences *-awa-*, *-ewe-*, and *-iwi-* (and they contrast with long vowels, e.g. *sawa* ‘to be white’, *saa* ‘to vomit; to let go; to shoot fish’). There are only occurrences of a long vowel, *oo*, in monosyllabic non-inflecting verb roots where there must be length to satisfy the constraint that a word must consist of at least two moras (e.g. *joo* ‘to wade’).

In summary, we find:

- (i) #wV_x, (C)V_xwV_x (ii) #(w)o, (C)V_x(w)o (iii) (C)o(w)V_x

where parentheses around *w* indicates that its pronunciation is optional in words of types (ii) and (iii).

From the point of view of orthography, the letter *w* must be written in words of type (i) and can be either written or omitted for those of types (ii) and (iii). It is of course important to be consistent and treat all words of each type alike—*w* should always be included or always be omitted for words of type (ii), and similarly for words of type (iii). Either alternative could be followed in each of these cases. In this grammar, *w* is always omitted from before an *o*, in words of type (ii), writing *ori*, *weo*, etc., and *w* is always included after an *o* in words of type (iii), writing *owa*, *kowi*, *fowa*, *mowe*, etc. This reflects the majority tendencies in the way native speakers themselves write the language, and how they pronounce it syllable by syllable to assist the linguist in transcription—they will generally say and write *fo wa*, rather than *fo a*, and *o ri*, rather than *wo ri*. There is, of course, a good deal of variation; as mentioned above Okomobi said *we wo* on one occasion. Jarawara and Jamamadí Indians would frequently ask me the names of my children and sometimes write them down. ‘Rowena’ (which I pronounced as [lowéna]) was most often written as ‘rowena’ but sometimes as ‘roena’.

Note that there are words commencing with *o(w)V_x-* (by the convention followed here these are written *owV_x-*) but none with *V_x(w)o-* (by the convention I follow these would be written *V_xo-*). This ties in with the general observation that no words in Jarawara begin with a sequence of two vowels—see §2.4.

Writing a *w* in words of type (iii) also makes the structure of some morphological paradigms maximally transparent. Compare the two ways of writing the object forms of singular pronouns:

	writing <i>w</i>	not writing <i>w</i>
Isg	o-wa	o-a
2sg	ti-wa	ti-wa

Most inflecting verbs whose roots begin with a vowel drop this after pronominal prefixes *o-* and *ti-*, e.g. *-iba-* ‘put on ground’. However, *-ita-* ‘sit’ retains the root-initial vowel, adding a contrastive *w* after *ti-* and a non-contrastive *w-* after *o-* (see (I) in §4.5.2):

	root	1sg form	2sg form
‘put on ground’	<i>-iba-</i>	<i>o-ba</i>	<i>ti-ba</i>
‘sit’	<i>-ita-</i>	<i>o-(w)-ita</i>	<i>ti-w-ita</i>

Plainly, to write a *w*, in *o-w-ita*, provides a more perspicuous overall paradigm than writing *o-ita*. In fact Jarawara *-ita* is a development from the proto-Arawá root **-witha-* ‘sit’; the *-w-* that appears to be inserted between prefix and root goes back to the original form of this verb. The orthographic convention is thus, in this instance, diachronically appropriate.

A further factor in support of analysing an *o(w)V_x* sequence as *owV_x* (rather than as *oV_x*) comes from final .CV reduplication; for example, the verb *-jowa-* ‘reach to’ reduplicates as *jowawa* (not as *jowaa*).

We can now enquire whether it would be possible to consider *o* and *w* as allophones of a single phoneme. The answer is that this is possible, but at a cost. Suppose that we recognize a phoneme, called /U/, that is realized sometimes as syllable nucleus [o] and other times as syllable onset [w]. Now in Jarawara we can have a sequence of two vowels but never (save in some recent loans, see §2.5) a sequence of two consonants. Thus in a sequence *-UC-*, /U/ would have to be interpreted as [o], e.g. /Uri/, [ori]; /bUni/, [boni]; /saUma/, [saoma]. Similarly, after a *C*, /U/ would also be taken to be [o], /tUara/, [toara]. (Note that under this solution, the *w*-less alternative is automatically chosen for words of both types (ii) and (iii) above.) No word can end in a consonant and so here again /U/ would be interpreted as the vowel [o], e.g. /saU/, [sao].

The difficulty comes with sequences such as #UV... , e.g. #Uina. Here we could equally take /U/ to be consonantal [w], giving [wina] (written as such in the orthography), or we could take /U/ to be vowel [o], giving [oina] (written *owina* in the current orthography). The only way to distinguish between *wina* and *owina/oina*—which are actual contrasting words in the language (*wina* is ‘live’ and *o-wina* ‘I live’) and are quite distinct—would be to mark syllable boundary, say by ‘\$’. Then *U\$ina* would represent *oina/owina* while *Uina* would be *wina*. We would make do with one phoneme less, but only at the cost of having to mark a syllable boundary (so that we could see whether U was filling a V or a C slot) in cases like this. There is certainly no overall gain; there is really little to commend a ‘*w* and *o* as allophones of one phoneme’ approach.

There is of course a close connection between *w* and *o*. This could be brought out in a distinctive feature treatment, by providing the same feature specification for *w* and *o* save that *w* is ‘-syllabic’ and *o* ‘+syllabic’. The lack of contrast between *wo/o* and *ow/o* could be dealt with in these terms, effectively, by specifying either that a *w* cannot come between *o* and another vowel or a word boundary, or that a *w* must be included here (but making clear that there is no contrast between presence and absence of *w* in these environments).

The ‘*w* and *o* as one phoneme’ possibility is discussed for the Banawá dialect in Buller, Buller, and Everett (1993). They suggest that, in similar fashion, *j* and *i* can be combined as one phoneme. This can be supported neither for Banawá nor for Jarawara. Note that *j* contrasts with zero not only when the following vowel is something other than *i*, e.g. *jama* ‘thing’, *ama* ‘blood; rat’; but also when *i* follows, e.g. *jifo* ‘firewood, hammock; buriti palm tree’, *ifo* ‘lower lip’; and *jiro* ‘house foundation pole’, *iro* ‘tree sp’. There are also sequences of *-iji-*, e.g. *hiji* ‘beetle sp.’ and *wiji-na-* ‘shake’. Note that there is in fact no palatal semi-vowel phoneme /y/ in

Jarawara or Banawá, just [y] as an allophone of the lamino-palatal stop phoneme /j/ (*j* in the present orthography).

When some Jarawara youths asked me how to say Portuguese *Como vai?* ‘How are you?’ in English, I at first wrote this as ‘howa yo’ (using the ‘y’ in the practical orthography they have been taught, corresponding to ‘j’ in the orthography employed in this book). However, they pronounced this as [howa ʝo], with the lamino-palatal stop, and I could not get them to pronounce the ‘y’ as a semi-vowel. I then wrote it as ‘howa io’ which they pronounced as [howa iʝo]. This demonstrates the contrast between the consonant /j/ (basically a lamino-palatal stop [j] with the semi-vowel [y] as a secondary allophone) and the vowel /i/, which can have a semi-vowel [y] as phonetic transition when followed by another vowel.

At least some of the other Arawá languages (Kulina-Dení for certain) show similar patterning of *w* and *o*. Adams and Marlett (1990) suggest the ‘*w* and *o* as one phoneme’ analysis for Kuliná/Madiha, noting—as was done above—that it is then necessary to specify syllable boundaries to deal with forms such as #*ona*. But they use the two letters *w* and *o* in their orthography. It remains to investigate whether proto-Arawá had the same relationship between *w* and *o*.

A relevant piece of historical evidence concerns the word for ‘bico de brasa (a nunbird)’ which can be reconstructed for proto-Arawá as **tawikoro*. In modern Jarawara it is *taokoro*. That is, the vowel *i* has dropped out and then **w* has been reassigned a vocalic value, *o* (to avoid an illicit sequence of two consonants *-wk-*). The point of this example is to show that there is a connection (both synchronic and diachronic) between *w* and *o*, even though it is not useful to treat them as allophones of a single phoneme.

2.4 PHONOTACTICS

Although the language has a simple syllable structure (C)V, there is still something to be said about phonotactics. I received the impression that *r* is relatively infrequent word-initially but rather common medially. Impressions do, of course, need to be quantified. A rough dictionary count was undertaken, of the percentages of occurrence for the eleven consonants at the beginning of a word and in the second syllable of a word:

	#-V	#(C)V-V		#-V	#(C)V-V		#-V	#(C)V-V
t	12.5	14.0	n	4.3	8.4	h	9.2	7.0
j	11.9	5.4	m	8.3	9.8	r	1.0	11.9
k	17.8	12.4	s	9.6	8.9	w	10.7	9.5
b	10.7	8.2	f	4.0	4.5			

There are four significant differences between the columns. The most notable concerns *r*—it is by far the least common consonant word-initially (about 1 per cent) but the third most common at the beginning of the second syllable of a word (almost 12 per cent). (And note that almost 20 per cent of suffixes begin with *r*.) In addition, there are almost twice as many *n*’s in the second as in the first syllable, less than half as many *j*’s, and rather fewer *k*’s.

The dictionary of Dení also shows that only about 1 per cent of words begin with *r*. In Paumari, however, the figure is about 6 per cent, much higher than that in Jarawara and Dení (although still substantially less than the 12 per cent medial figure in Jarawara). Preliminary work on reconstruction suggests that proto-Arawá had a smallish number of *r*-initial words most of which are retained as such in Paumari. In the other modern languages an initial *r* has changed to *d* or *h* in some cases, but in the majority of instances the initial *rV*- syllable has

simply been dropped. (Note that there are reported to be two rhotic phonemes in Paumarí—a flap vibrant and a retroflexed reverse flap vibrant; see Chapman and Derbyshire 1991: 346–7.)

About 14 per cent of words in the dictionary begin with a vowel. The relative percentages of occurrence for the four vowels in a first V syllable, in a first CV syllable, and in a second CV syllable are (again on a dictionary count):

	a	e	i	o
#-	48.1	11.8	25.5	14.6
#C-	50.0	6.5	15.5	28.0
combined first syllable	49.7	7.2	16.9	26.2
second syllable, #(C)VC-	40.3	12.8	26.7	20.2

It will be seen that in the second syllable of a word there are fewer *a*'s and *o*'s and more *i*'s and *e*'s. In rounded whole percentages:

	a	i+e	o
first syllable	50	24	26
second syllable	40	40	20

Looking now at statistical associations between C and following V, the only significant one is between *s* and *i*. In the first syllable of a word there are more than twice as many *si* syllables as would be expected from the separate frequencies of *s* and *i*, and in the second syllable almost twice as many.

When we examine the statistical association between vowels in successive syllables, one noteworthy observation is that there is a higher number of disyllabic words with identical vowel in each syllable than would be expected from the probabilities for each syllable. Turning to longer words, it appears that all Arawá languages prefer not to have trisyllabic words in which each vowel is different from its neighbours. There are many examples of ad hoc diachronic changes which move away from such a pattern. For instance *a-i-o* > *a-a-o* in proto-Arawá **tanikho* becoming Jarawara *tanako* 'sweat'; and *a-o-i* > *a-a-i* in proto-Arawá **anopi* becoming Jarawara *anafi* 'egret'. (A fuller account of co-occurrence preferences between vowels is in Dixon 1995: 271–4; forthcoming *a*.)

We can now turn to qualitative phonotactics, which involves the occurrence of plain V syllables. As already indicated, about 14 per cent of words begin with V as against 86 per cent with CV. Leaving aside the words commencing with *o(w)V-* (which are written as *owV-*), discussed in §2.3, there are no words beginning with VV (i.e. we do not get two V syllables in sequence) except through the omission in casual speech of *h*, e.g. *ahi* ~ *ai* 'do work', *ohi* ~ *oi* / *owi* 'cry, mourn' (see (D) in §2.9.6).

Looking now at vowel sequences in medial position we can first deal with those that involve *o*. As mentioned in the last section, there is no contrast between *oV* and *owV* (which we write as *owV*) or between *Vo* and *Vwo* (which we write as *Vo*). There are examples of *o(w)a*, *o(w)e*, *o(w)i*, *a(w)o*, and *e(w)o* but none of *i(w)o*—this may be an 'accidental gap' in the corpus.

Of vowel sequences within a morpheme that do not involve an *o*, more than two dozen examples are known of *ai* in roots but none of *ae*, *ia*, *ie*, *ea*, or *ei*. (There is an *ia* in *jia* 'day', which is a recent loan from Portuguese *dia*.) In addition, many more *ai* sequences are being formed by the omission of *h* from before an unstressed vowel. And *h*-dropping has also led to vowel sequence *ia* across a morpheme boundary—see (A) in §2.9.6.

Since there is no sequence /ei/ it seems that /ai/ may be pronounced as either [ai] or [ei] (this is particularly noticeable in the Banawá dialect). The alternation may have assisted

in diachronic change of the type *jomahi* > *jomee*, i.e. /ahi/ > /ai/ (which could be pronounced [ei]) > /ee/.

2.5 LOANS

Loan words from Portuguese are taken into Jarawara as free nouns or non-inflecting verbs, and adapted to Jarawara phonology.

The consonants of Portuguese are mapped onto those of Jarawara as follows (phonetic representations of Portuguese words are given only where these differ significantly from the orthography; stress is marked on all words and the gender is given in both Jarawara and Portuguese, by f for feminine and m for masculine):

JARAWARA PHONEME	PORTUGUESE PHONEME(S)	JARAWARA	PORTUGUESE	MEANING IN JARAWARA
/b/	/p/, /b/	balíto, f bówi, f	palíto, m bói, m	'toothpick, match' 'head of cattle'
/t/	/t/, /d/	móto, m sitáti, f	motór, m cidade [sidádi], f	'motor, motor boat' 'city'
/k/	/k/, /g/	sáko, f káto, f	sáco, m gáto, m	'sack, bag' 'house cat'
/w/	/g/+/w/	wáranáa, f	guaraná [gwaraná], m	'a soft drink'
/j/	/d/+/y/	heméjo, f	remédio [hemédyu], m	'medicine'
	/ʒ/	zoróma, f	jerimum [zerímũ], m	'pumpkin'
	/ʎ/	abíja, m ójo, f	abélha [abéʎə], f óleo [ólu], m	'bee' 'oil'
/m/	/m/	ríma, f	líma, f	'file'
/n/	/n/, /ɲ/	jinéro, m	dinhéiro [dijéyru], m	'money'
/f/	/f/, /v/	fíta, f áfíáo, m	fíta, f aviáo [aviá ^w], m	'cassette tape' 'plane'
/s/	/s/, /ʃ/	kasása, f	cacháça [kaʃásə], f	'cane whisky'
	/z/	kásorína, f	gasolina [gazolínə], f	'petrol'
	/ʒ/	sábo, f	jámbo [ʒãbu], m	'rose apple'
/r/	/r/, /ʎ/	féra, f	véla, f	'candle'
/h/	/h/ ('r')	hájo, f bohása, m	rádio [hádyu], m borrácha [boháfə], f	'radio' 'rubber'

Jarawara has no diphthongs, sequences of vowels always being pronounced distinctly, as separate syllables. Portuguese diphthongs *a^w* and *e^w* come out as vowel sequences *ao* and *eo* while *o^w* is just *o*:

J	káosáo, f	P	calção, m	[ka ^w sá ^w]	'trousers, trunks, shorts'
	báo, m		pão, m	[pã ^w]	'bread'
	babéo, f		papél, m	[papé ^w]	'paper, book, magazine'
	bóso, f		bólso, m	[bó ^w su]	'pocket'

A Portuguese vowel sequence *ui* or *ue* is mapped onto *o(w)i* or *o(w)e*, e.g. *bówi/bói* 'head of cattle' given above and:

J	mokówi, m kowéka, f	P	mucuím, m cuécas [kuékəs], f	'chigger (biting insect)' 'men's underpants'
---	------------------------	---	---------------------------------	---

There is one loan that shows a vowel sequence not otherwise found in the Jarawara data: *jía* from *día* ‘day’. And the only instances in the corpus of a sequence of three vowels are in *áfíáo*, m from *avião*, m ‘plane’ and *rábiáo*, f from *lâmpião*, m ‘lamp’.

Nasalization (including that resulting from what is written as a syllable-final nasal) is not reflected in the phonology of loans. In the variety of Portuguese spoken by the Jarawara both *casádo* ‘married’ and *cansádo* ‘tired’ become *kasáto*. The loan words from *páú* [pá^w] ‘wood’ and *pão* [pá^w] ‘bread’ are both *báo*. Other examples are:

J	aténa, f	P	anténa [ãténa], f	‘antenna’
	bóbo, m		bombóm [bõbõ], m	‘sweets, candy’

A syllable-final *r* is also not reflected, e.g. *móto*/*motór* and:

J	fóno, f	P	fórno, m	‘oven, roasting pan’
	téhafími, f		térra firme, f	‘ground that does not flood’
	maa, f		már, m	‘sea’

(Note that word-final *r*, although represented in the orthography and pronounced in Standard Brazilian Portuguese, is generally not pronounced in the Portuguese dialect on the Purús River. Thus *moto* and *maa* exactly reflect the local Portuguese forms.)

We noted in §2.4 that very few words in Jarawara begin with the liquid /r/ (which has allophones [l] and [r]). A loan with initial *l* or *r* in Portuguese may have an initial vowel added in Jarawara, e.g.

J	írimáo, f	P	limáo, m	‘lemon’
---	-----------	---	----------	---------

However, other loans retain an initial liquid; these include *ríma* (from *líma* ‘file’) and *rarája* (from *laránja* ‘orange’).

It appears that monosyllabic words ending in *s* add a final vowel in Jarawara, to satisfy the requirements: (i) that no word should end in a consonant; and (ii) that every word should have at least two moras:

J	bósi, f	P	pús, m	‘pus’
	sísi, f		gíz [zís], m	‘chalk’

Note that the added vowel is *i* in both these words (in §2.4 a statistical association between *s* and *i* was noted).

Longer words ending in *s* appear to drop the *s* when stress is not on the preceding vowel, as in

J	rápi, f	P	lápís, m	‘pencil’
---	---------	---	----------	----------

but to add a following *i* if the vowel preceding the *s* was stressed, thus maintaining the stress pattern:

J	ahósi, f	P	arróz [ahós], m	‘rice’
	botokési, f		português [portugés], m	‘Portuguese’

There are occasional unexpected vowels in loans, for example:

J	sabáta, f	P	sapáto, m	‘shoe’
(cf.	sabáto, f		sábado, m	‘Saturday’)

Note that most vowel-initial words from Portuguese retain this feature, although some add an *h*:

J	hasóka, f	P	açúcar [asúkar], m	‘sugar’
	hasái, f		açaí, m	‘assai palm’

The reasons for this variation are not known.

There are also some examples of an initial unstressed vowel from Portuguese not appearing in a loan:

J	satéko, f	P	enxadéco [ẽʃadéku], m	‘hoe’
	sikóra, f		escóla, f	‘school’
	sitóba, f		estópa, f	‘stopping (to fill cracks)’

Portuguese has just a few consonant clusters; Jarawara has none. In many loans a cluster is broken up by the insertion of a vowel:

J	kárafáto, f	P	gravadór, m	‘tape recorder’
	bírifáta, f		priváda, f	‘toilet’
	bátiríi, m		pádre, m	‘priest’

In some words two pronunciations are heard, one with a *Cr* cluster and one with an inserted vowel. These include

J	bréko ~ beréko, f	P	prégo, m	‘nail’
	bráto ~ baráto, f		práto, m	‘plate’
	hetráto ~ hétaráto, f		retráto, m	‘photograph’
	retróra ~ rétaróra, f		vitróla, f	‘victrola, record player’
	tísko ~ tisíko, f		dísco, m	‘record’
	Bráko ~ Baráko, m		Bráncó, m	‘non-Indian (white) person’
	frekési ~ férekési, m		fregués, m	‘customer’

There is one very recent loan which is always pronounced with a consonant cluster (in this case *st*):

J	bísta	P	písta	‘airstrip’
---	-------	---	-------	------------

The occurrence of long vowels in some trisyllabic loans is discussed in §2.8.

2.6 STRESS

The rule for placement of stress within a word in present-day Jarawara is straightforward:

Stress goes onto the syllable containing the penultimate mora of a phonological word (see §2.7) and even-numbered moras before that (i.e. second, fourth, sixth, etc. moras counting from the end of the word).

There appears to be no significant difference between varying degrees of stress (primary, secondary, etc.). Note that stress is realized in terms of loudness (or intensity).


A sample sentence—where each phonological word is also one grammatical word—is, with stress marked by acute accents (and with the convention that a stress accent is placed just on the first letter of a long vowel; that is, *áa* indicates that stress extends over the whole long vowel):

- (2.1) Jára_A otára méé to-wá-ka-tíma-máro
 Branco(m) IexcO 3nsgA AWAY-APPLIC-in.MOTION-UPSTREAM-FPef
 otáa amá-ke
 Iexc EXTENT-DECf
 the Brancos took us upstream for a while

Plainly, since a long vowel bears two moras, one of them must be in an even-numbered syllable from the end, and so a long vowel will always bear stress.

A particular feature of Jarawara (but not of the other two dialects of the Madi language) is that the final syllable of a main clause is said on rising intonation (and with pronounced nasalization). This shows some phonetic similarity with the realization of stress in other languages but, within the context of Jarawara, it is something entirely different from stress.

A stressed syllable in Jarawara is characterized by greater intensity of effort in pronunciation. Normally, in a trisyllabic word pronounced in isolation, the middle syllable will be stressed, and the final syllable will show rising intonation. The first syllable may be pronounced only weakly and it is easy to miss it entirely when transcribing, e.g.



 jifārī ‘banana’; makábī ‘name’; amá-kē ‘EXTENT-DECLF’

The secondary verb *ama* occurs late in predicate structure, after a number of suffix orders, and the first syllable of *ama-ke* or *ama-ka* (with feminine and masculine forms of the declarative suffix) is often not pronounced at all. It appears that for some (especially younger) speakers what was a secondary verb root *ama* is taking on the status of a suffix *-ma* in certain syntactic contexts; see §7.1.1.

The Banawá and Jamamadí dialects operate with a quite different stress rule. Basically, syllables which include the first, third, fifth, etc. moras from the beginning of a word are stressed. There is a further specification which Buller, Buller, and Everett (1993) observed for Banawá (and may also apply in Jamamadí)—a word-initial vowel does not count in stress assignment if the word has three or more moras (i.e. at least two moras not counting this word-initial vowel) but it does count if there are only two moras in all, e.g. *o-fá-boné* (‘1sg-drink-INTf’) ‘I’m going to drink’ but *ába* ‘fish’.

Thus the stress rule in Jarawara involves counting moras from the end of the word and the rule in Banawá and Jamamadí involves counting from the beginning of the word. For a word with an even number of moras these principles give the same result. They differ only for words with an odd number of moras, e.g. Jarawara *kobája*, Banawá and Jamamadí *kóbajá* ‘white-collared peccary (a kind of wild pig)’.

However, we shall see in §2.9 that a number of phonological rules in Jarawara are conditioned by the position of a mora in a word counting from the beginning. I hypothesize that an early stage of Jarawara had an initial stress rule, like modern Banawá and Jamamadí (but counting a word-initial vowel), that the phonological rules developed during this period, and that they still refer to what can be called an ‘underlying’ (or first) level of stress. There is also the surface stress rule, which works in terms of the penultimate mora. At least one phonological rule operates at this surface (or second) level of stress; as would be expected, it is particular to the Jarawara dialect.

2.7 GRAMMATICAL AND PHONOLOGICAL WORDS

Generally, there is need to establish two types of ‘word’ for a language. A grammatical word is established on grammatical criteria and is the basic unit for grammatical operations. A phonological word is established on phonological criteria and is the unit in terms of which phonological constraints and rules are stated. The two types of word may fully coincide for some languages, with grammatical and phonological criteria defining the same unit. In other languages the two units often coincide (which is why they are both called ‘word’) but do not

always do so. In some circumstances a phonological word can consist of more than one grammatical word and/or a grammatical word can consist of more than one phonological word; this is the situation in Jarawara. In some languages there can be more complex relations between the two types of word. In Fijian, a grammatical word can consist of all of one and part of another phonological word, and vice versa—see Dixon (1988a: 21 ff.; 1988b).

The two types of word in Jarawara can be characterized as follows:

(1) PHONOLOGICAL WORD. There are three basic criteria here:

- (a) A phonological word must include at least two moras. Thus, if it is monosyllabic the vowel must be long.
- (b) The stress rule operates within a phonological word.
- (c) With a single exception, all phonological rules apply within the phonological word. These rules deal with vowel assimilation, morphophoneme realization, and syllable and segment omission (some of these are a consequence of stress assignment)—see § 2.9. The one rule which can span a phonological word boundary is P4 (raising an *a* to *i* before certain suffixes) as applied to the suffixes *-ⁱkima* ‘two participants, a pair’ and *-ⁱnofa* ‘happened continuously over recent time’—see §2.9.2, (1) in §5.5, and (2) in §5.8.

(2) GRAMMATICAL WORD. The elements of a grammatical word always occur together, in fixed order, with the whole having a conventionalized coherence and meaning. Each lexical root and each auxiliary and secondary verb root forms the core of a grammatical word. Prefixes and suffixes to a root are part of the same grammatical word. When a word undergoes reduplication it remains one grammatical word. Two roots combined to form a compound stem are considered one grammatical word.

A free pronoun (that is, any pronoun other than 1sg prefix *o-* and 2sg prefix *ti-*) is also a grammatical word, as are demonstratives and locationals, interrogatives, discourse/time markers, postpositions, and interjections—see §3.3.

A special feature of Jarawara is that we can get a grammatical word (which is also a phonological word) consisting just of a pronominal prefix (1sg *o-*, 2sg *ti-*, or O-construction marker *hi-*) followed by a declarative suffix (*f-ke* or *m-ka*) with no intervening root; that is, *o-ke*, *ti-ke*, *hi-ke*, and *hi-ka*. (The 1sg and 2sg pronouns do have independent forms *oo* and *tii* respectively (see §4.4.4) so that *o-ke* and *ti-ke* could alternatively be treated as roots *oo/tii* plus *-ke* with the pronominal forms reduced to *o* and *ti* when followed by *-ke*. This is not a useful solution since it would obscure the fact that we do here have the pronominal prefixes with the same form as they show with verbs and verbal auxiliaries. In any case, this solution is not available in the case of *hi-ke* and *hi-ka*.)

As already mentioned, phonological and grammatical words will coincide in most instances. There are five classes of exception in Jarawara:

(i) A compound noun, which is one grammatical word (the parts cannot be separated) involves two phonological words. The stress rules apply separately to each part, e.g. *báni.kasáko* ‘wild dog sp. (*Speothos venaticus*)’. If this had been a single phonological word the stress would be *baníkásáko*. The symbol ‘.’ will be used to represent a phonological word boundary that falls within a grammatical word.

(ii) When a pronoun occurs as a post-predicate NP (§10.3), it is preceded by element *haa*, e.g. *haa.tíwa*, 2sg. Each of the elements is a separate phonological word, within one grammatical word. As is normal in this circumstance (see §2.11), a glottal stop intervenes between two vowels across the phonological word boundary, as in *haa.ʔowa*, 1sg.

(iii) There are several varieties of reduplication in Jarawara (for a full account see chapter 9). One involves syllables containing the first two moras of a root, e.g. *niki.niki* ‘REDUP.squeeze’, *áta.átábo* ‘REDUP.be.muddy’ (the occurrence of the glottal stop is discussed in §2.11). Stress here shows that we have two phonological words.

In initial (C)V or final CV reduplication (for example, *ki.kú* ‘REDUP.watch’ or *báko.ko* ‘eat.REDUP’) the reduplicated parts do not constitute a separate phonological word since they have only one mora and no stress. They instead function as a type of ‘internal clitic’ to the phonological word that follows (but do not count as part of the word for the operation of phonological rules—see §9.1). (There is discussion of some of these anomalous forms, for Banawá, in Buller, Buller, and Everett 1993: 292.)

(iv) Chapter 5 discusses the unusual range of types of verbal suffix in Jarawara. There are some suffixes that behave normally with respect to criteria for a grammatical word but commence a new phonological word in the middle of a grammatical word. The suffix *-tasa* ‘again’ behaves like this—see (I) in §5.2 and (I) in §5.9. Thus (see (5.11) in §5.2) within the grammatical word *o-míta.tasá-habóne* (1sgA-hear.AGAIN-INTENTIONF) ‘I’ll listen again’ there are two phonological words, *o-míta* and *tasá-habóne*. This can be seen by the assignment of stress, separately in each phonological word. It is also indicated by the non-application of rule P8a, which deletes the *-ha-* of *-habone* when it is in an even-numbered syllable of a phonological word. If the grammatical word were one phonological word then *-ha-* would be the sixth syllable and omitted; in fact *-ha-* is the third syllable of the phonological word *tasa.habone* and is not omitted.

Under (c) in §6.1, it is described how when the RPn suffix *-(he)te/-(hi)ta* is followed by the REP suffix *-(ha)mona/-(hi)mone*, then it becomes *-tee*, so that we get *-tee-hamone/tee-himona*. It appears that this *-tee* commences a new phonological word, since the initial *-hV-* of REP is always retained, irrespective of how many moras precede it in the grammatical word (if it did not commence a new phonological word, the initial *-hV-* would be deletable by rule P9a in §2.9.6).

(v) There is one exception in the opposite direction, of a phonological word consisting of two grammatical words. A large class of verbs do not themselves take inflections and must be followed by an auxiliary root (*-na-* or *-ha-*) which accepts the verbal prefixes and suffixes. The auxiliary constitutes a separate grammatical word. If an auxiliary takes affixes (prefixes and/or suffixes) it will function as the core of a phonological word. Thus (2.2) involves two grammatical words each of which is also a distinct phonological word:

(2.2) *ámo o-ná-habóne*
 sleep 1sgS-AUX-INTf
 I’m going to sleep

However, if there is no affix to the auxiliary it will form one phonological word with the preceding non-inflecting verb root. In (2.3) where the subject is 3sg, realized by zero, and there is no tense-modal suffix, we have two grammatical words forming a single phonological word (‘+’ is used to indicate a grammatical word boundary within a phonological word). Note that *amó+na* is stressed on the penultimate mora, showing that it does constitute a single phonological word.

(2.3) *amó+na*
 sleep+AUXf
 she sleeps

The discussions of the morphophoneme *I*, in §2.9.3, and of the omission of unstressed syllables *-ha-*, in §2.9.6, provide justification that the auxiliary constituent (when it has at least one affix) functions as a distinct phonological word.

Negation is shown by suffix *-ra* to the auxiliary; however, the auxiliary verb *-na-* is always dropped from before *-ra*. If there are no further affixes, the auxiliary component consists just of *ra*, which then behaves like affix-less *na*, in (2.3), and makes up one phonological word with the preceding non-inflecting verb root; for example *bosá+ra* (get.up.early+NEGF) ‘not get up early’.

In the body of the grammar, the ‘+’ is generally not included in examples similar to (2.3). However, if an auxiliary *na* or negator *ra* is shown as standing alone, with no affixes, then it should be taken to be attached to the preceding word, as in (2.3). (Chapter 23 discusses the list verb *na*. This generally bears affixes and is then a separate phonological word. When there is no affix, it may (a) lengthen the vowel to enable it to function as a separate phonological word *naa* (or m form *nee*); or (b) be added to a preceding form, as *mee+na* in (23.2) which is a further example of one phonological word consisting of two grammatical words.)

Each noun, adjective, pronoun, demonstrative, postposition, and non-inflecting verb root in Jarawara includes at least two moras. The only instances of single-mora roots are a handful of inflecting verb roots and the two auxiliaries (which are required by non-inflecting verbs). Auxiliary *-ha-* ‘become’ always takes the prefix *to-* (because of its meaning) if there is no pronominal prefix, and so always forms a word with at least two moras. As just stated, when the auxiliary *na* has no prefix it forms part of the same phonological word as the preceding non-inflecting verb root. The monosyllabic inflecting verbs almost always take prefixes and/or suffixes. But some of them can occur alone and when this happens the vowel is lengthened to form a two-mora word—there are further details under (II) in §4.5.2.

The 1sg and 2sg subject pronouns have the form of prefixes *o-* and *ti-* respectively. These are added to an inflecting verb or to the auxiliary of a non-inflecting verb. They can also occur later in the predicate, and are then generally attached to the f declarative mood suffix, *-ke*, producing phonological words (that consist just of a prefix and a suffix) *o-ke* and *ti-ke*. One type of question involves the secondary verb *ama* plus 2sg *ti* (§15.4.4). Here *ti*, generally a prefix, functions as a suffix to the secondary verb *ama*, i.e. *amá-ti* (with stress, as usual, on the penultimate mora of this phonological word). There are other circumstances in which *o* and *ti* occur in predicate-final position; they then lengthen the vowel, to form a two-mora phonological word, *oo* and *tii*; see §4.4.4.

There appears to be a preference in Jarawara for a phonological word to have an even number of moras. When there are no long vowels (and these are rare) this involves having a whole number of disyllabic units (or feet) each consisting of one stressed and one unstressed syllable. On a series of text counts about 60 per cent of inflecting-verb-plus-affixes and auxiliary-plus-affixes have an even number of moras. Speakers appear to work in terms of two-mora units. When Okomobi was helping me transcribe texts he would say a long word slowly, breaking it up into two-mora units. These often cut across morpheme boundaries and made it hard at first to recognize what morphemes were involved. For instance, he said:

ówa, tóra	for	ó-wató-ra
		1sg-know-NEGF
		I don't know
kába, sáwa, háma	for	ká-basá-wahá-ma
		in.motion-EDGE-NOW-BACKf
		(we) now went back to the river bank

tówa, kíma, sáwi, tíha for tó-wa-kí-misá-witíha
AWAY-APPLIC-in.motion-UP-FROM.PLACEf
(they) went up to another place

híja, ráma, táre, káa for hijára-máta-ré-ka
speak-SHORT.TIME-IPem-DECM
(she) spoke briefly

Note that this division accords with surface stress for a word with an even number of syllables, but is at odds with surface stress when there is an odd number of syllables, as in the last example.

And see further comments on this under Step E in §27.2.

2.8 LONG VOWELS

Long vowels in Jarawara have a fairly limited distribution and an interesting history.

All monosyllabic phonological words involve a long vowel. These include non-singular pronouns such as 2nsg *tee* and non-inflecting verb roots such as *baa* ‘hit (with hammer)’ and *soo* ‘urinate’.

Long vowels are also found in polysyllabic words, e.g.

otáa 1exc pronoun éébotée ‘big’ sírikáa ‘rubber’

There are just a few minimal pairs, showing without doubt that vowel length is phonologically contrastive. For example:

jóme	‘eat without chewing’	jomée	‘dog, jaguar’
ába	‘fish’	áaba	‘to be finished, dead’

Note also that there are two non-inflecting verbs, transitive *háa* ‘call to’ and intransitive *háa.háa* ‘laugh’. The latter appears to involve inherent reduplication (but there is no evidence for any genetic connection between the two verbs). Initial partial reduplication repeats the first mora and its preceding consonant. Thus we get:

UNREDUPLICATED	REDUPLICATED
háa ‘call to’	ha.háa
háa.háa ‘laugh’	ha.háa.háa

There is thus a minimal pair involving *ha.háa* ‘REDUP.call to’ and *háa.háa* ‘laugh’ (in fact the two forms occur a few lines apart in one text). Note that there is also a demonstrative *haaha* ‘this/that’—see chapter 12.

Now some of the forms quoted developed long vowels relatively recently through the omission of *h* from an unstressed syllable (see §2.9.6). In fact forms both with and without *h* are acknowledged by native speakers and appear to be in free variation. (The forms with long vowels are most used in rapid speech and the forms with *h* are typically employed in citation, but are in all circumstances freely interchangeable.) Thus:

fáha ~ fáa	‘water’	ehébotée ~ éébotée	‘big’
ahába ~ áaba	‘be finished, dead’	sasáha ~ sasáa	‘hoatzin bird’

There is also a change *ai* > *ee* after the *h* has dropped (see §2.9.6) in:

jomáhi ~ jomée ‘dog, jaguar’

Note also that the noun *eejiwaa* ‘small pot for grinding arrow poison’ undoubtedly comes from a compound of *iha* ‘arrow poison’ and *jiwaha* ~ *jiwaa* ‘cooking pot’, i.e. *iha*-plus-*jiwáha* > *ééjiwáa*.

There is a connection between long vowels and stress; as pointed out in the last section, a long vowel always bears stress. However, it is not possible, in Jarawara, to take stress placement as contrastive and let vowel length be determined by stress. This could work for *jóme* and *jomé*—these would be written *jóme* and *jomé*, with the specification that a stressed vowel which did not appear in an even-numbered syllable from the end of a word must be long. But it would not work for *áaba* and *ába*, both of which would have to be written *ába*.

Of the other Arawá languages, contrastive vowel length is reported for Paumarí but not for Kulina-Dení. It remains to investigate the occurrence of long vowels in the Banawá and Jamamadí dialects of Madi.

All of this suggests the following hypothesis:

- (a) an earlier stage of Jarawara (probably: proto-Madi) did not have a phonological contrast between long and short vowels; this has evolved rather recently.

In association with this, we can suggest:

- (b) in an earlier stage of the language, a (phonological) word could have just one mora.

We can now discuss in turn each type of word which involves a long vowel in modern Jarawara, and consider how that length might have originated.

(A) MONOSYLLABIC VERBS AND NOUNS. I have suggested that in an earlier stage of the language a word could include a single mora. A requirement was then introduced that each phonological word had to have at least two moras. The vowel in a monosyllabic word was automatically lengthened. At this stage length would not have been contrastive—each vowel would have had a long allophone in a monosyllabic word and a short allophone elsewhere.

We noted that all monosyllabic non-inflecting verb roots have a long vowel; these always make up a complete grammatical word. There are a handful of monosyllabic inflecting verbs, which show a variety of patterns. The commonly occurring verb *-ka-* ‘be in motion’ always takes a directional affix—prefix *to-* ‘away’ (which can be replaced by 1sg *o-* or 2sg *ti-*) or suffix *-kI* ‘coming’ or suffix *-ma* ‘back’. The verb ‘stand (of sg S)’ is *-wa-* if there is a prefix, or suffix *-rI*, and *-waa-* otherwise; *-ta(a)-* ‘be overgrown’ appears to behave in a similar way. The verb ‘exist’ has root *-na-* but if, unusually, it should bear neither prefix nor suffix, then the vowel is lengthened, giving *naa*. Thus, in every instance the verb word involves at least two moras. (There are full details under (II) in §4.5.2.)

Note that there are in the corpus several dozen monosyllabic non-inflecting verbs (including quite a number of homonyms), about six monosyllabic inflecting verbs, and just a few monosyllabic nouns (e.g. *koo* ‘tree sp.’).

(B) THE VERB *háa.háa* ‘TO LAUGH’. Languages typically have both productive reduplication (i.e. words exist in both unreduplicated and reduplicated forms) and also inherent reduplication—words have the form of a reduplication but in fact the unreduplicated form does not exist. In the Australian language Warrgamay, for instance, long vowels basically only occur in the first, stressed syllable of a word. But a long vowel is repeated in reduplication. The only words that show a long vowel in a non-initial syllable are inherently reduplicated forms—*jii.jii* ‘bird (generic)’ and *biil.biil* ‘pee wee (bird sp.)’ (there are no forms *jii* or *biil*). These two nouns plainly each involve two phonological words, and are compatible with

the restriction that a long vowel can only occur in the first syllable of a phonological word (Dixon 1981: 17).

The verb ‘to laugh’ probably had the form *ha.ha* in proto-Arawá (it is presumably onomatopoeic); this is maintained, with two short vowels, in Paumarí, Kulina-Dení, and in the Banawá dialect of Madi (information on Jamamadí is lacking). In Jarawara, however, it undoubtedly has two long vowels, each bearing stress. It is likely that the requirement that a phonological word (save for that formed by single-mora reduplication) should have two moras, which has led to monosyllabic words having their vowel lengthened in Jarawara, Banawá, and Jamamadí, has been extended—in Jarawara only—to apply to both parts of the verb ‘to laugh’, which is perceived as being inherently reduplicated (that is, one grammatical word consisting of two phonological words).

(C) OTHER NOUNS, AND ADJECTIVES. There is in the data collected just one polysyllabic noun with a long vowel, the body part term *eenoki* ‘middle, waist’. I can offer no etymology for it. The small adjective class includes two forms with a final long vowel, *botee* ‘old’ and *ehebotee* ‘big’ (I do not know whether these are related or whether their similarity is coincidental).

(D) MONOSYLLABIC PRONOUNS. Three of the non-singular pronouns are monosyllables with a long vowel. However, length is lost before the accusative suffix *-ra*:

	CARDINAL AND SUBJECT FORM	OBJECT FORM
1inc	ée	é-ra
2nsg	tée	té-ra
3nsg	mée	mé-ra

This could be taken to suggest that in an earlier stage of the language the pronouns were simply *e*, *te*, and *me*, and that the vowel is now lengthened when there is no suffix, to make a two-mora word (as with verb and noun roots). However, 1inc is *ai* (with accusative *ai-ra*) in the Jamamadí dialect, pointing to a proto-Madi form **ai* and change *ai > ee*.

The 3nsg pronoun is *mee* in Jarawara but is *mai* alternating with *mee* in Jamamadí (note that it is *mai* in Jarawara songs, a style where one typically encounters archaic forms). It is likely that the 3nsg pronoun (which only occurs in the Madi language, out of the Arawá family) is a development from the noun *madi* ‘people’, by changes *madi > mai > mee*. (There is more discussion of this in §3.3.1.) (The fact that *mee* occurs with a long vowel as the first component of plural forms *mee.fanawi(ri)* ‘women’, *mee.makiti* ‘men’, and *mee.inamati* ‘spirits’ (§10.5.4) provides evidence against taking the underlying form to be *me*, with a short vowel.)

Thus, the long vowels in 1inc *ee* and in 3nsg *mee* almost certainly derive from *ai*; I have no information concerning the etymology of *tee*, but this may well have a similar origin. The short vowel allomorphs found in accusative forms *e-ra*, *te-ra*, and *me-ra* must then be due to a phonological process of shortening, particular to this word class.

(E) THE 1exc PRONOUN *otaa*. The 1exc pronoun is *otáa*, with a long final vowel, in Jarawara, and *odáa*, also with a long vowel, in Banawá and Jamamadí (which retain the proto-Madi *d/t* distinction). It appears that there is no corresponding pronominal form in other Arawá languages (which lack an inclusive/exclusive distinction). If there had been an earlier, proto-Madi, form **oda*, this would have had two moras and there would have been no need to lengthen the final vowel. It thus appears that a form **odaa* should be posited for proto-Madi.

Note, however, that there is a first pronominal prefix *o-* and that in many languages an exclusive non-singular pronoun is formed from 1sg and some other form (as *tinc* is often formed from 1sg and 2sg). It is possible that *odaa* comes from *o-* having been prefixed to a monosyllabic form *daa* (which might go back to **da* but must have had two moras by the time *o-* was attached to it). This could explain the length in *odaa* ~ *otaa*. However, it must remain speculative until a suitable source for *daa/da* can be established, perhaps on the basis of a cognate form in some other Arawá language. (It is unlikely that the *taa* in *texc otaa* is related to the contrastive marker in NPs, *taa* (see §10.1.6). In Banawá and Jamamadí—dialects which retain the distinction between *d* and *t*—the *texc* pronoun is *odaa* and the contrastive marker is *taa*, involving a different apico-dental stop.)

The accusative form is *otá-ra* in Jarawara and *odá-ra* in Banawá, showing the same vowel shortening as the other non-singular pronouns.

(F) RECIPROCAL MARKERS. There are two reciprocal markers in Jarawara, both ending in a long vowel, *abee* and *ibee* (see §11.1.6 below). Interestingly, Banawá and Jamamadí simply have *ibi*, with a short vowel. I am unable to say anything about the origin of the long vowels in *abee* and *ibee*.

(G) VERBAL SUFFIX -tee. There is just one commonly occurring verbal suffix with a long vowel; this is *-tee* ‘customary, habitual’ and it occurs in all three dialects. The final syllable of *jibotee* ‘spouse’ (the form used with a 1st or 2nd person possessor) may include a further instance of this suffix.

Other verbal suffixes with a long vowel are *-saa -na-* ‘still’, *-baa -na-* ‘at/from a distance’, and *-sii -na-* ‘going along a path’. Again, I have no hypothesis concerning the origin of the long vowels in these forms.

(H) POSTPOSITIONS. Jarawara has two main postpositions, oblique marker *jaa* and possessive marker/oblique marker *kaa*, which each constitute a phonological word. The corresponding forms in Banawá and Jamamadí are *-ja* and *-ka*, with short vowels, which are enclitic to the preceding word. Paumari has *-ja*, described as a directional suffix by Chapman and Derbyshire (1991: 258). It is likely that the proto-Madi forms were *ja* and *ka* and that in Jarawara the vowel was lengthened to maintain (or to establish?) these as phonological words.

(I) PRONOMINAL AND DEMONSTRATIVE FORM *haa-*. Postposed forms of pronouns (see table 3.1 in §3.3.1, and §10.3), certain forms of demonstratives (chapter 12), and some subordination markers (§18.1) begin with *haa-* or are just *haa* or *hii*. The origin of this is not known.

(J) TRISYLLABIC LOANS. There are a number of trisyllabic loans that end in a long vowel. In most (or all?) cases this is to ensure that stress falls on the same syllable in Jarawara as it does in Portuguese. Thus:

JARAWARA	PORTUGUESE	
bánawáa	Banawá	name of a river
bátirii, m	pádre, m	‘priest’

Other trisyllabic loans have the third vowel short, and stress on the middle syllable, as in the Portuguese original:

JARAWARA	PORTUGUESE	
raténa, f	lantérna [lãtérnə], f	‘torch, flashlight’
barája, f	praia [práyə], f	‘beach’

Note also the loans:

JARAWARA	PORTUGUESE	
boróko, m	pórcó, m	‘pig’
bórokóo, m	pirarucú, m	‘large freshwater fish’

The Portuguese forms have two and four syllables respectively, both giving rise to trisyllabic loan words in Jarawara. The form ‘piraracú’ lengthens the final vowel to preserve final stress; this has the important side effect of distinguishing between these two much-used borrowings. (Speakers demonstrated spontaneously that they constitute a minimal pair.)

(K) The major source of long vowels in modern Jarawara is from the omission of *h* from an unstressed syllable on the first stress cycle (e.g. *ahaba* → *aaba*, *ehebote* → *eebote*) or on the second cycle (*sasaha* → *sasaa*, *jomahi* → *jomee*). See the discussion in §2.9.6.

In addition, when causative prefix *na-* is added to the inflecting verb *-ahaba-* ‘die’, we get an irregular form; this is *-nahabiha-* if there is a first order prefix, and *naahabiha* (with a long vowel) if there is no first order prefix; see class 7 in §4.5.2.

A further source is the result of applying rules P2a (*hiwa-* → *hee-*, *tiwa-* → *tee-*) and 2b (*kawa-* → *kaa-*), described in §2.9.1.

When a new phonological contrast comes into a language, it is almost always the case that a variety of different kinds of change are interacting. We have traced long vowels in Jarawara to: the requirement that each monosyllabic phonological word should have two moras; the loss of *h* from unstressed syllables; replacement of *ai* by *ee* (see rules P2a in §2.9.1 and P14 in §2.9.6); and assigning to trisyllabic loans a form such that the syllables bearing stress correspond to those of the form in the donor language. Only a small residue of long vowels are not accounted for in one of these ways: noun *eenoki*, adjectives *botee* and *ehebotee*, 2nsg pronoun *tee*, 1exc pronoun *otaa* (and I make a suggestion concerning this), reciprocal markers *ibee* and *abee*, verbal suffix *-tee-*, and pronominal/demonstrative form *haa-*. It is possible that further work will shed light on some of these. (Note that all but two involve an *ee*; these may include further instances of *ai* > *ee*, or even *ia* > *ee*.)

2.9 PHONOLOGICAL RULES

The phonological rules that operate in Jarawara grammar are gathered together here. There are varied conditioning factors: some phonological—depending on preceding or following segments, or on the position of a syllable in a word on either the underlying or surface stress cycles; and some morphological—specific to a particular word class or type of affix. The rules, which are numbered with a prefix P, are grouped together according to their phonological effect, and discussed in §§2.9.1–8. Then §2.9.9 deals with the relative ordering of rules, and reveals an ‘ordering paradox’.

This section goes into considerable detail. The reader may prefer to omit or skim it at a first run through the book and then come back to study parts in more detail after having studied the grammatical chapters that follow.

2.9.1 Lenition of *k* (rules P1 and P2)

The applicative prefix *-ka-* has its initial segment lenited to *w* when it is attached to a verb stem commencing in *k* and when there is a preceding prefix. This could be regarded as a type of dissimilation.

P1a applicative *-ka-* → *-wa-* / prefix—*k*

There are four prefixes that can precede applicative *-ka-* (see §4.1). With the two that end in *o-*, 1sg *o-*, and *to-* ‘away’, we always get *-wa-* before *k*, as in T2.59, 91, 99, T3.49, and:

- (2.4) *kojari*_O to-wa-ki-joma-ma-hare-ka
paddle(m) AWAY-APPLIC-in.motion-through.GAP-BACK-IPem-DECM
he (the child) took the paddle back through the door
- (2.5) *o-wa-kibe-hara-ke* [boso jaa]
1sg-APPLIC-go.in-IPef-DECf pocket(f) PERI
I put (the deodorant) in my pocket

Compare with a verb when no prefix precedes applicative *-ka-* and the *k* is retained:

- (2.6) *otaa ka-ka-ma-bone*
1excA APPLIC-in.motion-BACK-INTf
we’ll take (the boat) back

The other two pre-applicative prefixes both end in *i*, 2sg *ti-* and *hi-*, which marks that both A and O are 3rd person in the type of transitive construction that is called an O-construction (see chapter 16). With older speakers (telling a story) we generally get *ti-wa-* and *hi-wa-* before a *k*. However, younger speakers have implemented a further change:

P2a *iwa* → *ee* in 2sg-APPLIC, Oc-APPLIC

Thus, we get *hi-ka-* → *hi-wa-* → *hee-* in (2.7a) and *ti-ka-* → *ti-wa-* → *-tee-* in T2.86 and (2.7b).

- (2.7a) [hinaka maone]_O hee-ka-me-hino
3sg+POSS tapir(m) Oc+APPLIC-in.motion-BACK-IPnm
he brought (a piece) of his tapir (to give me)
- (2.7b) [oko jimawa] -ba owa tee-kawa-habana ti-ke
1sg+POSS knife(f) -FUT 1sgO 2sgA+APPLIC-give-FUTf 2sg-DECf
you let me have a knife now! (lit. you will give my future knife)

In (2.7b), *oko jimawa-ba* is a peripheral NP, with the postposition *jaa* omitted (as it sometimes is—see §20.1).

We also get lenition of *k* to *w* in the inflecting verb *-ka-* ‘be in motion’, when followed by a suffix that begins with *k* and preceded by 1sg prefix *o-*. For example:

- (2.7c) *o-ka-kosa* → *o-wa-kosa*
1sgS-in.motion-MIDDLEf
I am going in the middle

Similarly, with 2sg prefix *ti-*, we get, for example, *ti-ka-kosa* → *ti-wa-kosa* (see (4) in §2.10.2). Thus:

P1b *-ka-* ‘be in motion’ → *-wa-* / prefix—*k*

When the verb *-ka-* is preceded by applicative prefix *ka-* or causative *na-* (and followed by a prefix commencing with *k*) we again get lenition *-ka-* → *-wa-* in the verb, and then reduction *ka-ka* → *ka-wa* → *kaa-* and *na-ka-* → *na-wa-* → *naa-*. That is:

P2b *-awa-* → *-aa-* in ‘CAUS-in.motion’ and ‘APPLIC-in.motion’, before *k*

For example (with the second line giving underlying forms; (2.8a) is T1.28):

(2.8a) Kamos_s ka-ke, habai_O naa-ki-no
 ka-kI na-ka-kI-hino
 name(m) in.motion-COMING friend CAUS-in.motion-COMING-IPnm
 Kamo is coming, he is bringing [his] friend

(2.8b) otara mee kaa-kiha
 ka-ka-kI
 IexcO 3nsgA APPLIC-in.motion-COMING
 they come with us

Note that rule P2b only applies when applicative *ka-* or causative *na-* is not preceded by a first order affix (*o-*, *ti-*, *hi-*, or *to-*).

2.9.2 Front raising of *a* (rules P3 and P4)

There are several position classes of verbal suffixes (which are described in §4.1 and chapters 5–7). Some of the suffixes from one class raise an immediately preceding *a* to *e* while those from another class raise *a* to *i*.

(A) TENSE-MODAL SUFFIXES. All tense-modal suffixes have one allomorph with initial syllable *-ha-*, *-hi-*, or *-he-* (this can be omitted in certain contexts, to be described in §2.9.6). If the immediately preceding form (be it miscellaneous suffix, auxiliary root, or the root of an inflecting verb) ends in *a*, then this will change to *e* when followed by a tense-modal suffix beginning in *-he-* or *-hi-* (but not one beginning in *-ha-*).

P3 $a \rightarrow e$ / – *-hi* or *-he* in tense-modal suffix

Comparing the two forms of non-eyewitness immediate past tense: masculine *-(hi)no* triggers rule P3 while there is no change before the feminine form of the suffix *-(ha)ni*. Thus, with root *-ka-* ‘be in motion’ and suffix *-ma-* ‘back’ we get:

(2.9) ka-ma-hino → ka-me-hino ‘he went back’

(2.10) ka-ma-hani ‘she went back’

Note that the initial *-hV-* of a tense-modal suffix can be omitted, after it has triggered rule P3; see §§2.9.6, 2.9.9.

If there is a long vowel then this functions as a single unit in assimilation. Thus, with the verb *-waa-* ‘stand’ we get (in T2.74):

underlying waa-himari-ka
 P3 applies wee-himari-ka
 stand-FPem-DECM

(Note that if only the last mora were assimilated we would get *wae-himari-ka*; in fact *-ae-* is not a vowel sequence attested in Jarawara.)

(B) MISCELLANEOUS AND MOOD SUFFIXES. There is a class of about fifty-six ‘miscellaneous suffixes’ which come between a verb or auxiliary root and tense-modal suffix. These suffixes divide into six groups which are referred to as echelons. Eleven miscellaneous suffixes raise an immediately preceding *a* to *i* (for each suffix we give the echelon in which it occurs—see chapter 5).

P4 $a \rightarrow i$ before any of the following miscellaneous suffixes

-fi ~ -fe	'water'	(echelon 1a)
-joma	'through gap'	(echelon 1b)
-kima	'two (of a core argument)'	(echelon 2a)
-ba(ha)	'do first'	(echelon 2c)
-bote	'soon'	(echelon 3)
-nima	'want to do, need to do'	(echelon 4b)
-hina	'can do'	(echelon 4b)
-hiti	'do quickly'	(echelon 4e)
-nofa	'happened continuously over recent time'	(echelon 5b)
-fako	'do a lot'	(echelon 6a)
-ne	'continuous' (f form)	(echelon 6e)

For example:

tao ka-na	'shoot'	ita	'sit'
tao ka-ni-kima	'shoot two things'	iti-ne	'be sitting'

All but two of these suffixes are added to an inflecting verb or to the auxiliary of a non-inflecting verb (or to a preceding suffix, within the same phonological word). However, ⁱ*kima* and ⁱ*nofa* begin new phonological words and the final *a* of the preceding phonological word is raised to *i*. This is the only instance known in Jarawara of a phonological rule applying across a phonological word boundary.

There is much homonymy between roots and also between suffixes in Jarawara. Thus, future tense-modal marker in declarative clauses has feminine form *-(ha)ba(na)* and masculine *-(hi)ba(na)* while the miscellaneous suffix 'do first' is *-ba(ha)*. All of the syllables in parentheses can be omitted, under appropriate circumstances, giving just *-ba* in each case. But the changes to a preceding vowel will be one means of disambiguation: there is no change to an *a* preceding feminine future *-(ha)ba(na)* whereas $a \rightarrow e$ before masculine future *-(hi)ba(na)* and $a \rightarrow i$ before *-ba(ha)* 'do first'. (Another clue to disambiguation concerns the *-hV-* syllables. As will be shown in §2.9.6, *-ba(ha)* can only lose its *-ha-* when it follows a stem with an even number of moras whereas the first syllable of *-(ha)ba(na)* and *-(hi)ba(na)* will only drop when following an odd number of moras. An *-hV-* syllable can only be omitted when it is unstressed on the underlying cycle.)

Besides the miscellaneous suffix *-ne* 'continuous' we also have the irrealis modal suffix with feminine form *-(he)ne* and masculine *-(hi)na*, and a 'backgrounding' mood suffix in declarative clauses with feminine *-ni* and masculine *-ne*. Again, the changes to a preceding *a* provide one means of disambiguation: we get $a \rightarrow i$ before *-ne* 'continuous', $a \rightarrow e$ before *-(he)ne* feminine irrealis, and no change before *-ne* masculine backgrounding.

In citing the suffixes that change a preceding *a* to *i*, a raised initial *i* is included, as a mnemonic that they trigger rule P4; for example, ⁱ*ba(ha)*, ⁱ*ne*, ⁱ*kima*.

Note that if the preceding vowel is not *a*, then neither P3 nor P4 can apply. Disambiguation of homonymous suffixes is then more difficult (although there are generally other clues). However, the majority of preceding vowels are *a*—59 per cent of inflecting verbs end in *a*, as do both auxiliaries and about three-quarters of the miscellaneous suffixes.

There is one miscellaneous suffix, *-misa* 'up (anything other than a river)' (in echelon 1b) which triggers rule P4 only with the inflecting verb *-ka-* 'be in motion' (by far the most frequent verb and also the one with the most irregularities). Thus,

with root *-ka-* we get *ki-misa* 'go up'

but with, for example, root *-foja-* 'be inside' we get *foja-misa* 'be up inside (e.g. inside a canoe, after having fallen out)'

There are a number of mood suffixes where the *f* (not the *m*) form engenders the raising of a preceding *a* to *i*. These are (full details will be found in chapters 15 and 7):

- ⁱ nihi/<nothing>	polar interrogative	- ⁱ bana/-bana	future interrogative
- ⁱ ja-hi/-ja-ho	distant positive imperative	- ⁱ ni/-ne	backgrounding
- ⁱ be(-ja)/-ba-ja	immediate mood	- ⁱ kani/-kani	counterfactual
- ⁱ makoni/-mako	'unusual, unexpected'	- ⁱ nihi/-noho	climax

In just one household at the village of Casa Nova (that of the old shaman, João) the vowel *a* of applicative *ka-* is raised to *i* when immediately followed by the habitual suffix *-tee*, giving *ki-tee*.

Thus, moving from left to right through the verb we first get miscellaneous suffixes, some of which trigger change $a \rightarrow i$ (P4), then tense-modal suffixes, some of which trigger $a \rightarrow e$ (P3), and then mood suffixes, some of which trigger $a \rightarrow i$ (P4).

The change $a \rightarrow i$ also applies to the last segment of a complement clause or nominalized clause; see chapters 17 and 19.

2.9.3 The morphophoneme *I* (rule P5)

There are eight miscellaneous suffixes and just a handful of verbs whose final vowel alternates between *i* and *e*. This can be seen in:

(2.11) suffix *-maki* ~ *-make* 'following'

(a) ka-maki-ka	(b) to-ko-make-ra-ba
in.motion-FOLLOWING-DECM	AWAY-in.motion-FOLLOWING-NEG-FUTf
he is following	she won't follow, going away

(2.12) suffix ⁱfe ~ ⁱfi 'water'

(a) to-ki-fi-waha-ma-ka	(b) ki-fe-wa-ma
AWAY-in.motion-WATER-NOW-BACK-DECM	in.motion-WATER-NOW-BACK
he is now going away back to the water	she is now going back to the water

(2.13) inflecting verb *-kibe* ~ *-kibi-* 'be inside (plural S)'

(a) na-kibi-ka	(b) kibe-ke
CAUS-be.inside-DECM	be.inside-DECF
he put (them) inside	(my clothes) are inside (the bag)

The rule here is straightforward. The alternating vowel in these suffixes and verb roots is *i* when it is an odd-numbered mora from the beginning of the word and *e* when it is an even-numbered mora. It is useful to set up a morphophoneme to cover this alternation and it will be called *I*. Working in terms of an underlying stress cycle, in which stress goes on syllables containing the first and odd-numbered moras from the beginning of the phonological word (see §2.7), we can say that *I* is realized as *i* in a stressed mora and as *e* in an unstressed mora. That is:

stressed *I* is realized as *i*; unstressed *I* is realized as *e*

This morphophoneme occurs in eight miscellaneous suffixes:

- ⁱ fi	'water'	(echelon 1a)
-rI	'raised surface'	(echelon 1a)
-kI	'coming'	(echelon 1c)
-makI	'following'	(echelon 1c)

-witI	‘from a place’	(echelon 1c)
-wahaI	‘do many times, in many places’	(echelon 5a)
-(ha)tI	‘do all day’	(echelon 5b)
-(h)i)tI	‘do all along the way’	(echelon 5)

(Interestingly, younger speakers have reassigned to *-wahaI* the form *-wahare*, with final vowel *e* in place of morphophoneme *I*.)

The morphophoneme also occurs in a number of inflecting verb roots. Those so far noted are:

-ibi	‘put inside (sg O)’	-josI	‘order’
-kibi	‘be inside (pl S)’	-kawaI	‘cook by boiling’
-forI	‘lie on raised surface (sg S)’	-itI	‘skin’
-barI	‘lie on belly’		

(Note that some speakers appear to be in the process of reanalysing *-josI-* as *-jose-*, using an *e* in all environments.)

There are also miscellaneous suffixes which have an invariable final vowel *e*; for example, *-ⁱne* ‘continuous’ (but none always ending in *i*). And there are some inflecting verbs that have *i* in all contexts (e.g. *-fimi-* ‘be hungry’). We thus get:

in stressed syllable	in unstressed syllable	
í	i	-fimi- etc.
é	e	- ⁱ ne etc.
í	e	-kibi ~ -kibe etc.

This demonstrates the need for a morphophoneme *I* as an analytic and orthographic device to code the *i/e* alternation.

Unstressed *I* is realized as *e* wherever in the word it occurs. Stressed *I* has alternative realizations:

- when predicate-final it is
 - feminine *iha* (often realized as [íya])
 - masculine *ihi* (often realized as [íyi] or just [ii]);
- when followed by a suffix consisting of three or more moras, it is *iha*;
- elsewhere, it is realized as *i*.

Conditioning by a following suffix of three or more moras is discussed and illustrated in §2.9.8 That when predicate-final is illustrated in (2.14); here *-makI-* is added directly to the verb root *-ka-* and the *I* is thus in a stressed syllable on the underlying cycle so that we get distinct masculine and feminine forms:

- (2.14a) fána_S ká-makíha
 woman(f) in.motion-FOLLOWINGf
 the woman is following
- (2.14b) máki_S ká-makíhi
 man(m) in.motion-FOLLOWINGm
 the man is following

However, in (2.15) there is also a prefix *to-* ‘away’ to the verb so that *I* is unstressed and realized as *e* for both feminine and masculine subjects:

- (2.15a) fána_S tó-ko-máke
 woman(f) AWAY-in.motion-FOLLOWING
 the woman is going away, following

- (2.15b) máki tó-ka-máke
 man AWAY-in.motion-FOLLOWING
 the man is going away, following

Any NP can be omitted in Jarawara; a sentence could consist of just *ká-makiha* ‘she is following’ or *ká-makihi* ‘he is following’ (specified for gender of subject) or *tó-ka-máke* ‘he/she is going away, following’ (unspecified for gender).

The rule for realization of *I* is based on the first or underlying stress cycle which assigns stress to syllables containing odd-numbered moras from the beginning of the word. As already mentioned, actual pronunciation involves stress assigned to syllables containing even-numbered moras counted from the end of the word. The word-final forms of *I* are such that stress assigned on the underlying cycle is carried through to the surface cycle: feminine *-iha#* and masculine *-ihi#* (from word-final *I* that is stressed on the underlying cycle) retain stress on *i* which is the penultimate mora; and *e* (from word-final unstressed *I*) remains unstressed, since it is the final mora of the word.

Note that the realization of *I* as *i* or as *e* is according to the mora count in an inflecting verb or in the auxiliary component of a non-inflecting verb. This demonstrates that the auxiliary component forms a distinct phonological word from the non-inflecting verb that it follows. Thus, with a trisyllabic non-inflecting verb root, we get:

- (2.16a) surface awi_o tabasi o-na-make.tasa o-ke
 underlying o-na-makI.tasa
 tapir(m) roast 1sgA-AUX-FOLLOWING.AGAIN 1sg-DECf
 I roasted a tapir again, following on
- (2.16b) surface awi_o tabasi na-maki.tasa-hare-ka
 underlying na-makI.tasa-hare-ka
 tapir(m) roast AUX-FOLLOWING.AGAIN-IPem-DECm
 he roasted a tapir again, following on

Here the morphophoneme *I* is in the fourth syllable in *o-na-makI.tasa* (and realized as *e*) but in the third syllable for *na-makI.tasa-hare-ka* (and realized as *i*). If the auxiliary component formed one phonological word with the inflecting verb then *I* would be in the seventh syllable in (2.16a) and should be realized as *i* (which it is not) and in the sixth syllable in (2.16b) and should be realized as *e* (which it is not).

(This provides one of many reasons for rejecting the idea that the prefix to an auxiliary is really a suffix to the preceding verb and the auxiliary a further suffix, which is the analysis put forward for Jamamadí in B. Campbell 1985, 1986; R. Campbell 1977, 1988; and Campbell and Campbell 1992.)

There is a further factor affecting the realization of morphophoneme *I*. It is always *i*, even when in an unstressed syllable, before any of the suffixes which engenders rule P4, *a* → *i*. Thus we get:

- (2.17) surface kobo to-ko-witi-beja
 underlying to-ka-witIⁱ-beja
 arrive AWAY-APPLIC-FROM.PLACE-IMMEDf
 (let's row hard) to reach (the port)

The change *a* → *o* here is discussed in §2.9.4.

In addition, when *I* is the last segment of a complement clause or a nominalized clause (where the rule $a \rightarrow i$ normally applies) then it is realized as *i*, whether in a stressed or unstressed syllable; see §17.2 and §19.1.

The full rule for the realization of *I* can now be stated:

- P5 stressed *I* is realized as feminine *iha* and masculine *ihi* predicate finally (and *iha* before a suffix consisting of three or more moras)
 and as *i* elsewhere
 unstressed *I* is realized as *i* before suffixes that trigger rule P4, or at the end of a complement clause or a nominalized clause
 and as *e* elsewhere

It is interesting to enquire into the origin of the morphophoneme, and also the reason for it being realized as *i* in circumstances where *a* would change to *i*. An earlier stage of the language can be reconstructed in which, at certain boundaries within the predicate, there would have been a gender agreement suffix *-ha* for feminine or *-hi* for masculine. Dealing first with the feminine (and unmarked) form, we can suggest that suffixes ending in an *i* underwent the following changes (marking a stressed syllable with ' and leaving an unstressed syllable unmarked):

$$\begin{array}{l} \acute{i}\text{-ha} > \acute{i} \\ \text{i-há} > e \end{array}$$

This would give the modern morphophoneme. Suppose also that change P4, before a certain set of suffixes, had applied first, so that:

$$\text{i-há} \rightarrow \text{i-hí} \text{ before } \text{-}^i\text{kima, etc.}$$

This *i-hí* would now become *i* rather than *e*, explaining the third part of rule P5.

We noted that many miscellaneous suffixes end in *a*, just a few in *e*, but none in *i* (and just one in *o*). It is likely that those which today end in *I* did end in *i* at an earlier stage of the language. Among inflecting verbs, the corpus includes more than thirty ending in *i*, about a dozen ending in *e*—typically, *-ha* is added after *i* or *e*—and just seven ending in *I*. Three of these end in *-rI-* and some or all of them may relate to the miscellaneous suffix *-rI-* 'raised surface (i.e. off the ground)'. The others end in *-bI*, *-tI*, and *-sI* (I know of no miscellaneous suffix with this form).

The explanation just given is satisfactory so far as it concerns feminine forms. But it requires augmentation when we try to extend the scope to include masculine. The realization of *I* as *ihi* at the end of a word, under masculine agreement, fits in with an original form **-i-hi*. The change *i-hi* > *i* is plausible, but *i-hí* > *e* looks most unlikely. It could be that the unmarked feminine form was analogically generalized to cover both genders in unstressed syllables. Under this view, we would be explaining the historical origin of *I* through a combination of diachronic phonological change and analogical extension.

There is support for this diachronic hypothesis in the behaviour of final *-ha* and *-hi* on verbs, discussed in §2.9.8 below.

2.9.4 Assimilation of *-ka-* to *-ko-* after *o* (rule P6)

The *a* of a syllable *ka* assimilates to *o* when immediately preceded by a prefix ending in *o*, i.e. 1sg *o-* or *to-* 'away'. This applies to applicative prefix *-ka-*; to *-ka-* as the first syllable of

an inflecting verb; to the monosyllabic inflecting verb *-ka-* ‘be in motion’; to the fifth echelon miscellaneous suffix *-kawaha*; to declarative mood suffix *-ka*; and to possessive marker *ka*. There are phonological conditions to this assimilation and they vary slightly for the different *ka*’s. These will be discussed one at a time.

(A) APPLICATIVE PREFIX *-ka-*. Here the *a* assimilates to a preceding *o* when the prefix is followed by *b, m, f,* or *w*, i.e. a bilabial or labial-velar consonant.

P6a applicative *-ka* → *-ko-* following *to-* or *o-* and preceding *b, m, f,* or *w*

In the case of non-inflecting verbs, applicative is prefixed to the auxiliary. The auxiliary root *-na-* is omitted before a number of suffixes (see §5.1 and §7.2) and then these immediately follow applicative. Assimilation of *a* to *o* after *o-* or *to-* and before a bilabial or labial-velar is illustrated in (2.17) and:

- (2.18a) isiri_O weje o-k_O-misa-hara
basket(f) carry 1sgA-APPLIC-UP-IPef
I carried the basket up (on my back)
- (2.18b) kobo o-k_O-waha
arrive 1sgS-APPLIC-NOWf
then I arrive
- (2.18c) awi_O tao o-k_O-bisa-hara o-ke
tapir(m) shoot 1sgA-APPLIC-ALSO-IPef 1sg-DECf
I also shot a tapir
- (2.18d) bato_O tao o-k_O-mati-beja
deer(m) shoot 1sgA-APPLIC-SHORT.TIME-IMMEDf
I’m just going to shoot a deer
- (2.18e) ti-wati_O karafa o-k_O-beja
2sg-language record 1sgA-APPLIC-IMMEDf
I’ll record your language

The lack of assimilation of applicative *-ka-* (following *o*) when followed by any other consonant is illustrated in:

- (2.19a) otaa jana to-k_a-tasa otaa-ke
1excS start AWAY-APPLIC-AGAINf 1exc-DECf
we started off again (in the boat)
- (2.19b) mee bao o-k_a-na-ra o-ke
3nsgO hurry.up 1sgA-APPLIC-AUX-IPef 1sg-DECf
I hurried them up

See also the discussion of (19.14) in §19.3.

With inflecting verbs, *-ka-* is prefixed to the verb root. Again, the *a* assimilates to a preceding *o* when followed by a bilabial or labial-velar consonant, as in (2.20a/b), but not when followed by any other segment, as illustrated in (2.4), (2.5), and (2.20c).

- (2.20a) [babeos to.to-k_O-wana]_{CS} ama-ke
paper(f) REDUP.AWAY-APPLIC-be.joined be-DECf
it is paper all stuck together

(2.20b) o-ko-fawa o-ke
 1sgA-APPLIC-drink 1sg-DECf
 I drink with (it) (e.g. water with food)

(2.20c) [otaa to-ka-sawari] jaa
 1EXCA AWAY-APPLIC-be.lost PERI
 when we got lost (with him)

We find one other circumstance in which the applicative prefix *ka-* becomes *ko-*. There is in the corpus just one inflecting verb (taking the applicative prefix) whose first syllable is *ho-*—*-homa-* ‘lie on the ground’. With 1sg prefix *o-* and applicative *-ka-*, underlying *o-ka-homa* becomes *o-ko-homa*. Thus, the assimilation applies before the vowel *o* when this is preceded by *h* and followed by the bilabial nasal *m*.

P6b applicative *ka-* → *ko-* following *o-* and preceding *-hom*

(B) INFLECTING VERBS BEGINNING WITH *ka-*. Rule P6 applies exactly as described above:

P6c verb-initial *-ka-* → *-ko-* following *to-* or *o-* and preceding *b, m, f,* or *w*

The assimilation occurs in:

(2.21) root with 1sg prefix
 (a) -kaba- o-koba ‘I eat’
 (b) -kamo- o-komo ‘I bury’
 (c) -kamina- o-komina ‘I talk’ (see T2.3)

but no assimilation takes place before other consonants, as illustrated in:

(2.22) root with first prefix
 (a) -karawato- o-karawato ‘I wait’
 (b) -kasiro- o-kasiro ‘I do a lot’

(C) THE INFLECTING VERB *-ka-* ‘be in motion’ is both the most frequent and the most irregular verb in the language. Its *a* does assimilate to a preceding *o* but in more restricted circumstances than those described so far:

P6d verb *-ka-* → *-ko-* following *o-* or *to-* and preceding a first echelon suffix beginning with *b, m,* or *f*

Miscellaneous suffixes divide into six groups which are referred to as echelons. Those of the first echelon come immediately after the root, those of the sixth echelon immediately before tense-modal. Whereas applicative *-ka-* undergoes assimilation before suffixes (beginning with *b, m, f,* or *w*) of all types, the verb *-ka-* only does so before those of the first echelon:

(2.23a) o-ko-misa ‘I go up’
 (2.23b) o-ko-basa ‘I go to the edge’
 (2.23c) o-ko-fara ‘I go to an open place’
 (2.23d) o-ko-ma ‘I go back’
 (2.23e) o-ko-make ‘I follow’ (as in T2.24)

However, with a second echelon suffix such as *-mina* ‘in the morning’, or with a sixth echelon suffix such as *-bisa* ‘also’ or *-mata* ‘for a short time’, there is no assimilation:

(2.24a) o-ka-mina ‘I go in the morning’
 (2.24b) o-ka-bisa ‘I also go’
 (2.24c) o-ka-mata ‘I’m going for a short time’

As illustrated in (2.18c/d) applicative *-ka-* does show assimilation to a preceding *o* before later echelon suffixes such as *-mata* ‘short time’ and *-bisa* ‘also’ (applicative does not occur immediately before *-mina* since this suffix does not omit the intermediate auxiliary root *-na-*).

Applicative *-ka-* also assimilates when followed by mood suffix *-ⁱbeja*, as in (2.18e). With verb root *-ka-* we get:

- (2.25) o-k_i-beja
 1sgS-in.motion-IMMEDf
 I’m going at once

Here the *-ka-* has not assimilated to the preceding *o*, and rule P4 applies, raising *a* to *i* before *-ⁱbeja*.

There is one interesting feature of the assimilation of verb *-ka-* to *-ko-* after *o-* or *to-*. This does not take place before the suffix *-waha* ‘now, the next thing’. For example:

- (2.26) o-k_a-waha
 1sgS-in.motion-NOWf
 I’m going now

Now it is difficult to place *-waha* in the morphological structure of the Jarawara verb. Most of its occurrences appear to be in the first echelon slot but it does have a fair fluidity of placement—see §5.10.

There are two ways of dealing with this. We could either place *-waha* in the first echelon—it would then be the only *w*-initial suffix in the first echelon—and then state that rule P6 applies after *b*, *m*, *f*, and *w* for the applicative prefix *ka-* or for *ka-* as the first syllable of a polysyllabic verb root, but only before *b*, *m*, or *f* (not before *w*) for the verb *ka-* followed by a suffix from the first echelon. This is the phonological solution. The alternative, which seems preferable overall, is the morphological solution of stating that although *-waha* often occurs in the first echelon position it is in fact a ‘roving suffix’ (or an ‘extra-echelon suffix’) and does not properly belong to the first echelon, hence the lack of assimilation in (2.26). See the discussion in §5.10.

(D) THE FIFTH ECHELON SUFFIX *-kawaha*. The suffix *-kawaha* ‘a bit longer, a bit more’ assimilates its initial *-ka-* to *-ko-* when directly preceded by the prefix *o-*, as in (providing the underlying form for the auxiliary component):

- (2.27) [jama hani]_o ra.rawi o-kowa-hara o-ke
 o-kawaha-hara
 thing(f) design+f REDUP.write 1sgA-FOR.A.WHILE-IPef 1sg-DECf
 I was writing for a bit longer

(The omission of the *-ha-* from *-kawaha-* is due to rule P8b—see §2.9.6.) Note that this is the only suffix (which can be directly preceded by a prefix) whose first syllable is *-ka-* and whose second syllable begins with a labial or labial-velar consonant. Thus:

P6e suffix *-kawaha* → *-kowaha* after *o-*

(E) DECLARATIVE SUFFIX *-ka-*. The (most frequently occurring of the mood suffixes (which normally follow tense-modal) is declarative, which has feminine form *-ke* and masculine *-ka*. Now there are limited possibilities for declarative to be followed by another suffix, one possibility being intentional *-bone/-bona*. There is evidence (see the discussion in §10.1.3 and §7.3) that the gender distinction in declarative can be neutralized—and the form *-ka* used—when another suffix follows. A pronominal prefix, which can be 1sg *o-*, is often

included before mood. Underlying *o-ka-bone* ('1SG-DEC-INTF') is realized as *o-ko-bone*. This appears to be another variety of rule P6:

P6f declarative *-ka-* → *-ko-* after *o-* and before *-bone*

(Interestingly, speakers vary in the form they use here, some saying *o-ko-bone* and others *o-ki-bone*. Whatever form they habitually employ, all speakers say that the two forms are equivalent—see §6.3.)

(F) POSSESSIVE MARKER *ka(a)*. Alienable possession is marked by the genitive marker *kaa*, placed after the possessor. (In the Banawá and Jamamadí dialects it is *ka*, with a short vowel, and this was probably the form in proto-Madi.) Possession by 1sg and 2sg is shown by combining the prefixes *o-* and *ti-*, respectively, with *ka*, giving *oko* and *tika*, as in *oko jobe* 'my house', *tika jobe* 'your house'. Interestingly, the 1sg alienable possessive form in the Banawá dialect is [ok^wa], suggesting that the diachronic change took place in two stages:

$$\begin{array}{ccccc} o-ka & > & ok^w a & > & oko \\ \text{1sg-POSS} & & & & \text{1sg+POSS} \end{array}$$

The important point, for comparison with (A–E) above, is that we get *oko* whatever the initial segment of the following possessed noun. This suggests that *oko* is a separate word, rather than being a prefix. (A position that is supported by the fact that *oko* 'mine' can make up an NP on its own, without any following noun.) Thus we have:

P6g possessive *ka* → *ko* after *o-*

Now let us consider kinship terms. As is shown in §10.4.1, kinship possession is like alienable possession in some respects and like inalienable possession in other respects. One important feature is that the base form of many kin terms is used alone for 2sg possession. For 1sg possession prefix *o-* is used together with a reflex of genitive *ka*; each of the forms below is a single word.

Now consider the core kin terms (see table 10.2):

(2.28)	BASE(/YOUR)	MY	
(a)	abi	ok <u>o</u> bi	'father'
	ami	ok <u>o</u> mi	'mother'
	wabo	ok <u>o</u> wabo	'male cross-cousin'
(b)	aso	ok <u>o</u> so	'father's sister'
	ajo	ok <u>o</u> jo	'elder brother'
	koma	ok <u>o</u> koma	'child-in-law'
	[(a/o)to]	ok <u>o</u> to	'daughter'
(c)	koko	ok <u>a</u> koko, ok <u>o</u> koko	'mother's brother, father-in-law'
(d)	ati	ok <u>a</u> ti	'elder sister'
	aki	ok <u>a</u> ki	'grandmother'
	asima	ok <u>a</u> sima	'younger sister'
(e)	[tao]	ok <u>a</u> tao	'son'
	niso	ok <u>a</u> niso	'younger brother'
	naki(ri)	ok <u>a</u> naki(ri)	'female cross-cousin'
(f)	iti	ok <u>i</u> ti	'grandfather'

For 'daughter' and 'son' the 'your(sg)' forms are *bite* and *biti* respectively (f and m forms of the adjective 'small'). Appropriate underlying forms are *(a/o)to* and *tao*; note that Deni has cognate forms *to* and *da'o* respectively.

The underlying prefix form, from proto-Madi, is *o-ka-*. We find here another variety of rule P6:

P6h possessive *-ka-* → *-ko-* after *o-* and before a kin term that begins with *(a)b*, *(a)m*, *w*, or *(a)Co* (where C is any consonant)

In (2.28a) there is a following *b* or *m* or *w* and assimilation takes place (no core kin term has *f* as first consonant). In (b) the first consonant is not bilabial but it is followed by the vowel *o* and this appears to condition the assimilation. Note that the base form for each of the words under (a) and (b) commences with *a* so that we get, effectively, *oka+abi* → *okobi*, etc. In (d) and (e) there is neither a bilabial consonant nor a following *o*, so that no assimilation takes place and we get *oka-*. In (f) *oka+iti* yields *okiti*, i.e. *a+i* → *i*, probably conditioned by the fact that the following vowel is also *i* (and doubtless also to distinguish this from *okati* ‘my elder sister’, from *oka* plus *ati*).

Koko ‘mother’s brother, father-in-law’ has two 1sg pronominal forms, shown in (c). The original form, used by older speakers, is *okakoko*; this appears to be an exception. Despite the first vowel in the base form being *o*, no assimilation has taken place. There are various possible explanations for this. As mentioned under (ix) in §1.5.3, *koko* ‘mother’s brother, father-in-law’ is the loan word par excellence across Amazonia, occurring in languages from many genetic groups. This word is, on a priori grounds, a prime candidate for borrowing. If marriage should take place between different groups the term that is likely to be taken over, together with the spouse, is ‘father-in-law’. However, *koko* occurs in all languages of the Arawá family for which there is good data (Madi, Paumarí, Kulina-Dení, and Sorowahá) and may well have been in proto-Arawá. It is hard to understand why the older form should be *okakoko* rather than *okokoko*. However, younger speakers use *okokoko*; this can be described as involving vowel assimilation and at the same time analogic change, to bring *koko* into line with the rest of the paradigm.

We have thus seen that the six different types of *-ka-* (applicative prefix, possessive marker, declarative suffix, the first syllable of an inflecting verb, the first syllable of a suffix, and the monosyllabic verb *-ka-*) show some similarities and also some differences in the way they assimilate the *a* of *-ka-* to *o* after a prefix ending in *o*. §2.10.1 mentions further examples of the assimilation of *a* to *o* which are restricted to particular lexemes.

There is one further type of *a* to *o* assimilation, relating to possession but not directly to the possessive marker *ka(a)*. Some possessed nouns mark a 1sg/2sg possessor with *oko/tika* while others employ *o-/ti-*. Of those that take a prefix, just three show assimilation *a* → *o* within the root:

	m root	1sg form
‘smell’	m <u>a</u> ho	o-m <u>o</u> ho
‘chest’	b <u>a</u> ko	o-b <u>o</u> ko
‘thigh’	fan <u>a</u> ko	o-fan <u>o</u> ko

It will be seen that the the assimilation applies to PNs which commence with a bilabial (*m*, *b*, or *f*) and where the *a* in the PN is immediately followed by *ho* or *ko*. Interestingly, assimilation applies to the second *a* of ‘thigh’, which fulfils these conditions (the first *a* doesn’t). It does not apply to PNs which do not satisfy these conditions; for example m form *taboro* ‘home’, 1sg *o-taboro* ‘my home’. See §11.1.3.

We thus get

P6i *a* → *o* within a PN, after 1sg prefix *o-*, when the PN begins with *b*, *m*, or *f* and when the *a* is followed by *ho* or *ko*

2.9.5 Assimilation of *-a-* to *-e-* next to *e* (rule P7)

As mentioned in §2.1, *e* behaves differently from other vowels in that it is often the trigger for assimilation; an *a - e* sequence is likely to shift to *e - e*. This is illustrated in the diachronic development of tense-modal suffixes (§6.1) and of the gender forms of possessed nouns (§11.1.1).

There are two verbs which alternate *a* with *e* in their root form:

with no prefix	ké <u>h</u> emó	té <u>h</u> e
with a prefix (here 1sg <i>o-</i>)	ó-keh <u>á</u> mo	ó-te <u>h</u> á
	‘hide, conceal’	‘apply, cover’

We can take the underlying forms as *kehamo* and *teha* respectively, and suggest an assimilation rule:

P7a $a \rightarrow e$ /*eh-* within a lexeme, when in it is an unstressed (even-numbered) mora on the underlying cycle

Note that these are the only verbs in the corpus with an *-eha-* sequence (apart from those ending in *e*, which can take an added *-ha*; see §2.9.6). P7a may be a general rule.

Now consider forms of the verb ‘not be afraid to be near’:

(2.29a) Jobeto_A jomee_O kemeje-ka
 name(m) dog(m) not.be.afraid-DECM
 Jobeto isn’t afraid to be near the dog

(2.29b) jomee_O o-komeje o-ke
 dog(m) 1sgA-not.be.afraid 1sg-DECf
 I am not afraid to be near the dog

(2.29c) jomee_O ti-kemeje ti-ke
 dog(m) 2sgA-not.afraid 2sg-DECf
 you are not afraid to be near the dog

This verb has alternative forms *-kemeje-*, after prefix *ti-* or with no prefix, and *-komeje-* after prefix *o-*. This suggests an underlying form *-kameje-*. We then get

o-kameje → o-kemeje

by rule P6b (noting that the consonant following *-ka-* is a bilabial). And, when there is no prefix ending in *o*:

(X-)kameje → (X-)kemeje

through operation of the putative rule

P7b *-ka-* → *-ke-* /-*Ce*, where *C* is any consonant

We are here positing an underlying form for the verb, *-kameje-*, which does not occur in any of its actual surface realizations.

Note that there are quite a number of trisyllabic or longer verbs beginning with *-ka-* where the form without *-ka-* is not attested within the present corpus (*-kameje* being one of them). It is very likely that in some of these cases *-ka-* is historically the applicative prefix although in synchronic terms it has to be regarded as an inherent part of the root.

There are a number of further examples of the application of this rule. When the applicative prefix *ka-* is added to *-neme(ha)* ‘be tall’, *-mese* ‘lie on top’, *-teha* ‘apply, cover’, and *-rewete* ‘turn over’, we get *ke-neme*, *ke-mese*, *ke-teha*—as in T2.90—and *ke-rewete* respectively (and this assimilation applies even if there is a prefix preceding the applicative, e.g. 1sg *o-*, as in *o-ke-rewete* ‘I turn over with [something]’). Note also that the causative prefix *na-* plus *-neme(ha)* gives *ne-neme*. This suggests a possible general rule:

P7b' $a \rightarrow e$ in prefixes *ka-* and *na-* /-Ce

The reader will note that rule P6b must apply before P7b. Otherwise P7b would change *o-kameje* to *o-kemeje* and P6b could not apply. Rule ordering will be discussed further in §2.9.9.

2.9.6 Omission of *-h-* and of *-hV-* (rules P8 to P14)

There are a number of examples of omission concerning unstressed syllables beginning with *h*; in some circumstances the entire *-hV-* syllable is dropped, in others just the *h* is dropped. As with some of the rules discussed above, this omission works in a slightly different way in different morphological environments.

(A) OMISSION OF INITIAL UNSTRESSED *-hV-* FROM TENSE-MODAL SUFFIXES. All tense-modal suffixes have a major allomorph beginning with *-ha-*, *-hi-*, or *-he-*. This syllable drops after a stem with an odd number of moras, ending in *a*. That is, it drops when it is unstressed on the underlying cycle:

P8a tense-modal initial unstressed syllable *-hV-* $\rightarrow \emptyset$ / *a-*

This can be illustrated for the feminine form of the immediate past eyewitness tense, *-hara*, with the verb *-boka-* ‘sink down’. In one text we find successive clauses:

(2.30) mee ka-boka-ra-ke fahi, kanawaas boka-hara-ke
 3NSGA APPLIC-sink-IPef-DECf THERE.NON.VISUAL canoe(f) sink-IPef-DECf
 they sank with it; the canoe sank

The first verb is (with stress marked on the underlying cycle) *ká-boká-hará-ke*, and the unstressed *-ha-* drops. The second is *bóka-hára-ké* and here the stressed *-há-* remains.

The feminine form of the irrealis modal is *-hene*. The same rule operates, dropping the unstressed *-he-* from (2.31a) and retaining stressed *-he-* in (2.31b). Note that in both cases rule P3 ($a \rightarrow e$ / *-hi* or *-he* in a tense-modal suffix) applies.

(2.31a) áhabá-hené → ahabe-ne
 be.finished-IRRF

(2.31b) wína-héne → wine-hene
 stay-IRRF

Similar examples could be given for the feminine and masculine forms of the other nine tense-modal choices.

Rule P8a only applies when the preceding morpheme ends in *a*. If it ends in a vowel other than *a*, there are two other rules that may apply. The first is that an unstressed *-hi-* will drop after an *i* or *e* or *o*.

P9a tense-modal initial unstressed syllable *-hi-* $\rightarrow \emptyset$ / *i-, e-, o-*

Consider the masculine form of the recent past eyewitness tense *-hiri*. In (2.32) the underlying form of the auxiliary word is *ná-makI-hiri*. Rule P5 rewrites *I* as *i* and P9a omits unstressed *-hi-* after *i*.

- (2.32) Sorowaha_S fito na-maki-ri ama-ka
tribal.name(m) come.up AUX-FOLLOWING-RPem EXTENT-DECM
a Sorowahá man was coming up, following

In (2.33) the underlying cycle places stress on the *-hi-* and it is retained.

- (2.33) Okomobi_S tafi-hiri-ka
name(m) wake-RPem-DECM
Okomobi woke up

There is an example of unstressed *-hi-* dropping after *o-* in (2.44a).

When a tense-modal suffix beginning with unstressed *-ha-* follows *i* or *o*, then just the *-h-* may (optionally) drop:

P10 tense-modal initial unstressed syllable *-ha-* → *a/i-* or *o-* (optionally)

It seems that a tense-modal initial syllable *-he-* cannot lose its initial *h*. (No instance of this has been recorded and, when I experimented with dropping the *h*, I was corrected and the *h* inserted.)

Compare the operation of P9a in (2.34) where *-hino*, masculine immediate past non-eyewitness, is suffixed to *na-tafi* and we get *ná-tafi-hinó-ka* → *na-tafi-no-ka*, with the operation of P10 in (2.35) where *-hare*, immediate past eyewitness masculine, is added to *na-tafi* and we get *ná-tafi-haré* → *na-tafi-are*.

- (2.34) Jara_A tiwa na-tafi-no-ka
Branco(m) 2sgO CAUS-wake-IPnm-DECM
the Branco woke you (and I didn't see it)
- (2.35) [jomee_S habo+ni]_A owa na-tafi-are o-ke
dog(m) bark+AUX+COMPL 1sgO CAUS-wake-IPem 1sg-DECLF
the dog's barking woke me

In (2.36) the underlying form of the verb is *o-noko-hara*. The *h* is dropped by P10 giving *o-noko-ara*; this may be pronounced [onokoara] or [onokowara] (by the convention adopted in §2.3 it should in fact be written *onokowara*).

- (2.36) o-noko-(w)ara o-ke mata
1sgS-be.awake-IPef 1sg-DECLF SHORT.TIME
I lay awake for a while

An inflecting verb ending in *-e* generally takes a following *-ha*. This *-ha-* of the root will drop when unstressed on the underlying cycle (see §2.9.8), but the initial *-hV-* of a following tense-modal suffix will never drop—it is shown in §2.9.7 that only one *-hV-* syllable may be dropped from any word. Thus in (2.37) underlying form *nakomeha-hare-ka* becomes *nakome-hare-ka*.

- (2.37) Jobeto_A taokana_O nakome-hare-ka
name(m) gun(f) be.scared.of-IPem-DECM
Jobeto was scared of the gun

(B) OMISSION OF *-hV-* or *-h-* FROM MISCELLANEOUS SUFFIXES. There are seven miscellaneous suffixes which include an *-ha-* syllable that can be omitted:

-riwa(ha)	i.e.	-ríwahá ~ -riwá	‘across’
- ⁱ ba(ha)	i.e.	- ⁱ bahá ~ - ⁱ bá	‘do first’
-kawa(ha)	i.e.	-káwahá ~ -kawá	‘do for a while’
-wa(ha)	i.e.	-wahá ~ -wá	‘now, the next thing’
-(ha)ba	i.e.	-hába ~ -bá	‘do all night’
-(ha)tI	i.e.	-háte ~ -tíha	‘do all day’
-wa(ha)rI	i.e.	-waháre ~ -waríha	‘do many times, in many places’

(For some speakers ⁱbaha is being replaced by ⁱba, i.e. the *-ha* is dropped in all contexts—see (3) in §5.5.)

The miscellaneous suffix *-karahama -na-* ‘continue doing, do without stopping, only do’ must either be word-initial (a preceding auxiliary, *-na-*, being omitted) or else preceded by a monosyllabic prefix and auxiliary *-na-*; the *-ha-* is in both circumstances stressed on the underlying cycle and never omitted. The suffix *-hama -na-* ‘unfulfilled expectation’ can take a prefix, making *-ha-* an unstressed syllable, but here the *-ha-* is, surprisingly, never omitted.

We can formulate a rule for the omission of *-ha-* from a miscellaneous suffix (note that in each case the *-ha-* is preceded by *a*):

P8b in seven miscellaneous suffixes unstressed *-ha-* → \emptyset

The two forms of *-wa(ha)* are illustrated in (2.12a/b) in §2.9.2. Those of ⁱba(ha) are shown in:

(2.38a) Ara_S kobo ni-baha-ka
 name(m) arrive AUX-DO-FIRST-DECM
 Alan arrives first

(2.38b) Ara_S kobo na-mi-ba-ka
 name(m) arrive AUX-BACK-DO-FIRST-DECM
 Alan arrives back first

Recall that ⁱba(ha) engenders rule P4, shifting a preceding *a* to *i*; this applies to the auxiliary root *-na-* in (2.38a) and to the miscellaneous suffix *-ma-* ‘back’ in (2.38b).

There are some individual preferences among miscellaneous suffixes concerning the omission or retention of unstressed *-ha-*. For instance, the *-ha-* of *-waha-* is generally retained, even though unstressed on the underlying cycle, when immediately followed by declarative suffix *-ke/-ka*; see (1) in §5.10.

The *-hi-* of *-hitI*, an echelon 5 miscellaneous suffix meaning ‘do all along the way’, can be omitted when unstressed and following *i*:

P9b when the *-hi-* is unstressed, miscellaneous suffix *-hitI* → *-ti* /*i-* (and perhaps also /*e-*, although I have no example of this)

Thus in

(2.39) wami_O bori o-na-ki-ti-hara o-ke
 ground(f) touch 1sgA-AUX-COMING-ALONG.WAY-IPef 1sg-DECf
 I touched bottom many times, coming (bringing a canoe through a river in which the water level was very low)

the auxiliary component has the following derivation:

underlying	ó-na-kÍ-hitÍ-hará
apply P5 twice	ó-na-kí-hití-hará
apply P9b	o-na-ki-ti-hara

When a miscellaneous suffix includes *-hi-*, which is unstressed, it may lose the *h* when *a* precedes. This applies to *-hitI*, and also to a suffix such as *-waha* after it has become *-wahi* by the operation of P4 (see (VIII) in §2.9.9):

PII if *hi* in a miscellaneous suffix is unstressed, then *-hi-* > *-i-* /*a-*

The loss of *-h-* from unstressed *-hi-* in *-(h)itI-* is seen in (2.40a) and its retention when the *-hi-* is stressed in (2.40b). These examples also demonstrate the realizations of the morphophoneme *I*.

(2.40a) wami_O bori o-na-ma-itiha
 ground(f) touch IsgA-AUX-BACK-ALONG.WAYf
 I touch bottom many times, going back

(2.40b) Jara_S haa.haa na-ma-hite-ka
 Branco(m) laugh AUX-BACK-ALONG.WAY-DECM
 the Branco laughs all along the way

(C) OMISSION OF UNSTRESSED *-ha-* FROM A POSSESSED NOUN. Possessed nouns fall into two classes with respect to the marking of a 1sg or 2sg possessor. One class takes 1sg *oko* and 2sg *tika*, which are separate words. The second class takes possessive prefixes 1sg *o-* and 2sg *ti-*. There is just one possessed noun in the second class which begins with *ha-*; this is *habo* ‘aerial root (of tree); muscle (of person); courage (of person)’. Compare the following possessed forms:

(2.41) Kamo habo Kamo’s courage

(2.42) o-bo my courage

(2.43) ti-bo your (sg) courage

It will be seen that that *ha-* of *habo* drops when it is unstressed on the underlying cycle, i.e. *ó-habó* → *o-bo*. Thus:

P8c in the possessed noun *habo*, the *ha-* drops when unstressed on the underlying cycle

(D) OMISSION OF *-h-* FROM UNSTRESSED *-hV* IN A ROOT. Some lexical roots (nouns, verbs, and adjectives) of the form $\#(C)V_1hV_2-$ permit optional omission of the *-h-*. Examples include:

NON-INFLECTING VERBS

áhi ~ ái	‘work’	náha ~ náa	‘(be) open’
óhi ~ ói	‘cry, mourn’	nóho ~ nóo	‘be hurt’
kého ~ kéo	‘be crooked’	íha ~ ía	‘put, get’

FREE NOUNS

báhi ~ báí	‘sun, thunder’	fáha ~ faa	‘water’
bíhi ~ bíí	‘palm sp.; fan made from it’	bíha ~ bíá	‘cará (type of yam)’

POSSESSED NOUN

jóharí ~ jóarí ‘breast’

ADJECTIVE

ehébotée ~ éébotée ‘big’

None of these words take prefixes, so the *-hV-* syllable is always unstressed on the underlying cycle. The change also applies to two inflecting verbs, just when they bear no prefix:

áhabá ~ áabá ‘be finished’ náho ~ náo ‘sit/stand (an, pl S)’

In addition, the possessed noun *jehē/jehē* ‘hand’ can be reduced to *jee/jee* when used without a prefix, and—as a nonce change—just to *-je* when there is a prefix (for instance *o-je* ‘my hand’).

These changes fall into three classes:

- (i) *aha* → *aa*, *ihī* → *ii*, *ehe* → *ee*, and *oho* → *oo* yield long vowels;
- (ii) *aho* → *ao*, *oha* → *oa*, *eho* → *eo*, and *ohi* → *oi* produce more examples of *o* in sequence with another vowel (see §2.3). We in fact get *ao* ~ *awo* and *eo* ~ *ewo* (which are written as *ao*, *eo*) and *oi* ~ *owi* and *oa* ~ *owa* (which are written as *owi*, *owa*);
- (iii) *ahi* → *ai* and *iha* → *ia*.

Speakers freely interchange forms with and without *h*. Pronunciation without *h* is most frequent in casual speech. In teaching me they would most often pronounce an *h*. We thus have a rule

P12 in a lexeme $\#(C)V_1hV_2- \rightarrow \#(C)V_1V_2-$ optionally, when $V_1 = V_2$, or $V_2 = o$, or $V_1 = o$, or $V_1 = a$ and $V_2 = i$, or $V_1 = i$ and $V_2 = a$.

There are also examples of lexical roots that can include or omit an initial *h*:

hisiri	~	isiri	‘basket’
hanafi	~	anafi	‘heron sp.’
hinamati	~	inamati	‘spirit’

We saw in §2.5 that some loans which have an initial vowel in Portuguese retain this in Jarawara (e.g. *ahosi*, from *arroz* ‘rice’) while others add an *h* (e.g. *hasoka* from *açucar* ‘sugar’). I have not been able to perceive any principle underlying this. It is hard to decide whether forms such as *hisiri* ~ *isiri* originally had an initial *h*, which is being lost, or whether they originally lacked an *h*, and one is now in the process of being added.

(E) OMISSION OF UNSTRESSED *-ha-* FROM CAUSATIVE ALLOMORPH *niha-*. The causative prefix has allomorph *na-* when added to an inflecting verb and *niha-* when added to an auxiliary (note that auxiliary *-na-* or *-ha-* drops after *niha-*). The *-ha-* of *niha-* drops when unstressed on the underlying cycle. Thus:

P8d in causative allomorph *niha-*, *-ha-* → \emptyset when unstressed on the underlying cycle

Examples of both loss and retention of this *-ha-* are:

underlying	níha-ké	níha-hára	ó-nihá	tó-nihá
P8d applies	ni-ke	ni-hara	—	—
	CAUS-DECf	CAUS-IPef	Isg-CAUSf	AWAY-CAUSf

(F) OMISSION OF UNSTRESSED *-ha-* FROM POSTPOSED DEPENDENT CLAUSE MARKER *-haaro/-haari*. Chapter 18 describes types of marking for a postposed dependent clause. If the pivot is 3sg and there is no tense-modal suffix, then the suffix *-(ha)aro/- (ha)ari* is used. We then get:

P8e in dependent clause marker *-haaro/-haari-*, *-ha-* → \emptyset when it is an even-numbered mora on the underlying cycle

Examples of both loss and retention of *-ha-* are:

underlying	ó-na-má-haáro	áwa-ráwa-háaro
P8e applies	o-na-ma-aro	—
	ISG-AUX-BACK-DEPF	see-F.NSG-DEPF

(G) IDIOLECTAL INCLUSION OF FINAL *-he/-ha* IN REPORTED SUFFIX. Just in the speech of two elderly shamans the ‘reported’ tense-modal suffix had the form *-(ha)monehe/-(hi)monaha* when word-final or when followed by backgrounding mood suffix *-ni/-ne* (this may be an archaic retention). The shorter forms *-(ha)mone/-(hi)mona* were used by the two old men in other contexts and by other speakers in all contexts.

The final *-he* of *-hamonehe* and the final *-ha* of *-himonaha* are omitted when unstressed on the underlying cycle. Compare (2.44a), where the *-ha-* is the ninth mora (and retained), with (2.44b), from the same text, where *-ha* is the eighth mora (and omitted).

(2.44a)	underlying	hiwa	ná-ható-himáta-mónahá-ne
	realization		na-hato-mata-monaha-ne
	JUSTM		CAUS-be.striped-FPnm-REPM-BKGM
			he is said to have made himself striped (i.e. painted himself)
(2.44b)	underlying	awas	náfi-hémeté-monéhe-ni
	realization		nafi-hemete-mone-ni
		tree(f)	be.many-FPnf-REPF-BKGF
			the trees were said to be many

This is not formulated as a rule, since in the corpus it occurs in only two idiolects.

So far in the section when we have dealt with stressed and unstressed syllables this has been with respect to the first or underlying stress cycle, counting from the beginning of the word. Rule P5, specifying the realization of morphophoneme *I*, and all of P9–P11, dealing with the omission of *-hV-* or of *-h-* from an *-hV-* syllable, relate to the underlying stress cycle. This is basically the surface stress rule in the Banawá and Jamamadí dialects, but not in Jarawara.

I hypothesize that until recently Jarawara did assign stress on the same principle as the other dialects. As has been shown, phonological rules work on this basis. But today, the way Jarawara is pronounced, stress goes on the syllables containing even-numbered mora counting from the end of the word. As mentioned in §2.6, speakers of Banawá and Jamamadí say *kóbajá* while the Jarawara say *kobája* ‘white-collared peccary’.

There is one further phonological rule that involves *h*-dropping in roots, and this applies on the second or surface stress cycle. There are a number of trisyllabic roots with the final syllable beginning with *h*, and this *h* can be lost:

P13 when *hV* is unstressed on the second stress cycle, $XhV \rightarrow XV$

For example:

		‘hoatzin bird’	‘dog, jaguar’
underlying form	sasaha	jomahi	
first stress cycle	sásahá	jómahí—rule P12 does not apply	
second stress cycle	sasáha	jomáhi—rule P13 does apply	
realization	sasáa	jomai	

In the case of ‘dog, jaguar’, a further rule has applied:

P14 ai → ee

giving *joméé*. (Compare with rule P2a in §2.9.1, *-iwa-* → *-ee-* in 2SG-APPLIC, OC-APPLIC.) See also the discussion of *eejiwaa* in §2.8.

Note that rule P14 never applies to an *ai* produced by the loss of *h* on the first stress cycle, by rule P12—we never get **bee*, only either *báhi* or *bái*, for ‘sun, thunder’. It only applies to the *ai* sequence in ‘dog, jaguar’, produced by the omission of *h* on the second stress cycle.

Interestingly, older speakers of Jarawara use *jomáhi*, evidence that rules P13 and P14 have been introduced fairly recently, within the last couple of generations (presumably, after the Jarawara dialect shifted from an initial-mora to a penultimate-mora stress rule). Younger speakers generally say *joméé*, but occasionally *jomáhi* (they never say *jomai*, suggesting that rules P13 and P14 are applied simultaneously). Speakers of the Jamamadí dialect, who have retained initial stress, only say *jómahi*. In summary, it will be seen that none of the rules of *-h-* or of *-hV-* omission (or indeed any of the rules given in §§2.9.1–5) apply across the whole language. Each is restricted to applying just within roots, or just for a particular class of affixes.

2.9.7 Restriction that only one *-hV-* syllable may be omitted from any word

We have examined the five main circumstances in which rule P8 may apply (omitting an *hV* syllable which is unstressed on the underlying cycle): (a) from tense-modal suffixes; (b) from miscellaneous suffixes; (c) from the possessed noun *habo*; (d) from causative allomorph *niha-*; and (e) from dependent clause marker *-haaro/-haari*.

The underlying form of a verb or auxiliary component may include several unstressed *hV* syllables and we might expect rule P8 to apply recursively, omitting more than one of them. In fact P8 can only apply once in a word, omitting just one *hV* syllable.

Consider underlyingly

íbI-wáha-kÍ-haré-ka
put.inside-NOW-COMING-IPem-DECM

First rule P5 applies, rewriting the first *I* as *e* and the second *I* as *i*:

íbe-wáha-kí-haré-ka

Then rule P8 applies, omitting the first of the two unstressed *ha*'s:

íbe-wá-ki-hára-ká

Note that P8 has applied to the *first* of the two unstressed *ha*'s, from the left. It seems reasonable that the rule should apply from the left, since the condition for the rule to apply involves counting moras from the left. After P8 has applied to the first *ha*, the second *ha* is now stressed and so is no longer at risk to be omitted. Note that if the rule had applied from the right, the second *ha* would be omitted but the first would still be unstressed and thus potentially at risk to be omitted. An alternative possibility would be for P8 to have applied simultaneously, omitting both unstressed *ha*'s at once.

We also encounter sequences of two *ha*'s. One must be stressed and the other unstressed. Consider a sequence of unstressed *ha* followed by stressed *ha* as in

ká-riwáha-háboné
in.motion-ACROSS-INTf

The first *ha* is omitted, by rule P8, giving

ká-riwá-habóne

The second *ha* (that in *-habone*) is now unstressed. But it cannot be omitted. It appears that there is a restriction against omitting more than one *hV* syllable from any word.

It is instructive to compare two words each with a sequence of *-waha* ‘now’ plus FPnm *-himata*, but with different stress patterns (these occur near each other in a text):

underlying	(a) <i>hí-wahá-himáta-mónahá</i>	(b) <i>jóka-wáha-hímatá-moná-ka</i>
surface	(a) <i>hi-wahe-mata-monaha</i>	(b) <i>joka-we-himata-mona-ka</i>
	Oc-NOW-FPnm-REPM	roast-NOW-FPnm-REPM-DECM

In (a) it is the *-hi-* of *-himata-* which is unstressed on the underlying cycle and thus omitted, and *-waha* becomes *-wahe* by rule P3. In (b) it is the *-ha-* of *-waha-* which is unstressed on the underlying cycle and thus omitted; *-waha-* becomes *-wa-* and then *-we-* by rule P3.

A further example involves the intransitive verb *ee -na-* ‘be scared’. In one text it is made transitive by the causative prefix *nih-* added to the auxiliary, which also takes FPem tense suffix *-himari*. Now auxiliary *na* always drops after prefix *nih-*. The *-ha-* is unstressed on the underlying cycle and as a result omitted. The *-hi-* of *-himari* is now brought into unstressed position but it is not omitted because of the constraint that no more than one *-hV-* syllable can be omitted from any word:

underlying		<i>nih-himari</i>
surface	<i>ee</i>	<i>ni-himari</i>
	<i>be.scared</i>	CAUS-FPem

All of the phonological rules stated here relate to what speakers consider to be the ‘correct’ forms; these do generally coincide with what is said in texts and in conversation. But there can be ‘performance irregularities’; one such is the omission of two *-ha-* syllables from one word. When speakers’ attention is drawn to such forms, they correct them in line with the rules given here.

2.9.8 Final *-ha* in lexemes

There are two circumstances in which a form can either include or omit a final *-ha* or *-hi*: (a) inflecting verbs ending in *i*, *e*, or *o* (that is, any vowel but *a*) may add a final *-ha/-hi*; (b) an affix or root ending in the morphophoneme *I*, where this is stressed on the underlying cycle, has it realized as *ihā/ihi*. In each instance the *-ha/-hi* is omitted, when unstressed, under certain conditions.

There is a difference in that the *-ha/-hi* following a root-final *i*, *e*, or *o* can be omitted when predicate-final, if unstressed on the underlying cycle. For example, with the inflecting verb *-neme(ha)-* ‘be tall’ we get (marking stress on the underlying cycle):

underlying	(i)	<i>némehá</i>	(ii)	<i>ó-neméha</i>
surface	<i>fana_s</i>	<i>nemeha</i>	<i>o-neme</i>	
	woman(f)	be.tall+f	1sgS-be.tall	

But the final *ha/hi* of the realization *ihā/ihi* for morphophoneme *I*, when stressed on the underlying cycle and in predicate-final position, is never omitted.

However, when non-predicate final, and followed by a tense-modal suffix, both (a) and (b) may omit or retain the final *-hV*, under similar conditions. The final *ha* is omitted when followed by a tense-modal suffix consisting of two moras but retained before one of three

moras. For example, the verb ‘find’ has form *-wasi-* before IPef suffix *-hara* but form *-wasiha-* before FPef suffix *-hamaro*. Compare

underlying form	(a) hi-wasi-hara	(b) hi-wasiha-hamaro
a version of P10 applies	hi-wasi-ara	hi-wasia-hamaro
	Oc-find-IPef	Oc-find-FPef

Note that rule P10, as formulated in §2.9.6, applies to the initial *ha* of a tense-modal suffix (dropping the initial *h*) as in (a) here. In (b) we have another version of P10, applying to the *ha* which is added to a verb root that ends in *i*, *e*, or *o*.

Note that if the underlying form under (a) were *hi-wasiha-hara* we would get **hi-wasia-hara*, which is incorrect; and if the underlying form for (b) were *hi-wasi-hamaro*, we would get **hi-wasi-amaro*, which is also incorrect.

This distinction can only be perceived when the pre-tense-modal form has an odd number of syllables (not including the final *ha*). With no prefix, underlying *wasiha-hamaro* would drop the *ha* of *-hamaro* (by P8a) while underlying *wasi-hamaro* would remain as is; that is, both underlying *wasiha-hamaro* and *wasi-hamaro* would give the same surface realization. Similarly with a bi-mora suffix, both underlying *wasiha-hara* and underlying *wasi-hara* would have surface realization *wasihara*.

The following example shows that the miscellaneous suffix *-ki* ‘coming’, when stressed, is realized as *-ki* before a bi-mora tense-modal suffix and as *-kiha* before one of three or more moras; (c) is APPLIC-in.motion-COMING-IPef-DECf, and (d) is APPLIC-in.motion-COMING-INTf.

underlying form	(c) ka-ka-ki-hara-ke	(d) ka-ka-kiha-habone
P1b, P2b apply	kaa-ki-hara-ke	kaa-kiha-habone
a version of P10 applies	kaa-ki-ara-ke	kaa-kia-habone

§6.1.1 presents evidence that the initial *ha/hi* on tense-modal suffixes comes from an original verb-root-final *ha/hi*. It could be asked whether what is here being called the first syllable of a tense-modal suffix could not instead be synchronically analysed as the final syllable of the preceding verb root or miscellaneous suffix. The fact that we get word-final *-ha* followed by a tense-modal initial syllable *-hV* (as in *hiwasiahamaro*) is strong evidence for the analysis presented here, that tense-modal suffixes do commence with a syllable *hV*. (There is a similar example at (26.44), underlying *ohariha-hemete-mone* giving *oharie-hemete-mone*.)

Interestingly, a word-final *-ha/-hi* is sometimes retained and sometimes omitted before a following word within the predicate. However, this is grammatically and not phonologically conditioned. Tables 16.2–7 in chapter 16 show that gender is marked at the end of a verb, auxiliary, or miscellaneous suffix when immediately followed by a nsg pronoun or by a secondary verb, but not before a word consisting of a sg pronominal prefix plus declarative suffix. It is when gender is marked that the final *-ha/-hi* is included.

2.9.9 Ordering of rules

It is usual, when writing the grammar of a language, to state the ordering between phonological rules, i.e. rule X must apply before rule Y to give the correct surface form. It is possible to do this for Jarawara to a degree, but only to a degree.

In the sections above, I grouped together all the assimilations of *-ka-* to *-ko-* after *o*, and all the omissions of *-hV-* and of *-h-*, even though there are several rules in each set, applying in different grammatical environments, with slightly different phonological conditions, and

sometimes with a slightly different result. We shall see below that all parts of rule P6 (-*ka-* to -*ko-* after *o*) do not belong at the same place in ordering. Rule P6*d* (for monosyllabic verb -*ka-*) appears to follow P4 (*a* → *i* before various miscellaneous and mood suffixes) whereas rule P6*a* (for applicative -*ka-*) precedes P4. At the end of this section it is shown that P3 and P8*a* must be allowed to apply simultaneously, since although both apply to the same word neither can operate on the output of the other.

It will be best to begin with the simplest interaction of rules, where there is a clear ordering.

(I) P1 and P2. We saw in §2.9.1 that P1*a* (applicative -*ka-* → -*wa-*/prefix—*k*) must precede P2*a* (*iwa* → *ee* in 2SG-APPLIC, OC-APPLIC) since the output of P1*a* is input to P2*a*. Recall that older speakers use *hi-wa-* and *ti-wa-* (applying just P1*a*) while younger people use *hee-* and *tee-* (they apply P1*a* and then P2*a*). We also saw that, for the verb -*ka-* ‘be in motion’, P1*b* must apply before P2*b* (e.g. -*ka-ka* > -*ka-wa* > -*kaa*).

(II) P4 and P6*d*. Recapitulating the statements of these rules:

P4 *a* → *i* before various miscellaneous and mood suffixes

P6*d* verb -*ka-* → -*ko-* following *o-* or *to-* and preceding a first echelon suffix beginning with *b*, *m*, or *f*

The operation of P6*d* can be seen in (2.45*a*).

(2.45*a*) o-ko-fara

1SGS-in.motion-CLEAR.SPACEF

I go to an open place

And its non-operation is shown in (2.45*b*) (which is T3.49):

(2.45*b*) to-wa-ka-fara-ma

AWAY-APPLIC-in.motion-CLEAR.SPACE-BACKF

go away into a clear space

With verb root -*ka-* ‘be in motion’ and suffix -^{*i*}*fi* ‘water’ P4 applies and we get *ki-fe* ‘he/she goes to the water’. When prefix *ti-* is added we get *ti-ki-fiha* ‘you go to the water’. Now consider what happens when both prefix *o-* 1SG and suffix -^{*i*}*fi* are added to -*ka-*. There are two possible orders in which rules P4 and P6*d* could apply:

underlying form	o-ka- ^{<i>i</i>} <i>fi</i>	underlying form	o-ka- ^{<i>i</i>} <i>fi</i>
apply P4 first	o-ki- ^{<i>i</i>} <i>fi</i>	apply P6 <i>d</i> first	o-ko- ^{<i>i</i>} <i>fi</i>
then P6 <i>d</i>	—	then P4	o-ko- ^{<i>i</i>} <i>fi</i>
P5 at any stage	o-ki-fiha	P5 at any stage	o-ko-fiha

Note that if P4 applies there is no input to P6*d* and vice versa. The occurring form is, in fact, *o-ki-fiha*, showing that P4 here applies before P6*d*.

In §2.9.2 it was mentioned that besides the eleven miscellaneous suffixes which change any preceding *a* to *i*, there is also the first echelon miscellaneous suffix -*misa* ‘uphill’ which only engenders this change in the root -*ka-* ‘be in motion’, giving -*ki-misa*. But with the prefix *o-* we get *o-ko-misa* (not *o-ki-misa*, which would have been expected, parallel to *o-ki-fiha*). This suggests that, for this suffix, P6*d* applies before P4. This should not be surprising. P6*d* is a general rule that applies to -*ka-* before any first echelon suffix beginning with *b*, *m*, or *f*. In the case of -*misa*, the raising of a preceding *a* to *i* is a very limited rule applying just to the verb -*ka-*; this rule is ‘added on’ after other rules have applied. In time, as the *a* → *i* effect of -*misa* is generalized to apply to all verb roots, it may assume the normal ordering of P4 before P6*d* (and we would then get *okimisa*).

Note, however, that alongside *kí-misa* and *o-ko-misa* (and *to-ko-misa*) we get, with 2sg prefix *ti-*, *ti-ka-misa* where the *a* → *i* change has not applied. This suggests that it might be more appropriate to say that at present *-misa* engenders the change *a* → *i* on verb *-ka-* only if there is no prefix present. That is, the circumstances in which this rule applies are outside those in which P6*d* applies (there must be a prefix *o-* or *to-*), so there is no ordering between the two rules. Indeed, there are contexts in which neither P4 nor P6*d* applies, as in *ti-ka-misa*, and here the underlying vowel *a* is retained.

(III) P6*a* and P4. Example (2.18*e*) from §2.9.4 shows the co-occurrence of 1sg prefix *o-*, applicative prefix *-ka-*, and the mood suffix *-i-beja*. Consider the possible orderings of P6*a* (applying to applicative) and P4:

underlying form	o-ka- ⁱ beja	underlying form	o-ka- ⁱ beja
apply P6 <i>a</i> first	o-ko- ⁱ beja	apply P4 first	o-ki-beja
then P4	o-ko-beja	then P6 <i>a</i>	—

The occurring form is *o-ko-beja*, showing that although P6*d* (applying to root *-ka-*) follows P4, P6*a* (on applicative *-ka-*) precedes P4.

It may be that we should recognize two subtypes of rule P4—P4*a* applying to miscellaneous suffixes and P4*b* to mood suffixes. We would then have P4*a* applying before P6*d*, and P6*a* before P4*b*.

(IV) P6*c* and P7*b*. In §2.9.5, we saw that rule P6*c* (applying to the initial *-ka-* of an inflecting verb root) must apply before P7*b* (*-ka-* → *-ke-* before *Ce*). Consider the two possible scenarios:

underlying form	o-kameje	underlying form	o-kameje
apply P6 <i>c</i> first	o-komeje	apply P7 <i>b</i> first	o-kemeje
then P7 <i>b</i>	—	then P6 <i>c</i>	—

The occurring form is *o-komeje*, confirming the order of rule application: P6*c* then P7*b*.

(V) P5 and P8*b*. We can now consider two rules that both refer to the underlying stress cycle. Recapitulating (with just the relevant parts of P5):

- P5 stressed *I* is realized as *i*
- unstressed *I* is realized as *e*
- P8*b* unstressed *ha* → *o* in miscellaneous suffixes

Rule P5 must precede P8*b*. This can be seen from the forms of the miscellaneous suffix *-(ha)tI* ‘do all day’:

underlying	-hatÍ	realized as	-ti-
underlying	-háti-	realized as	-háte

If P8*b* applied first, *-hatÍ-* would become *-ti-* and we would get **-te* instead of the occurring *-ti-*. The two forms of this suffix are illustrated in:

(2.46*a*) mee toho na-ti-hara-ke
 underlying ná-hatÍ-hará-ke
 3nsgS cough AUX-ALL.DAY-IPef-DECf
 they coughed all day

(2.46*b*) toho o-na-hate-hara o-ke
 underlying ó-na-háti-hára
 cough 1sgS-AUX-ALL.DAY-IPef 1sg-DECf
 I coughed all day

In (2.46) rules P5 and P8*b* relate to the same suffix. They can also apply to different miscellaneous suffixes in the same verbal word and again P5 must precede P8*b*.

- (2.47) underlying tó-ka-wáha-mákI ‘AWAY-APPLIC-NOW-FOLLOWING’
 apply P6*a* tó-ko-wáha-mákI
 apply P5 tó-ko-wáha-máke
 apply P8*b* tó-ko-wá-maké
 now [somebody] goes away following

This is the occurring form. If P8*b* had applied first we would have got *tó-ko-wá-makI* and then **tó-ko-wá-makí(ha)*, which is not an occurring form. (Note that P6*a* can apply at any stage in this derivation.)

Another textual example showing P5 occurring before P8*b* includes two instances of the morphophoneme *I*, in miscellaneous suffixes separated by *-waha*.

- (2.48) underlying tó-ka-ká-¹fi-wáha-wítI
 AWAY-APPLIC-in.motion-WATER-NOW-FROM.PLACE
 apply P1 tó-wa-ká-¹fi-wáha-wítI
 apply P4 tó-wa-kí-fi-wáha-wítI
 apply P5 twice tó-wa-kí-fe-wáha-wíte
 apply P8*b* tó-wa-kí-fe-wá-wité
 ‘now [somebody] goes away to the river’

(Note that P1 and P4 can apply at any place in this derivation.) If P8*b* had been applied before P5*a* then it would have generated the non-occurring **to-wa-ki-fe-wa-witi(ha)*.

(VI) P5 and P8*d*. We find that P5 must apply before P8*d*, which deletes *-ha-* from the causative allomorph *niha-*. Consider *niha-kI-ka* ‘CAUS-COMING-DECM’ and compare:

	niha-kI-ka		niha-kI-ka
P5 applies	niha-ki-ka	P8 <i>d</i> applies	ni-ki-ka
P8 <i>d</i> applies	ni-ki-ka	P5 applies	ni-ke-ka

The occurring form is *ni-ki-ka*.

(VII) P5 and P9. In (A) of §2.9.6 we discussed

P9*a* tense-modal initial unstressed syllable *-hi-* → *o/i-*, *e-*, *o-*

and exemplified this with the underlying structure *na-makI-hiri* which is realized as *na-maki-ri*. Plainly, rule P5, rewriting *I* as *i*, must apply before P9*a*, which requires this *i* (the output of P5) as a conditioning factor for its operation.

We also find P5 applying before P9*b*, which omits the *-hi-* from suffix *-hitI-* when it is unstressed. For example, underlying *na-makI-hitI-ka* (AUX-FOLLOWING-ALONG.WAY-DECM) becomes *na-maki-ti-ka*.

(VIII) P4 with P8*b* and P11. We can now look at the interrelation of the following rules:

- P4 *a* → *i* before various miscellaneous suffixes
 P8*b* in miscellaneous affixes, unstressed *-ha-* → *o*
 P11 if *hi* in a miscellaneous suffix is unstressed, then *-hi-* → *-i-* /*a-*

Consider:

- (2.49) *mareta*_O *wari* *o-ko-wai-ba*
 box(f) twist 1sgA-APPLIC-NEXT.THING-IMMEDf
 then I twist the box with [the knife] (I twist the knife in the lock of the box to open
 it after I have lost the key)

The derivation of the auxiliary component involves the application of P₄, P₁₁, and P_{8b} (plus P_{6a}, which can apply at any stage in the derivation):

underlying o-ka-waha-ⁱbaha
 P₄ applies o-ka-wahi-baha
 P₁₁ applies o-ka-wai-baha
 P_{8b} applies o-ka-wai-ba
 P_{6a} applies o-ko-wai-ba

If P_{8b} applied before P₄ we would get (P₁₁ cannot now apply):

underlying o-ka-waha-ⁱbaha
 P_{8b} applies o-ka-wa-ⁱbaha
 P₄ applies o-ka-wi-baha
 P_{6a} applies o-ko-wi-baha

which is not what occurs. Thus P₄ must precede P_{8b}.

Note also that P₄, which raises *a* to *i* before -ⁱ*baha*, must apply before P₁₁, which omits the *h* from *hi* after *a*, since it generates the input for P₁₁. In this derivation P_{8b} and P₁₁ can apply in either order.

(IX) P₃ and P_{8a}. We can now consider two rules that apply to tense-modal suffixes:

P₃ $a \rightarrow e$ / -*hi* or -*he* in a tense-modal suffix
 P_{8a} tense-modal initial unstressed syllable -*hV*- $\rightarrow \emptyset$ / *a*-

When a tense-modal suffix is added to a stem with an even number of moras, such as *ka-na*- ('APPLIC-AUX'), only rule P₃ applies since the initial -*hV*- syllable of the suffix is stressed. Thus, with -*hemete*, feminine far past non-eyewitness and -*hino*, masculine immediate past non-eyewitness:

- (2.50) underlying ká-na-hémeté ká-na-hino
 P₃ applies ká-ne-hémeté ká-ne-hino

However, when the same suffixes are added to a stem with an odd number of mora, such as just the auxiliary -*na*-, both rules apply:

- (2.51) underlying nǎ-heméte nǎ-hino
 P₃ and P_{8a} apply nǎ́-meté nǎ́-no

We can now ask in which order the rules apply. And we get an ordering paradox. The necessary condition for P₃ to apply is the presence of a following -*hi*- or -*he*- and so P₃ must apply before P_{8a}, which deletes this syllable. But a necessary condition for P_{8a} to apply is that the preceding vowel is *a*; P_{8a} must apply before P₃, which raises this vowel to *e*.

Thus each of the rules P3 and P8a demands the same input; neither can operate with the output of the other. They must apply simultaneously.

(There are of course ways of stating the rules to avoid an ‘ordering paradox’. For instance, we could include some intermediate symbol *A* (which could, if preferred, be accorded a feature profile) and state:

P3' $a \rightarrow A$ /-*he*, -*hi* in a tense-modal suffix

P8a $-hV- \rightarrow \emptyset/A-$

P3'' $A \rightarrow e$

There is a trade-off here. Either we allow the rules to apply simultaneously, or else we split P3 into two parts, one part applying before P8b and one part after, through use of an intermediate symbol *A*. I prefer to permit P3 and P8a to apply simultaneously.)

(X) P8b and P3. There is another instance of interaction between P3 and a variety of P8—this is P8b, which omits an unstressed *-ha-* from a miscellaneous suffix. We find:

(2.52) ka-ke-we-hibona-ka

in.motion-COMING-NOW-INTIM-DECM

(the plane will first call at Agua Branca) and then come on (to Casa Nova)

The derivation is as follows:

underlying ká-kI-wáha-híboná-ka

P5 applies ká-ke-wáha-híboná-ka

P8b applies ká-ke-wá-hibóna-ká

P3 applies ká-ke-wé-hibóna-ka

Rule 8b, reducing *-wáha-* to *-wa-*, cannot apply after P3, which raises a preceding *-a-* to *-e-*. If P3 applied first, we would get *-wáha-* → *-wáhe-*, and then P8b could not apply, leaving *-wahe*, whereas the occurring form is *-we-*.

However, if we suggest that all parts of P8 (P8b as well as P8a) and P3 should apply simultaneously, this also accounts for (2.52).

In summary, we began this section by looking for ordering between the phonological rules, according to conventional ideas about the organization of phonology. We did find a number of clear orderings:

(I)		(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	
P1a	P1b	P4	P6a	P6c	P5	P5	P5	P4	P4
P2a	P2b	P6d	P4	P7b	P8b	P8d	P9	P8b	P11

Example (2.52) also suggested:

(X)

P8b

P3

But (2.51)—and very many similar examples—shows that P3 and P8a must apply simultaneously, i.e. they must both have the underlying form as input, neither being able to operate on the output from the other.

2.10 OTHER PHONOLOGICAL PROCESSES

We can now deal with phonological changes which do not constitute general rules but appear to apply just to individual words—§2.10.1. Associated with a number of sets of assimilations, applying to 1sg forms, are processes of analogical changes, making 2sg forms like those for 1sg—§2.10.2. An odd example of shortening is mentioned in §2.10.3 and one of haplology in §2.10.4. §2.10.5 deals with a recurrent change *-a-risa* → *-isa*.

Table 4.2 of §4.5.2 illustrates a number of vowel-initial inflecting verbs. Some of these require a linking consonant between prefix and root; for example *ka-k-iti* ‘APPLIC-LINK-take.off’.

2.10.1 Vowel assimilation

There are a number of nonce examples of assimilation in the Jarawara corpus.

(1) LEXICAL. ‘Alligator’ is *inohowe*; this was originally a compound formed from the possessed noun *ino* ‘teeth’ and adjective *howe* ‘large type’ but it now functions as a single phonological word. An older speaker pronounced the word as *onohowe* at one place in a text (with the first vowel assimilated to the second and third) but as *inohowe* at other places. Other speakers considered this to be an acceptable alternative.

(2) WITH THE CAUSATIVE PREFIX. It is interesting to compare two examples of vowel assimilation involving the causative prefix *na-*.

- (a) *na-noko* → *na-nako*
CAUS-be.awake
- (b) *na-neme* → *ne-neme*
CAUS-be.tall

In (a) the first *a* of the verb root assimilates to the *a* of the prefix while in (b) the vowel of the prefix assimilates to the vowel *e* which occurs in both syllables of the root.

Example (a) is an assimilation only noted for this one word. Example (b) provides another example of the pervasive tendency of *e* to engender assimilation of other vowels to it (see rules P3 and P7); as noted in §2.9.5 with the applicative prefix *ka-* added to *-neme* we get the same assimilation, *ka-neme* → *ke-neme*.

(3) SPORADIC ASSIMILATION OF *e*. In one text I heard:

- underlying to-ka-hiri-ka
surface to-ke-heri-ka
AWAY-in.motion-RPem-DECM

There is first regular raising of the *a* of *-ka-* to *e* before the tense-modal suffix *-hiri*, by rule P9a, giving *to-ke-hiri-ka*. The first *i* of *-hiri* is then, in this particular instance, assimilated to the preceding *e*, yielding *to-ke-heri-ka*. Interestingly, the preceding clause in this text involved underlying *ita-hiri* (sit-RPem) undergoing the same change and becoming *ite-heri*. However, other instances of a form ending in *a*, followed by *-hiri*, do not undergo this second assimilation.

(See also remarks at the end of §4.5.2.)

(4) WITH PREFIXES *to-* AND *o-*. The verb *-naho-* ‘sit/stand(plural S)’ cannot, by virtue of its meaning, be used with 1sg prefix *o-* or 2sg *ti-*. But it can take prefix *to-* ‘away’ and there is then assimilation *to-naho* → *to-noho*. The verb *-bako-misa-* ‘lie chest up’ can take *o-* and here we get the same assimilation, *o-bako-misa* > *o-boko-misa* ‘I lie chest up’.

This appears to be a change restricted to just two verbs (in the corpus). There is no assimilation in, for example, *to-kaho* ‘tie (one hammock)’, or in *o-mato* ‘I tie up (e.g. a pig or a canoe)’ or in *o-hano* ‘I am drunk’.

2.10.2 Analogical extension from 1sg *o-* to 2sg *ti-*

There are three instances where the 1sg prefix *o-* engenders a phonological change which is then extended to 2sg *ti-*. This must be regarded as an analogical extension since *ti-* does not itself satisfy the phonological conditions for the change to occur.

(1) WITH POSSESSED NOUNS. Many possessed nouns have distinct f and m forms. As explained in §11.1.1, the m form is used with a 1st or 2nd person pronominal possessor, but the f form with a 3nsg possessor.

First, compare the forms of *mani/mano* ‘arm’ with those of *mahi/maho* ‘smell’:

POSSESSOR

f noun	Sasa mani	‘Sasa’s arm’	Sasa mahi	‘Sasa’s smell’
m noun	Okomobi mano	‘Okomobi’s arm’	Okomobi maho	‘Okomobi’s smell’
1inc	ee mano	‘our (inc) arm’	ee maho	‘our (inc) smell’
3nsg	mee mani	‘their arm’	mee mahi	‘their smell’
1sg	o-mano	‘my arm’	o-m _o ho	‘my smell’
2sg	ti-mano	‘your (sg) arm’	ti-m _o ho	‘your (sg) smell’

The underlying form *o-maho* ‘my smell’ has become *o-moho* by assimilation of the first vowel of the root to the vowel, *o*, of the prefix. And there is analogical change for 2sg. Since the phonological conditions for the change *maho* → *moho* are not satisfied for *ti-*, we must assume that the form for 1sg is analogically extended to be used also for 2sg.

There are two other possessed nouns which behave like *mahi/maho* (these were mentioned at the end of §2.9.4); again the form with 1sg *o-* is analogically extended to be also used with 2sg *ti-*:

	f/m forms	with 1sg prefix <i>o-</i>	with 2sg prefix <i>ti-</i>
‘chest’	b _a ki/b _a ko	o-b _o ko	ti-b _o ko
‘thigh’	fan _a ki/fan _a ko	o-fan _o ko	ti-fan _o ko

(Note that in the Jamamadí dialect this assimilation applies to some additional possessed nouns, suggesting that the change is gradually extending itself through the lexicon, and has affected different words in the different dialects. Whereas the 1sg possessed form of *mani/mano* ‘arm’ is *o-mano* in Jarawara, it is *o-mono* in Jamamadí; and the assimilation has again been analogized across to the 2sg form, which is *ti-mono*.)

(2) WITH IRREGULAR POSSESSED NOUNS. There are three possessed nouns which are exceptions to the general rule that 1sg *o-* and 3sg *ti-* are added to the m form. For *ifi/ifo* ‘lower lip’, *isi/iso* ‘leg’, and *ini/ino* ‘tooth, name’, 1sg and 2sg prefixes are here added to the f form. Illustrating with *isi/iso* (the other two behave in an identical manner) we get

owisi	‘my leg’	tiwisi	‘your (sg) leg’
-------	----------	--------	-----------------

Note that the underlying form for ‘my leg’ is *o-* plus *-isi*. As discussed in §2.3 we then get [oisi] ~ [owisi], which is written as *owisi*. The interesting point is that this *-w-* is also found in the 2sg form, *tiwisi*. (We might have expected *ti-* plus *-isi* to give *tisi*.)

There are a number of other possessed nouns, commencing with a vowel, to which 1sg possessive prefix *o-* is added and which insert a linking *w*, e.g. *o-w-ati* ‘my language’ and *o-w-ete* ‘my forehead’. In each case the 2sg possessed form is on the same pattern—*ti-w-ati* ‘your language’, *ti-w-ete* ‘your forehead’.

(3) WITH VERB -ka- ‘BE IN MOTION’. As described in §2.9.1, the *k* of verb *-ka-* ‘be in motion’ lenites to *w* when preceded by 1sg prefix *o-* and followed by a suffix commencing with *k*. That is:

o-ka-kosa → *o-wa-kosa*
 1sgS-in.motion-MIDDLEF
 I go to the middle

We also find the lenition of *-ka-* to *-wa-* after *ti-* (when followed by *-kosa*), i.e. *ti-wa-kosa*. Once again a phonological process applies for 1sg, and then 2sg takes over the same form, by analogy (the phonological conditions for the phonological change to take place are not satisfied with *ti-*).

We thus have three instances of the 1sg form being analogized to be also used with 2sg: (1) the assimilation of *a* to *o*, in *ti-moho* as in *o-moho*; (2) the insertion of *w*, in *tiwisi* as in *owisi*, etc.; and (3) the lenition of *k* to *w*, in *ti-wa-kosa* as in *o-wa-kosa*. See also discussion of forms of the verb *-ohari-* ‘be alone, be one’ in class 15 of (1) in §4.5.2.

There may be one further example of this, with kin terms. For ‘daughter’ the 1sg and 2sg possessed forms are *okoto* and *tikoto* respectively. Now (as discussed in §10.4.1) it is difficult to be certain of the underlying root for this term. If it were *oto* then we would have *oko+oto* → *okoto* and *tika+oto* → *tikoto*. But if it were just *to* (as it is in Dení) then we would have *oko+to* → *okoto* and *tika+to* → *tokoto*; this would be a further example of a 2sg form involving *o*, by analogy to the 1sg form.

2.10.3 Shortening

In (II) of §4.5.2, there is discussion of inflecting verbs with irregular forms, some of which involve shortening. Intransitive verbs *-waa-* ‘stand (sgS)’ and *-taa-* ‘be overgrown’ reduce to *-wa-* and *-ta-* respectively when used with a single prefix (e.g. *o-wa*) or with the miscellaneous suffix *-rI* ‘raised surface’ (e.g. *wa-re*). The intransitive verb *-sona-* ‘fall’ reduces to *-sa-* if it bears a pronominal prefix and if it does not take suffix *-rI* ‘raised surface’ (e.g. *o-sa*), and it reduces to *-so-* when it takes applicative *ka-* or causative *na-* but no first order prefix (e.g. *ka-so*). The transitive verb *-fawa-* reduces to *-fa-* after a first order prefix (e.g. *o-fa*).

2.10.4 Haplology

I have noticed sporadic instances of haplology. For instance, the compound of *wafa* ‘woolly monkey’ and *fana* ‘female’ can be said as *wafana* ‘female woolly monkey’, with one of the two successive tokens of *fa* omitted. The phrase consisting of *himata* ‘what’ and postposition *tabijo* ‘due to the absence/lack of’ (see §15.3.1 and §21.2) may be shortened to *himatabijo* ‘why’, with one of the successive occurrences of *ta* omitted.

2.10.5 Reduction of *-a-risa* to *-isa*

Under (5) in §5.4, there is description of the miscellaneous suffix ‘down, done anyhow’ which has form *-risa* when added to almost all inflecting verbs. But when added to the auxiliary, *-na-*, of a non-inflecting verb, we get reduction *-na-risa* → *-nisa*.

Similar reduction has been observed with two inflecting verbs whose roots end in *na*. When *-risa* is added to *-wina-* ‘hang’ and *-kina-* ‘fall on’ we get *-winisa* ‘hang down’ and *-kinisa* ‘fall down on’.

It is likely that the verb *-kisa-* ‘be in motion down’ is diachronically derived from *-ka-* ‘be in motion’ and suffix *-risa-* ‘down’ through shortening *-ka-+risa-* > *-kisa-*. However, *-kisa-* appears to be a unitary root in the present-day language.

2.11 THE GLOTTAL STOP

In Paumarí and Kulina-Dení (the other reasonably well-described languages of the Arawá family) the glottal stop is a phoneme. In Kulina-Dení it only occurs word-medially and with a low functional load. In Paumarí the glottal stop also occurs word-initially and the Paumarí dictionary includes a number of minimal pairs differing only in the presence or absence of an initial glottal stop.

Preliminary examination of Jarawara might suggest that it does not have the glottal stop as a phoneme. There is no instance of a glottal stop occurring within a root or affix. A vowel-initial word is often pronounced with a glottal stop before the vowel, especially when clause-medially, following another word (recall that all words end in a vowel) but this is a non-contrastive element, very much as in English. However, there are two grammatical environments in which a glottal stop appears.

(A) If the second element of a compound noun begins with a vowel, then a glottal stop (written here as ‘) may be inserted between it and the final vowel of the first element, e.g. *mowe!ete* ‘fish sp.’, *aba!ati* ‘fish sp.’ The same thing happens when a head noun is followed by an inalienably possessed noun within an NP, e.g. *iso!ete* ‘shin’ (lit. ‘leg’ plus ‘stalk’). (This could perhaps be regarded as a type of compounding.) A post-predicate NP which involves just a pronoun consists of *haa* plus the pronominal form (see §3.3.1 and §10.3); a glottal stop may be inserted between the components if the pronoun begins with a vowel, e.g. 1sg *haa!owa*, 1inc *haa!ee*.

In both of these instances we have one grammatical word consisting of two phonological words and a glottal stop is included between two vowels on either side of the phonological word boundary.

(B) As mentioned in §2.7, there are a number of types of verbal reduplication in Jarawara. One involves reduplication of syllables including the first two moras of a word, e.g. *niki.niki* ‘squeeze a lot’. When the reduplicated stem begins with a vowel, then a glottal stop must be inserted at the reduplication boundary, e.g. *ata!atabo* ‘be muddy all over’.

As in many other languages (e.g. Yidij, Dixon 1977: 96; Fijian, Dixon 1988a: 22–3, 1988b) it appears that a reduplication boundary is also a phonological word boundary. This can be seen from two of the criteria given in §2.7 for phonological words in Jarawara. First, surface stress—a reduplicated two-mora unit has its own stress rule applying, as in *áta!atábo* (rather than **atálatábo* which we would expect if the whole thing were one phonological word).

The other criterion is related to stress on the underlying cycle; this is the operation of certain phonological rules.

There is a second type of verbal reduplication which simply repeats the syllable containing the first mora, e.g. *ni.niki* ‘squeeze a bit’. I suggested, in §2.7, that this could be treated as an ‘internal clitic’ which attaches to the phonological word that follows. Interestingly, we also get a glottal stop between two vowels at this reduplication boundary, e.g. *a.'ati* ‘talk a bit’, *o.'ohi* ‘cry a bit’, *i.'isina* ‘teach a bit’. (There is further discussion of this in §9.1.)

There are several possible ways of dealing with the glottal stop in terms of the phonology of Jarawara:

(I) We could say that the glottal stop is a full phoneme but is restricted to limited environments, described under (A) and (B).

(II) We could go further and say that every word in Jarawara that we have described as vowel-initial really has an underlying glottal stop. This need not be pronounced when the beginning of a phonological word coincides with the beginning of a grammatical word but will not normally be omitted when a new phonological word begins in the middle of a grammatical word, or across a clitic boundary. By this principle, every word would begin with a CV syllable. There would be no overall phonotactic gain, however, since a V syllable type is still needed to account for medial VV sequences in words like *habai* ‘friend’.

(III) A rather different solution is to suggest that the glottal stop in Jarawara is simply the phonetic realization of a phonological word boundary within a grammatical word when the second phonological word begins with a vowel, and of a clitic boundary between vowels. The glottal stop need not be marked in transcription, so long as we do mark a phonological word boundary or clitic boundary where this differs from a grammatical word boundary (which is done, by a ‘.’). Then it is a rule of pronunciation that *V.V* is pronounced [V'V] i.e. */a.ati/*, [a'ati].

The third alternative is preferred since it appears to reflect most naturally the way in which the language works. The glottal stop has a quite different distribution from the (other) phonemes of the language (*pace* alternative I) and it would be misleading to suggest that, say, *waba* and *aba* (represented now as *'aba*) have the same phonotactic structure (*pace* alternative II). However, I attempt to cater for all tastes by writing both the word boundary symbol . and the glottal symbol ' in the remainder of this grammar, e.g. *ata.'atabo*, *a.'ati*.

APPENDIX: SUMMARY OF PHONOLOGICAL RULES

P1a applicative *-ka-* → *-wa-* / prefix—*k*

P1b *-ka-* ‘be in motion’ → *-wa-* / prefix—*k*

P2a *iwa* → *ee* in 2sg-APPLIC, Oc-APPLIC

P2b *-awa-* → *-aa-* in CAUS-in.motion and APPLIC-in.motion, before *k* if there is no prefix before CAUS or APPLIC

P3 *a* → *e* / *-hi* or *-he* in tense-modal suffix

P4 *a* → *i* before eleven miscellaneous and eight mood suffixes

- P5 stressed *I* is realized as feminine *i* and masculine *i* predicate finally
(and *i* before a constituent consisting of three or more moras)
and as *i* elsewhere
unstressed *I* is realized as *i* before suffixes that trigger rule P4, or at the end
of a complement clause or a nominalized clause
and as *e* elsewhere

- P6a applicative *-ka-* → *-ko-* following *to-* or *o-* and preceding *b, m, f,* or *w*
P6b applicative *ka-* → *ko-* following *o-* and preceding *-hom*
P6c verb-initial *-ka-* → *-ko-* following *to-* or *o-* and preceding *b, m, f,* or *w*
P6d verb *-ka-* → *-ko-* following *o-* or *to-* and preceding a first echelon suffix beginning
with *b, m,* or *f*
P6e suffix *-kawaha* → *-kowaha-* after *o-*
P6f declarative *-ka-* → *-ko-* after *o-* and before *-bone*
P6g possessive *ka* → *ko* after *o-*
P6h possessive *-ka-* → *-ko-* after *o-* and before a kin term that begins with *(a)b,* *(a)m,*
w, or *(a)Co* (where *C* is any consonant)
P6i *a* → *o* within a PN, after 1sg prefix *o-*, when the PN begins with *b, m,* or *f* and
when the *a* is followed by *ho* or *ko*.
P7a *a* → *e/eh-* within a lexeme, when in it is an unstressed (even-numbered) mora on
the underlying cycle
P7b *-ka-* → *-ke-* / *-Ce*, where *C* is any consonant
P7b' *a* → *e* in prefixes *ka-* and *na-* / *-Ce*
P8a tense-modal initial unstressed syllable *-hV-* → \emptyset / *a-*
P8b in seven miscellaneous affixes, unstressed *-ha-* → \emptyset
P8c in the possessed noun *habo*, the *ha-* drops when unstressed on the underlying cycle
P8d in causative allomorph *niha-*, *-ha-* → \emptyset when unstressed on the underlying cycle
P8e in dependent clause marker *-haaro/haari-*, *-ha-* → \emptyset when it is an even-numbered
(i.e. unstressed) mora on the underlying cycle
P9a tense-modal initial unstressed syllable *-hi-* → \emptyset / *i-*, *e-*, *o-*
P9b when the *-hi-* is unstressed, miscellaneous suffix *-hitI* → *-ti* / *i-* (and perhaps also /*e-*,
although I have no example of this)
P10 tense-modal initial unstressed syllable *-ha-* → *a* / *i-* or *o-* (optionally)
P11 if *hi* in a miscellaneous suffix is unstressed, then *-hi-* > *-i-* / *a-*
P12 in a lexeme $\#(C)V_1hV_2-$ → $\#(C)V_1V_2-$ optionally
when $V_1 = V_2$, or $V_2 = \emptyset$, or $V_1 = a$ and $V_2 = i$, or $V_1 = i$ and $V_2 = a$.
P13 when *hV* is unstressed on the second stress cycle, *XhV* → *XV*
P14 *ai* → *ee*

Grammatical Overview

This chapter presents an introductory overview of the grammatical system of Jarawara. Each topic that is mentioned here is dealt with in more detail in a later chapter.

All of the discussion here and in the chapters that follow is in terms of basic syntactic functions, referred to by abbreviatory letters:

intransitive subject	S
transitive subject	A
transitive object	O

A copula clause shows quite different syntactic functions:

copula subject	CS
copula complement	CC

Copula subject behaves in many ways like intransitive subject. For this reason, there is no specific mention of CS for many of the grammatical statements in the body of the grammar. Unless something to the contrary is specified, it should be assumed that any statement concerning S also applies to CS. In contrast, CC has quite different properties from the other core functions—see §3.3.1, §11.2.2, and chapter 13.

One preliminary observation is in order. The distinction between derivational and inflectional morphology—which is so useful in describing languages from Europe and some other parts of the world—is of very limited use in the description of Jarawara, as of many other Amazonian languages. Two clearly derivational prefixes can be recognized: *na-* or *niha-*, which always has causative meaning and syntactic effect; and *ka-*, which can have applicative syntactic effect or may just provide one of several semantic modifications (see chapter 8). However, all verbal suffixes are optional. In many languages tense-modal constitutes an inflectional system, as does mood, while suffixes with meanings like ‘also’, ‘do while going along a path’, and ‘do continuously’ can be shown, on grammatical grounds, to be derivational. There are in Jarawara no grammatical criteria for dividing these and other verbal suffixes into derivational and inflectional classes.

An important feature of the language is that grammatical ordering is never rigid. Various ordering rules for syntactic and morphological elements will be stated. These apply in the great majority of instances and are regarded by speakers as the canonical patterns of the language. But it is always possible for a speaker to diverge from the canon in order to achieve some semantic or pragmatic effect. For example, the contrastive marker *taa* (§10.1.2) is generally placed at the end of an NP (only followed by the accusative marker *ra*, in the rare instances that this is used) but I have heard it used between the head noun and a possessed noun. Most verbal suffixes can be assigned a position in verb structure; they may, for special effect, be moved to another position but this happens rather rarely. There are, however, two suffixes (*-waha* ‘now, the next thing, then’ and *-tee* ‘habitual’) which show such fluidity of positioning that I refrain from assigning them to any specific slot,

instead discussing them at the end of chapter 5 under the heading ‘extra-echelon suffixes’—see §5.10.

3.1 HOMONYMS AND RELATIVE LACK OF REDUNDANCY

Jarawara has a small phonemic inventory—eleven consonants and four vowels—and a simple syllable structure, (C)V. Allowing for the fact that there is no contrast between *wo* and *o*, there are just $12 \times 4 - 1 = 47$ possible syllables and $47 \times 47 = 2,209$ possible disyllabic word shapes (long vowels would add a few more, but these are used very sparingly). Compare with the Australian language Dyrbal, which also has a small phonemic inventory—thirteen consonants and three vowels—but a much more complex phonotactics, CV(C)(C)CV(C), yielding 7,425 distinct disyllabic forms.

Yet the language has a strong preference for roots with just two moras; for example, leaving aside loans, 87 per cent of the verb roots in texts have just two moras. The number of lexemes must be at least of the order of ten thousand (as for every other language in the world). As a result, there is a large degree of homonymy. The noun *jifo*, for instance, is ‘fire, firewood’ and ‘hammock’ and ‘buriti (a palm sp., *Mauritia vinifera*)’; *fowa* is ‘bitter manioc (*Manihot esculenta*)’ and ‘mortar (for grinding)’ (and there are two inflecting verbs, both intransitive, *-fowa-* ‘swell, overflow, flood’ and *-fowa-* allomorph of ‘sit in water’ used when there is a prefix). The verb *saa-na-* has three meanings: ‘hit with arrow’, ‘peel’, and ‘vomit’. Gender can sometimes assist in disambiguation—*fowa* ‘manioc’ is masculine (m) while *fowa* ‘mortar’ is feminine (f)—but only to a degree. *Jifo* ‘fire, firewood’ is f but both *jifo* ‘hammock’ and *jifo* ‘buriti’ are m.

It is apparent that all Arawá languages have a fair degree of homonymy, but the phonological changes that have taken place between proto-Arawá and modern Jarawara have certainly produced more. For instance, the Jamamadí and Banawá dialects have *adi* ‘elder sister’ and *ati* ‘voice’; in Jarawara, where *d* and *t* have fallen together, both are *ati* (another example is mentioned in §11.2.4). There have also been nonce changes that have led to further homonymy. Proto-Arawá had three distinct possessed nouns **ino-ni/ino-ne* ‘tooth’, **ini-ni/ini-ne* ‘branch’, and **oni-ni/oni-ne* ‘name’ (where the forms are given as f/m). By the regular phonological changes that are described in §11.1.2, **ino-ni/ino-ne* ‘tooth’ became *ini/ino*. We would have expected **ini-ni/ini-ne* ‘branch’ to have become *ini/ini(-ne)*, but it too is *ini/ino*. Since the f forms of ‘tooth’ and ‘branch’ fell together, the m form of ‘tooth’ was analogized also to cover ‘branch’. By the normal diachronic changes **oni-ni/oni-ne* ‘name’ became *oni/oni* (and this is retained in the Jamamadí dialect). But this has undergone nonce metathesis of the m form to *ino* in Jarawara; since this is homonymous with the m form of ‘tooth’ and ‘branch’, their f form, *ini*, was also extended to cover ‘name’.

Homonyms have sometimes been introduced purely on semantic grounds. Proto-Arawá had **mahi* ‘sun’ and **bahi* ‘thunder’. These have been retained in Dení and in the Jamamadí dialect of Madi. But in Jarawara *bahi* is now used for both ‘thunder’ and ‘sun’. Note that the Banawá dialect has *mai* (< *mahi*) for ‘sun’ and ‘thunder’. Both Jarawara and Banawá have a single term for the two concepts but whereas Jarawara has generalized ‘thunder’ also to cover ‘sun’, Banawá has generalized the word for ‘sun’ also to refer to ‘thunder’. (Interestingly, Sorowhá retains *bai* (< *bahi*) for ‘thunder’ but has extended *masiko* ‘moon’ also to refer to ‘sun’.)

The same form, *jomee*, is used for both ‘jaguar’ and ‘dog’. This can be confusing for linguists—in one story, two men took two dogs to help them hunt two jaguars, and I sometimes found it difficult to know whether *jomee* was referring to the hunted or the hunter.

(Speakers generally know what is happening because they have heard the story several times before; they would sometimes revert to Portuguese when helping to clarify.)

Linguistic fieldwork on Jarawara is not easy, for a number of reasons. The first is that, in a language with both prefixes and suffixes, it can be difficult to find the root. One text included *nahoma*, in a context where a stance verb would be expected; but this could either be the inflecting verb *-naho-* ‘sit, stand (used of animate plural subjects)’ plus suffix *-ma* ‘back’, or the inflecting verb *-homa-* ‘lie on the ground (used of singular subjects)’ plus causative prefix *na-*; the second interpretation turned out to be the correct one. And it can be hard to distinguish between homonymous suffixes and suffix sequences. Consider *kobo kanamake*; *kobo* is a non-inflecting verb ‘arrive’, *ka-* is the applicative prefix, and *-na-* is the auxiliary root. But *-make* could be the miscellaneous suffix *-makI* ‘following’ (here realized as *-make* since the *I* is unstressed on the underlying cycle—see §2.9.3), or it could be the miscellaneous suffix *-ma-* ‘back’ plus feminine declarative *-ke*. These two possibilities may be distinguishable paralinguistically—declarative *-ke* is invariably sentence-final and pronounced with nasalization and rising intonation, features that are less likely to be found with the final syllable of *-make*.

One day, Alan Vogel had just caught a grasshopper (*habise*) as food for his son’s pet lizard. A Jarawara boy asked *habise ti-wati-ni?* ‘did you catch a grasshopper?’, using the inflecting verb *-wata-* ‘catch’ with 2sg pronominal prefix *ti-* and the polar interrogative suffix *-ni*. However, Vogel heard this as *habise tiwa ti-ni?* ‘did you carry a grasshopper on your shoulder?’, involving the non-inflecting verb *tiwa -na-* ‘carry on shoulder’ with prefix *ti-* and suffix *-ni* added to the auxiliary *-na-*, and the *-na-* then dropping, giving *tiwa ti-ni*.

The form *owa* is (a) the object form of the 1sg pronoun; (b) the m form of the possessed noun *one/owa* ‘other’; (c) the 1sg subject form of the inflecting verb *-awa-* ‘see, feel’, formed by prefixing 1sg *o-* to root *-awa-* and dropping the root-initial *a*; and (d) the 1sg subject form of the inflecting verb *-waa-* ‘stand’, which shortens its vowel when there is a prefix. Care is needed to distinguish these forms. Consider two of the ways of saying ‘I am sleepy’, using abstract noun *nokobisa* ‘sleepiness’—*nokobisa owa wasike* and *nokobisa owa oke*. Both sentences involve *owa* but it is the 1sg object pronoun, (a), in the first instance and the 1sg subject form of ‘see, feel’, (c), in the second. Thus:

(3.1a) *nokobisa_A owa wasi-ke*
 sleepiness(f) 1sgO find-DECLf
 I am sleepy (lit. sleepiness finds me)

(3.1b) *nobobisa_O o-wa o-ke*
 sleepiness(f) 1sgA-feel 1sg-DECLf
 I am sleepy (lit. I feel sleepiness)

In (3.1a), with verb *-wasi-* ‘find’, *nokobisa* is in A function with ‘me’ as O, shown by accusative pronoun *owa*. In (b) *nokobisa* is O and ‘I’ is the A pronoun, shown by prefix *o-* to verb *-awa-* ‘see, feel’.

On one occasion, I was trying to check whether a verb ‘fall’, attested in intransitive function, could also be used transitively, perhaps with the meaning ‘fall on’. I constructed a clause which included *owa*, intended to be the 1sg O function pronoun (‘fall on me’). But the consultant understood this as *owa* ‘other’, a modifier within an S NP in an intransitive clause (‘another tree fell’). This verb can, in fact, only be intransitive and the consultant interpreted my proffered sentence in this way; since the O pronoun *owa* ‘me’ cannot occur in a transitive clause, the form *owa* was understood as something which can occur in the S NP of an intransitive, i.e. *owa* ‘other’.

There is much homonymy between suffixes. This was mentioned in §2.9.2 where it was shown that the different kinds of vowel assimilation associated with homonymous affixes can assist disambiguation. But sometimes there are no concomitant vowel changes, as with the negative suffix *-ra* and the feminine form of the immediate past eyewitness (IPE) tense *-hara*, which can reduce to *-ra*. The two suffixes can co-occur, as in:

- (3.2a) fahas kowi-ra-ra-ke
 water(f) be.deep-NEG-IPef-DECf
 the water was not deep

One might sensibly ask: what if there were only one *-ra* in this clause, how could one tell whether it was negative or past tense? The answer is simple—there could not be just one *-ra* in this clause. The underlying form of the verb is *kowi-ra-hara-ke* with the *-ha-* of IPef *-hara-* dropping because this is the fourth mora and unstressed on the underlying cycle, and the preceding vowel is *a* (see rule P8a in §2.9.6). If negative *-ra-* were lacking we would have:

- (3.2b) fahas kowi-hara-ke
 water(f) be.deep-IPef-DECf
 the water was deep

Here *-ha-* is the third mora, and so stressed on the underlying cycle, and further it is following *i* and not *a*, and so this *-ha-* cannot be omitted.

Now what if there were negative *-ra-* and no tense specification? Well, there is a rule in Jarawara grammar that if there is a tense-modal suffix then negative *-ra-* must precede it, but if there is mood and no tense-modal (or secondary verb) then the negative suffix should follow the mood. We would thus get:

- (3.2c) fahas kowi-ka-re
 water(f) deep-DEC-NEGF
 the water is not deep

Note that declarative *-ke/-ka* has the neutral form *-ka* before negative, and the feminine gender of the S argument ('water') is cross-referenced on the verb by the final *e* on the negative suffix which is here word-final.

There are some suffixes that are homonymous with combinations of other morphemes. For instance, the fourth echelon miscellaneous suffix *-kanikima* 'scattered, spread out in lots of different places'—discussed at (7) in §5.7—is homonymous with the sequence of applicative prefix *ka-*, plus auxiliary *-na-*, plus second echelon miscellaneous suffix *-kima*. But these can be distinguished by their grammatical behaviour.

There is so much homonymy—between roots and between suffixes—in Jarawara that on many occasions I thought there were two possible interpretations of a given sequence of syllables. Just occasionally there were, but in the vast majority of instances there was no ambiguity for native speakers. Because of the morphotactic rules and restrictions in Jarawara there was generally just enough information to tell—solely on grammatical criteria—that only one interpretation was possible. Similar comments apply at the syntactic level.

All languages have a measure of redundancy. There are usually several points of difference between two construction types or morpheme sequences. That is, there is more information given than is strictly necessary—more than would be needed by a totally efficient parsing machine. The redundancy that languages work with allows for effective communication even when some information does not get through (there could be a loss due to channel noise, or some data may not get processed due to listener ignorance or error).

I gained the distinct impression that, while Jarawara certainly has some redundancy, it has less than most other languages. Sometimes there seems to be only *just enough* information available to enable one to arrive at the correct grammatical interpretation of a clause. This is illustrated in the discussion of relative clauses, in §24.1.

3.2 NUMBER AND ANIMACY

There are varying types of number opposition in different parts of Jarawara grammar. In some places there is a contrast between ‘one’, ‘two’, and ‘three or more’ and in others between ‘one’ and ‘two or more’. These could be called ‘singular/plural’ and ‘singular/dual/plural’ oppositions but this would entail using ‘plural’ with two quite different meanings, referring to ‘two or more’ in some circumstances and to ‘three or more’ in others. This could be confusing, and it seems more appropriate to employ terms that have the same meaning in each instance of use. The following are employed:

- singular (sg) for reference to one thing
- dual (du) for reference to two things
- plural (pl) for reference to three or more things
- non-singular (nsg) for reference to two or more things (i.e. covering dual and plural)

Summarizing the roles of number across the grammar:

- (1) 1st, 2nd, and 3rd person pronouns have different forms for sg and nsg reference.
- (2) About ten stance verbs have suppletive forms for sg, du, or pl reference for the S argument. There is some neutralization between semantically related verbs in du and pl numbers. For example (full details are in §26.2.1):

	‘sit’	‘stand’
sg S	-ita-	-wa(a)-
du S	<i>joro -na-</i> or <i>teme -na-</i> (in free alternation)	
pl S	-naho- for an animate and <i>sii -na-</i> for an inanimate S argument	

- (3) About nine further verbs have two suppletive forms, one for sg S or O and the other for pl S or O (for dual reference either the sg or the pl root is used, plus dual suffix ⁱkima). For example (a full list is in §26.2.1):

	‘be big, be much’	‘take out’
sg S	-nafi(ha)-	sg O -iti-
pl S	-fota-	pl O -jaba-

- (4) There is a second echelon miscellaneous verbal suffix ⁱkima which is used when the S or O argument (or, sometimes, some other constituent) has dual reference—see (1) in §5.5.

- (5) There is a sixth echelon verbal suffix *-rawa* which is used when any of the core participants (in S, A, or O function)—or, very occasionally, a peripheral participant—is feminine and has nsg reference; see (4) in §5.9.

- (6) One sense of the verbal prefix *ka-* is to mark an argument in S or O function that is dual and animate—see (e) in §8.2.2.

(7) A small class of verbs take the prefix *ka-* in another sense, to indicate that the S or O argument has sg reference; when *ka-* is omitted the S/O is understood to refer to ‘many entities’, for example *tao ka-na-* ‘shoot (one animal)’, *tao -na-* ‘shoot (many animals)’. See (f) in §8.2.2.

(8) For a further very small class of verbs *ka-* has the opposite effect. Here, when *ka-* is included there are multiple referents of the O argument and when *ka-* is omitted there is a single referent, e.g. *tani -na-* ‘(one thing) slides’, *tani ka-na* ‘(several things) slide’. See (g) in §8.2.2.

The distinction ‘animate/inanimate’ also plays an important role in the grammar. The sg/nsg distinction in 3rd person pronouns only applies for animates, including some ailments which are thought to be due to animals, plus the heavenly bodies ‘sun/thunder’, ‘moon’ and ‘stars’ (which are classed as ‘animate’). Reference to any kind of animates (including insects) involves making an obligatory choice between sg (zero pronominal cross-referencing) and nsg (marked by the 3nsg pronoun *mee*). All inanimates have zero pronominal cross-referencing; *mee* cannot be used with them. Note, though, that the verbal suffix *-rawa*, which refers to nsg feminine, is used with reference to all types of feminine nouns, whether animate or inanimate (e.g. ‘many bananas’).

A related distinction is shown lexically. There is a verb stem *-tama* ‘be many’ that is only used for countable things (regardless of animacy or gender); for non-countables (e.g. ‘water’) the verb *-naft(ha)-* ‘be much, be a lot’ has to be used.

The only place in the grammar where a distinction is made between ‘human’ and ‘non-human’ is in interrogatives: *hibaka* (f), *hi(ba/e)ke* (m) ‘who’, and *himata* (no gender distinction) ‘what’. The human/non-human distinction also has lexical realization. For example, the transitive verb *ehe -na-* ‘call’ is used where the O argument is non-human (typically, a domestic animal); for calling a human the verb *haa -na-* must be used.

3.3 WORD CLASSES

The following word classes can be recognized for Jarawara:

OPEN LEXICAL CLASSES

1. NOUN—there are introductory remarks in §3.3.2 and a full account in chapters 10 and 11.
2. VERB—there are introductory remarks in §3.3.3 and a full account in chapters 4–9.

CLOSED LEXICAL CLASSES

3. ADJECTIVE. There is a closed class of (in the corpus) fourteen adjectives, with meanings ‘big’, ‘little’, ‘large type’, ‘small type’, ‘unripe’, ‘immature (of fruit)’, ‘new, young’, ‘old’, ‘bad’, ‘enough’, ‘real, prototypical’, ‘another’, ‘alone, empty’, and ‘all and only’. There is also a derivational process, of limited productivity, for deriving adjectives from stative verbs. Adjectives are very similar to possessed nouns in their grammatical properties. Criteria for recognizing adjectives and for distinguishing them from possessed nouns, and a full listing, are in §11.2.
4. CLAUSE-FINAL MODIFIERS. There are eight forms with an adverbial-type function and meaning: ‘again’, ‘also’, ‘in the morning, tomorrow’, ‘do first’, ‘unusual, unexpected’, ‘for a short time’, ‘now; the next thing’, and ‘take no responsibility for’. All of them can also function as verbal suffixes, with the same meaning. Indeed, the same form is not infrequently used twice in a clause, both as suffix and as clause-final modifier, with reinforcing meaning. See §14.3.

CLOSED CLASSES OF SHIFTERS

5. PRONOUNS—see §3.3.1.
6. DEMONSTRATIVES AND LOCATIONALS—see chapter 12.

CLOSED META-CLASS

7. INTERROGATIVES. Members of this class also belong to noun ('what', 'who'), locational ('where'), and verb ('what about', 'be how many') classes but are grouped together as being all markers of content questions, and sharing some grammatical properties—see §15.3.

CLOSED GRAMMATICAL SYSTEMS

8. DISCOURSE/TIME MARKERS. Note that there is no class of temporal shifter lexemes (such as: 'yesterday', 'today', 'tomorrow'; 'now', 'then'). Most temporal information is provided by tense-modal and other verbal suffixes. However, discourse markers (a type of clause-initial element) have a temporal component to their meanings, e.g. 'then', 'later'—see §14.2.2.
9. POSTPOSITIONS. There is a very general postposition, *jaa* (marking peripheral NPs and also a type of subordinate clause), which corresponds to English *at*, *in*, *on*, *to*, *from*, and *with*. Jarawara also has two rather specific postpositions: *tabijo* 'due to the absence of/lack of' and *namoni* 'taking news of'. There is a possessive marker *kaa* and a postposition *kaaro/kaari* which can follow NPs with the meaning 'along, through' or nominalized clauses with a variety of meanings, including 'because of'. The forms *ni-ma* and *ti-ma* 'be similar to, be the same as' can also be analyzed as postpositions. These are all discussed in chapters 20 and 21.
10. INTERJECTIONS—see §14.2.1. Note that this class does not include a negative interjection. The only way of indicating negation is through the verbal suffix, which must be used with a verb.

Classes 3–10 each have a limited number of members, which can be listed, and a distinctive syntactic function. These will be fully discussed in the appropriate chapters below.

The noun and verb classes are open, with more members continually being added; criteria need to be given for distinguishing them. Verbs can take an extensive array of prefixes and suffixes, listed in chapters 4–9. Some verbal suffixes may also be added to an NP (which can consist just of a noun). However, various assimilations which apply when the suffixes are part of a verb word do not apply when they are used on an NP. A verb is the head of a predicate, and it must be preceded by obligatory pronominal markers of S, or of O and A. A free noun is head of an NP and can be followed by adjective(s), possessed noun(s), augment marker, etc.

3.3.1 Pronouns

Pronouns play a pervasive role in the grammar of Jarawara so that it will be useful to present all pronominal forms, in table 3.1.

The full functional possibilities of the slots are explained in §§4.1 and 4.4. Briefly, the first slot (slot A) in each transitive predicate is filled by an object pronoun, in O function. The second pronominal slot, slot B, immediately before the verb, is filled by a subject pronoun, in A or S or CS function. The same form can fill what is called the 'third pronominal position' (slot H), towards the end of the predicate (and here it refers to S in an intransitive, sometimes

TABLE 3.1 Pronominal forms

	First pronominal position (slot A in predicate structure)	Second and third pronominal positions (slots B and H in predicate structure)	Cardinal pronouns	Alienable possessor in NP	Inalienable possessor in NP
1sg	owa	o-	owa	oko	o-, oko
2sg	tiwa	ti-	tiwa	tika	ti-, tika
3sg animate	∅	∅	∅	hinaka	fee ~ hee
3 inanimate	∅	∅	∅	—	—
1inc	era	ee	ee	ee kaa	ee
1exc	otara	otaa	otaa	otaa kaa	otaa
2nsg	tera	tee	tee	tee kaa	tee
3nsg animate	mee, mera	mee	mee, mati	mee kaa	mee

to A in a transitive, and other times to O in a transitive clause, depending on the construction type and other facts—or else to possessor in a core NP—see §4.4 and chapter 16).

All of the pronominal forms within the predicate are separate grammatical and phonological words except for the 1sg and 2sg forms in the second and third pronominal slots; here we get prefixes *o-* and *ti-*. Note that 3sg is almost always zero. We can tell that an S, A, or O argument is 3sg by the absence of any pronominal form in the appropriate slot.

The cardinal pronouns have three functions:

- (i) They may make up a copula complement (CC) NP; see chapter 13.
- (ii) If a postpositional dependent clause has a pivot which is 1st or 2nd person or 3nsg, then the pivot pronoun, in cardinal form, may appear in clause-final position as dependent clause marker; see §18.1.2.
- (iii) A post-predicate NP may consist of *haa* followed by a cardinal pronoun, e.g. *haa'owa*, 1sg; see §10.3.

For 3nsg, only *mee* can occur as copula complement, but either *mee* or *mati* as dependent clause marker and either *haa.mee* or *haa.mati* as post-predicate NP.

For the possessor columns in table 3.1, 1sg *o-* plus *kaa* becomes *oko* while 2sg *ti-* plus *kaa* becomes *tika*. Some inalienably possessed nouns take *o-* and *ti-* while others take *oko* and *tika* (see §11.1.3).

The dialects of Madi have the most complex pronominal system of any Arawá language, distinguishing two 1nsg forms—1nsg inclusive (here referred to just as 1inc) *ee*, which includes the addressee ('me and one or more others, including you') and 1nsg (here just 1exc) *otaa*, which excludes the addressee ('me and one or more others, not including you'). Note that *ee* also has an impersonal sense (a bit like *you* in English when used in the sense of *one*, as in *Do you need a visa to visit Brazil?*). For example, if a Jarawara is shown a picture of a new animal the first question is often *ee kaba-tee awa?* (1inc eat-HABITUAL SEEMSM) 'is it edible?' (lit. 'does one eat it?').

The 3nsg pronoun can only be used to refer to animates, plus the sun/thunder, moon, and stars, which are assigned animate status in Jarawara cosmology (see §10.1.5). It is most

appropriate to say that the number system (of singular/non-singular) applies only to animates. Any number of inanimate things will receive zero cross-referencing in the predicate; this is the unmarked 3rd person form—used for 3sg for animates and for all 3rd person for inanimates. In the case of animates and celestial bodies, non-singular number *must* be marked by the use of 3nsg pronominal form *mee* or *mera* or *mati* (unless the verb bears suffix *-rawa*, marking nsg reference for a core argument with f gender—see (4) in §5.9).

The forms of the 3nsg pronoun are interesting. Whereas the other non-singular pronouns (1inc, 1exc, and 2nsg) always take the accusative suffix *-ra* when in O function (in first pronominal slot), 3nsg never takes *-ra* when occurring with a 1st or 2nd person subject, but may optionally do so when the subject is 3rd person, in an A-construction (Ac). In an O-construction (Oc), the 3nsg pronoun in O function is always *mee*, never *mera*.

In an A-construction, 3nsg O is usually given as *mera* when A is 3sg, otherwise it might be impossible to know whether we had \emptyset (3sg O) plus *mee* (3nsg A) or *mee* (3nsg O) plus \emptyset (3sg A). But, where no ambiguity is likely, just *mee* can be used. Sometimes we find *mera* employed in one clause (to indicate that the 3nsg has O function here) and then just *mee* (also for 3nsg O) in the next clause. This happens in:

- (3.3) Jima_O *mera* to-na-ka-maki-wahe-mata-monaha;
 name(m) 3nsgO AWAY-CAUS-in.motion-FOLLOWING-NEXT.THING-FPnm-REPM
 Jima_A *mee* to-na-ka-makihi
 name(m) 3nsgO AWAY-CAUS-in.motion-FOLLOWINGM
 he is said then to have gone after the Jima people; he goes after them

Note that here the second clause repeats the first, missing off the miscellaneous suffix *-waha* ‘then’ and the far past tense suffix; this is a common discourse strategy in Jarawara.

In elicitation, speakers of Jarawara say that it is acceptable to use *mera* for 3nsgO when A is also 3nsg, i.e. *mera mee*; but in practice just *mee* is almost always used, i.e. *mee mee*. The inclusion of *-ra* here would add nothing at all since *mee mee* can only refer to 3nsgO plus 3nsgA.

Further differences from the other pronouns are shown by 3nsg. There are variations in occurrence possibilities in the third pronominal position (see §4.4 and chapter 16). *Mee* also functions as an animate ‘augment’ within an NP (§10.5.1). It is the first element in three special non-singular noun forms (§10.5.4). And 3nsg has the allomorph *mati* when it comes at the end of a clause (in one of several functions). As mentioned in §2.8, this 3nsg pronoun—which does not occur in any other Arawá language—is probably a grammaticalization from **madi* ‘person’ (after which the language is named) by changes **madi* > *mai* > *mee*. The fact that *mee* has a clause-final co-allomorph *mati* (the Jarawara reflex of **madi*, after **d* > *t*) provides support for this. Note also that the Jamamadí dialect has *mai* in alternation with *mee*, and that the 3nsg form *mai* occurs in Jarawara songs (typically a medium that preserves archaic characteristics).

There is no special reflexive pronoun. Reflexive constructions may simply use the same pronoun in A and O functions (e.g. ‘I cut me’) but most typically include a possessed noun in the O argument (e.g. ‘I cut my hand’); see §11.1.4. When the reflexive argument is 3sg, the form *hine/híwa* ‘just’ may be used; see §11.1.5. Reciprocals are a subtype of a collective construction, marked by PN *abee* or *ibee*; see §11.1.6.

3.3.2 Nouns

Nouns divide into two subclasses. There is an open class of free nouns, with some thousands of members, and a class of possessed nouns (PNs) with around 175 members (in the corpus collected).

The subclass of free nouns is open and loans are steadily added to it. The subclass of PNs is basically closed. As mentioned in chapter 11, a few recent loans from Portuguese have variable grammatical use, being sometimes used like PNs and sometimes like adjectives; they have not yet taken on a coherent grammatical profile within the language. There appears also to be a semi-productive process which creates new PNs; this involves adding suffix *-ri* to an intransitive verb, free noun, or adjective.

A PN will normally occur in an NP with a free noun (following the full noun), and refers to a constituent part (for example, ‘head’ of person, ‘trunk’ of tree) or an abstract feature (‘smell’, ‘noise’, ‘pain’) or a spatial part (‘top’, ‘inside’) of the possessor, or an entity closely associated with the possessor (‘path’, ‘basket’), or provides quantification (‘all’). There is a full account in §11.1.

The great majority of free nouns have concrete meaning—referring to aspects of humans, fauna and flora, artefacts, geographical and celestial features, and the like. There are just a few abstract free nouns, for instance *nokobisa* ‘sleepiness’—illustrated in (3.1)—and *bakasi* ‘thirst’ (note that hunger is described by a verb *-fimi-* ‘be hungry’). A subclass of free nouns refers to location: ‘near’, ‘far’, ‘downstream’, and ‘upstream’—see §12.4. There are also free nouns *hibati* and *hibajata* with (rather complex) temporal reference; they are discussed in §6.4.

Each free noun has an inherent gender—feminine (f) or masculine (m); feminine is the unmarked term from this system. All nouns referring to humans have gender according to the sex of the referent, e.g. *fana* (f) ‘female’, *maki* (m) ‘male’. There are just a few human nouns that can take either m or f gender agreement according to the sex of the referent, e.g. *inamatewe* ‘child’, *habai* ‘friend’, *hiti* ‘owner’, some kin terms (see §10.4.1), and tribal proper names such as *Wahati* ‘Jamamadi’.

Nouns referring to non-human animates have a fixed gender (with about 85 per cent being m) but if the sex of a higher animal is known and focused on, the appropriate sex-determined gender can be used, e.g.

kerewe (f)	‘sloth (sp.)’	wafa (m)	‘woolly monkey’
kerewe (maki) (m)	‘male sloth’	wafa (maki) (m)	‘male woolly monkey’
kerewe (fana) (f)	‘female sloth’	wafa (fana) (f)	‘female woolly monkey’

All flora and other inanimate things have fixed gender, with no possibility of variation, e.g.

sami (f)	‘pineapple’	kimi (m)	‘sweet corn, maize’
karaboha (f)	‘blowgun’	wati (m)	‘arrow’

About 53 per cent of plant names are m, but for nouns referring to other inanimate things about 80 per cent are f. There is a discussion of the partial semantic basis for gender assignment in §10.1.3.

Gender is not shown in the form of a free noun, but by agreement with other items with which it is in syntactic construction (see §10.1.3). For instance, the adjective ‘small’ has two forms, *bite*/*biti*. Thus:

karaboha bite (f)	‘small blowgun’	wati biti (m)	‘small arrow’
-------------------	-----------------	---------------	---------------

Slightly less than half the PNs have distinct f and m forms; which form is used reflects the gender of the free noun that is being modified; for example:

ami noki	‘mother’s eye’	abi noko	‘father’s eye’
ami tame	‘mother’s foot’	abi teme	‘father’s foot’
ami ame	‘mother’s blood’	abi eme-ne	‘father’s blood’
ami hawi	‘mother’s path’	abi hawi-ne	‘father’s path’

The remaining PNs have invariable form, e.g.

ami tati ‘mother’s head’ abi tati ‘father’s head’

Comparative reconstruction shows that in proto-Arawá all PNs had distinct f and m forms, shown by suffixes *-ni* and *-ne* to an invariable root. Diachronic changes have led to the variety of gender marking on PNs in modern Jarawara: **noko-ni/noko-ne > noki/noko*, **tama-ni/tama-ne > tame/teme*, **ama-ni/ama-ne > ame/eme-ne*, and **hawi-ni/hawi-ne > hawi/hawi-ne*. These changes have also led to f and m forms falling together for just over half the PNs, e.g. **tati-ni/tati-ne > tati/tati*. Full details are in §11.1.2.

Most suffixes to a verb have distinct f and m forms and they cross-reference the gender of the S argument in an intransitive clause, of the A argument in a transitive A-construction, and generally of the O argument (but sometimes of the A argument) in a transitive O-construction. This can be illustrated with the intransitive inflecting verbs *-tafa-* ‘eat’ and *-koma-* ‘be sore’, and declarative suffix *-ke/-ka*:

- (3.4a) kerewe tafa-ke the sloth (f) is eating
 (3.4b) wafa tafa-ka the woolly monkey (m) is eating
 (3.4c) ami noki koma-ke mother’s eye (f) is sore
 (3.4d) abi teme koma-ka father’s foot (m) is sore

Many PNs can also function as free nouns, e.g. *ama* ‘blood’ and *hawi* ‘path’. Note that the free noun *ama* is different from both of the gender forms of the PN (f *ame* and m *eme-ne*), while *hawi* is the same as the f form of the PN. In each case the free noun continues the original proto-Arawá root. All free forms of what are basically PNs have f gender with one exception—‘thorn’ has possessed forms *ati-ne/ati-ne* and free form *atiwa*, which is m.

As mentioned before, f is the unmarked gender in Jarawara. All (non-zero) pronouns—whether referring to male or female people or relating to m or f nouns—are cross-referenced on the verb as feminine. Thus, in (3.5) the verb takes the f form, *-ke*, of the declarative suffix. (The second occurrence of 1sg *o-* in (3.5a) is the ‘third pronominal position’, to be discussed in §3.5 and §4.4.)

- (3.5a) o-tafa o-ke I am eating
 (3.5b) otaa tafa-ke we (exc) are eating
 (3.5c) mee tafa-ke they are eating

We can add an NP before the predicate in (3.5c), to further specify the subject:

- (3.6a) wafa_S mee tafa-ke
 woolly monkey(m) 3nsgS eat-DECf
 the woolly monkeys are eating
 (3.6b) kerewe_S mee tafa-ke
 sloth sp.(f) 3nsgS eat-DECf
 the sloths are eating

Note that with a non-singular NP, whether the head is an f or an m noun, the 3nsg pronoun *mee* must be included at the beginning of the predicate (unless the predicate includes 3nsg f suffix *-rawa*) and this triggers f agreement on verbal suffixes.

Thus, m agreement is only found with a singular m animate, as in (3.4b) and (3.4d), or with any m inanimate (since there is no number system in operation for inanimates, the 3nsg pronoun *mee* is never used). In all other cases, f agreement applies: when cross-referencing

non-singular animate m, for all f (whether animate or inanimate, singular or non-singular), and for all pronouns.

The unmarked status of f in the gender system is also demonstrated by the fact that *himata* ‘what’ is cross-referenced as feminine when the speaker has no idea about the gender of the noun which would be an appropriate answer to the question; see (10.7).

In the remainder of this grammar, PNs will generally be quoted with f/m forms, even when these are identical, e.g. *noki/noko* ‘eye’, *tati/tati* ‘head’. Free nouns will, when appropriate, be quoted with their inherent gender, e.g. *wafa* (m) ‘woolly monkey’.

3.3.3 Verbs

Jarawara is characterized by a great number of verbs referring to stance (‘sit’, ‘stand’, ‘be lying’, ‘be inside’, ‘put’, etc.) and also a fair number referring to motion. Other fields of lexical specification include: eating, cooking, carrying, and tying. And there are a good number of stative verbs, corresponding to adjectives in other languages. These include ‘be good’, ‘be strong’; verbs for colours (‘be black’, ‘be white’, ‘be red’, ‘be blue/green’); verbs for physical properties (‘be cold’, ‘be hot’, ‘be wet’, ‘be dry’, ‘be smooth’, ‘be heavy’) and for human propensities (‘be angry’, ‘be sad’, ‘be scared’, ‘be happy’).

Verbs are classified in terms of two parameters—by transitivity status, and according to whether or not the verb root accepts affixes. Just on one-third of verb roots in the corpus are inflecting, accepting prefixes and suffixes; all the verbs used in (3.4–6) were of this type. The remaining verbs are non-inflecting and must be followed by an auxiliary root, either *-na-* or *-ha-*, which takes the prefixes and suffixes, e.g. *jaka -na-* ‘walk’, *maa -ha-* ‘be tired’. The class of inflecting verbs appears to be closed; all loan verbs are of the non-inflecting variety.

Compare the placement of the IPef tense suffix *-hara* (which reduces to *-ra* when the *-ha-* is unstressed on the underlying cycle) and feminine declarative *-ke* on the inflecting verb in (3.7a) and on the auxiliary of the non-inflecting verb in (3.7b):

- (3.7a) Jane tafa-hara-ke Jane ate
 (3.7b) Jane jaka na-ra-ke Jane walked

It was shown in table 3.1 of §3.3.1 that non-singular subject pronouns (in the second pronominal position, predicate slot B) are free forms. They go immediately before the verb, whether it is inflecting or non-inflecting. With 3nsg *mee*:

- (3.8a) mee tafa-hara-ke they ate
 (3.8b) mee jaka na-ra-ke they walked

However, 1sg *o-* and 2sg *ti-* are prefixes. They go directly onto an inflecting verb, as in (3.9a), but onto the auxiliary of a non-inflecting verb, as in (3.9b):

- (3.9a) o-tafa-ra o-ke I ate
 (3.9b) jaka o-na-hara o-ke I walked

The great majority of non-inflecting verbs take auxiliary *-na-*. There are only a dozen or so instances of verbs taking *-ha-* (a full list is in §26.2.2). There is a partial semantic basis, with *-ha-* used for states and *-na-* for actions. Both of the auxiliary roots have lexical verbs as homonyms; *-na-* is an intransitive verb ‘exist’ and *-ha-* is a copula, ‘become’. There is more discussion of the semantics of auxiliaries and the inflecting/non-inflecting parameters in §26.2.2.

Throughout this grammar, inflecting verbs will be shown with a hyphen at the beginning and end, e.g. *-tafa-* ‘eat’, and non-inflecting verbs with the appropriate auxiliary, e.g. *jaka -na-* ‘walk’, *maa -ha-* ‘be tired’.

The other parameter in terms of which verbs are classified is transitivity. There are two main types of clause in Jarawara—transitive, with A and O core arguments, and intransitive, with a single core argument, in S function. There is also a minor clause type, copula construction, which has two arguments, a copula subject (CS) and a copula complement (CC)—see chapter 13.

Leaving aside the small class of copula verbs, which only occur in copula constructions, and the two secondary verbs, which can be placed just before mood in the predicate (§7.1), verbs in Jarawara fall into four transitivity classes:

- (i) Strictly intransitive (int). Can only occur in an intransitive clause, e.g. *-ka-*, ‘be in motion’; slightly more than half the verbs in the dictionary are strictly intransitive.
- (ii) Ambitransitive of type S=A. Can occur in an intransitive or in a transitive construction with the S of the first corresponding to the A of the second; I know of a couple of dozen verbs of this type.
- (iii) Ambitransitive of type S=O. Very many verbs can occur in an intransitive or in a transitive construction with the S of the first corresponding to the O of the second.
- (iv) Strictly transitive (tr). Some verbs are only attested—in the corpus—in transitive clauses but when tested with consultants, many of them are found to be S=O ambitransitives. There are, however, a fair number of verbs which may only be used in transitive clauses; for example *firi -na-* ‘illuminate, shine light on’.

Although types (ii) and (iii) are both ambitransitive, they have quite different syntax and semantics and it is important to distinguish between them. The S=A type can be exemplified with *haa -na-* ‘call (to)’, used intransitively in (3.10a) and transitively in (3.10b).

(3.10a) faja Motobi_S haa na-re-ka fahi
 THEN name(m) call AUX-IPem-DECm THERE.NON.VISIBLE
 then Motobi called out

(3.10b) towisawa_A otara haa ne-ri
 chief(m) IexcO call.to AUX-RPem
 the chief called out to us

The S=O type can be exemplified with the verb *-kaba-* ‘eat, be edible’, used transitively in (3.11a) and intransitively in (3.11b).

(3.11a) jao_O o-koba-tee ama o-ke
 sloth sp.(m) IsgA-eat-HABIT EXTENT Isg-DECf
 I customarily eat sloth

(3.11b) maka_S kaba-tee-ra ama-ke
 snake(f) eat-HABIT-NEGF EXTENT-DECf
 snake isn’t customarily eaten (i.e. ‘we don’t eat snakes’)

Quite a number of S=O type ambitransitives typically have an inanimate as S/O argument, e.g. ‘break’, ‘tie up’, ‘roast’—they generally refer to an action in which the referent of the O argument is physically affected. See also §26.2.3.

I know of just two verbs which can be ambitransitives of both type S=A and type S=O. They are:

- (a) *afi -na-* appears to be basically intransitive with the meaning ‘bathe, take bath’. As a transitive verb with S=O orientation it means ‘give a bath to, bathe (e.g. a baby)’. As

a transitive verb of S = A type it can mean ‘jump into water’ and the O NP is *faha* ‘water’.

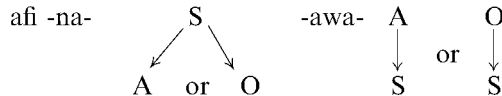
- (b) *-awa-* is basically a transitive verb ‘see, look at, look for’, as in (3.12a). When used intransitively it can either be of S = O type, with meaning ‘be visible’, as in (3.12b), or of S = A type, with meaning ‘look’, as in (3.12c). Note that in the S = A intransitive sense the S NP must include the possessed noun *noki/noko* ‘eye’.

(3.12a) *jifo*_O *o-wa*
 firewood(f) 1sgA-look.for+f
 I look for firewood

(3.12b) *abariko*_S *awe* *ama-ka*
 moon(m) be.visible+m EXTENT-DECM
 the moon is visible

(3.12c) *noko*_S *awe-himata-mona-ka*
 eye(m) look-FPnm-REPM-DECM
 he is said to have been looking

It is interesting to compare the two double ambitransitive verbs. It appears that *afi -na-* is basically intransitive and that its S can become either O or A in a transitive clause, while *-awa-* is basically transitive, with either A or O becoming S in an intransitive clause. That is:



The important point to note is that when *-awa-* is used intransitively in an S = A sense *noki/noko* ‘eye’ must be included in the S NP, to distinguish this from the S = O sense. And when *afi -na-* is used transitively in the S = A sense the O NP is *faha* ‘water’.

Transitivity and the inflecting/non-inflecting division are basically independent parameters. In both cases, however, there is some semantic basis and this leads to a number of partial correlations, e.g. most stative verbs are both intransitive and inflecting—see §26.2.2.

Verbs in Jarawara tend to refer to a type of action rather than to the effect the action has on an object. As a result, there can be considerable fluidity concerning which participants are mapped onto core arguments. For instance, the transitive verb *tisa -na-* is used to refer to shooting an arrow, often at a fish in a stream. The O argument may be the arrow used (the instrument) or the fish aimed at (the target) or the water in which the fish swims (the locus). The verb simply describes a type of action and may bring into focus (as O argument) any non-A participant. There is further discussion of this in §26.2.4.

There are just a few examples of a root being associated with two word classes, where it is difficult to know which (if either) is the primary membership. These include:

FREE NOUN	VERB
<i>karaboha</i> (f) ‘blowgun’	<i>-karaboha-</i> (tr) ‘shoot an animal (O) using a blowgun’
<i>atabo</i> (f) ‘mud’	<i>-atabo-</i> (int) ‘be/get muddy’

There is discussion of this in chapter 25; see especially (25.20).

3.4 BASIC CLAUSE STRUCTURE

Five components can be recognized in the structure of a verbal main clause; of these, only the predicate is obligatory. They occur in the following order:

I. CLAUSE-INITIAL ELEMENTS. Any combination of:

- 1a.** An interjection. This is effectively in apposition to the rest of the clause. It can make up a complete utterance by itself and could—alternatively—be regarded as always making up a separate clause. For example *ee* ‘yes’, *(hi)kaa* ‘goodness!’ See §14.2.1.
- 1b.** A discourse-time marker, e.g. *faja* ‘then’, *manakobisa* ‘later on’; see §14.2.2.
- 1c.** The locational demonstrative *aja* ‘here’—see §12.1.2; or the locational interrogative *hi(ba)ka* ‘where’—see §15.3.3.
- 1d.** A peripheral NP or clause marked by a postposition or a relational marker; see chapters 20–2.

2. CORE NPs. One NP in S function for an intransitive clause, and one or two NPs in A and/or O function for a transitive clause, and one or two NPs in CS and/or CC function in a copula clause.

3. PREDICATE, which includes obligatory reference to core arguments and can make up a clause on its own.

4. CLAUSE-FINAL ELEMENTS (see §14.3). Any combination of:

- 4a.** One or more clause-final modifiers such as *tasa* ‘again’, *bisa* ‘also’, *mina* ‘in the morning’, *waha* ‘now, the next thing’, *mata* ‘a short while’.
- 4b.** An adverbial demonstrative *ahi* ‘here (visible)’ or *fahi* ‘here/there (non-visible)’.
- 4c.** A peripheral NP or clause marked by a postposition, the same as (1d) in clause-initial elements.
- 4d.** In a dependent clause, a non-affixal marker referring to the person and number of the linking argument.

5. A POST-PREDICATE NP, expanding the reference of an S, A, or O argument; these are used sparingly, for afterthoughts and special emphasis—see §10.3.

Dependent clauses have similar structure to a main clause but with a dependent clause marker which can (if a suffix) go into the mood slot at the end of the predicate or (if not a suffix) be a clause-final element.

Constituents 4 and 5 are illustrated in (3.13–17). In (3.13) the clause-final modifier *mata* (4a) follows the peripheral NP marked by postposition *jaa* (4c) while in (3.14) the modifier *waha* (4a) and demonstrative *ahi* (4b) both precede the peripheral NP (4c). In (3.15) the demonstrative *fahi* (4b) precedes the modifier *waha* (4a). This suggests that there is no fixed ordering between the various clause-final elements within slot 4. In the last two examples there is a dependent clause marker, in slot 4d, followed by a post-predicate NP (slot 5). In (3.16) the NP consists of *mowe.ete* ‘pirarara (name of a type of fish)’ plus non-singular marker *mati* (the allomorph of *mee* that occurs in clause-final position) expanding the short reference to the O NP by *mee* in the first slot of the predicate. In (3.17) the post-predicate NP repeats the 1exc S pronoun *otaa* from the predicate and has proposed *haa*. The post-predicate NP is here used for

emphasis: ‘we, ourselves...’

- (3.13) [ee to-ko-make-ra-ba ee-ke]_{PREDICATE}
 IincS AWAY-in.motion-FOLLOWING-NEG-FUTf Iinc-DECf
 [[mee tabori] jaa]_{4c} [mata]_{4a}
 3nsg village+f PERI SHORT.TIME
 we won’t go following (them) into their village just yet (lit. not for a short while)
- (3.14) [otaa kobo na-ma otaa-ke]_{PREDICATE} [waha]_{4a} [ahi]_{4b}
 IexcS arrive AUX-BACKf IEXC-DECf NEXT.THING HERE.VISIBLE
 [Kasanofa jaa]_{4c}
 village.name PERI
 the next thing was we arrived back here at Casa Nova
- (3.15) [ajaka]_O [mee hiri na-ra-ke]_{PREDICATE} [fahi]_{4b} [waha]_{4a}
 festa(f) 3nsgA make AUX-IPef-DECf THERE.NON.VISIBLE NEXT.THING
 the next thing was they made a festa (feast) there
- (3.16) [mee mee mari na]_{PREDICATE} [mati]_{4d} [mowe.’ete mati]₅
 3nsgO 3nsgA feast.on AUXf 3nsgDEP pirarara(m) AUG
 they, who feasted on them, on pirarara (fish)
- (3.17) [otaa wana-ra]_{PREDICATE} [otaa]_{4d} [haa.’otaa]₅
 IexcS be.joined.up-NEGf IEXCDEP EMPH.IEXC
 we ourselves don’t join together (holding hands in a dance) (in contrast to others,
 just mentioned in the text, who do)

Peripheral NPs are almost always placed either before core NPs or after the predicate (exceptions are known, but they are extraordinarily rare—two are at T3.4 and T3.16). The postposition *jaa* is a general peripheral marker that can occur with a clause (then indicating ‘when’ or ‘while’ or ‘since’) or on an NP; *jaa* marks most sorts of peripheral NP and translates a wide range of English prepositions, e.g. *into* in (3.13), *at* in (3.14), the underlying O NP in a causative construction such as (3.20), and also *with*, *for*, and *from*. It is interesting that the same marking is used on an NP for ‘to’ and ‘from’. The actual sense has to be inferred from other information in the clause, e.g. the inclusion of verbal prefix *to-* ‘away’, or from the context (see §4.3).

The wide semantic range of *jaa* and the considerable homonymy in Jarawara can lead to difficulties, at least for linguistic fieldworkers. For instance, in transcribing a text about how bark canoes used to be made (before the advent of metal tools led to them being replaced by dug-out canoes)—in T3.2—I came across:

- (3.18) [bari kaa jaa] [mee kaa hi-ka-ne]
 3nsgA cut OC-APPLIC-AUXm
 they cut it

This part of the text describes taking bark off a tree. The predicate is ‘they cut it’. There is no explicit marking of the O NP on the predicate, which indicates that it must be 3sg animate or 3 inanimate. The *hi-* prefix indicates an O-construction, where the final element of the verb cross-references gender of the O; it shows m, which is the gender of ‘bark canoe’ and of the tree from which it is made.

The transitive verb *kaa-na-* is most frequently used to refer to chopping through a tree with an axe (*bari*), e.g. when clearing a patch of forest for a new garden. I at first thought that *bari kaa jaa*, with the multi-function peripheral postposition *jaa*, was an instrumental NP ‘with an

axe' (I was at this stage unsure of the function of *kaa*, save that it often precedes *jaa*; it is a different form from the verb *kaa -na-* 'cut'). But I had forgotten two things. First, there is a PN *bari|bari* 'outer part of, back' which is homonymous with the free noun *bari* 'axe'. Secondly, verbs in Jarawara tend to refer to a general type of action without particular attention to the nature of the participants involved or the result. I have heard *kaa -na-* used to describe a piece of firewood being banged against a tree trunk to break it. The general meaning of *kaa -na-* appears to be 'bring something into contact with a tree trunk'. Here it describes cutting around the outline of a canoe on the outer surface of the bark with a sharp knife (not with an axe). *Bari kaa jaa* provides locational specification 'around the back (of the tree)'. (In fact, the inclusion of *kaa* 'along, through' before *jaa* should have alerted me to the fact that *jaa* here has a locational and not an instrumental sense—see §21.1.1. But at the time I did not fully understand this use of *kaa*.)

Something should be said about the ordering of core NPs within a clause. More than half the clauses in Jarawara texts are intransitive. Of the transitives, some contain no NP in slot 2 but the majority have just one, in either A or O function (most frequently, an O NP in an A-construction, and an A NP in an O-construction—see §3.4.1). Only about 3 per cent of transitive clauses have both A and O NPs stated. When this does happen, about 85 per cent of the time in an A-construction the A NP precedes the O NP and about 73 per cent of the time in an O-construction the O NP precedes the A NP. But the order is not fixed and is in no manner grammatically significant. Consultants treated questions about constituent order as lacking insight (insight on the part of the linguist in asking such questions). Just occasionally it might be unclear which of two NPs is in A and which in O function. There are mechanisms for disambiguation (see §15.3.2) but they do not include falling back on an underlying constituent order.

The essential arbitrariness of constituent order in Jarawara is shown in the following textual sequence of two clauses, which include the same two NPs in opposite orders (this is T3.15):

- (3.19) $jifo_O$ $okobi_A$ afo $ka-ne$,
 fire(f) 1sgPOSS+father(m) light.fire APPLIC-AUXM
 $okobi_A$ $jifo_O$ afo $ka-ni-kime-himari-ka$
 1sgPOSS+father(m) fire(f) light.fire APPLIC-AUX-TWO-FPem-DECM
 my father lights fires, my father lit two fires

There can, however, be grammatical reasons for employing a particular order in a specific case. For instance, I was told that the O NP must come first in:

- (3.20) $inamatewe_O$ $mati_A$ $na-fawa-ke$ [hemejo jaa]
 child 3sgPOSS+mother CAUS-drink-DECf medicine(f) PERI
 the mother makes her child drink the medicine (lit. his/her mother makes the child
 drink the medicine)

This is simply because the A NP *mati* is the 3rd person possessed form of 'mother', i.e. 'his/her mother'; since this 'his/her' is anaphoric on the O NP, *inamatewe* 'child', it should follow it. (Which NP is in A and which in O function is clear on semantic grounds—mothers make small children drink medicine and not vice versa.) Note that this is a rather special instance; generally, Jarawara does not permit backwards anaphora (or cataphora).

Besides intransitive and transitive constructions there is a further, minor, clause type: copula constructions. This includes one of two copula verbs, each taking two arguments—a copula subject (which is obligatory) and a copula complement (which may be omitted). When it is a pronoun, the copula subject has the same marking as S or A in a verbal clause. The copula complement has different form from core argument pronouns—see table 3.1 in §3.3.1, and chapter 13.

As already indicated, a main clause can include peripheral NPs and peripheral clauses in clause-initial and/or clause-final slots; full details are in chapters 20–2. A sentence must include a main clause and there may also be dependent clauses before and/or after it—details are in chapter 18.

3.4.1 A-constructions and O-constructions

As already mentioned, there are two varieties of transitive construction. They will be briefly explained here; there is a full discussion in chapter 16.

The choice of one construction over the other is motivated by the structure of the discourse. There will generally be a pivot (grammatical topic) NP running through a number of consecutive clauses. If this is in A function for a given transitive clause then an A-construction (Ac) will be used; if the pivot is in O function then an O-construction (Oc) will be used. It is useful to compare the main syntactic and morphological properties of the two construction types, in table 3.2. (There is a fuller statement in table 16.1, of which table 3.2 is an abbreviation.)

As shown in table 3.2, mood suffixes agree with the A argument in an Ac and with the O argument in an Oc. Tense-modal suffixes also show gender agreement—this is always with A in an Ac, but sometimes with O and sometimes with A in an Oc. Full details are given in chapter 16.

Note that an Ac is available for all types of A and O. In contrast, there is an Oc only if O is 3rd person, or if A is 3rd person and the predicate includes both tense-modal and mood suffixes, or a secondary verb; this is detailed in chapter 16.

Example (3.18) is an Oc. Here the underlying O argument is the tree from which bark is being cut for a canoe. Note that the verb shows prefix *hi-* and that the auxiliary shows m form *ne* (the f and unmarked form would be *na*) which must be referring to the O (this tree does have m gender). The A argument is realized by 3nsg pronoun *mee*, and pronouns always take f agreement.

TABLE 3.2 Main contrasting properties of A-constructions and O-constructions

A-CONSTRUCTION	O-CONSTRUCTION
A argument is pivot for this part of the discourse.	O argument is pivot for this part of the discourse.
An NP in A function is seldom included.	An NP in O function is sometimes included.
There is very nearly always some explicit specification of the O argument, through a pronoun within the predicate or by the inclusion of an NP in O function.	There is generally some explicit specification of the A argument, through a pronoun within the predicate or by the inclusion of an NP in A function.
3nsg O pronoun (in slot A of predicate) can have form <i>mera</i> or <i>mee</i> , if A is also 3rd person.	3nsg O pronoun (in slot A of predicate) can only be <i>mee</i> .
Never a prefix <i>hi-</i> .	<i>hi-</i> occurs in first prefix slot if A and O are both 3rd person.
Mood suffixes agree in gender with A.	Mood suffixes agree in gender with O.

In the following textual fragment the first clause is intransitive with *Jara* ‘Branco’ as the S argument (marked by m agreement on verbal suffixes). The second clause is transitive with the established topic, ‘Branco’, as O argument; a transitive O-construction is thus employed. The A NP is *otaa* ‘us (exclusive)’; the O argument is represented by an NP consisting just of a PN *ati* ‘language’; the head noun which this modifies is understood to be *Jara*, stated in the previous clause. The verb of the second clause shows m agreement, with the m O argument (the A argument is a pronoun, which would take f agreement). Note that, unlike in (3.18), there is here no *hi-* prefix to the verb, since it is not the case that both A and O are 3rd person.

- (3.21) Jaras ati na-re-ka,
 Branco(m) speak AUX-IPem-DECM
 ati_O otaa haa.haa ka-ne-hiba-no-ho
 language 1excA laugh APPLIC-AUX-FUTm-IPnm-DEP
 the Branco spoke (telling us about what had happened to him, and) we laughed
 at his words

3.5 PREDICATE STRUCTURE

The structure of the predicate is one of the most complex topics in the grammar of Jarawara (as of most other Amazonian languages) and is discussed in detail through the next six chapters. But it will be useful to give a short overview here. Eleven types of component can be recognized (some are affixes, others separate words):

- A **FIRST PRONOMINAL POSITION**, cross-referencing O; see table 3.1. Obligatory in a transitive clause (but note that 3sg is zero).
- B **SECOND PRONOMINAL POSITION**, cross-referencing S or A or CS; see table 3.1. Obligatory in all types of clause (but note that 3sg is again zero). Slot A refers to O and slot B to A in every transitive clause, whether an Ac or an Oc. Recall that all forms in slot A and all non-singular forms in slot B are separate words. However, singular forms in slot B are prefixes; the ways in which they interact with other prefixes are discussed in §4.3.
- C **PREFIXES**. There are three prefix slots:
- (a) singular pronominal subject prefixes (1sg *o-*, 2sg *ti-*); or *hi-*, used in an Oc when both A and O are 3rd person; or *to-* ‘away’;
 - (b) the applicative prefix *ka-* (may increase valency, or just have one of several semantic effects);
 - (c) the causative prefix *na-* ~ *niha-* (always increases valency).
- Slot *Ca* is discussed fully in §4.3 while *ka-* and *na-* ~ *niha-* are the subject of chapter 8.
- D **VERB ROOT** (obligatory). The sole exception is that the verb *ati -na-* ‘speak, ask, summon’ omits its root if the auxiliary bears a pronominal prefix, the auxiliary constituent then being the sole realization of this verb—see §4.5.1.
- E **AUXILIARY ROOT** *-na-* or *-ha-*. This is obligatory if the verb root is of the non-inflecting type (although it may be omitted if it bears no affixes, or if there is just a mood suffix)—see §4.5.1 and §5.1.
- F **MISCELLANEOUS SUFFIXES**. There are at least fifty-six suffixes here, in at least nineteen order classes which are grouped into six echelons; all are optional. They are discussed in chapter 5.

- G TENSE-MODAL SUFFIXES.** There are eleven possibilities (including three past tenses, each with two evidentiality values); again, all are optional. They are discussed in chapter 6.
- H THIRD PRONOMINAL POSITION**—refers to S in an intransitive clause, to CS in a copula clause, to A in an Ac, and to either O or A in an Oc. Included in specifiable circumstances; full details are in §4.4 and chapter 16.
- I SECONDARY VERBS**—either *ama* ‘extended in time’ or *awine/awa* ‘seems’; again optional—see §7.1.
- J MOOD SUFFIXES**, including declarative, backgrounding, interrogative, imperative; also optional; see §7.2. Some markers of dependent clauses also go into this slot; see chapter 18.
- K POST-MOOD SUFFIXES**—a number of tense-modal forms (from slot G) and negation (from slot F) can follow mood, under particular circumstances; see §6.3 and §7.3.

There are also several kinds of verbal reduplication, described in §4.1.1 and in more detail in chapter 9.

Just as some verbs take affixes while others do not, but must be followed by an auxiliary to which affixes are attached, so there are some suffixes to which further suffixes may be attached, and others which cannot take further suffixes themselves, but must be followed by an auxiliary to which further suffixes are added. And there is a further type of suffix which can take following suffixes but cannot be directly added to an inflecting verb, or to the auxiliary of a non-inflecting verb, or to a preceding suffix; it must instead have its own, preceding, auxiliary, to which it is added. All of these unusual suffixes fall into the miscellaneous class, and are discussed in detail in chapter 5.

An example of a predicate including eight of the eleven components is:

- (3.22) [jomee]_O [ø otaa kobo ra-ba otaa awine-ke]
 jaguar(m) 3sgO 1excA meet NEG-FUTf 1exc SEEMSF-DECf
 A B D F G H I J

I don't think we'll see a jaguar (along the way) (lit. it is not likely that we will see a jaguar)

Note that *kobo -na-* ‘meet’ is a non-inflecting transitive verb but the auxiliary *-na-* (slot E) drops when immediately followed by negator *-ra*, as here.

A predicate can occur without any of F–K; that is, without any suffixes. It can thus end with an inflecting verb root (D) or with an auxiliary (E).

Gender is shown at the end of a verb (D), auxiliary (E), or miscellaneous suffix (F) when this is word-final, at the end of the predicate, or when immediately followed by a nsg pronoun in slot H or by a secondary verb in slot I, which are separate words. If the root or suffix ends in *a* this is retained in the f but becomes *e* in the m, as in (3.18). If a miscellaneous suffix ends in the morphophoneme *I* and is stressed on the underlying cycle, this is realized as *f iha* and *m ihi*. (Miscellaneous suffixes ending in unstressed *I*, and in *e*, do not vary for gender.)

All tense-modal (G) and most mood suffixes (H) have distinct f and m forms which must be used whether the suffix is word-medial or word-final. Examples (3.23) involve the non-inflecting verb *hiri -na-* ‘make, mend’. This is S = O ambitransitive and is here used intransitively, first with an f noun in S function and then with an m noun. The auxiliary *-na-* takes miscellaneous suffix *-ma-* ‘back’ (which makes the verb mean ‘mend’) and then the intentional tense-modal suffix followed by declarative; these show f agreement in (3.23a) and m agreement in (3.23b):

- (3.23a) taokana_s hiri na-ma-habone-ke
 gun(f) make AUX-BACK-INTf-DECf
 the gun needs to be mended

- (3.23*b*) *moto*_S *hiri* *na-me-hibona-ka*
 motor(m) make AUX-BACK-INTM-DECM
 the motor needs to be mended

Recall that the *a* of *-ma-* is raised to *e* before *-hibona*—rule P₃ in (A) of §2.9.2.

One text included two consecutive clauses, both Ac's:

- (3.24*a*) *owa* \emptyset *haa.haa* *ka-ne-hiri-ka*
 1sgO 3sgA laugh APPLIC-AUX-RP_m-DECM
 he laughed at me

- (3.24*b*) *owa* *mee* *haa.haa* *ka-na-haro-ke*
 1sgO 3nsgA laugh APPLIC-AUX-RP_{ef}-DECf
 they (all) laughed at me

In (3.24*a*) the *m* form of the recent past eyewitness tense, *-hiri* (which raises the preceding *a* to *e*), and of declarative, *-ka-*, indicates a 3sg animate (here obviously human) *m* as A; recall that 3sg arguments are realized as zero in pronominal slots within the predicate. In (3.24*b*) the A is specified as 3nsg *mee* and since all pronouns take *f* agreement, the tense and declarative suffixes assume their *f* forms, *-haro* and *-ke*.

3.6 NOUN PHRASE STRUCTURE

A noun phrase can occur in slot 2 in clause structure, in S, A, O, CS, or CC function; or in the post-predicate slot, 5, relating to one of the four core functions S, A, O, and CS (but not CC); or as a peripheral NP, followed by a postposition.

There are two kinds of possession in Jarawara and the established labels 'alienable' and 'inalienable' are appropriate to describe them. Alienable possession involves the possessor stated first, then possessive postposition *kaa*, then the PN:

- (3.25*a*) *Okomobi* *kaa* *tao.kana*
 name(m) poss gun(f)
 Okomobi's gun (f)

For inalienable possession the possessor again comes first, there is no *kaa*, and then a PN whose form must reflect the gender of the possessor (see §3.3.1):

- (3.25*b*) *Okomobi* *teme*
 name(m) foot+m
 Okomobi's foot (m)

The interesting point is that in (3.25*b*) it is the inalienable possessor, *Okomobi*, that determines the gender of the NP, for verb agreement, whereas in (3.25*a*) the full NP takes on the gender of the alienably possessed noun. 'Okomobi's gun' is feminine, because 'gun' is; 'Okomobi's foot' is masculine, because 'Okomobi' is.

This is best explained in terms of the overall structure of the NP in Jarawara, which includes the following components:

- A. Alienable possessor—an embedded NP
 plus alienable possession marker *kaa*
- B. Head—can be a common or proper noun, interrogative, pronoun, or nominalized clause, plus optional modifiers (modifying noun, adjective(s), augment marker, etc.)
- C. Possessed noun(s)
 plus optional modifiers (adjective(s) etc.)

The head, B, is usually obligatory and parts A and C optional. It is possible to have an NP consisting just of part A (e.g. *Okomobi kaa* ‘Okomobi’s thing’) or just of part C (e.g. *bari* in (3.18)) but only when the addressees are able to infer—from the surrounding discourse or from the context—the identity of the understood head.

It is always the (stated or understood) head that determines the gender of the NP. An NP can have all three components, as in (3.26a), or just parts A and B, as in (3.26b) or just parts B and C, as in (3.26c, d):

- | | | | | | | | | |
|---------|-------------------------|--------|---------|-------------------|---------|------------------|------|--------|
| (3.26a) | ami | kaa | jomee | teme | (3.26b) | ami | kaa | jomee |
| | mother(f) | poss | dog(m) | foot+m | | mother(f) | poss | dog(m) |
| | A | | B | C | | A | | B |
| | mother’s dog’s foot (m) | | | | | mother’s dog (m) | | |
| (3.26c) | jomee | teme | (3.26d) | ami | tame | | | |
| | dog(m) | foot+m | | mother(f) | foot+f | | | |
| | B | C | | B | C | | | |
| | the dog’s foot (m) | | | mother’s foot (f) | | | | |

It will be seen that (3.25a) is like (3.26b) and (3.25b) is like (3.26c/d). In each case it is the head, part B, which determines gender. This is the alienably possessed element if there is a part A but inalienable possessor if there is a part C, or both at once if both parts A and C are present.

Kinship possession adds a further dimension, being like alienable possession in some ways and like inalienable in other ways. There is a full account of the intricacies of NP structure, including kinship possession, in chapter 10.

An NP in Jarawara can include a 1st or 2nd person pronoun as (alienable or inalienable) possessor but a 1st or 2nd person pronoun cannot make up a complete core NP. (If a core argument is 1st or 2nd person it is marked in slot A or slot B of the predicate.) That is, every NP in Jarawara is 3rd person. An NP such as *o-teme* ‘my foot’ has f gender (from the 1sg possessive pronominal prefix *o-*) for verbal suffix agreement and counts as 3rd person for verbal prefix agreement—this is not because *teme* ‘foot’ is 3rd person, but because all NPs are 3rd person. There is full discussion of this in §10.1.6.

As shown in the formula just presented for the structure of an NP in Jarawara, the head and/or PNs can be modified by adjectives, etc. There may also be a contrastive marker, *taa*, at the end of the NP. An NP may be followed by one of a limited set of tense-modal and miscellaneous verbal suffixes. And some older speakers occasionally add accusative marker *-ra* to the last word of an NP (this is a relic of an earlier stage of the language). All of these points are fully discussed in chapter 10.

3.7 COMPLEMENT CLAUSES

Many languages have complement clauses, which can function in an S, A, or O slot in a main clause in place of an NP. In English, complement clauses are most often found in O function, e.g. *I want [Mary to go first]_O, Fred enjoys [Mary’s playing the piano]_O, I saw [that they had painted the fence]_O. They are in A function with one class of verbs, e.g. [*Mary’s always being late*]_A *annoys John*, and in S function for a very small set of verbs, e.g. [*That Mary is always late*]_S *doesn’t really matter*.*

Whereas English has three main types of complement clause, Jarawara has just one. This is marked by the final *a* on the complement clause predicate changing to *i*. (If the predicate ends in a vowel other than *a* this marker is missing; however, in the great majority of instances the final vowel is *a*.)

Thus, the main clause in:

- (3.27) *otaa amo na*
 1exCS sleep AUXf
 we are sleeping

becomes a complement clause, in S function to the main verb *hawa -ha-* ‘be accomplished, ready’ in (3.28), through changing final *a* to *i*:

- (3.28) [*otaa amo ni*]_S *hawa* *to-ha*
 1exCS sleep AUX+COMP be.accomplished AWAY-AUXf
 we have finished sleeping (lit. our sleeping is accomplished)

In Jarawara a complement clause most often relates to S function in the main clause, as in (3.28), sometimes to O function, as in (3.29), and sometimes to A function, especially for a causativized intransitive verb, as in (3.30).

- (3.29) [*owa awi*]_O *nofa-hare-ka*
 1sgO see+COMP want-IPem-DECM
 he wanted to see me
- (3.30) [*jomee_S habo ni*]_A *owa na-tafi-are-ka*
 dog(m) bark AUX+COMP 1sgO CAUS-wake-IPem-DECM
 the dog’s barking woke me

Whereas in English and other languages complement clauses can function directly in S or A or O slot in the main clause, it appears that in Jarawara a clause such as *otaa amo ni* in (3.28), *owa awi* in (3.29), or *jomee habo ni* in (3.30) is best regarded as filling the head slot in an NP that itself fills S or A or O slot in the main clause. Most often the complement clause does make up the whole NP, but it can be followed by an adjective (as a modifier to the NP head) or by a PN (part C from NP structure). This will be illustrated and discussed further in chapter 17.

A complement clause can include pre-predicate core NPs and the predicate up to end of fourth echelon miscellaneous suffixes. One special characteristic is that 1sg and 2sg subjects are marked by clause-initial *oko* and *tika* respectively (as in a possessive construction) rather than by prefixes *o-* and *ti-*. A complement clause cannot include clause-initial or clause-final elements, miscellaneous suffixes from echelons five and six (including negation), tense-modal or mood suffixes, or secondary verbs. If a complement clause ends in the auxiliary *na* (which will be in the form *nī*) this auxiliary may not be omitted. The predicate of a complement clause does not itself mark gender, but if the complement clause is in pivot function within the main clause, then suffixes to the main clause verb will agree in gender with the pivot of the complement clause.

Consider:

- (3.31) *Firibi_S kati ka-ne*
 name(m) rock APPLIC-AUXm
 Filipe is rocking (in a hammock)

Here the word-final auxiliary, *-na*, changes its final vowel to *e* to reflect the m gender of the S NP. But in a complement clause construction

- (3.32) [*Firibi_S kati ka-ni*]_S *kita-ka*
 name(m) rock APPLIC-AUX+COMP be.strong-DECM
 Filipe (lying in his hammock) is rocking strongly (lit. Filipe’s rocking is strong)

the underlying form of the auxiliary, *-na-*, becomes *-ni* as the marker of a complement clause (which itself has no indication of gender), and the main clause verb *-kita-* ‘be strong’ takes the m form of declarative mood suffix, *-ka*, cross-referencing the S NP of the complement clause which is itself head of an NP in S function in the main clause. The same thing happens in (3.30).

The semantic organization of complement clause constructions in Jarawara differs from that of complement clause constructions in English and other European languages. Often, what is rendered by an adverb in English is shown as main verb in Jarawara, as in (3.32). Or, a subordinate clause in English may correspond to the main clause in Jarawara, with the main clause in English corresponding to the complement clause in Jarawara:

- (3.33) [kosi_O weje ni]_S ka-me
 fruit.sp(m) carry AUX+COMP in.motion-BACKm
 he returned carrying kosi fruit (lit. his carrying kosi fruit returned)

As shown in §11.1, there are some instances of cognate verb and PN—for instance, the intransitive verb *-tafa-* ‘eat’ and PN *tafe/tefe* (from proto-Arawá **tafa-ni/tafa-ne*) ‘food’. It is interesting to compare an NP containing the PN *tafe/tefe* ‘food’, in (3.34a), with one containing a complement clause based on the verb *-tafa-* ‘eat’, in (3.34b). In each case the main verb is *hawa -ha-* ‘be ready, accomplished’.

- (3.34a) [otaa tafe]_S hawa to-ha
 Iexc food+f ready AWAY-AUXf
 our food is ready (i.e. cooked and ready to eat)
- (3.34b) [otaa tafi]_S hawa to-ha
 IexcS eat+COMP accomplished AWAY-AUXf
 we have finished eating (lit. our eating is accomplished)

The syntax of complement clauses is a complex and fascinating matter; it is dealt with in detail in chapter 17.

3.8 DEPENDENT CLAUSES

There is a class of dependent clauses that are best regarded as directly dominated by the sentence node, coordinate with the main clause. They occur either preposed or postposed to the main clause. There follow two examples of postposed dependent clauses:

- (3.35) Jara_S hano-hiri ama-ka,
 Branco(m) be.drunk-RPem EXTENT-DECM
 [kasasa_O fawa-haari]
 cane.whisky(f) drink-DEPM
 the Branco, who was drinking cane whisky, got drunk

Here the main clause is intransitive with verb *-hano-* ‘be drunk’. The dependent clause is transitive with verb *-fawa-* ‘drink’, O NP *kasasa* ‘cachaça, cane whisky’, and the A NP coreferential with the S NP of the main clause, *Jara* ‘Branco’. This coreferentiality is shown by the 3sg m dependent marker, *-haari*.

- (3.36) *otaa to-kisa na-ba-ro otaa-ke*
 IexcS AWAY-in.motion.down AUX-ALL.NIGHT-RPef Iexc-DECf
 [[*jama_S soki*] *jaa*],
 thing(f) be.dark+COMP PERI
bita_A otara mee katoma otaa
 mosquito(m) IexcO 3nsgA bother IexcDEP
 we, who were being bothered by mosquitoes, travelled downstream all night

This comes from a story about a group of people who tried to camp on shore but the mosquitoes were so bad that they got back in their boat and decided to travel on during the night. The main clause is intransitive with *otaa* ‘we (exc)’ as S. The dependent clause is a transitive Ac with *bita* ‘mosquito’ and 3nsg *mee* realizing the A argument and *otara* ‘us (exc)’ the O. The coreferentiality between S of main clause and O of dependent clause is shown by the dependent clause marker *otaa* (here identical to the subject form of the pronoun).

The great majority of dependent clauses do have an argument coreferential with an argument in the main clause, but this is not an invariable rule. Although both (3.35) and (3.36) were translated into English with relative clauses, that is not appropriate in most instances. The variety of semantic effects of dependent clauses, and their complex set of markings, are dealt with in detail in chapter 18.

3.9 OTHER CLAUSE TYPES

In §3.4 we briefly discussed main clauses, in §3.7 complement clauses (which fill a core functional slot in a main clause), and in §3.8 dependent clauses, which can precede or follow a main clause within a sentence. Direct and indirect speech is discussed in §14.4. (Note that the language has no conjunctive or disjunctive words, such as *and*, *but*, and *or* in English.)

Jarawara also has nominalized clauses, which can function as peripheral constituents within a main clause (in clause-initial or clause-final slots) then generally being followed by a postposition. Nominalized clauses may also function as copula subject, or they may constitute a complete main clause, taking tense-modal and/or mood suffixes. There is full discussion in chapters 19–22.

There is also a relative clause construction in Jarawara, which is notable in that it receives no overt marking; it is recognizable as a special clause type since it does not include marking for other clause types, or meet the syntactic constraints on other clause types. Relative clauses are discussed in §24.1.

Finally, there is what is here called a list construction where a sequence of clauses (normally with a common pivot) each omit their auxiliary (unless it bears one of a certain set of affixes) and tense-modal and mood affixes, with these being attached to ‘list’ auxiliary *-na-* that follows the string of clauses—see chapter 23.

Predicate Structure: General

The predicate is the most complex part of Jarawara grammar. It will be dealt with in this and the next five chapters.

The first section of this chapter provides a complete list of components of the predicate. Chapter 5 then discusses the miscellaneous suffixes, chapter 6 the tense-modal suffixes, and chapter 7 the secondary verbs, the mood suffixes, and the negative suffix. Valency-increasing derivational prefixes—applicative and causative—are the subject of chapter 8. There is a full discussion of verbal reduplication in chapter 9.

Inflecting verbs, auxiliaries, and most suffixes have distinct f and m gender forms. These are included in the inventory of §4.1; verbal reduplication is briefly described in §4.1.1. Then, §4.2 discusses the different vowel alternations used to signify gender in different areas of the predicate. In §4.3 there is discussion of the first prefix slot in which sg subject pronominal prefixes and the prefix *to-* ‘away’ are in competition. §4.4 deals with the third pronominal position, which comes between tense-modal and mood suffixes. Finally, §4.5 discusses verbal auxiliaries, the forms of verbs, and what is called the ‘inner suffix’, *-ri*, which can be added to what are basically non-inflecting verbs (and is the only affix they can take).

4.1 INVENTORY OF PREDICATE ELEMENTS

There was a summary of predicate components in §3.5. Further details of each are now provided.

SLOT A. FIRST PRONOMINAL POSITION, referring to O argument. Obligatory in a transitive clause. All forms are distinct (grammatical and phonological) words. The 1st and 2nd person forms are:

1sg	owa	1inc	era	1exc	otara
2sg	tiwa	2nsg	tera		

The 3sg form is always zero, \emptyset . The 3nsg form varies with construction types:

- (1) In an O-construction (Oc) 3nsg is always *mee*.
- (2) In an A-construction (Ac)
 - (a) If A is 1st or 2nd person, 3nsg O must be *mee*
 - (b) If A is 3rd person, 3nsg O can be *mee* or *mera*. In fact if A is 3sg, 3nsg O is almost always *mera*; if A is 3nsg, 3nsg O is generally *mee* although it can be *mera*. See §3.3.1.

Note that a 3nsg pronoun must be included in the predicate, even when the argument to which it relates is also realized through an NP, as in (4.29).

SLOT B. SECOND PRONOMINAL POSITION, referring to the S argument in an intransitive, A argument in a transitive, and the CS argument in a copula clause. Obligatory

for all clause types. As in slots A and H, 3sg is zero. Forms of 1sg and 2sg are prefixes, and are transferred to the first prefix slot, *Ca* (see below). Non-singular forms are:

1inc	ee	1exc	otaa
2nsg	tee	3nsg	mee

Note that a 3nsg marker (*mee* or *mera*) in slot A or slot B will not appear if there is suffix *-rawa*, referring to a nsg f core argument, in slot F6b of miscellaneous suffixes—see §5.9.

SLOT C. PREFIXES.

Ca. FIRST PREFIX SLOT. This involves one choice from:

- o-*, 1sg subject prefix (transferred from slot B);
- ti-*, 2sg subject prefix (transferred from slot B);
- hi-*, marker of an O-construction when both A and O are 3rd person;
- to-* ‘away’.

The possibilities for this slot are discussed in §4.3.

Cb. SECOND PREFIX SLOT. The applicative prefix *ka-*.

Cc. THIRD PREFIX SLOT. The causative prefix. This has the form *na-* with an inflecting verb, and *niha-* with the *-na-* or *-ha-* auxiliary, or with the copula *-ha-* ‘become’; the *-na-* or *-ha-* auxiliary always drops after *niha-*. The *-ha-* of *niha-* is omitted when unstressed on the underlying cycle (rule P8d in §2.9.6), so that we can get the auxiliary of a causative verb beginning just with *ni-*.

The syntax and semantics of applicatives and causatives are discussed in chapter 8.

Note that prefixes *o-*, *ti-*, and *hi-* are obligatory, depending on the reference of the subject and object, and the construction type involved, but that *to-*, *na-*, and *ka-* are optional. (However, the auxiliary and copula verb *-ha-*, and miscellaneous suffixes *-witI* ‘from a place, out’ and *-sii-na-* ‘going along a path’, require prefix *to-*, if there is nothing else in the first prefix slot.)

On syntactic grounds the prefixes divide into two sets:

- SET (i) 1sg *o-*, 2sg *ti-*, and Oc marker *hi-*. For ease of reference these will be referred to as ‘pronominal prefixes’ (even though *hi-* is not strictly a pronominal prefix, but is simply sensitive to pronominal choices, being used only when both A and O are 3rd person).
- SET (ii) Applicative *ka-*, causative *na-* ~ *niha-*, and the ‘away’ prefix *to-*. This set will be referred to as ‘non-pronominal prefixes’.

The different syntactic behaviours of the two sets of prefixes include:

- (1) When a verb is reduplicated non-pronominal prefixes remain with an inflecting verb (and are reduplicated with it) or with the auxiliary of a non-inflecting verb, but pronominal prefixes are transferred to the special reduplication auxiliary—see §9.2.
- (2) With a suffix-taking miscellaneous suffix of the prefix-poaching variety, a pronominal prefix will be removed from all preceding positions in the predicate and placed on the auxiliary following this suffix. Non-pronominal prefixes are not affected—see §§5.2, 5.7.
- (3) The third pronominal position, slot H, may include a nsg pronoun (which is a full word) or a sg pronominal prefix (*o-*, *ti-*) or *hi-* (but not *to-*, or *ka-*, or *na-* ~ *niha-*). That is, set (i) of prefixes, but not set (ii), may occur in slot H.

Thus, prefix *to-* ‘away’ belongs to morphological slot *Ca* (along with *o-*, *ti-*, and *hi-*) but on syntactic grounds it is a member of set (b) with *ka-* and *na-* ~ *niha-*.

SLOT D. VERB ROOT—may be inflecting or non-inflecting. Obligatory, except for *ati* from the verb *ati -na-* ‘say, ask, summon’ which can be omitted under certain conditions—see §4.5.1.

Da. INNER SUFFIX *-ri*, found on a small number of non-inflecting verb roots (it is also attested on one inflecting root); optional. See §4.5.3.

SLOT E. AUXILIARY ROOT *-na-* or *-ha-*. Generally obligatory after a non-inflecting verb root. Auxiliary *-na-* may be omitted in several circumstances, but auxiliary *-ha-* is only omitted in one circumstance (after the causative prefix)—see §4.5.1, §8.1.1.

If an inflecting verb root or an auxiliary ends in *a* or *I*, it can show gender (details are given under F, just below). Inflecting verbs ending in a vowel other than *a* generally add *-ha* for f and *-hi* for m when word-final; this syllable may be omitted when unstressed on the first cycle. It is likely that the gender forms of roots ending in *-a* (f *-a* and m *-e*), are developments from **-a-ha* and **-a-hi* respectively.

SLOT F. MISCELLANEOUS SUFFIXES. All optional. These constitute the morphologically most complex part of the grammar of Jarawara. They can be divided into six echelons (or macro-order-classes) each of which includes between one and five order classes. Each echelon has distinct grammatical properties. As mentioned in §3.5, some miscellaneous suffixes must be followed by an auxiliary to which further suffixes are added, and some must be preceded by an auxiliary, to which they themselves are added. Others are ‘normal’ suffixes. Chapter 5 has a full list and discussion of miscellaneous suffixes, and the grammatical parameters involved.

Miscellaneous suffixes (other than those which require a following auxiliary) are like inflecting verbs and the auxiliaries of non-inflecting verbs in showing gender when in word-final position, if the final segment is *a* or *I*, which it is for all but three miscellaneous suffixes. These are *-i-ne* ‘continuous’ which can only be used with an f pivot argument, *-tee* ‘habitual’, which can be used with any pivot but does not mark gender, and the rather rare (and probably archaic) suffix *-i-fako* ‘do a lot’.

For miscellaneous suffixes, inflecting verbs, and auxiliaries, the conditions under which gender is marked are: (i) when predicate-final; and (ii) when directly followed by a nsg pronoun or by a secondary verb. These circumstances are set out in tables 16.2–7 of chapter 16; there is discussion of their historical origin in chapter 27. When gender is marked, a final *a* becomes *e* to mark m and remains *a* for f agreement. When final *I* is in a stressed syllable on the underlying cycle it becomes *iha* for f and *ihi* for m agreement. A final *o* or *e* or *i* adds *-ha* for f and *-hi* for m agreement.

SLOT G. TENSE-MODAL SUFFIXES. All optional. There are three past tenses, each in eyewitness and non-eyewitness evidentiality, and five modalities. On formal and distributional grounds these essentially make up one system. However, it is possible for a predicate to include two choices from the system (full details are in chapter 6). All tense-modal suffixes have distinct f/m forms.

Abbreviations used throughout this grammar are shown here.

TYPE G-1a, PAST EYEWITNESS

IPe	Immediate past eyewitness	-(ha)ra/-(ha)re
RPe	Recent past eyewitness	-(ha)ro/-(hi)ri
FPe	Far past eyewitness	-(ha)maro/-(hi)mari

TYPE G-1b, PAST NON-EYEWITNESS

IPn	Immediate past non-eyewitness	-(ha)ni/-(hi)no
RPn	Recent past non-eyewitness	-(he)te/-(hi)ta
FPn	Far past non-eyewitness	-(he)mete/-(hi)mata

TYPE G-2, MODALITIES

FUT	Future	-(ha)ba(na)/-(hi)ba(na)
INT	Intentional	-(ha)bone/-(hi)bona
IRR	Irrealis	-(he)ne/-(hi)na
HYPOTH	Hypothetical	-(he)mene/-(hi)mana
REP	Reported	-(ha)mone(he)/-(hi)mona(ha)

The phonological rules relating to these suffixes were described in §2.9.6. All tense-modal suffixes with initial *-he-* or *-hi-* cause an immediately preceding *a* to rise to *e* (rule P3). An initial *-hV-* will drop when unstressed on the underlying cycle when the preceding vowel is *a* (rule P8a). Initial *-hi-* will drop when unstressed on the first cycle if the preceding vowel is *i* or *e* or *o* (rule P9a). Initial *-ha-* reduces to *-a-* when unstressed on the first cycle and when preceded by *i* or *o* (rule P10).

SLOT H. THIRD PRONOMINAL POSITION. Not always filled. Same forms as for second pronominal position (slot B in predicate structure). Cross-references S in an intransitive clause, A in a transitive A-construction, and either O or A in a transitive O-construction. This is fully discussed in §4.4 and chapter 16.

SLOT I. SECONDARY VERBS. Optional.

ama/ama	‘continuous’
awine/awa	‘seems’

Although these function as a part of the predicate, breaking up a string of suffixes, they are separate (grammatical and phonological) words. There is a full discussion of their status, meaning, and occurrence in §7.1. Note that a homophonous form *ama* functions as a copula verb—see chapter 13.

SLOT J. MOOD SUFFIXES (not present in all clauses). Abbreviations used throughout the grammar are again shown.

INDICATIVE, optional marking (full details are in §7.2.1)

DEC	Declarative	-ke/-ka
BKG	Backgrounding	- ⁱ ni/-ne
	Archaic indicative	-ra/- ^e ra

IMPERATIVE, generally obligatory in an imperative clause (see §15.2)

ImmPosIMP	Immediate positive imperative	-hi/-ho
DisPosIMP	Distant positive imperative	- ⁱ ja-hi/-ja-ho
ImmNegIMP	Immediate negative imperative	-rima -na-hi/-rama -na-ho
DisNegIMP	Distant negative imperative	-ri-ja-hi/-ra-ja-ho

INTERROGATIVE (full details are in §§15.3–4)

CINT	Content interrogative	-riha/-raha
PINT	Polar interrogative	- ⁱ ni(hi)/< nothing >
PFutINT	Polar future interrogative	- ⁱ bana/-bana

Although ⁱ*bana*/*-bana* is a choice within the mood system, it is formally related to future modality suffix *-(ha)bana*/*-(hi)bana*, and goes into the tense-modality slot, G; see §15.4.2.

OTHERS

CNTFACT	Counterfactual	- ⁱ kani/ <i>-kani</i>
CLIMAX	Climax	- ⁱ nihi/ <i>-noho</i>
IMMED	Immediate	- ⁱ be(ja)/ <i>-ba(ja)</i>
UNUSL	Unusual, unexpected	- ⁱ makoni/ <i>-mako</i>
CONTRNEG	Contrastive negator	<i>-rihi</i> / <i>-rihi</i>

AFFIXAL DEPENDENT CLAUSE MARKERS. These effectively replace a mood suffix and can thus be assigned to slot J. They include (full details are in chapter 18):

DEP	an echo syllable after a tense-modal affix	<i>-hV</i>
	suffix in postposed dependent clause	<i>-(ha)aro</i> / <i>-(ha)ari</i>
	suffix in preposed dependent clause	<i>-haa</i> / <i>-hii</i>

SLOT K. POST-MOOD SUFFIXES. Although mood suffixes generally occur predicate-finally, they can be followed by negation (from slot F6*d*) or by one of a number of tense-modal suffixes—immediate past non-eyewitness, intentional, irrealis, or reported. (Note that these can occur either in slot G or in slot K, not in both slots.) Details are given in §7.3 and §6.3.

Essentially, the only obligatory elements of a predicate are the verbal root, the second pronominal position, and (just for a transitive clause) the first pronominal position. However, there are a number of verbs which appear to require a certain affix, or one of a set of affixes. For instance *maa -na* ‘hold tightly’ is never found (and could not be elicited) without the applicative prefix *ka-*, i.e. *maa ka-na*. The inflecting verb *-ise* ‘take and leave’ is only attested either with suffix *-ma* ‘back, return’—as in (4.25)—or *-kosa* ‘between two extremes’.

4.1.1 Verbal reduplication

Jarawara has a rich set of possibilities for verbal reduplication. There are three formal processes: initial (C)V., initial (C)VCV., and final .CV. Either of the initial processes can be combined with the final one, yielding five formal patterns in all. Thus, from *ori -na* ‘paddle’ we can get *o.ori*, *ori.ori*, *ori.ri*, *o.ori.ri*, and *ori.ori.ri*. In addition, there is sometimes double (or even triple) application of final .CV reduplication.

The reduplications have varied semantic and syntactic roles. For instance, initial (C)V. reduplication can indicate (a) a type of nominalization; (b) an iterative verbal construction ‘do a lot’ (typically, ‘used to do a lot in the past’) (it must then be used with auxiliary *(to-)ha-*); (c) the meaning ‘do a bit’; and (d) an obligatory process accompanying a number of miscellaneous suffixes.

Productive reduplication is discussed in detail in chapter 9, and derivational reduplication in chapter 25. However, one important property should be mentioned here. Irrespective of whether a particular verb is inflecting or non-inflecting, its reduplicated forms are always non-inflecting, requiring an auxiliary to take pronominal prefixes and certain suffixes (this auxiliary is generally *-na-*, but it is *(to-)ha-* for the iterative construction mentioned in the last paragraph).

Compare the transitive verb *-mita-* in unreduplicated form in (4.1) and reduplicated *mi.mita -na-* in (4.2)

(4.1) ati_O ti-mita-hi!
 language(f) 2sgA-listen-ImmPosIMPF
 you listen to the talking!

(4.2) ati_O mi.mita ti-na-hi!
 language(f) REDUP.listen 2sgA-AUX-ImmPosIMPF
 you listen a bit to the talking!

Note that the reduplication auxiliary is distinct from (and in addition to) the auxiliary of a non-inflecting verb—see §4.5.1 and §5.1.

4.2 VOWEL ALTERNATIONS TO MARK GENDER

Almost all forms in predicate slots D, E, and F show gender when word-final, and those in slots G, J, and K show gender whether word-medial or word-final. Gender agreement is always with the CS argument of a copula clause, with the S argument of an intransitive clause, and with the A argument of a transitive A-construction. For a transitive O-construction some suffixes will agree in gender with the O and others with the A argument; full details are in chapter 16.

The gender forms of the secondary verb ‘appear’, *awine/awa*, in slot J, are due to the inclusion of *-ⁱne* in the f and its absence from the m. The only suffix which marks gender but whose forms do not simply involve vowel alternation is mood *-ⁱmakoni/-mako*.

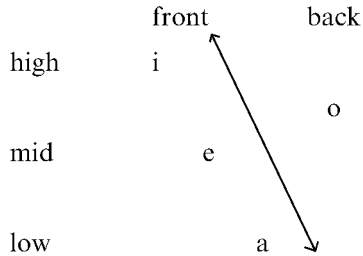
For other suffixes gender marking involves vowel alternations. There are, however, a number of different alternations. For example, the main auxiliary is *na* for f and *ne* for m; but the declarative suffix is *-ke* for f and *-ka* for m. There does appear to be a principled basis to vowel alternations, depending on where a suffix comes within the predicate. Two areas can be recognized, I and II. Threading the predicate from left to right:

Area I	f	m
SLOT D—Inflecting verbs ending in a vowel other than <i>a</i> , when word-final, add	ha	hi
SLOTS D, E, F—Inflecting verbs, auxiliaries, miscellaneous suffixes ending in <i>a</i> , when word-final, final vowel is	a	e
SLOT F—Miscellaneous suffixes ending in <i>I</i> , when word-final and stressed on underlying cycle, the <i>I</i> is realized as	iha	ihi
SLOT G—Initial <i>-hV-</i> syllable of tense-modal suffixes	ha	hi
	he	hi
SLOT G-1a—Final vowel of past eyewitness tense suffixes	a	e
	o	i
Area II		
SLOT G-1b—Final vowel of non-eyewitness past tense suffixes	i	o
	e	a
SLOT G-2—Final vowel of modality suffixes	e	a
SLOT J—Contrastive vowel of mood suffixes	e	a
	i	e
	i	o
	i	a

It will be seen that gender marking by vowels is exactly the reverse in Area II of what it is in Area I of the predicate. Summarizing:

Area I		Area II	
f	m	f	m
a	e	e	a
e	i	i	e
a	i	i	a
o	i	i	o

We can repeat the vowel diagram from §2.1 and add a slant line:



In Area I, *f* is lower/backer than *m*, along the slant line. In contrast, in Area II, *f* is higher/fronter than *m*.

The division into areas is not quite tidy inasmuch as it cuts across slot G, tense-modal. In §6.1, the initial syllables of tense-modal suffixes, *-ha/-hi-* and *-he/-hi-*, are shown to be developments from **-ha/-hi*, related to the *-ha/-hi* added to inflecting verbs ending in *i*, *e*, or *o* when word-final, and to the word-final stressed realizations of *I*; this naturally belongs in Area I. But I cannot perceive any motivation for the eyewitness past tenses being in Area I while other tense-modal suffixes lie in Area II.

Note that from knowing which area of the predicate a given suffix belongs to, it is not possible to predict its *f* and *m* forms, since there are four different vowel alternations involved, *a/e*, *e/i*, *a/i*, and *o/i*. But, if one knows the two forms of a particular affix, then which is *f* and which *m* is inferable from its position in the predicate.

The forms of the negative suffix are of special interest since it can fall into either area. If there is a tense-modal suffix or a secondary verb, or if there is no tense-modal nor secondary verb nor mood, then the negative suffix is placed in miscellaneous slot F6*d*, in Area I. It then has *f* form *-ra* and *m* form *-re*, as in:

(4.3*a*) [mee ati]_O Jane_A wato-ra
 3nsg language name(f) understand-NEGF
 Jane (a woman) can't understand what they are saying (lit. their language)

(4.3*b*) [mee ati]_O Okomobi_A wato-re
 3nsg language name(m) understand-NEGM
 Okomobi (a man) can't understand what they are saying

However, if there is a mood suffix but no preceding tense-modal suffix or secondary verb, then the negative marker must follow mood, in slot K. It is now in Area II and so has *f* form *-re* and *m* *-ra*, as in (4.4), which differ from (4.3) only through the addition of mood:

(4.4*a*) [mee ati]_O Jane_A wato-ka-re
 3nsg language name(f) understand-DEC-NEGF
 Jane (a woman) can't understand what they are saying

(4.4b) [mee ati]_O Okomobi_A wato-ka-ra
 3nsg language name(m) understand-DEC-NEGm
 Okomobi (a man) can't understand what they are saying

These different gender alternations of the negator, *-ra/re* in slot F6d, but *-re/ra* in slot K, confirm the existence of two Areas within the predicate—Area I, from the verb root to past eyewitness tenses, where the *f* vowel is lower/backer, and Area II, from past non-eyewitness and aspect suffixes to the end of the predicate, where the *f* vowel is higher/fronter.

(Note that the other suffixes that can occur in slot K are past non-eyewitness and modality forms. They remain in the same Area, and so retain the same gender forms.)

The dependent clause marker *-(ha)aro/-(ha)ari* (see chapter 18) comes right at the end of the predicate. Note that here the *f* form is lower/backer than the *m* form. This is, effectively, a repetition of Area I (in a single suffix) to the right of Area II in the word.

4.3 *to-* AND THE FIRST PREFIX SLOT

In §4.1, a distinction was made between ‘pronominal prefixes’ and ‘non-pronominal prefixes’. Basically, the three non-pronominal prefixes occur in a syntagmatic string: *to-* ‘away’, followed by applicative *ka-*, followed by causative *na- ~ niha-*. In contrast, the three pronominal prefixes occur as a paradigmatic system, from which just one element can be chosen: 1sg *o-*, or 2sg *ti-*, or Oc marker *hi-*. That is:

	FIRST PREFIX SLOT	SECOND PREFIX SLOT	THIRD PREFIX SLOT
non-pronominal prefixes	to- }	ka-	na- ~ niha-
pronominal prefixes	{ o- ti- hi- }		

The syntagmatic and paradigmatic sets interact, in that both *to-* from the non-pronominal set and the whole of the pronominal set relate to the first prefix slot. That is, *to-* is in competition with *o-*, *ti-*, and *hi-*. I will first discuss each of these four first order prefixes, and then address the outcome of the competition.

(i) *to-* ‘away’ has two distinct but related senses:

(a) Movement away from a place. The prefix *to-* occurs in this sense with many verbs. In the examples given thus far, for example, it is used with *-ka-* ‘be in motion’ in (2.4), (2.11b), (2.12a), (2.15a/b), (2.19a), (2.47), (2.48), and (3.13).

It was mentioned in §3.4 that the postposition *jaa* covers a wide range of meaning, including both ‘to’ and ‘from’. These senses can be distinguished by the inclusion or lack of inclusion of *to-*, and of other verbal affixes. Compare:

(4.5a) afiao_S to-ko-ma-ka [Botofejo jaa]
 plane(m) AWAY-in.motion-BACK-DECM place PERI
 the plane is going away, back to Porto Velho

(4.5b) afiao_S ka-ke-ka [Botofejo jaa]
 plane(m) in.motion-COMING-DECM place PERI
 the plane is coming from Porto Velho

In (4.5a) the prefix *to-* ‘away’ and suffix *-ma* ‘back’ indicate that the plane is going away from the point of reference and *jaa* added to *Botofeje* must thus have the meaning ‘to’. The inclusion of *-ki* ‘coming’ (and lack of *to-* and *-ma*) in (4.5b) indicates that it is coming to the point of reference (the village where these sentences were said) and *jaa* after *Botofeje* must here have the sense ‘from’.

(b) Change of state, change away from a certain state, e.g. ‘become hard’, ‘become dirty’, ‘become joined’ in (2.20a), ‘become lost’ in (2.20c), and

(4.6) *jamata*_S *to-siri-ki-bone*
 food(f) AWAY-be.COLD-DECf-INTf
 the food will become cold

(4.7) *Ara*_A [*otaa ati*]_O *wara to-ne*
 name(m) Iexc language hold AWAY-AUXm
 Alan is taking hold of our language (i.e. getting competent in it)

A number of verbs in Jarawara are ambitransitive of type S = O. When used transitively they impute the activity to an agent. When used intransitively they simply focus on the patient of the activity, typically indicating that it has come into a certain state; the prefix *to-* is often added in such circumstances. Compare the transitive use of *sibi -na-* ‘tear’ in (4.8a) with the same verb used intransitively in (4.8b).

(4.8a) *Jara*_A [*oko makari*]_O *sibi na-ka*
 Branco(m) IsgPOSS garment(f) tear AUX-DECm
 the Branco tears my garment

(4.8b) [*oko makari*]_S *sibi to-na-ke*
 Isg+POSS garment(f) be.torn AWAY-AUX-DECf
 my garment is getting torn (said when there was a small tear which was getting bigger)

Another example of this involves *tori -na-* ‘break along the grain’. The verb can be used transitively, with a person as agent and the piece of wood as O, or intransitively—as in (4.9)—with the wood as S; the prefix *to-* is included with this sense:

(4.9) *awa*_S *tori to-na-ke*
 wood(f) break.along.grain AWAY-AUX-DECf
 the piece of wood breaks along the grain

Note, though, that this is only a tendency. For the S = O ambitransitive verb *sako -na-* ‘tie up’, a transitive textual example with *to-* is provided, at (4.10a), and an intransitive textual example lacking *to-*, at (4.10b).

(4.10a) *faja kanawaa*_O *mee sako to-na*
 THEN canoe(f) 3nsgA tie.up AWAY-AUXf
 then they tie the canoe up

(4.10b) *borokoo*_S *sako ka-ne*
 pirarucu(m) tied.up APPLIC-AUXm
 the pirarucu (a large fish) is tied up (head tied to tail)

The intransitive inflecting verb *-jabo-* ‘be far’ normally refers to spatial distance and typically takes the generic noun *jama* ‘thing’ as its S argument. However, in one text *-jabo-* occurs with

prefix *to-*, and again has *jama* as S argument; this *jama to-jabo* refers to temporal distance (a long time in the past).

The prefix *to-* is obligatory (unless preempted by another first order prefix, *o-*, *ti-*, or *hi-*) with *-ha-* whether this is functioning as an auxiliary, or as a copula verb ‘become’ (see §13.2), or as the marker of a type of reduplication (see chapter 9). It is also obligatory with the miscellaneous suffixes *-witI* ‘from a place, out’ and *-sii-na-* ‘going along a path’—see chapter 5. It is likely that there are semantic reasons for at least some of these co-occurrences.

(ii) *hi-* is the obligatory marker of an O-construction in which both A and O are 3rd person—see (3.18). Note that *hi-* is used whether either of A and O is 3nsg or 3sg. It can thus occur with *mee* (3nsg O) in slot A and *mee* (3nsg A) in slot B, as in:

(4.11) mee mee hi-wa-wite
 3nsgO 3nsgA Oc-see-FROM.PLACE
 they_i see them_j, from a distance

In view of this it would not be appropriate to say that *hi-* belongs to a pronominal system (as some sort of 3rd person form) in slot B or in slot A, and that it is then transferred to the first prefix slot (a case I do argue for 1sg *o-* and 2sg *ti-*). However, as noted in §4.1, *hi-* is, with *o-* and *ti-*, a member of prefix set (i), what are called ‘pronominal prefixes’. For instance, *o-*, *ti-*, and *hi-* can be placed in the third pronominal position (but *to-* cannot be—in fact *to-* cannot occur anywhere other than in the first prefix slot, Ca).

(iii) Subject (S/A) prefixes, 1sg *o-* and 2sg *ti-*. These forms belong simultaneously to two grammatical systems. They are in the pronominal system in slot B, being mutually exclusive with non-singular pronouns *otaa*, *ee*, *tee*, and *mee* (all of these are realized as distinct words). But, being prefixes, they are then transferred to the first prefix slot, where they are mutually exclusive with *to-* and *hi-*. (The different positionings of the sg pronoun prefixes and the non-singular pronoun words were exemplified in (3.8–9) of §3.3.3.)

There is no possibility of conflict between *o-* and *ti-*, which refer to 1st and 2nd person subject, and *hi-*, which is only used if both A and O are 3rd person. But there is a possible conflict between *o-*, *ti-*, and *hi-*, on the one hand, and *to-*, on the other. In such cases *o-*, *ti-*, or *hi-* takes precedence and the *to-* is simply suppressed. It was mentioned that the miscellaneous suffix *-witI* ‘from a place, out’ requires prefix *to-* (see discussion of suffix (16) in §5.4). But (4.11) is an O-construction with 3rd person A and O and requires *hi-*; this replaces *to-*.

Similarly, if in (4.5a/b) the subject were 1sg *o-* or 2sg *ti-*, this would replace the *to-* (in (4.12b) verb root *-ka-* drops between a prefix and suffix *-kI* ‘coming’):

(4.12a) o-ko-ma o-ke [Botofejo jaa]
 1sgS-in.motion-BACK 1sg-DECF place PERI
 I am going back to Porto Velho

(4.12b) o-ke o-ke [Botofejo jaa]
 1sg-COMING 1sg-DECF place PERI
 I am coming from Porto Velho

In (4.5a/b) the presence/absence of *to-* helps one infer that *jaa* means ‘to’ in the (a) sentence and ‘from’ in the (b) one. This information is missing from (4.12). Nevertheless, the inclusion of *-ma* ‘back’ in (4.12a) and of *-kI* ‘coming’ in (4.12b) is sufficient to disambiguate these senses, if one knows that they were said in the village of Casa Nova, and that the speaker lives in Casa Nova.

Note that the non-singular subject pronouns are separate words and so can co-occur with *to-*. Thus, corresponding to (4.5) and (4.12):

(4.13a) *otaa to-ko-ma-ke* [Botofejo *jaa*]
 1excS AWAY-in.motion-BACK-DECL place PERI
 we are going away, back to Porto Velho

(4.13b) *otaa ka-ke-ke* [Botofejo *jaa*]
 1excS in.motion-COMING-DECL place PERI
 we are coming from Porto Velho

There are certain construction types (nominalized clauses, reduplications) in which a sg subject is shown not by prefixes *o-* and *ti-* on an inflecting verb or on the auxiliary of a non-inflecting verb, but in some other way. In these cases the underlying *to-* (which had been suppressed by *o-* or *ti-*), surfaces, to fill the first prefix slot. For example, the verb *maa (to-)ha-* ‘be tired’ takes auxiliary *-ha-* which requires prefix *to-* unless there is a pronominal prefix, which takes precedence. One would say:

(4.14) *maa o-ha-hara o-ke*
 be.tired 1sgS-AUX-IPef 1sg-DECL
 I was tired

But when the prefix-poaching auxiliary-taking miscellaneous suffix *-raba -na-* ‘do a bit’ is added to *maa -ha-*, as in (4.15), the 1sg suffix *o-* is removed from the verbal auxiliary and placed on the suffix’s following auxiliary. Since *-ha-* no longer has prefix *o-*, the suppressed prefix *to-* is able to surface:

(4.15) *ma.maa to-ha-raba o-na-hara o-ke*
 REDUP.be.tired AWAY-AUX-A.BIT 1sgS-AUX-IPef 1sg-DECL
 I was a bit tired

There is another example of *to-* surfacing when *o-* is removed to another place in the predicate in (9.11–13) of §9.2. In a complement clause, a 1/2sg S or A argument is expressed by clause-initial *oko/tika*, rather than by prefix *o-/ti-*; this also allows an underlying *to-* to surface—see (17.32) in §17.2.

4.4 THE THIRD PRONOMINAL POSITION

Slots A and B in predicate structure provide obligatory pronominal reference to core arguments. There is also what can be called the ‘third pronominal position’ (slot H), between tense-modal and secondary verb, which repeats the pronominal information in slot B or slot A, or from the pivot NP in a complement clause which is itself in core function within the main clause, or from the possessor of an NP which is in core function within the main clause. The pronouns in slot H are identical in form to those which appear in slot B, irrespective of whether slot H actually repeats the pronoun from slot B or that from slot A—see table 3.1 in §3.3.1.

The third pronominal position is normally only filled if there is a non-imperative mood suffix in the predicate. If a free form pronoun goes into slot H, the mood suffix (typically, declarative) is attached to it, e.g. *otaa-ke* ‘1exc-DECL’. If slot H receives a pronominal prefix 1sg *o-*, 2sg *ti-* (or the Oc marker *hi-*), then the mood suffix attaches to this; we just get *o-ke*, *ti-ke*, *hi-ke*, a word which is made up just of a prefix plus a suffix.

The conditions under which the third pronominal position is filled, and what it refers to, depend on (a) the pronouns involved and the tense-modal choice (if any); (b) the construction type; and (c) whether or not there is a secondary verb in the predicate.

We can begin by examining an intransitive clause or a transitive A-construction without a secondary verb, going on to consider O-constructions, clauses with a secondary verb, and then a mention of the filling of slot H when there is no mood suffix. After that we can look at the third pronominal position in relation to complement clauses and to pronominal possessors within a core NP.

4.4.1 Intransitive clauses and transitive A-constructions with no secondary verb

First note that the immediate past eyewitness (IPE) tense/evidentiality has irregular realization. It is marked by suffix *-(ha)ra/-(ha)re* if the pivot argument (S in an intransitive clause and A in an Ac) is 3rd person, 1sg, or 2sg. However, *-(ha)ra/-(ha)re* cannot be used when the pivot argument is 1inc, 1exc, or 2nsg (we abbreviate these as 1/2nsg); with these pivots, IPE is shown simply by the inclusion of a pronoun in slot H.

The principles for inclusion of an explicit tense-modal suffix (slot G) and filling of the third pronominal position (slot H) before declarative mood (slot J) are set out in table 4.1. It will be seen that if the pivot is 3rd person, then all tense-modal choices are shown in slot G but there is no pronoun in slot H. (3sg is zero but 3nsg *mee* could be a candidate for slot H; it does not occur there unless there is a secondary verb—see §4.4.3.) If the pivot is 1/2 sg, all tense-modal choices are marked in slot G and slot H is always filled. If the pivot is 1/2nsg there is nothing in slot H if no tense-modal specification is included in the clause; the filling of slot H, when there is no tense-modal suffix, marks IPE. And all other tense-modal choices involve an explicit suffix in slot G plus a pronoun in slot H for 1/2nsg. (Chapter 27 presents a putative historical explanation for this heterogeneous marking of IPE.)

Table 4.1 can be illustrated with three paradigmatic sets of clauses, each with a pivot that is 3sg m (using here *Okomobi*, a man's name), 3sg f (using *Jane*, a woman's name), 3nsg (pronoun *mee*), 1sg (*o-*), and 1exc (*otaa*). The verb is *jaka -na-* 'move, go for a walk'; each clause ends with the declarative suffix *-ke/-ka*. Note that, in (4.18), if there is no tense-modal specification and the pivot takes f agreement, then the suffix *-i-ne* 'continuous' is generally included; we thus get *na-i-ne-ke* → *ni-ne-ke* in (4.18b-d) and *o-na-i-ne* → *o-ne* in (4.18e).

TABLE 4.1 Predicate slots filled for different choices of pivot and of tense-modal

pivot argument (<i>S</i> or <i>A</i>)	any tense-modal choice except IPE			IPE choice			no tense- modal	
1sg, 2sg	G	H	J	G	H	J	H ¹	J
1inc, 1exc, 2nsg	G	H	J	—	H ²	J	—	J
3sg, 3nsg	G	—	J	G	—	J	—	J

¹ When, as here, a sg pronoun immediately follows an inflecting verb root, auxiliary, or miscellaneous affix, this preceding element is not marked for gender.

² When, as here, a nsg pronoun immediately follows an inflecting verb root, auxiliary, or miscellaneous affix, this preceding element will be marked for gender.

(4.16) With a tense-modal choice that is not IPe, here Intention *-(ha)bone/- (hi)bona*:

- | | | | | | |
|-----|---------|------|-------------|---------|----------------------------|
| (a) | Okomobi | jaka | ne-bona-ka | | Okomobi will go for a walk |
| (b) | Jane | jaka | na-bone-ke | | Jane will go for a walk |
| (c) | mee | jaka | na-bone-ke | | they will go for a walk |
| (d) | | jaka | o-na-habone | o-ke | I will go for a walk |
| (e) | otaa | jaka | na-bone | otaa-ke | we will go for a walk |

(4.17) With immediate past eyewitness choice, marked by suffix *-(ha)re/- (ha)ra* when the S argument is not 1/2nsg, and marked simply by repetition of the S pronoun in the third pronominal position if the S is 1/2nsg:

- | | | | | | |
|-----|---------|------|-----------|---------|-------------------------|
| (a) | Okomobi | jaka | na-re-ka | | Okomobi went for a walk |
| (b) | Jane | jaka | na-ra-ke | | Jane went for a walk |
| (c) | mee | jaka | na-ra-ke | | they went for a walk |
| (d) | | jaka | o-na-hara | o-ke | I went for a walk |
| (e) | otaa | jaka | na | otaa-ke | we went for a walk |

(4.18) With no tense-modal specification:

- | | | | | | |
|-----|---------|------|----------|------|-----------------------------|
| (a) | Okomobi | jaka | na-ka | | Okomobi is going for a walk |
| (b) | Jane | jaka | ni-ne-ke | | Jane is going for a walk |
| (c) | mee | jaka | ni-ne-ke | | they are going for a walk |
| (d) | | jaka | o-ne | o-ke | I am going for a walk |
| (e) | otaa | jaka | ni-ne-ke | | we are going for a walk |

In an intransitive clause or a transitive Ac, slot H effectively copies the pronominal form from slot B (where it marks S or A function). Clauses showing 1sg *o-* in the third pronominal position include (2.46*b*) and (3.9*a/b*) with IPe, and (3.5*a*) and (4.12) with no tense-modal specification. There are examples of *ee* and *otaa* in third pronominal position with a tense-modal suffix other than IPe at (3.13) and (3.36). Sentences (2.19*a*) and (3.14) show *otaa* in third pronominal position marking IPe. Another example is:

- | | | | | |
|--------|-------|------------------------|---------------------|-----------|
| (4.19) | otaa | tai | to-ka-ha-misa | otaa-ke |
| | IexcS | go.in.front | AWAY-APPLIC-AUX-UPf | Iexc-DECf |
| | | we went up (the slope) | in front (of them) | |

4.4.2 Transitive O-constructions with no secondary verb

If an Oc has 1/2nsg as O argument then it cannot take the IPe suffix but instead marks this tense-modal specification by repeating the O pronoun (from slot A) in slot H, in the appropriate form. As mentioned in §3.4.1, we only do get an Oc if (a) O is 3rd person, or (b) A is 3rd person and there is specification of both tense-modal and mood. These will be discussed in turn (fuller discussion and more examples are in chapter 16).

(a) Oc where O is 3rd person:

- if there is specification of tense-modal and mood, then slot H is left blank, as in (4.20);
- if there is mood but no tense-modal we get
 - if A is 3rd person, then the *hi-* prefix from an inflecting verb or the auxiliary of a non-inflecting verb is copied into slot H, as in (4.21);
 - if A is 1sg or 2sg then this pronominal prefix is repeated in slot H, as in (4.22);
 - if A is 1inc, 1exc, or 2nsg then slot H is left empty, as in (4.23).

- (4.20) [mee hijari]_O o-wato-ra-haro-ke
 3nsgS talk+COMP 1sgA-understand-NEG-RPef-DECf
 I didn't understand what they were saying (lit. their talking)
- (4.21) kaneta_O Ara_A hi-kiha hi-ke
 pen(f) name(m) Oc-have Oc-DECf
 Alan (m) has pens (f)
- (4.22) Okomobi_O o-nofa o-ka
 name(m) 1sgA-like 1sg-DECM
 I like Okomobi
- (4.23) Okomobi_O otaa nofa-ka
 name(m) 1excA like-DECM
 we like Okomobi

The clues for recognizing each of (4.20–3) as an Oc are varied, and worth pointing out. In (4.21) the prefix *hi-* marks an Oc where both A and O are 3rd person. In (4.22) and (4.23) the A is 1sg *o-* and 1exc *otaa* respectively, which in an A-construction would engender *f* agreement on the declarative suffix; the fact that the *m* declarative *-ka* is used indicates agreement with the O argument (*Okomobi*). In (4.20) both the A argument (1sg *o-*) and the pivot of the complement clause comprising the O argument (3nsg *mee*) would take *f* agreement. The fact that the 1sg A pronoun, *o-*, is not repeated in the third pronominal slot—as it is in (4.16*d*) and (4.17*d*), for example—shows that (4.20) is an Oc.

(b) Oc where A is 3rd person and O is 1st/2nd person, with tense-modal and mood specified:

- the O pronoun is repeated in slot H, in the appropriate form. (If the tense-modal choice is IPe, this suffix is not included if the O argument is 1/2nsg.)

In all the examples given thus far in §4.4, if there is a pronoun in slot H it repeats the pronoun from slot B, using the same form, e.g. *o-* or *otaa*. We can get slot H repeating the pronoun from slot A but with the form appropriate to slot B. For example, in (4.24) we have 1sg *owa* in slot A and *o-* in slot H, while in (4.25) we have *tera* in slot A and *tee* in slot H.

- (4.24) owa iti-ma-re o-ke
 1sgO take-BACK-IPem 1sg-DECf
 he took me back
- (4.25) Ariko_A tera to-se-me-ba tee-ke
 name(m) 2nsgO AWAY-take.and.leave-BACK-FUTm 2nsg-DECf
 Ariko will take you-all and leave you-all (there)

Note that the Oc's in (4.24–5) have their tense-modal suffix agreeing with the A argument (*m* in each case) while the third pronominal position repeats the O argument and the mood suffix agrees in gender with this. There is fuller discussion of this in chapter 16, and a putative historical explanation in chapter 27.

Examples (4.26*a/b*) present an Ac and an Oc, respectively, both with IPe specification and where the O is a 1/2nsg pronoun. In the Ac the regular IPe suffix, *-hare*, is used whereas the Oc, in (4.26*b*), marks IPe by simply repeating the O pronoun in slot H.

- (4.26*a*) jomee_A otara fito ka-na-hare-ka
 jaguar(m) 1excO run.up.to APPLIC-AUX-IPem-DECM
 the jaguar ran up to us, just now

- (4.26b) jomee_A otara fito ka-ne otaa-ke
 jaguar(m) IexcO run.up.to APPLIC-AUXm Iexc-DECf
 the jaguar ran up to us, just now

4.4.3 With a secondary verb

We have seen that if there is no secondary verb in the predicate then 1st and 2nd person pronouns can be included in slot H, the third pronominal position (under the conditions set out above), but that 3nsg *mee* can never appear in slot H.

When a secondary verb is included in the predicate the rule concerning slot H is different, and simpler:

Any pronoun (including 3nsg *mee*) which is in S function in an intransitive clause, in A function in an Ac, or in O function in an Oc, is repeated in slot H.

(Note that the secondary verbs cannot co-occur with IPE; we are thus spared the irregular realization of IPE described above for when the pivot is 1/2nsg.)

The normal ordering is: third pronominal position (slot H), followed by secondary verb (slot I), followed by mood (slot J). This order is followed when the pronoun to go into slot H is a nsg form, which always constitutes a separate word—for example, *ee* (H) *ama* (I) *-ke* (J) in (4.28). However, the secondary verbs accept no prefixes; as a consequence, when 1sg *o-* or 2sg *ti-* is in slot H it hops over the following secondary verb and attaches to the mood suffix—for example, *ama* (I) *o-* (H) *-ke* (J) in (4.27) and (4.31).

Examples of the filling of slot H when a secondary verb is present in the predicate include the intransitive clause in (4.27), the transitive Ac's in (4.28–9), and the transitive Oc's in (4.30–1).

- (4.27) amo o-ra-haro ama o-ke
 sleep 1sgS-NEG-RPef EXTENT 1sg-DECf
 I wasn't sleeping

- (4.28) ee fawa to-ka-na-ba ee ama-ke
 1incA disappear AWAY-APPLIC-AUX-FUTf 1inc EXTENT-DECf
 we'll get rid of [the jaguar] (lit. make it disappear)

- (4.29) Sorowaha_A otara mee haa to-na-ma-iti-haro
 tribe IexcO 3nsgA call.to AWAY-AUX-BACK-ALONG.WAY-RPef
 mee ama-ke
 3nsg EXTENT-DECf
 the Sorowahá people called out to us all along the path back

- (4.30) okiti_A mee hi-kahati-hemete-mone mee ama-ke
 1sgPOSS+grandfather 3nsgO Oc-kill.fish-FPnf-REPf 3nsg EXTENT-DECf
 my grandfather was killing many fish

- (4.31) inohowe_A owa fito ka-ne-hina ama o-ke
 alligator(m) 1sgO catch APPLIC-AUX-IRRm EXTENT 1s-DECf
 the alligator could have caught *me* (said on seeing a dead alligator placed on a tree stump in the middle of a river, and taking a while to realize that it was in fact dead)

Note that if a secondary verb is included in a predicate, the suffix *hi-* can never be repeated in slot H (as it can be when there is no secondary verb). Slot H is now reserved for the repetition of a 3nsg pronoun from slot A, as in (4.30).

When a clause involves a secondary verb, then an Oc is available if either O or A is 3rd person, whether or not there is a tense-modal suffix (but not if both A and O are 1/2); see §16.4.5. The fact that, in the Oc at (4.31), the tense-modal suffix agrees in gender with the A argument while slots H and J reflect the O argument is discussed in chapter 16.

4.4.4 When there is no mood

The third pronominal position is only normally filled when followed by a non-imperative mood suffix, typically declarative *-ke/-ka*, or backgrounding *-ⁱni/-ne*. Secondary verbs are generally followed by a mood suffix. If they are not, there may still be a pronoun in slot H, as in:

- (4.32) [mee hii ni]_S jowaba na-ro mee ama
 3nsgS call.'hii-hii-hii' AUX+COMP walk.in.single.file AUX-RPef 3nsg EXTENT
 ahi
 HERE.VISIBLE
 they called out 'hii-hii-hii' as they were walking here in single file (lit. their calling
 'hii-hii-hii' walked in single file)

It was mentioned that a prefix (such as 1sg *o-*) cannot be prefixed to a secondary verb but instead jumps over it, normally attaching to a declarative suffix. If there is no declarative marking, *o-* still follows the secondary verb but now lengthens its vowel and makes up a phonological word on its own, *oo*, as in:

- (4.33a) jifo_O o-kihi o-nofa-ra ama oo
 fire(f) 1sgA-have 1sgA-RECENT-NEGF EXTENT 1sg
 I haven't had any fire for a long time

- (4.33b) hatisa o-na-haba owa awine oo
 sneeze 1sgS-AUX-FUTf 1sg SEEMSF 1sg
 I seem to be about to sneeze

Speakers told me to say (4.33b) when I felt I might be about to sneeze again and tried not to. In this context they would not allow *o-ke*, only *oo*. It is possible to have *o-ke* in (4.33b) but this would change the meaning, implying that I definitely would sneeze.

There are in the corpus just a few examples of a predicate that lacks both secondary verb and mood suffix but does fill the third pronominal position; again 1sg *oo* is used, or 2sg *tii*—see (4.48d) and (4.53d) below. In one text, an ill man is quoted as saying:

- (4.34) o-ko-ma-ba, jaka hina o-na-hara oo
 1sgS-in.motion-BACK-FUTf walk CAN 1sgS-AUX-IPef 1sg
 I would go back, if I could walk (which I can't)

The first clause in (4.34) bears future suffix *-ba*, and the second clause includes suffix *-hina -na-* with positive polarity. It is the final *oo* (with no following declarative suffix *-ke*) which assigns an 'unrealized' meaning to the whole sentence.

Example (4.35a) comes from a story about a man taking his wife into the jungle on a food-gathering expedition. They separate and she is killed by a jaguar. The man is looking for his wife (before he discovers what has happened to her) and shouts out:

- (4.35a) tiwa haa o-na-bana oo
 2sgO call.to 1sgA-AUX-FUTf 1sg
 I was going to call you (to join up with me, but didn't)

From the same text we get a sentence where 2sg *ti* comes clause finally; as with 1sg, the vowel is lengthened, giving *tii*, since here it comprises a full phonological word (which must have at least two moras).

- (4.35b) ti-watis hij-a-ra-ra tii
 2sgPOSS-voice be.bad-NEG-IPef 2sg
 you refused (to come) (lit. your voice was bad)

In summary, the filling of the third pronominal position when there is no following mood appears to indicate that something which might well have happened did not happen, or that something which might well be expected to happen will not happen (a variety of irrealis).

4.4.5 Complement clause supplying third pronominal position

If a complement clause, with pronominal A, is in S function within a main clause, then the A pronoun of the complement clause may optionally be 'raised' and placed in slot B (for S function) within the predicate of the main clause. The normal rule for repeating a pronoun from slot B into the third pronominal position (slot H) then applies, if the main clause does not include a tense-modal suffix or a secondary verb. (Recall from §3.7 that the predicate of a complement clause ends at the fourth echelon of miscellaneous suffixes and does not itself involve a third pronominal position.) For example:

- (4.36) [barafo_O wari ni]_S hawa o-ha o-ke
 screw(f) twist AUX+COMP be.accomplished 1sgA-AUX 1sg-DECLf
 I have finished screwing up the screw (lit. my twisting the screw is accomplished)

In (4.36) the complement clause is transitive with *barafo* 'screw' as O and 1sg as A argument; the complement clause functions as S argument of the intransitive verb in the main clause, *hawa -ha-* 'be accomplished'. The 1sg pronoun *o-* is raised from the complement clause to go into slot B for *hawa -ha-*. From there it is repeated in the third pronominal position, attached to *-ke*, declarative.

This raising is optional and appears to involve no difference in meaning. When a pronominal argument in A function in a complement clause (which is in S function in the main clause) is not raised, this A pronoun may be marked in the third pronominal position of the main clause, provided that the main clause includes a tense-modal suffix or a secondary verb. For example

- (4.37a) [oko sina_O hisi ni]_S hawa to-ha-hara o-ke
 1sgA snuff(f) sniff AUX+COMP be.accomplished AWAY-AUX-IPef 1sg-DECLf
 I have finished sniffing snuff (lit. my sniffing snuff is accomplished)

A pronominal S argument of an intransitive complement clause, which is in S function in the main clause, may not be raised into the S pronominal slot of the main clause; but it may be

copied into third pronominal position, provided the main clause bears a tense-modal suffix or a secondary verb. Thus:

- (4.37*b*) [oko kana ni]_S to-ko-ma-ra o-ke
 1sgS run AUX+COMP AWAY-in.motion-BACK-IPef 1sg-DECf
 I ran back (lit. my running went back)

The inclusion of *o-* in slot H for (4.37*a/b*) appears again to be an optional matter, and to carry no meaning difference.

There is fuller discussion of complement clauses, raising, and the third pronominal position in §§17.4–6.

4.4.6 Possessor filling third pronominal position

A further mechanism for placing a pronoun in slot H will now be described; this is again optional. If the core argument in an intransitive main clause (S) is 3rd person, or if the core arguments in a transitive A-construction main clause (A and O) are both 3rd person, and if one of these core arguments is realized by an NP including a 1st or 2nd person pronominal possessor, and if the clause includes either a tense-modal suffix or a secondary verb, then the possessor pronoun may optionally be copied into the third pronominal position. Note that the condition here is similar to that given in §4.4.5 for copying from a complement clause into third pronominal position in the main clause when there is no raising—inclusion of a tense-modal suffix or a secondary verb. Note also that possessor copying into third pronominal position is never possible in an O-construction.

Thus we can have either (4.38*a*), where the third pronominal position is left unfilled, or (4.38*b*), where the 1sg pronominal possessor from the S NP is repeated in slot H.

- (4.38*a*) o-wisi_S hete to-na-hara-ke
 1sgPOSS-leg+f get.stuck AWAY-AUX-IPef-DECf
 my leg got stuck, just now
- (4.38*b*) o-wisi_S hete to-na-hara o-ke
 1sgPOSS-leg+f get.stuck AWAY-AUX-IPef 1sg-DECf
 my leg got stuck, just now

I have not been able to perceive any semantic difference between pairs of sentences such as (4.38*a*) and (4.38*b*). See also the discussion of (15.98) in §15.4.3.

As stated, this copying is only permitted if there is an explicit tense-modal suffix or a secondary verb. That is, in (4.39*a*), which has neither of these, the third pronominal position must be left empty—(4.39*b*) is not an allowable variant.

- (4.39*a*) o-wisi_S hete to-na-ke
 1sgPOSS-leg+f get.stuck AWAY-AUX-DECf
 my leg gets stuck

- (4.39*b*) *o-wisi hete to-na o-ke

For copying both from a complement clause and from the possessor within a core NP, only a 1/2 pronoun can be copied if there is a tense-modal suffix, but any pronoun (1/2 or 3nsg) if there is a secondary verb.

The possessive pronoun can be an inalienable possessor, as in (4.38a/b) and (4.44–5), or a kinship possessor, as in (4.40), or an alienable possessor, as in (4.41–2). A 1sg possessive pronoun can have the form *o-* or *oko* within the NP but is always copied into slot H as *o-* (and similarly for 2sg which can be *ti-* or *tika* within the NP, but is always *ti-* in slot H).

(4.40) *okobise_s hijare-re o-ke*
 1sgposs+father's.brother speak-IPem 1sg-DECf
 my father's brother spoke, just now

(4.41) [*ee kaa hemejo*] *-ba_O Fonai_A mata ne-ba ee-ke*
 1inc POSS medicine(f) -FUT FUNAI(m) send AUX-FUTm 1inc-DECf
 FUNAI (the Indian Protection Agency) will send our intended medicines

The possessive pronoun can be within an S NP in an intransitive clause, as in (4.38) and (4.40), or within an O NP in an A-construction (as in 4.41), or in an A NP in an A-construction, as in (4.42).

(4.42) [*oko jomee*]_A *Rosiano_O wai na-re o-ke*
 1sgposs dog(m) name(m) bite AUX-IPem 1sg-DECf
 my dog bit Luciano

Sentences (4.41) and (4.42) are Ac's and the tense-modal suffix is m, agreeing in gender with the A argument. But note that the declarative suffix is f *-ke*, agreeing in gender with the 1sg possessor within the A NP (the A NP is itself m). If there had been no pronoun in third pronominal position in (4.42) then declarative would have m form, *-ka-*, like IPe; that is, the auxiliary constituent would be *na-re-ka*.

The one constraint is that repeating a pronominal possessor in slot H is not permitted if the other core argument is 1st or 2nd person. For example, one can say:

(4.43) [*oko bari*]_O *tee jaba-hani tee-ke*
 1sgposs axe(f) 2nsgA take.away-IPnm 2nsg-DECf
 you-all took my axe

It is not possible to place the *o-* from 'my axe' in slot H here since the A argument 2nsg *tee* goes into this slot. So one cannot say **oko bari tee jaba-hani o-ke*.

I have said that the copying of a possessor into slot H is optional. It is in almost all circumstances. However, there are a few examples in which it appears to be obligatory. For example:

(4.44) *o-bos_s baji-hara o-ke*
 1sgPOSS-courage+m be.deep-IPef 1sg-DECf
 I had a lot of courage (lit. my courage was deep)

(4.45) [*oko korone*]_s *wata-ra-ra o-ke*
 1sgPOSS nakedness+m exist-NEG-IPef 1sg-DECf
 I wasn't naked (lit. my nakedness did not exist)

For each of these I was told that the alternative without *o-* in slot H was not acceptable (**o-bo baji-hara-ke*, and **oko korone wata-ra-ra-ke*).

Checking a number of other PNs shows that the copying of a possessor pronoun from the S NP into third pronominal position (if the main clause has a tense-modal suffix or a secondary verb) is required for (quoting the m forms of PNs) *-(ha)bo* 'courage', *korone*

‘nakedness’, and also for *-maho* ‘smell’. But it is optional for possessed nouns *kakititi* ‘itch’, *komene* ‘pain’, *tanakone* ‘sweat’, *kanamori* ‘shadow’, and *-(w)ati* ‘voice’.

Some similar concepts are expressed by intransitive verbs. Elicitation reveals that when verb *kowewe -na-* ‘have diarrhoea’ has a pronominal subject and is the verb of a complement clause in S function within a main clause (with a tense-modal suffix or a secondary verb), then the pronominal possessor must be repeated in the third pronominal position of the main clause. One must say:

(4.46) [oko kowewe ni]_S nafi-hara o-ke
 1sgS have.diarrhoea AUX+COMP be.much-IPef 1sg-DECL
 I had lots of diarrhoea (lit. my having diarrhoea was lots)

and not *[oko kowewe ni] nafi-hara-ke.

There is likely to be some semantic basis for all this—for why the third pronominal position is obligatorily filled for possessed nouns ‘courage’, ‘nakedness’, and ‘smell’ but only optionally for ‘itch’, ‘pain’, ‘sweat’, ‘shadow’, and ‘voice’ (and obligatorily for the verb ‘have diarrhoea’ but optionally for other verbs with similar meanings). However, I have not been able to perceive what the semantic basis is.

4.5 VERBS AND AUXILIARIES

This section provides a brief discussion of verbal auxiliaries, then of the forms of verbs, and finally of a peculiar suffix *-ri* which is added to what are called inflecting verbs.

The semantics of verbs is dealt with in §26.2. This includes discussion of the semantic basis of the inflecting and non-inflecting subclasses, of transitivity subclasses, of the wide range of correspondences between semantic roles and syntactic functions, and an outline of the general semantic characteristics of verbs in Jarawara, with some sample semantic sets.

4.5.1 The verbal auxiliary

There are in fact four types of auxiliary within a predicate:

- (a) that required by a non-inflecting verb;
- (b) that required when a verb is reduplicated, mentioned briefly in §4.1.1 and discussed in detail in chapter 9;
- (c) an auxiliary required to follow certain miscellaneous suffixes; and
- (d) an auxiliary required to precede certain other miscellaneous suffixes.

Types (a–c) can be either *-na-* or *-ha-* while only *-na-* is attested for type (d). There is a full discussion of the four types and their co-occurrence possibilities at the beginning of the chapter on miscellaneous suffixes, in §5.1. Here some preliminary remarks are provided on *-na-* and *-ha-* as (a), a verbal auxiliary.

The form *-ha-* occurs as an auxiliary and as a copula verb ‘become’ (see §13.2). In each case it must take the prefix *to-* ‘away’ (unless this is displaced by another first order prefix, 1sg *o-*, 2sg *ti-*, or Oc marker *hi-*). There is certainly a sense of ‘becoming’ in most of the non-inflecting verbs that take the *-ha-* auxiliary, e.g. *tanako -ha-* ‘be(come) sweaty’, *maa -ha-* ‘be(come) tired’, *hawa -ha-* ‘be(come) completed, accomplished, ready’, *afi -ha-* ‘be(come) wet’. (A full list of verbs taking auxiliary *-ha-* is in §26.2.2.)

As mentioned in §3.1, Jarawara has many homonyms and it is not always easy to tell whether one is dealing with two senses of a single root, or two different roots that just happen to have the same form. The two *-ha-*s can be related since they have similar meanings and both demand the prefix *to-*. This co-occurrence is semantically motivated: the meaning of *to-* ‘moving away from one state into another’ correlates with that of *-ha-* ‘becoming’.

Besides the auxiliary *-na-* there is also an inflecting verb root *-na-* ‘exist (with respect to someone)’; this is best treated as an intransitive verb rather than as a copula (see §13.6). It is difficult to determine whether the two *-na-*s should be identified; there is no semantic similarity and nothing like the *to-* that is found with all *-ha-*s, to provide a grammatical link. It is likely that the auxiliary *-na-* developed from a lexical inflecting verb at some time in the past (certainly, at a pre-*proto-Arawá* stage) but the original lexical *-na-* may have since dropped out of use, or completely changed its meaning.

The two auxiliaries differ in one important respect: *-ha-* can only be omitted within a causative construction, whereas there are many circumstances in which *-na-* may drop. It should be noted that when *-na-* or *-ha-* does drop this always applies first in a chain of derivation; that is, this is a morphological omission which precedes the various phonological rules set out in §2.9.

In chapter 5 there is a description of how one set of miscellaneous suffixes always triggers the omission of an auxiliary *-na-* to which they are attached, another set triggers this omission only when *-na-* also bears a prefix, and a further set always retains *-na-*. Chapter 7 describes a number of mood suffixes which can also trigger the omission of an immediately preceding auxiliary *-na-*.

There is a special construction type called a ‘list construction’ whereby an integrated sequence of verbs each omits any auxiliary (and any pronominal prefix this would carry); there is a list verb *-na-* at the end of the sequence, taking the pronominal prefix and also tense-modal, etc. suffixes. This third variety of *-na-* verb is discussed in chapter 23.

If a *-na-* auxiliary is immediately followed by declarative, *-ke/-ka*, then slot F6e miscellaneous suffix *-ⁱne/ø* ‘continuous’ must be included between auxiliary and declarative. The various possibilities are illustrated in (4.47–50) using the same format as (4.16–18), an intransitive paradigm with the S NP being (a) an m noun (*Okomobi*); (b) an f noun (*Jane*); (c) 3nsg *mee*; (d) 1sg *o-*; (e) 1exc *otaa*.

In (4.47) there is a non-inflecting verb with its auxiliary, but no suffix. Here the auxiliary, *-na-*, becomes *ne* in (4.47a) to show m agreement, and remains *na* in (4.47b–e) for f agreement.

(4.47) Auxiliary *-na-* with no suffixes

- | | | | |
|-------------|------|------|---------------------------------|
| (a) Okomobi | jaka | ne | Okomobi (a man) goes for a walk |
| (b) Jane | jaka | na | Jane (a woman) goes for a walk |
| (c) mee | jaka | na | they go for a walk |
| (d) | jaka | o-na | I go for a walk |
| (e) otaa | jaka | na | we go for a walk |

In (4.48a–e) the ‘continuous’ suffix *-ⁱne/ø* is included. Note that the m allomorph, *ø*, in (4.48a) blocks the shift of auxiliary-final *a* to *e*, as in (4.47a). The fact that the auxiliary in (4.48a) ends in *a* with an m argument in S function indicates that we have here the m allomorph of ‘continuous’ *-ⁱne/ø*.

(4.48) Auxiliary *-na-* with ‘continuous’ *-ⁱne/ø*

- | | | | |
|-------------|------|-------|-------------------------------------|
| (a) Okomobi | jaka | na | Okomobi (a man) is going for a walk |
| (b) Jane | jaka | ni-ne | Jane (a woman) is going for a walk |

- (c) mee jaka ni-ne they are going for a walk
 (d) jaka o-ne oo I am going for a walk
 (e) otaa jaka ni-ne we are going for a walk

In (4.49) we have the auxiliary plus declarative mood, *-ke/-ka*. As mentioned, the suffix ‘continuous’ *-i-ne/ø* must come between these.

(4.49) Auxiliary *-na-* plus declarative *-ke/-ka* (obligatorily separated by ‘continuous’ *-i-ne/ø*)

- (a) Okomobi jaka na-ka Okomobi (a man) is going for a walk
 (b) Jane jaka ni-ne-ke Jane (a woman) is going for a walk
 (c) mee jaka ni-ne-ke they are going for a walk
 (d) jaka o-ne o-ke I am going for a walk
 (e) otaa jaka ni-ne-ke we are going for a walk

If the *-na-* auxiliary of a non-inflecting verb bears no affix but declarative *-ke/-ka*, then the *-na-* can optionally be omitted:

(4.50) Declarative *-ke/-ka* and no auxiliary

- (a) Okomobi jaka-ka Okomobi goes for a walk
 (b) Jane jaka-ke Jane goes for a walk
 (c) mee jaka-ke they go for a walk
 (d) jaka o-ke I go for a walk
 (e) otaa jaka-ke we go for a walk

Note that in (4.48*d*), (4.49*d*), and (4.50*d*) the third pronominal position (slot H) must be filled. The subject pronoun is a prefix that is normally attached to the auxiliary (as in (4.47*d*), (4.48*d*), and (4.49*d*)). In (4.48*d*) the 1sg form (generally *o-*) in the third pronominal position has its vowel lengthened and becomes a separate phonological word, *oo*. In (4.50*d*) the auxiliary drops but there is still reference to the subject through the *o-* in slot H, attached to the declarative suffix *-ke*.

The difference in meaning between these paradigms is a subtle matter. It was mentioned that all verbal suffixes are optional—one can supply a tense-modal or a mood specification or both, or one can choose not to provide any specification from these systems. In (4.47–8) there is simply no mood stated, while (4.49–50) both show declarative mood.

If there is no auxiliary stated with a non-inflecting verb, as in (4.50), the clause refers to ‘the fact of the matter’. When the auxiliary is included, as in (4.49), the clause refers to something ongoing, which prevails over a period of time. For example, some Jarawara described a photograph of an African woman carrying a baby on her back as:

- (4.51) bitio weje-ke
 3sgPOSS+son(m) carry.on.back-DECLf
 she is carrying her son on her back

Here the non-inflecting verb *weje -na-* ‘carry on back (with straps over both shoulders)’ was used without its auxiliary. When I enquired why *weje-ke* was said, similar to (4.50*b*)—rather than *weje ni-ne-ke* similar to (4.49*b*)—the response was ‘this is a picture’; that is, it is just a statement of fact rather than something which is happening now.

It is instructive to compare non-inflecting and inflecting verbs at this point. Corresponding to (4.47) we get an inflecting verb with no mood. Illustrating with intransitive *-tafa-* ‘eat’:

(4.52) Inflecting verb with no suffixes

- (a) Okomobi tafe Okomobi eats
 (b) Jane tafa Jane eats

- | | | | |
|-----|------|--------|----------|
| (c) | mee | tafa | they eat |
| (d) | | o-tafa | I eat |
| (e) | otaa | tafa | we eat |

The verb has the unmarked and f final vowel *a* in (b–e) but a final *e* in (a), here indicating m agreement.

Corresponding to (4.48) there is (4.53), again with the m allomorph, \emptyset , in (4.53a) blocking the raising of root-final *a* to *e*. As with (4.48d), the fact that the verb ends in *a*, with an m argument in S function, indicates that we have here the m allomorph of ‘continuous’ $-^i ne/\emptyset$.

- (4.53) Inflecting verb with ‘continuous’ $-^i ne/\emptyset$
- | | | | |
|-----|---------|--------------|-------------------|
| (a) | Okomobi | tafa | Okomobi is eating |
| (b) | Jane | tafi-ne | Jane is eating |
| (c) | mee | tafi-ne | they are eating |
| (d) | | o-tafi-ne oo | I am eating |
| (e) | otaa | tafi-ne | we are eating |

Corresponding to (4.49) we get (4.54) where ‘continuous’ $-^i ne/\emptyset$ is followed by declarative, $-ke/-ka$, and corresponding to (4.50) we get (4.55) where the root is simply followed by declarative.

- (4.54) Inflecting verb with ‘continuous’ $-^i ne/\emptyset$ and declarative $-ke/-ka$

- | | | | |
|-----|---------|----------------|-------------------|
| (a) | Okomobi | tafa-ka | Okomobi is eating |
| (b) | Jane | tafi-ne-ke | Jane is eating |
| (c) | mee | tafi-ne-ke | they are eating |
| (d) | | o-tafi-ne o-ke | I am eating |
| (e) | otaa | tafi-ne-ke | we are eating |

- (4.55) Inflecting verb with declarative mood

- | | | | |
|-----|---------|-------------|--------------|
| (a) | Okomobi | tafa-ka | Okomobi eats |
| (b) | Jane | tafa-ke | Jane eats |
| (c) | mee | tafa-ke | they eat |
| (d) | | o-tafa o-ke | I eat |
| (e) | otaa | tafa-ke | we eat |

We thus get the same distinctions for non-inflecting and inflecting verbs in all instances save one, when the S is a singular m noun. We find *Okomobi tafa-ka* for both (4.54a) and (4.55a). Speakers of Jarawara are glad to discuss this, and affirm that there is just one m form, corresponding to two for an f subject, (4.54b) and (4.55b), or for a pronominal subject.

This completes the list of circumstances in which the auxiliary $-na-$ can be omitted. One related phenomenon should be mentioned here. There is a very common verb *ati -na-* which is ambitransitive of type S = A. Its basic meaning is ‘say, ask’ and it is often used to frame a preceding block of direct speech; the direct speech may then be the O argument. The *ati* from *ati -na-* is obligatorily omitted when the verb has a subject prefix 1sg *o-* or 2sg *ti-*, or when there is the Oc prefix *hi-*. Compare four sentences, each with IPe tense reference:

- | | | |
|---------|----------------------------|----------------------------|
| (4.56a) | ‘hima’, okobi ati na-re-ka | ‘let’s go’, my father said |
| (4.56b) | ‘hima’, mee ati na-ra-ke | ‘let’s go’, they said |
| (4.56c) | ‘hima’, otaa ati na-ra-ke | ‘let’s go’, we said |
| (4.56d) | ‘hima’, o-na-hara o-ke | ‘let’s go’, I said |

When the subject is a noun—such as *okobi* ‘my father’—or a non-singular pronoun—such as 3nsg *mee* or 1exc *otaa*—the *ati* cannot be omitted. But when it is a sg pronominal prefix, as in (4.56d), then it must be omitted.

A straightforward textual example, involving *hi-* and necessary omission of *ati*, is:

- (4.57) [jama_S jabo-tima-tee-ra-mone]_O,
 thing(f) be.far-UPSTREAM-HABIT-NEG-REPF
 Batiri.Konta_A hi-na-haro ama-ke
 name(m) Oc-AUX-RPef EXTENT-DECf
 ‘it (the Sorowahá village) is said to be not far upstream’, Padre Gunter said

The *hi-* shows that this is a transitive O-construction. The direct speech is the O argument and is cross-referenced on the verb by the f forms of RPe and declarative suffixes (since the S NP of the direct speech clause, *jama* ‘thing’, is f). The underlying form of the verb in the second clause is *ati hi-na-haro ama-ke* but here the *ati* drops since its auxiliary bears the prefix *hi-*.

A more complex textual example is:

- (4.58) [ʔe to-ka-se]_O, okomise_A naa hi-he-himari-ne
 cry.out AWAY-APPLIC-ONCEM 1SGPOSS+aunt AUX Oc-AUX-FPem-BKGM
 ‘he called out once’, my aunt was saying

The predicate of the second clause involves the verb *ati -na-* ‘say’, in an Oc marked by *hi-*, i.e. *ati hi-na-*. This undergoes the past iterative type of reduplication, which requires its own auxiliary (*to-*)*ha-*, i.e. *a.'ati na hi-ha*; according to the rule for reduplication, the prefix *hi-* is transferred from the verb’s auxiliary, *-na-*, to the reduplication auxiliary *-ha-* (replacing *to-*). This is a predicate involving *ati -na-* with a prefix to an auxiliary within the predicate (it was on *-na-* at an earlier stage of the derivation, but is finally on *-ha-*). In view of this the reduplicated verbal root drops, with the meaning ‘say’ just being marked by the bare auxiliary *naa* (its vowel being lengthened to comprise a phonological word), plus following *hi-ha-* (and this takes FPem *-himari* and BKGM *-ne*, agreeing in gender with the pivot in the direct speech, which is the O argument, as in (4.57)). There is a further example of this sort, with commentary, at T3.19.

Note that the *-na-* auxiliary of a non-inflecting verb (*X -na-*) would normally be omitted in the past iterative type of reduplication—we would get REDUP.X *to-ha*. But in (4.58) the *a.'ati* is dropped (in the presence of prefix *hi-* on the reduplication auxiliary *-ha-*) and, in this circumstance, the *-na-* is retained as an indication that the underlying verb is *ati -na-*.

Note also that if instead of (4.57) we had the corresponding Ac or intransitive clause, with no *hi-*, then the past iterative of *ati -na-* would be *a.'ati to-ha*, with the *-na-* auxiliary omitted. The verb root *a.'ati* would not drop in this circumstance since there is no prefix *o-* or *ti-* or *hi-* (only *to-*, which does not trigger the omission of *ati* or *a.'ati*). A textual example of this type (with *ati -na-* here used in an intransitive clause) is:

- (4.59) otaa a.'ati to-ha-marō otaa-ke
 1excS REDUP.say AWAY-AUX-FPef 1exc-DECf
 we were talking (among ourselves)

All Arawá languages have a reflex of proto-Arawá **athi -na-* ‘say’, except that this is reported to be missing from the Dení dialect of Kulina-Dení. Koop (1977: 34) states that the verb of speaking in Dení is just *-na-*. Just as *ati -na-* can, in the circumstances just described, be reduced to *-na-* in Jarawara, so it seems likely that *ati -na-* has fully reduced to be *-na-* in all circumstances in Dení.

4.5.2 Forms of verbs

There are about twenty verbs which have suppletive stems depending on whether the S or O argument has singular, dual, or plural reference (or, for some, just on whether it has singular or plural reference). These were briefly exemplified in §3.2 and are fully described in §26.2.1.

In this section verbs—in particular inflecting verbs—are examined with respect to their forms.

The great majority of inflecting verbs begin with a consonant, and prefixes are added in a straightforward agglutinative manner. In §2.9 assimilation rules $a \rightarrow o$ and $a \rightarrow e$ were described. Otherwise there are no complications for consonant-initial roots. There are, however, for vowel-initial roots.

(I) VOWEL-INITIAL INFLECTING VERBS. The corpus includes about thirty inflecting verbs that commence with one of the four vowels. According to the forms with prefixes I have observed or been able to obtain, these fall into sixteen classes, shown in table 4.2.

Each vowel-initial verb behaves in an identical way with respect to the first prefix slot, *Ca* (with *o-*, *ti-*, *hi-*, and *to-*). For example *-awa-* ‘see’ reduces to *-wa-* after any prefix from slot *Ca*: we get *o-wa* with 1sg *o-*, *ti-wa* with 2sg *ti-*, *hi-wa* with Oc marker *hi-*, and *to-wa* with *to-* ‘away’. Similarly, *-ita-* ‘sit’ has stem *-wita-* with all first order prefixes, giving *o-wita*, *ti-wita*, and *to-wita* (being intransitive, the verb cannot take Oc marker *hi-*). In the first order prefix column of table 4.2 we just give the form with *o-*, but the other first order prefixes (where attested) follow the same pattern.

Note that a number of verbs could not be obtained with applicative *ka-* and/or with causative *na-*; these are indicated by a dash ‘—’ in table 4.2. Some verbs do not take first order prefixes (as a constraint) while others would not be likely to occur with a first order prefix, for semantic reasons; these are also shown by a dash.

The classes will now be discussed one at a time.

TABLE 4.2 Prefixed forms of vowel-initial inflecting verbs

class	sample verb	with first order prefix, 1sg <i>o-</i>	with second order prefix, applicative, <i>ka-</i>	with third order prefix, causative, <i>na-</i>
1	<i>ama-</i>	—	—	—
2	<i>-amosa-</i>	—	—	<i>na-mosa</i>
3	<i>-oja-</i>	—	—	—
4	<i>-ino-</i>	—	—	<i>na-ino</i>
5	<i>-ibofa-</i>	—	<i>ka-bofa</i>	—
6	<i>-ajaka-</i>	<i>o-jaka</i>	<i>ka-jaka</i>	<i>na-jaka</i>
7	<i>-ahaba-</i>	<i>o-haba</i>	<i>ka-haba</i>	<i>na-(a)habiha</i>
8	<i>-iha-</i>	<i>o-ha</i>	<i>ka-iha</i>	<i>na-iha</i>
9	<i>-iti-</i>	<i>o-ti</i>	<i>ka-k-iti</i>	—
10	<i>-awa-</i>	<i>o-wa</i>	—	—
11	<i>-ita-</i>	<i>o-wita</i>	<i>ka-wita</i>	<i>na-wita</i>
12	<i>-ifa-</i>	<i>o-wifa</i>	<i>ka-ifa</i>	<i>na-ifa</i>
13	<i>-akara-</i>	<i>o-wakara</i>	—	<i>na-kara</i>
14	<i>-ato-</i>	<i>o-hato</i>	—	<i>na-hato</i>
15	<i>-ohari-</i>	<i>o-wahari</i>	<i>ka-hari</i>	<i>na-hari</i>
16	<i>-abijo-</i>	<i>o-wabijo</i>	—	—

CLASS 1. Secondary verbs *ama-/ama-* ‘extent’ and *awine-/awa-* ‘seems’ take no prefixes at all. As stated in §4.4.3, a pronominal prefix from slot H will jump over a secondary verb in slot I and attach to a declarative suffix in slot J, e.g. from underlying *o-* (H), *ama* (I) *-ke* (J) we get *ama o-ke*. The copula verb *ama-* ‘be’ behaves in the same way.

CLASS 2. The intransitive verb *-amosa-* ‘be good’ has the idiosyncratic property that it cannot take a first order prefix, *o-*, 1sg, *ti-*, 2sg, or *to-* ‘away’. That is, it cannot have a 1/2sg pronoun as S argument although it can take a 1/2nsg or 3nsg pronoun as S. I was told that for *o-* and *ti-* one should instead use the semi-synonymous verb *-tamina-* ‘be well’. However, the causative prefix *na-* is used with *-amosa-*, giving *-namosa-* (and this does take 1/2sg prefixes).

CLASS 3. There are a number of intransitive verbs that take an inanimate S argument, so that they never occur with *o-* or *ti-*. These are:

-aba- ‘be infested with bugs’ -arabo- ‘to blossom’ -atina- ‘be thorny’
 -iso- ‘be slippery’ -oja- ‘give off light’

The verb *-aba-* ‘be infested with bugs’ is related to the possessed noun *abe/ebene* ‘animal inhabiting a certain domain’. Note that one would not say ‘I am infested with bugs’ but instead something like *o-tati aba-ke* ‘my head is infested with bugs (i.e. lice)’.

CLASS 4. The intransitive verb *-ino-* ‘be sharp’ is like class 3 verbs but here a causative form is attested, *na-ino* ‘make sharp, sharpen’.

CLASS 5. The S = O ambitransitive verb *-ibofa-* ‘put (one thing) in water’ is like class 3 but here an applicative form is attested, *ka-bofa* ‘put (several things) in water’.

CLASS 6. These verbs are attested with all three orders of prefix and simply lose their initial vowel when a prefix is added. They are both intransitive:

-ajaka- ‘sing, dance’
 -owi- ‘go out (of a fire or flame), be disconnected (of a light)’

CLASS 7. The one verb in this class, *-ahaba-* ‘be finished, be dead’, is like class 6 except in the causative. Here we get an irregular form *na(a)habiha*; it is *-nahabiha* if there is a first order prefix and *naahabiha* if there is no first order prefix. The applicative form is attested as *ka-haba* (the example heard, given at (8.47), did not include a prefix).

There is another verb which behaves in a similar way, the causative-like *na(a)boha* ‘kill (sg O)’; this is *-naboha* with and *naaboha* without a first order prefix. However, there is in modern Jarawara no non-causative form *aboha*, although there is *abohi* ‘dead (typically used of animals)’ which is probably a nominalization of an original form *aboha*. (Note that an intransitive verb *abo(h)a* ‘die’ is attested for the Banawá dialect, but not for Jamamadí.)

CLASS 8. The S = O ambitransitive verb *-iha-* ‘happen, appear, be born’ drops the initial vowel when preceded by a first order prefix (e.g. *to-* plus *-iha-* → *to-ha*) but retains it with the applicative prefix *ka-* or the causative prefix *na-*.

CLASS 9. These verbs omit the initial vowel when a first order prefix precedes but add an initial *k* with the second order prefix *ka-*; they have not been observed with the causative

prefix. They are all transitive:

-iba- ‘put on ground (sg O)’	-ibI- ‘put inside (sg O)’
-ita- ‘pierce, sting’	-iti- ‘take off (table/hook), lift, pick up, marry (sg O)’

CLASS 10. These verbs omit the initial vowel after a first order prefix; they are not attested with applicative or causative. They are:

-aka- ‘wear clothes’ (tr)	-awa- ‘see, look at, feel, know’ (S=O and S=A ambitransitive)
-eheto- ‘be suitable for’ (int)	-ibana- ‘roast on coals’ (S=O ambitransitive; sg S/O)
-ise- ‘take and leave’ (tr)	-itI- ‘skin (animal)’ (tr)

CLASS 11. The intransitive verb *-ita-* ‘sit’ (sg S) takes the form *-wita-* with all prefixes. Note that **-witha-* ‘sit’ can be reconstructed for proto-Arawá. It appears that the original root *-wita-* is retained after prefixes with the *w* being lost just when word-initial.

CLASS 12. These two intransitive verbs add initial *w* just after first order prefixes; applicative *ka-* and causative *na-* are added directly to the root. They are:

-ifa- ‘choke’ -ima- ‘be fat’

CLASS 13. The intransitive verb *-akara-* ‘be satisfied after eating, to eat one’s fill’ adds initial *-w-* after a first order prefix. The causative prefix *na-* replaces the initial *a* of the root, giving *na-kara*. This verb has not been obtained with the applicative prefix.

CLASS 14. The intransitive verb *-ato-* ‘be decorated’ adds an initial *h* with a first order prefix or with *na-*; it is not attested with applicative *ka-*.

CLASS 15. The intransitive verb *-ohari-* ‘be alone, be one’ replaces the initial *o* by *wa* after a first order prefix, but simply loses the *o* with applicative *ka-* and causative *na-*. Note that Jarawara does not permit an *owo* sequence so that a putative *o-w-ohari* (or *to-w-ohari*) has to shift to *owahari* (or *towahari*). The Jarawara corpus includes no *-i(w)o-* sequence, and it is thus not surprising that the same change applies with 2sg prefix *ti-*, giving *tiwahari*.

CLASS 16. The transitive verb *-abijo-* ‘want the presence of’ adds initial *w* with first order prefixes; it is not attested with *ka-* and *na-*.

(II) MONOSYLLABIC AND IRREGULAR INFLECTING VERBS. Many non-inflecting verbs are monosyllabic, but all include a long vowel (recall that every phonological word in Jarawara must consist of at least two moras). For example, *foo-na-* ‘blow’, *jee-na-* ‘yell’, *maa-ha-* ‘be tired’, and *tii-na-* ‘cut’.

There are just a few monosyllabic inflecting verbs (all intransitive) which show a number of different patterns of formal behaviour.

(a) Intransitive *-ka-* ‘be in motion’ is far and away the most frequently occurring word in the language (making up about 17 per cent of the verbs in the textual corpus). It never occurs without a directional affix—at the least it must take prefix *to-* ‘away’, or miscellaneous suffix *-kI* ‘coming’, or miscellaneous suffix *-ma* ‘back’. Thus a word including *-ka-* always consists of at least two moras. (Note that *to-* can be replaced by a pronominal prefix, but the *to-* will surface when the verb is reduplicated—see §9.2.)

(b) The intransitive verbs *-wa(a)-* ‘stand (sg S)’ and *-ta(a)-* ‘be overgrown’ can be used with or without a prefix. If there is either no prefix or two prefixes, each root has a long vowel (*-waa-* and *-taa-*); if there is just one prefix each root has a short vowel (*-wa-* and *-ta-*).

The choice of root allomorph precedes any application of a phonological rule. Compare:

(4.60a) surface Jane wai-ne
underlying waa-ⁱne
name stand-CONTf
Jane is standing

(4.60b) surface o-wi-ne
underlying o-wa-ⁱne
1sgS-stand-CONTf
I am standing

The miscellaneous suffix *-ine* ‘continuous’ raises a preceding *a* to *i*. With *wa-* plus *-ine* we get *wine*, in (4.60b), and with *waa-* plus *-ine* we get *waine*, in (4.60a). (If the underlying stem were taken as *-wa-*, with a rule lengthening the root vowel if there were no prefix, and this rule applying after the affixation of *-ine*, then we would get *wa-ine* → *wine* → *wiine*, which is not an attested form.)

An example with two prefixes is:

(4.60c) [jobe ewene]_O o-na-waa-hara o-ke
house(m) timber+m 1sgA-CAUS-stand-IPef 1sg-DECf
I put up (lit. made stand) the house frame

For the verb *ta(a)-* ‘be overgrown’ we can compare:

(4.61a) jama_S taa-ke
forest(f) be.overgrown-DECf
the forest is overgrown

(4.61b) jama_S ka-ta-ke
forest(f) APPLIC-be.overgrown-DECf
the forest is overgrown near the village

There is one further circumstance in which ‘stand (sg S)’ is *-wa-* and not *-waa-*. This is when it is followed by the miscellaneous suffix *-rI* ‘raised surface’; we get *-wa-rI* ‘stand on a raised surface (i.e. stand off the ground)’. With every other suffix ‘stand’ has the form *-waa-* if there is no prefix, and *-wa-* if there is a prefix. (The verb *-taa-*, which is relatively uncommon, is not attested with *-rI*.)

(c) The intransitive verb *-na-* ‘exist’ has an underlying short vowel. This is seldom used without any affix at all, but occasionally it is and the root is then lengthened, giving a two-mora form *naa*; there is an example at T3.66.

One type of marking for dependent clauses (see chapter 18) is the suffix *-(ha)aro/- (ha)ari*, where the *-ha-* is omitted if unstressed on the underlying cycle. The forms of this affix with *-wa(a)-* ‘stand’ and *-na-* ‘exist’ are *waa-haaro* and *na-aro*. This shows that ‘stand’ has *-waa-* as underlying form (when it lacks a prefix, as here) whereas the underlying form for ‘exist’ is *-na-*.

(d) The intransitive verb *-sona-* ‘fall’ has a number of variant monosyllabic forms:

- (i) With a pronominal prefix *-sona-* reduces to *-sa-*; i.e. *o-sa* ‘I fall’, *ti-sa* ‘you fall’. However, this reduction does not take place when the verb also takes slot F1a miscellaneous suffix *-rI* ‘raised surface’, e.g. *o-sona-re* ‘I fall on a raised surface’.

- (ii) With applicative prefix *ka-* or causative prefix *na-* and nothing in the first prefix slot, *-sona-* becomes *-so-*, i.e. *ka-so*, *na-so*. If there is something in the first prefix slot then *-sona-* is retained, e.g. *o-ka-sona*. If both applicative *ka-* and causative *na-* are added we get *-sona*, i.e. *ka-na-sona*.

Note that reduction rules (i) and (ii) ensure that many commonly occurring words have an even number of moras—*o-sa* (rather than *o-sona*), *o-sona-re* (rather than *o-sa-ri*), *ka-so* (rather than *ka-sona*), *o-ka-sona* (rather than *o-ka-so*), and *ka-na-sona* (rather than *ka-na-so*).

(e) As mentioned in §2.10.3, the S = O ambitransitive verb ‘to drink’ has root *-fawa-*. However, it is reduced to *-fa-* after a first order prefix (*o-*, *ti-*, or *hi-*). In other contexts *-fawa* is retained, i.e. with the applicative prefix *ka-* or causative *na-* or when there is no prefix. (A word including *-fa(wa)-* thus always has at least two moras.)

(f) The intransitive verbs *-kaha-* ‘be roasted/baked’ and *-waha-* ‘shine, be early in the morning’ generally omit the *-h-* when the second syllable is unstressed on the underlying cycle, giving *-kaa-* and *-waa-*. We can also get the entire *-ha-* syllable omitted; for example, in TI.29, *waha-haro* ‘be.dawn-RPef’ reduces to *wa-haro*.

There is one disyllabic inflecting verb which has suppletive stem, depending on whether or not it bears a prefix:

‘lie in water’ is *-fowa-* if there is a prefix
and *-hofa-* if there is no prefix

It is possible that this verb was originally trisyllabic with a root something like *-hofowa-* and that it reduced to *-fowa-* if there was a prefix (most often there would be a single prefix so that the *-ho-* would be unstressed on the underlying cycle) and to *-hofa-* if there was no prefix (*-ho-* would then be stressed on the underlying cycle).

Note that there is a homonymous inflecting verb *-fowa-* ‘flood (e.g. stream), swell (e.g. arm)’ which has the same form whether or not there is a prefix.

(III) THE ENDS OF INFLECTING VERB ROOTS. The corpus includes about seven hundred verb roots, of which just on one-third are inflecting and two-thirds non-inflecting. It is interesting to compare the percentages of vowels (including the morphophoneme *I*) in final position for each class of verbs:

final vowel:	a	e	i	o	I
inflecting verbs	59%	6%	14%	18%	3%
non-inflecting verbs	35%	11%	31%	23%	—

It is noteworthy that almost 60 per cent of inflecting verbs end in *a* whereas only 35 per cent of non-inflecting verbs do.

Inflecting verbs ending in *a*, on the one hand, and in *i*, *e*, or *o*, on the other, behave differently:

(a) When an inflecting verb root ending in *i*, *e*, or *o* is predicate-final, or is followed by a nsg pronoun or a secondary verb, it adds a gender marker (cross-referencing the pivot argument of the clause):

-ha for f *-hi* for m

When it is word-medial it simply adds *-ha* before a suffix of three moras (see §2.9.8).

(b) When an inflecting verb root ending in *a* is predicate-final, or is followed by a nsg pronoun or a secondary verb, the final vowel marks gender:

-*a* is retained for f -*a* becomes -*e* for m

These endings undoubtedly come from original **-a-ha* and **-a-hi*, i.e.

-*a-ha* > -*a* -*a-hi* > -*e*

Occasionally *-ahi* or *-ehi* is heard, for m agreement, in place of *-e*, as a relic of an earlier stage of the language. (Note that the Banawá dialect has final *-ai* where Jarawara has *-e*.)

The *-ha* or *-hi* on inflecting verb roots ending in *i*, *e*, or *o* is generally omitted when the syllable is unstressed on the underlying cycle. Indeed, when this syllable follows *o* or *i* (but only very seldom when it follows *e*) it may be omitted when stressed on the underlying cycle, as part of a gradual diachronic change to eliminate the syllable.

In §2.1 and §2.9.5 it was described how the vowel *e* frequently engenders assimilation of a nearby *a*. This can happen (sporadically) with the suffix *-ha* after a verb root ending in *e*, when the *-ha* is unstressed on the underlying cycle. For example *hi-ka-nakome-ha* ‘Oc-APPLIC-be. scared-f’ may be said as *hi-ka-nakome-he*.

There are a number of verb/noun pairs with closely similar forms. If the verb is of the inflecting variety, and ends in a vowel other than *a*, then the inclusion of final *-ha* (for the unmarked gender, f) serves to distinguish verb from noun. For example:

POSSESSED NOUN	nafi/nafi	‘all’	VERB	-nafi(ha)-	‘be large’
POSSESSED NOUN	neme/neme	‘top, sky’	VERB	-neme(ha)-	‘be high, be tall’
FREE NOUN	keje	‘a lie’	VERB	-keje(ha)-	‘trick, fool, tell a lie to’

4.5.3 The inner suffix *-ri*

The suffix *-ri* indicates that an activity is distributed over a number of agents. The unusual feature of this suffix is that it is added to the root (not to the auxiliary) of a non-inflecting verb. It is, in the corpus, the only attested addition to a non-inflecting verb root. This will be referred to as the ‘inner’ suffix.

(a) The distributive suffix *-ri* is typically added to a transitive non-inflecting verb that refers to carrying, holding, grabbing, or giving. It carries the meaning ‘each A does this to their respective O’, and requires a plural A argument. (The O is often inanimate and number is not marked grammatically for inanimates, but the O NP will have plural reference.) Compare the plain use of *weje -na-* ‘carry on the back’ in (4.62) with the distributive suffix *-ri* added to *weje -na-* in T2.33 and (4.63):

(4.62) aba_O mee mee weje na
 fish(m) 3nsgO 3nsgA carry AUXf
 they carry fish (in baskets) on their backs

(4.63) jama_O otaa weje-ri na-misa
 thing(f) 1excA carry-DISTRIB AUX-UPf
 we each carry our own things up on our backs

One consultant suggested that, semantically, *-ri* is here the plural correspondent of the miscellaneous suffix *-kima* which has dual effect ‘do twice, each of two A does to their own O’. See (1) in §5.5.

A further example is a sentence from Bible translation involving the verb *taa -na-* ‘give (with the gift as the O argument)’:

- (4.64a) [mee nafi]_A oro_O taa-ri ne-mete-mone-ke
 3nsg all gold(f) give-DISTRIB AUX-FPnf-REPF-DECf
 each is said to have given his own gold (to make a golden calf)

In one story, a dying man welcomes his son to his hospital bedside by hugging him. The son recounts this as:

- (4.64b) owa hiti-ri ne-ri ama-ka
 1sgO hug-DISTRIB AUX-RPem EXTENT-DECm
 he hugged me (and we hugged each other)

The *-ri* on *hiti* in (4.64b) implies that not only did father hug son but, in fact, they hugged each other.

Other transitive verbs attested with the inner suffix *-ri* include:

- bati -na- ‘carry under arm’
 iso -na- ‘carry in hand or against chest’
 tiwa -na- ‘carry on top of shoulder or on head’ (see T1.57)
 wara -na- ‘take/grab from another person’

(b) The distributive suffix *-ri* is also attested with a small number of intransitive non-inflecting verbs, again with a distributive meaning and requiring a plural subject. Thus with *tafo -na-* ‘float’ we get:

- (4.65) mee tafo-ri ka-wahe-mete-mone-ke
 3nsgS float-DISTRIB APPLIC-NEXT.THING-FPnf-REPF-DECf
 the next thing was each of them is said to have floated on his own (piece from the wrecked ship)

The inner suffix is also attested with *amo -na-* ‘sleep’ (with the sense ‘each sleeps in his own hammock’) and with *kowewe -na-* ‘have diarrhoea’ (with the sense ‘each has diarrhoea’).

Interestingly, one example is attested of the inner suffix *-ri-* with the inflecting verb *-ka-* ‘be in motion’. In a story describing looking down from a plane at storm clouds below we find:

- (4.66) faha_S to-wa-ka-ri-kosa, tama ama-ke
 water(f) AWAY-APPLIC-in.motion-DISTRIB-MIDDLEf be.many EXTENT-DECf
 it is raining in many places (lit. the water goes in the middle, they are many)

Note that *-ri-* cannot here be the miscellaneous suffix *-ri* ‘raised surface’ since this would be *-re* in the fourth syllable of a word (an unstressed syllable on the underlying cycle). In (4.66) *-ri* precedes the first echelon miscellaneous suffix *-kosa*; we would indeed expect an inner suffix, which can be added to a non-inflecting verb root, to precede any other suffix with an inflecting verb.

To add plausibility to this interpretation of (4.66), example (4.67) has *-ri* added to the intransitive non-inflecting verb *nowi -na-* ‘drip on (e.g. water from a hole in a roof)’.

- (4.67) faha_A owa nowi-ri na-ra-ke
 water(f) 1sgO drip.on-DISTRIB AUX-IPef-DECf
 the water dripped on me in many places (from many holes in the roof)

The distributive meaning of *-ri* can have a more general interpretation, as when it was used with the intransitive verb *jobi -na-* ‘pass back and forth’ in:

- (4.68) otaa jobi-ri na otaa-ke
 IexcS back.and.forth-DISTRIB AUXf Iexc-DECf
 we walked around, each (holding his own plate of food)

Note that the verb ‘hold in the hand’ has suppletive forms. For a sg O it is *tama -na-* and for a pl O it is *bokori -na-*; this may include the inner suffix *-ri* as an inherent feature. The verb *bokori -na-* is used in (5.143) and in a sentence from a little earlier in the same text as (4.68):

- (4.69) barato_O mee bokori ka-waha-ra-ke
 plate(f) 3nsgA hold.in.hand APPLIC-NEXT.THING-IPef-DECf
 they each held a plate in their hand

There is a verb *jajai -na-* ‘be happy’ with alternative form *jajairi -na-* ‘be very happy’. This appears to be a nonce use of a suffix *-ri*, which is not related to the distributive suffix. (Note that *jajairi -na-* can have a sg subject.)

Predicate Structure: Miscellaneous Suffixes

Between the inflecting verb (slot D in predicate structure, as set out in §4.1) or the auxiliary of a non-inflecting verb (slot E) and tense-modal suffixes (slot G) there can be one or more members drawn from a set of about fifty-six ‘miscellaneous suffixes’, in slot F.

These miscellaneous suffixes show a range of morphological properties. The main parameters of variation are summarized in table 5.1 (where X represents a miscellaneous suffix); note that two suffixes each occur in two types. The four types are illustrated in (5.1–4).

(I) NORMAL SUFFIX *-tasa* ‘again’ is added directly to an inflecting verb—as in (5.1), which is T2.72—or to the auxiliary of a non-inflecting verb; further suffixes are added directly to it.

(5.1) fanako_O jimo_A hi-ta-tase-himari-ka
 thigh(m) ant(m) Oc-sting-AGAIN-FPem-DECM
 then the ant stung him again (this time) on the thigh

(II) AUXILIARY-TAKING SUFFIX *-kanikima* ‘scattered about’ is added directly to an inflecting verb—as in (5.2)—or to the auxiliary of a non-inflecting verb. However, further suffixes may not be added directly to *-kanikima* but must be attached to a special suffix-determined auxiliary (AUXC) which follows *-kanikima*.

(5.2) mee tafa-kanikima na-ra-ke
 2nsgS eat-SCATTERED AUXC-IPef-DECf
 they (arrived and spread out) and each ate in a different house

(III) AUXILIARY-BOUND SUFFIX *-waharI* ‘do many times, in many places’ cannot be added to an inflecting verb or to the auxiliary of a non-inflecting verb; it must instead be added to its own suffix-determined auxiliary. However, a following suffix may be added directly to

TABLE 5.1 Types of miscellaneous suffixes

		WHAT FOLLOWS	
		A following suffix can be added directly to X	A following suffix must be added to a special auxiliary (AUXC) following X
WHAT PRECEDES	X is added to a preceding inflecting verb or to the auxiliary (AUXa) of a non-inflecting verb	(I) normal suffixes (28)	(II) auxiliary-taking suffixes (22)
	X must be added to a special preceding auxiliary (AUXd)	(III) auxiliary-bound suffixes (7)	(IV) suffix which is both auxiliary-taking and auxiliary-bound (just one known)

-wahaŋI. In (5.3) *-tafa* ‘eat’ is an inflecting verb; suffixes such as *-tasa* and *-kanikima* would be added directly to it but *-wahaŋI* requires its own auxiliary (AUXd) to which it attaches.

- (5.3) Okomobi_S tafa na-wahare-hare-ka
 name(m) eat AUXd-MULTIPLE-IPem-DECM
 Okomobi ate in many houses

(IV) AUXILIARY-TAKING AND AUXILIARY-BOUND SUFFIX *-wi* ‘do continuously’ combines the unusual properties of *-kanikima* (with respect to what follows) and of *-wahaŋI* (with respect to what precedes). Consider

- (5.4) Jara_A owa haa.haa ka-na na-wi na-re-ka
 Branco(m) 1sgO laugh APPLIC-AUXa AUXd-CONTINUOUS AUXc-IPem-DECM
 the Branco laughed at me for a considerable time

Here we have a non-inflecting verb *haa.haa -na-* ‘laugh’, whose auxiliary (AUXa) bears the applicative prefix *ka-* (this derives a transitive verb ‘laugh at’). Note that *-wi* is not added to the verbal auxiliary (the one with *ka-*) but instead requires its own auxiliary (AUXd) to which it is attached. In addition, it does not permit a following suffix to be added to it but instead requires a following auxiliary (AUXc) *-na-*, to which tense-modal and mood suffixes (*-re* and *-ka*) are attached. In all, the predicate in (5.4) includes three distinct tokens of the auxiliary *-na-*.

In addition, one of the auxiliary-bound suffixes and ten of the auxiliary-taking suffixes either require or generally take reduplication of the lexical verb, which brings with it its own reduplication auxiliary (AUXb).

The miscellaneous suffixes are organized into six echelons, which normally occur in a fixed order within the predicate. The first, second, and sixth echelons involve only normal suffixes, the third and fourth echelons consist of two varieties of auxiliary-taking suffixes (plus the sole suffix which is both auxiliary-taking and auxiliary-bound), while the auxiliary-bound suffixes make up the fifth echelon. There are also two extra-echelon suffixes, whose positioning and morphological properties can vary (each can function as a normal suffix).

Note that, although the ordering of suffixes described in this chapter is adhered to in the great majority of instances, speakers can diverge from it, for semantico-stylistic effect. That is, there is no absolute ordering, only a greatly preferred ordering which is followed in most textual and conversational instances, and when elicitation is directed to the matter.

§5.1 discusses the four types of auxiliary that may occur in a predicate. §5.2 then discusses the types of miscellaneous suffixes, as set out in table 5.1, explaining further subtypes within them. §5.3 lists all miscellaneous suffixes, summarizing their formal properties. §§5.4–10 discuss each suffix in turn, echelon by echelon, and then the two extra-echelon suffixes.

5.1 THE FOUR AUXILIARIES

There are four possible types of auxiliary within a predicate:

- AUXa—the auxiliary of a non-inflecting verb. This is *-ha-* (for about a dozen verbs) or *-na-* (for the remainder, several hundred in all).
- AUXb—the auxiliary associated with reduplication. Iterative reduplication requires auxiliary *-ha-*; other types of reduplication use auxiliary *-na-*.
- AUXc—the auxiliary required to follow an auxiliary-taking miscellaneous suffix, to which further suffixes are attached. Just two auxiliary-taking suffixes (*-nati -ha-* ‘be the only person doing something’ and *-ⁱhiti -ha-* ‘do quickly’) take *-ha-*, the remainder taking *-na-*, as in (5.2).

- AUX_d—the auxiliary to which an auxiliary-bound suffix must be attached. This is always *-na-*, as in (5.3).

An auxiliary *-ha-* is only omitted after the causative prefix *niha-* (see §8.1.1). Each of the four varieties of auxiliary *-na-* is frequently omitted, under certain conditions. As a result, we often have a *na*-auxiliary-constituent with no actual *-na-* form within it.

The four auxiliaries will now be discussed.

(a) THE AUXILIARY OF A NON-INFLECTING VERB, AUX_a. Miscellaneous suffixes fall into a number of classes according to whether an immediately preceding verbal auxiliary *-na-* is retained or omitted and, if the latter, under what circumstances.

Each normal suffix is of one of the following four types:

- A when the suffix immediately follows auxiliary *-na-*, the auxiliary is retained
- * auxiliary *-na-* drops when immediately followed by this suffix
- ** auxiliary *-na-* drops when immediately followed by this suffix if there is also a prefix
- *** always takes prefix *to-* (for semantic reasons) and omits an immediately preceding auxiliary *-na-*

Auxiliary-taking and auxiliary-bound suffixes are, with respect to AUX_a, of type A or * or *** (we have no example of type **) or

- Ⓐ auxiliary (AUX_a) *-na-* drops when immediately followed by this suffix unless the auxiliary has prefix *to-* or *ka-* or a first or second echelon suffix

The five varieties of miscellaneous suffixes can be illustrated:

(1) Type A: *-na-* auxiliary always retained, e.g. second echelon suffix *-mina* ‘in the morning, tomorrow’, with the non-inflecting verb *afi -na-* ‘bathe’:

(5.5a) otaa afi na-mina
 IexcS bathe AUXA-MORNINGf
 we bathe in the morning

(5.5b) afi o-na-mina
 bathe IsgS-AUXA-MORNINGf
 I bathe in the morning

(2) Type * always omits an immediately preceding auxiliary *-na-*, e.g. sixth echelon suffix *-tasa* ‘again’, with the non-inflecting verb *kobo -na-* ‘arrive’:

(5.6a) otaa kobo tasa
 IexcS arrive AGAINf
 we arrive again

(5.6b) kobo o-tasa
 arrive IsgS-AGAINf
 I arrive again

(3) Type **: auxiliary *-na-* drops when immediately followed by this suffix if there is a prefix present, e.g. sixth echelon suffix *-bisa* ‘also’:

(5.7a) otaa kobo na-bisa
 IexcS arrive AUXA-ALSOf
 we also arrive

- (5.7*b*) kobo o-bisa
 arrive 1sgS-ALSO
 I also arrive

The suffix *-rI* ‘raised surface, edge’ (echelon 1a) provides a variant on this pattern in that it appears to drop an immediately preceding *-na-* when this bears a single prefix (the *-na-* then being unstressed on the underlying cycle) but to retain the *-na-* when it bears two prefixes (the *-na-* then being stressed on the underlying cycle).

(4) Type *** always has a prefix (since *to-* must be included if there is nothing else preempting the first prefix slot) and omits an immediately preceding auxiliary *-na-*, e.g. first echelon suffix *-wiI* ‘out, from a place’, with the non-inflecting verb *amo -na-* ‘sleep’:

- (5.8*a*) Motobi_S amo to-witihi
 name sleep AWAY-FROM.PLACEMENT
 Motobi sleeps in another place

- (5.8*b*) amo o-witiha
 sleep 1sgS-FROM.PLACEF
 I sleep in another place

(5) Type @ (only applies to non-normal suffixes): auxiliary *-na-* drops when immediately followed by this suffix unless the auxiliary has prefix *to-* or *ka-* or a first or second echelon suffix, e.g. *-rama -na-* ‘unusual, unexpected’, with the non-inflecting verb *habo -na-* ‘bark’:

- (5.9*a*) Jobeto_S habo rama na-re-ka
 name(m) bark UNUSUAL AUXC-IPem-DECm
 Jobeto barked (Jobeto is a man who can bark just like a dog, which is unusual)

- (5.9*b*) Jobeto_A owa habo ka-na rama na-re-ka
 name(m) 1sgO bark APPLIC-AUXA UNUSUAL AUXC-IPem-DECm
 Jobeto barked at me

In (5.9*b*) the intransitive verb *habo -na-* ‘bark’ bears applicative prefix *ka-* which derives a transitive stem *habo ka-na* ‘bark at’. The underlying AUXa *-na-* is omitted from (5.9*a*) since it bears no affix, but it is retained in (5.9*b*) since it does here carry the prefix *ka-*.

In (5.9*c*) we find the auxiliary-taking suffix *-ⁱnofa* ‘happened continuously over recent time’. Here the auxiliary of the verb *weje -na-* ‘carry on shoulder’ bears the second echelon suffix *-ⁱkima* ‘two’ on its auxiliary, and this auxiliary is retained.

- (5.9*c*) tee weje ni-kimi nofa-tee ama
 2nsgA carry.on.shoulder AUXA-TWO RECENT-HABIT EXTENT
 you two have each been carrying (a baby)

(b) AUXILIARY OF A REDUPLICATED VERB, AUXb. A reduplicated verb is always accompanied by a reduplication auxiliary, AUXb; this is *-na-* or *-ha-* according to the type of reduplication involved (see chapter 9). The reduplication auxiliary takes prefixes 1sg *o-*, 2sg *ti-*, and Oc *hi-* plus suffixes of echelons three to six, tense-modal and mood suffixes. Prefixes *to-* ‘away’, applicative *ka-*, and causative *na- ~ niha-*, plus suffixes of the first and second echelons, remain on an inflecting verb or on the AUXa of a non-inflecting verb.

The *-na-* auxiliary of a non-inflecting verb, AUXa, is generally omitted from a reduplication construction if it bears no affix (although it can be retained), and a *-na-* reduplication auxiliary, AUXb, may be omitted if it bears no affix. We find four types of combination of auxiliaries in a reduplication construction: AUXa can be *-na-* or *-ha-*, and AUXb can also be

-na- or *-ha-*. These are fully described in §9.2. A sample example is provided here, where AUXa is retained before first echelon suffix *-rI*, and AUXb takes the immediate positive imperative f suffix *-hi*.

(5.10) tee te.teme na-re na-hi!
 2nsgS REDUP.sit(duS) AUXa-RAISED.SURFACE AUXb-ImmPosIMPf
 you two stay sitting (on a raised surface)!

(c) SUFFIX-DETERMINED AUXILIARY, AUXc. This is the auxiliary which must follow an auxiliary-taking suffix, and to which further suffixes (miscellaneous suffixes from later echelons, and tense-modal and mood suffixes) are added. AUXc is illustrated by *na-ra-ke* in (5.2) and (5.9a/b) and by *na-re-ka* in (5.4). AUXc may be omitted if it bears no affix (other than declarative). A predicate can include two auxiliary-taking suffixes, each with its own AUXc—in (5.231) we find *-kabote -na-* ‘immediately’ followed by *-hiti -ha-* ‘quickly’.

(d) SUFFIX-BOUND AUXILIARY, AUXd. This is the auxiliary which is required for an auxiliary-bound suffix to be added to. It is illustrated by *na-wahare-hare-ka* in (5.3) and by *na-wi* in (5.4).

AUXd may be omitted in a similar way to AUXc. Auxiliary-bound suffixes are of the following types with respect to AUXd: A, *, and **.

Note that auxiliaries occur in a predicate in the following order: AUXa, AUXd, AUXb, AUXc. We find the following possibilities for the occurrence of two types of auxiliary in a predicate (given in the order in which they occur):

- AUXa plus AUXd—for an auxiliary-bound suffix with a non-inflecting verb, as in (5.262)
- AUXa plus AUXb—for reduplication of a non-inflecting verb, as in (5.10)
- AUXa plus AUXc—for an auxiliary-taking suffix with a non-inflecting verb, as in (5.150) and (5.198)
- AUXd plus AUXb—for a reduplicated inflecting verb plus an auxiliary-bound suffix, as in (9.23)
- AUXd plus AUXc—for the suffix which is both auxiliary-taking and auxiliary-bound, with an inflecting verb, as in (5.255) and (5.257).
- AUXb plus AUXc—for a reduplicated verb plus an auxiliary-taking suffix, as in (5.151–2)

There are the following possibilities for three types of auxiliaries in a predicate:

- AUXa plus AUXd plus AUXc—for a non-inflecting verb with the suffix which is both auxiliary-taking and auxiliary-bound, as in (5.4)
- AUXa plus AUXb plus AUXc—for a reduplicated non-inflecting verb with an auxiliary-taking suffix, as in (5.137)
- AUXa plus AUXd plus AUXb, for a reduplicated non-inflecting verb with an auxiliary-bound suffix, as in (9.19b)

When we have an auxiliary-taking suffix followed by an auxiliary-bound suffix, a single *-na-* functions both as AUXc and as AUXd. It may be preceded by AUXb, as in (5.241), where the actual AUXb auxiliary is omitted from the AUXb constituent. When this is combined with reduplication, we get AUXa followed by AUXb followed by a *-na-* which functions both as AUXd and AUXc, as in (9.19c) (here the actual AUXb is omitted but the AUXb constituent is included in the predicate). Note that the combined d/c auxiliary occurs at the place in order appropriate for AUXc, rather than that appropriate for AUXd (we get AUXa, AUXb, AUXc/d, not AUXa, AUX d/c, AUXb).

Note that we do not get all four types of auxiliary in one predicate since there is no suffix that is both auxiliary-taking and auxiliary-bound and requires reduplication. (The one suffix that has been identified as both auxiliary-taking and auxiliary-bound is not common, and I have not tried to elicit it with a verb that is productively reduplicated.)

5.2 THE TYPES OF MISCELLANEOUS SUFFIX

Table 5.1 provides a rough characterization of the four types of miscellaneous suffix. Except for type (IV), each has further subdivisions.

(I) NORMAL SUFFIXES. These behave as one expects a suffix to behave—adding directly onto an immediately preceding verb or auxiliary or suffix, and allowing further suffixes to be added directly after them. Normal suffixes make up the first, second, and sixth echelons. There is one trisyllabic form, twenty disyllabics (five with initial ⁱ, which raises a preceding *a* to *i*), and seven monosyllabics. Of the latter one has a long vowel (*-tee*); one begins with ⁱ, which may be a relic of an old initial syllable; two end in morphophoneme *I*, which may be a relic of an additional final syllable; one has ⁱ and *I*; and just two are simply -CV.

Most normal suffixes form one phonological word with what precedes and follows in the same grammatical word. But there are two normal suffixes (*-ⁱkima* in the second echelon and *-tasa* in the sixth) which behave differently. If either of these suffixes is preceded by more than a single mora in the grammatical word to which it belongs, then it begins a new phonological word within that grammatical word. The symbol ‘.’ is used to mark the beginning of a new phonological word within a grammatical word. Compare *-tasa* ‘again’—in (5.11)—which has the property of beginning a new phonological word (abbreviated NPW) and *-bisa* ‘also’—in (5.12)—which occurs in the same sixth echelon slot as *-tasa* but continues the same grammatical word. (Stress is marked on the underlying cycle for the grammatical word under consideration.)

(5.11) [Okomobi ati]_o ó-mitá.tása-háboné o-ke
 name(m) speech 1sgA-listen.to.AGAIN-INTF 1sg-DECf
 I’ll listen again to what Okomobi says (lit. to Okomobi’s speech)

Now if *ó-mitá-tasá-habóne* were one phonological word, the *-ha-* of *-habóne* would fall in the sixth syllable and be omitted by rule P8a in §2.9.6. But it is retained. This is because a new phonological word commences with *-tasa* and the *-ha-* is in the third syllable, bearing stress on the underlying cycle and thus not being available for omission. There is another example in the main clause of (18.57).

(5.12) okati_s kamina-bisa-ra-ke
 1sgPOSS+grandmother(f) speak-ALSO-IPef-DECf
 (my grandfather spoke and then) my grandmother also spoke

Here the underlying verb form is *káminá-bisá-hará-ke*. The *-ha-* of IPef suffix *-hará* is in the sixth syllable and is omitted by rule P8a. If *-bisa* had commenced a new phonological word the *-ha-* would have been in the third syllable of *bisa-hára-ké* and would not have been omitted.

There is a third suffix, *-mata-* ‘short time’, from the sixth echelon, whose behaviour varies. It generally continues an existing phonological word but there are a fair number of instances (from both texts and elicitation) where it behaves like *-tasa-* and *-ⁱkima-* in beginning a new phonological word if it is preceded by more than a single mora in the grammatical word to which it belongs. See (5) in §5.9. A further suffix, *-hitl* ‘all along the way’, commences a new

phonological word when it immediately follows *-makI* ‘following’ and *-witI* ‘from a place; see (6) in §5.8.

(II) AUXILIARY-TAKING SUFFIXES. Of the twenty-two attested suffixes of this type, one has form *-CV*, five are *-CVV*, thirteen are *-CVCV*, and three have three or four syllables. They divide into two subtypes:

- (a) **PREFIX-RETAINING SUFFIXES**, those that maintain a pronominal prefix (1sg *o-* or 2sg *ti-*, or Oc prefix *hi-*) on a preceding inflecting verb or auxiliary, and also repeat it on their own auxiliary (and in the third pronominal position).
- (b) **PREFIX-POACHING SUFFIXES**, those that omit a pronominal prefix from all preceding positions in the predicate but include it on their own auxiliary (and in third pronominal position).

The different grammatical behaviours can be compared by examining two affixes that have very similar meanings ‘soon, immediately’—prefix-retaining *-ⁱbote -na-* and prefix-poaching *-kabote -na-*. With the inflecting verb *-sawi-* ‘join in’:

(5.13) *o-sawi-bote* *o-na-habana* *o-ke*
 1sgS-join.in-SOON 1sg-AUXC-FUTf 1sg-DECf
 I’ll soon join in

(5.14) *sawi-kabote* *o-na-habana* *o-ke*
 join.in-SOON 1sgS-AUXC-FUTf 1sg-DECf
 I’ll soon join in

In (5.13) the 1sg prefix *o-* is retained on the verb *-sawi-* and repeated on the auxiliary demanded by suffix *-ⁱbote*; in (5.14) it only occurs on the auxiliary of the suffix *-kabote*. In each sentence it also occurs in third pronominal position.

The corpus shows just three prefix-retaining suffixes and nineteen of the prefix-poaching variety. The prefix-retaining type go in the third echelon (plus one sense of the extra-echelon suffix *waha-na-* ‘next thing, second time’), and the prefix-poachers in the fourth echelon.

(III) AUXILIARY-BOUND SUFFIXES. These make up the fifth echelon (plus one sense of the extra-echelon suffix *-tee* ‘remembered’). There are again two subtypes.

SET (i) The suffix is always added to its own auxiliary, *AUXd*, after an inflecting and after a non-inflecting verb. For example, when the suffix *-haba* ‘do all night’ is used with the inflecting verb *-tafa-* ‘eat’, the suffix is not added directly to *-tafa-* but to the suffix’s *AUXd*:

(5.15) *o-tafa* *o-na-haba* *o-ke*
 1sgS-eat 1sg-AUXd-ALL.NIGHT 1sg-DECf
 I ate all night

In (5.16) *-haba* is used with the non-inflecting verb *maa -ha-* ‘be tired’. Here we find the verbal auxiliary, *-ha-*, plus the suffix’s auxiliary, *-na-*. Note that the pronominal prefix is included on both auxiliaries.

(5.16) *maa* *o-ha* *o-na-haba* *o-ke*
 be.tired 1sgS-AUXa 1sg-AUXd-ALL.NIGHT 1sg-DECf
 I was tired all night

Of the seven auxiliary-taking suffixes, six are in set (i).

SET (ii) This involves just the suffix *-hitI*, ‘do all along the way’, which must be added to an auxiliary. If it is used with an inflecting verb then it requires its own *AUXd*. But if used with

a non-inflecting verb it is added to the AUXa of that verb. Unlike the suffixes of set (i) it does not require an AUXd if there is already an AUXa. With an inflecting verb we get a construction identical to that in (5.15):

- (5.17) faja mee ka-ma na-ma-hite
 THEN 3nsgS in.motion-BACK AUXd-BACK-ALONG.WAY
 then they go back all along the way

However, with a non-inflecting verb, we get a construction unlike that in (5.16); here *-hitI* is just added to the AUXa of the verb:

- (5.18) mee haa.haa to-na-ma-iti mee ama-ke
 3nsgS laugh AWAY-AUXa-BACK-ALONG.WAY 3nsg EXTENT-DECf
 they were laughing all the way back along the road

An interesting feature of *-hitI* is that it must co-occur either with prefix *to-* ‘away’ or with one of the four locational suffixes from slot F1c in the first echelon: *-kI* ‘coming’, *-ma* ‘back’, *-makI* ‘following’, or *-witI* ‘out, from a place’. See (6) in §5.8.

5.3 SUMMARY OF MISCELLANEOUS SUFFIXES

It will be useful to recapitulate the abbreviations introduced to code the various properties of miscellaneous suffixes:

- A when the suffix immediately follows auxiliary *-na-*, the auxiliary is retained
- * auxiliary *-na-* drops when immediately followed by this suffix
- ** auxiliary *-na-* drops when immediately followed by this suffix if there is also a prefix
- *** always takes prefix *to-* (for semantic reasons) and omits an immediately preceding auxiliary *-na-*
- @ auxiliary *-na-* drops when immediately followed by this suffix unless the auxiliary has prefix *to-* or *ka-* or a first or second echelon suffix
- n.d. not determinable—used of a suffix whose occurrence is so restricted that it is not possible to categorize it as A, *, **, ***, or @
- R suffix requires initial CV. reduplication of lexical verb (just for *-ba -na-* the reduplication can be initial CV. or initial CVCV.; just for *-kawa(ha)* the reduplication can be initial CV. or final .CV)
- (R) suffix often takes initial CV. reduplication of lexical verb
- NPW unless the suffix is preceded by just one mora in the grammatical word to which it belongs, the suffix begins a new phonological word within that grammatical word

Note that a suffix with an initial superscript ^{*i*} raises a preceding *a* to *i* (phonological rule P4 in §2.9.2). And a first echelon suffix (but not one from later echelons) beginning with *b*, *m*, or *f* conditions verb *-ka-* ‘be in motion’ to become *-ko-* after prefix *o-* or *to-* (P6d in §2.9.4).

FIRST ECHELON, F1—all are normal suffixes.

- SLOT F1a (1) ** ^{*i*}*fI* ‘relating to water’
- (2) ** (variant of type **) *-rI* ‘raised surface (i.e. off ground), edge’
- SLOT F1b (3) ** *-tima* ‘upstream’
- (4) ** ^{*i*}*-misa* ‘up (other than upstream)’

- (5) A *-(r)isa* 'down; done anyhow, etc.'
 (6) ** *-riwa(ha)* 'across'
 (7) ** *-basa* 'to/on the edge'
 (8) ** *-fara* 'clear space'
 (9) A *-ⁱjoma* 'through gap'
 (10) A *-kosa₁* 'between two extremes'
 (11) ** *-kosa₂ ~ -sa* 'do once, do a bit, something happens cleanly and clearly'
 (12) * *-kasa* 'a lot at once'
 SLOT F1c (13) A *-kI* 'coming'
 (14) A *-ma* 'back, return'
 (15) A *-makI* 'following'
 (16) *** *-witI* 'from a place, outward from centre'

Note that the normal suffix ***-wa(ha)* 'now, the next thing, then' most frequently occurs between F1b and F1c. However, it has wider possibilities for positioning and can also function as an auxiliary-taking, prefix-retaining suffix, *-wa(ha) -na-*. It is discussed under 'extra-echelon suffixes', in §5.10.

SECOND ECHELON, F2—all are normal suffixes.

- SLOT F2a (1) A NPW *-ⁱkima* 'two participants, a pair'
 SLOT F2b (2) A *-mina* 'in the morning, tomorrow' (also occurs as a clause-final element)
 SLOT F2c (3) A *-ⁱba(ha)* 'do first' (also occurs as a clause-final element)

Note that the normal suffix **-tee* 'habitual, customary' often occurs in third echelon position. Like *-wa(ha)* it also has wider possibilities, including functioning as an auxiliary-bound suffix. It is discussed under 'extra-echelon suffixes' in §5.10.

THIRD ECHELON, F3—both are auxiliary-taking, prefix-retaining suffixes.

- (1) ** *-saa -na-* 'still'
 (2) A *-ⁱbote -na-* 'soon, immediately'

These two suffixes have not been observed in sequence; indeed, their meanings appear to be mutually incompatible.

FOURTH ECHELON, F4—all are auxiliary-taking, prefix-poaching (and one is, in addition, auxiliary-bound).

First of all, there are five slots where the suffixes in each slot cannot co-occur, and the slots occur in order. Then follow a number of suffixes which could not be placed in slots.

- SLOT F4a (1) @ *-nati -ha-* 'be the only person doing something'
 (2) A R *-mii -na-* 'walking around'
 SLOT F4b (3) @ *-ⁱnima -na-* 'want to, need to, about to'
 (4) @ *-ⁱhina -na-* 'can do, it is possible to do'
 (5) * *-rima -na-* 'intermittently, at intervals'
 (6) * (R) *-baa -na-* 'do at/from a distance'
 (7) * *-kanikima -na-* 'scattered, spread out in lots of different places'
 (8) @ R *-karahama -na-* 'continue doing, do without stopping, only do' (only occurs with stance verbs 'sit', 'stand', 'lie'; and 'sleep')
 SLOT F4c (9) * (R) *-raba -na-* 'do a bit'

	(10)	@	(R)	- <i>rama -na-</i> 'unusual, unexpected' (also occurs as a clause-final element)
	(11)	@	R	- <i>biti -ra-</i> , 'not even a little bit, not even one' (must take negator <i>-ra</i> , from before which AUXC <i>-na-</i> drops)
SLOT F4d	(12)	@		- <i>kabote -na-</i> 'soon, immediately'
	(13)	@		- <i>kaba -na-</i> 'do without stopping'
SLOT F4e	(14)	A		- ⁱ <i>hiti -ha-</i> 'do quickly'
OTHERS	(15)	*	R	- <i>ba -na-</i> 'hasn't been done but should be done, or should be done more; do what you don't want to do'
	(16)	A		- <i>hama -na-</i> 'pretending, unexpected result or unfulfilled expectation' (appears to be prefix-poaching with inflecting verbs but prefix-retaining with non-inflecting verbs)
	(17)	n.d.	R	- <i>kii -na-</i> 'be just [one or two]'
	(18)	n.d.	R	- <i>nama -na-</i> 'a lot, the most' (only with verbs describing properties)
	(19)	***	R	(<i>to-</i>)- <i>sii -na-</i> 'going along a path'

There is one suffix which is prefix-poaching auxiliary-taking and may also be auxiliary-bound of set (ii). (It is provisionally placed in the fourth echelon.)

(20) AUXa: **; AUXd: A -*wi -na-* 'continuously'

FIFTH ECHELON, F5—all are auxiliary-bound suffixes.

Set (i) Always added to their own auxiliary (AUXd) after an inflecting or a non-inflecting verb. Suffix *-wahaI* can be followed by ⁱ*nofa*, *-(ha)ba*, or *-(ha)tI*. I have not obtained any example of *-kawa(ha)* co-occurring with any other suffix from the fifth echelon.

As with *-wi-* above, we need to specify the possibilities for omission of both the verbal auxiliary (AUXa) and the suffix-bound auxiliary (AUXd):

		AUXa	AUXd	
SLOT F5a	(1)	@	**	- <i>wahaI</i> (or <i>-wahare</i> for younger speakers) 'do many times, in many places'
SLOT F5b	(2)	@	*	- ⁱ <i>nofa</i> 'happened continuously over recent time'
	(3)	@	A	- <i>(ha)ba</i> 'do/happen all night, or for a good portion of the night'
	(4)	@	A	- <i>(ha)tI</i> 'do/happen all day, or for a good portion of the day'
OTHER	(5)	@	* R	- <i>kawa(ha)</i> 'do for a while'

Set (ii) Added to the existing auxiliary (AUXa) of a non-inflecting verb but to its own suffix-bound auxiliary (AUXd) with an inflecting verb.

		(AUXa =) AUXd	
OTHER	(6)	**	- <i>((h)i)tI</i> 'all along the way' (either prefix <i>to-</i> 'away' or a suffix from slot F1c must be included before <i>-hitI</i>). This suffix is NPW after <i>-makI</i> or <i>-witI</i> from slot F1c.

SIXTH ECHELON, F6—all are normal suffixes

SLOT F6a	(1)	*	NPW	- <i>tasa</i> 'again' (also occurs as a clause-final element)
	(2)	**		- <i>bisa</i> 'also' (also occurs as a clause-final element)
	(3)	**		- ⁱ <i>fako</i> 'do a lot'
SLOT F6b	(4)	**		- <i>rawa</i> , at least one (usually core) argument is f nsg

SLOT F6c (5)	**	(NPW)	<i>-mata</i> ‘short time’ (also occurs as a clause-final element)
SLOT F6d (6)	*		<i>-ra</i> negator—see §7.3
SLOT F6e (7)	**		<i>-ⁱne/ø</i> ‘continuous’

EXTRA-ECHELON SUFFIXES

- (1) ** *-wa(ha)* ‘now, the next thing, then’, a normal suffix which also occurs as a clause-final element; and auxiliary-taking, prefix-retaining *-waha -na-* ‘second time’
- (2) * *-tee* ‘habitual, customary’, a normal suffix (becomes *-ti* when at the end of a nominalized clause); and auxiliary-bound *-tee* ‘remembering something from the past’. When auxiliary-bound it is AUXa: @, AUXd: *.

5.3.1 Criteria for recognizing echelons

A number of criteria combine to justify the recognition of these six echelons, and the slots within them.

(1) ORDER OF SUFFIXES WITHIN THE PREDICATE. There are examples of suffixes from every echelon occurring immediately before suffixes from each later echelon, except that there is no example of a third echelon suffix directly followed by one from the fifth echelon (we do have a suffix from the third echelon immediately followed by one from the fourth, and a suffix from the fourth echelon immediately followed by one from the fifth). Examples of these orderings are provided at the end of the discussion of each echelon, in §§5.4–9.

In addition, there is ordering of affixes within echelons according to slot labels, shown in the summary above. Note that only one choice can be made for each slot (the suffixes in the slot being mutually exclusive), with a single exception in F1c. Within each echelon, the slots occur in the order shown, e.g. F1a comes before F1b, which in turn comes before F1c.

(2) CONDITIONING ON PHONOLOGICAL RULE. Rule P6d (in (C) of §2.9.4) states that the verb *-ka-* ‘be in motion’ becomes *-ko-* when preceded by prefix *o-* or *to-* and when followed by a suffix commencing with *b*, *f*, or *m* and belonging to the first echelon (but not when followed by a suffix from a later echelon beginning with a bilabial segment). This distinguishes the first from later echelons.

(3) REDUPLICATION. When a verb is reduplicated the verb (if inflecting) or the verbal auxiliary (if the verb is non-inflecting) retains prefixes *to-*, *ka-*, and *na-* ~ *naha-* plus suffixes of the first and second echelons, while the reduplication auxiliary takes prefixes *o-*, *ti-*, and *hi-* plus suffixes of echelons three to six, and tense-modal and mood suffixes. This distinguishes between the first and second, and later echelons.

(4) COMPLEMENT CLAUSES. The predicate of a complement clause can take first, second, third, or fourth echelon suffixes, but suffixes of the fifth and sixth echelons may only occur on the predicate of the main clause. This distinguishes the first four from the last two echelons.

(5) NATURE OF SUFFIX. It will be noted that each echelon involves just one type of suffix—normal suffixes in the first, second, and sixth echelons, prefix-retaining auxiliary-taking suffixes in the third echelon, prefix-poaching auxiliary-taking suffixes in the fourth echelon, and auxiliary-bound suffixes in the fifth echelon. That is, each echelon has a formal homogeneity.

The one suffix that is both auxiliary-taking and auxiliary-bound, *-wi -na-*, has been tentatively placed in the fourth echelon. This is not a frequently occurring suffix and the data on it is sparse.

Furthermore, when an auxiliary-taking suffix (from the third or fourth echelon) is used, first and second echelon suffixes attach to an inflecting verb or to the AUXa of a non-inflecting verb, whereas suffixes from the fifth and sixth echelons (plus tense-modal and mood suffixes) attach to the auxiliary-taking suffix's AUXc.

5.4 FIRST ECHELON (F1): NORMAL SUFFIXES

This echelon involves normal suffixes organized into three slots; one choice may be made from F1a and F1b, but two from F1c.

SLOT F1a. The suffixes corresponding to this slot are both monosyllabic.

(1) ** *-ⁱfI* 'relating to water' is limited to occurrence with verbs of stance or motion and refers to stance in or by water or motion to water, as in (here the underlying forms are shown in the second line of each example):

(5.19) [awa mate]_s iti-fi-ne-ke
 ita-ⁱfI-ⁱne-ke
 tree(f) stump+f sit-WATER-CONT-DECf
 the stump is sitting in the water

(5.20) otaa ki-fe-wa-ma
 ka-ⁱfI-waha-ma
 IexcS in.motion-WATER-NOW-BACKf
 now we go back to the water (to the port)

Example (5.21) nicely illustrates the realization of morphophoneme *I* in *-ⁱfI*: as *e* in the second syllable and as *i* in the third syllable of a phonological word:

(5.21) tai o-fe-wa-mi-ba,
 o-ⁱfI-waha-ma-ⁱbaha
 go.in.front IsgS-WATER-NOW-BACK-DO.FIRSTf
 faja o-ki-fi-waha-ma
 o-ka-ⁱfI-waha-ma
 THEN IsgS-in.motion-WATER-NOW-BACKf
 I go in front first, going back to the water, then I go back to the water

Note that if *-ⁱfI* and *-ma* are used in sequence—as in (5.20–1)—then *-wa(ha)* must be placed between them, as a morphotactic requirement of the language; see (1) in §5.10.

The suffix *-ⁱfI* may be cognate with the free noun *faha* 'water' and possessed noun *fehe/fehe-ne* 'liquid, water' (which derive from proto-Arawá **phaha-ni/phaha-ne*—see §11.1). But if it is, the mechanism for deriving *-ⁱfI* from *-faha* is not understood.

(2) ** *-rI* 'raised surface, edge' has two, probably related, senses, according to the semantic class of the verb to which it is attached. With verbs of stance it means 'on a raised surface' (i.e. not on the ground) and is used to describe someone or something sitting, standing, or lying in a house, on a bench, on a log, etc. Examples in the texts include T1.20 and T3.35.

(5.22) o-wita-re o-ke
 IsgS-sit-RAISED.SURFACE Isg-DECf
 I am sitting on a raised surface

- (5.23) sirikaa_O o-ba-riha
 rubber(m) IsgA-put-RAISED.SURFACEf
 I put the rubber on a raised surface (the pan of the weighting balance)
 ‘Raised surface’ can apply to the back of a pig, as in (5.24), or to a washing line, as in (5.25):
- (5.24) arakawa_S ita-ri-ka [[boroko mese] jaa]
 chicken(m) sit-RAISED.SURFACE-DECM pig(m) top.surface PERI
 the chicken is sitting on the back of the pig
- (5.25) [oko makari]_O soo o-niha-re-mati-be
 IsgPOSS clothes(f) lie(plS) IsgA-CAUS-RAISED.SURFACE-SHORT.TIME-IMMEDf
 I’ll just hang (lit. make lie) my clothes (on the line)

Note also the use of *-rI* in (5.26). Here the school (house) is not on a raised surface; it *is* a raised surface.

- (5.26) sikora_S wa-re-hamone-ke ahi
 school(f) stand-RAISED.SURFACE-REPF-DECf HERE.VISIBLE
 the school is said to be (around) here

There are four verbs which describe different kinds of lying: *-wina-* ‘lie in a hammock, be hanging’ and three others which may be morphologically analysable:

- forI-* ‘lie on a raised surface’
- hofa-* (where there is no prefix), *-fowa-* (with a prefix) ‘lie in the water’
- homa-* ‘lie on the ground’

It looks as if *-forI-* could be broken down into root *-fo-* and suffix *-rI-*. The *-fo-* could possibly be related to the first syllable of *-fowa-*, but there would then be no explanation for the final *-wa-* of *-fowa-*. For the other two forms, it is tempting to suggest a root *-ho-* and suffixes *-fa-* ‘water’ and *-ma-* ‘ground’. But neither of these occurs elsewhere; *-fa-* is similar to the free noun *faha* ‘water’ but differs from the existing suffix *-ⁱfI* ‘water’.

These three verbs are only used when the S NP is singular. There are dual and plural correspondents but here a single verb is used to cover all three kinds of lying—dual *mata -na-* and plural *soo (to)-na-(sa)*. In the dual and plural the type of lying is shown by suffix *-rI* ‘raised surface’, or *-ⁱfI* ‘water’, or neither of these (for lying on the ground). (See §26.2.1.)

This can be shown in paradigmatic form. (Note that the continuous suffix *-ⁱne* is generally included here if there is no other miscellaneous suffix, in (c); it could also be included after *-rI* or *-ⁱfI*.)

- (5.27) Singular S, with S shown by the noun *maki* ‘man’
- (a) maki fore-ka the man is lying on a raised surface
 - (b) maki hofa-ka the man is lying in the water
 - (c) maki homa-ka the man is lying on the ground
- (5.28) Dual S, with S shown by 3nsg *mee* (dual number is inferrable from the verb used)
- (a) mee mata na-re-ke they two are lying on a raised surface
 - (b) mee mata ni-fe-ke they two are lying in the water
 - (c) mee mata ni-ne-ke they two are lying on the ground
- (5.29) Plural S (referring to three or more) with S shown by 3nsg *mee* (reference to more than two is inferrable from the verb used):
- (a) mee soo na-re-ke they (three or more) are lying on a raised surface
 - (b) mee soo ni-fe-ke they (three or more) are lying in the water
 - (c) mee soo to-si-ne-ke they (three or more) are lying on the ground

(The verb *soo* (to)-*na*-(*sa*) must take prefix *to*- and suffix *-sa* where there is no suffix *-rI* or *-ʔI* or prefix *nɪha*-. This appears to be an idiosyncratic property of the verb.)

Note that both *-ʔI* and *-rI* can be used with verbs of stance but only *-ʔI*, not *-rI*, with verbs of motion.

The second sense of *-rI* can now be considered. When suffixed to a verb of affect (like ‘hit’, ‘cut’) it appears to refer to ‘edge’ of the object:

- (5.30) o-je_O kaa o-re-ra o-ke ([bari jaa])
 1SGPOSS-hand cut 1SGA-EDGE-IPef 1SG-DECf axe(f) PERI
 I cut the edge of my hand (on an axe)

Or with the verb *boo -na*- ‘hit with a blow that does not penetrate the surface’, as in the O-construction:

- (5.31) aba_O boo o-re-hare-ka
 fish(m) hit 1SGA-EDGE-IPem-DECm
 I hit (the edge of) a fish (a glancing blow with the a knife, and stunned it)

It may also be used with the verb *niki -na*- ‘press’ to describe placing a paper clip on the edge of a sheet of paper:

- (5.32) babeo_O niki o-re o-ke
 paper(f) press 1SGA-EDGE 1SG-DECf
 I clip the edge of the piece of paper

One text describes a canoe moving fast through the water and creating a big wash. It appears that *-rI*- here refers to the ‘edge’ of the wave the canoe makes. The verb is *saa -na*- ‘let go’.

- (5.33) kanawaa_S saa to-re-hara-ke
 canoe(f) let go AWAY-EDGE-IPef-DECf
 the canoe set off an edge (of a wave, in the water)

The verb *awa -na*- ‘to yawn’ appears always to take the suffix *-rI*-. This may be because the edge of the mouth (the lips) is revealed when yawning:

- (5.34) awa o-re o-ke
 yawn 1SGS-EDGE 1SG-DECf
 I yawn

The suffix *-rI* patterns differently from other miscellaneous suffixes in a number of ways. First, it behaves in a unique way with respect to a preceding auxiliary *-na*-. Other suffixes of type ** always drop the *-na*- when they take one or more prefixes. For instance, *o-na-bisa* becomes *o-bisa*, as in (5.7b), and underlying *ti-ka-na-bisa* (2sg-APPLIC-AUX-ALSO) becomes *ti-ka-bisa*. Suffix *-rI* drops a preceding *-na*- where there is just one prefix to the auxiliary (so that the *-na*- is unstressed on the underlying cycle), as in (5.30–4), but when there is a first order prefix (1sg *o*-, 2sg *ti*-, or Oc *hi*-) followed by the second order prefix *ka*-, then the *-na*- is retained, as in:

- (5.35) [mesa mese]_O sika ti-ka-na-re-hi!
 table(f) top.surface pour 2sgA-APPLIC-AUXA-RAISED.SURFACE-ImmPosIMPf
 you pour (water on) the table top!

The other unusual property of *-rI* is the way in which it conditions the forms of two irregular verbs. It was pointed out in (II) of §4.5.2 that the verb ‘stand’ has basic form *-waa* which reduces to *-wa*- when (a) used with one prefix, or (b) used with suffix *-rI*. It was also pointed out that the verb *-sona*- ‘fall’ reduces to *-sa*- when it takes a pronominal prefix (e.g. *o-sa* ‘I fall’) except when it also takes the suffix *-rI* (e.g. *o-sona-re* ‘I fall on a raised surface’).

SLOT F1b. A system of ten suffixes corresponds to this slot, all but two referring to location and direction. One is trisyllabic and the others disyllabic (one having a monosyllabic allomorph); six of them end in *-sa*.

(3) ** *-tima* ‘upstream’ is typically used with verbs of motion such as *-ka-* ‘be in motion’, as in (5.36), and *kobo -na-* ‘arrive’, as in (5.37–8) but is also attested with *-jabo-* ‘be a long way’, i.e. ‘be a long way upstream’, as in (4.57).

(5.36) ee to-ka-tima-mina-haba ee-ke
IincS AWAY-in.MOTION-UPSTREAM-MORNING-FUTf Iinc-DECf
(we’ll sleep here for a while and) we’ll go upstream in the morning

(5.37) kobo o-tima o-ke
arrive IsgS-UPSTREAM Isg-DECf
I arrive (at a place) upstream

(5.38) otaa kobo na-tima otaa-ke
IexcS arrive AUXa-UPSTREAMf Iexc-DECf
we arrived (at a place) upstream

(4) ** *-(i)misa* ‘up (other than upstream)’; as noted in §2.9.2, this suffix raises preceding *a* to *i* only on the verb *-ka-* ‘be in motion’.

This suffix has a wide range of uses. It can refer to going up a river bank, as in T2.117 and (4.19); going up stairs; a monkey jumping up into a tree; putting a photo standing up (after it had fallen over); hoisting or carrying something up on the back, as in (2.18a) and (4.63); kicking the feet up in the air; or getting hold of a pig which had fallen into a river and pulling it up into a canoe, as in:

(5.39) boroko_O mee horo na-misa-makiha
pig(m) 3nsgA pull AUXa-UP-FOLLOWINGf
they follow by pulling the pig up (into the canoe)

The suffix can also be used to describe the people in a canoe which had been raised up in the air by coming in contact with an underwater tree stump in (5.40), for water coming up through a hole into a canoe, in (5.41), for a hunter grabbing a jaguar high up on its body, as in (5.42), or for packets of fish filling a basin up to its rim, as in (5.43).

(5.40) mee to-ko-fore-misa-hara-ke fahi
3nsgO AWAY-APPLIC-lie.on.raised.surface-UP-IPef-DECf THERE.NON.VISIBLE
they were made to lie on a raised surface high up there (i.e. lying in a canoe that was momentarily raised out of the water by a stump)

(5.41) fahas_S tasi na-misa-ke
water(f) go.through.hole AUXa-UP-DECf
the water comes up through a hole (into the canoe)

(5.42) jomee_O wara to-mise-mata-mona-ka
jaguar(m) grab AWAY-UP-FPnm-REPM-DECM
he is reported to have grabbed the jaguar high up

(5.43) [mee tafowe]_S jowa-misa
3nsg package come.to.brim-UPf
the packages (of cooked fish) fill (the basin) up to the brim

We also find *-misa* used metaphorically for getting better after an illness, as in (5.44) and for some activity increasing, as in (5.45).

- (5.44) inamatewe_S amosa-misa-waha-ka
 child be.good-UP-NOW-DECM
 the (male) child is getting better now
- (5.45) Jobeto_S siwa na-misa-waha-ka
 name(m) be.playful AUXa-UP-NOW-DECM
 Jobeto is starting to get more playful now

(5) A *-risa* ‘down’. When added to the auxiliary, *-na-*, of a non-inflecting verb, we get the reduction *-na-ri-sa* → *-ni-sa*. The form *-ri-sa* is used with almost all inflecting verbs and also when the causative prefix *niha-* is added to the auxiliary *-na-* (which is always omitted after *niha-*), i.e. *niha-na-ri-sa* → *niha-ri-sa*.

As mentioned in §2.10.5, there is also reduction when *-ri-sa* is added to the inflecting verbs *-wina-* ‘be hanging’ and *-kina-* ‘fall on’; that is *-wina-ri-sa* → *-winisa* and *-kina-ri-sa* → *-kinisa*.

This suffix can be used to describe people going downhill, people slipping down, water cascading down over rocks, pouring snuff down into someone’s hand, pressing down a button on a tape recorder, a snake swimming underwater (down below the surface of the water), someone bending over (in T2.63), putting a body in a grave (in T1.73), trousers sliding down the legs (in T2.73), and bark falling off a tree (in T3.7). In (5.46) *-ri-sa* refers to someone falling asleep (in a hammock).

- (5.46) amo o-nisa-ra o-ke
 sleep IsgS-AUXa+DOWN-IPef Isg-DECf
 I fell asleep

There are distinct verbs ‘sit’ and ‘stand’ with a singular S but when the S is dual there is a single verb, *yoro -na-*, covering both meanings (and similarly for plural S, with *-naho-*). It is likely that, in (5.47), *-ri-sa* ‘down’ is used to indicate a sitting stance:

- (5.47) faja otaa joro nisa otaa-ke
 THEN IexcS sit/stand (du S) AUXa+DOWNf Iexc-DECf
 fahi [hawi jaa]
 THERE.NON.VISIBLE path PERI
 then we sat down there on the path (to wait for them)

The contrast between *-ri-sa* ‘down’ and *-mi-sa* ‘up’ is brought out in the way one describes increasing or decreasing the volume on a radio:

- (5.48) ati_S kita-misa-ke
 noise(f) be.strong-UP-DECf
 the volume is being turned up (lit. getting strong up)
- (5.49) ati_S fawa nisa-ke
 noise(f) disappear AUXa+DOWN-DECf
 the volume is being turned right down (lit. disappearing down)

This contrast can also be seen in a passage describing a fantastical dream about a type of aeroplane—one pulls a cord down and the plane goes up:

- (5.50) [jama mati]_O ho.horo nisa-ne,
 thing(f) cord+f REDUP.pull AUXa+DOWN-BKGM
 to.to-wa-ki-misa-ma na-re-ka [neme jaa]
 REDUP.AWAY-APPLIC-in.motion-UP-BACK AUXb-IPem-DECM sky(f) PERI
 he pulled the cord down a bit, and he went back up a bit with it into the sky

This suffix *-risa* also has a metaphorical use, referring to anything that is not fully satisfactory, ‘neither one thing nor the other’, or ‘marginal’. It may be used with stance verbs, to describe an odd way of sitting, standing, or lying. Thus, *-wina-* refers to lying in a hammock in the usual way, lengthwise, but *-wina-* plus *-risa* describes being crossways in a hammock, with legs hanging over the edge; *-ita-* means ‘sit’ with one’s bottom on a chair or on the floor or ground, but *-ita-* plus *-risa* can be used for squatting on one’s haunches, with the bottom off the ground. In each of these a sense of ‘down’ may be perceived, but with *-wa-* ‘stand’, we find *-wa-* plus *-risa* used to describe standing on a table, which is an unusual thing to do (this could not be considered to involve any sense of ‘down’).

The suffix *-risa* is also used to describe the position of the sun at dawn, at midday, and at dusk. At dawn it is just beginning to rise; at midday it is neither ascending nor descending in the sky; and at night it is just beginning to set. At none of these times is it clearly in a mode of motion but is between two possibilities (between being here and not being here, between going up and going down). This is shown in T1.29, T2.115, and in:

(5.51) jama_S waa-rise-hemete-mone-ke
 thing(f) become.dawn-MARGINAL-FPnf-REPF-DECf
 (a new day) was reported to be just breaking

(5.52) faja bahi_S noko-rise-hiri ama-ka fahi
 THEN sun(m) be.midday-MARGINAL-RPem EXTENT-DECm THERE.NON.VISIBLE
 then the sun was directly above (at midday) there

(5.53) jama_S joma-risa
 thing(f) get.dark-MARGINALf
 it begins to get dark

The meaning of the verb *-noko-* in (5.52) is not altogether clear. It may be related to *-noko-* ‘be awake’ but it may alternatively be a completely different verb. With subject *bahi* ‘sun’ it frequently takes the suffix *-risa*.

(6) ** *-riwaha* ‘across’ is most frequently used to describe crossing a stream, as in T2.44–5, 59, and:

(5.54) faja otaa ka-ka-riwaha-ma otaa-ke fahi
 THEN IexcS APPLIC-in.motion-ACROSS-BACKf Iexc-DECf THERE.NON.VISIBLE
 then we two crossed back over the river there

It can also be used for crossing a road, or an airstrip, or for an ant crawling across one’s leg, or for crossing to the other side of a log which lies across a path:

(5.55) [awa mate]_O o-wa-ka-riwa o-ke
 tree(f) log+f IsgA-APPLIC-in.motion-ACROSS Isg-DECf
 I (climb) over the log

See also T2.62 where *-riwaha* describes crossing a fallen branch by ducking under it.

(7) ** *-basa* ‘to/on the edge’ typically refers to a river bank or shore, as in:

(5.56) otaa ka-basa-waha-ma
 IexcS in.motion-EDGE-NOW-BACKf
 then we come back to the bank (of the Purús River)

But it can refer to the edge of anything, e.g. of a tape recorder, or of a tree, as in (5.57), or of a grave, as in (5.58).

(5.57) [ajawa_S hati]_O o-ti-basa
 cashew(m) be.ripe+COMP IsgA-take-EDGEf
 I pick ripe cashew fruit from the ‘edge’ (of the tree)

(5.58) [ohi ni]_S ka-wita-basa
 cry AUX+COMP APPLIC-sit-EDGEf
 she sits next to the grave crying (lit. her crying sits on the edge of the grave)

(8) ** *-fara* ‘clear space’. Living in the Amazonian jungle, it is appropriate that the Jarawara should have an affix referring to a clear space. This can be any clearing, whether natural, as in (5.59), or man-made (e.g. the village square).

(5.59) faja to-ko-fara-me-mata-mona-ka
 THEN AWAY-in.motion-CLEAR.SPACE-BACK-FPnm-REPM-DECM
 then he is reported to have gone back into a clear space

It can also be used for the clear water in the middle of a stream, as in (this is T3.49):

(5.60) otaa to-wa-ka-fara-ma
 IexcS AWAY-APPLIC-in.motion-CLEAR.SPACE-BACKf
 [Faha.biri tori jaa]
 river.name(f) inside+f PERI
 we go (i.e. paddle) into a clear space in the middle of the Fahabiri river

(9) A *-joma* ‘passing through gap’ can describe wild pigs going into a hole in the ground, as in (5.61) (which is T2.15), someone going through a gap in a stand of tall grass, or—prototypically—going through a doorway into a house, as in (2.4).

(5.61) kobaja_S mee to-wa-ki-jome-mete mee
 peccary(m) 3nsgS AWAY-APPLIC-in.motion-THROUGH.GAP-FPnf 3nsg
 ama-ke [hoti jaa]
 EXTENT-DECf hole(f) PERI
 the white-collared peccaries went into the hole

This suffix is used with a transitive verb in:

(5.62) [oko isiri]_O weje o-ka-ni-joma-ma o-ke
 IsgPOSS basket(f) carry IsgA-APPLIC-AUXa-THROUGH.GAP-BACK Isg-DECf
 I carry my basket through the door

There are two suffixes *-kosa*. One, which can be called *-kosa₁*, never undergoes reduction whereas the other, *-kosa₂*, is reduced to *-sa* in specifiable circumstances. They will be separately described, and then compared.

(10) A *-kosa₁* ‘between two extremes’. The auxiliary *-na-* never drops when followed by this suffix and the suffix is never reduced. In particular instances of use it can be glossed either (a) ‘in the middle’, e.g. sit in the middle of a boat; call out from the middle of a river, as in (5.77); break a piece of wood in the middle; cut an animal in the middle, as in (5.63); in the middle of a clearing in the middle of the forest, as in (5.64)—this is T2.61—where *-kosa* goes onto two verbs; or (b) ‘on the way’, as in (5.65).

(5.63) faja maone_O bobi na-kose-no
 THEN tapir(m) cut AUXa-MIDDLE-IPnm
 then he (the Sorowahá man) cut the ‘maone’ (Sorowahá name for tapir) in the middle

(5.64) [[jama_S amosa-kosi] jaa], awa_S homa-kosa-hamaro
 forest(f) be.good-MIDDLE+NOM PERI tree(f) lie.on.ground-MIDDLE-FPef
 ama-ke
 EXTENT-DECf
 in a forest clearing (lit. in forest which is good in the middle) a log lay on the ground
 in the middle

(5.65) [o-taboro jaa] o-ko-ma o-ke, wete
 IsgPOSS-home+m PERI IsgS-in.motion-BACK Isg-DECf return
 o-na-ma; kobo o-na-kosa-ma-ra o-ke
 IsgS-AUXa-BACKf arrive IsgS-AUXa-ON.WAY-BACK-IPef Isg-DECf
 [Botofejo jaa]
 place PERI]
 (then) I (shall) go back to my own home (in Australia), I (shall) return back (there); on
 the way I arrive back in Porto Velho (that is: I shall stop briefly in Porto Velho on my
 way back from the Jarawara village to Australia)

In one text the narrator describes how he ate, then washed his hands, and went out. But he adds:

(5.66) faha_O o-fa-kosa-ma
 water(f) IsgA-drink-MIDDLE-BACKf
 I (go) back to drink some water on the way

Here the use of *-kosa₁* indicates that the speaker drank some water on the way, between the dining table and the front door of the house (where there is a strategically placed water ewer and ladle).

(II) ** *-kosa₂ ~ -sa* ‘do once, something happens clearly and cleanly, do a bit’. When this suffix is added to an inflecting verb it retains its full form, as it does when added to an auxiliary *-na-* which bears no prefix. But when added to auxiliary *-na-* which has just a first order prefix, the *-na-* drops and also *-kosa₂* reduces to *-sa*. These two types of realization are illustrated in:

(5.67) Okomobi_A jehe_O bobi na-kosa-re-ka
 name(m) hand cut AUXa-ONCE-IPem-DECm
 Okomobi cut his hand once

(5.68) o-je_O bobi o-sa o-ke
 IsgPOSS-hand cut IsgA-ONCE Isg-DECf
 I cut my hand once

Alongside the reduction of *o-na-kosa* to *o-sa* we get *to-na-kosa* reducing to *to-sa*. But with the causative prefix *niha-* we get *niha-kosa*, with no reduction. When the prefix *to-* is added to this, we get *to-niha-kosa*, again with no reduction.

The specific sense of *-(ko)sa₂* depends on the meaning of the verb it is used with. If the verb describes an action that can be done continuously or just once, *-(ko)sa₂* indicates ‘once’. Thus, ‘call out once’, ‘laugh a single “ha”’, pass under a fallen log (in T2.65), and:

(5.69) maki_S toho to-sa-ka
 man(m) cough AWAY-ONCE-DECm
 the man coughs once (gives a single cough)

(5.70) faja [majawari maho]_O hisi to-se
 THEN titi.monkey(m) smell+m smell AWAY-ONCEm
 then he takes one sniff of the smell of (the burning flesh of the) titi monkey (and dies
 at once)

In (5.71) the verb *joko -na-* ‘push’ is used with *-(ko)sa₂* to indicate each of a series of single pushes with a pole as a canoe is punted along a shallow river:

- (5.71) kanawaa_O jo.joko o-sa-hara o-ke
 canoe(f) REDUP.push 1sgA-ONCE-IPef 1sg-DECf
 I punted the canoe with single pushes (of the punt pole)

In (5.67–8) *-(ko)sa₂* is used to show that a person cut his hand just once (we were told that if *-(ko)sa₂* were not used here the sentence could mean that he cut himself lots of times).

Most frequently the inclusion of *-(ko)sa₂* indicates that a result is clearly achieved, often in a single action. Thus *-(ko)sa₂* can be used with *baka -na-* ‘break’ to describe simply breaking a stick in two, across the grain, as in (5.79a/b). It would not be appropriate if the stick were gradually torn apart down the grain.

The suffix *-(ko)sa₂* is typically used with *saa -na-* ‘let go’, since this verb indicates something that is completely done, as in (5.72). It may also be used with *fawa -na-* ‘disappear’, as in (5.73), to indicate that something has completely gone.

- (5.72) kanawaa_O saa to-sa-hare-ka fahi
 canoe(f) let.go AWAY-CLEANLY-IPem-DECm THERE.NON.VISIBLE
 he let the canoe go there (he had been holding it against the side of a motor boat,
 now he released his hold and the canoe was let go and left behind)

- (5.73) [mee ati]_S fawa to-se-hemete-mone-ke
 3nsg voice disappear AWAY-CLEANLY-FPnf-REPF-DECf
 their voices are said to have died away (as they walked off into the forest)

This suffix can also be used with the verb *fija -na-* ‘go straight past without stopping’ to indicate that the passing of a place was achieved without hesitation or interruption:

- (5.74) [Agua Branca]_O fija o-sa-ma
 place pass 1sgA-CLEANLY-BACKf
 I go straight back past Agua Branca without stopping

A further sense of *-(ko)sa₂* is ‘do a little bit’:

- (5.75) amo o-sa-mata-bana o-ke
 sleep 1sgS-A.BIT-SHORT.TIME-FUTf 1sg-DECf
 I’ll have a quick nap
- (5.76) namiti_O toni_A mee wete hi-se-himata-mona
 neck spirit(m) 3nsgA wrap.around.and.pull Oc-A.BIT-FPnm-REPM
 the spirits are said to have strangled him a bit (i.e. they wrapped around his neck and
 pulled) (but not enough to kill him)

Summarizing the forms of *-kosa₁* and *-kosa₂*, we find:

	(a) WITH	(b) ONTO AUXILIARY OF	(c) ONTO AUXILIARY OF NON-
	INFLECTING	NON-INFLECTING VERB	INFLECTING VERB WITH JUST
	VERB	WITH NO PREFIX	A FIRST ORDER PREFIX
-kosa ₁	verb- <i>kosa</i>	verb <i>na-kosa</i>	verb prefix- <i>na-kosa</i>
-kosa ₂	verb- <i>kosa</i>	verb <i>na-kosa</i>	verb prefix- <i>sa</i>

In environments (a) and (b) the two suffixes are homophonous and may not be easy to distinguish. However, in environment (c) they have different form—compare (5.77) with *-kosa₁* and (5.78) with *-kosa₂*:

- (5.77) hora o-na-kosa-hara o-ke
 call.out 1sgS-AUXa-MIDDLE-IPef 1sg-DECf
 I called out from the middle (of the river)

- (5.78) hora o-sa-hara o-ke
 call.out 1sgS-ONCE-IPef 1sg-DECf
 I called out once

It seems that *-kosa₂* typically takes prefix *to-* and then *to-na-kosa* reduces to *to-sa*, as in (5.69–70) and (5.72–3). Thus, *-kosa₂* is not used much in environment (b). But it can be used in this environment, as in (5.67) and in the following bit of dictation from speakers:

- (5.79a) awa_O baka o-sa-hara o-ke
 stick(f) break 1sgA-CLEANLY-IPef 1sg-DECf
 I broke the stick cleanly in two
- (5.79b) Jobeto_A awa_O baka na-kosa-re-ka
 name(m) stick(f) break AUXA-CLEANLY-IPem-DECM
 Jobeto broke the stick cleanly in two

Many inflecting verbs refer to states and *-kosa₂* is unlikely to be used with them—this is environment (a). It will be seen that there are not a great number of environments in which both *-kosa₁* and *-kosa₂* are both likely to occur. But there are some, and then only context is available for disambiguation.

(12) * *-kasa* ‘a lot at once’ appears to indicate that the S or O NP has multiple reference (two or more) with the action involving these ‘all at once’. Thus:

- (5.80) [awa nafi]_O tii o-kasa o-ke
 tree(f) all cut 1sgA-ALL.AT.ONCE 1sg-DECf
 I cut a lot of small trees all at once (with one swing of my machete)
- (5.81) [ee mano]_S soki kasa; [ee iso]_S soki kasa naa
 iinc arm+m tie ALL.AT.ONCEf iinc ankle+m tie ALL.AT.ONCE LIST
 our arms are tied together; our ankles are tied together

In some instances, *-kasa* can have a more generalized meaning ‘lots of’, as in:

- (5.82) jama_S bisa-kase-hemete-mone ama-ni
 thing(f) be.dirty-LOTS-FPNf-REPF EXTENT-BKGF
 there was said to be lots of thick and dirty [smoke] (lit. the thing was reported to have been lots and dirty)

The verb *kori* (*ka-*)*na* is ‘throb’. Where *-kasa* is attached the meaning is ‘(heart) beats fast (i.e. lots at once)’.

The verb *harara -na-* ‘heat liquid, but not to boiling point’ is generally used with *-kasa*, as an idiomatic association, as in

- (5.83) faha_O harara ti-kasa-hi!
 water(f) heat 2sgA-ALL.AT.ONCE-ImmPosIMPF
 you heat the water (but not to boiling point)!

SLOT FIC. This includes four suffixes, two monosyllabic and two disyllabic; all refer to motion and direction. There is just one sequence of suffixes from this slot, *-kI* ‘coming’ followed by *-makI* ‘following’—see (5.106).

(13) A *-kI* ‘coming’ has a straightforward meaning, referring to motion towards the place at which the speaker is located, or towards a point of reference in a narrative. It is used with verbs of motion such as *kobo -na-* ‘arrive’, *horo -na-* ‘pull’ (in T3.8), and *tasi -na-* ‘go through

doorway', as in:

- (5.84) mee tasi na-ke-haro-ke
 3nsgS go.through.doorway AUXa-COMING-RPef-DECf
 they came out (of the house)

The verb *soki -na-* 'tie two pieces of rope or string forcibly together (including: tie shoelaces)' typically takes *-kI*, to describe the type of tying (pulling one of the pieces of string towards one) as in the O-construction (this is T3.29):

- (5.85) okobise_A soki hi-na-kihi
 1sgPOSS+uncle(m) tie Oc-AUXa-COMINGm
 my uncle (father's brother) ties up (the bark canoe (m))

With a verb 'do X', this suffix has the meaning 'do X while coming' or 'come and do X', e.g.

- (5.86) [mee ati]_s koro na-ke-hara-ke
 3nsg language be.audible AUXa-COMING-IPef-DECf
 the sound of their talking could be heard as they came closer (lit. their talking became audible coming)

- (5.87a) Wahati_A jobe_O mee hiri na-ke-haro-ke
 Jamamadí house(m) 3nsgA make AUXa-COMING-RPef-DECf
 the Jamamadí people came and built a house

The suffix can also have a temporal sense 'getting to be'. In one story, the narrator recounts how he said that his father's corpse should be buried quickly, because:

- (5.87b) okobi_s bata-ki awa-ka
 1sgPOSS+father be.rotten-COMING SEEMS-DECf
 I think my father ('s corpse) might be getting putrid

As might be expected, *-kI* occurs most frequently with the verb *-ka-* 'be in motion', the combination being equivalent to the English verb *come*. It has already been mentioned that *-ka-* is the most irregular verb in Jarawara. It drops when immediately followed by *-kI* 'coming' if there is also a pronominal prefix (note that *-ka-* is then in an even-numbered syllable, i.e. unstressed on the underlying cycle). Thus, with 1sg *o-* we get *o-ke* (not **o-ka-kI*), as in (4.12b), and with 2sg *ti-* we get *ti-ke* (not **ti-ka-kI*):

- (5.88) ti-ke-hara ti-ke
 2sgA-[in.motion]-COMING-IPef 2sg-DECf
 you have just come

It was noted in §2.9.1 that when applicative prefix *ka-* or causative prefix *na-* is used with *-ka-* 'be in motion', plus the suffix *-kI*, then we get *ka-ka-kI* → *kaa-kiha* and *na-ka-kI* → *naa-kiha*; see (2.8a/b) and

- (5.89) awi_O Sorowaha_A mee kaa-kiha-habone
 tapir(m) tribe 3nsgA APPLIC+in.motion-COMING-INTf
 for the Sorowahá to bring the tapir

When there is a pronominal prefix before the applicative prefix we get *o-ka-ka-kI* → *owakake* and *hi-ka-ka-kI* → *heekake*; see §2.9.1.

When there is no prefix before *-ka-* 'be in motion' then this verb is retained before suffix *-kI*, as in:

- (5.90) [meefanawi nafi]_s ka-ke-haro mee ama-ke
 women(f) all in.motion-COMING-RPef 3nsg EXTENT-DECf
 all the women were coming

The verb *-ka-* ‘be in motion’ never drops when in an odd-numbered syllable (i.e. when stressed on the underlying cycle). This explains why it does not drop from *ka-ke-haro* in (5.90) nor from *o-na-ka-ki-ne* in (5.91).

- (5.91) makari_O o-na-ka-ki-ne o-ke
 clothes(f) 1sgA-CAUS-in.motion-COMING-CONTf 1sg-DECf
 I’m coming to get the clothes (lit. I’m coming to make the clothes be in motion)

(14) A *-ma* ‘back, return’. This is perhaps the most frequently occurring of the miscellaneous suffixes; several dozen instances will be found in the examples quoted in the preceding and following chapters, and there are many more in the texts. Its basic meaning is ‘back to a place’ and it is typically suffixed to *-ka-* ‘be in motion’, the combination *-ka-ma-* then meaning ‘go back, return’, as in (4.5a), (4.12a), and (4.13a), among other examples. In (2.4) we find ‘take back through a door’, in (3.14) ‘arrive back at a place’, and in (5.65) ‘return back’. We also get ‘call back’, as in (5.92), ‘give back’, as in (5.93), and ‘put back’—either put something back in a box or boat or, in a story about spirits of the forest, put someone’s spirit back in their body—as in (5.94).

- (5.92) mee haa o-na-ma-tasa
 3nsgO call.to 1sgA-AUXa-BACK-AGAINf
 (they call to me, I call back to them, then) I call back to them again

- (5.93) [tika kojari]_O otaa taa na-ma-haba otaa-ke
 2sgPOSS paddle(m) 1excA give AUXa-BACK-FUTf 1exc-DECf
 we’ll give your paddle back

- (5.94) okojo_O tee to-na-wana-ma
 1sgPOSS+elder.brother(m) 2nsgA AWAY-CAUS-be.in.contact-BACKf
 you-all have put my elder brother (‘s soul) back (into his body) (lit. made it be back in contact)

With verbs of an appropriate semantic type *-ma* can mean ‘return to do X’ (just as *-ki* can mean ‘come to do X’), e.g. ‘return to have a drink’ in (5.66) and ‘return to eat’ in:

- (5.95) otaa tafa-ma otaa-ke
 1excS eat-BACKf 1exc-DECf
 we returned and ate, just now

The verb *hiri-na-* generally means ‘make, construct’; when *-ma* is added it takes on the sense ‘repair (i.e. make back)’ as in (3.23a/b). *Tasi-na-* describes sewing clothes; when *-ma* is added the sense shifts to ‘repair a tear in clothes’, as in:

- (5.96) [oko makari]_O tasi o-na-ma-bana o-ke
 1sgPOSS clothes(f) sew 1sgA-AUXa-BACK-FUTf 1sg-DECf
 I’ll mend my clothes

The meaning of *-ma* can thus be extended to ‘return to a state’. It may be used with *-na-mosa-* ‘make good’ (the causative form of *-amosa-* ‘be good’) as in:

- (5.97) karafato_O o-na-mosa-ma-mati-be
 tape.recorder(f) 1sgA-CAUS-be.good-BACK-SHORT.TIME-IMMEDf
 I’ll repair the tape recorder (lit. make it back good)

The suffix is also used to describe a return to full health, typically attached to *-amosa-* ‘be good’, *-tamina-* ‘be in good health’, or *-kita-* ‘be strong’.

- (5.98) faja a.'amosa-ma to-he-hiri ama-ka
 THEN REDUP.be.good-BACK AWAY-AUXb-RPem EXTENT-DECm
 fahi waha, kita-me
 THERE.NON.VISIBLE NEXT.THING be.strong-BACKm
 then, the next thing was that he was getting better again there, he gets strong again

When *-ma* is followed by the negative suffix *-ra*, the combination means ‘no longer, not any more’, as in:

- (5.99) abis kita-ma-re
 father+2sgPOSS(m) be.strong-BACK-NEGM
 your father is no longer strong

When *-ma* and *-ra* are added to *-wata-* ‘exist’ we get *wata-ma-ra*, which is used to translate ‘there is none left’ (e.g. food has all been distributed). The combination of *-ma* plus *-ra* can also be used to indicate the cessation of some activity, as in:

- (5.100) faha_O kii ti-na-ma-ra-habana
 water(f) look.at 2sgA-AUXa-BACK-NEG-FUTf
 you are not to fish any more (lit. you are to go back to not fishing) (said to some
 Brancos who had been poaching fish in Jarawara waters)

(15) A *-makI* ‘following’. It is possible that *-makI* ‘following’ is historically derived from *-ma* ‘back’ and *-kI* ‘coming’, suffixes that occur in the same slot (and cannot, nowadays, co-occur). However, in the modern language *-makI* functions as a monomorphemic suffix.

The basic meaning of *-makI* is ‘following in space’. It occurs with *-ka-* ‘be in motion’ in (2.11) and (2.14–15) and with *fito -na-* ‘come up’ in (2.32). It is also attested with stance verbs such as *-naho-* ‘sit/stand (animate plural S)’, then meaning ‘a little way off’:

- (5.101) mee naho-make mati
 3nsgS stand(plS)-FOLLOWING 3nsgDEP
 (they are angry) they who are standing a little way off

This suffix also has a temporal sense ‘following on in time’, as in T1.7 and:

- (5.102) [biti owa]_S wata-make-himata
 son(m) another+m be.born-FOLLOWING-FPnm
 (a son was born and then) following on, another son was born

After I had returned from a visit to the Jamamadí village, the Jarawara asked if there were any children there. I replied that there were and was told to say:

- (5.103) [Wahati bite]_S mee jana-make, mee tama-ke
 Jamamadí child(f) 3nsgS grow-FOLLOWING 3nsgS be.many-DECf
 lots of Jamamadí children are growing up, following on (as the next generation) (lit.
 Jamamadí children are growing up, following on, they are many)

The suffix *-makI* can also be used for ‘do next’ or ‘do more’ as in:

- (5.104) melasia_O ti-nofa-maki-ni?
 water.melon(f) 2sgA-like-FOLLOWING-PINTf
 would you like some more watermelon?

In some uses *-makI* appears to refer to following on in both space and time. The Jarawara believe that a new sun is born each morning and that it follows on (in time) the same path

(in space) as yesterday's sun:

- (5.105) [bahi yati]_S ka-maki-ka
 sun(m) new in.motion-FOLLOWING-DECM
 the new sun follows on (the old one)

There is a verb *-joto-* 'follow' which mostly, but not invariably, takes *-makI*. Similarly, there is a verb *wete -na-* 'return' which can have the meaning 'return' and then take *-ma* 'back', as it does in (5.65).

The only co-occurrence noted of affixes from slot F1c involves *-kI* 'coming' plus *-makI* following, as in:

- (5.106) faha_S ka-ke-make-ke tasa
 water(f) in.motion-COMING-FOLLOWING-DECf AGAIN
 the rain is coming again, following (that is, soon after one rainstorm, a further one follows on)

(16) *** *-witI* 'from a place, outward from a centre'. This always, for semantic reasons, takes *to-* 'away' (if there is no other first order prefix) and an immediately preceding auxiliary *-na-* is always omitted.

The suffix *-witI* can occur with a wide variety of verbs, referring to motion towards another place, or something that happens in another place. Thus, 'go to another place' in (2.48) and (5.107), 'turn off a main path onto a side track' in T1.60, 'sleep in another place' in (5.8), 'see from a distance (i.e. from another place)' in (4.11), and 'blow crumbs off a table (i.e. from one place to another)' in (5.108).

- (5.107) otaa to-ka-tima-wa-wite
 IexcS AWAY-in.motion-UPSTREAM-NEXT.THING-FROM.PLACE
 (on the next day) the next thing is we go upstream from the place (to another place)

- (5.108) jama_O foo o-witi-ne o-ke
 thing(f) blow IsgA-FROM.PLACE-CONTf Isg-DECf
 I am blowing things (crumbs) off (the table)

The 'different location' specified by *-witI* will be interpreted in terms of the context in which it is used. Thus in (5.109), with verb *jora -na-* 'jump' and S NP *jowi* 'capuchin monkey', *-witI* is taken as meaning 'from one tree to another':

- (5.109) jowi_S jora to-witi-ka
 monkey(m) jump AWAY-FROM.PLACE-DECM
 the capuchin monkey is jumping (between trees)

This suffix may be used to indicate severance of contact. In (5.110)—which is T3.12—it refers to removing a piece of bark from a tree, to make a bark canoe.

- (5.110) faja mee horo hi-witihi
 THEN 3nsgA pull Oc-FROM.PLACEM
 then they pull (the bark (m)) away from the tree

In one text, a man tries to have intercourse with a woman but cannot attain an erection. She pushes him from the top of her, forcibly, so that he falls. The suffix *-witI* is included on both 'push forcibly' and 'fall'.

- (5.111) fata hi-witihi, to-sa-wite-himata-mona-ka
 push.forcibly Oc-FROM.PLACEM AWAY-fall-FROM.PLACE-FPnm-REPM-DECM
 fahi
 THERE.NON.VISIBLE
 she pushed him away (lit. from that place), he is reported to have fallen (off her)
 (lit. from that place) there

The normal suffix ** *-wa(ha)* ‘now, the next thing, then’ most frequently occurs between slots F1b and F1c. However, it does have wider possibilities for positioning. In addition, it can function as an auxiliary-taking, prefix-retaining suffix *-waha-na-*. In view of these properties it is treated, in §5.10, as an ‘extra-echelon suffix’.

ORDERING OF SUFFIXES WITHIN THE FIRST ECHELON

A predicate will often include two—and sometimes as many as three—first echelon suffixes. Among the examples given above are *-ⁱFI* (F1a) plus *-ma* (F1c) in (5.20), *-misa* (F1b) plus *-makI* (F1c) in (5.39), and *-riwaha* (F1b) plus *-ma* (F1c) in (5.54). We always get F1a before F1b or F1c, and F1b before F1c, with one exception involving the irregular verb *-ka-* ‘be in motion’.

The corpus contains three instances of the verb *-ka-* ‘be in motion’ plus *-fara* ‘open space’ (F1b) and *-ma* ‘back’ (F1c). Two, given above as (5.59–60), are from an older speaker (Siko) and observe the expected order *-fara-* plus *-ma*. The other is from a middle-aged speaker (Okomobi) and here *-ma* is placed before *-fara*:

- (5.112) mee ka-ka-ma-fara-ra-ke [[tabora kori] jaa]
 3nsgS APPLIC-in.MOTION-BACK-CLEAR.SPACE-IPef-DECf village(f) clear+f PERI
 they went back into a clear space, the village square

It may be that this is a language change in progress—there is a tendency among younger speakers to place *-ma* immediately after the verb *-ka-* ‘be in motion’.

5.5 SECOND ECHELON (F2): NORMAL SUFFIXES

This echelon consists of three normal suffixes, all disyllabic. They are arranged in three slots since they may co-occur.

SLOT F2a

(1) A NPW *-ⁱkima* ‘two participants, a pair’ indicates that one of the arguments involves two (a pair of) people or things or places. With an intransitive clause this is generally the S argument, e.g. with *-koma-* ‘be sore’ in (5.113) and with *-kita-* ‘be strong’ in (5.114):

- (5.113) o-temes komi.kima-ke
 1sg-foot+m be.sore.TWO-DECf
 both my feet are sore
- (5.114) [oko awa]_s kiti.kima-ke
 1sgPOSS stick(f) be.strong.TWO-DECf
 both my sticks are strong

And with *joro -na-* ‘sit/stand (a verb used only with dual S)’:

- (5.115) jobes joro ni-kime
 house(m) stand AUXa-TWOM
 two houses stand (there)

It can relate to ‘two’ in a nominalized clause. With *-wina-* ‘stay’:

- (5.116) [mee wi.wini.kima to-hi] -mete-mone
 3nsgS REDUP.stay.TWO AWAY-AUXb+NOM -FPnf-REPF
 they are said to have been living in two (villages)

With a transitive verb *-ikima* generally refers to ‘two’ in the O NP, e.g. ‘make two fires’ (as in T3.15), ‘scrape both sides of a canoe prow’ (as in T3.16), ‘tie up two hammocks’, and:

- (5.117) [kana kote]_O mee ba.baka ka-ni.kima
 cane(f) piece 3nsgA REDUP.break APPLIC-AUXa.TWof
 they break the sugar cane into two pieces

Typically, a transitive clause with *-ikima* may refer to two A participants and two O participants, each A relating to one O, as in:

- (5.118) karaboha_O mee tiwa ka-ni.kima
 blow.gun(f) 3nsgA carry.on.shoulder APPLIC-AUXa.TWof
 the two of them each carries a blowgun on his shoulder

In §4.5.3 it was mentioned that one consultant gave *-ikima* as the dual correspondent of plural (distributive) *-ri* for ‘respectively’. Corresponding to (4.63) he volunteered:

- (5.119) jama_O otaa weje na-misi.kima
 thing(f) 1excA carry AUXa-UP.TWof
 two of us each carries our own things on our backs

One sense of the applicative prefix *ka-* is concerned with dual; however, this appears to apply only to animate NPs in S function, thus being more limited in application than *-ikima*. The two affixes are compared under (e) in §8.2.2.

As pointed out in (I) of §5.2, *-ikima* begins a new phonological word (shown by ‘.’) if preceded by more than a single mora within the grammatical word in which it occurs. Consider:

- (5.120) wati_O mee saa to-ka-ni.kime-hemete-mone ahi
 arrow(m) 3nsgA shoot AWAY-APPLIC-AUXa.TWO-FPnf-REPF HERE.VISIBLE
 they are said to have shot off two arrows here

The *-he-* of FPnf tense suffix *-hemete* is retained since it is the third syllable of the phonological word *kime-hemete-mone* and thus unstressed on the underlying cycle. If *to-ka-ni-kime-hemete-mone* were all one phonological word then the *-he-* would be the sixth syllable and thus omitted.

SLOT F2b

(2) A *-mina* ‘in the morning, tomorrow’. Jarawara has no lexemes ‘today’, ‘yesterday’, ‘tomorrow’, ‘morning’, ‘afternoon’, or ‘evening’. But it does have the verbal suffix *-mina* ‘tomorrow, morning’. With an immediate past tense suffix it refers to ‘this morning (earlier on today)’, as in:

- (5.121) inamatewes jati na-mina-ra-ke
 child be.alive AUXa-MORNING-IPef-DECf
 the (girl) child was (still) alive this morning (but died later in the day)

With a future suffix it refers to ‘tomorrow morning’ (or just ‘tomorrow’) as in T2.25–6, (5.36), and the Oc:

- (5.122) awa_O kaa o-na-mina-habana-ke
 tree(f) chop 1sgA-AUXa-TOMORROW-FUTf-DECf
 I’ll chop down some trees tomorrow morning

There can be a generic sense ‘every morning’, as in:

- (5.123) afi o-na-mina o-ke
 bathe 1sgS-AUXA-MORNING 1sg-DECf
 I bathe in the morning (each day)

Interestingly, there is no corresponding suffix ‘in the afternoon/evening’. The only way to say ‘I bathe in the evening’ is to use a subordinate clause *bahi to-ke jaa* (sun AWAY-in.motion+m PERI) ‘when the sun is setting’.

If there is no following tense-modal suffix the reference of *-mina* will be interpreted as appropriate to the context, e.g. in a narrative we find:

- (5.124) otaa kisa-ma-mina
 1excS in.motion.DOWN-BACK-MORNINGf
 we went back downstream the next morning

See also T1.87–8 and T2.29.

One evening, when the Jarawara people had finished making purchases in Alan Vogel’s small shop, one of them said:

- (5.125) faja_{CC} to-ha-mina.tasa-haba ama-ke
 finished AWAY-become-MORNING.AGAIN-FUTf EXTENT-DECf
 it (the buying) will be done again and finished in the morning (i.e. we’ll do some more buying in the morning)

This sentence includes the adjective *faja* ‘enough, finished’ plus copula verb (*to*-)*ha*- ‘become’.

Mina can also be used, with the same meaning, as a clause-final modifier, as in T2.26 and:

- (5.126) ee to-ka-haba ee-ke mina
 1incS AWAY-in.motion-FUTf 1inc-DECf MORNING
 we’ll go in the morning

SLOT F2c

(3) A ⁱ*ba*(*ha*) ‘do first’. By rule P8b in §2.9.6 the *-ha-* is omitted when unstressed on the underlying cycle. However, the *-ha-* is, in addition, often dropped when in an odd-numbered mora (and thus stressed on the underlying cycle). It appears that a diachronic change is in progress, reducing ⁱ*baha* to ⁱ*ba* in all environments. Thus, form ⁱ*baha* is used in (2.38a), for instance, but ⁱ*ba* in (5.127–8). Note that in (5.128) the underlying form must be ⁱ*ba*; if it were ⁱ*baha* then the *-hi-* of *-himata* would drop, by rule P8a in §2.9.6.

This suffix indicates that the subject does the action first, before anyone else. It is used with *-ka-* ‘be in motion’ in T1.26, with *kobo -na-* ‘arrive’ in (2.38a/b), and with *tai -na-* ‘go in front’ in (5.21). It is also used on *tai*, this time with its more frequent auxiliary, *-ha-*, in (5.127), and on the transitive verb *mono -na-* ‘attack’ in (5.128).

- (5.127) tee ka-makiha, tai o-ha-mi-ba
 2nsgS in.motion-FOLLOWINGf go.in.front 1sgS-AUXA-BACK-DO-FIRSTf
 you follow, I’ll return in the lead

- (5.128) ohari_A mera mono ni-be-himata-mona-ka
 be.one+NOM 3nsgO attack AUXA-DO-FIRST-FPnm-REPM-DECM
 one (jaguar (m)) is said to have attacked them (the two men) first (while the other jaguar waited behind)

The form *baha* can also occur, with the same meaning, as a clause-final modifier, as in:

- (5.129) mee.fanaw_S jowiri na-bana-ke baha
 women(f) sing AUXa-FUTf-DECf DO.FIRST
 the women will sing jowiri-style first (and then Okomobi will sing ajaka-style)

Suffix * *-tee* ‘habitual’ generally occurs at about second echelon position in a predicate. However, it has special properties, and is dealt with in §5.10 as an extra-echelon suffix.

Second echelon suffixes are well attested following suffixes of the first echelon, e.g. *-ifI* (F1a) plus *-wa(ha)* (extra-echelon) plus *-ma* (F1c) plus *-iⁱba(ha)* (F2c) in (5.21); *-misa* (F1b) plus *-iⁱkima* (F2a) in (5.119); and *-tima* (F1b) plus *-mina* (F2b) in (5.36).

The following examples illustrate combinations of two second echelon suffixes; *-iⁱkima* plus *-mina* in (5.130); *-iⁱkima* plus *-iⁱba(ha)* in (5.131); and *-mina* plus *-iⁱba(ha)* in (5.132).

- (5.130) hijama_O mee otaa tao ka-ni-kima-mina otaa-ke
 peccary(m) 3nsgO IexA shoot APPLIC-AUXa-TWO-MORNINGf IEXc-DECf
 we shot two white-lipped peccaries this morning

- (5.131) Jacinto_A kobaja_O mera tao ka-ni-kimi-ba-ka
 name(m) peccary(m) 3nsgO shoot APPLIC-AUXa-TWO-DO.FIRST-DECm
 Jacinto was the first to shoot two white-collared peccaries

- (5.132) tai o-ha-mini-ba-hara o-ke
 be.in.front IsgS-AUXa-MORNING-DO.FIRST-IPef Isg-DECf
 I was the first to go in front in the morning

5.6 THIRD ECHELON (F3): PREFIX-RETAINING AUXILIARY-TAKING SUFFIXES

The next two echelons involve auxiliary-taking suffixes, those of the prefix-retaining sort in the third and the prefix-poaching variety in the fourth echelon.

One important difference between normal and auxiliary-bound suffixes, on the one hand, and auxiliary-taking suffixes, on the other, concerns the marking of gender. Normal and auxiliary-bound suffixes are like inflecting verbs and auxiliaries in that they mark gender on the final segment if word-final. This is exemplified by the shift of final *a* to *e* to mark m gender on the normal suffixes *-ma* ‘back’ in (5.98) and *-iⁱkima* ‘two’ in (5.115).

Auxiliary-taking suffixes behave like non-inflecting verbs in that they have invariable form. Gender agreement is shown not on the suffix itself but on the AUXc which follows it. For example, with the third echelon suffix *-saa -na-* ‘still’ we get gender shown by change of *a* to *e* on the AUXc *-na-* (but not on *saa* itself):

- (5.133) [oko jibotee]_S amo na-saa ne awa-ka
 IsgPOSS spouse sleep AUXa-STILL AUXc+m SEEMSM-DECm
 my husband seems to be still asleep

There is another example of this in (5.140) below.

There are two prefix-retaining suffixes which make up the third echelon.

(I) ** *-saa -na-* ‘still’. Example (5.134) illustrates how a pronominal prefix (from an inflecting verb, or from the AUXa of a non-inflecting verb) is repeated on *-saa -na-*’s own AUXc.

- (5.134) maa o-ha-saa o-na-hara o-ke
 be.tired 1sgS-AUXa-STILL 1sg-AUXc-IPef 1sg-DECf
 I was still tired just then

The AUXc can optionally be omitted if there is no later echelon or tense-modal suffix attached to it, as in:

- (5.135) maa o-ha-saa o-ke
 be.tired 1sgS-AUXa-STILL 1sg-DECf
 I'm still tired

There is another example of *-saa -na-* in (18.43).

As illustrated in (4.50) of §4.5.1, it is often permissible to omit a *-na-* but retain declarative suffix *-ke/-ka*. Thus, with the inflecting verb *-kanika-* 'buy':

- (5.136) jama_O mee kanika-saa-ke
 thing(f) 3nsgA buy-STILL-DECf
 they are still buying things

The AUXc *-na-* must be retained when it is the last element of a nominalized clause, the nominalization then being marked by the change of *na* to *ni*, as in:

- (5.137) [jama_S wa.waa to-na na-saa ni] jaa
 thing(f) REDUP.shine AWAY-AUXa AUXb-STILL AUXc+NOM PERI
 while it is still daylight

The suffix *-sa*, as a reduced form of *-kosa₂* 'do at once, a bit, something happens cleanly and clearly' (from the first echelon), and third echelon suffix *-saa -na-* 'still' are formally distinguished only by vowel length. A minimal pair of examples (where there is no later echelon miscellaneous or tense-modal suffix added to *-saa -na-*'s AUXc, which is then omitted) is:

- (5.138) hasi o-sa o-ke
 rest 1sgS-A.BIT 1sg-DECf
 I'm having a short rest

- (5.139) hasi o-saa o-ke
 rest 1sgS-STILL 1sg-DECf
 I'm still resting

(2) A *-ⁱbote -na-* 'soon, immediately'. This was illustrated in (5.13). In T2.1 it is used with *-hawi-* 'function', in (5.140) with *amo -na-* 'sleep', and in (5.141) with *tai -ha-* 'be in front'.

- (5.140) Jobeto_S amo ni-bote ne awa-ka
 name(m) sleep AUXa-SOON AUXc+m SEEMsm-DECm
 I think that Jobeto will soon be asleep

- (5.141) tai o-hi-bote o-ne o-ke
 be.in.front 1sgS-AUXa-SOON 1sg-CONTf 1sg-DECf
 I'll take the lead straight away

In a narrative about meeting the Sorowahá, a tribe of 'wild Indians', Okomobi said:

- (5.142) o-tosi_O mee tani ni-bote na-ro-ke
 1sgPOSS-belt 3nsgA pull AUXa-IMMEDIATELY AUXc-RPef-DECf
 they immediately pulled at my belt

and a little later in the story:

- (5.143) [otaa mano]_O mee bokori ka-wahi-bote
 IEXCPOSS arm+m 3nsgA hold(plO) APPLIC-NEXT.THING-IMMEDIATELY
 na-ro-ke
 AUXC-RPef-DECf
 the next thing, they immediately grabbed at our arms (one of them to each of us)

Note that although a pronominal prefix from an inflecting verb or from the auxiliary of a non-inflecting verb is repeated onto *-ⁱbote -na-'s own auxiliary, as in (5.13) and (5.141), other prefixes are not copied. Thus applicative *ka-* is not repeated in (5.143).*

Either of the third echelon suffixes may follow a suffix from the first or second echelon. In (5.144) *-saa -na-* follows the second echelon suffix *-ⁱkima* 'two', and in (5.145) *-ⁱbote* comes after the first echelon suffix *-tima* 'upstream'.

- (5.144) o-teme_s komi-kima-saa na-ra-ke
 Isg-foot+m be.sore-TWO-STILL AUXC-IPef-DECf
 both my feet are still sore
- (5.145) o-ka-timi-bote o-ke
 IsgS-in.motion-UPSTREAM-IMMEDIATELY Isg-DECf
 I'll go upstream immediately

5.7 FOURTH ECHELON (F4): PREFIX-POACHING AUXILIARY-TAKING SUFFIXES

This echelon consists of those auxiliary-taking suffixes which are prefix-poaching (and one which is also auxiliary-bound). Seven of them require reduplication of the verb root (and three often have reduplication). They cover a wide semantic spectrum.

Only five of these suffixes are of relatively common occurrence, with a dozen or more examples in the textual corpus—these are (3) *-ⁱnima -na-* 'want to, need to, about to'; (4) *-ⁱhina -na-* 'can do, it is possible to do'; (9) *-raba -na-* 'a bit'; (10) *-rama -na-* 'unexpected, unusual'; and (12) *-kabote -na-* 'soon, immediately'. For some of the others I have noted only one or two occurrences in texts and/or in conversation. In each instance it has been possible to check their grammatical status—that they are prefix-poaching and auxiliary-taking—through elicitation. Note that this can only be determined by using the suffix with a pronominal prefix. The more detailed grammatical specification—as A or * or *** or @—depends on occurrence with a non-inflecting verb and also a non-pronominal prefix. Two of the suffixes have a specialized meaning and appear to occur with a semantically limited class of verbs, so that it has not been possible to obtain them in an appropriate grammatical context to determine this status (they are marked 'n.d.' for 'not determinable').

It might be suggested that an alternative way of dealing with this class of forms would be to say that they are a type of intransitive non-inflecting verb, which must take a complement clause in S function. However, what precedes a prefix-poaching suffix does not have the properties of a complement clause: (a) it cannot include 1sg *oko* or 2sg *tika*; and (b) it does not (except before *-ⁱnima -na-* and *-ⁱhina -na-*) have a final *a* shifted to *i*, which is a marker of complement clauses (and of all other sorts of nominalized clauses). It seems most appropriate to treat these forms as suffixes that can be added to inflecting verbs and to the auxiliary of a non-inflecting verb. It does seem highly likely that some or all of these suffixes have

developed out of what were independent lexical non-inflecting verbs at an earlier stage of the language, but they have now acquired the grammatical status of suffixes.

There are just a few sentences in texts that include a sequence of two fourth echelon suffixes. These were added to these through judicious elicitation, and I have been able tentatively to establish five ordered slots, F4*a–e*, covering suffixes (1–14). Suffixes (15–19) are then listed in alphabetical order; I have not—from the data available or within the compass of plausible elicitation—been able to obtain co-occurrences of these with other fourth echelon suffixes and thus assign them to slots.

SLOT F4*a* involves two suffixes, which appear not to co-occur.

(1) @ *-nati -ha-* ‘to be the only person doing something (when everyone else is doing something else)’. This is one of the two auxiliary-taking suffixes which requires the auxiliary *-ha-* (rather than *-na-*). Thus:

- (5.146) nokobisa_O awa-nati o-hi-be,
 sleepiness(f) feel-ONLY.PERSON 1sgA-AUXC-IMMEDf
 [[tee hijara-tee] ni-jaa]
 2nsgS speak-HABIT PERI
 I’m the only person here feeling sleepy, while you are all talking away
- (5.147) jamata_O kaba-nati o-hi-be
 food(f) eat-ONLY.PERSON 1sgA-AUXC-IMMEDf
 I’ll eat by myself (before all the others come to eat)
- (5.148) Motobi_S i.ʔita na-saa nati to-ha-ka
 name(m) REDUP.sit AUXb-STILL ONLY.PERSON AWAY-AUXC-DECIM
 Motobi will still stay here all by himself (while everyone else goes out)

Note that (5.148) includes both the third echelon suffix *-saa -na-* and the fourth echelon suffix *-nati -ha-*.

There is no pronominal prefix in (5.148). It is interesting to enquire what would happen if there were one. Third echelon suffixes such as *-saa -na-* retain a pronominal prefix preceding the auxiliary-taking suffix while a fourth echelon suffix such as *-nati -ha-* only has a pronominal prefix on the AUXC which follows it. The sentence corresponding to (5.148), with 1sg replacing *Motobi* as the S argument, is:

- (5.149) i.ʔita na-saa nati o-ha o-ke
 REDUP.sit AUXb-STILL ONLY.PERSON 1sgS-AUXC 1sg-DECf
 I will still stay here all by myself (while everyone else goes out)

That is, the prefix-poaching feature of *-nati -ha-* wins out over the prefix-retaining feature of *-saa -na-*. In (5.148) the 1sg S prefix *o-* is included only on the AUXC which follows *-nati*.

A textual example describes a large fish being dumped in a canoe and the narrator telling how he was the only person to shift his weight to the side so that the canoe was properly balanced:

- (5.150) [haa jaa] noke to-na-nati
 THIS.ONE.VISIBLE PERI sit.to.one.side AWAY-AUXa-ONLY.PERSON
 o-ha-bisa-hara o-ke
 1sgS-AUXC-ALSO-IPef 1sg-DECf
 I was also the only person to shift his weight to this side

As can be seen from (5.150), an immediately preceding auxiliary *-na-* is retained if it bears a non-pronominal prefix (here *to-*); this establishes *-nati -ha-* as of type @.

(2) A R (requires initial CV. reduplication of lexical verb) *-mii -na-* ‘walking around’. This can occur with a wide variety of verbs—those describing actions that can be done while walking around, e.g. shooting animals, writing, crying, singing, talking, eating, and laughing. For example:

(5.151) otaa ta.tafa na-mii na otaa-ke
IexcS REDUP.eat AUXb-WALK.AROUND AUXC+f Iexc-DECf
we are walking around eating (plate in hand)

(5.152) ha.haa.haa na-mii o-na-hara o-ke
REDUP.laugh AUXb-WALK.AROUND IsgS-AUXC-IPef Isg-DECf
I was walking around laughing

Here the verb *haa.haa*, which is a lexeme consisting of two phonological words, undergoes initial CV. reduplication.

SLOT F4b involves six suffixes, which appear not to co-occur.

(3) @ *-ⁱnima -na-* ‘want to, need to, about to’. An example involving the inflecting verb *-kaba-* ‘eat’ is:

(5.153) aba_O kabi-nima o-ke
fish(m) eat-WANT IsgA-DECf
I want to eat fish

With a non-inflecting verb the auxiliary *-na-* is retained if it bears a non-pronominal prefix:

(5.154) bani_O tao ka-ni-nima o-na-hara o-ke
animal(m) shoot APPLIC-AUXA-WANT IsgA-AUXC-IPef Isg-DECf
I wanted to shoot an animal

However, an auxiliary *-na-* drops when there is no prefix. Thus, with *soo -na-* ‘pee’ we get:

(5.155) [mee kaa owa]_S soo nima ne-no
3nsg POSS other+m pee WANT AUXC-IPnm
one of them wanted to/needed to pee

The underlying form of the predicate is *soo na-ⁱnima na-hino*. Phonological rules yield *soo ni-nima ne-no*, and then the auxiliary *ni-* drops since it has no prefix. There is thus, in the surface structure of (5.155), no overt trace of the *a* → *i* shift engendered by *-ⁱnima*.

One story described how a canoe hit a submerged tree stump, and

(5.156) otaa ka-boki-nima na otaa-ke
ka-boka-ⁱnima
IexcS APPLIC-sink-ABOUT.TO AUXC+f Iexc-DECf
we were about to sink (with the canoe)

The suffix *-ⁱnima* can be used with verbs like ‘laugh’, ‘fall’, and ‘die’, meaning ‘almost’. Speakers volunteered that it then has a very similar meaning to the irrealis tense-modal suffix, *-hene/-hina* (§6.2.4). Thus, with *haa.haa -na-* ‘laugh’ and *-abaha-* ‘die’:

(5.157a) ha.haa nima o-na-hara o-ke
laugh WANT IsgS-AUXC-IPef Isg-DECf
I wanted to laugh (but stopped myself)

(5.157b) ha.haa o-ne-hene o-ke
laugh IsgS-AUXA-IRRF Isg-DECf
I could well have laughed (but didn’t)

(5.158a) ahabi-nima o-na-hara o-ke
 die-ABOUT.TO 1sgS-AUXC-IPef 1sg-DECLF
 I was about to die

(5.158b) o-habe-ne o-ke
 1sgS-die-IRRF 1sg-DECLF
 I could well have died (but didn't)

The F4b slot suffix *-ⁱnima* can follow either of the F4a suffixes, *-nati -ha-* and *-mii -na-*, as in

(5.159) tafa nati to-hi-nima o-ke
 eat ONLY.PERSON AWAY-AUXC-WANT 1sgS-DECLF
 I want to be the only person eating

(5.160) ta.tafa na-mii nima o-na-hara o-ke
 REDUP.eat AUXb-WALK.AROUND WANT 1sgS-AUXC-IPef 1sg-DECLF
 I wanted to eat while walking around

The auxiliary-taking suffix *-ⁱnima -na-* must be distinguished from two other *nima*'s: (1) the peripheral marker *ni-ma*, described in §21.4; (2) transitive verbal idioms [*—narabi/o*]_O *nima -na-* 'speak to, want to talk to' (whose O NP must include some reference to the addressee and also the PN *narabi/o* 'ear') and [*—ati*]_O *nima -na-* 'think of (relative)' (whose O NP must include PN *ati* 'language'). These forms may possibly be historically related, but they function as distinct items in present-day Jarawara.

(4) @ *-ⁱhina -na-* 'can do, it is possible to do' appears to have two basic senses. The first refers to the ability of a human agent to do something, as in (4.34) and:

(5.161) wai-hina o-ra
 stand-CAN 1sgS-NEGF
 I can't stand up

Here the verbal root is *-waa-* which becomes *wai* through the change *a* → *i* engendered by following *-ⁱhina*.

(5.162) jaka hina o-ke-re
 walk CAN 1sgS-DEC-NEGF
 I can't walk (because of being bitten by an ant in the scrotum)

(5.163) amo hina o-ra-hara o-ke
 sleep CAN 1sgS-NEG-IPef 1sg-DECLF
 I couldn't sleep just now

In (5.162–3)—similar to (5.155)—the AUXa *na* becomes *ni* due to the following *-ⁱhina*, and is then omitted since it bears no affix. Note that (5.162) is part of T2.80.

(5.164) o-namit_{is} koma-ke, hijari-hina o-ka-re
 1sg-throat be.sore-DECLF speak-CAN 1sgS-DEC-NEGF
 my throat is sore, I can't speak

In reply to (5.164) someone might reply:

(5.165) hi.hijari hina raba ti-ke
 REDUP.speak CAN A.BIT 2sgS-DECLF
 you can talk a bit

Example (5.165) includes two prefix-poaching suffixes. We get *a* → *i* on the inflecting verb *-hijara-*, due to *-ⁱhina*, and then reduplication of this verb, as demanded by *raba*.

There is an example of productive verb reduplication, demonstrating order of rule application. Consider the inflecting verb *-awa-* ‘see’ plus *-ⁱhina* plus reduplication. The rules could apply in one of two orders:

either	underlying forms	<i>awa plus ⁱhina na</i>
	apply reduplication	<i>a.'awa -na- plus ⁱhina na</i>
	add suffix	<i>a.'awa ni-hina na</i>
	omit AUXb	<i>a.'awa hina na</i>
or	underlying forms	<i>awa plus ⁱhina na</i>
	add suffix	<i>awi-hina na</i>
	apply reduplication	<i>a.'awi na-hina na</i>
	omit AUXb	<i>a.'awi hina na</i>

The occurring form is *d.'awi hina -na-* ‘(it) can be seen’, showing that reduplication follows the suffixing of *-ⁱhina* and raising of *a* to *i*.

An example of *-ⁱhina* following *-mina*, a suffix of the second echelon, is:

- (5.166) *afi na-mini-hina o-ke-re, faha_S siri-haa*
 bathe AUXa-MORNING-CAN 1sgS-DECL-NEGF water(f) be.cold-DEPF
 I can’t (bring myself to) bathe in the (early) morning, the water is too cold

All of (5.161–6) have involved *-ⁱhina* added to an intransitive verb. The second clause of (5.167) has this suffix used with a transitive verb.

- (5.167) *o-wini_S hija-ke-re, bani_O kabi-hina o-ke-re*
 1sgPOSS-tooth(f) be.bad-DECL-NEGF animal eat-CAN 1sgA-DECL-NEGF
 my teeth are bad, I can’t eat meat (lit. animal)

The Jarawara say ‘I did it with my left arm’ by adding *jaro* ‘left’ to *o-mano* ‘my arm’ within a peripheral NP marked by postposition *jaa*. For ‘with my right arm’, *kani.hina* is used in place of *jaro*. This appears to be a compound involving applicative prefix *ka-*, auxiliary *-na-* (or this could be some other form *-na-*) and suffix *-ⁱhina* ‘can’; literally ‘with the arm that it can be done with’.

In its second sense, *-ⁱhina* has a syntactic effect. It appears to derive an intransitive construction using a verb that is basically transitive, focusing on the O (something ‘can be done’ to the O). That is, O becomes S (something like a passive). This applies to a transitive verb, such as *hima -na-* ‘say the interjection *hima* “let’s go” to’, as in a sentence from a story where the narrator explains that there had been no time to call Indians from other villages to accompany him on a journey:

- (5.168) *Koromi_S mee hima hini nofa ra mee ama-ke*
 Indian 3nsgS call.to CAN RECENT NEGF 3nsg EXTENT-DECL
 the Indians couldn’t be called just now

It also applies to an ambitransitive verb of type S = O, such as *tao (ka-)na-* ‘shoot’, as in

- (5.169) *bani_O tao ka-ni-hina-ka-ra*
 animal(m) shoot APPLIC-AUXa-CAN-DEC-NEGM
 the animal can’t be shot (i.e. it escapes every bullet)

And it applies to *-awa-* ‘see’. On an overcast day, when visibility was low, we were told:

- (5.170) *jama_S awi-hina-ka-re*
 thing(f) see-CAN-DEC-NEGF
 things can’t be seen

In contrast, (5.171) describes how on a clear day a plane could be seen approaching:

- (5.171) *afiaos* *awi-hina-ka*
 plane(m) see-CAN-DECM
 the plane is visible (can be seen)

See also T2.65.

However, with a verb that is ambitransitive of type S = A, such as *-hijara-* ‘speak (to)’, it must be the A which comes into S function, as in (5.165) and:

- (5.172) *Jaras* *hijari-hina-ka-ra*
 Branco(m) speak-CAN-DEC-NEGM
 the Branco can’t speak

This could, alternatively, be regarded as an example of sense (a). We can say that the first and second senses of *-ⁱhina* fall together for an ambitransitive verb of type S = A used intransitively (or else that the second sense does not apply for such verbs).

It will be seen from (5.168–70) and (5.172) that in the second sense—as in the first sense—*-ⁱhina -na-* typically occurs with negator *-ra*.

The second sense refers to a general state and the textual examples gathered do not have any tense-modal suffixes. In view of this, the following AUXC—evident for sense (a), in (5.163) (here the *-na-* is omitted when immediately followed by *-ra*) and other examples—is not stated for sense (b). It is, however, possible to elicit sense (b) with a tense-modal suffix, and this immediately follows *-ⁱhina*, without any intervening auxiliary. An alternative analysis would be to recognize two distinct suffixes: auxiliary-taking *-ⁱhina -na-* for sense (a) and normal suffix *-ⁱhina* for sense (b). However, the similarity of form and of meaning inclines me to prefer to recognize a single suffix with two senses, and slightly different grammatical behaviour for each sense.

In T2.65 we get *-ⁱhina* in sense (b), followed by the first echelon suffixes *-kosa* and *-ma*. This could indicate that *-ⁱhina*, in its second sense, should be placed in an earlier echelon than the fifth. Or it could simply be a further example of the freedom of suffix ordering in Jarawara. This is a topic requiring further study.

(5) * *-rima -na-* ‘do again, do repeatedly’. In a story about a struggle between two jaguars and two men, one of the men devised a strategy of catching a jaguar high up as it sprang at him. He did this once, and then did it again:

- (5.173) *jomee_O* *wara* *to-misa-rima* *ne-mata-mona-ka* *ahi*
 jaguar(m) grab AWAY-UP-REPEAT AUXC-FPnm-REPM-DECM HERE.VISIBLE
 he is said to have once more grabbed the jaguar high up here

An example with a quite different type of verb is:

- (5.174a) *bakasi_O* *awa-rima* *o-ke,* *saha_O* *o-koba* *owa*
 thirst(f) feel-REPEAT 1sgA-DECf salt(f) 1sgA-eat+f 1sgDEP
 I feel very thirsty (and need to keep on drinking water) (lit. I feel thirst repeatedly),
 (since) I ate some salt

When an old man lay dying, he mentioned that every time he felt a little better the illness would come and ‘find’ him again. His son commented:

- (5.174b) *tiwa* *wasi-ma-rima* *nofa-hani*
 2sgO find-BACK-REPEAT RECENT-IPnm
 (the illness) has recently kept (coming) back and finding you

Here *-rima* is followed by the fifth echelon auxiliary-bound suffix *-ⁱnofa* ‘happened continuously over recent time’.

An example with an applicative prefix, demonstrating that the verbal auxiliary is always omitted, is:

- (5.175) Jara_A owa haa.haa ka-rima na-ka
 Branco(m) 1sgO laugh APPLIC-REPEAT AUXC-DECM
 the Branco repeatedly laughs at me

(6) * (R) *-baa -na-* ‘do at/from a distance’. This has been attested with a limited set of verbs. Textual examples include:

- (5.176) [Tokowisa fati]_A ha.haa baa na-bone
 name(m) his.wife(f) REDUP.call to DISTANCE AUXC-INTF
 Tokowisa’s wife intended to call over a distance (to her husband)

- (5.177) jama_S awa-baa na [[jama_S jabo] jaa]
 thing(f) see-DISTANCE AUXC+f thing(f) be.far PERI
 a thing [a waterfall] can be seen from a distance, from a long way off

In (5.177) the subordinate clause ‘from a long way off’ repeats the information provided by *-baa -na-*. This suffix also occurs with other verbs of speaking, and with ‘stare at’ and ‘paddle’:

- (5.178) Okomobi_O ka.katoma baa o-na-hara o-ke
 name(m) stare.at DISTANCE 1sgA-AUXC-IPef 1sg-DECf
 I watched Okomobi in the distance

- (5.179) ori.'ori baa o-na-habone o-ke
 REDUP.paddle DISTANCE 1sgS-AUXC-INTf 1sg-DECf
 I’ll paddle for a long way

This suffix mostly engenders CV. reduplication; however, in (5.179) we have CVCV. reduplication (see chapter 9). In (5.178) the verb *ka.katoma* is inherently reduplicated (and does not take further reduplication); (5.177) is unusual in that there is here no reduplication.

(7) * *-kanikima -na-* ‘scattered, spread out, in lots of different places’. One story tells of how a group of people caught a lot of fish and cooked them in many pans:

- (5.180) aba_O mee mee ware-kanikima-ka-ni ahi
 fish(m) 3nsgO 3nsgA cook-SCATTERED-DEC-IPnf HERE.VISIBLE
 they cooked the fish in many different (pans) here

Another narrative describes some Brancos making cups (*tisera*) to collect latex from rubber trees and leaving them strewn across the floor:

- (5.181) [mee kaa tisera]_S soo na-re-kanikima
 3nsg POSS cup(f) lie(plS) AUXa-RAISED.SURFACE-SCATTERED
 na-ra-ke
 AUXC-IPef-DECf
 the latex cups were scattered (across the floor)

In (5.182) we see that the sixth echelon suffix *-rawa* ‘f nsg’ must be added to the AUXC which follows *-kanikima*, rather than to *-kanikima* itself:

- (5.182) maki_A [Jara fana]_O jori kanikima na-rawa-re-ka
 man(m) Branco woman(f) swive SCATTERED AUXC-F.NSG-IPem-DECM
 the man was copulating with Branco women all over the place

This suffix typically occurs with a verb that has plural S or O, as in (5.2) and (5.180–2), but it can be used when there is a singular NP, as in:

- (5.183) tafa-kanikima o-na-hara o-ke
 eat-SCATTERED 1sgS-AUXC-IPef 1sg-DECf
 I ate in lots of different houses (had a bite to eat in each)

Note that we can have *ka-ni-kima* as the concatenation of applicative prefix *ka-*, auxiliary *-na-*, and second echelon normal suffix *-ⁱkima* ‘two participants’; this may indeed be the diachronic origin of the fourth echelon suffix. However, a sequence *ka-ni-kima* would take pronominal prefixes and all appropriate suffixes, whereas this *-kanikima -na-* is generally followed by an auxiliary *-na-* which bears any following suffixes and poaches pronominal prefixes.

Interestingly, the applicative prefix *ka-* appears to drop before *-kanikima -na-*, suggesting that *-kanikima -na-* is felt to include the prefix *ka-*; this suggests that it developed rather recently as a fourth echelon suffix.

This suffix does in fact have two syntactic patterns. As described, it is generally a prefix-poaching, auxiliary-taking suffix. However, it can be used as a normal suffix. One story tells how a legendary religious hero provided the people with a variety of foodstuffs. We find the sentence:

- (5.184) jamata_S tama-kanikime-hemete-mone ama-ni
 food(f) be.many-SCATTERED-FPnf-REFP EXTENT-BKGF
 there were said to be lots of foodstuffs scattered around in many places

Here the FPnf and REFP suffixes are added directly to *-kanikima*, without any AUXC intervening. This use of *-kanikima* is particularly prevalent in the speech of young speakers and appears to indicate a change in progress, with what was an auxiliary-taking suffix being reanalysed as a normal suffix. Two younger speakers (consulted separately) considered the following two sentences to be equally acceptable and to have the same meaning. In (5.185a) *-kanikima* is an auxiliary-taking suffix and in (5.185b) it is a normal suffix.

- (5.185a) babeos soo kanikima na-ni-ke
 paper(f) lie(inanimate plural S) SCATTERED AUXC-IPnf-DECf
 papers were lying all over the place
- (5.185b) babeos soo kanikima-hani-ke
 paper(f) lie(inanimate plural S) SCATTERED-IPnf-DECf
 papers were lying all over the place

(8) @ R *-karahama -na-* ‘continue doing, only do’. This suffix has two senses, which appear to be quite distinct. With each it occurs with a restricted set of verbs. In the first sense, ‘just’, it is found with stance verbs such as ‘sit’, ‘stand’, and ‘lie’, and also ‘sleep’. In a story about how to make an olden-days bark canoe, the old man forming the canoe tells his sons not to come near the half-formed craft (this is T3.34):

- (5.186) tee na.naho karahama na-hi fahi!
 2nsgS REDUP.sit(pl) CONTINUE AUXC-ImmPosIMPf THERE.NON.VISIBLE
 you stay just sitting over there!

Elicited examples include:

- (5.187) wi.wina karahama o-na-habone o-ke
 REDUP.lie CONTINUE 1sgS-AUXC-INTf 1sg-DECf
 I’m going to stay lying (in my hammock, and not get up today)

- (5.188) mee ma.mata na-re karahama na-ra-ke
 3nsgS REDUP.lie(du S) AUXb-RAISED.SURFACE CONTINUE AUXC-IPef-DECf
 they two stayed just lying down

Secondly, *-karahama* has the sense ‘a variant of, a bit of’ when used with verbs describing colours and the like. Note that Jarawara has just four basic colour terms: *-soki-* ‘be black, dark’, *-sawa-* ‘be white’, *tefo -na-* ‘be blue’, and *mawa -na-* ‘be red’ (these typically occur reduplicated). Other colours are described in terms of the four basic colour terms, but in different ways by different speakers. These identifications sometimes involve suffix *-raba -na-* (see (9) below) and sometimes *-karahama -na-*. For example, one speaker offered *te.tefo karahama-ke* (lit. ‘variety of blue’) as a description of ‘green’ while another speaker gave the same combination as a description of ‘yellow’. With the verb *-soki-* ‘be black, dark’ we get *so.soki karahama -na-* ‘be a bit dark’. The second sense of *-karahama* is also attested with *-bisa-* ‘be dirty’ (giving ‘be a bit dirty’) and with *atabo-* ‘be muddy’, as in:

- (5.189) jama_S a.'atabo karahama na-ra-ke
 thing(f) REDUP.be.muddy A.BIT AUXC-IPef-DECf
 the thing got a bit muddy

Elicitation shows that we cannot get *-ⁱnima -na-* and *-ⁱhina -na-* together; nor *-ⁱnima -na-* with *-rima -na-*; nor *-baa -na-* with *-ⁱnima -na-* or *-ⁱhina -na-*; nor *-kanikima -na-* with *-ⁱnima -na-*; nor *-karahama -na-* with *-ⁱnima -na-*. All six affixes are thus placed in slot F4b. As noted above, we do get *-ⁱnima -na-* following both *-nati -ha-* and *-mii -na-* from slot F4a.

SLOT F4c involves three suffixes, which appear not to co-occur.

(9) * (R) *-raba -na-* ‘do a bit’. This commonly occurring suffix normally (but not always) goes with initial CV. reduplication of the lexical verb. It typically occurs with verbs describing states, e.g. ‘a bit cold’ or:

- (5.190) jama_A owa hi.hiwa ka-raba-ke
 thing(f) 1sgO REDUP.be.hot APPLIC-A.BIT-DECf
 I feel a bit hot (lit. the thing (weather) warms me a bit)

One day the village chainsaw would not function properly; its air filter was examined and was found to be:

- (5.191) bi.bisa raba-ke
 REDUP.dirty A.BIT-DECf
 it is (only) a bit dirty

Some clothes hanging on a line were described as:

- (5.192) makari_S ho.hoko-wa raba-ke
 clothes(f) REDUP.dry-NOW A.BIT-DECf
 the clothes are almost dry now (lit. they are a bit dry now)

Some blossom on a tree that had a reddish colour but was not the prototypical hue referred to by *-mawa-* ‘to be red’ was described as:

- (5.193) [awa mowe]_S ma.mawa ka-raba-ke
 tree(f) blossom+f REDUP.be.red APPLIC-A.BIT-DECf
 the blossom is reddish

The suffix *-raba -na-* can be used with a wide variety of verbs. For instance, T1.8 and:

- (5.194) [bahis fa.fawa n-isa raba ne] jaa
 sun(m) REDUP.disappear AUXb-DOWN A.BIT AUXC+M PERI
 when the sun was about to set
- (5.195) [tee ati]_o wa.wato raba o-ke
 2nsg language REDUP.know A.BIT IsgA-DECf
 I know/understand your language a bit
- (5.196) [oko amo ni]_s ta.tama raba-ke
 Isg+POSS sleep AUXa+COMP REDUP.be.many A.BIT-DECf
 I have just a few days left (here) (lit. my sleeps are a bit of a lot, i.e. few)
- (5.197) ta.tafa-mina raba o-na-hara o-ke
 REDUP.eat-MORNING A.BIT IsgS-AUXC-IPef Isg-DECf
 I ate a little this morning
- (5.198) ma.maa to-ha raba o-na-hara o-ke
 REDUP.be.tired AWAY-AUXa A.BIT IsgS-AUXC-IPef Isg-DECf
 I was a little tired

There are some examples of *-raba -na-* with an unreduplicated lexical verb; for example:

- (5.199) otaa ori raba na otaa-ke
 IexcS paddle A.BIT AUXC+f Iexc-DECf
 we paddled a bit (i.e. paddled lazily)

The suffix *-raba -na-* may be used with negator *-ra-* to mean ‘really a lot’ (lit. not just a bit). In two examples of this the lexical verb takes initial CVCV. reduplication:

- (5.200) mee kahi.kahiwa raba tee-ra-ni rama
 3nsgS REDUP.have children A.BIT HABIT-NEG-IPnf UNUSUAL
 they (the Paumari tribe) unexpectedly have many children (lit. they do not have
 just a few children)
- (5.201) kita.kita raba o-ra-hara o-ke
 REDUP.be.strong A.BIT IsgS-NEG-IPef Isg-DECf
 I was very strong (lit. I was not just a bit strong)

Sentence (5.165) shows a sequence of *-ⁱhina -na-*, from slot F4b, followed by *-raba -na-*, from slot F4c. We find *-ⁱnima -na-*, from F4b, followed by *-raba -na-* in:

- (5.202) kasasa_o fa.fawi nima raba o-ke
 cachaça(f) REDUP.drink WANT A.BIT IsgA-DECf
 I want to drink just a bit of cachaça (cane whisky)

(10) @ (R) -rama -na- ‘unexpected, unusual’. Alone of the prefix-poaching suffixes, this can also function as a clause-final modifier, after the predicate. When used as a suffix, the lexical verb is often reduplicated, but need not be.

There are two senses in which *rama* can be used. The first is to indicate that an activity or state has an unexpected or unusual degree, either less or more than is normal (in this sense, *-rama* occurs only as a suffix). Thus, with the verb *-mawa-* ‘be red’, *ma-mawa rama -na-* can refer to something that is deep red or pale red, something significantly different from the

prototypical reference of *-mawa-*. Similarly:

- (5.203) haa.haa rama o-na-hara o-ke
 laugh UNUSUAL IsgS-AUXC-IPef Isg-DECf
 I just laughed an unusual amount (either more or less than was appropriate to the situation)

Once a Jarawara boy was inspecting my table lamp, run off bottled gas, and noticed—to his surprise—that one side was cooler than the other. He commented:

- (5.204) hi.hiwa rama; haa_S
 REDUP.be.hot UNUSUAL THIS.ONE.VISIBILE
 ita, hi.hiwa ni-ne-ke haaro
 sit REDUP.be.hot AUXb-CONTf-DECf THIS.ONE.VISIBILEf
 (pointing to the cool side) this is surprisingly (only) a bit hot; (pointing to the hot side) sitting (here), it is a bit hot here

Seeing a photograph of sparsely timbered land, which showed a marked contrast to the rainforest environment of the Jarawara, someone said:

- (5.205) awa_S ta.tama rama na awine-ke
 tree(f) REDUP.be.many UNUSUAL AUXC SEEMS+f-DECf
 there appear to be surprisingly few trees

Note that in (5.204–5) the initial CV. reduplication provides the ‘a bit’/‘a few’ interpretation—see chapter 9.

In its second sense *rama* indicates that the action (or state) is in itself unusual or unexpected. Sentence (5.9) describes a man barking like a dog, which is an unusual thing for a person to do. One story describes an official from FUNAI (the Foundation for Indian Affairs), with a group of Indians, chasing after Brancos who had been illicitly fishing in Indian waters. When they finally met up, the Indian narrator described what happened by:

- (5.206a) mee otaa awa-rama na-ra-ke . . .
 3nsgO IexcA look.at-UNUSUAL AUXC-IPef-DECf
 we didn’t look at them (we were so angry with them) . . .
- (5.206b) otara mee awa-rama na-bisa-hara-ke
 IexcO 3nsgA look.at-UNUSUAL AUXC-ALSO-IPef-DECf
 they didn’t look at us either (they were so ashamed)

In these two sentences the suffix *-rama -na-* carries a negative meaning—that neither group looked at the other (which is the normal and expected thing to do when people come together).

In its first sense, *-rama -na-* is always a suffix. In the second sense it can be a suffix, as in (5.206a/b), but it is more often a clause-final element. Later in the story from which (5.206) was taken, one of the Brancos handed over a fish that he had caught to Okomobi, the Indian chief. Instead of just taking the fish, Okomobi got hold of the Branco’s hand as well, almost pulling him over. He described this using *rama* as a clause-final element:

- (5.207) jehc_O wara o-ka-ni-bote
 hand take.hold.of IsgA-APPLIC-AUXa-IMMEDIATELY
 o-re rama
 Isg-RAISED SURFACE UNUSUAL
 I then immediately took hold of his hand as well, which was an unusual thing to do

In a religious story, an ancestor set fire to his own belly, as part of a ritual that would provide food for all his people. The inclusion of *rama* indicates that this is an unusual thing to do:

- (5.208) faja hiwa_O wati ka-ne rama nabati
 THEN JUSTM set.fire.to APPLIC-AUXa+m UNUSUAL belly
 then he, unexpectedly, set fire to himself, to his belly

Note that this clause includes two post-predicate constituents—*rama* and the NP *nabati* ‘belly’, which provides further specification of one of the core arguments.

Rama is also attested after an adjective in a clause that consists just of an NP. The NP head is a nominalization ‘the flashlight’s illumination’; it is modified by the adjective *ehebotee* ‘big’ and a following *rama* which indicates that the light is unusually bright:

- (5.209) [ratenas_S hiri ni] ehebotee rama
 flashlight(f) illuminate AUXa+NOM big UNUSUAL
 the flashlight’s illumination was unusually great

Note that the suffixes *-raba -na-* and *-rama -na-* appear not to be able to co-occur; on this basis they are grouped together as slot F4c. However, we can have a combination of suffix *-raba -na-* and clause-final modifier *rama*, as in (5.200), indicating the speaker’s surprise that the Paumari have so many children (while at that time the Jarawara had relatively few).

(II) @ R *-biti (na-)ra* ‘not even a little bit, not even one’. This suffix obligatorily takes negator *-ra*, before which a *-na-* auxiliary drops. (The form may be cognate with the adjective *bite/biti* ‘little’.) It can be used with a variety of verbs, including ‘not angry at all’, ‘not scared at all’, ‘didn’t sleep at all’, and:

- (5.210) ta.tafa bitu o-ra-hara o-ke
 REDUP.eat NOTHING IsgS-NEG-IPef Isg-DECf
 I didn’t eat anything
- (5.211) bani_O ta.tao ka-na-bitu o-ra-hara o-ke
 animal(m) REDUP.shoot APPLIC-AUXb-NOTHING IsgA-NEG-IPef Isg-DECf
 I didn’t shoot a single animal
- (5.212) [jamata one]_S wa.wata bitu ra awine
 food(f) another+f REDUP.exist NOTHING NEG SEEMSf
 there seems not to be even a tiny bit of any other food (from a Bible translation,
 where the Israelites were complaining of having nothing but manna to eat)

Note that *-biti (na-)ra* can occur after *-ⁱnima -na-* or *-ⁱhina -na-*, from slot F4b, as in:

- (5.213) ta.tafi nima bitu o-ra-hara o-ke
 REDUP.eat WANT NOTHING IsgS-NEG-IPef Isg-DECf
 I didn’t want to eat anything
- (5.214) ta.tafi hina bitu o-ra-hara o-ke
 REDUP.eat CAN NOTHING IsgS-NEG-IPef Isg-DECf
 I couldn’t eat anything

On this basis, *-biti (na-)ra-* is tentatively assigned to slot F4c.

SLOT F4d, involves two suffixes, which appear not to co-occur.

(12) @ *-kabote -na-* ‘soon, immediately’. This has a very similar meaning to the third echelon suffix *-ⁱbote -na-* ‘soon, immediately’, described in §5.6. Their different grammatical statuses—

with *-kabote -na-* as prefix-poaching and *-ⁱbote -na-* as prefix-retaining—were illustrated in (5.13–14) and can also be seen in (5.215–16) with the verb *tai -ha-* ‘go in front’:

(5.215) tai o-hi-bote o-ne o-ke
go.in.front 1sgS-AUXa-IMMEDIATELY 1sgS-CONTf 1sg-DECf
I’ll immediately take the lead

(5.216) tai to-ha-kabote o-ne o-ke
go.in.front AWAY-AUXa-IMMEDIATELY 1sgS-CONTf 1sg-DECf
I’ll immediately take the lead

Like *-ⁱbote -na-*, the suffix *-kabote -na-* is fairly common in texts and conversation. It omits a preceding auxiliary *-na-*, except when it bears a prefix *ka-*, as in:

(5.217) bani_o tao ka-na-kabote o-na-hara o-ke
animal(m) shoot APPLIC-AUXa-IMMEDIATELY 1sgA-AUXc-IPef 1sg-DECf
I immediately shot an animal

Examples with inflecting verbs include:

(5.218) hima, foja-kabote ti-na-hi!
COME.ON be.inside-IMMEDIATELY 2sgS-AUXc-ImmPosIMPF
come on, you get inside (the canoe) quickly!

Without *-kabote -na-*, this sentence would be *hima, ti-foja-hi* ‘come on, you get inside!’

(5.219) to-wa-ka-ma-kabote ti-na!
AWAY-APPLIC-in.MOTION-BACK-IMMEDIATELY 2sgS-AUXc
you get out of here quickly! (lit. you go away immediately!)

Note that without *-kabote -na-*, the prefix *ti-* would replace *to-* on the inflecting verb. But in (5.219) *ti-* is poached away to the auxiliary following *-kabote* and *to-* surfaces on the lexical verb.

There are instances of *-kabote -na-* being used with an intransitive verb where the S NP is inanimate. In a story about tracking some Brancos who had been poaching fish from Indian waters, a group of Indians followed the tracks the Brancos had made through a patch of long grass. The narrator said, using the non-inflecting verb *moto -na-* ‘in a circle’:

(5.220) [mee kaa hawi]_s moto kabote na-ni-ke
3nsg POSS track(f) in.circle IMMEDIATELY AUXc-IPnf-DECf
their track immediately doubled back on itself

Whereas non-pronominal prefixes *to-* and *ka-*, and first and second echelon suffixes, go onto the lexical verb, a sixth echelon suffix, such as the negator *-ra* or *-bisa* ‘also’, must be added to the auxiliary constituent following *-kabote*. That is, we get:

(5.221) hijara-kabote o-bisa-hara o-ke
speak-IMMEDIATELY 1sgS-ALSO-IPef 1sg-DECf
I also spoke immediately

rather than **hijara-bisa-kabote o-na-hara o-ke* or **hijara-kabote-bisa o-na-hara o-ke*.

A further example with a non-inflecting verb is:

(5.222) amo kabote o-ra-hara o-ke
sleep IMMEDIATELY 1sgS-NEG-IPef 1sg-DECf
I couldn’t get to sleep at once

There is likely to be some difference of semantic nuance and/or of pragmatic effect between *-ⁱbote -na-* and *kabote -na-*, but I have not yet been able to pinpoint this (what is really needed is a native speaker trained as a linguist).

The suffix *-kabote -na-* is attested following *-ⁱnima -na-*, *-ⁱhina -na-*, and *-kanikima -na-* from slot F4b:

- (5.223) amo nima kabote o-ke
 sleep WANT IMMEDIATELY IsgS-DECf
 I want to go to sleep at once
- (5.224) hijari hina kabote o-ke
 speak CAN IMMEDIATELY IsgS-DECf
 I'll be able to speak right away
- (5.225) tafa-kanikima kabote o-na-hara o-ke
 eat-SCATTERED IMMEDIATELY IsgS-AUXC-IPef Isg-DECf
 I immediately ate in lots of different houses

I was unable to elicit a sequence of *-ⁱbote -na-* (F3) plus *-raba -na-* (F4c), but did obtain (5.226)—which is T3.42—a textual example of *-raba -na-* plus *-kabote -na-*:

- (5.226) so.soki na-ke-raba kabote hi-ne jaa
 REDUP.tie AUX-COMING-A.BIT IMMEDIATELY Oc-AUXC+m PERI
 when it (the prow of the canoe) is immediately tied a bit tightly (a stage in the construction of a bark canoe)

(13) @ *-kaba -na-* ‘do without stopping, to the exclusion of anything else’. Examples include:

- (5.227) bora_O taro kaba o-ne o-ke
 ball(m) kick WITHOUT.STOPPING IsgA-CONTf Isg-DECf
 I kept kicking the ball for a long time
- (5.228) jifari_O jome kaba o-ne o-ke
 banana(f) eat WITHOUT.STOPPING IsgA-CONTf Isg-DECf
 I ate bananas and nothing else (all day)

There is a textual example which refers to a custom of whipping children before they eat peach palm at the beginning of each season. It includes a nominalized clause:

- (5.229) [ko.kosi kaba hi-ri] -mete
 REDUP.whip WITHOUT.STOPPING Oc-NEG+NOM] -FPnf
 the whipping didn't last for long

SLOT F4e involves just one suffix.

(14) A *-ⁱhiti -ha-* ‘do quickly’. This is the other auxiliary-taking suffix which requires *-ha-* (rather than the usual *-na-*) as its AUXC. It is a rare suffix for which there is just one instance in the textual corpus:

- (5.230) Abatati_A jama_O tai n-isi-hiti
 name(f) thing(f) press.foot.down.on AUXA-DOWN-QUICKLY
 to-ha-no na-ari
 AWAY-AUXC-IPnm LIST-DEPM
 Abatati quickly pressed her foot down on the thing (from a dream about an aeroplane-like machine)

(Here Abatati is a woman, but is referred to with m gender agreement as a mark of respect—see 10.1.3.)

This suffix has been elicited following *-kabote -na-* from slot F4d, in (5.231), and is on this basis provisionally placed in the following slot, F4e.

- (5.231) [bani ataro]_O ite-kabote ni-hiti o-ha o-ke
 animal(m) skin+m to.skin-IMMEDIATELY AUXC-QUICKLY 1sgA-AUXC 1sg-DECLf
 I immediately and quickly skinned the animal

The remaining fourth echelon suffixes have not been obtained in combination with any other fourth echelon suffix and so cannot be placed in ordered slots. They are listed alphabetically:

(15) * R *-ba -na-* ‘hasn’t been done but should be done; or should be done more’. Examples include:

- (5.232) sa.sawi ba ti-na-hi [o-nowati jaa]!
 REDUP.be.part.of SHOULD 2sgS-AUXC-ImmPosIMPF 1sgPOSS-behind PERI
 you come closer to me! (lit. to my back)

- (5.233) ta.tafa ba ti-na-hi!
 REDUP.eat SHOULD 2sgS-AUXC-ImmPosIMPF
 you should eat! (said of someone who is off their food)

- (5.234) makari_O so.soko ba o-na-hara o-ke
 clothes(f) REDUP.wash SHOULD 1sgA-AUXC-IPef 1sg-DECLf
 I should have washed my clothes (but haven’t yet)

(16) A *-hama -na-* ‘unfulfilled expectation’. This suffix appears to have irregular grammatical behaviour, being prefix-retaining (like *-saa -na-* and *-ⁱbote -na-*) with an inflecting verb—as in (5.236)—but prefix-poaching (like the other suffixes described here) with a non-inflecting verb—as in (5.237) and (5.239). In each instance it is auxiliary-taking.

Its meaning appears to be: expectations associated with the use of the lexical verb are not fulfilled; this often involves someone pretending, and doing something to try to deceive another person; for example:

- (5.235) faja waboris ka-maki-hama ne-mata-monaha
 THEN brother.in.law(m) in.motion-FOLLOWING-UNFULFILLED AUXC-FPnm-REPM
 then his brother-in-law is said to have arrived in a deceitful way (he had been hiding close by, but wanted to make out that he had come from a long way)

- (5.236) o-ko-make-hama o-na-hara o-ke
 1sgS-in.motion-FOLLOWING-UNFULFILLED 1sgS-AUXC-IPef 1sg-DECLf
 I pretended to follow (started to follow, but then stopped following and returned clandestinely to the point of departure)

- (5.237) kana na-hama o-na-hara o-ke
 run AUXa-UNFULFILLED 1sgS-AUXC-IPef 1sg-DECLf
 I pretended to run (say: someone else was running, asked me to run with him,
 I said I would, started to run, but then stopped without saying I was stopping)

Commenting on sentences like these, speakers often suggested adding *keje hiri o-na-wa* ‘I told a lie’.

The unfulfilled expectation may be of various kinds, according to the context of use. For instance, with *kobo -na-* ‘arrive’, the following glosses were provided:

- (5.238) Makabi_S kobo na-hama-ka
 name(m) arrive AUXa-UNFULFILLED-DECLm
 Makabi was going to arrive (but instead went straight by without stopping)

- (5.239) kobo na-hama o-na-hara o-ke
 arrive AUXa-UNFULFILLED 1sgS-AUXC-IPef 1sg-DECLf
 I arrived (at his house) but when I got there I didn’t talk to him (as one would expect me to do)

(17) R *-kii -na-*. Almost all examples in the corpus are with the verb *-ohari-* ‘be alone, be one’, the combination then meaning ‘one at a time’ or just ‘alone’. Since this suffix is only attested with inflecting verbs, it cannot be classified as A or * or @.

(5.240) [awa boni]_S o.'ohari kii na-ra-ke
tree(f) fruit+f REDUP.be.one ALONE AUXC-IPef-DECf
(the tree was producing) just one fruit at a time

(5.241) jobe_S o.'ohari kii na-wahare-ka
house(m) REDUP.be.one ALONE AUXC/d-MULTIPLE-DECM
the houses are now spread far apart all over the place

Note that (5.241) involves fourth echelon suffix *-kii -na-* followed by fifth echelon suffix *-waharI* ‘many times in many places’ (and the AUXC demanded by *kii -na-* coincides with the AUXD demanded by *-waharI-*; see §5.1).

(5.242) o.'ohari kii o-na-hara o-ke
REDUP.be.one ALONE IsgS-AUXC-IPef Isg-DECf
I was all by myself

It was also possible to elicit the suffix with *-fama-* ‘be two’:

(5.243) ee fa.fama kii ni-ne-ke
IincS REDUP.be.two ALONE AUXC-CONT-DECf
there’s just us two (i.e. we are alone)

(18) R *-nama -na-* ‘a lot, the most’ typically occurs with intransitive verbs referring to properties (verbs that would be translated by adjectives in other languages):

(5.244) hima, tee ki.kita nama na-hi!
COME.ON 2nsgS REDUP.be.strong A.LOT AUXC-ImmPosIMPF
come on, you all (paddle) very strongly!

(5.245) jifo_O tee na.na-nafi nama na-hi!
fire(f) 2nsgA REDUP.CAUS-be.big A.LOT AUXC-ImmPosIMPF
you (non-singular) make the fire really big!

(5.246) [makina one]_O siba o-na-habone o-ke,
machine(f) another+f look.for IsgA-AUXA-INTf Isg-DECf
na.nafi nama na-aro
REDUP.be.big A.LOT AUXC-DEPF
I’m going to look for another machine, a bigger one

There is often a comparative sense to *-nama -na-*, as in (5.246) where it refers to a machine that is bigger than the one the speaker has at present.

One day speakers were explaining how far three Jarawara villages are from the town of Lábrea:

(5.247a) [São Francisco kaa jama]_S jabo-ka-re
village.name POSS thing(f) be.far-DEC-NEGF
São Francisco is not far

(5.247b) [Água Branca kaa jama]_S ja.jabo-ke
village.name POSS thing(f) REDUP.be.far-DECf
Água Branca is a little far

(5.247c) [Kasanofa kaa jama]_S ja.jabo nama-ke
village.name POSS thing(f) REDUP.be.far MOST-DECf
Casa Nova is the furthest of all

The suffix *-nama -na-* is attested with ‘be good’, ‘be white’, ‘be cold’, ‘be dry’, ‘be sharp’, ‘be sweaty’, and ‘be tall’ but was not accepted with ‘be dirty’, ‘be angry’, or ‘be happy’. It can be used with a 1sg S, and the pronominal prefix then occurs on the auxiliary following *-nama*; for example:

- (5.248) ne.nemeha nama o-ne o-ke
 REDUP.be.tall A.LOT 1sgS-CONTf 1sg-DECf
 I’m very tall/taller than others

This suffix cannot be classified as A or * or @ since it is not attested with non-inflecting verbs. There is an alternative analysis under which *na-* is taken to be the reduplication auxiliary with the suffix being *-ma -na-* (and of type A). This analysis could only be tested through examination of occurrences of this suffix with a non-inflecting verb plus either applicative prefix *ka-* or a first or second echelon suffix.

(19) *** R (*to*)-*sii -na-* ‘going along a path’. This suffix must take the prefix *to-*, and the auxiliary *-na-* then drops. It occurs with a similar range of verbs to (2) *-mii -na-*, including:

- (5.249) ma.maa to-ha to-sii o-na-hara o-ke
 REDUP.be.tired AWAY-AUXa AWAY-ON.PATH 1sgS-AUXC-IPef 1sg-DECf
 I felt tired all along the path

It might be thought that *tosii* could be considered an unanalysable form. The fact that it is made up of prefix *to-* and suffix *-sii* is demonstrated by the fact that the applicative prefix *ka-* can come between them. Compare a transitive clause without *-sii -na-*, in (5.250)—where the *ka-* indicates ‘inside’ the hand—and the same clause with the addition of *-sii*, in (5.251).

- (5.250) sina_O tama o-ka-na-bana o-ke
 snuff(f) hold 1sgA-APPLIC-AUXa-FUT 1sg-DECf
 I’ll hold the snuff in my hand

- (5.251) sina_O ta.tama to-ka-sii o-na-habana o-ke
 snuff(f) REDUP.hold AWAY-APPLIC-ON.PATH 1sgA-AUXC-FUTf 1sg-DECf
 I’ll go along the path, holding snuff in my hand

In one story, a bald man was walking along a path, and:

- (5.252) tatis wa.waha to-sii ne-mata-mona-ka ahi
 head REDUP.shine AWAY-ON.PATH AUXC-FPnm-REPM-DECM HERE.VISIBLE
 his head was said to have been shining going along the path

The suffix (*to*)-*sii -na-* has been heard with the verb *-ohari-* ‘be alone, be one’:

- (5.253) Tafis o.’ohari to-sii ne-no-ka
 name(m) REDUP.be.alone AWAY-ON.PATH AUXC-IPnm-DECM
 Tafi travelled alone (describing the pilot of a plane, who had arrived without any passengers)

It can be used with the verb *jaka -na-* ‘walk, move along’ and the combination is then said to mean ‘walk slowly’:

- (5.254) ja.jaka to-sii o-na-hara o-ke
 REDUP.walk AWAY-ON.PATH 1sgS-AUXC-IPef 1sg-DECf
 I walked slowly along the path

(20) AUXa: **; AUXd: A, *-wi -na-* ‘continuously’. This suffix is auxiliary-taking and prefix-poaching. Thus, with *-bisa-* ‘be dirty’:

- (5.255) bisa na-wi o-na-hara o-ke
 be.dirty AUXD-CONTINUOUS 1sgS-AUXC-IPef 1sg-DECf
 I was always dirty (I never took a bath)

In addition, it behaves like a set (ii) auxiliary-bound suffix. When used with a non-inflecting verb it is added to that verb's auxiliary, as in:

- (5.256) Okomobi_S amo na-wi na-ka
 name(m) sleep AUXa-CONTINUOUS AUXc-DECm
 Okomobi is always sleeping

However, when it is used with an inflecting verb or after a copula, it must be suffixed to its own AUXd, as in (5.255) and:

- (5.257) [faha fara]_{CS} to-ha na-wi na-ra-ke
 water(f) VERY.ONEf AWAY-become AUXd-CONTINUOUS AUXc-IPef-DECf
 that water level (in the river) is the same as it was before (here indicating that the water level is as it was at some time in the past, but different from what it has been during an intermediate period)

When there is an applicative prefix to the auxiliary of a non-inflecting verb then that auxiliary may optionally be omitted, as in:

- (5.258) o-noko_S amo ka-wi na-ra-ke
 IsgPOSS-eye+m sleep APPLIC-CONTINUOUS AUXc-IPef-DECf
 my eyes were still asleep (I had got up but my eyes still felt, continuously, sleepy)

Compare (5.258) with (5.4) where the AUXa is retained when it has applicative prefix *ka-*, and *-wi* is attached to AUXd. There are two acceptable grammatical profiles for this suffix, illustrated in:

- (5.259a) sina_O tama ka-na na-wi
 snuff(f) hold.in.hand APPLIC-AUXa AUXd-CONTINUOUS
 o-na-hara o-ke
 IsgA-AUXc-IPef Isg-DECf
 I was holding snuff in my hand continuously

- (5.259b) sina_O tama ka-wi o-na-hara o-ke
 snuff(f) hold.in.hand APPLIC-CONTINUOUS IsgA-AUXc-IPef Isg-DECf
 I was holding snuff in my hand continuously

Here (5.259a) is like (5.4) while (5.259b) is like (5.258). Speakers volunteered that (5.259a) and (5.259b) are alternatives, equally good and bearing the same meaning.

The suffix is thus a variant of type ** with respect to a verbal auxiliary (the AUXa may optionally be dropped if there is a prefix). It appears to be of type A with respect to its own AUXd (which is only used when added to an inflecting verb) since this appears never to be omitted.

This suffix can be used with stative verbs, e.g. *-amosa-* 'be good', *-kita-* 'be strong', and *-bisa-* 'be dirty'. It can also be used with *-tama-* 'be many'. Consultants explained that, if there were a tribal gathering, the shaman might at some stage decline to lead any more singing, saying:

- (5.260) ee tama na-wi-ka-re
 IncS be.many AUXd-CONTINUOUS-DEC-NEGF
 we are not many any more (i.e. some people have left and there are not enough here now to justify any more singing)

The suffix can also be used with *-homa-* 'lie', and with *-kakatoma-* 'look at, watch', as in the O-construction:

- (5.261) Okomobi_A owa ka.katoma na-wi na-re o-ke
 name(m) IsgO watch AUXd-CONTINUOUS AUXc-IPem Isg-DECf
 Okomobi was watching me all the time

There are examples of suffixes from each of the first three echelons occurring immediately before one from the fourth echelon. For instance, *-rI* (F1a) plus *-kanikima -na-* (F4b) in (5.181); *-misa* (F1b) plus *-rima -na-* (F4b) in (5.173); *-risa* (F1b) plus *-raba -na-* (F4c) in (5.194); *-kI* (F1c) plus *-raba -na-* (F4c) plus *-kabote -na-* (F4d) in (5.226); *-ma* (F1c) plus *-kabote -na-* (F4d) in (5.219); *-makI* (F1c) plus *-hama -na-* (F4) in (5.235–6); *-mina* (F2b) plus *-raba -na-* (F4c) in (5.197); and *-saa -na-* (F3) plus *-nati -ha-* (F4a) in (5.148).

5.8 FIFTH ECHELON (F5): AUXILIARY-BOUND SUFFIXES

There are six suffixes in this echelon, all auxiliary-bound. Five of them demand their own auxiliary (to which they are attached), AUXd, whether following an inflecting or a non-inflecting verb; these are set (i). The single suffix in set (ii), *-hitI*, is added to the AUXa of a non-inflecting verb, but requires to be added to its own auxiliary, AUXd, when used with an inflecting verb. The contrast between sets (i) and (ii) is illustrated in (5.15–18).

Some of these suffixes have mutually exclusive meanings and would not be expected to co-occur—for example *-wahaRI* ‘do many times, in many places’ and *-kawa(ha)* ‘do for a while’. I have obtained examples of *-wahaRI*, from slot F5a, followed by each of the three suffixes from slot F5b: *-inofa* ‘happened continuously, over recent time’, *-(ha)ba* ‘do, happen all day’, and *-(ha)iI* ‘do/happen all night’. The corpus does not include any examples of *-kawa(ha)* or *-(h)iI* ‘all along the way’ co-occurring with other affixes from the fifth echelon.

Each auxiliary-bound suffix needs to be classified as A, *, **, or @ with respect to (i) verbal auxiliary AUXa, and (ii) the suffix-bound auxiliary, AUXd.

SLOT F5a

(I) AUXa: @; AUXd: **, *-wahaRI* (this is assigned the form *-wahare* by younger speakers) ‘do many times, in many places’. An example of this suffix added to its AUXd with an inflecting verb is (5.3). In (5.262) it is used with a non-inflecting verb which takes *-ha-* as its AUXa:

(5.262a) Botenawaa_S tai to-ha na-wahare-ka
 name(m) go.in.front AWAY-AUXa AUXD-MULTIPLE-DECM
 Botenawaa takes the lead many times

(5.262b) tai o-ha o-wahare o-ke
 go.in.front IsgS-AUXa IsgS-[AUXD]-MULTIPLE Isg-DECM
 I take the lead many times

In (5.262b) we get the Isg prefix *o-* on both auxiliaries (and in the third pronominal position). Note that AUXd drops if there is a prefix. We find that if AUXa is *-na-* and bears no affixes it is omitted, for example (this is a shortened form of T2.74):

(5.263) jimo_S jaka na-wahare haari
 ant(m) move AUXd-MULTIPLE THIS.ONE.VISIBLEM
 the ant runs all over the place

If the *-na-* AUXa of a non-inflecting verb takes a pronominal prefix plus applicative prefix *ka-*, then it is retained; for example:

(5.264) sina_O tama o-ka-na o-wahare-hara o-ke
 snuff(f) hold IsgA-APPLIC-AUXa IsgA-MULTIPLE-IPef Isg-DECF
 I held snuff in my hand many times

However, if a non-inflecting verb requires just an applicative (and no pronominal) prefix, then the AUXa may be omitted with the applicative *ka-* added to the AUXd,

as in:

- (5.265) mee jaka ka-wahare mati
 3nsgS move APPLIC-MULTIPLE 3nsgDEP
 the two of them travelled all over the place

Further examples illustrating the use of *-waharI* are:

- (5.266) manakobisa [hoti jaa] [fowa iso]_O were o-ko-wariha
 LATER hole(f) PERI manioc(m) stalk+m throw ISGA-APPLIC-MULTIPLE
 later I threw lots of bits of manioc stalk into the holes

- (5.267) Jara_A [otaa ati]_O mita na-wahare-ka
 Branco(m) IEXCPOSS language listen AUXD-MULTIPLE-DECM
 the Branco listens to all that we say (and talks with us)

In (5.266), the underlying form of the final word is *o-ka-waharI*; this becomes *o-ko-wariha* through operation of phonological rules P5, P6a, and P8b. Younger speakers would say *okoware* in (5.266); they have changed the form of this suffix to be *-wahare*, ending in vowel *e* rather than in morphophoneme *I*.

SLOT F5b

(2) AUXA: @; AUXD: *, *-ⁱnofa* ‘happened continuously, over recent time’. This engenders a change *a* → *i* on the final *a* of an inflecting verb or of the auxiliary of a non-inflecting verb (which is at the end of the preceding phonological word). Thus in (5.268) *-tafa-* becomes *-tafi-* and in (5.269) the auxiliary *-ha-* becomes *-hi-*.

- (5.268) o-tafi o-nofa ama o-ke
 IsgS-eat Isg-RECENTf EXTENT Isg-DECf
 I’ve been eating (well) for days
- (5.269) maa o-hi o-nofa ama o-ke
 be.tired IsgS-AUXA Isg-RECENTf EXTENT Isg-DECf
 I’ve been tired for ages

When *-ⁱnofa* is added to a non-inflecting verb with *-na-* as AUXA, this AUXA is retained if it bears an applicative prefix, e.g.

- (5.270) faha_O kabi o-ka-ni o-nofa ama o-ke
 water(f) scoop.up IsgA-APPLIC-AUXA IsgA-RECENTf EXTENT Isg-DECf
 I’ve been scooping up water for a good while

However, AUXA drops if there would be no affix attached to it other than a pronominal prefix. Thus:

- (5.271) kana o-nofa ama o-ke
 run IsgS-RECENTf EXTENT Isg-DECf
 I’ve been running for ages

In each of (5.268–70) there is an example of *a* → *i*—on an inflecting verb, on a *-ha-* AUXA (recall that *-ha-* does not drop), or on a *-na-* AUXA (with an applicative prefix). The underlying form for (5.271) would be *kana o-ni o-nofa ama o-ke*, with *-ⁱnofa* having caused the *a* of auxiliary *na* to shift to *i*. But then the *o-ni* constituent drops, and there is then no surface indication of the *a* → *i* change. (See also (5.174b).)

The meaning of *-ⁱnofa* generally refers to something that happened continuously over recent time, as in the examples above and in T1.14. However, it can have a straightforward generic

meaning, as in:

- (5.272) [awitas kabi]_s amosi nofe ama-ka
 piau.sp.(m) eat+COMP be.good GENERICm EXTENT-DECm
 awita (a species of piau fish) is always good to eat (lit. eating awita is always good)

Auxiliary-bound suffixes are like normal suffixes in marking gender on their final vowel, when in word-final position. Thus final *a* of *-iⁱnofa* changes to *e* to mark m agreement in:

- (5.273) toho nofe ama-ka waha
 cough RECENTm EXTENT-DECm NOW
 he's now been coughing all the time (said of an old man with tuberculosis)

In a further example, *-iⁱnofa* is used with the irrealis mood suffix:

- (5.274) fahas ahabi nofa ama-ke-ne
 water(f) finished RECENTf EXTENT-DECf-IRRF
 the water would have been finished (in a narrative about a drought)

It will be seen that *-iⁱnofa* almost always co-occurs with the secondary verb *ama* 'continuous', presumably because of their overlapping semantic profiles.

As mentioned above, we find the two fifth echelon suffixes *-waharI* and *-iⁱnofa* used in sequence, as in the following textual example:

- (5.275) owa mee kako na-wahari nofa
 1sgO 3nsgA be.angry.with AUXd-MULTIPLE RECENTf
 they (the spirits) were angry with me all over the place for a long time

Note that here the *i* of *-iⁱnofa* engenders the realization of morphophoneme *I* as *i*, even though it is in an unstressed syllable on the underlying cycle—see rule P5 in §2.9.3.

Another example of this sequence of suffixes includes four tokens of the 1sg pronominal prefix, *o-*: once on the inflecting verb, one on each of the fifth echelon suffixes (that is, in the AUXd constituent with each, but with the AUXd form *-na-* being omitted in each case), and finally in the third pronominal position:

- (5.276) o-tafa o-wahari o-nofa ama o-ke
 1sgS-eat 1sgS-MULTIPLE 1sgS-RECENTf EXTENT 1sgS-DECf
 I've been eating many times recently

Note, though, that when this sentence was put to a younger speaker, he preferred, in place of (5.276), *tafa na-wahari o-nofa o-ke*. That is, he treated *-waharI* as if it were auxiliary-bound but prefix-poaching.

(3) AUXa: @; AUXd: A, *-(ha)ba* 'do/happen all night, or for a good portion of the night'. Examples include (5.15–16), (19.10), and (note that (5.279) is T1.1):

- (5.277) amo o-na-haba o-ke
 sleep 1sgS-AUXd-ALL.NIGHT 1sg-DECf
 I was asleep all night

- (5.278) faja maki-bona_A ahi hi-na-haba
 THEN husband-INTm swive Oc-AUXd-ALL.NIGHTf
 then the intended husband swived (had intercourse with) her all night

- (5.279) [Siko ati]_s sai na-be
 name(m) noise be.audible AUXd-ALL.NIGHTm
 Siko's noise [the noise of his breathing] was audible all through the night (until he died, around dawn)

Note that there are two possible analyses for this suffix (and for the following one, ‘do/happen all day’). One is that its form is *-(ha)ba* with the AUXd always retained before it; the other is that it is *-na(ha)ba* with the AUXd always lost before it. The first solution is simpler and is therefore adopted here.

(4) AUXa: @; AUXd: A, *-(ha)tI* ‘do/happen all day, or for a good portion of the day’. This suffix behaves exactly like *-(ha)ba*. Examples include T1.45, (5.291), and:

(5.280) o-ka-tima o-na-hate-hara o-ke
 IsgS-in.motion-UPSTREAM Isg-AUXC-ALL.DAY-IPef Isg-DECf
 I just went upstream all day

(5.281) sina_O tama o-ka-na o-na-hate-hara o-ke
 snuff(f) hold IsgA-APPLIC-AUXa Isg-AUXd-ALL.DAY-IPef Isg-DECf
 I was holding snuff in my hand all day

As mentioned above, *-(ha)tI* and *-(ha)ba* can both follow *-wahaRI*. Thus we get

(5.282) o-tafa o-wahare o-na-hate-hara o-ke
 IsgS-eat Isg-MULTIPLE Isg-AUXd-ALL.DAY-IPef Isg-DECf
 I ate, in different houses, all day

If *o-na-haba-hara* is substituted for *o-na-hate-hara* in (5.282) we get a sentence with the meaning ‘I ate, in different houses, all night’.

OTHERS

(5) AUXa: @; AUXd: *, R *-kawa(ha)* ‘do for a while’. This suffix requires reduplication of the verb to which it is attached. It appears that the reduplication auxiliary, AUXb, always drops. (Alternatively, AUXb could be identified with the auxiliary-bound suffix, AUXd.) The verbal auxiliary, AUXa, will be retained if it bears applicative prefix *ka-*—as in (5.283a)—or a first or second echelon suffix, such as *-mina*—as in (5.283b). (Note that *-kawa(ha)* becomes *-kowa(ha)* after prefix *o-*, as described under (D) in §2.9.4.)

(5.283a) sina_O ta.tama ka-na o-kowa o-ke
 snuff(f) REDUP.hold APPLIC-AUXa IsgA-FOR.A.WHILE Isg-DECf
 I held snuff in my hand for a while

(5.283b) a.'amo o-na-mina o-kowa o-ke
 REDUP.sleep IsgS-AUXa-MORNING IsgS-FOR.A.WHILE Isg-DECf
 I slept for a while in the morning

However, the AUXa *-na-* drops if it bears no affix, as in (2.27).

Examples with inflecting verbs include:

(5.284) ta.tafa o-kowa-habone o-ke
 REDUP.eat IsgS-FOR.A.WHILE-INTf Isg-DECf
 I’ll eat for a bit longer

(5.285) faja otaa na.naho-ri kawaha
 THEN IEXS REDUP.SIT-RAISED.SURFACE FOR.A.WHILEf
 then we sat (waiting) for a while

(6) AUXa/d: **, *-(h)i*tI ‘all along the way’. As shown in (5.17–18), this is added to the AUXa of a non-inflecting verb but requires its own AUXd when used with an inflecting verb. It must be preceded either by one of the four directional suffixes from slot F1c in the first echelon (*-kI* ‘coming’, *-ma* ‘back, return’, *-makI* ‘following’, or *-witI* ‘from a place, outwards from centre’) or by the first order

prefix *to-* ‘away’. The suffix *-ma* ‘back’ is illustrated in (5.17–18), (2.40a/b), (4.29), and in:

- (5.286a) kanawaa_O otaa joko to-na-ma-hitiha
 canoe(f) IexcA push AWAY-AUXa-BACK-ALONG.WAYf
 we punted the canoe all along the way back

Note that a suffix from an intervening echelon can come between an *F1c* suffix and *-((h)i)tI*, as does *-ⁱkima* ‘two’ (from the second echelon) in:

- (5.286b) [mee fami]_A jama_O weje na-mi-kima-hite-hara-ke
 3nsgS be.two+COMP thing(f) carry AUXa-BACK-TWO-ALONG.WAY-IPef-DECf
 the two of them (lit. them being two) each carried their own things on their back
 all along the way

The suffix *-kI* ‘coming’ is used before *-((h)i)tI* in:

- (5.287) [awa_O hiri ni]_S ka-ke
 tree(f) be.on.fire AUXa+COMP in.motion-COMING
 na-ke-hite-hemete-mone ama ahi
 AUXd-COMING-ALONG.WAY-FPnf-REPF EXTENT HERE.VISIBLE
 the blazing trees are said to have been coming all along the way here (that is, the fire
 spread along the trees all along the edge of the forest, coming towards here)

The suffix *-makI* ‘following’ is illustrated before *-((h)i)tI* in (this is T2.58):

- (5.288) faja owa hijara to-na-make.hite
 THEN IsgO talk.to AWAY-AUXd-FOLLOWING.ALONG.WAY
 then [he] talks to me (as we walk) all along the way

The fourth directional suffix from slot *F1c*, *-witI* ‘out, from a place’, occurs before *-((h)i)tI* in (5.289a), which comes from a little earlier in the same text as (5.287) and uses the non-inflecting verb *sari -na-* ‘burn’.

- (5.289a) [awa witi]_O tee sari to-basa-witi.hite
 tree(f) nose+f 2nsgA burn AWAY-EDGE-FROM.PLACE.ALONG.WAY
 you burn the trees right along the edge of the forest

An interesting feature of these examples is that if a directional suffix occurs on the frequently occurring verb *-ka-* ‘be in motion’, then it is retained on the *-ka-* and also occurs on the auxiliary required by *-((h)i)tI*. In (5.17) we get *ka-ma na-ma-hite* and in (5.287) *ka-ke na-ke-hite-hemete-mone*; similarly for *-makI* and *-witI*. (This also applies in the case of some other verbs of motion, such as *-kisa-* ‘go down’; it has not been possible to check it exhaustively.) Example (5.288) involves a non-motion verb, *-hijara-* ‘talk to’, and here the suffix *-ma* occurs just on the auxiliary required by *-((h)i)tI*, not also on the inflecting verb.

If a slot *F1b* miscellaneous suffix is included before a slot *F1c* form with verb *-ka-*, then this is only found attached to *-ka-*, not also in the auxiliary constituent. This applies to *-tima* ‘upstream’ in:

- (5.289b) otaa ka-tima-ma na-ma-hite
 IexcS in.motion-UPSTREAM-BACKf AUXd-BACK-ALONG.WAYf
 we went back upstream all along the way

The two disyllabic *F1c* suffixes differ in one important respect from the two monosyllabic suffixes when they occur before *-((h)i)tI*. It appears that *-((h)i)tI* continues an existing phonological word when it follows *-ma* or *-kI* but starts a new phonological word when it follows *-makI* or *-witI*. In (5.289a) if *to-basa-witI-hitI* were one phonological word the *I* of *-hitI* would be in the seventh syllable and thus realized as *i(ha)*. In fact it is realized as *e*, showing that it is

in the second syllable of the phonological word *hite*. A similar example involving *-((h)itI* after *-makI* is:

- (5.290a) *kanawaa*_O *otaa* *joko* *na-maki.hite-ke*
 canoe(f) IexcA push AUXa-FOLLOWING.ALONG.WAY-DECf
 we punt the canoe all along the way, following

There are examples of *-((h)itI* used with prefix *to-*, rather than with a directional suffix, as in:

- (5.290b) *ratenas* *wa-re* *to-hiti-ke*
 lantern(f) stand-RAISED.SURFACE AWAY-ALONG.WAY-DECf
 the lanterns are standing all in a row on the shelf (lit. on the raised surface)

In (5.290b), the prefix *to-* attaches not to the inflecting verb *-wa-* ‘stand’ but to the auxiliary associated with *-((h)itI*; the auxiliary *-na-* drops in the presence of this prefix, when immediately followed by *-((h)itI*, showing that *-((h)itI* is of type **.

There are examples of a fifth echelon suffix immediately following one from the first, second, and fourth echelons. In addition to the instances of an F1c suffix before *-hitI*, we get *-rI* (F1a) before *-kawaha* in (5.285); *-tima* (F1b) before *-hatI* in (5.280); *-mina* (F2b) before *-kawaha* in (5.283); *-ⁱhina -na-* (F4b) before *-ⁱnofa* in (5.168); *-rima* (F4b) before *-ⁱnofa* in (5.174b); *-kii -na-* (F4) before *-wahaRi* in (5.241); and both *-tima* (F1b) and *-mina* (F2b) before *-hatI* in:

- (5.291) *faja* *otaa* *to-ka-tima-mina* *na-tiha*
 THEN IexcS AWAY-in.motion-UPSTREAM-NEXT.DAY AUXd-ALL.DAYf
 then we went upriver all day the following day

I have no example of a third echelon suffix immediately followed by one from the fifth echelon within the same predicate and would scarcely expect such a sequence in view of the meanings involved. But note that a suffix from the third echelon occurs before one from the fourth, and one from the fourth before one from the fifth.

5.9 SIXTH ECHELON (F6): NORMAL SUFFIXES

All the suffixes in this echelon are of the normal type, like those in the first and second echelons. A predicate will quite often include more than one sixth echelon suffix and five order classes can be recognized, the first with three members and the others with just one each. The fourth slot (F6d) is filled by the negator, *-ra*, which can also occur following a mood suffix; discussion of this is in §7.3.

SLOT F6a

(I) * NWP *-tasa* ‘again’. As shown in (I) of §5.2, *-tasa* begins a new phonological word if it is preceded by more than a single mora within its grammatical word (coded as NWP). The suffix occurs in (2.19a) ‘start off again’, (5.6) ‘arrive again’, and (5.92) ‘call back again’. Also:

- (5.292) *otaa* *kibe-ma.tasa* *otaa-ke* [*kanawaa jaa*]
 IexcS get.in-BACK.AGAINf Iexc-DECf canoe(f) PERI
 we got back in the canoe again
- (5.293) *faja* *otaa* *amo* *tasa-haro* *otaa-ke*
 THEN IexcS sleep AGAIN-RPef Iexc-DECf
 then we slept again (another night on our journey)

It can also mean ‘do again in a different place’, as in (this is T2.72):

- (5.294) fanako_O jimo_A hi-ta-tase-himari-ka
 thigh+m ant(m) Oc-sting-AGAIN-FP_m-DEC_m
 the ant stung him again (this time) on the thigh

See also T1.64, T2.70, and T3.32. We also find *tasa* used as a clause-final element—see (5.298b).

(2) ** *-bisa* ‘also’ can mean ‘someone does something, then someone else does it as well’ or ‘some description applies to some person/thing, and also to another person/thing’. It occurs in (2.18c) ‘I also shot a tapir’, (2.24) ‘I also go’, (5.7) ‘I/we also arrived’, and (this is T3.47):

- (5.295) kanawaa_S amosa-bisa ama-ke, [awa atari]_S amosa
 canoe(f) be.good-ALSO_f EXTENT-DEC_f tree(f) bark+f be.good+f
 ama-ni bisa
 EXTENT-BKG_f ALSO
 the canoe is also good, the bark is also good

- (5.296) [jama wije]_S moo ka-bisa-ke
 thing(f) container+f be.full APPLIC-ALSO-DEC_f
 the container is also full (i.e. another container is full)

The next example is from a story about two men hunting two jaguars. The narrator states that there were two jaguars and adds:

- (5.297) mee fama-bise-hemete-mone-ke
 3nsg_S be.two-ALSO-FP_{nf}-REPF-DEC_f
 they were said to be two men also (lit. they (the men) were said to be two also)

In T2.114, *bisa* is used to indicate that one group of men gathered some timber and then another group (*bisa*) used the timber to erect a house frame.

Like *tasa*, *bisa* can be used as a suffix in slot F6a and as a clause-final element. In (5.295) it is a suffix in the first clause and a modifier (a separate word) in the second. It is also a clause-final element in (5.309).

Suffixes *-tasa* and *-bisa* are mutually exclusive choices in slot F6a; a predicate cannot include both suffixes. However, one should be able to include specification of both ‘again’ and ‘also’ in the same clause. This is achieved by having one (either one) as a suffix and the other as a clause-final modifier. One can follow a sentence ‘Alan slept again’ with either of:

- (5.298a) Jobeto_S amo tasa-re-ka bisa
 name(m) sleep AGAIN-IP_m-DEC_m ALSO
 Jobeto also slept again
- (5.298b) Jobeto_S amo na-bisa-hare-ka tasa
 name(m) sleep AUXa-ALSO-IP_m-DEC_m AGAIN
 Jobeto also slept again

It is likely that *tasa* and *bisa* (and other forms which can be used either as clause-final modifiers or as suffixes) were originally separate words and then became incorporated into the middle of the predicate as suffixes. This development has gone one step further in the Banawá dialect where they may *only* be suffixes. But, in Banawá, a predicate can contain *both* the suffixes *-tasa* and *-bisa*, in this order (E. Buller, p.c.).

Bisa can also be used as a modifier on an NP, where it appears to be a separate word (rather than a suffix) meaning ‘other’. A Jarawara man was looking at a photograph of a pilot’s

headphones and at a pair of headphones for use with a tape recorder, and said, pointing:

- (5.299) haaha_{CS} [karafato kaa]_{CC} ama-ke,
 THISf tape.recorder(f) POSS be-DECLf
 haaha_{CS} [afiao kaa bisa]_{CC} ama-ke
 THISf plane(m) POSS OTHER be-DECLf
 this is the tape recorder's, this other is the plane's

In each clause of (5.299), the head is omitted from the NP in CC function.

On another occasion, pointing at my second tape recorder, a Jarawara man told me to say:

- (5.300a) [oko bisa]_{CS} ama-ke
 1sgPOSS OTHER be-DECLf
 this other one is mine (as well) (lit. other is)

And then commented that another way of saying the same thing was:

- (5.300b) [oko karafato]_{CS} ama-ke bisa
 1sgPOSS tape.recorder (f) be-DECLf ALSO
 (this) tape recorder is mine also (lit. my tape recorder is also)

where *bisa* is here used as a clause-final element.

Another example is

- (5.301) jimawa_O tama o-na-hara o-ke, fara oko bisa
 knife(f) hold 1sgA-AUXa-IPef 1sg-DECLf VERY.ONEf 1sgPOSS OTHER
 I took a machete, it was my own

Here *bisa* has a contrastive function, emphasizing 'my own' rather than 'yours'.

(3) ** *-fako* 'do a lot'. This is a rare suffix (and is the only miscellaneous suffix ending in *o*); there are just three examples in texts, including:

- (5.302) maa to-hi-fako-mako
 be.tired AWAY-AUXa-A.LOT-NO.RESPONSIBILITY+m
 he is, surprisingly, very tired
- (5.303) faja mee hi-nofa-re, mera haa ni-fako,
 THEN 3nsgA Oc-like-NEGM 3nsgO call.to AUXa-A.LOT
 mera haa ni-fako-mata-mona-ka
 3nsgO call.to AUXa-A.LOT-FPnm-REPM-DECLm
 (a man had two wives and) then they didn't like him, he was always calling to them,
 he is said to have always been calling to them (to come to him)

It was possible to pursue some elicitation to clarify the function and meaning of this suffix. For instance, several speakers accepted (and repeated):

- (5.304) okobi_A owa haa ni-fako-hare-ka
 1sgPOSS+father(f) 1sgO call.to AUXa-A.LOT-IPem-DECLm
 my father called to me a lot

However one speaker, Wero, accepted (5.304) as a good sentence but, when asked to repeat it, gave:

- (5.305) [okobi_A owa haa ni]_S kasiro-hare-ka
 1sgPOSS+father(f) 1sgO call.to AUXa+COMP do.a.lot-IPem-DECLm
 my father called to me a lot (lit. my father's calling to me was a lot)

Sentence (5.305) has a complement clause ‘my father’s calling me’ as the S argument of the verb *-kasiro-* ‘do a lot’. It appears that Wero recognizes and understands this infrequently occurring suffix but just does not use it himself, preferring (5.304), a sentence with very similar meaning. (This in fact helped me to understand the meaning of the suffix *-fako*.)

This suffix has been elicited after *-mina* ‘in the morning’ (F2b) and it occurs before *-rawa* ‘f nsg’ (F6b). It appears not to co-occur with *-tasa* ‘again’ or *-bisa* ‘also’, and has been tentatively placed in slot F6a.

SLOT F6b

(4) ** *-rawa* ‘feminine non-singular’. This suffix has an unusual and interesting specification, marking that a predicate argument—generally, a core NP in A, S, or O function—has a feminine noun as head and has non-singular reference (relating to two or more). The relevant core NP need not itself be stated. When *-rawa* is included, as a miscellaneous suffix, the corresponding 3nsg pronoun *mee* or *mera* (from slot A or B of the predicate) must be omitted. Compare (5.306) in which the head of the O NP is *aba* ‘matrinxão (a fish sp.)’, an m noun, and (5.307) in which it is *siriba* ‘cangati (another fish sp.)’, which is f.

(5.306) *aba*_O *Jara*_A *mee* *mee* *kaba-ke*
 matrinxão(m) Branco(m) 3nsgO 3nsgA eat-DECf
 the Brancos eat a lot of matrinxão

(5.307) *siriba*_O *Jara*_A *mee* *kaba-rawa-ke*
 cangati(f) Branco(m) 3nsgA eat-F.NSG-DECf
 the Brancos eat a lot of cangati

In (5.307) and (5.308) *-rawa* indicates non-singular number of a feminine NP in O function. In (5.309) it relates to an NP in A function and in (5.310–11) to an NP in S function.

(5.308) *hi-wasi-rawe-mete-mone-ke*
 Oc-find-F.NSG-FPnf-REPF-DECf
 (he) is reported to have found (the two women)

(5.309) *mee.fanawiri*_A *aba*_O *mee* *kaba-rawa-ke* *bisa*
 women(f) matrinxão(m) 3nsgO eat-F.NSG-DECf ALSO
 the women also eat a lot of matrinxão

(5.310) *mee.fanawiri*_S *kobo* *na-rawa-ke*
 women(f) arrive AUXa-F.NSG-DECf
 the women arrive

(5.311) *mee.fanawiri*_S *to-ko-ma-tasa-rawa-ke*
 women(f) AWAY-in.MOTION-BACK-AGAIN-F.NSG-DECf
 the women go back again

If the O NP in (5.308) had an m head the predicate would have to begin with *mera* ‘3nsg-O’. If the A NP in (5.309) had an m head the predicate would have to begin with *mee* (or *mera*) ‘3nsgO’ plus *mee* ‘3nsgA’. If the S NP in (5.310) or (5.311) had an m head the predicate would have to begin with *mee* ‘3nsgS’. In each case *-rawa* would be omitted.

One can thus tell from the inclusion of *-rawa* in an intransitive predicate that the S NP is feminine non-singular. When *-rawa* is included in a transitive predicate one knows that either A or O is feminine non-singular, but there is no way of telling which, except by other information (e.g. if one of the core NPs is stated with an m head, then it must be the other that is feminine non-singular).

Note that if both A and O are f non-singular it is not possible to include two tokens of the *-rawa* suffix. There will then be just one occurrence of 3nsg pronoun *mee* (marking one of A and O) and one of *-rawa* (also marking one of A and O). Compare (5.306) where A and O are both m non-singular, (5.307) where O is f non-singular and A m non-singular, (5.309) where A is f non-singular and O m non-singular, and (5.312) where both A and O are f non-singular:

- (5.312) *mee.fanawiri*_A *siraba*_O *mee* *kaba-rawa-ke*
 women(f) *cangati*(f) 3nsgA/O eat-F.NSG-DECf
 the women eat a lot of *cangati*

In (5.312) *mee* marks one of A and O, and *-rawa* the other; it is not possible to distinguish which.

All of the examples quoted thus far have involved animate NPs. The 3nsg pronoun, *mee*, can only be used where there is animate reference. It was stated in §3.2 that only animate nouns make a singular/non-singular distinction in terms of pronominal reference within the predicate (that is, they can be referred to by 3nsg *mee*). Inanimates are always—whether in fact singular or non-singular—marked on the predicate by zero, the unmarked choice (also used for 3sg of animates). In contrast, *-rawa* can be used for any f noun, whether animate or inanimate. Thus:

- (5.313) *kanawaa*_S *mato-rawa-ke*
 canoe(f) be.tied-F.NSG-DECf
 the canoes are tied up
- (5.314) *Okomobi*_A *jifari*_O *jome* *na-rawa-re-ka*
 name(m) banana(f) eat AUXa-F.NSG-IPem-DECm
 Okomobi ate lots of bananas

We thus have the peculiar situation of two markers for non-singular: (a) a suffix *-rawa* (in slot F6b) for any feminine non-singular in a core slot; and (b) pronoun *mee/mera* for a non-singular animate in O function, and pronoun *mee* for a non-singular animate in S or A function (in slots A and B respectively of the predicate). The two systems are interrelated in that a particular NP cannot be marked by both *-rawa* and *mee* or *mera*. Basically, if *-rawa* reference is appropriate, *mee/mera* cannot be used.

It is likely that *-rawa* is a fairly ancient and well-established part of the grammar of Jarawara. As mentioned earlier—in (D) of §2.8, and in §3.3.1—3nsg *mee* may be a relatively recent innovation. Hence the rather peculiar modern situation in which non-singular can be marked in two radically different ways.

There is also evidence that the use of *-rawa* is on the wane, with speakers tending to use *mee/mera* for all 3nsg animate, irrespective of gender. In one text by an old speaker (João) he said:

- (5.315) *fowe*_O *mee* si-, < restarts > *fowe*_O *sira-rawa*
 suruculina(m) 3nsgA suruculina(m) toast-F.NSGf
 they (female) toast suruculina (a foodstuff)

That is, the speaker started to use the 3nsg pronoun *mee* for the A NP and then remembered it was f, and switched to using suffix *-rawa*.

When discussing (5.307), Okomobi, a middle-aged speaker, said that a possible alternative, with the same meaning, was *siraba Jara mee mee kaba-ke*. It seems that there is a tendency not to use *-rawa*, especially among younger speakers. However, many people are making an effort to use *-rawa* in appropriate circumstances, since they see it as an important feature of their language.

There are very occasional instances of *-rawa* referring to an f nsg peripheral argument (one that is not in S, A, or O function). Consider the following consecutive clauses from a text (this is T2.113):

- (5.316) (a) faja pasioba_O mee tii na-bone
 THEN paxiúba(f) 3nsgA cut AUXa-INTf
 then they (some men) intended to cut paxiúba timber
- (b) mee to-ka-rawa-hamaro mee ama fahi
 3nsgS AWAY-in.motion-F.NSG-FPef 3nsg EXTENT THERE.NON.VISIBLE
 they went out for (paxiúba trees)
- (c) pasioba_O mee tii na-maró-ke fahi
 paxiúba(f) 3nsgA cut AUXa-FPef-DECf THERE.NON.VISIBLE
 they cut paxiúba timber there
- (d) pasioba_O mee tii na-rawa
 paxiúba(f) 3nsgA cut AUXa-F.NSGf
 they cut many paxiúba trees

In (5.316d) *-rawa* refers to the O NP, but in (5.316b) it refers to an unstated peripheral argument in an intransitive clause, i.e. ‘they (S) went out (sc. for lots of paxiúba, cross-referenced by *-rawa*)’.

It was mentioned in §3.3.1 that *mee* can also be used as an animate ‘augment’ marker in an NP; this is fully discussed in §10.5. There are examples of *rawa* being used, as a separate word, in a similar function; for example, T3.63 and:

- (5.317) [siraba rawa]_{CS} ama-ke
 cangati(f) F.NSG be-DECf
 there are many cangati (here) (lit. many cangati are (here))

This nominal use of *rawa* is found especially often with the copula verb *ama*, which scarcely takes any suffixes (and certainly no miscellaneous suffixes).

Note that four nouns have special non-singular forms, and three of them begin *mee*. (presumably cognate with 3nsg *mee*)—see §10.5.4. One is m (*mee.makiti* ‘men’), one is either m or f (*mee.inamati* ‘spirits (of the forest)’), and the other is f (*mee.fanawi(ri)* ‘women’). Thus we get *mee* and not *rawa* used in the special non-singular forms of an f noun.

SLOT F6c

(5) ** (NPW) *-mata* ‘short time’. This form can be used, with the same meaning, as a clause-final element. *Mata* is sometimes included twice in a clause (as suffix and as modifier) just to reinforce the meaning, e.g. (5.319).

It is not easy to determine the exact meaning of *mata*. Most often it seems to signify ‘do for a short time’, as in (5.75) and:

- (5.318) ee amo na-mata-ba ee-ke ahi
 IincS sleep AUXa-SHORT.TIME-FUTf Iinc-DECf HERE.VISIBLE
 we’ll sleep here for a short time
- (5.319) o-ka-tima-ma-mata-habone o-ke mata
 IsgS-in.motion-UPSTREAM-BACK-SHORT.TIME-INTf Isg-DECf SHORT.TIME
 I want to go up back upstream for a short time (to go back to my village to arrange things, before setting off on the journey to the Sorowahá)

Typically, *-mata* is used with *-awa-* ‘see, look’ with the meaning ‘take a quick look’, as in T1.10, T2.7. Examples with other verbs include ‘take a quick bathe’ at T1.80, ‘hunt for a bit’ at T2.7, and ‘paddle the new canoe a bit’ at T3.46.

The suffix *-mata* is frequently used with the modal-type suffix *-ⁱbe(ja)/-ba(ja)* ‘do at once, immediately’, as in T1.27, T2.3, (2.18*d*), and:

- (5.320) soo o-mati-be
 urinate 1sgS-SHORT.TIME-IMMEDf
 I’ll just (stop and) pee for a minute (you go on, I’ll catch you up)

Consultants often began a recorded text with (one example of this is T2.2):

- (5.321) o-hijara-mati-be
 1sgS-talk-SHORT.TIME-IMMEDf
 I’ll just talk for a short while

When a clause includes both *mata* ‘short time’ and the negator *-ra*, it conveys a meaning ‘not yet’, literally ‘not for a short while’. For example, T3.25 and (3.13) (where *mata* is a clause-final element) and:

- (5.322) [tee ati]_o o-wato o-ka-re mata
 2nsgPOSS language 1sgA-know 1sg-DEC-NEGF SHORT.TIME
 I don’t know your language yet (but I’m going to learn it, and I will be able to understand it in a short time)

- (5.323) amo o-mata-ra-habone o-ke
 sleep 1sgS-SHORT.TIME-NEG-INTf 1sg-DECf
 I don’t intend to sleep for a while yet

It was stated under (I) in §5.2 that most normal suffixes form one phonological word with what precedes them, but that *-ⁱkima* ‘two’ (slot F2*a*) and *-tasa* ‘again’ (slot F6*a*) begin a new phonological word if preceded by more than a single mora in the grammatical word to which they belong. The suffix *-mata* has variable behaviour. There are some textual instances where it behaves like *-ⁱkima* and *-tasa* and others where it continues an existing phonological word (when preceded by two or more moras within the grammatical word). Elicitation provides similarly mixed results. The following two putative sentences were put, separately, to four consultants who were asked which was the preferred alternative.

- (5.324*a*) okobi_s hijara-mata-re-ka
 1sgPOSS+father(f) speak-SHORT.TIME-IPem-DECm
 my father spoke for a short time

- (5.324*b*) okobi_s hijara.mata-hare-ka
 1sgPOSS+father(f) speak.SHORT.TIME-IPem-DECm
 my father spoke for a short time

In (5.324*a*) the verb constitutes one phonological word with underlying form *hijara-mata-hare-ka*; the *-ha-* of IPem tense suffix *-hare* is in the sixth syllable and thus omitted. In (5.324*b*) the suffix *mata* starts a new phonological word; the *-ha-* of *-hare* is now in the third syllable of the phonological word *mata-hare-ka* and is retained.

Three of the four speakers (Okomobi, aged about 45, and his nephews Mioto and Soki) rejected (5.324*b*) and accepted (5.324*a*) while the fourth (Botenawaa, Okomobi’s elder brother and also uncle to Mioto and Soki) would only accept (5.324*b*).

The next slot in the third echelon, F6*d*, is filled by (6) negator *-ra*. This is discussed in §7.3.

SLOT F6e

(7) ** $-^i ne/\emptyset$ ‘continuous’. This suffix basically indicates that an activity or state continues over a period of time. It appears not to co-occur with any tense-modal suffix and could, alternatively, be treated as relating to the tense-modal slot. It is dealt with here as a miscellaneous suffix since (a) it engenders the change $a \rightarrow i$ on a preceding vowel, like some other miscellaneous suffixes but like no tense-modal suffixes (these may engender a change $a \rightarrow e$); (b) all tense-modal suffixes have an initial syllable *-ha-*, *-he-*, or *-hi-*, which is missing from $-^i ne$; and (c) the Oc prefix *hi-* may occur in the third pronominal position after $-^i ne/\emptyset$, but is not permitted after a tense-modal suffix (see table 16.4 in §16.4.3).

The suffix $-^i ne$ only has f reference. That is, it can only be used when the S of an intransitive clause, the A of a transitive A-construction, or the O of a transitive O-construction takes f gender cross-referencing (recall that all pronouns cross-reference as f). The corresponding m form is simply zero. To illustrate this some of the information presented in §4.5.1 can be recapitulated.

If there is no ‘continuous’ suffix then the final vowel of an inflecting verb (if the root ends in *a*), or of the auxiliary of a non-inflecting verb, remains *a* for f gender agreement but shifts to *e* for m agreement, as in:

(5.325a) karafato_S waka na
 tape.recorder(f) be.broken AUXa+f
 the tape recorder has broken

(5.325b) moto_S waka ne
 motor(m) be.broken AUXa+m
 the motor has broken

If the ‘continuous’ suffix $-^i ne/\emptyset$ is added to the auxiliary we get:

(5.326a) karafato_S waka ni-ne
 tape.recorder(f) be.broken AUXa-CONTf
 the tape recorder is broken

(5.326b) moto_S waka na
 motor(m) be.broken AUXa+CONTm
 the motor is broken

In (5.326a) the f form of the ‘continuous’ suffix, $-^i ne$, is added to *-na-*, giving *ni-ne*. In (5.326b) the m form, which is zero, is added. Note that this zero blocks the raising of the final *a* to *e* to show m gender; the raising does occur in (5.325b). In other words, the fact that (5.326b) has an m argument in S function but final *a* on the auxiliary is a marker of the m form of the ‘continuous’ suffix.

In Jarawara there is a convention that auxiliary *-na-* is never immediately followed by the f form of declarative, *-ke*; the f form of the continuous suffix, $-^i ne$, must intervene (see (4.49) in §4.5.1). That is, corresponding to both (5.325a) and (5.326a) we get, with declarative, *karafato waka ni-ne-ke*. The related form, with m agreement, corresponding to both (5.325b) and (5.326b), is *moto waka na-ka*.

Examples of the use of $-^i ne$ include (5.19) ‘the stump is sitting in the water’ and (5.108) ‘I am blowing crumbs off the table’. It can often be translated by English *be . . . ing*. But not always. In one text about a canoe hitting a submerged stump and overturning, a man asked, using

-boka- ‘sink’ and suffix *-ⁱne*:

- (5.327) himata_O tee ebe na, tee ka-boki-ne-ri?
 what 2nsgA have.purpose AUXa+f 2nsgS APPLIC-sink-CONTf-CINTf
 why did you sink? (an idiomatic expression, lit. what did you intend, did you sink?)

Unlike English *be...ing*, the suffix *-ⁱne* can be used with all types of verb, including *-wato-* ‘know’, *-nofa-* ‘like’, and stative verbs such as *amosa-* ‘be good’ (this is T3.10):

- (5.328) jama_S amosi-ne-ke
 thing(f) be.good-CONTf-DECf
 the thing is getting to be good (referring to a piece of bark to be made into a bark canoe)

Speakers explained to us that one would use (5.329), involving the verb *-fimi-* ‘be hungry’, if one was just ordinarily hungry, but (5.330), adding *-ⁱne*, if one had been hungry for a considerable time (e.g. while finishing off a long piece of work).

- (5.329) o-fimi o-ke
 1sgS-be.hungry 1sg-DECf
 I’m hungry
- (5.330) o-fimi-ne o-ke
 1sgS-be.hungry-CONTf 1sg-DECf
 I have been hungry for a good while

There is similarity of meaning between suffix *-ⁱne* and secondary verb *ama* (see §7.1.1). In fact, they appear not to be permitted to co-occur in the same predicate.

Other examples include T3.34 and:

- (5.331) tera noki o-ne o-ke
 2nsgO wait.for 1sgA-CONTf 1sg-DECf
 I am waiting for all of you
- (5.332) tera mee noki ni-ne-ke
 2nsgO 3nsgA wait.for AUXa-CONTf-DECf
 they are waiting for all of you

Note that the auxiliary *-na-* becomes *-ni-* before *-ⁱne*, as in (5.332). In (5.331) the auxiliary form *-ni-* drops since there is a prefix, *o-*.

- (5.333) [o-wisi jaa] bosaro_S iti-ne-ke
 1sgPOSS-leg+f PERI sore(f) sit-CONTf-DECf
 I have a sore on my leg (lit. a sore is sitting on my leg)
- (5.334) otaa wina-mi-ne-ke [Kasanofa jaa] waha
 1excS live-BACK-CONTf-DECf place PERI NOW
 we now are living back at Casa Nova

From a text describing how the Purús River originated we get a clause with the copula verb *-ha-* ‘become’ and continuous suffix *-ⁱne*, indicating that this happened over a period of time:

- (5.335) Foro_{CS} to-hi-ne-ke
 name(f) AWAY-become-CONTf-DECf
 the Purús River came into being (and is there now)

The examples given in this chapter include many instances of a suffix from the sixth echelon immediately following one from the first, second, third, or fourth echelons. They include: *-ⁱfI* (F1a) plus *-ⁱne* in (5.19); *-mina* (F2b) plus *-tasa* in (5.125); *-ⁱbote -na-* (F3) plus *-ⁱne* in (5.141); and *-nati -ha-* (F4a) plus *-bisa* in (5.150). An example of a fifth echelon suffix, *-hitI*, plus *-bisa* from the sixth echelon is:

- (5.336) Okomobi_s haa.haa na-ma-hite-bisa-ka
 name(m) laugh AUXa-BACK-ALONG.WAY-ALSO-DECM
 Okomobi also laughed all the way back (along the path)

5.10 EXTRA-ECHELON SUFFIXES

It is now time to deal with the two miscellaneous suffixes which do not neatly fit into the echelon scheme presented above.

(I) ** *-wa(ha)* ‘now, the next thing, then’ can function as a normal suffix or as a clause-final element, in each case indicating that what is referred to by its verb was ‘the next thing to happen’; this frequently involves a change in activity. For example (3.14) ‘the next thing was we arrived back here at Casa Nova’ and:

- (5.337) faja toho na-wahe-mari
 THEN cough AUXa-NEXT.THING-FPem
 then the next thing was he started coughing

- (5.338) ka-ke-we-hibana-ka [Kasanofa jaa]
 in.motion-COMING-NEXT.THING-FUTm-DECM place PERI
 (the plane(m) will first call at Agua Branca and) the next thing, it will come on to
 (the village of) Casa Nova

- (5.339) otaa amo na-waha otaa-ke
 IexcS sleep AUXa-NEXT.THINGf Iexc-DECf
 (we bathed and) the next thing we slept

See also T1.24; T2.42, 118, 122.

Examples of the occurrence of *waha* as a clause-final element include (3.14), (5.98), (5.334), and (5.340-1).

- (5.340) tama o-ne-hibana-ne waha
 grab IsgA-AUXa-FUTm-BKGM NEXT.THING
 I will grab (him) the next time (he comes to make love to me in the night)

- (5.341) ti-wati_O o-wato-ma o-ka-re waha
 2sgPOSS-language IsgA-understand-BACK Isg-DEC-NEGF NOW
 I don’t understand what you are saying now (lit. I don’t understand your
 language now)

There are also examples of clauses including two *waha*, one a suffix and the other a clause-final modifier, reinforcing the meaning; for example, T2.100 and:

- (5.342) mee to-wa-ka-ma-waha ama-ke waha
 3nsgS AWAY-APPLIC-in.motion-BACK-NEXT.THINGf EXTENT-DECf NEXT.THING
 the next thing was we two turned (for home)

The verb *wati* -*na*- ‘remember, think of (lovingly)’ requires the suffix -*wa(ha)*; it appears that the meaning of this verb includes the meaning of the suffix. This is used in T2.120 and:

- (5.343) hijara_O wati o-waha o-ka-re
 story(f) remember 1sgA-NOW 1sg-DEC-NEGF
 I don’t remember the story now

One day, a small boy suddenly became aware of the group of strangers around where he was playing and ran to his mother, who was a little way away. One of the spectators said:

- (5.344) Firibi_A mati_O wati na-waha-ka
 name(m) 3nsgPOSS+mother(f) remember AUXa-NEXT.THING-DECM
 Filipe has now remembered his mother

The suffix -*waha* has a number of special properties. One concerns its form. §2.9.6 described rule P8b under which the -*ha*- of seven miscellaneous suffixes is omitted when unstressed on the underlying cycle. For six suffixes the omission applies irrespective of grammatical environment. But for -*waha* the -*ha* is generally retained, even though unstressed on the underlying cycle, when immediately followed by declarative suffix -*ke/ka*. For instance, one hears *hano-waha-ka* (be.drunk-NOW-DECM) ‘he is now drunk’ rather than *hano-wa-ka*.

The second special property of -*waha* is that it is frequently included (and perhaps it is sometimes obligatory) between certain sequences of a suffix from slot F1a or F1b, and one from slot F1c. When -*ʔI* (slot 1a) or -*basa* (1b) are followed by -*ma*, or -*makI* (slot 1c), or if -*basa* is followed by -*kI* (1c), there is in the corpus always an intervening -*waha*. That is, we have only -*ʔI-waha-ma*, -*ʔI-waha-makI*, -*basa-waha-ma*, -*basa-waha-makI*, and -*basa-waha-kI*, rather than -*ʔI-ma*, -*ʔI-makI*, -*basa-ma*, -*basa-makI*, or -*basa-kI*. (There is no example of -*ʔI* and -*kI* in sequence.) There is almost always a -*waha* between -*ʔI* or -*basa* and -*witI* (1c) although we do have a very few instances of -*ʔi-witI* and -*basa-witI* with no intervening -*waha*. When -*rI* (1a), -*tima*, -*risa*, or -*kosa* (1b) are followed by a slot 1c suffix -*waha* sometimes intervenes but often it does not. And when -*misa*, -*riwaha*, -*fara*, or -*ʔjoma* (1b) are followed by a slot 1c suffix there are no instances in the corpus of an intervening -*waha*. (There are no examples of -*kasa* followed by a slot 1c form.) The reasons for this inclusion of -*waha* are not known.

If -*ka*- ‘be in motion’ involves just -*waha* and an F1c suffix (but nothing from F1a or F1b) then the F1c suffix will generally precede -*waha*, as in (5.338), (5.342), and:

- (5.345) otaa ka-maki-waha
 1excS in.motion-FOLLOWING-NEXT.THINGf
 the next thing, we followed on

The suffixes discussed in §§5.4–9 all have fairly fixed positioning. In contrast, -*waha* showed considerable fluidity. For instance, one speaker gave *ka-tima-ke-wa* ‘in.motion-UPSTREAM-COMING-NEXT.THING’ while another preferred *ka-tima-waha-ke*.

Under (C) in §2.9.4 it was mentioned that -*ka*- ‘be in motion’ becomes -*ko*- when preceded by prefix *o-* or *to-* and followed by a first echelon prefix that begins with *b, f, m*, or *w*. However, the change does not take place before -*waha*. This provides support for the treatment of -*waha* as an extra-echelon suffix and not as belonging to the first echelon, even though it most frequently occurs within the first echelon (typically after F1a and F1b and before F1c).

There is a second grammatical role for -*waha*. It can be an auxiliary-taking prefix-retaining suffix, and then has a rather different meaning. Compare -*waha* used as a normal suffix in (5.346) and as an auxiliary-taking suffix in (5.347).

- (5.346) Okomobi_A makari_O aka-wa-hare-ka
 name(m) clothes(f) put.ON-NEXT.THING-IPem-DECm
 Okomobi put on clothes just now
- (5.347) Okomobi_A makari_O aka-wa na-hare-ka
 name(m) clothes(f) put.ON-SECOND.TIME AUXC-IPem-DECf
 Okomobi changed his clothes just now

It appears that *-waha -na-* here means something like ‘do a second time, as the next thing’. Another example is:

- (5.348) Miotos_S afi na-waha na-re-ka
 name(m) bathe AUXa-SECOND.TIME AUXC-IPem-DECm
 Miototo bathed a second time, in another place

Interestingly, the FIC suffix *-witi* ‘from a place’ was judged not to be acceptable with *-ka-* ‘be in motion’ and the normal suffix *-waha*. In place of **o-ka-wa-witi*, a sentence with the auxiliary-taking version *-waha -na-* was given:

- (5.349) o-ka-wa o-witi o-ke
 IsgS-in.motion-SECOND.TIME Isg-FROM.PLACE Isg-DECf
 (I went to one house and then,) next thing, (I went to another place

The meaning of the suffix *-witi* ‘out, from a place’ appears to require *-waha -na-* rather than just *-waha*, when used with *-ka-* and no other first echelon suffix.

An alternative analysis of sentences such as (5.347–9) could be in terms of a list construction, with the *-na-* of what has been identified as *waha -na-* recognized to be the list verb, following a one-item list—see chapter 23.

(2) * *-tee* (or *-ti*, see below) ‘habitual, customary’. This is the only normal suffix with a long vowel; since it contains two moras, *-tee* is always stressed, on both underlying and surface cycles.

It refers to some habitual action or state; *-tee* can be used with tense-modal suffixes (as in (5.358)) but this is rather rare. It has a similar meaning to the secondary verb *ama* ‘extended activity’ and the two often co-occur. We find *-tee* used in general statements such as (3.11a/b) and:

- (5.350) kate_A wami_O kaba-tee ama-ka
 macaw(m) tree.sp.(f) eat-HABIT EXTENT-DECm
 macaw (birds) eat the fruit of the wami tree

The Jarawara saw a picture of a giraffe and used *-tee* to describe its most notable feature:

- (5.351) namitis_S jabo-tee ama-ke
 neck be.long-HABIT EXTENT-DECf
 the neck is long

It appears that the Jarawara have no lexeme ‘yolk (of an egg)’. But they provided a descriptive name, reduplicating the colour verb *-mawa-* ‘be red’ and adding *-tee*:

- (5.352) ma.mawa tee ama-ke
 REDUP.be.red/yellow HABIT EXTENT-DECf
 it is customarily reddish

One day I tried to commend Okomobi on his excellence as a storyteller; he told me that I should say:

- (5.353) [tika hijari]_S amosa-tee ama ti-ke
 2sgPOSS tell+COMP be.good-HABIT EXTENT 2sg-DECf
 your storytelling is customarily good

In one narrative text a Branco pokes fun at a Jarawara man with a hat, saying:

- (5.354) [ee botee]_A sabeo_O weje tee-ra ama-ke
 1inc old hat(f) wear.on.head HABIT-NEgf EXTENT-DECf
 our old (people) don't wear hats all the time

He goes on to say that it is younger people who, when they wear a hat,

- (5.355) sabeo_S sota to-tee-ra ama-ke
 hat(f) take.off AWAY-HABIT-NEgf EXTENT-DECf
 hats (of young people) are never taken off

A Jarawara consultant described some 'white-out' liquid being used to correct a mistake by:

- (5.356) [jama hani mese]_S ke-teha-ni, fawa
 thing(f) writing+f top.surface.of APPLIC-put.on-IPnf disappear
 tee ama-ke
 HABIT EXTENT-DECf
 writing, having (it) put on the top of it, habitually disappears

The Portuguese verb *saber* 'know' is often translated into Jarawara by *-awa-* 'see' plus suffix *-tee*, as in the O-construction (this is T3.28):

- (5.357) ti-wa-tee awa sai_O?
 2sgA-see-HABIT SEEMSM vine.sp.(m)
 do you know (i.e. are you familiar with) the sai vine?

In one story about traditional religion, a shaman tells how he plans to transfer his powers to his grandson, and then:

- (5.358) jama_O awa-tee-hibana
 spirits(f) see-HABIT-FUTM
 he will be wise (lit. he will be able to see spirits)

A common use of *-tee* is with negator *-ra* on a verb of fearing—'we are habitually not afraid'; see T1.85; T2.39, 56.

Interestingly, the great majority of examples of *-tee* are with inflecting verbs. This is undoubtedly semantically determined. The class of inflecting verbs includes those with a stative sense (such as *-amosa-* 'be good' and *-jabo-* 'be long'), stance verbs such as *-wina-* 'stay', the unmarked transitive verb of eating *-kaba-*, and *-awa-* 'see' and *-mita-* 'hear'. It can, however, be used with non-inflecting verbs, e.g. *weje -na-* 'wear on head' in (5.354), *sota -na-* 'be taken off' in (5.355), the reduplicated colour verb *ma.mawa -na-* in (5.352) (recall that all reduplicated verbs take an auxiliary), and *jowiri -na-* 'sing (women's style)' in:

- (5.359) jowiri o-tee ama o-ke
 sing 1sgS-HABIT EXTENT 1sg-DECf
 I habitually sing in jowiri style

In (4.57) *-tee* is added to *-jabo-* 'be far, long' to state that the Sorowahá village is said to be not far away. In fact *-tee* is often found on NPs to indicate existence over an extended period.

One story told of how there used to be only a tiny stream where the wide Purús River now runs:

- (5.360) [Foro-tee-ba]_S wata-re-mete-mone ama-ke
 Purús-HABIT-FUT EXIST-NEG-FPnf-REPF EXTENT-DECf
 what was to be the Purús River is said not to have existed a long time in the past

Any place that a narrator is not familiar with is likely to be referred to with the suffix *-tee*, and also reported modality:

- (5.361) [Kanatama-tee-monehe jaa] otaa kobo to-nisa-witiha
 place-HABIT-REPF PERI IexcS arrive AWAY-AUXA+DOWN-FROM.PLACEf
 at the place said to be Canutama, we arrived down from (a previous) place

The form *-tee* can be used as a normal suffix, as in the examples given so far, or as an auxiliary-bound suffix, then referring to ‘remembering something from the past’. Compare *-tee* used as a normal suffix in (5.362) and as an auxiliary-bound suffix in (5.363).

- (5.362) aba_O o-koba-tee ama o-ke
 fish(m) IsgA-eat-HABIT EXTENT Isg-DECf
 I habitually eat fish
- (5.363) aba_O o-koba o-tee ama o-ke
 fish(m) IsgA-eat Isg-REMEMBERED EXTENT Isg-DECf
 I remember when I used to eat fish

Note that in (5.363) a sixth echelon suffix such as *-bisa* ‘also’ could be added to *o-tee*, but not to *o-koba*. (A suffix such as *-bisa* could be added to *o-koba-tee* in (5.362).)

In its auxiliary-bound function, *-tee* is @ for AUXA and * for AUXD. That is, AUXA is only retained when it bears prefix *to-* or *ka-* or a first or second echelon suffix, as in (5.365). There is an AUXD constituent including *-tee* but the AUXD itself, *-na-*, is always omitted, as in:

- (5.364) makari_O o-kanika o-tee ama o-ke
 clothes(f) IsgA-buy Isg-REMEMBERED EXTENT Isg-DECf
 I remember buying clothes

When used as a normal suffix *-tee* generally occurs at second echelon position in the predicate. In fact it appears not to co-occur, as a normal suffix, with suffixes of the second echelon. If there is a second echelon suffix in a predicate, *-tee* must be used in its auxiliary-bound form, as in:

- (5.365) jifari_O jome o-ni-kima-mina o-tee ama o-ke
 banana(f) eat IsgA-AUXA-TWO-MORNING Isg-HABIT EXTENT Isg-DECf
 I customarily eat two bananas each morning

In fact *-tee* appears to be rather like *-waha* in having no really fixed position within a predicate. In (5.200) it follows the fourth echelon suffix *-raba -na-* and precedes sixth echelon suffix *-ra*, negation. But *-tee* (in allomorph *-ti*) has been recorded following *-ⁱne* (slot F6e), which is normally the last possible miscellaneous suffix in a predicate.

When *-tee* occurs at the end of a nominalized clause (in the position where *a* becomes *i* and *I* is realized as *i*) it may take on the form *-ti*, as in (5.366–7). The sentence (5.366) consists of a nominalized clause plus two tense-modal markers.

- (5.366) [kahabana-ti] -mata-mona
 kill-HABIT+NOM -FPnm-REPM
 he (a shaman) is said to have been continually killing

- (5.367) mee kaja na-wahi-ne-ti
 3nsgS be.located AUXa-NOW-CONT-HABIT+NOM
 there are now lots (of fish in the river) (lit. they are continuous and habitually
 located)

APPENDIX

It is interesting to enquire whether there is an explanation for why suffixes divide into classes A, *, **, ***, and @. One possibility is that there could be a phonological basis for this.

Consider the following breakdown of number of suffixes in various categories (omitting *s* and *j*, which only commence one suffix each):

	SUFFIX BEGINS WITH					
	b, m, f	h	t, n	r	k	w
TYPE A (preceding auxiliary <i>-na-</i> is never omitted)	6	5	—	1	3	1
TYPE ** (preceding <i>-na-</i> only omitted if there is a prefix)	7	—	2	3	1	2
TYPE * (preceding <i>-na-</i> always omitted)	2	—	3	3	3	—

There is a marked contrast between the bilabial (*b, m, f*) and *h* columns, where A or ** is preferred and * is rare, and the dental/alveolar columns (*t, n, and r*) where * or ** is preferred and A is rare. (The *k* and *w* columns show no real patterning.)

The conclusion we can draw is that auxiliary *-na-* (which begins with a dental nasal) is most likely to be omitted from before a suffix beginning in a dental or alveolar segment, and least likely to be omitted before a suffix beginning with a bilabial or *h*. This suggests a preference not to have two alveolar/dental segments in successive syllables (i.e. not *n—n* or *n—t* or *n—r*).

Predicate Structure: The Tense-Modal System

Corresponding to slot G of predicate structure there is a system of eleven tense-modal suffixes (six of them also including information about evidentiality). Like all other suffixes, this is an optional system. There is great variation in the extent of use of tense-modal suffixes according to genre, style, and, no doubt, the whim of the speaker. One short (two-minute) text about a speaker's future plans had a tense-modal suffix in every main clause (these were: intention, future, and immediate past eyewitness). A short (minute and a half) autobiographical narrative had no tense-modal specification in any of its predicates. Most conversation and narrative falls between these two extremes. The number of clauses showing tense-modal in four text samples each of 100 main clauses varied from 32 per cent to 51 per cent with an overall average of 44 per cent. Tense-modal suffixes are slightly less common in dependent clauses, occurring in about 30 per cent of them. There is no tense-modal marking in complement clauses or in nominalized clauses.

One recurrent occasional stylistic device is to state a clause with tense-modal and mood, and then repeat it in bare form, without these. For example, (3.3), (6.15*a/b*), (6.24*a/b*), and:

- (6.1) faa_o mee wisa na-ra-ke fahi,
 water(f) 3nsgA bail.out AUX-IPef-DECf THERE.NON.VISIBLE
 faa_o mee wisa na
 water(f) 3nsgA bail.out AUXf
 they bailed out water (from the canoe) there, they bail out water

Note that tense-modal-less repetitions generally occur—on intonational criteria—in the same sentence as the preceding tense-modal-full clause, not at the beginning of the following clause. It is thus a different phenomenon from the ‘head–tail linkage’ (see, among other sources, Longacre 1983: 9 and Thompson and Longacre 1985: 209–10).

More generally, it is sufficient to indicate tense-modal from time to time in Jarawara speech, without the pedantic necessity of repeating it in every single clause. But note that whenever a text includes a clause relating to direct speech, ‘“X” he said’, then an appropriate tense-modal is invariably included on the ‘say’ verb.

There are three past tenses, which are called immediate past (IP), recent past (RP), and far past (FP). Each occurs with the two evidentiality values: eyewitness (e) and non-eyewitness (n); IPn also serves as a mirative, marking some surprising event. And there are five terms with non-past reference that are referred to as modalities—intention (INT), future (FUT), irrealis (IRR), hypothetical (HYPOTH), and reported (REP). Each of these eleven tense-modals has distinct feminine (f) and masculine (m) forms.

The textual frequencies of the suffixes vary widely. A sample of 738 occurrences of tense-modal suffixes in consecutive texts breaks up as follows. (These figures conflate f and m forms for each tense-modal; note that in every case f—the unmarked gender choice—is two or three times as frequent as m.)

I _{Pe}	107	R _{Pe}	114	F _{Pe}	37
I _{Pn}	61	R _{Pn}	3	F _{Pn}	132

INT	63	FUT	86	IRR	4
HYPOTH	0	REP	131		

It will be seen that R_{Pn} is rather rare, as is IRR. HYPOTH is the least common tense-modal suffix and there were no examples at all in this particular text sample.

I_{Pn} appears to be the unmarked term from the system of six past tenses. As mentioned above, I_{Pn} is also used as a mirative, to mark some event as surprising, irrespective of its time reference and of whether or not it is seen (§6.2.1). In dependent clauses (chapter 18), all past tense distinctions are neutralized and coded by I_{Pn}. In addition, I_{Pn} is the only past tense suffix which can follow (i) future (§6.2.3), (ii) mood (§6.3), and (iii) the content question suffix (chapter 15); it may again be a neutralization of the six tense/evidentiality suffixes.

Three types of co-occurrence of tense-modal suffixes have been noted:

- (i) F_{Pn} and R_{Pn} are very often followed by REP. The figures quoted above include 120 instances of F_{Pn}+REP, with only 12 of F_{Pn} alone and 11 of REP alone (see §6.2.5).
- (ii) IRR is attested followed by F_{Pn} (there is one instance of this in the statistics above), and by F_{Pe} (see §6.2.4).
- (iii) FUT can be followed by I_{Pn}, predominantly in a dependent clause (see §6.2.3 and §18.1.4).

Tense-modal suffixes most frequently occur in slot G, before mood (which goes in slot J). But it is possible to place some tense-modal suffixes after mood, in slot K. There is a meaning difference, which is discussed in §6.3. The tense-modal suffixes attested in the post-mood slot are the unmarked past tense, I_{Pn}, together with INT, IRR, and REP.

In chapter 3, it was noted that a number of miscellaneous suffixes engender the dropping of an immediately preceding auxiliary *-na-* (either in all circumstances, or just when the auxiliary also takes a prefix). In contrast, the auxiliary never drops from immediately before a tense-modal suffix in a main clause.

Nine of the tense-modal forms can occur on an NP. Those attested are four of the past tense forms (not I_{Pe} or R_{Pn}) plus the five modalities; full details are in §6.2 and §10.6.

The forms of the tense-modal suffixes are described in §6.1 and then, in §§6.1.1–2, the technique of internal reconstruction is applied to them, yielding an earlier system that had greater regularity. §6.2 discusses the meanings of the suffixes, and the ways in which they interrelate with other predicate constituents. There are two lexemes which relate to time, *hibati* and *hibajata*. It is convenient to discuss them—in §6.4—as the final section of a chapter dealing primarily with temporal-type suffixes to verbs. Under (b) in §26.2.5, there is discussion of temporal verbs, referring to different times of day.

6.1 FORMS

The forms of the eleven tense-modal suffixes are given in table 6.1. A number of points require commentary:

(a) Initial *-hV-*. The initial *-hV-* (i.e. *-hi-*, *-he-*, or *-ha-*) of a tense-modal suffix is never included when the suffix comes after another tense-modal, or follows a mood suffix, or occurs after an NP or a nominalized clause. It is included—at least in underlying form—when the tense-modal follows an inflecting verb root, auxiliary, or a miscellaneous suffix.

TABLE 6.1 Forms of tense-modal suffixes

	feminine (f)	masculine (m)
immediate past eyewitness (IPe)	-(ha)ra	-(ha)re
recent past eyewitness (RPe)	-(ha)ro	-(hi)ri
far past eyewitness (FPe)	-(ha)maro	-(hi)mari
immediate past non-eyewitness (IPn)	-(ha)ni	-(hi)no
recent past non-eyewitness (RPn)	-(he)te	-(hi)ta
far past non-eyewitness (FPn)	-(he)mete	-(hi)mata
intention (INT)	-(ha)bone	-(hi)bona
future (FUT)	-(ha)ba(na)	-(hi)ba(na)
irrealis (IRR)	-(he)ne	-(hi)na
hypothetical (HYPOTH)	-(he)mene	-(hi)mana
reported (REP)	-(ha)mone	-(hi)mona

As described in chapter 2, there are two sorts of change associated with the initial *-hV-*. The first is that an immediately preceding *a* is raised to *e* before the initial *-hi-* or *-he-* (but not *-ha-*) of a tense-modal suffix (§2.9.2), i.e.

P3 $a \rightarrow e$ / *-hi-* or *-he-* of a tense-modal suffix

The second change (§2.9.6) is that an initial *-hV-* which is unstressed on the underlying cycle is omitted following *a*:

P8a tense-modal initial unstressed *-hV-* $\rightarrow \emptyset$ / *a-*

Further, after *i* or *e* or *o-*, unstressed *-hi-* will drop, and after *i* or *o*, unstressed *-ha-* optionally reduces to *-a-*:

P9a tense-modal initial unstressed *-hi-* $\rightarrow \emptyset$ / *i-* or *e-* or *o-*

P10 tense-modal initial unstressed *-ha-* $\rightarrow -a-$ / *i-* or *o-* (optionally)

Recall that Rule P3 applies not only when the *-he-* or *-hi-* is retained in surface structure (when rule P8a has not applied), e.g. *wina-hene* \rightarrow *wine-hene*, but also where P8a does apply and the *-hi-* or *-he-* is omitted, e.g. *ahaba-hino* \rightarrow *ahabe-no*.

There is discussion in §6.1.1 concerning the origin of the initial *-hV-* syllable of tense-modal suffixes.

(b) Forms of the future suffix. FUT has a long form *-(ha)bana|-(hi)bana* and a short form *-(ha)ba|-(hi)ba*. These are in complementary distribution and occur as follows:

(1) *-(ha)bana|-(hi)bana*:

- (i) when final element in a predicate, or on an NP or nominalized clause when in clause-final position;
- (ii) when immediately followed by mood suffix, declarative *-ke|/ka* or backgrounding *-ni|/ne*;
- (iii) when immediately followed by a prefix, 1sg *o-* or 2sg *ti-* in third pronominal slot, plus mood suffix *-ke* or *-ni*.

(2) *-(ha)ba|-(hi)ba*:

- (iv) when followed by a non-prefix pronoun (1exc *otaa*, 1inc *ee*, 2nsg *tee*) in third pronominal position, plus mood suffix *-ke* or *-ni*;
- (v) when followed by a dependent clause marker *otaa*, *ee*, *tee*, or *mati*;

- (vi) when followed by secondary verb *ama* or *awine/awa* (with or without a following mood suffix);
- (vii) when followed by IPn *-ni/-no*;
- (viii) when following a noun or nominalized clause in non-clause-final position (as already stated, initial *-hV-* is then omitted so that the form is just *-ba*).

I do not understand why the final *-na* is retained in environments (i–iii) but lost from (iv–viii).

There is a related form, ⁱ*bana/-bana* which marks a polar interrogative with future time reference—see §15.4.2. Although this functions as a term in the mood system, it actually appears in slot G, like a tense-modal suffix (but, unlike tense-modal suffixes, drops an immediately preceding *-na-* auxiliary when there is also a prefix). This interrogative marker never shows an initial *-hV-* syllable.

(c) Form of RPn. The f and m forms of the RPn suffix, *-(he)te/-(hi)ta*, become *-tee* before REP *-(ha)mone/-(hi)mona*. An initial *-hV-* syllable is never included before this *-tee* (however many moras precede it in the grammatical word), and the initial *-hV-* is always included on the following REP; thus we get f *-tee-hamone* and m *-tee-himona*. This suggests that *-tee* must here commence a new phonological word; see §2.7. There is an example of *-tee-himona* at (6.58) in §6.2.5.

(d) Vowel alternations. As pointed out in §4.2, the predicate divides into two ‘areas’ with respect to the alternation of vowels to show gender. The tense-modal system spans these areas:

first syllable of all tense-modal suffixes	$\left\{ \begin{array}{ll} \text{f} & \text{m} \\ -\text{ha} & -\text{hi} \\ -\text{he} & -\text{hi} \end{array} \right\}$	Area I:
final syllable of eyewitness past	$\left\{ \begin{array}{ll} -\text{ra} & -\text{re} \\ -\text{ro} & -\text{ri} \end{array} \right\}$	f vowel is lower-backer than m vowel
final syllable of non-eyewitness past	$\left\{ \begin{array}{ll} -\text{ni} & -\text{no} \\ -\text{te} & -\text{ta} \end{array} \right\}$	Area II:
final syllable of non-past modalities	$\left\{ \begin{array}{ll} -\text{ne} & -\text{na} \end{array} \right\}$	f vowel is higher-fronter than m vowel

(e) Addition of a final *-hV*. One way of marking a postposed dependent clause is by adding an echo syllable to a predicate-final tense-modal suffix; this has the form *-hV*, where *V* repeats the final vowel of the suffix (§18.1.2); for example IPnf *-(ha)ni-hi*; INTm *-(hi)bona-ha*. As already mentioned, the six past tense/evidentiality choices are neutralized—and the IPn form used—in dependent clauses. We find an *-hV* echo syllable on IPn, INT, IRR, HYPOTH, and REP; it is not found on FUT.

6.1.1 Internal reconstruction (a): initial *-hV-* syllable

The IPe suffix has a number of irregularities, suggesting that it may have been added to the tense-modal system rather recently; this is discussed in §6.2.2. Leaving aside IPe, we see that all the m suffixes in table 6.1 commence with *-hi-* and all the f suffixes with either *-ha-* or *-he-*. This alternation in the f column has a clear conditioning:

- initial *-he-* when the next vowel is *e*
- initial *-ha-* when the next vowel is *a*, *i*, or *o*

This suggests that at an earlier stage all f tense-modal suffixes commenced with *-ha-*, with the *a* then assimilating to a preceding *e* (similar to the assimilation in rule P₃, from §2.9.2).

That is, it can be inferred that at an earlier stage all f forms of tense-modal suffixes began with *-ha-* and all m forms with *-hi-*. Now in (III) of §4.5.2, an earlier stage of the language was reconstructed, in which inflecting verb and auxiliary roots, when in word-final position, ended in *-ha* for f and *-hi* for m agreement.

Suppose that, at an earlier stage, tense-modal markers lacked the initial *-hV-* and also that they functioned as clitics within the predicate, following a verb or auxiliary (which could optionally bear one or more miscellaneous suffixes). This can be illustrated with a sample verb, *-tafa-* ‘eat’, plus a sample tense-modal suffix, IPn, which would then have had the form *-ni/-no*. The hypothesis is that at this time the verb and tense-modal marker would have been clitics (rather than suffixes) within the predicate, each showing gender agreement with a core argument (using ‘=’ for a clitic boundary):

STAGE 1	f	tafa-ha	=ni	m	tafa-hi	=no
		eat-f	IPnf		eat-m	IPnm

I suggest that the tense-modal clitic then became part of the same (phonological and grammatical) word as the verb root. (See Step E in §27.2.) The newly created word was reanalysed, by speakers of Jarawara, as consisting of two morphemes, the verb root *-tafa-* and a tense-modal suffix with forms *-hani/-hino*:

STAGE 2	f	tafa-hani	m	tafa-hino
		eat-IPnf		eat-IPnm

This is in keeping with the general rule that a verb or auxiliary root only shows gender when word-final. The root *-tafa-* is no longer word-final and so the erstwhile verb-final gender-marking syllable *-ha/-hi* has now been reanalysed as the first syllable of the tense-modal suffix.

It was stated under (a) in §6.1 that a tense-modal suffix only has the initial *-hV-* when it directly follows a verb or auxiliary root or a miscellaneous suffix. This is in keeping with the hypothesis for the development of the *-hV-* syllable—only in such a context would a tense-modal suffix have followed gender markers *-ha/-hi-*. When, at stage 1, a tense-modal clitic followed another tense-modal suffix, or a mood suffix, or an NP, or a nominalized clause, there would have been no immediately preceding *-ha/-hi-* syllable; as a result, in the present-day language tense-modal suffixes lack an initial *-hV-* in these environments.

After this, rule P₃ would have been introduced, raising the final *a* of a verb or auxiliary root to *e* before *-hi-* or *-he-* at the beginning of a tense-modal suffix:

STAGE 3	f	tafa-hani	m	tafe-hino
		eat-IPnf		eat-IPnm

Now it might be suggested that the forms of the verb root at stage 3 should be taken as directly reflecting gender—that *tafa-* (in *tafa-hani* at stage 3) is f and that *tafe-* (in *tafe-hino*) is m, by virtue of their final vowels. This analysis must be rejected, in favour of one where the *e* of *tafe-* is an automatic phonological raising on the basis of the following *-hi-*, simply because the raising applies before *-hi-* from the m column of table 6.1 and also before *-he-* from the f column. For example:

(6.2)		eat-IRRf	eat-IRRm
	underlying form	tafa-hene	tafa-hina
	rule P ₃ applies	tafe-hene	tafe-hina

It follows from (6.2), where the root is *tafe-* in both m and f forms, that the final vowels of the root can only be taken as conditioned phonologically by a following *-hi-* or *-he-* and not as grammatical markers in their own right.

It might be suggested that this segmentation of verbs in modern Jarawara is in error, that what I am calling the initial *-hV-* of the tense-modal suffixes is better regarded as still being the final syllable of the preceding root (or miscellaneous suffix). That is:

(6.3) SUGGESTED ANALYSIS	ALTERNATIVE ANALYSIS	
tafa-hani	tafaha-ni	'eat-IPnf'
tafe-hino	tafehi-no	'eat-IPnm'
tafe-hene	tafehe-ne	'eat-IRRF'
tafe-hina	tafehi-na	'eat-IRRM'

The assimilation rule P₃ would apply in the same way in the alternative analysis as in the suggested analysis.

In §2.9.8 we saw how verb roots ending in *o*, *i*, or *e* may retain a following *-ha* when in word-medial position. The *-ha* is present when the root is followed by a trisyllabic or longer suffix but absent before a disyllabic suffix. Thus, the verb *-wasi(ha)-* 'encounter, get into desired state' has the forms:

- wasi-* before IPe *-hara/-hare*, etc.
- wasiha-* before FPe *-hamaro/-himari*, etc.

In §2.9.6 we noted that the initial *-hV-* of a tense-modal suffix is omitted when it follows *a* and is in an even-numbered syllable (that is, when it is unstressed on the underlying cycle).

Information given in §2.9.8 can now be repeated, demonstrating the full set of realizational possibilities by using *-wasi(ha)-* both with a prefix (here Oc marker *hi-*) and without a prefix; and by using it with a disyllabic tense-modal suffix (IPef *-hara*) and with a trisyllabic suffix (FPef *-hamaro*).

(6.4) underlying form omitting initial <i>-ha-</i> of tense-modal suffix when unstressed and following <i>a</i>	(a) hi-wasi-hara	(b) hi-wasiha-hamaro
	—	—
underlying form omitting initial <i>-ha-</i> of tense-modal suffix when unstressed and following <i>a</i>	(c) wasi-hara	(d) wasiha-hamaro
	—	wasiha-marō

It will be seen that the *-ha-* of *-hara-* cannot drop in (a) or (c) since it follows *i* and not *a*. (We also have rule P₁₀ which can optionally drop just *h* (not *ha*) from *wasi-hara* and from *wasiha-hamaro*, giving *wasiara* and *wasiahamaro* respectively. Note that this does not affect the number of moras in each form, which is the crucial point for the argument here.) In (b) the *-ha-* of *-hamaro* does not drop since it is not in an even-numbered mora. But in (d) this *-ha-* is in an even-numbered mora and it is omitted.

The critical example here is (6.4b). We get the verb root *-wasiha-* followed by tense-modal suffix *-hamaro*. That is, we get both a *-ha-* on the end of the verb root (since it ends in *i*, rather than in *a*) and also *-ha-* as the first syllable of the tense-modal suffix. This example renders

invalid the alternative analysis on the right-side of (6.3). It is not possible to analyse the initial *-hV-* of a tense-modal suffix as still being part of the root since we can get a verb ending in *-ha-* followed by a tense-modal suffix commencing with *-hV-* as in (6.4b). Further examples of a word with *-ha-* (or *-(h)e-*) at the end of the verb root and also at the beginning of the tense-modal suffix are *na-wasiha-habone* in T3.52 and T3.59 and *oharie-hemete-mone* in (26.44).

(Note that (6.4d) does not provide this sort of evidence since the *-ha-* of *-hamaro* is in an even-numbered mora and does get omitted. But adding a prefix, in (6.4b), shifts the stress and reveals the two *-ha-* syllables, one belonging to the root and the other to the suffix.)

We can thus conclude that the initial *-hV-* syllables of tense-modal suffixes had their origin in the gender-marking suffix at the end of a verb or auxiliary root (or of a miscellaneous suffix) when in word-final position. But they have now been reanalysed as part of the tense-modal suffix.

As a result of this reanalysis, most tense-modal suffixes show gender twice, once in the form of the initial *-hV-* and once in the form of the balance of the suffix. There are two exceptions—the recently introduced IPe whose initial syllable is *-ha-* for both genders; and future which shows gender only in the initial *-ha-/-hi-*, the balance of the suffix being *-ba(na)* for both f and m gender agreement.

6.1.2 Internal reconstruction (b): remainder of suffix forms

Looking now at the post-*-hV-* components of the suffixes, we see that for eight of them f and m differ only in the final vowel:

immediate past eyewitness	-ra/e
recent past eyewitness	-ro/i
far past eyewitness	-maro/i
immediate past non-eyewitness	-ni/o
recent past non-eyewitness	-te/a
intention	-bone/a
irrealis	-ne/a
reported	-mone/a

However, for two we get a difference involving both vowels:

	f	m
far past non-eyewitness	-mete	-mata
hypothetical	-mene	-mana

I suggest that at an earlier stage of the language these differed only in the final vowel, i.e. *-mate/a* and *-mane/a*, and that we have here a further instance of assimilation:

far past non-eyewitness f	*-mate	>	-mete
hypothetical f	*-mane	>	-mene

parallel to the assimilation on a suffix-initial *-ha-* before a syllable including *e*, as in, for example:

recent past non-eyewitness f	*-(ha)te	>	-(he)te
------------------------------	----------	---	---------

That is, we can recognize a diachronic change:

*a > e / -Ce, where C is any consonant

applying at all possible places in tense-modal suffixes. That is, every *a* followed by an *e* was assimilated to that *e*.

The eleventh tense-modal suffix is future *-(ha)ba(na)/-(hi)ba(na)*, where *f* and *m* are distinguished only by the initial *-ha/-hi-* (and by the fact that this *-hi-* engenders raising of an immediately preceding *a* to *e*, even if the *-hi-* is then omitted). Now all other non-past choices in the system show a final *e/a*. It is possible that in an earlier stage of the language future did so too, and that we had *-(ha)bane/-(hi)bana*. There could then have been a diachronic change whereby the final *e* of the *f* form *-(ha)bane* assimilated to the two preceding vowels, giving *-(ha)bana*.

However, this would be assimilation in the opposite direction from that in other tense-modal suffixes. While the scenario just suggested is perfectly possible it is not fully convincing. There may be some other explanation for the modern forms of the future suffix that I have not yet been able to uncover. For example, it could be that at an earlier stage of the language future was an irregularity in an otherwise symmetrical system of tense-modal marking.

Whatever the explanation for the present-day forms of future, it is likely that the reason for future being the only tense-modal suffix to drop its final syllable in certain defined environments is that it is the only tense-modal suffix to have the same final syllable for both *f* and *m* agreement.

It has been suggested that all tense-modal suffixes originally began with *-ha/-hi-* (Ipe was probably brought into the system recently, and has initial *-ha-* in both genders). Following the initial *-hV-* there would have been, for past tenses:

(Ipe	*-ra/e)	IPn	*-ni/o
RPe	*-ro/i	RPn	*-te/a
FPe	*-ma-ro/i	FPn	*-ma-te/a

It will be seen that, for both eyewitness and non-eyewitness evidentiality choices, FP is *-ma-* plus RP. The fact that we can now diachronically isolate a *-ma-* morpheme provides further support for the idea that FPn *-mete* goes back to an original **-mate*.

For the non-past modalities, the suffixes following **-ha/-hi-* are reconstructed as (including here the possible—but by no means certain—suggestion concerning future):

intention	*-bone/a	future	*-bane/a (?)
reported	*-mone/a	hypothetical	*-mane/a
		irrealis	*-ne/a

We thus have a set of five forms all ending in *-ne/a*, with this being preceded by *-bo-* or *-ba-* or *-mo-* or *-ma-* or nothing. That is, we have a regular phonological matrix:

		FIRST VOWEL O		FIRST VOWEL a
INITIAL b	INT	*-bone/a	FUT	*-bane/a (?)
INITIAL m	REP	*-mone/a	HYPOTH	*-mane/a
		IRR	*-ne/a	

§6.2.6 provides further comment on this, and on the possibility of there being a plausible semantic basis for these formal parallels.

6.2 MEANINGS

We will begin by discussing the six past tenses—the evidential contrast in §6.2.1 and then, in §6.2.2, the contrast between immediate, recent, and far past. The meanings of non-past modalities are described in §§6.2.3–5.

6.2.1 Evidentiality (including mirative)

The evidentiality meanings of the eyewitness (e) and non-eyewitness (n) past tenses are fairly clear. Anything that the speaker witnessed (in real life or in a dream) will be described by e; otherwise n must be used. The most commonly used tenses (see the statistics at the beginning of this chapter) are FPn, RPe, and IPe. Traditional stories which have been handed down by word of mouth are always in FPn; and, generally, things located in the far past are less likely to have been witnessed than more recent events—so we get many less FPe than FPn. More recent events that are talked about have most often been witnessed—we find about twice as many instances of IPe as of IPn and far more RPe than RPn (this is further commented on in §6.2.2).

A typical conversation went as follows:

- (6.5a) jomee_A tiwa na-tafi-no awa?
 dog(m) 2sgO CAUS-wake-IPnm SEEMSM
 did the dog waken you?
- (6.5b) owa na-tafi-are-ka
 1sgO CAUS-wake-IPem-DECM
 it did waken me

In the question ‘did the dog waken you?’, non-eyewitness tense is used since the interlocutor did not himself hear or see the dog, but was just told about it. The reply uses an eyewitness tense since the speaker did hear (or see) the dog. Compare this with (6.6) where a sleeper was not wakened by the noise of singing and so uses a non-eyewitness tense:

- (6.6) [mee jowiri ni]_O o-mita-ra-hani o-ke
 3nsgS sing AUX+COMP 1sgA-hear-NEG-IPnf 1sg-DECf
 I didn’t hear their jowiri singing (in the night, when I was asleep)

Interestingly, going to sleep takes n evidentiality, as in (6.7a), while waking up takes the e value, as in (6.7b) and in the causative in (6.5b). Note that (6.7a) and (6.7b) are consecutive clauses in a text.

- (6.7a) amo o-waha-ni o-ke waha
 sleep 1sgS-NEXT.THING-IPnf 1sg-DECf NEXT.THING
 the next thing was I fell asleep
- (6.7b) manakobisa [[jama_S siri-maki] jaa]
 LATER thing(f) be.cold-FOLLOWING+NOM PERI
 o-tafa-ara o-ke
 1sgS-wake-IPef 1sg-DECf
 later, when it was cold (in the middle of the night) I woke up

Within a single sentence there can be one clause in *n* and another in *e* evidentiality. For example (this is TI.II):

- (6.8) Wero_S kisa-me-no, ka-me-hiri-ka
 name(m) get.DOWN-BACK-IPnm in.motion-BACK-RPem-DECm
 Wero got down from his hammock (which I didn't see), and went out (which I did see)

Wero had been asleep. He must have descended from his hammock (the narrator infers that this happened, although he did not see it) and then went out of the house (which the narrator did observe). A further example of this is:

- (6.9) katosos ka-foja-ni, . . .
 cartridges(f) APPLIC-be.inside-IPnf
 o-wa-kiti o-na-hara o-ke
 IsgA-APPLIC-take.out Isg-LIST-IPef Isg-DECf
 the cartridges were inside (a bag), I took them out

The narrator thought that the cartridges were inside the bag but he could not see them there and so used IPn in the first clause. The second clause, which describes him taking them out of the bag, utilizes IPe.

A speaker was talking about how his father had died while he was a small child and used FPn, since he did not himself remember the event. In one story the narrator goes past a wooden port on the river without seeing it is there, because of the long grass around. He describes this using *n* evidentiality.

- (6.10) faha.kabine_O fija o-witi-hani ama-ke
 port(f) go.past.and.not.stop IsgA-FROM.PLACE-IPnf EXTENT-DECf
 I went past the port without stopping (and without seeing it)

One story describes the drunken captain of a boat taking a wrong turn and getting lost. The narrator dissociates himself from responsibility for this happening by using *n* evidentiality:

- (6.11) Jara_A otara to-kana-ke-hita ama-ka
 Branco(m) IexcO AWAY-take.off.course-COMING-RPnm EXTENT-DECf
 the Branco took us off course

Another example of *n* evidentiality being used to indicate that the speaker does not have control over the activity is (6.26).

One way of describing catching a bad cold is to say that it 'found' you. But *n* evidentiality is then always employed:

- (6.12) ito_A owa wasi-hani-ke
 bad.cold(f) IsgO find-IPnf-DECf
 a bad cold found me (i.e. I got a bad cold)

One can contrast *e* and *n* evidentiality values with the same verb. Consider the following elicited sentences involving the verb *-hano-* 'be drunk':

- (6.13) o-hano-hara o-ke
 IsgS-be.drunk-IPef Isg-DECf
 I got drunk (deliberately)

- (6.14) o-hano-hani o-ke
 IsgS-be.drunk-IPnf Isg-DECf
 I got drunk (and don't recall it)

The e specification in (6.13) implies that the speaker knew what he was doing when he got drunk. In contrast, (6.14), with n evidentiality, could be spoken by someone who woke up drunk (or with a hangover) and didn't remember what he had done the previous night.

One revealing passage from a narrative text provides a contrast between the use of eyewitness and non-eyewitness tenses. The narrator has been waiting on the river bank for a motor boat belonging to a Catholic priest. Finally, he hears the noise of a boat and says, in the narrative:

(6.15a) [moto ati]_S ka-tima-re-ka
 motor.boat(m) noise in.motion-UPSTREAM-IPem-DECM
 the noise of the motor boat was coming upstream (the noise could be heard)

(6.15b) [moto ati]_S ka-time
 motor.boat(m) noise in.motion-UPSTREAMM
 the noise of the motor boat comes upstream

(6.15c) motos ka-time-no
 motor.boat(m) in.motion-UPSTREAM-IPnm
 the motor boat was coming upstream (although it could not yet be seen)

Clause (a) describes the noise of the boat coming upstream and uses e evidentiality, since the noise of the boat's motor could be heard. Clause (b) then repeats the same information without tense/evidentiality or mood. Clause (c) has the boat itself (not the noise of the boat) in S function and there n evidentiality is used. The boat itself cannot be seen and so the n value is the one to use in (c).

It will be seen that the evidentiality value referred to as 'eyewitness' covers not only happenings that the speaker witnesses with the eyes but also something that is heard. However, this 'earwitness' sense is restricted to where there is an NP which explicitly refers to a noise. In (6.15c) the S NP is 'boat' and the speaker could not see the boat (although he could hear it) so that a non-eyewitness tense is used. In (6.15a) the O NP is 'noise of a boat'; he can hear that, and thus employs an 'eyewitness' tense. It appears, however, that speakers have some discretion concerning which evidential to choose in borderline cases. Clause (b) in (6.5) uses an e evidential where the A NP refers just to *jomee* 'dog' (and not specifically to the noise of the dog—it was the dog's barking that woke the speaker). A clause 'X said' following direct speech typically bears an e suffix if the narrator heard X say the direct speech.

There are also instances of the 'eyewitness' choice being used to refer to something that is smelled, when the appropriate NP includes the noun *mahi/maho* 'smell'. Thus, in one story:

(6.16a) [jao abohi]_S home-hino
 sloth(m) be.dead+COMP lie-IPnm
 a dead sloth lay (there) (lit. the sloth's being dead was lying)

(6.16b) [jao bete maho]_S kita-hare-ka
 sloth(m) rotteness smell+m be.strong-IPem-DECM
 the smell of the rotten sloth was strong (lit. the sloth's rotteness's smell was strong)

In (6.16b) the NP in S function has *jao* 'sloth' as its head, modified by two inalienably possessed nouns, *bete* 'rotteness' and *maho* 'smell'. The verb *-kita-* 'be strong' takes the eyewitness IP tense suffix, showing that the eyewitness choice is appropriate when reference is to smell (this being shown by the inclusion of *maho* in the NP). In (6.16a) the non-eyewitness IP suffix is used in its mirative sense, to show surprise at encountering a dead sloth.

In a hunting story, the narrator mentions that the white-lipped peccaries which he and his companions were hunting had a strong smell, using *e* evidentiality since he could smell it:

- (6.16c) [hijara mee mahi]_S kita-hara-ke
 peccary(m) AUG smell+f be.strong-IPef-DECf
 the peccaries' smell was strong

A little later, he describes how the peccaries picked up the scent of the hunters, and now uses *n* evidentiality since he does not smell his own odour but simply infers that the peccaries perceive it:

- (6.16d) faja [otaa maho]_O mee hisi na-ni-ke fahi
 THEN Iexc smell+m 3nsgA sniff AUX-IPnf-DECf THERE.NON.VISIBLE
 then they (the peccaries) sniffed our smell

The evidentiality category relates not only to sight, hearing, and smell, but also to taste and touch. I was told that if you touch someone in the dark, then *e* evidentiality would be used if this was done deliberately while awake, but *n* would be used if you inadvertently put out your arm while asleep and effected the touch.

The evidentiality system interrelates with first person and with pivot assignment in discourse in an interesting way. Basically, if the speaker is pivot for a clause with a verb of perception, then an *e* value is likely to be used. But if, instead, the thing that is perceived functions as pivot, then an *n* value is more likely. Compare:

- (6.16e) [afiao ati]_O o-mita-ra o-ke
 plane(m) noise 1sgA-hear-IPef 1sg-DECf
 I heard the plane's noise (I was listening for it)
- (6.16f) [afiao ati]_O o-mite-no-ka
 plane(m) noise 1sgA-hear-IPnm-DECm
 I heard the plane's noise (unexpectedly)

Sentence (6.16e) is an A-construction (tense and mood agreeing with the A argument, 1sg *o-*), with the A argument as discourse pivot, and agent. In contrast, (6.16f) is an O-construction (tense and mood agree with the O argument, *afiao* 'plane'); here 'the plane' is discourse pivot. The A argument is not an agent, and *n* evidentiality is specified.

Delancey (1997), in a seminal study, notes that some evidentiality systems may also be used to mark a category he calls 'mirative', to draw attention to some information being 'new or surprising'. Within Jarawara the IPn suffix has a mirative use—it can be employed to indicate that an event or state is surprising to the subject. In this sense, IPn is used irrespective of time reference or visibility.

On one occasion, a man has not realized how late it is. Suddenly, dusk is upon him and he says:

- (6.17) bahi_S to-ke-hino
 sun(m) AWAY-in.motion-IPnm
 the sun is (surprisingly to me) going away (i.e. setting)

The text from which (6.17) is taken is told in FPN; the occurrence of IPn shows that this clause has a mirative meaning. Sentence (6.18) comes from a personal reminiscence told in FPe. The narrator and some companions have gone up a strange river and come across a patch of forest teeming with game animals. This is described by a clause with IPn marking to indicate the narrator's surprise.

- (6.18) banis mee wina-tee-hani
 animal(m) 3nsg live-HABIT-IPnf
 there were surprisingly many animals

One day Okomobi thought he was being given a cup of cachaça (a potent cane whisky). When he raised the cup to his lips he discovered that it was just water. The surprise experienced was coded by using IPn in describing this event (in a transitive Oc):

- (6.19) Okomobi_A faha_O hi-fa-hani ama-ke
 name(m) water(f) Oc-drink-IPnf EXTENT-DECf
 Okomobi (to his surprise) drank water

There are two other ways of specifying varieties of evidentiality in Jarawara—through the reported tense-modal suffix (§6.2.5) and through secondary verb *awine/awa* ‘it seems, I think’ (§7.1).

6.2.2 Past tenses

There are three past tenses in Jarawara and each recorded text has just one of them as its basic time of reference. The story of a hunting expedition, which took place three days before, is in the immediate past. Text 1, an account of a burial which took place about four months earlier, is in recent past. Far past is used both for text 2, a story about an adventure some years before, and for text 3, an account of how bark canoes used to be made about fifty years earlier, in the storyteller’s youth. Traditional stories that a narrator has learnt from an older relative are always in far past non-eyewitness.

This gives some indication of the typical temporal reference of the three tenses. But, as is normal in multi-term systems of this type (see Dixon 1988a: 59–60, 52 on the relative reference of a three-term deictic system and a four-term number system in Fijian), there is no objectively defined reference for each of these tenses, along the lines of: ‘tense X must be used for a time between A and B days/months/years before the present.’ IP is typically used for any time from a moment ago to a few months in the past, RP for a time from a few months to a few years ago, and FP for a time many years distant. But, essentially, the tenses provide a dynamic contrast—FP is further away than RP, and RP is further away than IP. (Note their use in T2.108–9.)

There is no suffix in Jarawara referring to present time. The lack of any tense-modal specification will often imply present time (especially when the sixth echelon miscellaneous suffix *-^hne* ‘continuous’ is also included) although, as mentioned above, tense-modal specification can be omitted in many other circumstances.

Immediate past may be used to describe something that is completed or finished—something which has been done. But it is also used in circumstances where one would not employ past tense in English. One evening I went across to another house and a Jarawara man asked if I had brought my pump torch (called by the Jarawara *niki.niki*—see (25.6–1) in §25.2). In replying that it was in my own house, I did not use a tense-modal suffix. I was then corrected, and directed to say:

- (6.20) niki.niki_S fore-hara-ke [oko jobe jaa]
 pump.torch(f) lie.on.raised.surface-IPef-DECf 1sgPOSS house PERI
 the pump torch was lying on a raised surface in my house

That is, I was told to use the IPe tense, presumably because I had last seen the pump torch a few moments before, lying on a shelf in my house.

One day I was due to leave the village of Casa Nova at about eleven o'clock (or whenever the plane arrived). At 7.30 a.m. I was asked if I was getting ready to go. In English I would have said 'I'm starting to get ready' and so I used a Jarawara sentence with no tense, only to be told to say:

- (6.21) jana o-na-hara o-ke
 begin 1sgS-AUX-IPef 1sg-DECf
 I've started (to get ready)

Since I had actually begun to get ready, it was appropriate to use the IPe tense (that is, my starting to get ready was in the immediate past).

In discussing their language, speakers of Jarawara clearly distinguish between the three eyewitness tenses (when 'you can see it') and the three non-eyewitness tenses (when 'you can't see it'). They also supply paradigms for each series stating that *-(ha)ra|-(ha)re* is closest in time, *-(ha)ro|-(hi)ri* a little further in the past, and *-(ha)maro|-(hi)mari* furthest away (each being illustrated as a suffix on an appropriate verb, of course), and similarly for the non-eyewitness series. Thus, labels IPe, RPe, and FPe are used for the first set and IPn, RPn, and FPn for the second set. However, there appears not to be a straightforward referential correspondence between the eyewitness and the non-eyewitness series.

From the figures given at the beginning of this chapter it will be seen that the corpus includes very few examples of RPn; only one text has been recorded whose basic tense is RPn. Of course, every text that is basically eyewitness is likely to have some non-eyewitness clauses, describing events that the narrator did not witness. In texts that are predominantly RPe the non-eyewitness clauses generally use IPn, not RPn. This is illustrated in (6.8) and in:

- (6.22) (a) [hinaka maone]_O hee-ka-me-hino
 3sgPOSS tapir(m) OC+APPLIC-in.motion-BACK-IPnm
 he (a Sorowahá man) brought some of his maone (the Sorowahá name for tapir)
- (b) wara o-ne
 hold 1sgA-AUXm
 I take hold of it
- (c) o-kabe-ri-ka
 1sgA-eat-RPem-DECm
 I ate it

This sentence consists of three transitive clauses, all O-constructions with the tapir as O. Clause (a) uses a non-eyewitness tense since the narrator did not see this happen. There is no tense-modal suffix in (b) and then clause (c) uses an eyewitness past tense. The important point is that (a) has *immediate* past non-eyewitness while (c) has *recent* past eyewitness (the basic tense of the story). The same correlation occurs in text 1, where the tenses are basically RPe and IPn (there are just three instances of RPn, in lines 3–5, and 87). In texts which are basically in IPe, non-eyewitness events are shown as IPn—for example (6.9). The correspondence between the three eyewitness and the three non-eyewitness tenses, with respect to time reference, can usefully be shown diagrammatically:

- (6.23)
- | TIME | EYEWITNESS | NON-EYEWITNESS |
|----------|------------|----------------|
| distance | IPe | IPn |
| from | RPe | RPn |
| present | FPe | FPn |
- ↓

That is, IPn covers a greater time-span than IPe, covering part of the range of RPe. The least used term, RPn, still does have a place in the system. Example (6.11) provides one example of

the use of RPn (from a text that was basically RPe). Another instance of RPn comes from later in the same text; interestingly, the same clause is then repeated with IPn:

- (6.24) (a) otaa amo na-waha-ro otaa-ke fahi
 IexcS sleep AUX-NEXT.THING-RPef Iexc-DECf THERE.NON.VISIBLE
 the next thing was we slept there (next to the Sorowahá village)
- (b) otaa amo na-ma
 IexcS sleep AUX-BACKf
 we sleep again
- (c) [otaa ni-jaa] mee bosa na-maki-hete-ke tasa
 Iexc PERI 3nsgS get.up.early AUX-FOLLOW-RPnf-DECf AGAIN
 they got up early on us again
- (d) mee bosa na-maki-hani
 3nsgS get.up.early AUX-FOLLOW-IPnf
 they got up early

Note the use of RPe in (a), no tense-modal at all in (b), RPn in (c), and then IPn in (d).

Thus, although IP, RP, and FP are used as labels for both the eyewitness and the non-eyewitness series, and in each case there is a three-way contrast in time before the present, the two sets of contrasts are not precisely matching.

The IPe suffix has a number of unusual properties. They are:

- (i) As noted in §4.4, the IPe suffix may not be used with a Iexc, Iinc, or 2nsg subject (or object in an Oc); the IPe specification is achieved by placing this pronoun in the third pronominal position.
- (ii) IPe is the only tense/evidentiality term not to occur with the secondary verb *ama* ‘extended in time’—see §7.1.1.
- (iii) Most tense-modal suffixes may be added to an NP or to a nominalized clause (§10.6). The only ones not attested in this function are RPn (which is rather rare on verbs) and IPe. The absence of IPe marking on nominals is noteworthy since it is one of the most frequently occurring tense-modal suffixes on verbs.
- (iv) Every other tense-modal suffix has an f form beginning with *-ha-* (or *-he-*, derived from *-ha-* through assimilation to *e* following *e*) and m form beginning with *-hi-*. However, for IPe both f and m forms commence with *-ha-*.
- (v) The IPe suffix *-(ha)ra|-(ha)re* appears not to occur in Jamamadí and Banawá, the other two dialects of the Madi language. It appears that in Jamamadí (and probably also in Banawá) the suffix *-ro/-ri* (which is RPe in Jarawara) is used for both immediate past and recent past reference.

A historical scenario that would throw light on these properties can be suggested. It is likely that there were no IPe forms *-(ha)ra|-(ha)re* in proto-Madi but that they are a recent innovation in just the Jarawara dialect. Before IPe was introduced RPe would have covered both recent and immediate past time reference (as it appears to do today in the Jamamadí dialect), and we should expect the following correspondences:

- (6.25) EYEWITNESS NON-EYEWITNESS
- current RPe form *-(ha)ro|-(hi)ri* $\left\{ \begin{array}{l} \text{IPn } -(ha)ni|-(hi)no \\ \text{RPn } -(he)te|-(hi)ta \end{array} \right.$

When the forms *-(ha)ra|-(ha)re* were added to the system for IPe, this would naturally have had IPn as its textual correspondent. But the fact that, as shown in (6.23), there is still a degree of textual association between RPe and IPn supports the suggestion that (6.25) held sway at an earlier period.

The verbal tense-modal suffixes would have been extended also to mark NPs and nominalized clauses at an early stage. When IPe was introduced into the verbal system, it was not also used on nominals. Relating to property (ii), it is likely that IPe evolved as a verbal suffix at a time after *ama* was established as a secondary verb, and its function was not extended to be used with *ama*. Relating to property (i), the fact that the IPe suffix is limited in its use is compatible with its having been introduced into the suffix system relatively recently. In §27.2, I suggest a historical scenario which explains the heterogeneous nature of IPe tense/evidentiality marking.

It is likely that IPe was introduced into the Jarawara tense-modal system at a stage after the initial *-hV-* syllables had evolved. It was accorded an initial *-hV-* syllable but this was *-ha-* for both genders (possibly because *-ha-* is the unmarked form in other contexts—for example, as the ending onto verb roots ending in *o*, *i*, or *e* in word-medial position).

The co-occurrence of the unmarked mood suffix, declarative *-ke/ka*, with tenses is of some interest. About 90 per cent of IPe and RPe and about 70 per cent of FPe are followed by a declarative suffix. In the case of non-eyewitness tenses we find a declarative suffix after about 75 per cent of FPn, after about 50 per cent of the small sample of RPn, but after only 7 per cent of IPn. This is attributable, in part, to the role that IPn plays as the unmarked term in the system; for example, it is the only past tense marker in dependent clauses, which cannot have declarative marking.

Turning now to subject possibilities, all types of subject occur with RPe and FPe. As mentioned above, a clause with 1exc, 1inc, or 2nsg subject may not take the IPe suffix (this tense-evidentiality value is shown by the inclusion of the appropriate form in the third pronominal position). The non-eyewitness tenses are, as would be expected, used predominantly with a 3rd person subject, although there are instances of 1st person. Example (6.7a) has 1sg subject with the verb ‘sleep’, taking n evidentiality since—as mentioned above—one is not aware of oneself going to sleep. And (6.14) has 1st person subject with ‘be drunk’ in n evidentiality when the speaker doesn’t recall getting drunk. Similarly, in a story of a river trip, IPn is used to indicate that ‘we’ got lost through not looking what we were doing:

(6.26) otaa to-sawari-hani
 1excS AWAY-get.lost-IPnf
 we got lost

And 1exc *otaa* or 1inc *ee* can be used to refer to ‘our ancestors’ with a non-eyewitness tense, e.g. (6.50)—which also includes an irrealis suffix—and:

(6.27) ee ta.tama to-he-hemete-mone
 1incS REDUP.be.many AWAY-AUX-FPnf-REPF
 it is said that we used to be many (i.e. the tribe used to be bigger than it is now)

Note that both evidentiality values can be used in positive and in negative clauses. Marking of past tense is rare in polar questions but it does occur, with both e and n evidentiality. On the lexemic level, verbs such as ‘see’, ‘hear’, and ‘know’ will generally take e evidentiality. Exceptions include when the clause involves a negator, as in (6.6) ‘I didn’t hear their jowiri singing’, with n evidentiality.

6.2.3 Intention and future

When the intention (INT) suffix is used in the first clause of an utterance, it generally specifies a human subject's attitude towards doing something, e.g. 'I plan to plane an axe-handle, make a garden, chop trees, and cut a rubber trail'; 'intend to' as in (5.323) 'I don't intend to sleep for a while yet'; 'need to' as in (6.28); or 'want to' as in (5.319) 'I want to go back upstream for a short while', and (6.29).

(6.28) o-na-mosa-ma-bone-ke

1sgA-CAUS-be.good-BACK-INTf-DECf

I need to repair [it] (lit. make [it] good)

(6.29) faja fowa_O mee kanika-bone, mee ati na mee
 THEN manioc(m) 3nsgA buy-INTf 3nsgS say AUXf 3nsgDEP
 then they wanted to buy manioc, they said

When speaking to a second person, intention can be a mild 'command strategy', used in place of an imperative. Rather than ordering 'you go there!' (with imperative mood suffix), someone will often prefer to say 'you should go there' (with intention modal suffix plus declarative mood suffix); see §15.1.

The INT suffix can also be used when there is an inanimate subject. In (3.23) it describes something that needs to be done to the subject, 'the gun needs to be repaired'. In (4.6) 'the food will become cold (so come and eat it now)', the use of INT describes a characteristic of the subject (hot food is prone to become cold). In (2.52) we have 'the plane INT come on to Casa Nova', describing a propensity of the plane (or perhaps of its pilot).

When used together with the negative suffix INT can mean 'shouldn't'. At the end of one recording the narrator indicated that he thought he had told a long enough story by saying (this is T2.123):

(6.30) faja_{CC} ama-ke, jabo-ra-bone-ke
 enough be-DECf be.long-NEG-INTf-DECf
 [that] is enough, it isn't intended to be (i.e. shouldn't be) any longer

When INT is used in a non-initial clause it can have a 'purposive' meaning—'X is done so that (INT) Y can be done/will happen'. Thus, 'they went out in order to (INT) hunt game'; 'The Paumari chief spoke first for us to listen to (his words)' in (7.15); and:

(6.31) [meefanawi nafi]_S ka-ke-haro mee ama-ke,
 women all in.motion-COMING-RPef 3nsg EXTENT-DECf
 otara mee nofa-habone mati
 1excO 3nsgA have.good.feelings.towards-INTf 3nsgDEP
 all the women came up (to us), to make friends with us

A sequence 'clause X, clause Y-INT' can also indicate that Y happened as a natural result of X, without anyone intending this result. In a narrative about a river journey, a group of people got lost and had to retrace their steps:

(6.32) [[faha_S fawa to-witiha] ihi]
 water(f) disappear AWAY-FROM.PLACEf DUE.TOF
 otaa wete ka-na-ma-bone
 1excS return APPLIC-AUX-BACK-INTf
 due to our having got lost (lit. due to the water's disappearing), we have to go back

Note that in (6.31) ‘all the women came up (to us)’ is the main clause with the INT clause ‘to make friends with us’ being a dependent clause, but in (6.32) ‘our getting lost (lit. the water’s disappearing)’ is an *ihi* ‘due to’ type of subordinate clause (see chapter 22) and ‘we had to go back’ is the main clause.

The future (FUT) suffix can provide a prediction about what will happen in the future, e.g. (3.22) ‘I don’t think we’ll see a jaguar (along the path)’, (5.129) ‘the women will sing jowiri-style first’, and (5.358) ‘(I’ll transfer my shaman power to my grandson and then) he will be wise’. FUT can be used, rather than INT, to describe something that is definitely projected as a future happening, e.g. (3.13) ‘we won’t go following (them) into their village just yet’, (5.36) ‘we’ll go upstream in the morning’, (5.122) ‘I’ll chop down some trees tomorrow morning’, (5.93) ‘we’ll give your paddle back’, (4.25) ‘Ariko will take you-all and leave you-all there’, and (5.340) ‘I will grab him the next time (he comes to try to make love to me in the night)’. With a *iinc* subject FUT can have a hortative meaning ‘let’s—’, as in:

- (6.33) *hima!* *ee* *to-ko-ma-ba* *ee-ke*
 COME.ON *iinc*S AWAY-in.MOTION-BACK-FUTf *iinc*-DECf
 come on, let’s go back!

Note that there is an interrogative future suffix *-ⁱbana/-bana*, discussed in §15.4.2.

It has been mentioned already that in a dependent clause the system of six past tenses is neutralized, and realized by IPn *-(ha)ni|-(hi)no*. If the dependent clause refers to something that happened at a time in the past, which was in the future with respect to the time of the main clause, then we get the short form of the future suffix *-(ha)ba|-(hi)ba* followed by IPn, i.e. *-(ha)ba-ni|-(hi)ba-no*, as in (6.41e) and (expanding on (5.173)):

- (6.34) *jomee_O* *wara* *to-misa-rima* *ne-mata-mona-ka* *ahi*,
 jaguar(m) grab AWAY-UP-REPEAT AUX-FPnm-REPM-DECM HERE.VISIBLE
noho.ho *na-wahe-ba-no-ho*
 be.injured.REDUP AUX-NEXT.THING-FUT-IPnm-DEP
 he is said to have grabbed the jaguar once more high up here, and the next thing
 was he got injured

The time of this event is referred to by FPn in the first clause and by the neutralized tense marker IPn in the second clause. The fact that he got injured after he grabbed the jaguar is shown by the inclusion of FUT *-(hi)ba* in the second clause (this engenders the change *a* → *e* on the last vowel of the preceding suffix *-waha-*, and then the *-hi-* drops since it is unstressed on the underlying cycle). The fact that the second clause is a dependent clause is shown by the final addition of *-ho* (i.e. *-h-* and an echo of the preceding vowel).

I have also encountered FUT followed by IPn in a main clause. Someone was offered just part of a pirarucu but said that he expected to get the whole fish:

- (6.35) [*borokoo* *nafi*]_{CS} *to-ha-re-ba-no* *ama?*
 pirarucu(m) all AWAY-become-NEG-FUTm-IPnm EXTENT
 shouldn’t it have been the whole pirarucu (lit. all the pirarucu should it not have been)?

There can be overlap between the use of INT and FUT. Thus, one might say either (a) or (b) of (6.36) and of (6.37) and of (6.38) with a slight but significant difference of meaning:

- (6.36a) *amo* *o-na-habone* *o-ke*
 sleep 1sgS-AUX-INTf 1sg-DECf
 I intend to/need to sleep

- (6.36*b*) amo o-na-habana o-ke
 sleep 1sgS-AUX-FUTf 1sg-DECf
 I will sleep
- (6.37*a*) [oko makari]_O tasi o-na-ma-bone o-ke
 1sgPOSS clothes(f) sew 1sgA-AUX-BACK-INTf 1sg-DECf
 I intend to/need to mend my clothes
- (6.37*b*) [oko makari]_O tasi o-na-ma-bana o-ke
 1sgPOSS clothes(f) sew 1sgA-AUX-BACK-INTf 1sg-DECf
 I'll mend my clothes
- (6.38*a*) o-tafa-bone o-ke
 1sgS-eat-INTf 1sg-DECf
 I'd like to eat *or* I need to eat
- (6.38*b*) o-tafa-bana o-ke
 1sgS-eat-FUTf 1sg-DECf
 I'll eat

One speaker contrasted the last two sentences by saying for (6.38*b*) ‘the food’s here and I’ll eat it’, and for (6.38*a*) ‘there’s only a bit of food and I want more’.

I was told that FUT could be used in place of INT in ‘the food will become cold’—see (4.6)—but INT is preferred here.

The basic contrast in meaning between INT and FUT can be clearly seen from sentences in which they are used in successive clauses. One legend began with a man saying to his mother:

- (6.39*a*) owa sari o-ka-na-bone o-ke,
 1sgO burn 1sgA-APPLIC-AUX-INTf 1sg-DECf
 o-haba-ra-haba owa awine oo
 1sgS-die-NEG-FUTf 1sg THINK 1sg
 I’m going to burn myself (INT), but I don’t think I’ll die (FUT)

In (6.39*b*) Okomobi tells of how, when he returns to his village from a linguistic workshop in Porto Velho, he will want (INT) to make a new garden but will (FUT) not be able to since the summer will (FUT) be almost finished and the wet season imminent.

- (6.39*b*) awa_O tii o-na-habone,
 tree(f) cut 1sgA-AUX-INTf
 awa_O tii o-ra-haba ama o-ke,
 tree(f) cut 1sgA-NEG-FUTf EXTENT 1sg-DECf
 [jama hiwe]_s jabo-ra-ba ama-ke
 thing(f) heat+f be.long-NEG-FUTf EXTENT-DECf
 I’ll want to make a new garden (lit. cut trees), [but] I won’t be able to make a new garden (lit. cut trees), the summer (lit. hot thing) won’t be long (for me)

In (6.40) we get INT in the first clause ‘I intend to hold up my flashlight’ and FUT in the second clause ‘and you will be able to see’:

- (6.40) [oko ratena]_O o-namo-waha-bone o-ke,
 1sgPOSS flashlight(f) 1sgA-show-NEXT.THING-INTf 1sg-DECf
 ti-wa-habana
 2sgA-see-FUTf
 I intend to hold up (lit. show) my flashlight, (and) you will be able to see

Note that the reverse order of tense-modal suffixes would not be acceptable here; that is, one could not use FUT in the first clause of (6.40) and INT in the second clause. It is, however, permissible to use INT in both clauses or FUT in both clauses.

The next example is from a tale of long ago when a group of people built houses and intended (INT) to live in them but were destined not to (FUT) live there (because of a threat of danger from another, hostile, tribe):

- (6.41) (a) *jobe*_O *mee* *ai* *ne-mete-mone-ke*
house(m) 3nsgA build AUX-FPnf-REF-DECf
they are said to have built houses
- (b) *mee* *wina-habone* *mati*
3nsgS live-INTf 3nsgDEP
they intended to live (in them)
- (c) *mee* *wina-habone*
3nsgS live-INTf
they intended to live (in them)
- (d) *jobe*_O *mee* *ai* *ne-mete-mone-ke*
house(m) 3nsgA build AUX-FPnf-REF-DECf
they are said to have built houses
- (e) *mee* *wina-ra-ba-ni* *mati*
3nsgS live-NEG-FUTf-IPnf 3nsgDEP
they would not live in them

Note that (a), (c), and (d) are main clauses while (b) and (e) are dependent clauses. In (b) we get simply the INT suffix *-habone* before the dependent clause marker *mati*, but (e) has FUT *-ba* followed by IPn *-ni* (the neutralized form of past tense in the dependent clause) and then again dependent clause marker *mati*.

When a FUNAI official took a Jarawara man to accost Branco fish poachers, he said to his companion:

- (6.42) *mee* *o-hijara-habone* [haa-owa], *mee* *ti-hijara-ra-bana-ke*
3nsgO 1sgA-speak.to-INTf EMPH-1sg 3nsgO 2sgA-speak.to-NEG-FUTf-DECf
I plan to talk to them, don't you say anything (lit. you will not speak to them)

That is, the FUNAI official uses INT to declare his intention and FUT (plus negation) for the instruction to the Jarawara man to keep quiet.

In texts there is a noticeable polarization of preferences for INT or FUT depending on the reference of a pronominal subject. A textual sample yields the following co-occurrences (the figures for 2sg, 2nsg, and 3nsg are too small to have any significance).

subject	1sg, o-	1inc, ee	1exc, otaa
INT	8	5	17
FUT	14	22	6

It will be seen that 1exc, *otaa*, is used more often with INT while 1sg, *o-*, and 1inc, *ee*, are used more often with FUT. This presumably relates to the meanings of INT and FUT and the varying types of roles that the different pronominal subjects are likely to play as subjects of clauses relating to non-past time. However, I do not have any explicit explanation for the correlations.

6.2.4 Irrealis and hypothetical

What is called the irrealis (IRR) suffix, *-(he)ne/- (hi)na*, refers to something that might well happen or have happened, but which didn't or hasn't yet or won't happen. It is useful to distinguish a number of related senses.

(a) something should be done (but hasn't been yet); for example:

- (6.43) ke-tehe-ne ama-ke [jaha jaa]
 APPLIC-be.lubricated-IRRF EXTENT-DECf oil PERI
 it (some piece of machinery) needs to be lubricated with oil

Note that *-kete-* is an S = O type ambitransitive verb, here used in its intransitive sense.

- (6.44) [jama wije]_O moo ka-ne-hene ama-ke
 thing(f) container+f be.full APPLIC-AUX-IRRF EXTENT-DECf
 the container needs to be filled

(b) something that someone could do, but won't:

A Branco had invited some Jarawara people to attend one of his festas (parties) but the Indians declined, saying that they preferred their own type of festa:

- (6.45) ajaka_O otaa awe-hene, [otaa kaa ajaka]_{CS} ama-ka-re
 festa(f) IEXcA see-IRRF IEXc POSS festa be-DEC-NEGF
 we could attend (lit. see) (your) festa (but won't, since) it's not our kind of festa
 (lit. our festa it isn't)

(c) something that could well have happened in the past but in fact didn't:

- (6.46) mee ka-so-hene-ke [jama.kabani jaa]
 3nsgS APPLIC-fall-IRRF-DECf forest(f) PERI
 they (in an aeroplane) could have crashed into the forest, but didn't
- (6.47) isi_O ee kabe-hina, hasi na-ka
 armadillo(m) IincA eat-IRRM escape AUX-DECM
 we could have eaten the armadillo (and wanted to), but it escaped

We find IRR plus the negative suffix in:

- (6.48) [[f_{aa}_O tee ka-jawi] jaa],
 water(f) 2nsgA APPLIC-be.jealous.over+NOM PERI
 faha_O mee kii re-ne
 water(f) 3nsgA look.at NEG-IRRF
 if you had protected [your] waters (lit. been jealous over your waters), they
 wouldn't have fished the waters (lit. looked at the waters)

Conditionals can be expressed by HYPOTH in one clause and IRR in another (see below), or by a *jaa* subordinate clause to a main clause with IRR, as in (6.48) and in (6.49) (which is T2.52):

- (6.49) [[o-wasi-ki] jaa],
 IsgA-find-COMING+NOM PERI
 jomee_O tao o-ka-ne-ne ama o-ke
 jaguar(m) shoot IsgA-APPLIC-AUX-IRRF EXTENT Isg-DECf
 if I found a jaguar, I would shoot it

A further example of IRR is at T2.94.

One of the few types of attested combination of two tense-modal suffixes is IRR plus FP, referring to something that might well have happened in the non-recent past. FPn follows IRR in:

- (6.50) [kowani jaa] otaa wine-hene-mete otaa ama-ke
 other.side PERI IexcS live-IRRF-FPnf Iexc EXTENT-DECf
 we (i.e. our ancestors) could have lived on the other side (of the Purús River)
 (but didn't)

An example of IRR plus FPe is:

- (6.51) [[mato_S bete to-si] jaa] [[o-si] jaa],
 vine(f) break AWAY-MIDDLE+NOM PERI IsgS-fall+NOM PERI
 o-habe-ne-maró ama o-ke
 IsgS-die-IRRF-FPef EXTENT Isg-DECf
 if the vine had snapped, if I had fallen, I might have died

It will be seen that the IRR suffix frequently co-occurs with the secondary verb *ama* 'extent in time'.

The hypothetical (HYPOTH) suffix, *-(he)mene/- (ha)mana*, is used rather rarely and always, it seems, in conjunction with IRR. We get a sentence consisting of two clauses, the first a counterfactual with the HYPOTH suffix ('if something were the case') and the second with IRR ('something else would happen, but in fact it hasn't').

In an account of a river trip the narrator told of how a dead alligator had been wedged onto a tree stump protruding out of the water. He explains that if the alligator had been alive (HYPOTH), it might have chased him (IRR) and he might have got tangled in the gill-net his canoe was trailing (IRR) (and been unable to get away from the alligator).

- (6.52) inohowe_S jati-mana-ha,
 alligator(m) be.alive-HYPOTHM-DEP
 inohowe_A owa fito ka-ne-hina ama o-ke,
 alligator(m) IsgO chase APPLIC-AUX-IRRM EXTENT Isg-DECf
 majatera_A owa kini ka-ne-hene owa
 gill.net(f) IsgO wrap.around APPLIC-AUX-IRRF IsgDEP
 if the alligator had been alive, it might have chased me, [and] I might have got
 tangled up in the gill-net (lit. the gill net might have wrapped itself around me)

Other examples include:

- (6.53) Jobeto_A bija_O kihe-himana-ha,
 name(m) battery(f) have-HYPOTHM-DEP
 bija_O taa ne-na ama-ka
 battery(f) give AUX-IRRM EXTENT-DECM
 if Jobeto had batteries, he would give batteries (to us)
- (6.54) tinero_O o-kihe-mene-he,
 money(m) IsgA-have-HYPOTHf-DEP
 kamisa_O o-kanike-hene ama o-ke
 shirt(f) IsgA-buy-IRRF EXTENT Isg-DECf
 if I had money, I would buy a shirt

- (6.55) hawi_S ne-hemene-he,
 road(f) exist-HYPOTHf-DEP
 ee to-ko-me-ne ee ama-ke
 IncS AWAY-in.motion-BACK-IRRF Inc EXTENT-DECf
 if there was a road (there), we would go back (along it)

Note that in each of these examples the HYPOTH suffix is followed by *-hV-* (where the *V* is an echo of the preceding vowel), as in a dependent clause; the difference is that a dependent clause, with this marking, always follows the main clause.

6.2.5 Reported

This suffix is included in the tense-modal system (*a*) because of its position in predicate structure, and (*b*) because it has a similar form to other terms in the system, with initial *-ha/-hi-*, final *e/a*, etc., i.e. *-(ha)mone/- (hi)mona*. It is used to draw attention to the fact that what the speaker is relating has been reported to them by someone else; this is a further marker of evidentiality.

However, there is one difference from other tense-modals. The two oldest speakers (both aged over 70) had allomorphs with underlying forms:

- (i) *-(ha)monehe/- (hi)monaha* when predicate-final, and when before backgrounding (BKG) mood suffix *-ni/-ne*;
 (ii) *-(ha)mone/- (hi)mona* in all other environments.

The final *-he/-ha* of forms (i) may be omitted when unstressed on the underlying cycle.

One day someone mentioned to me that Kamo had killed a tapir some way off and I asked João (one of the two old speakers) about this. João replied:

- (6.56) Kamo_A awi_O naboe-himonaha [Faha.biri jaa]
 name(m) tapir(m) kill-REPM place PERI
 Kamo is reported to have killed a tapir at Fahabiri

An example where REP is followed by the backgrounding mood suffix is:

- (6.57) hiwa na-hato-mata-monaha-ne
 JUSTm CAUS-be.pretty-FPnm-REPM-BKGM
 he is said to have made himself pretty (by painting himself)

There is a further example at (3.3).

Younger speakers never include this final *-he/-ha*. That is, they appear to have generalized allomorphs (ii) to be used in all environments.

As mentioned under (*c*) in §6.1, the *f* and *m* forms of RPn, normally *-(he)te* and *-(hi)ta*, become *-tee* when followed by REP. Irrespective of the number of preceding moras in the word, there is no *-hV-* before *-tee*, and the initial *-hV-* is always retained on the REP forms, i.e. *f* *-hamona* and *m* *-himona*. This indicates that the *-tee* commences a new phonological word (see §2.7). For example:

- (6.58) [amo ni]_S nafi.tee-himona ama-ka
 sleep AUX+NOM be.a.lot.RPnm-REPM EXTENT-DECm
 he is reported to have slept a long time (lit. his sleeping is reported to have been a lot)

Note that the *-tee* allomorph of RPN is potentially ambiguous with the miscellaneous suffix *-tee* ‘habitual, customary’, discussed in §5.10.

There is a correlation, but no coincidence, between the use of non-eyewitness past tense and reported modality. An example of REP without any past tense is (6.56). And an example of a past tense in n evidentiality without REP comes from an occasion when I was walking in the forest with some friends and saw a tree that had recently fallen; a Jarawara man commented:

- (6.59) awa_S ka-so-hani-ke
 tree(f) APPLIC-fall-IPnf-DECf
 the tree has recently fallen

The n evidentiality is used because the speaker did not himself see it fall. But he did see for himself that it had fallen and so did not, of course, use reported (REP).

Telling of traditional tales normally employs FPn and 90 per cent of the occurrences of these are followed by REP, i.e. *-(he)mete-mone/- (hi)mata-mona*, as in (6.27), (6.34), and (6.41a, d); we typically find each of a sequence of clauses marked by FPn plus REP, as in (12.29a–e). However, when IRR is included before FPn, as in (6.50–1), then it appears that REP cannot also be included after it. Another co-occurrence prohibition is that REP cannot be used with the secondary verb *awine/awa* ‘seems’ (‘reported’ and ‘seems’ being incompatible meanings within the Jarawara system).

Although REP is frequently included after RPN and FPn it never occurs following IPn. It may be that when the reported suffix occurs without any preceding tense/evidentiality suffix, the time frame is—in neutral circumstances—implicitly ‘immediate past’.

Examples of REP as the sole tense-modal suffix in a predicate include (4.57) and:

- (6.60) Matesako_S ahaba-mone
 name(f) be.dead-REPF
 Matesako (a female child) was reported to be dead
- (6.61) Tafi_S ati ne-mona
 name(m) speak AUX-REPM
 someone said that David spoke (calling us to eat)
- (6.62) [mee one ihi] iti-hamone mee
 3nsg other+f DUE.TOF kill-REPF 3nsgDEP
 the killing was reportedly due to others of them

Clauses with REP but no past tense often have a ‘say’ clause following, as in:

- (6.63) ‘Izaki_A Nanatoboto_O mera kejehe-mona’,_O
 name(m) name(m) 3nsgO trick-REPM
 Tioko_A hi-na-hare-ka
 name(m) Oc-AUX(say)-IPem-DECm
 ‘Izaki is reported to have tricked Nanatoboto’s people’, Tioko said

The REP suffix can be used to remind somebody of what they said about themselves, as in:

- (6.64) ti-fimiha-mone, ti-na
 2sgS-be.hungry-REPF 2sgA-AUX(say)f
 you were hungry (lit. you reported yourself to be hungry), you said

Note that in the second clause of both (6.63) and (6.64)—as in (6.66) and (6.74)—the verb is *ati-na-* ‘speak’ with the *ati* omitted when its auxiliary *-na-* takes a pronominal prefix, *o-*, *tí-*, or *hi-* (see §4.5.1).

The REP suffix can also be used on an NP (and then, when word-final, always has the form *-mone-he/-mona-ha*, as it would have in a dependent clause). It is typically used when referring to a place that the speaker has not seen but only been told about, e.g. (5.361) ‘at the place said to be Canutama’. An NP marked with REP can make up a complete clause. Okomobi was taken by Padre Gunter on a visit to the Sorowahá village and was told that they spoke a language genetically related to Jarawara and were thus a kindred people. He said, in his account of this journey:

(6.65) [[otaa kaa one] mee] -mone makoni
 IEXC POSS other+f AUG -REPF NO.RESPONSIBILITY
 they are said to be our sort of people (lit. they are said to be others of us)

In (6.66) REP is used on the O NP of the first clause (and IPn on the noun which makes up the second clause):

(6.66) [makari -mone]_O o-na haa, rona-ni-ke
 clothes(f) -REPF 1sgA-AUX(say) DEP canvas(f)-IPnf-DECLF
 I thought it was clothing, but it was canvas

In one story a man is accosted by what he thinks is his lover, Watati. In fact it is a spirit masquerading as Watati. The spirit is referred to as *Watati-mone* ‘the supposed Watati’. In (22.10b) there is an instance of the suffix *-mone* after *ihi* ‘due to’.

It is interesting to enquire concerning the origin of the reported suffix. None of the other Arawá languages has a suffix similar in meaning or in form to *-mone/-mona* in Jarawara and the other Madi dialects. However, there appear to be lexical cognates in Paumari. The dictionary of this language (Chapman and Salzer 1998: 317, 320) mentions an adverb *mona* ‘they say’ and also a noun *moni* ‘news’ (with derived verb *ka-moni-ki* ‘tell, recount’). It is likely that in Paumari the reported adverb ‘they say’ developed out of the noun ‘news’. An earlier stage of Madi may have had a cognate adverb which was then grammaticalized to become a verbal suffix. The exact nature of the grammaticalization process remains a matter for further study.

6.2.6 Analysis of the non-past modalities?

At the end of §6.1.2, it was pointed out that the reconstructed forms of the five non-past modalities make up a neat pattern, literally crying out for some semantic interpretation:

		FIRST VOWEL <i>o</i>		FIRST VOWEL <i>a</i>
INITIAL <i>b</i>	INT	*-bone/a	FUT	*-bane/a (?)
INITIAL <i>m</i>	REP	*-mone/a	HYPOTH	*-mane/a
		IRR		*-ne/a

Can we attach meanings to the *m*, the *b*, the *a*, the *o*, and the lack of any initial syllable (in IRR)? That is, can we find a semantic common denominator to HYPOTH and REP (*m*), FUT and INT (*b*), HYPOTH and FUT (*a*), REP and INT (*o*)?

It is not hard for any half-way ingenious mind to find something in common in cases like this. Both HYPOTH and REP deal with something that the speaker takes no responsibility for (either something that is hypothetical or something that has been reported to him). Both FUT

and INT explicitly refer to future time. And so on. But we could equally plausibly (or implausibly!) establish putative semantic links between modalities that do not share a phoneme from their initial syllables, e.g. HYPOTH and INT both deal with something that may not happen.

Really, there is no clear synchronic justification for any analysis of the five non-past modalities. There may, however, be some diachronic basis; a decision on this will have to await a detailed morphological and semantic comparison with other Arawá languages.

6.3 TENSE-MODAL FOLLOWING MOOD

As mentioned above, there are in the corpus some examples of a tense-modal suffix following declarative mood. This applies to INT, IRR, REP, and IPn.

For declarative mood (DEC), *-ke/-ka*, plus IRR, *-ne/-na*, or IPn, *-ni/-no*, the combinations are straightforward, i.e. *-ke-ne/-ka-na* and *-ke-ni/-ka-no*. Similarly for m DEC *-ka* plus m INT *-bona*, we get *-ka-bona*. For DECf *-ke* plus INTf *-bone* we would expect *-ke-bone*. The occurring form is *-ki-bone*. However, if there is a 1sg prefix *o-* in the third pronominal position then we get either *o-ki-bone* or *o-ko-bone*. (As mentioned under (E) in §2.9.4, it may be better to think of the underlying form here as *-ka-bone*, with the *-ke/-ka* of DEC neutralized to *-ka* before *-bone*, as happens before negator *-ra*, and the underlying *a* in *o-ka-bone* assimilating to the flanking *o*'s.) Some speakers use *o-ki-bone* and others use *o-ko-bone*; all speakers maintain that the two forms are equally acceptable and interchangeable. In addition, negative *-ra* plus *-bone* gives *-ri-bone*, as in (6.73). When DEC is followed by REP the m sequence is the expected *-ka-mona* but for f we get not *-ke-mone* but *-ki-mone*, similar to *o-ki-bone* with INT; this is illustrated in (6.80).

A sequence of 1sg *o-* plus declarative *-ke* plus negator *-ra* plus intention *-bone* is given a variety of realizations. Three speakers (all of whom gave *o-ki-bone* when there is no negator) gave *o-ke-re-bone*, *o-ke-ri-bone*, and *o-ka-ri-bone* respectively. Another speaker (who preferred *o-ko-bone* with no negator) gave *o-ka-ri-bone* with the negator.

We also find the interrogative mood marker *-ri/-ra* followed by IPn and by FUT *-ba*; see §15.3. The mood suffix *ⁱbe(ja)/-ba(ja)* ‘do immediately’ can be followed by IPn; see §7.2.3.

(a) Declarative mood plus intention modality

The difference in meaning between INT before and after DEC is brought out in a ‘minimal pair’ offered by a consultant:

(6.67) *o-tafa-bone* *o-ke*
 1sgS-eat-INTf 1sg-DECf
 I intend to eat

(6.68) *o-tafa* *o-ki-bone*
 1sgS-eat 1sg-DECf-INTf
 I'm going to eat right now

Sentence (6.67) just states an intention, with no information about when the eating is expected to take place. In contrast, (6.68) would be used when the speaker had been called to eat then and there, because the food was ready to be served. A similar contrast with 1excS is:

(6.69) *otaa* *tafa-habone* *otaa-ke*
 1excS eat-INTf 1exc-DECf
 we intend to eat

- (6.70) *otaa tafa-ki-bone*
 IexcS eat-DECf-INTf
 we're going to eat right now

While 1sg *o-* is included in third pronominal position with all tense-modal suffixes and also when there is no tense-modal specification, Iexc *otaa* occurs in the third pronominal position after a tense-modal suffix but not when there is no tense-modal specification. In keeping with this, we find *otaa* in third pronominal position in (6.69) when *-bone* is in predicate slot G, but not in (6.70) when *-bone* is in predicate slot K.

That is, DEC plus INT indicates that the event is about to take place. Another example is:

- (6.71) *bahis fawa n-isa-ka-bona*
 sun(m) disappear AUX-DOWN-DECM-INTM
 the sun is about to set (lit. to disappear down)

In one narrative, a canoe paddled fast by Brancos, on the Purús River, was making waves in the water which threatened to swamp a smaller canoe manned by Indians. They called out:

- (6.72) *otara tee ka-na-boka-ki-bone*
 IexcO 2nsgA APPLIC-CAUS-sink-DECf-INTf
 you're going to sink us

An example of DEC followed by negative suffix *-ra* (see §7.3) and then INT has been noted:

- (6.73) [*bani mee tafe*]_S *wata-ma-ka-ri-bone*
 animal(m) AUG food+f exist-BACK-DEC-NEG-INTf
 there's not going to be any food for the animals (lit. the animals' food won't exist)

Here NEG *-ra-* plus INTf *-bone* becomes *-ri-bone*, similar to *-ki-bone* for DEC plus INTf.

(b) Declarative mood plus irrealis modality

This appears to indicate that what would be the expected consequence of the event described by the clause does not eventuate; there is generally some degree of frustration involved. Thus:

- (6.74) *owa mee hijara-ke-ne, o-ra-haro o-ke*
 1sgO 3nsgA speak.to-DECf-IRRF 1sgS-NEG(say)-RPef 1sg-DECf
 they spoke to me but I didn't hear/understand, and I didn't reply

The clause *owa mee hijara-ke* (without IRR) would mean 'they spoke to me'. If IRR were included before DEC it could mean 'they should/could have spoken to me but didn't'. Adding IRR after DEC, as in (6.74), carries the meaning that they did speak to me but that either I didn't hear what they were saying or didn't understand them. In this textual example, the narrator didn't understand the language they were using. It is naturally followed by 'I didn't reply'. Another example is:

- (6.75) *maa o-ha o-ke-ne*
 be.tired 1sgCS-AUX 1sg-DECf-IRRF
 I'm tired (but may not yet rest)

This was said by a man who had been punting a canoe and was tired to the point where he wanted to have a rest, but was unable to do so since there was still some way to go to reach home.

Now consider two examples with *wato* 'know, learn, understand':

- (6.76) *jama_O Jara_A wato-ka-na*
 thing(f) Branco(m) know-DECM-IRRM
 the Branco knew a lot (lit. knew things) but has forgotten

- (6.77) *moto*_S wato-ka-na, *moto*_S ati-ka-ra
 motor(m) know-DECm-IRRm motor(m) speak-DECm-NEGm
 the motor won't start (lit. doesn't know how to start), the motor doesn't make
 any noise

Sentence (6.76) without the final IRR would mean that the Branco knew many things. When IRR is added the meaning changes: he used to know many things but has forgotten them. (6.77) uses the same verb with subject 'motor', literally: the motor used to know how to start but doesn't now know.

I was told that if Okomobi went to someone's house and they noticed that he was hungry but had no food to offer, it would be appropriate to say:

- (6.78) *Okomobi*_S fimi-ka-na
 name(m) be.hungry-DECm-IRRm
 Okomobi is hungry, but won't get fed here

There is an example of FPn plus REP preceding DEC and IRR following DEC in the same clause:

- (6.79) *mee* kakome-hemete-mone-ke-ne
 3nsgS be.scared-FPnf-REPF-DECf-IRRf
 it is said that they might have been afraid (of the monster)

(c) Declarative mood plus reported modality

The corpus includes rather few examples of this. It appears to mean 'it is said that this is the case', as in

- (6.80) *sarabo*_O mee kiha-ki-mone
 measles(f) 3nsgA have-DECf-REPF
 they are reported to have measles

(d) Declarative mood plus immediate past non-eyewitness tense

IPn is the only past tense form attested after DEC and, as in a dependent clause, it is probably a 'neutralized token' of the six-term past-tense/evidentiality system in this slot. Adding IPn after DEC sometimes indicates uncertainty about the event or state described by the clause. Thus, in a text where two Jarawara men were waiting for Padre Gunter's boat to pick them up and take them to a meeting, when they did not know whether or not the boat had already been and gone, we get:

- (6.81) *otaa* to-ka-tima-habone,
 IexcS AWAY-in.motion-UPSTREAM-INTf
*moto*_A otara kaa-kosa-ka-no
 boat(m) IexcO APPLIC+in.motion-MIDDLE-DECm-IPnm
 we need to go upstream, the boat might have already come and left us (here)

Then a boat was seen coming up the river. But they did not know if it was the boat that was to take them. The narrator commented:

- (6.82) [*Batirii mee kaa moto*]_{CS} ama-ka-no haari
 Padre 3nsg POSS boat(m) be-DECm-IPnm THIS.ONE.VISIBLEM
 it was unclear whether it was the boat belonging to the Padre's people there

The other meaning that can be attached to DEC plus IPn is 'just now', as in (this is TI.47):

- (6.83) *hinakiti*_S ahaba-ka-no
 3sgPOSS+grandfather(m) die-DECm-IPnm
 his grandfather has just died

There are similar examples at TI.13, TI.18, and (13.24).

6.4 ASPECT/TIME LEXEMES *hibati* ‘COMPLETED’ AND *hibajata* ‘CLOSE IN TIME’

The lexeme *hibati* is fairly frequent in texts and appears to have an aspectual—or sometimes a temporal—sense. It most frequently occurs in a peripheral NP marked by the postposition *jaa* and indicates that something is ‘completed’, that it is ‘no longer continuing’.

In a text describing how an official from FUNAI took some Jarawara Indians to intercept a group of Brancos (working for a Branco whose name is Branco) who were fishing illicitly in Indian waters, the Indian chief Okomobi states:

- (6.84) Barako_A owa heta na-re-ka [hibati jaa]
 name(m) 1sgO lease.from AUX-IPem-DECM completed PERI
 Branco did lease [the fishing waters] from me, but this arrangement is now finished

That is, Branco had paid Okomobi for permission to fish in Indian waters during a period. By including *hibati jaa* Okomobi is emphasizing that the leasing agreement has now expired, and as a consequence Branco’s men were fishing in Indian waters illegally.

In legend, a group of people are being tormented by a monster. They shift locations but, the narrator relates:

- (6.85) maka_{CS} to-ha haa,
 monster(m) AWAY-become DEP
 [hibati jaa] waa-make-himata-mona ama-ne
 completed PERI live-FOLLOWING-FPnm-REPM EXTENT-BKGM
 the monster was said to be there, as soon as they had settled (in a new place)

Here *hibati jaa* in the second clause indicates that as soon as they had completed their move to a new site, the monster was there as well; ‘as soon as (the move was completed)’ is rendered by *hibati jaa*.

Example (6.85) is from a traditional story, told in FP tense; (6.84) is in IP tense and refers to the lease having ended a short time (probably, a few months) before. There are examples of a *hibati jaa* used with a verb in IP tense to mean ‘just now’. For instance, a traveller arrived at the bank of the Purús River to catch a boat and wondered whether he had missed it. He enquired of someone who lives on the river bank if a boat had recently gone by and received the reply:

- (6.86) motos to-ka-tima-hare-ka [hibati jaa]
 motor.boat(m) AWAY-in.motion-UPSTREAM-IPem-DECM completed PERI
 a motor boat went upstream just now

It will be seen that when *hibati jaa* is used with a verb in past tense it generally refers to something which took place in the past and is now finished. We also find *hibati jaa* used with a verb bearing future or imperative suffix and it then has the meaning ‘do it right away (without delay)’. There is again a sense of completion, but in a non-past clause this relates to bringing something to completion. For example:

- (6.87) kanawaa_O ee horo na-ba ee-ke [hibati jaa]
 canoe(f) 1incA pull AUX-FUTf 1inc-DECf completed PERI
 we’ll pull the canoe (out of the water, onto the bank) right away

In the text from which (6.84) comes there is an example of *hibati jaa* being used to describe something that was done, without delay, within the line of action of the narrative. The tense is IP since this is the tense of the whole story:

- (6.88) *ati*_S *jana na-re-ne* [*hibati jaa*]
 voice begin AUX-IPem-BKGM completed PERI
 he (the FUNAI official) began speaking (to the fish poachers) without delay

It will be seen that the interpretation of *hibati jaa* is dependent on the discourse context in which it occurs. In (6.84) it indicates ‘completed in IP tense’ whereas in (6.88) it indicates ‘the next thing, done without delay’ within an IP narrative. In elicitation—asking about sentences that have no discourse context—different consultants provide differing semantic interpretations of a clause with IP tense and *hibati jaa*. It is necessary to study *hibati jaa* as it is used in discourse, in order to understand its significance.

We also find *hibati jaa* in clauses with no tense-modal element, and it is likely then to indicate that something ‘is happening now, and will soon be completed’. For example

- (6.89) *Okomobi*_S *ka-ke-ka* [*hibati jaa*]
 name(m) in.motion-COMING-DECf completed PERI
 Okomobi is coming (and will soon be here)

We also find *hibati* used without *jaa*, typically as alienable possessor within an NP. It then generally refers to ‘time long past’. For example:

- (6.90) [*hibati kaa mee ati*]_{CS} *ama-ke*
 long.ago POSS AUG story(f) be-DECf
 [this] is an olden-days story (lit. long ago’s people’s story is)
- (6.91) [[*hibati kaa jobe*] -*mata-mona*]_{CS} *ama-ka*
 long.ago POSS house(m) -FPnm-REPM be-DECM
 [this] is what houses are said to have been like long ago (lit. long ago’s house is)

On one occasion when Soki was chatting with me; he pointed to a bead bracelet on his wrist and said:

- (6.92) [*tika kasaro*] *hibati hibati kaaro*
 2sgPOSS bracelet(f) long.ago long.ago PERIF
 you (gave me the beads for this) bracelet long ago (lit. your bracelet long ago)

He was indicating that the bracelet was made of beads which I had given him in the past (in fact, four or five years before). (6.92) consists just of an NP, *tika kasaro*, plus a dependent clause that involves repetition of *hibati* with dependent marker *kaaro* (see §21.1.1).

I have heard *hibati* shortened to *hiba* when used as possessor within an NP.

There is another lexeme with temporal-type meaning, *hibajata*. This is rather rare and is only attested with postposition *kaa* or *jaa*. In (6.93), with no tense-modal suffix in the clause, it appears to refer to time ‘later today’:

- (6.93) [*hibajata kaa*] [*jama wehe* *jaa*] *bahi*_S *to-ka-ka*
 later.today PERI thing(f) brightness+f PERI sun(m) AWAY-in.motion-DECM
 later on today, after the brightness of day, the sun (will) set (lit. go away)

When the clause includes an IPe suffix, *hibajata* can mean ‘just now’, as in:

- (6.94) *mee afi to-na-ma-ra-ke* [*hibajata jaa*]
 3nsgS bathe AWAY-AUX-BACK-IPef-DECf just.now PERI
 they just went to take a bathe

There are insufficient examples of *hibajata* to attempt an informed guess as to its meaning. But the evidence points towards it indicating a time not far removed from the present (in the past, if a past tense suffix is used, or in the future, if there is no past marker).

It is possible that there is a diachronic connection between *hibati* and *hibajata*, and the clause-initial element *hiba* ‘wait a bit’, discussed under (ii) in §14.2.2.

Predicate Structure: Secondary Verbs, Mood, and Negation

This chapter deals with the remaining elements from the end of the predicate. §7.1 discusses the two secondary verbs *ama* ‘extended in time’ and *awine/awa* ‘seems’, which go in slot I. Then §7.2 considers the indicative mood suffixes together with other suffixes that are associated with slot J (imperative and interrogative mood suffixes are dealt with in chapter 15). Finally, the category of negation is discussed, in §7.3. In Jarawara this is shown by the predicate suffix *-ra*, which appears either in miscellaneous slot F6*d* or in the post-mood slot, K, depending on which of tense-modal suffix, mood suffix, and secondary verb are included in the predicate.

7.1 SECONDARY VERBS

These two predicate constituents intrude into a sequence of suffixes (coming after tense-modal and before mood) but are themselves separate words. The secondary verb *ama* is homonymous with copula *ama* ‘be’ and probably developed from it; the secondary verb *awine/awa* certainly developed from the regular ambitransitive verb *-awa-* ‘see, look at’ plus the miscellaneous suffix *-ⁱne/ø* ‘continuous’ (see §5.9). These have been incorporated into the predicate as grammatical elements but still maintain their status as distinct words. However, as will be discussed in §7.1.1, secondary verb *ama* appears in certain environments to be losing its initial *a*, and moving towards the status of a suffix.

As pointed out in §4.4.3, the filling of the third pronominal position (slot H in predicate structure) follows a simple rule when there is a secondary verb in the predicate:

Any pronoun (including 3nsg *mee*) which is in S function in an intransitive clause, in A function in an Ac, or in O function in an Oc, is repeated in slot H.

(Note that neither secondary verb occurs with IPe; we are thus spared the irregular realization of IPe described in §4.4.1 for when the pivot is 1/2nsg.) As pointed out in §4.4.5, a pronoun in A function in a transitive complement clause, which clause is in S function in the main clause, can be raised to S slot in the main clause, and may then be repeated in the third pronominal position. And even if it is not raised, it can still occur in third pronominal position in the main clause, as in (17.59–61). As pointed out in §4.4.6, a possessive pronoun within a pivot NP can optionally be repeated in the third pronominal position; an example sentence with a secondary verb is (7.2).

Note that 3nsg *mee* only occurs in the third pronominal position when there is a secondary verb in the predicate. §4.4.2 described how the prefix *hi-* can be included in third pronominal position in an Oc which has no secondary verb; where there is a secondary verb we cannot get *hi-* in the third pronominal position. (Full details and paradigms are in §16.4.5.)

A pronoun in S function (in an intransitive clause) or in A function (in a transitive Ac) is repeated in slot H in the same form as in slot B. A pronoun in O function (in a transitive Oc)

has in slot H the form appropriate to slot B, different from that which it has as O pronoun in slot A. For example, 1sgO *owa* in slot A of the Oc will be repeated in slot H as *o-*, as in (4.31).

A nsg pronoun is realized as a complete word in slot H and always precedes the secondary verb, in slot I. This is seen in (3.22), (4.28–30), (7.10), and:

- (7.1) *otaa jana-hamaro otaa ama-ke [Wara jaa]*
 1excS grow.up-FPef 1exc EXTENT-DECf name PERI
 we grew up at (the lake called) Wara

However, neither secondary verb accepts prefixes. Just as with a non-inflecting main verb pronominal prefixes go onto a following auxiliary, so with a secondary verb in slot I pronominal prefixes must be attached to a mood suffix in slot J. This was discussed in §4.4.3 and is illustrated by (4.27), (7.17), and by (5.353), repeated here for convenience:

- (7.2) [*tika hijari*]_S *amosa-tee ama ti-ke*
 2sgPOSS tell+COMP be.good-HABIT EXTENT 2sg-DECf
 your storytelling is customarily good

In more than 90 per cent of their occurrences the secondary verbs are followed by a mood suffix. If there is no mood specification the third pronominal position must still be filled. A nsg pronoun will precede the secondary verb, as in (4.32). 1sg *o-* or 2sg *ti-* in third pronominal position will follow the secondary verb if there is no mood suffix, just as they do when there is a mood suffix; they then take on the forms *oo* and *tii*, with two moras, and each functions as a full phonological word. Examples are at (4.33a/b).

If a secondary verb immediately follows an inflecting verb root, an auxiliary, or a miscellaneous suffix (i.e. if there is no tense-modal suffix intervening) then the preceding word does show gender agreement. For example, (7.11) and:

- (7.3) [*jifo noki*]_O *tama ne ama*
 fire(f) eye+f hold.in.hand AUXm EXTENT
 he is carrying the coals (lit. eye of the fire)

Here the final *e* on the AUX shows that the A argument is m (it is not otherwise stated in this clause but had been established in previous clauses of the discourse).

The negative suffix *-ra* sometimes occurs in miscellaneous slot F6*d* and sometimes in post-mood slot K. When there is a secondary verb, NEG must be in slot F6*d*, before the secondary verb. Full details are in §7.3.

The secondary verb *awine/awa* ‘seems’ differs from the more frequently occurring *ama* ‘extent’ in two ways. The first is that it agrees in gender with the pivot argument—*awine* for f and *awa* for m. The second special property is that if *awine* is followed by 1sg *o-* or 2sg *ti-* then it must also be preceded by *owa* or *tiwa* respectively. For example (7.81), T2.39, 82, and:

- (7.4) *amo o-bisa-ba owa awine o-ke*
 sleep 1sgS-ALSO-FUTf 1sg SEEMSF 1sg-DECf
 I think I’ll also go to sleep

It was noted in §3.1 that there are a number of homophonous forms *owa* (and similarly for *tiwa*). The *owa* and *tiwa* here are tentatively identified as the O forms of 1sg and 2sg pronouns. It is probable that all secondary verb constructions in modern Jarawara have developed from biclausal constructions at an earlier stage of the language. Constructions with *ama* as secondary verb probably come from biclausal constructions in which the second clause involved copula *ama*. Those with secondary verb *awine/awa* probably come from biclausal

constructions in which the second clause involved transitive verb *-awa-* ‘see, look at, feel, know’, plus continuous suffix *-ⁱne/ø*. (This is discussed under Step B in §27.2.) Under this scenario the *owa* in (7.4) is probably a relic of the original O argument of the transitive verb *-awa-*. It is now incorporated as a purely grammatical marker in monoclausal constructions such as (7.4). (A possible alternative scenario would be for *owa* and *tiwa* to have originally been markers of a dependent clause; see chapter 18.)

Note that there is no additional token of the pivot (as there is with *owa* in (7.4)) if the third pronominal position is filled by nsg pronoun before *awine*. For example:

- (7.5) hiba! otaa tafa-haba otaa awine-ke
 WAIT IexcS eat-FUTf Iexc SEEMS-DECf
 wait! I guess we’ll eat later on

7.1.1 *ama* ‘extended action or state’

The secondary verb *ama* has the same form as, and is almost certainly historically derived from, the copula verb *ama* ‘be’. One point of similarity is that neither accepts any prefixes. Another is that the form *ama* is invariable; for instance, the f form of the backgrounding mood suffix (BKGF), *-ⁱni*, generally raises a preceding *a* to *i* but when *-ⁱni* is added to *ama* we just get *ama-ni* with no change in the final vowel of the verb.

There are, as would be expected, several important points of difference. The copula verb can be followed by the negative suffix which can in turn be followed by a tense-modal suffix, as in (7.6); the secondary verb can take neither of these. Just the copula verb, not the homonymous secondary verb, may be used in a dependent clause. The copula functions as the head of the predicate in a clause taking a copula subject argument and often also a second argument in copula complement function. The secondary verb has no independent syntactic roles; it simply provides semantic modification for the verb that is head of its predicate.

We do in fact encounter the two verbs *ama* co-occurring in the same predicate, e.g.

- (7.6) [Wakari]_{CS} [haa]_{CS} ama-re-mata-mona ama-ka
 Paumarí(m) THIS be-NEG-FPnm-REPM EXTENT-DECm
 this Paumarí (man) is reported not to have been there (at the time)

It is not easy to pin down the meaning of the secondary verb *ama*. It seems generally to specify that an action is extended in time. Indeed, it is very frequently included in a predicate with the miscellaneous suffix *-tee* ‘habitual, customary’—see (7.2) and (5.350–6, 359, 362–5) in §5.10. And it is also generally included after the miscellaneous suffix *-ⁱnofa* ‘happened continuously over recent time’—see (5.268–74, 276) in §5.8.

The ‘extended in time’ meaning of *ama* as a secondary verb is clearly seen in:

- (7.7) o-fimi-ha ama o-ke
 IsgS-be.hungry-f EXTENT Isg-DECf
 I’ve been hungry over a long distance (on a journey)

With the *ama* omitted this would just mean ‘I’m hungry’.

- (7.8) kasasa_O mee fawa mee ama-ke fahi
 cane.whisky(f) 3nsgA drink 3nsg EXTENT-DECf THERE.NON.VISIBLE
 they are drinking cane whisky there

- (7.9) Jara_S hano-hiri ama-ka
 Branco(m) be.drunk-RPem EXTENT-DECM
 the Branco was drunk

In (7.8) they were consuming cane whisky for a period of time. And in (7.9)—from a different text—the Branco remained drunk for a fair time. (7.10) states that a journey took one month, literally ‘we killed one moon’; *ama* is again included because this ‘killing’ took place gradually, over a period of time.

- (7.10) [abariko_S ohari]_O otaa naahabi-haro otaa ama-ke
 moon(m) be.one+COMP IEXCA kill-RPef IEXC EXTENT-DECF
 (our journey) took one month (lit. we killed a moon being one)

One day a stranger came into the village and asked about the whereabouts of the two non-Brazilians who are sometimes to be found there. He received (7.11) in reply; note the use of *ama* with *-wina-* ‘live’.

- (7.11) Ara_S wata-ma-rihi,
 name(m) exist-BACK-CONTNEG
 [Jobeto taa]_S wine ama-ka ahi
 name(m) CONTR live+m EXTENT-DECM HERE.VISIBLE
 Alan (the missionary) is not here, [but] Jobeto (the linguist) is living here now

In (7.12) *ama* is used with *kaa -na-* ‘cut’ when some people are carefully cutting around the bark of a tree, delineating a shape to be made into a bark canoe; the cutting is naturally extended in time (this is T3.2).

- (7.12) mee kaa hi-ka-ne-mari ama-ka ahi
 3nsgA cut Oc-APPLIC-AUX-FPem EXTENT-DECM HERE.VISIBLE
 they were cutting (the bark (m)) here

In one text Okomobi described how he became chief. He began by saying that his grandfather wasn’t chief (*ama*) because he wasn’t wise enough (*ama*) but that his father was a chief (*ama*). In each clause *ama* indicates something that applied as a habitual state, over a considerable time:

- (7.13) (a) [okobi bati]_{CS} towisawa_{CC}
 1sgPOSS+father 3sgPOSS+father(m) chief(m)
 to-ha-re-mata-mona ama-ka
 AWAY-become-NEG-FPnm-REPM EXTENT-DECM
 my father’s father is said not to have become a chief
- (b) [okobi bati]_A jama_O wa.wato
 1sgPOSS+father 3sgPOSS+father(m) thing(f) REDUP.know
 to-ha-re-mata-mona ama-ka
 AWAY-AUX-NEG-FPnm-REPM EXTENT-DECM
 my father’s father is said not have been wise (lit. not to have known many things)
- (c) manakobisa okobi_{CS} towisawa_{CC}
 LATER 1sgPOSS+father(m) chief(m)
 to-he-himata-mona ama-ka
 AWAY-become-FPnm-REPM EXTENT-DECM
 but then later on my father did become a chief

The secondary verb *ama* is used with *amosa-* ‘be good’ in (5.295) ‘the bark is also good’ and with a reduplicated form of *amosa-* in (5.98) ‘he was getting better again (after a period of illness)’, i.e. his getting better extended over a period of time. In (5.52) it is used with *-noko-risa-* ‘be midday’, presumably to indicate that during the period when the sun was high in the sky, they did something (in this text: pass the mouth of the Piranha River).

Certain verbs typically occur with the secondary verb *ama*. One is *-jana-* ‘grow up’, as in (7.1); this is plainly an activity that is extended in time. Another verb that is frequently followed by *ama* is *ati-na-* ‘say’, which generally follows a quotation of direct speech; the act of speaking is considered to be extended in time. For example:

- (7.14) ‘towisawa_{CC} ti-ha-waha-bana ti-ke;
 chief(m) 2sgCS-become-NOW-FUTf 2sg-DECf
 ti-watis amosa-ke [tika [Jara mee ati]]_S’,
 2sgPOSS-language be.good-DECf 2sgPOSS Branco(m) AUG language
 Salgato_S ati ne-mari ama-ka
 name(m) say AUX-FP_{em} EXTENT-DECM
 ‘you should now become chief; your language is good (your command of) the
 Brancos’ language (i.e. Portuguese)’, Salgato was saying

And also in (7.15) which refers to speaking but uses the noun *ati* ‘language’:

- (7.15) [Wakari ati]_S tai to-he ama-ka,
 Paumari(m) language be.first AWAY-AUX_m EXTENT-DECM
 ati_O otaa mite-hibona-ha
 language IexcA hear-INT_m-DEP
 the Paumari chief speaks first (lit. the Paumari’s language is first), for us to listen to it

The secondary verb *ama* is not used after the IPe suffix. It was mentioned in §6.2.2 that IPe probably evolved as a suffix rather recently, after *ama* was established as a secondary verb, and its function was not extended to be used with *ama*. However, the other five past tenses freely occur before *ama*. About one-third of the occurrences of RPe and FPe and about one-fifth of those of FPn take this secondary verb. There are examples with RPe in (7.9–10), with FPe in (7.12) and (7.14), with RPn in (6.11), and with FPn in (5.360), (7.6), and (7.13). An example of *ama* with IPn is:

- (7.16) matero_A [jiwaha noki+bori]_O kowa hi-niha-ni ama-ke
 hammer(f) pan(f) lid+f be.dented Oc-CAUS-IP_{nf} EXTENT-DECf
 the hammer dented the lid of the pan (lit. the hammer caused the lid of the pan to be dented)

The secondary verb *ama* is not attested with the intention modality. It appears that, within the Jarawara semantic system, it is not appropriate to consider extension in time when one intends or plans or needs or wants to do something, or when something follows as a natural consequence of something else. However, *ama* can co-occur with the future modality. There is a nice illustration of this in (6.39b) ‘I’ll want to make a new garden (INT), but I won’t be able to make a new garden (FUT plus *ama*) since the summer will not be long for me (FUT plus *ama*)’. Other examples of *ama* with FUT include (4.28) and:

- (7.17) ... o-hijara-ma-ra-haba ama o-ke
 IsgS-speak-BACK-NEG-FUTf EXTENT Isg-DECf
 (if you don’t learn our language) I won’t be able to converse (with you)

In (7.17) there is plainly a reference to extended time. And in (7.18) *ama* is used because a plane's landing is a process extended in time.

- (7.18) *afiao*_s *sone-hiba* *ama-ka*
 plane(m) land-FUT_m EXTENT-DEC_m
 the plane will be landing

As mentioned in §6.2.4, the secondary verb *ama* frequently co-occurs with the irrealis suffix—see (6.43–4, 6.49–55); this refers to something that hasn't happened but which may well happen or could have happened (and would have been extended in time). *Ama* is only attested with reported when used after *-tee* 'habitual' or after FPN. It has not been encountered with hypothetical modality, but here there is only a very small corpus of occurrences.

When *ama* occurs with no tense-modal suffix, it is generally taken to relate to something that happened over an extended period of time in the past. In (7.19) the speaker is talking about the water level in a river, now and at a time in the past, by pointing to marks on a tree:

- (7.19) *jowa-hara-ke* *ahi*; *yowa* *ama-ke* *ahi*
 reach.to-IPef-DEC_f HERE.VISIBLE reach.to EXTENT-DEC_f HERE.VISIBLE
 [the water] comes up to here (pointing) now; it formerly came up to here (pointing)

As mentioned above, *ama* is frequently used with *-tee* 'habitual, customary' and *-i^hnofa* 'happened continuously over recent time'; each of these suffixes carries the idea of extension in time. Interestingly, *ama* is never used after the miscellaneous suffix *-i^hne* that is glossed as 'continuous' (see §5.9).

I remarked before that it is somewhat odd to find a free word interspersed in a string of affixes. In fact, many speakers of Jarawara (both older and younger) often omit the initial unstressed *a* from *ama-ke* or *ama-ka* (or *ama-ni* or *ama-ne*). (Note that this applies only to the secondary verb *ama*, never to copula *ama*.) Reduced just to *ma*, the secondary verb is close to taking on the status of a suffix. At present, speakers maintain that the basic form is *ama* and retain this in deliberate discourse but use a reduced form, *ma*, in more casual speech. I tentatively predict that—at a time perhaps not too far in the future—the longer form *ama* may drop out of use and just *-ma-* will be employed. (This would be homonymous with the commonly occurring miscellaneous suffix *-ma-* 'back', described at (14) in §5.4. True, the two *-ma-*'s would occur in radically different slots but since all suffixes are optional a verb could consist of just root (plus auxiliary) plus *-ma-*, and would be ambiguous between 'back' and 'extended time'. This would simply add a further straw to the already considerable load of homonymy in Jarawara.)

Note that if *ama* were to reduce to a suffix *-ma-* it would in many cases not affect the surface stress pattern, which goes on syllables containing the penultimate mora and alternate moras before this. Thus, in (7.12), for instance, where *ama* is followed by the declarative suffix *-ka*, we have *hi-ká-ne-mári amá-ka*; if *ama* became a suffix this would be *hi-ké-ne-mári-má-ka* with the same syllables stressed. However, a clause with a pronoun in the third pronominal position paints a different picture. When this is a nsg pronoun, such as in *otáa amá-ke* from (7.1), this could become *otáa-má-ke*. But where 1sg *o-* or 2sg *tí-* fill the third pronominal position, they move over *ama* and attach to a mood suffix; we get *áma tí-ke* in (7.2) and *áma ó-ke* in (7.7). Here the *a* of *ama* is stressed and is never omitted. It appears that we could not have an across-the-board reduction of *ama* to *-ma* without reorganization of the grammar with respect to the filling of the third pronominal position.

We also find *ama* used in polar questions—see §15.4.4. This is taken to be a further function of the secondary verb.

7.1.2 *awine/awa* ‘seems’

This secondary verb has a semantic range that cannot adequately be characterized by a single English gloss. Often it can be translated ‘it seems/appears that’ and SEEMS is used for the interlinear gloss. Other times it can be rendered by ‘in my opinion’ or ‘I think’ or ‘I guess’. We thus have a third marker of a type of evidentiality.

Examples of the ‘seem’ sense include (5.133) ‘my husband seems to be still asleep’, T1.61; T2.64, 69, 94, and:

(7.20) fahas_S kowi-ha awine-ke
 water(f) be.deep-f SEEMSF-DECf
 the water appears to be deep (at this spot in the river)

(7.21) [[aba]_S mee kahi]_{CS} to-ha mee awine-ke
 fish(f) 3nsgS be.roasted+COMP AWAY-become+f 3nsg SEEMSF-DECf
 it seems that there is roasted fish (lit. fish being roasted appears to become)

In one story an Indian heard that a fierce and hostile tribe was approaching, and hid. The narrator commented:

(7.22) habos_S baji-re-no awa-ka
 courage+m be.deep-NEG-IPnm SEEMSM-DECM
 he appeared to lack courage (lit. his courage appeared not to be deep)

When I returned from a visit to the Jamamadí tribe I mentioned that I had played a cassette of the Jarawara singing in ajaka-style, and then the Jamamadí sang some of their own traditional ajaka songs. I was asked whether the Jamamadí had understood the Jarawara songs and told to say in reply:

(7.23) [[oko fita]_S ajaki]_O mee wato-ha mee awine-ke
 1sgPOSS cassette(f) sing+COMP 3nsgA understand-f 3nsg SEEMSF-DECf
 they appeared to understand my cassette’s ajaka singing

On another occasion, I was trying to investigate the semantic basis of gender assignment. Having noticed that ‘motor’, ‘motor boat’, ‘plane’, and ‘car’ are all m, I wondered if everything with a motor would be m. So I displayed my rechargeable electric razor, explaining that it had a motor. Speakers agreed:

(7.24) moto_O kiha awine-ke
 motor(m) have+f SEEMSF-DECf
 [it] appears to have a motor

(But, as will be seen from the gender agreement in (7.24), the shaver itself was assigned to f gender!)

Examples where *awine/awa* can best be translated by ‘in my opinion’ or ‘I think’ or ‘I guess’ include (7.4-5), (7.81), (5.87b), (5.140), T2.108, and:

(7.25) faja ee hijara-ba ee awine-ke,
 THEN IincS talk-FUTf Iinc SEEMSF-DECf
 [[bahis weo to-ne] jaa]
 sun(m) be.late.afternoon AWAY-AUXm PERI
 in my opinion we should talk [pretty soon], since it is now late afternoon

One narrative tells how a man called Inaso has been lying in his hammock talking for half the night, keeping people awake. They protest that they want to sleep. Inaso replies:

- (7.26) hiba ee amo na-ba ee awine-ke,
 WAIT IincS sleep AUX-FUTf Iinc SEEMS-DECf
 jama.sokis jabo-haba awine-ke
 night(f) be.long-FUTf SEEMS-DECf
 wait, in my opinion we can still sleep (enough), in my opinion there's still a lot of
 the night left (lit. the night will be long)

As might be expected, *awine/awa* does not co-occur with eyewitness tenses. Further, it appears to occur with a 1st person subject only in future modality, e.g. (3.22) 'I don't think we'll see a jaguar along the way', or when there is no tense-modal suffix, as in (7.81).

Awine/awa also marks a type of polar question; this is discussed in §15.4.3.

7.2 MOOD SUFFIXES

In slot J of predicate structure (§4.1) there occur suffixes which indicate the mood of the sentence. Their behaviour with respect to an immediately preceding auxiliary *-na-* is specified using the same abbreviations as in chapter 5, i.e. A (auxiliary *-na-* never drops), or * (auxiliary *-na-* always drops), or ** (auxiliary *-na-* drops if it also bears a prefix). The abbreviations employed in interlinear glossing are also given.

(a) IMPERATIVE—see §15.2

ImmPosIMP	immediate positive imperative	A	-hi/-ho
DisPosIMP	distant positive imperative	**	ⁱ ja-hi/-ja-ho
ImmNegIMP	immediate negative imperative	*	-rima -na-hi/-rama -na-ho
DisNegIMP	distant negative imperative	*	-ri-ja-hi/-ra-ja-ho

(b) INTERROGATIVE—see §§15.3–4

CINT	content interrogative	*	-ri(ha)/-ra(ha)
PINT	polar interrogative	*	ⁱ ni(hi)/ <nothing >
PFutINT	polar future interrogative	**	ⁱ bana/-bana

Note that *ⁱbana/-bana* belongs to the mood system, but is placed in the tense-modal slot, G; see §15.4.2.

(c) INDICATIVE

DEC	declarative	A	-ke/-ka
BKG	backgrounding	A	ⁱ ni/-ne

There is a further, rather rare suffix *-ra/-^era* which appears to fall into the indicative set. The three indicative suffixes are discussed in §7.2.1.

The imperatives, the polar interrogative, and backgrounding may not be followed by any other suffix. The content interrogative may be followed by IPn or FUT or the mood-type suffix *ⁱbe(ja)/-ba(ja)* 'immediate'. A declarative mood suffix can be followed by INT, IRR, REP, or IPn (see §6.3).

As described in §4.2, mood suffixes fall into Area II of the predicate and in each case the final vowel of the f form is higher/fronter than the corresponding vowel of the m form, i.e. *i/o*, *i/a*, *i/e*, *e/a*.

There are a number of further suffixes which have limited functional possibilities and rather sparing occurrence. They have a mood-type function, and they are grouped together with imperative, interrogative, and indicative as occurring in slot J of the predicate:

(d) OTHER MOOD-TYPE SUFFIXES

CNTFACT	counterfactual	**	- ⁱ kani/-kani
CLIMAX	climax	**	- ⁱ nihi/-noho
IMMED	immediate	**	- ⁱ be(ja)/-ba(ja)
UNUSL	unusual, take no responsibility for	**	- ⁱ makoni/-mako
ContrNEG	contrastive negator	*	-rihi/-rihi

These are discussed in §§7.2.2–5.

7.2.1 Indicative mood suffixes: declarative *-ke/-ka* and backgrounding *-ⁱni/-ne* (plus *-ra/^era*)

All dialects of Madi use two indicative mood suffixes, *-ke/-ka* and *-ⁱni/-ne*. In Jarawara *-ke/-ka* is the most frequently used, with *-ⁱni/-ne* fulfilling a minor role; this is reversed in Jamamadí. But it appears to be, to a certain extent, a matter of habit; speakers of each dialect say that they could use the other suffix if they wanted to. In citing a noun a speaker of Jarawara will invariably use the copula *ama* plus an appropriate (f or m) mood suffix. For example, when naming plants one would say *jani ama-ke* ‘paxiúba palm (f)’ or *jawita ama-ka* ‘peach palm (m)’. Speakers most frequently use suffixes *-ke/-ka* in such cases. But sometimes they will instead use *-ⁱni/-ne* (i.e. *jani ama-ni* and *jawita ama-ne*), and when questioned on this point state that which indicative suffix is used is really of no consequence.

I have noted that older people tend to use the backgrounding more than younger ones, and speakers themselves consider that women tend to use backgrounding more than men. When women are quoted in stories they are often represented as using backgrounding rather than declarative. It is likely that at an earlier stage backgrounding was more used, with this being reflected in the relatively conservative speech of old people and of women.

It has several times been mentioned that all suffixes within the predicate are optional. An indicative clause can include *-ke/-ka* or *-ⁱni/-ne* or can have no mood specification. Interestingly, tense-modal and mood tend to co-occur. About half of the indicative clauses show no tense-modal or mood specification; of the remainder, about three-fifths include both tense-modal and mood, about one-fifth tense-modal alone, and the remaining one-fifth mood alone. That is, there is a tendency to include both tense-modal and mood, or to include neither.

In Jarawara discourse and texts, *-ke/-ka* is used more than ten times as often as *-ⁱni/-ne* and here there is a clear functional contrast. The declarative suffix *-ke/-ka* is used to mark the most salient clauses in a discourse. It is used especially for a clause describing a new type of activity, or a new participant, or at the end of a list of activities. It is frequently used in direct speech, especially with clauses whose subject is *1exc* or *1inc*, and also in ‘say’ clauses marking direct speech. And it is almost always included after the secondary verbs *ama* and *awine/awa*.

The backgrounding suffix *-ⁱni/-ne* is, as its name indicates, used for something that is not so central to the main theme of a discourse. Thus, Okomobi’s story of his visit to the Sorowahá village had a string of clauses in declarative mood, describing how all of the Sorowahá people crammed into one of their houses, filling it. The string ended:

- (7.27) ‘Sorowaha_S mee tama-ke’, o-na-haro o-ke
 tribe 3nsgS be.many-DECLf 1sgA-AUX(say)-RPef 1sg-DECLf
 ‘there are many Sorowahá (lit. the Sorowahá, they are many), I said

The next two clauses comment on the fact that the Sorowahá were naked, and use backgrounding mood *-ⁱni/-ne*:

- (7.28) makari_O mee aka-ra-ro-ni,
 clothes(f) 3nsgA wear-NEG-RPef-BKGF
 [mee kori]_{CS} to-ha-haro-ni
 3nsg nakedness+f AWAY-become-RPef-BKGF
 they didn't wear clothes, they were naked (lit. their nakedness became)

And earlier in the same text we get:

- (7.29) [mee ati]_O o-mita-ro-ke, [mee hii ni]_S
 3nsg language 1sgA-hear-RPef-DECf 3nsgS call.'hii' AUX+COMP
 ka-ma-haro mee ama-ni
 in.motion-BACK-RPef 3nsg EXTENT-BKGF
 I heard them talking (lit. I heard their language), they were going back calling 'hii,
 hii' (lit. their calling 'hii, hii' went back)

The first clause gives the salient piece of information 'I heard them', with declarative suffix *-ke*. Then the second clause mentions the sort of noise they were making (calling 'hii, hii', as uncivilized Indians are said to do), which is less important to the line of discourse and is marked with the backgrounding mood *-ⁱni*.

Another example was given at (5.50), from the account of a dream about a peculiar sort of plane: 'he pulled the cord down (*-ne*) and he went back up with it (*-ka*) into the sky.' Here declarative is used in the clause describing the result ('he went up into the sky') and backgrounding in the clause describing what he had to do to achieve the result ('he pulled the cord'). A further good example is at (9.5–6). See also T2.75, I20 and T3.47, 64.

There are a number of examples where a clause reporting direct speech (with 3rd person subject) is marked by backgrounding mood, and the following 'say' clause, introducing the direct speech, is in declarative mood, as in T2.110 and:

- (7.30) 'owa a.'ahi to-he ama-ne' ati ne-mete-mone-ke
 1sgO REDUP.work.at AWAY-AUXin EXTENT-BKGM say AUX-FPnf-REPF-DECf
 'he was copulating with me a lot (lit. he was working at me a lot)', she is reported to
 have said

Backgrounding tends to be used more often than declarative in O-constructions, and it is typically used with a 3rd person pivot. But when it is used with a 1st or 2nd person pivot then this is repeated in the third pronominal position in exactly the same way as before declarative. For example:

- (7.31) nokobisa_O o-wa-haro o-ni
 tiredness(f) 1sgA-feel-RPef 1sg-BKGF
 I was feeling tired (lit. I was feeling tiredness)
- (7.32) otaa wete na-ma otaa-ni
 1excS return AUX-BACKf 1exc-BKGF
 we returned

Note that *-ⁱni/-ne*, like *-ke/-ka*, can be used with verbs of every semantic type, whether describing an action, a state, or a quality ('be good', 'be strong') etc.

The f form of BKG raises an immediately preceding *a* to *i*. Compare two sentences, both involving verb *-fawa-* ‘drink’ and with f and m A arguments respectively:

(7.33) Watati_A faha_O fawi-ni
 name(f) water(f) drink-BKGf
 Watati drinks water

(7.34) Mioto_A faha_O fawa-ne
 name(m) water(f) drink-BKGM
 Mioto drinks water

However, in textual examples, ⁱ*ni/ne* almost always comes after a tense-modal suffix or a secondary verb or the miscellaneous suffix ⁱ*ne/ø* ‘continuous’, rather than after an inflecting verb root, or auxiliary, or a miscellaneous suffix ending in *a* (none of the f forms of tense-modal suffixes ends in *a*, and the final *a* of *ama* is invariable). There are thus rather few textual examples of an *a* being raised to *i* before BKGf ⁱ*ni* (examples (7.33–4) were elicited). One textual example involves negative suffix *-ra* (in slot F6*d*) becoming *-ri* before BKGf ⁱ*ni*:

(7.35) [mee kanamori]_O o-wa-ri-ni
 3nsg spirit 1sgA-see-NEG-BKGf
 I couldn’t see their spirits

Note that the f form of BKG has basically the same form as the polar interrogative mood suffix, ⁱ*ni(hi)*. I do not know if they are diachronically related or if this is an accidental homonymy.

It is important to note that the inclusion of DEC or BKG indicates a main clause. To use ⁱ*ni/**-ne* to indicate backgrounding is a quite different matter from employing a subordinate clause construction, of which Jarawara has many types (see chapters 17–22 and §24.1).

There is a further suffix which appears to be a type of indicative mood marker. This is *-ra/*^e*ra*; the m form raises an immediately preceding *a* to *e* (it is the only suffix which does not itself include the vowel *e* to engender this change). An elicited pair of sentences, with f and m S arguments respectively, is:

(7.36) Rosilias_S ka-ma-rima na-ra, ka-ma-tasa awine
 name(f) in.motion-BACK-REPEAT AUX-ra+f in.motion-BACK-AGAINf SEEMsf
 Lucilia is coming back intermittently (stopping and starting), she seems to be coming again

(7.37) Jobeto_S ka-ma-rima ne-ra, ka-ma-tase awa
 name(m) in.motion-BACK-REPEAT AUX-ra+m in.motion-BACK-AGAINm SEEMSm
 Jobeto is coming back intermittently (stopping and starting), he seems to be coming again

This suffix appears to be common in the Jamamadí dialect where it is glossed by Campbell and Campbell (1992: 7) as ‘declarative marker’ and ‘contrast, flashback’. Its few occurrences in the Jarawara materials may be archaic, or the result of present-day dialect contact. It may well be that the indicative suffix *-ra/*^e*ra* has dropped out of use in Jarawara because of the possibility of confusion with negative suffix *-ra*, which can occur in predicate-final position in this dialect. Note that when speakers of Jarawara ‘translated’ a Jamamadí text into Jarawara for us, they replaced Jamamadí *-ra/*^e*ra* by DEC *-ke/**ka*.

7.2.2 Counterfactual ⁱ*kani/**-kani* and climax ⁱ*nih/**-noho*

(I) ** ⁱ*kani/**-kani*, counterfactual. This suffix omits an immediately preceding *-na-* if it also bears a prefix; thus underlying *ti-na-ⁱkani* becomes *ti-kani*, as in (7.39). The suffix

indicates that the speaker thought, erroneously, that what is described by the clause is true. It must be followed by a clause with the verb *ati -na-* '(someone) thought/said'; for example:

- (7.38) faja [Inaso ati]_S fawa ne, amo na-kani;
 THEN name(m) voice disappear AUXm sleep AUX-CNTFACTM
 o-na-hare-ka;
 IsgA-AUX(think)-IPem-DECM
 faja [Inaso ati]_S jana na-ma-tase
 THEN name(m) voice start AUX-BACK-AGAINM
 then Inaso stopped talking (lit. Inaso's voice disappeared); I thought erroneously that he was asleep; then Inaso started talking again (lit. Inaso's voice started again)

Note that the *ati* of *ati -na-* 'say, think' is omitted when there is a pronominal prefix to the auxiliary, in (7.38) and also in (7.39–42) and (7.44); see §4.5.1. (The clause *o-na-hare-ka* in (7.38) is an Oc.)

- (7.39) amo ti-kani, o-na-hara o-ke;
 sleep 2sgS-CNTFACTf IsgA-AUX(think)-IPef Isg-DECf
 tiwati_S jana tasa-ke
 2sgPOSS+voice start AGAIN-DECf

I thought erroneously that you were asleep; [then] you started talking again (lit. your voice started)

- (7.40) Izaki_S mee to-ko-mi-kani, o-na-hara o-ke;
 name(m) 3nsgS AWAY-in.motion-BACK-CNTFACTf IsgA-AUX(think)-IPef Isg-DECf
 Izaki_S mee naho-ri-hani;
 name(m) 3nsgS sit/stand(plS)-RAISED.SURFACE-IPnf
 mee o-wasi-ma mee ama-ke
 3nsgO IsgA-find-BACKf 3nsg EXTENT-DECf

I thought, erroneously, that Izaki and his group had gone, [but] Izaki and his group were actually sitting/standing where I couldn't see them; then I did find them

The suffix ⁱ*kani/-kani* may be added directly to an inflecting verb (with or without a miscellaneous suffix), as in (7.40), or to the auxiliary of a non-inflecting verb, as in (7.38–9). However, it is often added to a 'list' auxiliary, which follows a clause or a sequence of clauses (see chapter 23), as in:

- (7.41) Ara_A jifari_O jome na na-kani, o-na-haa;
 name(m) banana(f) eat AUX LIST-CNTFACTM IsgA-AUX(think)f-DEPF
 Ara_A sami_O bako na na-noho
 name(m) pineapple(f) eat AUX LIST-CLIMAXM

I thought, erroneously, that Alan was eating a banana; he is actually eating a pineapple

When the counterfactual suffix is used with the secondary verb *ama*, there is a list auxiliary, *-na-*, following, as in (7.42–3). That is, ⁱ*kani/-kani* cannot, it seems, be added directly to *ama*.

- (7.42) makari_{CS} ama ni-kani, o-na;
 cloth(f) be LIST-CNTFACTf IsgA-AUX(think)f
 rona_{CS} ama ni-nihi
 plastic(f) be LIST-CLIMAXf

I thought, erroneously, that it was cloth; it is in fact plastic sheeting

- (7.43) jomee_{CS} ama na-kani, Okomobi_A ati na-re-ka
 jaguar(m) be LIST-CNTFACT_m name(m) think AUX-IPem-DECM
 Okomobi thought, erroneously, that it was a jaguar

The corpus includes no examples of the counterfactual suffix with a tense-modal suffix or with any other mood. When I tried to elicit it immediately following negator *-ra*, speakers offered a sentence with secondary verb *ama* followed by the list auxiliary *-na-* plus counterfactual:

- (7.44) jomee_S wata-re ama na-kani, o-na-hara
 jaguar(m) exist-NEGM EXTENT LIST-CNTFACT_m 1sgA-AUX(think)-IPef
 o-ke; jomee_S ita-ka-no naa
 1sg-DECf jaguar(m) sit(1sgS)-DECM-IPnm LIST
 I thought, erroneously, that there wasn't a jaguar [in the place, but] there's a jaguar sitting there right now

It will be seen that *-ⁱkani/-kani* has limited functional possibilities. Consistent with these, it can be assigned to slot J in predicate structure. It does not co-occur with any of the other suffixes assigned to this slot, and it does have a mood-type meaning.

Interestingly, the f form is often used with an m referent. For example, (7.44) was first given by Okomobi with *ni-kani*; when asked about it, he said that *na-kani* and *ni-kani* are equally acceptable. It may be that *-ⁱkani* is being generalized to be the form to cover both f and m agreement.

(2) ** *-ⁱnihī/-noho* 'climax, contrast'. Whereas the counterfactual suffix *-ⁱkani/-kani* is often (but not always) added to a list auxiliary, all examples of the climax suffix *-ⁱnihī/-noho* have it added to a list auxiliary, *-na-*; i.e. f *ni-nihī* and m *na-noho*. Like *-ⁱkani/-kani*, this suffix omits an immediately preceding auxiliary, *-na-*, if this also shows a prefix; thus, underlying *o-na-ⁱnihī* becomes *o-nihī*.

The suffix *-ⁱnihī/-noho* has a similar grammatical status to counterfactual and is often found used with it in a biclausal construction, as in (7.41–2). It typically marks a contrast 'this and not that'. Other examples include:

- (7.45) kosiba-mone-ke, kosi_{CS} ama na-noho
 babaçu(f)-REPF-DECf urucuri(m) be LIST-CLIMAX_m
 it was thought to be babaçu, but in fact it is urucuri (these are rather similar palms—
 note their names in Jarawara, kosiba and kosi)

Here the first clause, which consists just of an NP, is marked by reported modality *-mone* (rather than by counterfactual mood).

- (7.46) [oko kobati]_{CS} ama na-noho
 1sgPOSS friend(m) be LIST-CLIMAX_m
 (I thought the person in that canoe was a woman, but on closer inspection) it is
 actually my friend (a man)

In other examples, *-ⁱnihī/-noho* marks a point of climax in a story, for example:

- (7.47) [awa mate ihī] mee ka-boki-ne ni-nihī
 tree(f) stump+f due.to+f 3nsgS APPLIC-sink-CONTF LIST-CLIMAX_f
 it was due to (their hitting the submerged) tree stump that they sank with (their
 canoe)

In one story a married couple go into the forest together but get separated. The man searches for his wife, hears a jaguar growling, and realizes what has happened to her. He says:

- (7.48) jomee_{CS} ama-re?, oko-jibotee_O kaba na-noho
 jaguar(m) be-NEGM 1sgPOSS-spouse eat LIST-CLIMAXM
 isn't it a jaguar? he must have eaten my wife

In one narrative about a man sneaking into a woman's hammock at night, *-ⁱnihī/-noho* is used three times, each instance being a clause describing acts of copulation. For instance, someone says to the woman:

- (7.49) tiwa a.'ahi to-ha na-noho
 2sgO REDUP.work.at AWAY-AUX LIST-CLIMAXM
 he was continually copulating with you (lit. working at you)

Note that here (and in the other two instances) the reduplicated verb plus *to-ha* indicates an iterated event in the past, rather than a single act of copulation (see §9.3.2).

We can get *-ⁱnihī/-noho* marking both climax and contrast at the same time. In a narrative about the death of a relative, Manowaree said (this is TI.14):

- (7.50) okobise_S wini-nofe, ahaba na-noho
 1sgPOSS+uncle(m) lie.in.hammock-RECENTM die LIST-CLIMAXM
 my uncle had been lying in his hammock (sick) for a considerable time, and then he died

This corpus does not include an example of this suffix co-occurring with any other mood. Because of its meaning, and its association with the counterfactual suffix, it seems appropriate to assign it, too, to slot J in predicate structure.

7.2.3 Immediate *-ⁱbe(ja)/-ba(ja)*

This suffix has the meaning 'do immediately, before anything else; straightaway', as in:

- (7.51) hima! ee to-tabā-mi-be
 COME.ON 1incS AWAY-be.together-BACK-IMMEDf
 come on! let's go back together, straightaway!

It is often found after the third echelon miscellaneous suffix *-mata* 'for a short while', e.g. (2.18*d*) 'I'm just going to shoot a deer', (5.320) 'I'll just stop and pee for a minute', (5.321) 'I'll just talk for a short while', TI.27, T2.3, and:

- (7.52) hiba [oko wata]_O o-komina-mati-be
 WAIT 1sgPOSS dream(f) 1sgA-talk.about-SHORT.TIME-IMMEDf
 wait a moment, while I just talk about my dream for a short while now (said as the first sentence of a recorded account of the dream)

The suffix is often used with 1 inc pronoun *ee*, having then a cohortative meaning 'let's do this at once'. It is often accompanied by the interjection *hima* 'let's go! come on!' The *ee* can be in S function, as in (7.51) and:

- (7.53) hima! ee tafi-beja
 COME.ON 1incS eat-IMMEDf
 come on! let's eat at once!

or in A function, as in:

- (7.54) hima! mee ee awi-beja
 COME.ON 3nsgO IincA see-IMMEDf
 come on! let's go and look at them straightaway

or in O function:

- (7.55) hima! Sorowaha_A era mee awi-beja
 COME.ON tribe IincO 3nsgA see-IMMEDf
 let's go at once for the Sorowahá to see us!

It also commonly occurs with a 2nd person subject. In (7.56) the first clause is imperative and the second takes *-ⁱbe(ja)*:

- (7.56) ti-ka-ma-hi! ti-tafi-beja
 2sgS-in.motion-BACK-ImmPosIMPf 2sgS-eat-IMMEDf
 you go back! you eat without delay

The 'do immediately' suffix may be used in a content question, coming after the interrogative mood marker *-ri/-ra*:

- (7.57) [[hike kaa kanawaa] jaa] ee ka-riwa-ri-be?
 who POSS canoe(f) PERI IincS in.motion-ACROSS-CINTf-IMMEDf
 in whose canoe are we going to cross the river just now?

- (7.58) himata_O ebe ti-ri-beja?
 what have.purpose 2sgA-CINTf-IMMEDf
 what are you going to do now?

or, with an m subject:

- (7.59) himata_O Jobeto_A ebe-ra-baja?
 what name(m) have.purpose-CINTm-IMMEDm
 what will Jobeto do now?

There is in the corpus one example of this suffix being followed by the IPn tense *-ni/-no* (here probably the neutralized realization of the six-term past tense system). In a story about a Jarawara hero called Saba who went on a revenge expedition against the hostile Jima tribe, we find:

- (7.60) (a) Saba_S homa kabote ne-mata-mona-ka
 name(m) lie.on.ground IMMEDIATELY AUX-FPnm-REPM-DECM
 Saba is said to have quickly lain down (hiding)
- (b) [[[Jima fana]_S ka-ki] -be-ni] jaa]
 tribe woman(f) in.motion-COMING+NOM -IMMEDf-IPnf PERI
 when the Jima woman immediately came (towards him)
- (c) [Jima fana]_A soo hi-ne-ba-no-ho
 tribe woman(f) pee.on Oc-AUX-FUTm-IPnm-DEP
 and the Jima woman peed on him
- (d) bari_O [Jima fana]_A soo hi-ne-mata-mona-ne
 back tribe woman(f) pee.on Oc-AUX-FPnm-REPM-BKGM
 the Jima woman is said to have peed on his back

Clause (b), with ⁱbe before IPnf, indicates that after Saba laid down, the next thing that happened was that the Jima woman came out to pee. Note that *jimo fana ka-ki* in this clause is a nominalization, shown by the morphophoneme /I in *-kI* ‘coming’ having being realized as *i* in an unstressed position.

When ⁱbe(ja)/-ba(ja) occurs immediately after the auxiliary *-na-*, the auxiliary is omitted if there is also a prefix. Thus, the auxiliary *-na-* is omitted from (7.61) but retained in (7.62–3):

- (7.61) soo o-beja
 pee IsgS-IMMEDf
 I’ll pee right away
- (7.62) Jobeto_s soo na-baja
 name(m) pee AUX-IMMEDm
 Jobeto (a man) will pee right away
- (7.63) fati_s soo ni-beja
 3sgPOSS+wife(f) pee AUX-IMMEDf
 his wife will pee right away

If the auxiliary constituent includes 1 sg *o-* plus applicative *ka-* plus auxiliary *-na-* plus ⁱbe(ja), then the auxiliary drops and applicative becomes *-ko-* in the environment *o-* ⁱbe(ja), as in (2.18e) and:

- (7.64) Jobeto, tiwa jofi o-ko-be [oko jama jaa]
 name(m) 2sgO show IsgA-APPLIC-IMMEDf IsgPOSS thing(f) PERI
 Jobeto, I’ll show you my things right now

It will be seen that the final syllable, *-ja*, of ⁱbe(ja)/-ba(ja) is sometimes included and sometimes omitted. This appears to be, in the main, phonologically conditioned:

- (a) The final *-ja* may optionally be omitted when in an even-numbered mora (unstressed on the underlying cycle). For example *-ja* is dropped from the fourth mora position in (7.60b) and (7.64); from the sixth mora position in (7.51) and (7.57); and from the eighth mora position in (7.52), (5.321), T1.27, and T2.3. The *-ja-* is retained in (7.53–5) and (7.58).
- (b) The final *-ja* is generally retained when in an odd-numbered mora (stressed on the underlying cycle), as in (7.56), (7.59), (7.61–3), and T3.21.

An exception to this is that we can get the *-ja* retained or omitted in *o-beja*, and in *o-mati-beja*. Thus, an alternative to *soo o-beja* in (7.61) is *soo o-be*; we find *o-mati-be* in (5.320) and (8.51a).

The suffix ⁱbe(ja)/-ba(ja) occurs after sixth echelon suffixes *-bisa* ‘also’ and ⁱne/ø ‘continuous’. It can follow the content interrogative mood marker *-ri/-ra*. It is tentatively placed in slot J of the predicate. Evidence supporting this is that it may then be followed by IPn, as neutralization of the six past tense choices (note that in (7.60b) we get IPn after IMMED in a text which is basically in FPn tense). Declarative, from slot J, behaves in exactly the same way (see §6.3).

7.2.4 Unusual, take no responsibility for ⁱmakoni/-mako

This suffix has a fair range of meaning. It is often used for something that is unusual or unexpected. It is likely that a fuller study than has been possible here (with a larger corpus of

examples) would be able to assign it an integrated meaning, of which each of the senses illustrated below is a special case.

One day a Jarawara man tried on my shoes, which were far too big for him, and told me that I should say:

- (7.65) o-temes_S foti-makoni ama-ke
 1sgPOSS-foot+m be.big(nsgS)-UNUSLf EXTENT-DECf
 my feet are unusually big

When Okomobi was offered some cold water, straight from the refrigerator, he commented:

- (7.66) fahas_S siri-makoni ama-ke
 water(f) be.cold-UNUSLf EXTENT-DECf
 the water is unusually cold

There is another example at T2.63.

This suffix also has a sense ‘take no responsibility for’. One afternoon Okomobi came to transcribe texts rather later than he had planned to, and remarked:

- (7.67) jama_O ahi o-makoni ama o-ke
 thing(f) work.at 1sgA-UNUSLf EXTENT 1sg-DECf
 I’ve been working for a fair while

By including *-ⁱmakoni/-mako* here he implied that the work had taken him longer than expected but it wasn’t his fault that he couldn’t come any earlier.

In one story Okomobi explained why he didn’t reply to some Brancos:

- (7.68) owatis_S wata-ma-ra-hara o-ke,
 1sgPOSS+voice exist-BACK-NEG-IPef 1sg-DECf
 [Izaki ati]_S fawa na-mako
 name(m) voice disappear AUX-UNUSLm
 I didn’t reply (lit. my voice didn’t exist) [because] Izaki said nothing (lit. Izaki’s voice disappeared)

That is, Okomobi was disclaiming responsibility; he was following Izaki’s lead and it was Izaki’s decision to say nothing.

One day, Okomobi and I were trying to work against the raucous noise made by a group of children in the same room. Okomobi said, using the verb *-komeha-* ‘be a lot’:

- (7.69) [metehe moni]_S komehi-makoni
 children(f) noise be.a.lot-UNUSLf
 the children are making an unusually loud noise

The suffix *-ⁱmakoni/-mako* is used here to mean both (i) the noise was excessive; and (ii) Okomobi took no responsibility for it, since the children were from a family unrelated to him.

This suffix is frequently followed by *ama*, as in (7.65–7); this is presumed to be the secondary verb ‘extended in time’ (rather than the copula *ama* ‘be’).

It is hard to decide where *-ⁱmakoni/-mako* is best placed in predicate structure. There is an example of it following future modality, in:

- (7.70a) okojo_S ee na-ba-mako,
 1sgPOSS+elder.brother(m) be.like.this AUX-FUTm-UNUSLm
 ati_S sa.sai to-ha na-noho
 voice REDUP.be.audible AWAY-AUX LIST-CLIMAXm
 my elder brother said it would be like this (lit. my elder brother would be like this, his voice was always saying)

The speaker is here implying that he takes no responsibility for what has happened; it was as his elder brother had predicted.

The suffix may also occur following intention modality, as when someone said to a dying man:

- (7.70b) ti-haba-bone ti-makoni
 2sgS-die-INTf 3sg-UNUSLf
 you're going to die (if you don't eat and drink something)

By using *-makoni*, the narrator indicates that he takes no responsibility for what might happen.

Although *-ⁱmakoni/-mako* is treated together with mood suffixes, which occur in slot J, this is not a very satisfactory placement for it. It does follow tense-modal suffixes, as in (7.70a/b), and it follows a pronominal prefix in third pronominal position in (7.70b), but it precedes the secondary verb *ama* in (7.65–7). There appears to be no easy solution to the problem of where to locate *-ⁱmakoni/-mako*, within the structure of the predicate as set out here.

We also get the form *makoni* (with no gender marking) occurring as a separate word in clause-final position. Sentence (7.71) describes a FUNAI official telling some fish poachers that the lake in which they are fishing belongs to Juraci's people (an Indian tribe). By including *makoni*, the official is saying that he takes no responsibility for this state of affairs; it is the Brazilian government which has gazetted the lake as being within an Indian reserve.

- (7.71) [[Juraci mee tabori] kaa rako]_{CS} ama-ra awine makoni
 name(m) AUG village+f POSS lake(f) be-NEGF SEEMSF UNUSL
 is it not Juraci's people's lake?

There is an odd use of *-ⁱmakoni/-mako* which appears to be idiomatic. The verb *awa -na* 'yawn' is quite often used with *-ⁱmakoni/-mako*, indicating that someone opened their mouth unusually wide when yawning. This can be illustrated with m, f, and 1 sg S arguments, as given by middle-aged and old speakers:

- (7.72) Jane_S awa ni-makoni
 name(f) yawn AUX-UNUSLf
 Jane yawned widely
- (7.73) Jobeto_S awa na-mako
 name(m) yawn AUX-UNUSLm
 Jobeto yawned widely
- (7.74) awa o-mako
 yawn 1sgS-UNUSLm
 I yawned widely

The surprising thing is that in (7.74) we get *o-mako*, and not the expected *o-makoni* (as in (7.67), given by the same speaker). Sentence (7.74) appears to be irregular. And note that younger speakers prefer *awa o-makoni* to (7.74), regularizing the form.

We also find *-makoni* following an NP; for example (6.65) where the NP has the REP suffix *-mone*.

7.2.5 Contrastive negator *-rihi/-rihi*

This must be used in a biclausal construction. Generally, the predicate of the first clause is marked by *-rihi* while the second clause (which may be in declarative mood, or show no mood

suffix at all) gives a positive statement, contrasting with the negative statement of the *-rihi* clause. Thus (7.11) ‘Alan is not here (*-rihi*) but Jobeto is living here now’, and

- (7.75) Kaina_S ka-nafi-rihi, Foro_S ka.ka-nafi
 name(f) APPLIC-be.much-ContrNEG name(f) REDUP.APPLIC-be.much
 there isn’t much water in the Caina River, but there is a lot in the Purús River
 (lit. the Caina is not much, the Purús is very much)

In (7.76) the *-rihi* clause follows a subordinate clause marked by postposition *jaa* ‘if, when’:

- (7.76) [ati_O ti-wato-ri] jaa
 language 2sgA-learn-NEG+NOM PERI
 [otaa ati]_O ti-wato-rihi, ti-na-habana ti-ke
 lexCPoss language 2sgA-know-ContrNEG 2sgS-LIST-FUTf 2sg-DECf
 if you don’t learn (our) language, you won’t know our language

In one narrative, Okomobi asks his father if he should become chief (the person who mediates between an Indian tribe and the Portuguese-speaking outside world), and his father replies:

- (7.77) (a) towisawa_{CC} ti-ha-habana ti-ke;
 chief(m) 2sgCS-become-FUTf 2sg-DECf
 you should become chief
- (b) [ajo mee]_A ati_O wato-rihi;
 your.elder.brother(m) AUG language(f) know-ContrNEG
 your elder brothers don’t know the language (i.e. Portuguese)
- (c) [nisos mee hijari]_S wato-rihi; naa
 your.younger.brother(m) 3nsgS speak+COMP be.known-ContrNEG LIST
 your younger brothers don’t know how to speak [Portuguese] (lit. your younger
 brothers’ speaking isn’t known)
- (d) towisawa_{CC} ti-ha-wa-habana ti-ke
 chief(m) 2sgCS-become-NOW-FUTf 2sg-DECf
 you should become chief now
- (e) tiwatis_S watoha-mone_O, Jara_A mee ati nofa
 2sgPOSS+language be.known-REPF Branco(m) 3nsgA say RECENT
 ama ti-ke
 EXTENT 2sg-DECf
 you are reported to know the language (Portuguese) (lit. your language is
 reported to be known), the Brancos have been saying

Here clauses (b) and (c), each marked with *-rihi*, contrast with the positive clause at (e).

There is another contrastive marker, *taa*, which occurs within an NP (see §10.1.2) and indicates a contrastive NP, whereas *-rihi/-rihi* indicates a contrastive clause. The two can be used together, *taa* being included in the second clause of a *-rihi* construction; for example:

- (7.78) okomi_S wata-rihi, [okojo taa]; naa
 1sgPOSS+mother(f) exist-ContrNEG 1sgPOSS+elder brother(m) CONTR LIST
 I don’t have a mother, but I do have an elder brother (lit. my mother doesn’t
 exist but my elder brother does)

- (7.79) kasasa_O o-nofa-rihi, [seseja taa]_O o-nofa
 cachaça(f) 1sgA-like-ContrNEG beer(f) CONTR 1sgA-like+f
 I don’t like cachaça (cane whisky), but I do like beer (cerveja)

It is also possible to get a construction consisting of two clauses, each marked by *-rihi/-rihi*:

- (7.80) mii o-rihi, soo o-rihi, o-na-hara o-ke
 shit IsgS-CONTRNEG pee IsgS-CONTRNEG Isg-LIST-IPef Isg-DECF
 I neither shat, nor peed

The suffix *-rihi/-rihi* is unusual in that it does not vary for gender. It cannot be included after a tense-modal suffix and it does not co-occur with any other mood suffix. It is tentatively placed in slot J, with mood. (An alternative would be to couple it with the plain negator, *-ra*, in one of the slots in which this occurs—either F6d or K.)

It will be seen that *-rihi/-rihi* typically occurs with the list verb *-na* (see chapter 23), as in (7.76), (7.77c), (7.78), and (7.80).

7.3 NEGATION

There is only one straightforward negative form in Jarawara, the predicate suffix *-ra*. That is, there is no simple word ‘no’. In a negative answer to a question one must employ a verb, and add the negative suffix. A number of verbal suffixes can be used in an NP, but negative *-ra* is not among them; it is confined to use within a predicate.

The Jarawara make ample use of this suffix. Where other languages might have a pair of lexical opposites, Jarawara often has just one lexeme and negates it for reference to the opposite pole. Thus *-jabo-* is a verb ‘be far’ and *-jabo-* plus *-ra* is used for ‘be near’, as in (4.57); *-kita-* is ‘be strong’ and *-kita-* plus *-ra-* is ‘be weak’, as in (7.81); *-tama-* is ‘be many’ and *-tama-* plus *-ra* is used for ‘be few’ as in (7.82).

- (7.81) o-kita-ra owa awine o-ke
 IsgS-be.strong-NEGF Isg SEEMSF Isg-DECF
 I think I’m too weak (lit. not strong enough) (to carry some heavy object)

- (7.82) mee tama-ra-ni-ke
 3nsgS be.many-NEG-IPnf-DECF
 there were few of them (lit. they were not many)

In (7.83) we get *-ra* in both clauses. Negative *-ra* plus reduplicated *-tama-* ‘be many’ indicates that there were only a few people, and negative *-ra* plus reduplicated *-ohari-* ‘be one, be alone’ indicates that the noise they made was considerable:

- (7.83) aaah! mee ta.tama nofa-ra,
 well! 3nsgS REDUP.be.many RECENT-NEGF
 [mee ati]_S o.‘ohari ra mee
 3nsg voice REDUP.be.one NEGF 3nsgDEP
 well! just a few people, [making] such a lot of noise (lit. they were not many, their voices were not one)

There are just a few verbs (all intransitive) which always take the negative suffix *-ra*. These include *-naho-* *-ra-* ‘almost be in contact with’, *kerewe* *-ra-* ‘be quick, not take long’, as in (26.55); *-siba-* *-ra-* ‘be alright, be acceptable’; and *-jijifi-* *-ra-* ‘be great’ (this is only attested with *X habo*, ‘X’s courage’, as the S argument). The verb *-hija-* *-ra-* ‘be bad, broken, ruined’ generally takes the negative suffix, but the *-ra* is omitted when *-hija-* takes prefix *to-* ‘away’ or is reduplicated, i.e. *to-hija-*, *hi.hija*, as in (12.21) (the verb retains the same meaning).

It is mentioned in §15.4 that more than half of the examples of polar questions include the negative suffix; that is, people are more likely to ask ‘isn’t it ready?’ than ‘is it ready?’

A main point of interest concerning the negative suffix is its placement in predicate structure. Recapitulating the rules given in §4.2:

- (a) If there is a tense-modal suffix in slot G, then negator *-ra* goes in miscellaneous slot F6*d*, as in (7.82). As with other miscellaneous suffixes, the final *a* is raised to *e* before a tense-modal suffix beginning with *-he-* or *-hi-* as in (7.13*a*) and (7.22).
- (b) If there is a secondary verb in slot I and no tense-modal suffix in slot G, then negative *-ra* is in slot F6*d* (in area I of the predicate) and word-final. The vowel of *-ra* is *a* for *f* (as in T2.37) and *e* for *m* (as in T2.39).
- (c) If there is no tense-modal suffix in slot G nor secondary verb in slot I, but there is a declarative mood suffix, *-ke/-ka* in slot J, then the negator will follow mood, in slot K. It is now in word-final position. The negative suffix now falls in Area II of the predicate (§4.2) and the final vowel is *-e* if *f* and *-a* if *m*, as in (4.4*a/b*).
- (d) If there is no tense-modal or mood specification or secondary verb, then *-ra* is in slot F6*d*. It is now in Area I and, if also word-final, the final vowel will show gender: *-a* for *f* and *-e* for *m*, as in (4.3*a/b*) and the first part of (7.83).

Alternative (d) is further illustrated in (7.84), from a story in which a woman agreed that a man should copulate with her, as recompense for her having taken some fruit that belonged to him. When she found that he could not achieve an erection, she called out to her sister, who was nearby:

- (7.84) [owa ai ni]_O wato-re, sowiri_S kita-re
 1sgO work.at AUX+COMP know-NEGM penis be.strong-NEGM
 he can’t copulate with me (lit. he doesn’t know how to work at me), his penis isn’t erect

Negator *-ra* is homonymous with the reduced form *-ra* of IPef *-(ha)ra*. In §3.1, it was shown how the two *-ra*’s could appear together, in appropriate conditions (i.e. when the *-ha-* of *-(ha)ra* is unstressed on the underlying cycle and then omitted). Thus, repeating (3.2*a*):

- (7.85) faha_S kowi-ra-ra-ke
 water(f) be.deep-NEG-IPef-DECf
 the water was not deep

If negative *-ra* were omitted, IPef would be *-hara-* (with no loss of the *-ha-*), and if the tense were omitted then negative *-ra* would have to follow DECf, *-ke*. These possibilities were illustrated in (3.2*b-c*) of §3.1.

If we did not have the rule that the negative suffix must follow declarative mood, when there is no tense-modal, then confusion might arise as to whether an occurrence of *-ra* referred to IPef or to NEG. Consider:

- (7.86) o-tafa-ra o-ke
 1sgS-eat-ra 1sg-DECf

If NEG could always appear in slot F6*d*, then the *-ra-* in (7.85) could be either NEG or IPef. But in fact it cannot be in slot F6*d* when there is a declarative suffix present and no tense-modal. The *-ra-* in (7.86) must be IPef, and the sentence means ‘I just ate’. The negative form of *o-tafa o-ke* ‘I eat’ is:

- (7.87) o-tafa o-ka-re
 1sgS-eat 1sg-DEC-NEGF
 I’m not eating

(Some speakers say *-ke-re* for DECf+NEGf but others prefer *-ka-re*; all speakers say that either is fully acceptable. All speakers have *-ka-ra* for DECm+NEGm. That is, the first group neutralize the gender distinction in DEC when it is followed by NEG which shows gender; they use just the form *-ka* for DEC before NEGf or NEGm.)

In chapter 27, a possible historical scenario is put forward, for how negator *-ra* may have developed its mixed positioning, and how this may have facilitated the development of the semi-homonymous IPe suffix.

It will be seen that NEG is a most unusual suffix in its morphological properties. Interestingly, it is not quite the last suffix within the miscellaneous slot; *-ra* can be followed just by *-ine* ‘continuous’ (in slot F6e):

- (7.88) [mee abee]_S nofa-ri-ne-ke
 3nsg RECIP be.well.disposed.towards-NEG-CONTf-DECf
 they don’t get on with each other

When used in slot F6d, *-ra* is of type *, i.e. an immediately preceding auxiliary *-na-* is always omitted, as in (3.22). This is also illustrated in the second clause of (6.74) where we get the verb *ati -na-* ‘say’ plus 1sg prefix *o-*, negative suffix *-ra*, RPef *-haro* and DECf *-ke*. As mentioned in §4.5.1, *ati* drops from *ati -na-* when there is a pronominal prefix; *-na-* drops before *-ra*. Thus an underlying *ati o-na-ra-haro o-ke* becomes simply *o-ra-haro o-ke* ‘I didn’t speak’ with both components of the original lexical verb (non-inflecting root *ati* and auxiliary *-na-*) omitted from surface structure.

In §6.3, an example of DEC plus NEG plus INT was given, in (6.73). It is also possible to have DEC plus NEG plus REP.

The contrastive negator suffix *-rihi/-rihi* was described in §7.2.5; this is probably historically related to the basic negator, *-ra*. There are two negative imperative suffixes, discussed in §15.2.

Verbal Derivations: Causative and Applicative

This chapter discusses two further predicate constituents—the third order prefix (coming immediately before verb or auxiliary root) causative *na-* ~ *niha-* (§8.1), and the second order prefix (coming immediately before causative), applicative *ka-* (§8.2).

The causative prefix always increases the valency of a verb and can be added to intransitive or transitive roots. Applicative has a wide range of functions, one of which is to increase valency (only when used with an intransitive verb); it can also have—when used with intransitive or transitive verbs—a range of semantic effects.

An intransitive clause has a single core argument, in S function; a transitive clause has two core arguments, in A and O functions. There are thus two possibilities for deriving a transitive from an intransitive. Causative uses one of these, with S becoming O, and the valency-increasing sense of applicative uses the other, with S becoming A.

8.1 CAUSATIVE *na-* ~ *niha-*

Jarawara has two grammatical devices that correspond to causative constructions in other languages. One involves the relational noun *ihī/ehene* ‘due to, because’ (this has many of the properties of a possessed noun but differs from other PNs in some ways—there is a full discussion in chapter 22). For instance, an English sentence ‘those waves are going to make us sink’ would be likely to be rendered as, literally, ‘we are going to sink, due to those waves’. There is also the causative derivational prefix on verbs and verbal auxiliaries; this is used a great deal with intransitives and sparingly with transitives.

We will first look at the form of the causative prefix, then its syntactic function and effect, and finally its meaning.

8.1.1 Form

This prefix has two allomorphs:

(a) *na-* with an inflecting verb, as in (8.1):

(8.1) *okaki_A* *owa* *na-jana*
 1sgPOSS+grandmother 1sgO CAUS-grow.up+f
 my grandmother brought me up

As noted in §2.9.1, when we get causative *na-* plus verb *-ka-* ‘be in motion’ plus a suffix commencing with *k*, then by rule P2b underlying *na-ka-* becomes *naa*. §2.10.1 describes how *na-* can assimilate to *ne-* before a verb like *-neme(ha)-* ‘be tall’, giving *ne-neme(ha)*, and also mentions assimilation in the opposite direction in underlying *na-noko*, giving *na-nako*.

(b) *niha-* with *-na-* or *-ha-* auxiliary and with the *-ha-* copula, ‘become’; there is an example with the copula in (13.18).

The *-na-* or *-ha-* always drops after *niha-*. Note that *niha-* is the only prefix to cause a following auxiliary to drop (in fact the *-na-* or *-ha-* drops before any phonological rule applies). The *-ha-* of *niha-* is omitted—by rule 8*d* from §2.9.6—when unstressed on the underlying cycle (i.e. when in the second, fourth, etc. mora of a word). Thus in (8.2) underlying *toho niha-na-ke* (from verb *toho -na-*) becomes *toho ni-ke*:

(8.2) [oko sina_O hisi ni]_A owa toho ni-ke
 1sgA snuff(f) sniff AUX+COMP 1sgO cough CAUS-DECf
 my sniffing snuff made me cough

In (8.3), based on verb *sii -na-*, the *-ha-* of *niha-* is in the third mora of its phonological word and is thus retained (this is T2.114):

(8.3) [jobe ewene]_O otaa sii to-niha-bisa
 house(m) wood+m 1excA sit/stand(inan plural S) AWAY-CAUS-ALSOf
 we erect (lit. make stand) another set of house timbers

In (8.4) we have *ti-niha* and here again the *-ha-* is retained, the final *a* becoming *i* to mark a nominalized clause, before peripheral marker *jaa*. (The underlying verb here is *afi -na-*, with this sentence being T2.90.)

(8.4) [jama_O afi ti-nihi] jaa
 thing(f) be.wet 2sgA-CAUS+NOM PERI
 when you make the thing (crushed medicinal leaves) wet (then you can rub it on my sore spot)

An example of a verb with *-ha-* auxiliary in causative form is *hawa -ha-* in (8.5). Here the *-ha-* of *niha-* is stressed on the underlying cycle and thus retained.

(8.5) [mee tafe] -ba_O tee hawa to-niha!
 3nsgPOSS food(f) -FUT 2nsgA be.ready AWAY-CAUSf
 you get their food ready (lit. make their food be ready)!

A further example is at (8.11). In (8.6) the *-ha-* of *niha-* is unstressed on the underlying cycle and thus omitted.

(8.6) mera hawa to-ka-ni-ka
 3nsgO be.ready AWAY-APPLIC-CAUS-DECm
 he got the two of them ready

Under (i) in §4.5.2, the ways in which causative *na-* is added to inflecting verb roots that commence with a vowel were summarized. There are basically four possibilities (all attested instances are given here):

(i) A consonant is included between *na-* and the root. This is *w* for *na-w-ita* ‘make sit (sgO)’ from *-ita-* ‘sit (sgS)’ as in (8.7), and *h* in *na-h-ato* ‘decorate’ from *-ato-* ‘be decorated’.

(8.7) jama_O o-na-wita-ri o-ke
 thing(f) 1sgA-CAUS-sit-RAISED.SURFACE 1sg-DECf
 I put the thing on a raised surface (here, desk) (lit. I make it sit on a raised surface)

(ii) There is a long (double) *aa*, in certain environments. From *-ahaba-* ‘be finished, be dead’ we get *na(a)habiha* (with irregular ending *-iha*). The form *nahabiha* is used when there is a first order prefix and *naahabiha* in other circumstances. The inherently causative verb *na(a)bohi* ‘kill’ behaves in a similar way; see T2.78.

(iii) For four verbs beginning in *i*, *na-* is simply added to the root. These are *na-ino-* ‘make sharp’ from *-ino-* ‘be sharp’, as in (8.8); *na-ih-* ‘give birth to’ from *-ih-* ‘happen, appear, be born’; *na-ifa-* ‘choke (tr)’ from *-ifa-* ‘choke (intr)’; and *na-ima-* ‘make fat’ from *-ima-* ‘be fat’.

- (8.8) [oko bari]_O o-na-ino-habana o-ke
 1sgPOSS axe(f) 1sgA-CAUS-be.sharp-FUTf 1sg-DECf
 I’ll sharpen my axe

(iv) There are five verb roots which drop the initial vowel when *na-* is added. Two of them begin with *o-*, i.e. *na-wi-* ‘disconnect, put out’ from *-owi-* ‘be disconnected, go out’, and *na-hari-* ‘make be one’ from *-ohari-* ‘be one, be alone’. The other three begin with *a*, i.e. *na-kara-* ‘make be satisfied’ from *-akara-* ‘be satisfied after eating’, *na-jaka-* ‘make (e.g. tape recorder) sing’ from *-ajaka-* ‘sing’, and *na-mosa-* ‘make good, repair’ from *-amosa-* ‘be good’, as in TI.70.

It was noted in §4.5.2 that the very common verb *-amosa-* is unusual in taking no pronominal prefixes. However, the causative derivation *-namosa-* does accept pronominal prefixes. For example:

- (8.9) [bari isi]_O o-na-mosi-ne o-ke
 axe(f) handle+f 1sgA-CAUS-be.good-CONTf 1sg-DECf
 I’m making the axe handle good (by planing it)

8.1.2 Syntax

We can first consider the effect of the causative prefix with intransitive verbs. Here, the underlying S becomes O of the derived transitive, with a causer being introduced in A function. All of (8.1–9) are of this type, as are *na-tafi* ‘make wake up’ in (6.5), *na-kibi* ‘put inside (lit. make be inside)’ in (2.13), *soo ni-* ‘hang clothes on line (lit. make lie on line)’ in (5.25), and such straightforward instances as ‘(the sun) makes (someone) sweat’, ‘make cry’, ‘make laugh’, ‘punch holes in (lit. make have holes)’, and ‘soak with water (lit. make be wet)’.

There is an intransitive verb *siwa -na-* ‘act in a joking or playful fashion’. In one text this occurs in causative form:

- (8.10) Batiri.Konta_A otara siwa ni-hiri ama-ka
 name(m) 1exco be.playful CAUS-RPem EXTENT-DECM
 Padre Gunter made us (i.e. encouraged us) to behave in a playful/joking manner

In one story two women agree to have sexual intercourse with a man and one says to the other:

- (8.11) tiwa jori ni-ba-ho!;
 2sgO copulate.with AUX-DO-FIRSTM-ImmPosIMPM
 tiwa tai to-niha-ho
 2sgO go.first AWAY-CAUS-ImmPosIMPM
 let him copulate with you first! let him make you be first!

The second clause here involves a causative form of the intransitive verb *tai -ha-* ‘go first’, i.e. *tai niha-* ‘make be first’.

There is a verb *noho -na-* ‘be hurt, be injured’, and this naturally takes the causative prefix:

- (8.12) *jomee*_A *owa* *noho* *to-niha-re-ka*
 jaguar(m) 1sgO be.injured AWAY-CAUS-IPem-DECm
 the jaguar just injured me (lit. the jaguar just made me be injured)

Nowadays Jarawara young men (and sometimes also young women) spend a great deal of time playing soccer. To describe heading a football they use a causative and reduplicated form of the intransitive verb *kobo -na-* ‘arrive, meet’:

- (8.13) *boro*_O *otaa* *ko.kobo* *ni-ke* [*otaa tati jaa*]
 ball(m) 1excA REDUP.bounce.off CAUS-DECf 1exc head PERI
 we bounce the ball off our heads (lit. we make the ball arrive at our heads)

One story told of how a shaman extracted a magical pebble from his arm and introduced it into the arm of a young boy, as a way of transferring his shamanic powers. When this had been done the shaman put the pebble back into himself. To describe this the narrator used the verb *-wata-* ‘exist’ plus the causative prefix:

- (8.14) *faja* [*hinaka jama*]_O *to-na-wata-me-mari* *ama-ka* [*fee ni-jaa*]
 THEN 3sgPOSS thing(f) AWAY-CAUS-exist-BACK-FPem EXTENT-DECm 3sg PERI
 then he put his thing (his sacred pebble) back inside himself (lit. he made it exist again inside him)

When the intransitive verb *-ka-* ‘be in motion’ is used with causative *na-* it means ‘take’ or ‘go and get, fetch’, as in T3.51, T1.28, and:

- (8.15) [*Karijo mee kaa katoso*]_O *ti-na-ka-ma-mata*
 Branco AUG POSS cartridge(f) 2sgA-CAUS-in.motion-BACK-SHORT.TIMEf
 you go and get the Branco’s cartridges

The causative prefix is not used a great deal with transitive roots but there are some textual examples and it is an easy matter to elicit more. (It occurs most often with the verbs ‘eat’ and ‘drink’.) The syntactic pattern is:

- (i) a new causer argument is introduced, as A;
- (ii) original A becomes O of the causative;
- (iii) original O goes into peripheral function (marked by *jaa*).

This is a recurrent type of causative-of-transitive construction, also found in Javanese and Swahili (examples, references, and further discussion are in Dixon 2000a: 52–3).

Compare the simple transitive in (8.16a) with the causative in (8.16b):

- (8.16a) *sami*_O *bako* *o-na-hara* *o-ke*
 pineapple(f) eat 1sgA-AUX-IPef 1sg-DECf
 I ate some pineapple
- (8.16b) *okomi*_A *owa* *bako* *niha-ra-ke* [*sami jaa*]
 1sgPOSS+mother(f) 1sgO eat CAUS-IPef-DECf pineapple(f) PERI
 my mother made me eat some pineapple

There are two grammatical methods for forming the causative of a verb in Jarawara. One is, as exemplified so far, just to use the causative prefix. The other is also to have final .CV

reduplication of the verb root; all reduplicated verbs are non-inflecting and take an auxiliary. Thus, the causative prefix is here added to the auxiliary. An example is the intransitive verb in:

- (8.17) fita_O mee ajaka.ka ni-ke
 cassette(f) 3nsgA sing.REDUP CAUS-DECf
 they are playing a cassette of ajaka songs (lit. they let the cassette sing in ajaka style)

Final reduplication plus causative is used especially often with transitive roots. One text includes the simple transitive in (8.18) and the corresponding causative, with root-final reduplication, in (8.19).

- (8.18) kana_O otaa bako na
 cane(f) 1exclA eat AUXf
 we eat sugar cane

- (8.19) [kana jaa] otara mee bako.ko ni-haro-ke
 cane PERI 1excO 3nsgA eat.REDUP CAUS-RPef-DECf
 they fed us (lit. let us eat) sugar cane

The difference in meaning appears to be that a causative with final reduplication often implies ‘let X do Y’ (where X does Y willingly or naturally) whereas the plain causative often means ‘make X do Y’ (where X may not be too happy about doing this). Thus (8.19) is ‘they fed us, i.e. let us eat’ in contrast to (8.16*b*) ‘she made me eat’. In (8.17) one only has to press a button for the tape recorder to play so a causative with final reduplication is appropriate.

At TI.22, the causative of verb *-aka-* ‘dress’ (A: person dressing, O: clothing) is given as *aka.ka niha-*, to refer to dressing a dead body for burial; here A refers to the people putting on the clothes and O to the corpse, with the clothes being marked by the peripheral postposition.

The two mechanisms can be illustrated with the inflecting verb *-fawa-* ‘drink’, shown in plain transitive form in (8.20*a*), in plain causative form *na-fawa-* in (8.20*b*)—which repeats (3.20)—and with final reduplication plus causative, *fawa.wa niha-*, in (8.20*c*).

- (8.20*a*) inamatewe_A hemejo_O fawa-ke
 child(f) medicine(f) drink-DECf
 the child drinks the medicine

- (8.20*b*) inamatewe_O mati_A na-fawa-ke [hemejo jaa]
 child(f) 3sgPOSS+mother(f) CAUS-drink-DECf medicine PERI
 the mother makes the child drink the medicine (when it didn’t want to)

- (8.20*c*) inamatewe_O mati_A fawa.wa ni-ke [hemejo jaa]
 child(f) 3sgPOSS+mother(f) drink.REDUP CAUS-DECf medicine PERI
 the mother lets the child drink the medicine

We sometimes get ‘double’ marking of a causative, e.g. *na-kaba.ba niha-*, where the causative prefix is added to the verb root, which receives final .CV reduplication, and in addition *niha-* is added to the reduplication auxiliary *-na-* (which then drops) as in:

- (8.21) okomi_A owa na-kaba.ba ni-hare-ka [awi jaa]
 1sgPOSS+father(m) 1sgO CAUS-eat.REDUP CAUS-IPem-DECM tapir(m) PERI
 my father got me to eat some tapir (meat)

This ‘double’ marking (of a single causative derivation) is attested just with *-kaba-* ‘eat’ and *-fawa-* ‘drink’.

8.1.3 Semantics

Many languages have a causative derivation but there is considerable difference in meaning and applicability. Some languages have two (or more) causatives which differ in terms of one or more semantic dimensions—whether direct or indirect causation is involved; whether the effect is caused accidentally or purposefully; whether the causee does it willingly or unwillingly; and so on. (There is a full account in Dixon 2000*a*.)

The causative in Jarawara has a wide semantic range. It can be used with a verb of any semantic type, whether describing an action or a process or a state (e.g. ‘make it cold/strong’). The causee can be inanimate or animate; if animate it may or may not be in control of the activity. (See the examples at T1.75 and T3.44.) The causee might be got to take part in the activity willingly or unwillingly; the latter is illustrated in:

- (8.22) [[Jara kaa isiri]_O weje ni]_O
 Branco(m) POSS basket(f) carry AUX+COMP
 o-nofa-ra-hara o-ke;
 1sgA-want.to-NEG-IPEF 1sg-DECf
 Jara_A owa mee weje ni-hara-ke [isiri jaa]
 Branco(m) 1sgO 3nsgA carry CAUS-IPef-DECf basket PERI
 I didn’t want to carry the Branco’s basket; (but) the Branco made me carry the basket

Note that the second clause of (8.22) uses the plain causative construction ‘make do’; the alternative construction, with final reduplication (‘let do’) was judged unacceptable in this instance.

As mentioned in §3.3.3, Jarawara has a fair number of ambitransitive verbs, some of type *S=O* and some of type *S=A*. The causative derivation engenders a change *S→O*. However, the causative of the intransitive member of an *S=O* pair may not be equivalent to the plain transitive; there is often a meaning difference involved. This can be illustrated with the *S=O* verb *sore -na-* ‘be torn a little/tear a little’. The Jarawara use a long stick with a hook on the end (*hama*) to get fruit off a high branch. The intention is to insert the hook into the fruit and thus ‘pick’ it. Here the plain transitive verb *sore -na-* is used:

- (8.23) [hama jaa] [awa boni]_O sore o-ne o-ke
 hooked.stick(f) PERI tree(f) fruit+f make.small.tear 1sgA-CONTf 1sg-DECf
 I make a small incision in the fruit with a hooked stick

The intransitive sense of *sore -na-* can be used to describe clothing that has a small hole, or a fish that manages to escape from an arrow shot at it with only a small incision in its skin:

- (8.24) aba_S sore to-na-ka
 fish(m) have.small.tear AWAY-AUX-DECm
 The fish has a small tear in its skin (made by an arrow)

If one wanted to say that the hunter made this small hole in the fish then the causative should be used:

- (8.25) aba_O sore o-niha o-ke
 fish(m) have.small.tear 1sgA-CAUS 1sg-DECf
 I make the fish get a small tear

Here the hunter intended to put his arrow right through the fish to kill it, but missed and gave it only a glancing blow.

It will be seen that in this instance the causative is used for a tear in a fish produced accidentally (when a different result was intended) and the plain transitive for a tear in a fruit produced intentionally.

The verb *-wasi(ha)-* is ambitransitive of type S=O, ‘find, be found’. The causative *na-wasi(ha)-*, meaning ‘catch (fish)’, appears to be based on the intransitive, i.e. ‘make be found’; see T3.52, 54, and the discussion under (6) in §26.2.4.

8.2 APPLICATIVE *ka-*

The second order prefix *ka-* shows fascinating behaviour. With some verbs it has a syntactic effect, deriving a transitive stem from an intransitive root where underlying S becomes A and a peripheral NP is promoted into O function; this is described in §8.2.1. With other verbs it does not affect transitivity but indicates one of a number of semantic modifications (set out in §8.2.2). Some verbs may take *ka-* in more than one sense, either separately (in different contexts) or simultaneously; but no word may include more than one *ka-*. Further work is needed on the diachronic development of the applicative prefix, in order to understand how its present senses are linked together. One possibility—which remains to be investigated—is that *ka-* in modern Jarawara involved the falling together of a number of distinct suffixes in an earlier stage of the language. But note that in the modern language the various senses of *ka-* tend to flow into one another. Since it is sometimes difficult to decide which sense(s) *ka-* has in a given instance of use, all occurrences are glossed by APPLIC (for applicative), although this is strictly only appropriate for the transitivity sense.

This prefix has the same form, *ka-*, before inflecting verbs, auxiliaries, and the third order prefix, causative *na- ~ niha-*. As described §2.9.1, §2.9.4, and §2.9.5, a number of phonological processes apply:

P1a applicative prefix *ka-* → *wa-* / prefix—*k*

For example, underlying *o-ka-ka* ‘1sg-APPLIC-in.motion’ becomes *o-wa-ka*. Following on from this rule we have:

P2a *-iwa-* → *-ee* in 2sg-APPLIC, Oc-APPLIC

P2b *-awa* → *aa-* in APPLIC-in.motion, before *k* if there is no prefix before APPLIC

Thus, underlying *hi-ka-ka* ‘Oc-APPLIC-in.motion’ becomes *hi-wa-ka* by P1a and then *hee-ka* by P2a. We also get, by rules P1b and P2b, *ka-ka-* ‘APPLIC-in.motion’ becoming *kaa-* before a suffix commencing with *k*. And there are:

P6a applicative *ka-* → *ko-* following *to-* or *o-*, and preceding *b*, *m*, *f*, or *w*

P6b applicative *ka-* → *ko-* following *o-* and preceding *-hom*

For example, *to-ka-wana* ‘AWAY-APPLIC-be.joined’ becomes *to-ko-wana*.

And, by rule P7b', *ka-neme-ha* ‘APPLIC-be.high’ undergoes assimilation to become *ke-neme(ha)* (and similarly for other verbs whose first vowel is *e*).

There is a further, rather specific change. In just one household at Casa Nova (that of the old shaman João) applicative *ka-* becomes *ki-* when immediately followed by the miscellaneous suffix *-tee* ‘habitual’ (§5.10).

When *ka-* is added to a vowel-initial inflecting verb root (see §4.5.2) there are three different types of behaviour. The full set of examples is:

- (i) A consonant is included between *ka-* and the root. That is *k* for *-iba-* ‘put on ground (sgO)’, *-ibI-* ‘put inside (sgO)’, *-ita-* ‘pierce, sting’, and *-iti-* ‘take, marry’; and *w* for *-ita-* ‘sit (sgS)’, giving *ka-k-iba-*, *ka-k-ibI-*, *ka-k-ita-*, *ka-k-iti-*, and *ka-w-ita-* respectively.
- (ii) In three words commencing with *i*, *ka-* is simply added to the root: *-iha-* ‘happen, appear’, *-ima-* ‘be fat’ and *-ifa-* ‘choke’ give *ka-ihá*, *há-ima* and *ka-ifa-* respectively.
- (iii) There are five verb roots which omit the initial vowel when *ka-* is added. They are *-owi-* ‘be disconnected, go out’, giving *ka-wi-*; *-ohari-* ‘be one, be alone’, giving *ka-hari-*; *-ibofa-* ‘put in water’, giving *ka-bofa-*; *-ajaka-* ‘sing, dance’, giving *ka-jaka-*; and *-ahaba-* ‘die’ giving *ka-haba-*, as in (8.47).

8.2.1 Transitivity sense

Whereas the causative prefix forms a transitive stem from an underlying root, with underlying S becoming O, the prefix *ka-* can form a transitive stem from an underlying root with underlying S becoming A. This is what is generally called an applicative derivation (see Dixon and Aikhenvald 2000a: 13–16). It is marked by the gloss ‘APPLIC(tr)’ in texts T1–3 at the end of this volume.

The syntactic effect of *ka-* can be seen by comparing the plain intransitive use of *bosa -na-* ‘get up early’ in (8.26)—given earlier as (6.24c)—with an applicative derivation, from later in the same text, at (8.27).

(8.26) [otaa ni-jaa] mee bosa na-maki-hete-ke tasa
 1exc PERI 3nsgS get.up.early AUX-FOLLOWING-RPnf-DECf AGAIN
 then they got up early on us again

(8.27) otara mee bosa ka-na-hani
 1excO 3nsgA get.up.early APPLIC-AUX-IPnf
 they got-up-early-on us

The S in (8.26) becomes A in (8.27) (these have the same form, *mee*, but the presence of the accusative pronoun *otara* in (8.27) shows that this clause is transitive). The 1exc pronoun is realized through a peripheral NP, marked by postposition *ni-jaa*, in (8.26), but is included in the predicate as a core NP, in O function, in (8.27).

The reasons for using an applicative construction are twofold. Coding a non-subject NP into a core function (O), rather than as an optional peripheral constituent, focuses on it and provides a different semantic perspective (compare, in English, *they climbed up the mountain* and *they climbed the mountain*—and see the discussion in Dixon 1991: 281–5). And the pivot argument running through a sequence of clauses in discourse should be in a core function (S, A, or O) in each clause; putting 1exc into O function in (8.27) assists in integrating this into a pivot chain.

An example concerns the verb *-wina-* ‘live’. For ‘live with’ we can use the simple intransitive, *-wina-*, with the person lived with being shown by a peripheral NP, as in:

(8.28) okobi_s wine [otaa ni-jaa]
 1sgPOSS+father(m) live+m 1exc PERI
 my father lived with us

Alternatively, we could use the transitive *ka-wina-* ‘live-with’, where the person lived with is in a core function, O. This was done in (8.29) so that there could be a dependent clause to this O NP:

- (8.29) okobi_A otara ka-wine, otaa fota-ra otaa
 1sgPOSS+father(m) 1excO APPLIC-live+m 1excS be.big(plural S)-NEGF 1excDEP
 my father lived-with us, when we were small (lit. us being not big)

The syntactic use of the applicative prefix is more limited than its semantic uses, to be described in §8.2.2, but it is still attested with quite a wide range of verbs. In each case we have an underlying intransitive verb that may take a peripheral NP, marked by a postposition. In the derived transitive, marked by applicative prefix *ka-*, this NP goes into O slot. Thus, ‘growl at’; ‘bark at’, in (8.35); ‘laugh at’, in (8.34); ‘dream of’, in (8.44); and ‘be angry over’. The last of these can be demonstrated with corresponding intransitive and transitive clauses (here the intransitive clause uses the specialized postposition *tabijo* ‘due to the absence/lack of’—see §21.2—rather than the general postposition *jaa*):

- (8.30a) [kojari tabijo] jawe awa-ka
 paddle(m) LACK.OF be.angry+m SEEMS-DECM
 he appears to be angry over the absence of the paddle (someone had taken it)
- (8.30b) kojari_O ka-jawe awa-ka
 paddle(m) APPLIC-be.angry+m SEEMS-DECM
 he appears to be angry-over the paddle (not wanting to lend it)

Note that the applicative form *ka-jawa-* of *-jawa-* ‘be angry’ can mean ‘be selfish about, not want to share’.

The syntactic sense of *ka-* is also attested in ‘disappear with’; ‘get lost with’; ‘go through door with’, in (2.4), and ‘(canoe) overturns with’. Compare the simple intransitive use of *behe -na-* ‘overturn’ in (8.31a) with the applicative in the O-construction of (8.31b).

- (8.31a) kanawaas_S behe na-waha-ke
 canoe(f) overturn AUX-NEXT.THING-DECf
 then the canoe overturned
- (8.31b) kanawaa_A mee behe hi-ka-wa hi-ke
 canoe(f) 3nsgO overturn Oc-APPLIC-NEXT.THING Oc-DECf
 then the canoe overturned-with them

I tried extending the intransitive clause, (8.31a), by adding ‘them’ in a peripheral NP, i.e. *mee ni-jaa*, but was told that it is better to use the applicative version, (8.31b). That is, when the ‘with’ argument is human, and the S/A is inanimate, an applicative construction is preferred, so that the human argument can go into a core function (here, O).

There is an example, from Bible translation, of an abstract noun being O in an applicative construction. The noun *katoma* ‘temper’ occurs in:

- (8.32) Isaos_S ki-joma-me,
 name(m) in.motion-THROUGH.GAP-BACKm
 katoma_O ka-ki-joma-me-mata-mona-ka
 temper (f) APPLIC-in.motion-THROUGH.GAP-BACK-FPNm-REPM-DECM
 Esau went back in, he is said to have gone back in angrily (lit. he is said to have gone back in with temper)

It was mentioned that some verbs may take the applicative prefix in a number of different senses. The irregular verb *-ka-* ‘be in motion’ is an example of this, taking prefix *ka-* in several semantic senses and also in its syntactic sense with a number of variant meanings. Most straightforwardly, applicative *ka-* plus verb *-ka-* means ‘be in motion with’, i.e. ‘take’ or ‘bring’, as in (2.6–7); and see T1.41, 51, T2.45, 59. There is a variant on this in (5.55) with *-ka-* ‘be in motion’ and miscellaneous suffix *-riwaha* ‘across’; when applicative *ka-* is added we get a transitive stem *ka-ka-riwaha* in which the O NP is the log that is crossed over.

In §8.1.2 it was mentioned that although causative has the syntactic effect $S \rightarrow O$, the causative of an intransitive does not always have the same semantics as a corresponding $S = O$ transitive. Similar comments apply, mutatis mutandis, to applicative. That is, there are ambitransitive verbs of $S = A$ type and we can get a syntactic applicative based on the intransitive which differs from the plain transitive. Consider the verb *ori-na-* ‘to paddle’. This can be used intransitively, or transitively with either canoe or passengers or river as O argument. With any of these, the implement that is used as a paddle can be included as a peripheral constituent marked by *jaa*. But we can also have a syntactic applicative, based on the intransitive, in which the paddle (or paddle substitute) becomes O. That is:

	PADDLER	CANOE/PASSENGERS/RIVER	PADDLE (OR SUBSTITUTE)
(8.33a) plain transitive	A	O	peripheral
(8.33b) plain intransitive	S		peripheral
(8.33c) syntactic applicative	A		O

Example sentences are:

(8.33a) kanawaa_O otaa ori na otaa-ke [awa kote jaa]
 canoe(f) IexcA paddle AUXf Iexc-DECf wood(f) piece PERI
 we paddled the canoe with a piece of wood (in place of a normal paddle)

(8.33b) otaa ori na otaa-ke [awa kote jaa]
 IexcS paddle AUXf Iexc-DECf wood(f) piece PERI
 we paddled with a piece of wood (in place of a normal paddle)

(8.33c) [awa kote]_O otaa ori ka-na otaa-ke
 wood(f) piece IexcA paddle APPLIC-AUXf Iexc-DECf
 we used a piece of wood to paddle

There are intransitive verbs which can increase their valency in either of two ways, either $S \rightarrow A$, with applicative, or $S \rightarrow O$, with causative. (8.34a) shows the simple intransitive use of *haa.haa-na-* ‘laugh’; this can include a peripheral NP indicating what is laughed at. (8.34b) shows an applicative, when what is laughed at is promoted into O slot. And (8.34c) shows a causative, with a causer NP specifying something that caused the laugher to laugh (note that this is an O-construction). (And see T2.40–1, 54, 95, 121.)

(8.34a) haa.haa o-ne o-ke (mee ni-jaa)
 laugh IsgS-CONTf Isg-DECf 3nsg PERI
 I laugh (at them)

(8.34b) mee haa.haa o-ki-ne o-ke
 3nsgO laugh IsgA-APPLIC-CONTf Isg-DECf
 I laugh-at them

(8.34c) [Jaras soni]_A owa haa.haa ni-hare o-ke
 Branco(m) fall+COMP IsgO laugh CAUS-IPem Isg-DECf
 the Branco’s falling over made me laugh

There are many examples of *ka-* from the second prefix slot co-occurring with causative *na-* ~ *niha-* from the third slot. But these all involve a semantic sense of the applicative prefix (illustration will be provided in §8.2.2). We do not find the syntactic sense of *ka-* co-occurring with causative *na-* ~ *niha-*.

Theoretically, it might seem that such a construction should be possible. The syntactic sense of applicative is only found with intransitives but causative can apply to intransitives or transitives. Why not then have an intransitive verb to which the syntactic applicative derivation is applied, and then the causative derivation?

Consider the situation where the dog belonging to a Branco barks at me. This can be described through a simple intransitive, with ‘me’ in peripheral function, as in (8.35a), or through an applicative construction in which ‘me’ is in O function, as in (8.35b).

(8.35a) jomee_S habo na-ka [owa ni-jaa]
 dog(m) bark AUX-DECM Isg PERI
 the dog barks at me

(8.35b) jomee_A owa habo ka-na-ka
 dog(m) IsgO bark APPLIC-AUX-DECM
 the dog barks-at me

Now suppose that the Branco urged the dog to bark at me. Why can’t we have a causative of (8.35b) with *habo ka-ni-ka* (‘bark APPLIC-CAUS-DECM’)? Recall that, in the causative of a transitive, underlying A becomes O and underlying O goes into peripheral marking. Such a syntactic-applicative-plus-causative might be predicted to be:

(8.36) *Jara_A jomee_O habo ka-niha-ka [owa ni-jaa]
 Branco(m) dog(m) bark APPLIC-CAUS-DECM Isg PERI
 the Branco gets his dog to bark at me

But consider what a causative of the intransitive clause (8.35a) would be, with S becoming O and the peripheral NP staying as is:

(8.37) Jara_A jomee_O habo ni-ka [owa ni-jaa]
 Branco(m) dog(m) bark CAUS-DECM Isg PERI
 the Branco gets his dog to bark at me

That is, the meaning which I was trying to achieve through applicative-plus-causative in (8.36) is identical to what we get just with causative in (8.37). In fact, (8.36) is ungrammatical.

8.2.2 Semantic senses

Eight senses of applicative *ka-* can be recognized, when it merely adds semantic modification to a clause, without any change in valency. Whereas in its syntactic sense *ka-* is restricted to occurrence with intransitives, in the semantic senses it is found with both intransitives and transitives.

An attempt has been made to indicate the sense of some of the instances of prefix *ka-* in texts at the end of this volume: ‘(tr)’ for the syntactic sense, ‘(in)’ for the ‘inside’ sense, ‘(du)’ for the dual sense, ‘(sg)’ for the singular sense, and ‘(ma)’ for the marked argument sense.

(a) ‘inside’. Prefix *ka-* can indicate that one of the core participants (S, A, or O) is inside something. The intransitive verb *jana -na-* is ‘set off’; *jana ka-na-* is ‘set off inside something

(e.g. a boat, a car, or a plane)', as in (2.19a). Another intransitive verb, *tai -ha-*, is 'go in front'; *tai ka-ha-* is 'go in the front part of a vehicle (e.g. in the prow of a canoe)'. Intransitive *-homa-* is 'lie on the ground'; applicative *ka-homa-* can mean '(animals) lie inside (a burrow)'. The S = A ambitransitive *noki -na-* means 'wait (for)'; when *ka-* is added to the transitive sense it gives *noki ka-na-* 'wait (for) inside something (e.g. in a house)'. All of these examples involve the referent of the S or A NP being inside something. With *tama -na-* 'hold in the hand', the addition of *ka-* relates to the referent of the O NP being inside something. Sentence (8.38), without *ka-*, refers to holding a knife, where the hand just grasps the handle; in contrast, (8.39), with the prefix *ka-*, refers to holding some snuff where the snuff is cupped in the hand.

(8.38) jimawa_O tama o-ne o-ke
 knife(f) hold IsgA-CONTf Isg-DECf
 I am holding the knife with my hand

(8.39) sina_O tama o-ka-na o-ke
 snuff(f) hold IsgA-APPLIC-AUX Isg-DECf
 I hold the snuff in my hand

The derived verb *-na-mosa-* 'make good' is used to describe weeding a garden. The O argument can either be the garden, as in (8.40a), or the crop in the garden, as in (8.40b).

(8.40a) fatara_O o-na-mosa-hara o-ke
 garden(f) IsgA-CAUS-be.good-IPef Isg-DECf
 I weeded the garden

(8.40b) fowa_O o-ka-na-mosa-ra o-ke
 manioc(m) IsgA-APPLIC-CAUS-be.good-IPef Isg-DECf
 I weeded the manioc

Note that the applicative prefix *ka-* is included in (8.40b) since the referent of the O argument, *fowa* 'manioc', is inside the garden. There is no *ka-* in (8.40a) since here the O argument is *fatara* 'garden' (the sentence **fatara o-ka-na-mosa-ra o-ke* was regarded by speakers as inadmissible).

The verb *-nafi-* 'be much (of uncountable things)' is often used with *faha* (f) 'water' as S argument. We find both (i) *faha nafi-ke* and (ii) *faha ka-nafi-ke* 'there is much water'. It seems that (ii), with *ka-*, refers to a great quantity of water inside something, e.g. between the banks of a river, as in (7.75), whereas (i), without *ka-*, refers to a great quantity of water in general (e.g. in a lake, or lots of rain).

One day, when I was enumerating things in my house, speakers indicated that the prefix *ka-* should be added to each number verb. For example there was one new chair, described with *ka-hari-ke* (APPLIC-be.one-DECf) and two old chairs, described with *ka-fama-ke* (APPLIC-be.two-DECf). It seems that *ka-* must be used for enumerating inanimate things within a house. However, it would not be used for enumerating people, or dogs or other animals.

(b) 'full'. Another, related, sense of prefix *ka-* is to refer to a container being full (or having substantial contents). This applies to number verbs, as in:

(8.41a) barato_S fama-ke
 plate(f) be.two-DECf
 there are two empty plates (lit. plates are two)

(8.41b) barato_S ka-fama-ke
 plate(f) APPLIC-be.two-DECf
 there are two plates full (of food)

The ‘full’ sense of *ka-* applies to plates, pans, cups (full of food or drink), and canoes and cars (full of people) but not to houses. It can also apply to an O NP, as in:

- (8.42) *barato*_O *mee* *bokori* *ka-waha-ra-ke*
 plate(f) 3nsgA hold(plural O) APPLIC-NEXT.THING-IPef-DECf
 then they each held a full plate

This is plainly related to the ‘inside’ sense, (a); the contents are inside the container.

(c) ‘sick’. The addition of *ka-* can imply that the human referent of an S or O argument is sick or drunk. Thus, we get *-wina-* ‘lie in a hammock’ and *ka-wina-* ‘lie in a hammock sick’. The verb *-ka-* ‘be in motion’ can take the prefix *ka-* in sense (c), meaning ‘a sick person is in motion’. With *noki-na-* ‘wait for’ we can get:

- (8.43) *okoto*_O *noki* *ti-ka-na!*
 1sgPOSS+daughter(f) wait.for 2sgA-APPLIC-AUXf
 you wait for my sick daughter!

It has been mentioned that some verbs may take *ka-* in several senses, either separately or simultaneously. There is an intransitive verb *-watami-* ‘dream’. The applicative *ka-watami-* is a derived transitive verb, with S → A and the person dreamed of in O function; it also indicates that the referent of the O NP was sick in the dream:

- (8.44) [*oko* *jibotee*]_O *o-ko-watami-hara* *o-ke*
 1sgPOSS spouse 1sgA-APPLIC-dream-IPef 1sg-DECf
 I dreamt that my spouse was sick

Speakers said that if the O NP of (8.44) were *tinero* ‘money’ then the sentence would refer to dreaming of money that had been lost. Thus, more generally, the semantic sense (c) of *ka-* appears to mean that there is something unsatisfactory about the argument under focus— if a person, they are sick or drunk; if money, it has been lost; etc.

Since (8.44), a transitive sentence based on *-watami-* ‘to dream’, implies dreaming of a sick person, it is interesting to enquire how one would describe dreaming of someone who is not sick. It appears that a different grammatical technique is employed, using the PN *watari* ‘dream’ as modifier within an NP which is O argument to the verb *-awa-* ‘see, feel’, as in:

- (8.45) [*Hita* *watari*]_O *o-wa-hara* *o-ke*
 name(f) dream 1sgA-see-IPef 1sg-DECf
 I dreamed of (being married to) Hita (lit. I saw Hita’s dream)

In (8.44) the syntactic sense of applicative combines with semantic sense (c); there are many examples where the syntactic sense is used without any concomitant idea of ‘unsatisfactory’. In (8.29), for example, there is no implication that ‘we’ are sick or drunk.

(d) ‘accompanied by’. The verb *-fawa-* ‘drink’ typically has *faha* (f) ‘water’ as O NP. Used without an applicative prefix this will mean ‘drink water alone’. In contrast, *faha ka-fawa-* can be used when the water is drunk with a meal. There can be variations on this theme. The noun *farina* refers to manioc flour, something that is often mixed with water and the resulting liquid drunk. In (8.46) the O NP for *-fawa-* ‘drink’ is *farina*, but the inclusion of prefix *ka-* on the verb indicates that the manioc flour is being drunk with something, i.e. with water.

- (8.46) *farina*_O *otaa* *ka-fawa*
 manioc.flour(f) lexcA APPLIC-drink+f
 we drink a mixture of manioc flour and water

The ‘accompanied by’ sense of applicative is also evident in (8.47), where the intransitive verb *ahaba-* ‘be finished, die’ takes prefix *ka-*; *ka-haba-* is still intransitive and has the meaning ‘die with’.

- (8.47) Jara_S ka-haba-ka [jomee jaa]
 Branco(m) APPLIC-die-DECM dog PERI
 the Branco died with his dog (i.e. they both died together)

In (8.48) the O NP is ‘my hammock’. The inclusion of *ka-* here indicates that the speaker took his hammock down together with something else, in this case his mosquito net, which goes together with the hammock.

- (8.48) [oko jifo]_O o-ka-tisa-hara o-ke bisa
 1SGPOSS hammock(m) 1SGA-APPLIC-untie-IPef 1SG-DECf ALSO
 I also untied my hammock and (mosquito net)

The verb *kaa -na-* is used for cutting down a tree. For cutting down a tree that has (‘is accompanied by’) fruit then the applicative prefix will be added, giving *kaa ka-na-*. The verb *-wa(a)-* is used to describe a tree standing; if it bears fruit then applicative *ka-* will be added, giving *ka-wa-*. A speaker once remarked that the blossom on a tree had a reddish colour:

- (8.49) [awa mowe]_S ma.mawa ka-raba-ke
 tree(f) blossom REDUP.be.red APPLIC-A.BIT-DECf
 the tree blossom is a bit reddish

Here *ka-* was included because the blossom was on the tree.

The next three senses of *ka-* all relate to the number reference of the S or O argument. In summary:

NUMBER REFERENCE			
SENSE WITH <i>ka-</i>	WITHOUT <i>ka-</i>	REFERENT OF S/O	VERB CHARACTERISTIC
(e) dual	not dual	animate	
(f) sg	nsg	inanimate	verb typically has sg S/O
(g) nsg (group)	sg	inanimate	verb typically has nsg S/O

It will be seen that sense (e) relates to an animate S or O while senses (f) and (g) refer to inanimate S or O. For verbs taking sense (f) the S/O participant is prototypically sg and *ka-* is used when this is the case; for verbs taking sense (g) the S/O is prototypically nsg, referring to a group or bunch, and *ka-* is used when this is the case. For each of these senses, absence of *ka-* indicates non-prototypical number reference.

(e) ‘dual’. Perhaps the most common semantic sense of *ka-* is to indicate that an animate S or O argument has dual reference. An argument with nsg reference will be referred to by 1inc *ee*, lexc *otaa*, 2nsg *tee*, or 3nsg *mee*. When *ka-* is included the reference is restricted to just two people (or animals, in the case of *mee*). Compare (8.50a) where *mee* without *ka-* indicates more than two of the S NP, and (8.50b) where *mee* plus *ka-* refers to just two participants.

- (8.50a) Jara_S mee joo ni-ne-ke
 Branco(m) 3nsgS wade AUX-CONTf-DECf
 many (more than two) Brancos are wading in the water

- (8.50b) Jara_S mee joo ki-ne-ke
 Branco(m) 3nsgS wade APPLIC-CONTf-DECf
 two Brancos are wading in the water

Among the many intransitive verbs that take *ka-* to indicate ‘dual S’ are ‘be in motion’, ‘walk’, ‘set off’, ‘arrive’, ‘return’, ‘get lost’, ‘be born’, ‘sleep’, and ‘shit’. The prefix *ka-* may also be used to denote not two people but instead two groups of people.

Speakers explained that if someone were going along a track in the forest with a friend and wanted to stop for a moment to evacuate his bowels he might say (8.51a). The companion might reply with (8.51b) and the first person could respond with (8.51c). Using *ka-* emphasizes that *iinc ee* here has dual reference ‘the two of us’.

(8.51a) *habai, mii o-mati-be*
 friend shit IsgS-SHORT.TIME-IMMEDf
 friend, I’m just going to stop a moment for a shit

(8.51b) *habai, mii nima o-bisa o-ke*
 friend shit WANT IsgS-ALSO Isg-DECLf
 friend, I need to shit too

(8.51c) *hima! ee mii ka-na-hi!*
 COME.ON IincS shit APPLIC-AUX-ImmPosIMPf
 come on! let us both shit!

An example of the prefix *ka-* being used in its dual sense with a transitive verb is the O-construction:

(8.52) *jomee_A mee jete hi-ka-na-ma-hani mati*
 jaguar(m) 3nsgO hunt Oc-APPLIC-AUX-BACK-IPnf 3nsgDEP
 the jaguar was hunting the two of them

One text explains how a hunter gave a woman two presents in return for sexual favours. The narrator first lists the presents and then uses *taa-na-* ‘give’ with prefix *ka-* to indicate that there were two gifts (this is again an O-construction).

(8.53) [*mase bako jaa*] *jowis fame-himata-mona-ka;*
 mutum(m) chest+m PERI capuchin.monkey(m) be.two-FPnm-REPM-DECM
taa hi-ka-wite haari, [[jori ni] manakone]
 give Oc-APPLIC-FROM.PLACE DEPM copulate.with AUX+NOM price
 it is said that the capuchin monkey made two, with the breast of a mutum bird;
 he gave the two things (to her), the price of an act of copulation

When the transitive verb *soko -na-* is used for ‘wash hands’ we get:

(8.54) *o-jee_O soko o-ko-wa*
 IsgPOSS-hand wash IsgA-APPLIC-NEXT.THINGf
 then I washed my hands

The applicative prefix *ka-* is used here because the O NP refers to two hands. Another example with a transitive verb is (8.6) ‘get the two of them ready’.

There are many examples of this sense of *ka-* in the texts, including T1.30, 33, 54; T2.13, 15, 33, 42–5, 58–60, 77–83.

The miscellaneous suffix *-ikima* ‘two participants, a pair’ was described in §5.5. The differences between this suffix and the dual sense of *ka-* are:

- (i) The suffix *-ikima* refers to inanimate arguments (plus animate body parts) while the prefix *ka-* refers to animates. The only area of overlap appears to be body parts—see (5.113) and (8.54).

- (ii) The suffix *-ikima* refers to ‘a pair’; prefix *ka-* just denotes ‘two’.
 (iii) Both relate to S in an intransitive and to O in a transitive clause. But *-ikima* typically refers to a pair of A and a pair of O, each A with one O.

Note that we can get *ka-* in its dual sense and *-ikima* on the same verb, as in (5.118) ‘the two of them each carries a blowgun on his shoulder’.

(f) ‘singular’. There is a smallish set of verbs for which the S/O argument typically refers to a single object. The prefix *ka-* is used when S/O has sg reference, the lack of *ka-* implying nsg reference. These verbs are:

intransitive	moo -na- ‘be full (typically, of a container)’
S = O ambitransitive	-nika- ‘buy’
	-warI- ‘cook in (pan)’
	bari -na- ‘put up wall of (house), cover up hole’
	ebe -na- ‘divide up’
	kawa -na- ‘poke (e.g. animal in hole, to get it to come out)’
	sari -na- ‘burn’
	tao -na- ‘shoot, slap’ (see T2.39, 68)
	tofa -na- ‘fill in (hole)’

For example, compare the following pairs of sentences ((8.56*b*) is in T1.75):

- (8.55*a*) ratena_O o-ka-nika o-ke
 flashlight(f) IsgA-APPLIC-buy Isg-DECf
 I am buying one flashlight
- (8.55*b*) ratena_O o-nika o-ke
 flashlight(f) IsgA-buy Isg-DECf
 I am buying several flashlights
- (8.56*a*) [oko wami-ba]_O sari ti-ka-na-ma!
 IsgPOSS torch(f)-FUT burn 2sgA-APPLIC-AUX-BACKm
 you light my torch again!
- (8.56*b*) Wero_A fera_O sari ne
 name(m) candle(f) burn AUXm
 Wero lit some candles
- (8.57*a*) Mito_A bani_O tao ka-na-ka
 name(m) animal(m) shoot APPLIC-AUX-DECM
 Mito shot an animal
- (8.57*b*) Mito_A bani_O mera tao na-ka
 name(m) animal(m) 3nsgO shoot AUX-DECM
 Mito shot some animals

For reference to two S/O, the dual suffix *-ikima* (§5.5) is used, plus prefix *ka-*, as in

- (8.57*c*) Mito_A bani_O mera tao ka-ni-kima-ka
 name(m) animal(m) 3nsgO shoot APPLIC-AUX-TWO-DECM
 Mito shot two animals

Note that when the transitive verbs from this list are used reciprocally the *ka-* is, as would be expected, not included. For instance:

- (8.58) [mee abee] sari na-wahe-mete-monehe
 3nsg RECIP burn AUX-NEXT.THING-FPnf-REFP
 then they are said to have burnt each other (girls and boys, during a female initiation ceremony)

(g) **'non-singular'**. A smaller set of verbs typically has an S/O argument referring to a bunch or group of objects and takes prefix *ka-* to mark this; the absence of *ka-* indicates sg reference. A well-attested member of this set is the S = O ambitransitive verb *tani -na-* 'slide (e.g. tiles off a roof)'; further work is required to check other putative members.

(h) **'marked argument'**. With some verbs the inclusion of applicative *ka-* marks the fact that one of its arguments has a non-prototypical reference.

A number of subsets of verbs that take *ka-* in this sense can be recognized. The first includes *-jabo-* 'be far', *-kajoma-* 'get dark (at dusk)', and *-waha-* 'shine, get light (at dawn)'. These intransitive verbs typically take an inanimate S argument; they can be used with a human S but then require the prefix *ka-*. Thus, with *-jabo-*:

- (8.59) [otaa taboro]_S jabo-ke (otaa ni-jaa)
 Iexc village+m be.far-DECf Iexc PERI
 our village is a long way off (from where we are now)

- (8.60) otaa ka-jabo-ke
 IexcS APPLIC-be.far-DECf
 we are a long way off

I was told *ka-* should not be included in (8.59), where *-jabo-* takes a prototypical inanimate subject, but must be included in (8.60), when the subject is human. Similarly for *-kajoma-* (and see T2.20):

- (8.61a) jama_S kajoma
 thing(f) get.dark+f
 it is getting dark

- (8.61b) otaa ka-kajoma
 IexcS APPLIC-get.dark+f
 it is getting dark on us (lit. we are with getting dark)

The verb *-waha-* 'shine, get light' appears to behave in exactly the same way; see T1.87 and T2.29.

Another verb from the same subset is *-boka-* 'sink', whose prototypical S is something like 'canoe':

- (8.62a) kanawaas boka-hara-ke
 canoe(f) sink-IPef-DECf
 the canoe sank

However, it can be used with a human S, and then *ka-* must be included, in its sense (h), to indicate a non-prototypical S:

- (8.62b) mee ka-boka-ke (kanawaa jaa)
 3nsgS APPLIC-sink-DECf canoe PERI
 they sank (in the canoe)

Interestingly, a causative can be formed from (8.62*b*), with the underlying S ('3nsg') becoming O. Here applicative prefix, *ka-*, is retained before causative *na-*:

- (8.63) *kanawaa_A mera ka-na-boka-ke*
 canoe(f) 3nsgO APPLIC-CAUS-sink-DECf
 the canoe sank with them (lit. the canoe made them sink)

Alternatively, the causer in such a sentence could be human. In one text a canoe being paddled fast is producing a big wash and the Indians in a small canoe nearby call out:

- (8.64) *otara tee ka-na-boka-ki-bone*
 IexcO 2nsgA APPLIC-CAUS-sink-COMING-INTf
 you're going to sink us!

Some transitive verbs have different arguments filling the O slot, depending on whether or not prefix *ka-* is included. This probably relates to the same sense, (*h*), of applicative. For example, the prototypical O argument for *wisa -na-* 'throw water out, bail' is 'water', as in

- (8.65) *faha_O wisa o-na o-ke*
 water(f) bail IsgA-AUX Isg-DECf
 I bail water (from the canoe)

However, the O NP can be 'canoe', and then *ka-* must be included:

- (8.66) *kanawaa_O wisa o-ka-na o-ke*
 canoe(f) bail IsgA-APPLIC-AUX Isg-DECf
 I bail out the canoe (of water)

It is also possible to include *ka-* when the O NP is 'water', but this is semantic sense (*b*) 'full', implying that the canoe is full of water:

- (8.67) *faha_O wisa o-ka-na o-ke*
 water(f) bail IsgA-APPLIC-AUX Isg-DECf
 I bail water (from a canoe) which was full of water

8.2.3 Review

The applicative prefix *ka-* has the widest functional range of any affix in Jarawara, either inducing a valency change or simply indicating a semantic modification, with there being at least eight varieties of modification. As mentioned earlier, it may have developed as an amalgamation of two or more distinct prefixes from an earlier stage of the language. Whether or not this is the case, at the present time *ka-* appears to be perceived as a single morphological element.

Some verbs probably take *ka-* in just one sense. But, as illustrated here, a number can take *ka-* in two or more distinct senses, in different instances of use. For example, 'full' or 'marked argument' with *wisa -na-* 'bail'; 'inside' or 'dual' with *tai -ha-* 'go in front'; 'inside' or 'be sick' with *noki -na-* 'wait (for)'. The form *ka-wina-* (from *-wina-* 'lie in hammock, live') can be an intransitive stem meaning 'lie in hammock sick' or a transitive stem 'live with'. Sometimes *ka-* is used with two senses simultaneously, e.g. 'transitivizer' and 'be sick' with *-watami-* 'dream' in (8.44). In (8.62*b*) *ka-* may indicate both 'inside' and 'marked argument'.

I have heard the verb *-mita-* 'hear, listen to' used both with and without applicative prefix *ka-*. In an attempt to clarify the difference I asked several consultants, separately, when they would use *-mita-* and when *-ka-mita-*. One suggested that *-ka-mita-* would mean 'hear close up'

whereas *-mita-* would be ‘hear further off’. Another said that *-ka-mita-* is ‘hear for a long time’ and *-mita-* ‘hear for a short time’. And a third said that *-ka-mita-* is ‘hear when you are inside a house’ (this being sense (a)) as against *-mita-* ‘hear from outside’. The conclusion must be that, outside a specific textual context, *-ka-* when added to *-mita-* can have one of a number of meanings.

The prefix *ka-* occurs very frequently in texts. It is a considerable task to work out which sense it is being used in at every instance of use, a task which I am not confident that I have always achieved (an attempt is made for most—but not all—of the occurrences of *ka-* in texts 1–3 at the end of this book).

Other Arawá languages share with Jarawara the prefix *ka-* with applicative effect, deriving a transitive stem from an intransitive root, with S becoming A. In Paumarí and in Kulina-Dení, there is also a prefix *ka-* with different function. These languages show a division of nouns into those that require a cross-referencing prefix *ka-* on the verb and on some nominal modifiers (when the noun is in pivot function in the clause) and those that do not. Chapman and Derbyshire (1991: 307) state that in Paumarí the prefix *ka-* ‘also occurs on all motion verbs when travel is in one vehicle, whether by land, river or air’. (And see Aikhenvald 2000: 71–5.) This second *ka-* prefix may possibly relate to some of the semantic senses of *ka-* in Jarawara.

Verbal Reduplication

Reduplication is used a fair amount in derivation between word classes. A free noun may be formed from a verb by initial CV. (occasionally by initial CVCV.) reduplication, e.g. *ko.kosi* ‘whip’ from *kosi -na-* ‘to whip, spank’. Sometimes an object noun is incorporated, e.g. *jama+jo.jowi* ‘broom’ from noun *jama* ‘thing’ and verb *jowi -na-* ‘to sweep’. There are also some examples of a verb being derived from an adjective, a possessed noun or a free noun by reduplication; e.g. *hi.hinita -na-* ‘to be empty of fish (said of a stream)’ from adjective *hinita* ‘empty, alone’, *tone.tone -na-* ‘to be skin-and-bones’ from possessed noun *tone/tone* ‘bone’, and *fa.fanawi -na-* ‘to be like a woman’ from free noun *fanawi* ‘woman’. Nominal and verbal derivations (which are not fully productive) are discussed in §§25.2–3.

This chapter describes the processes of productive reduplication, which apply only to verbs, never to nouns or adjectives (and are a criterion for distinguishing between these word classes). It appears that all non-copula verbs, across every semantic type, can be reduplicated; the resulting form is always a verb. There are three formal mechanisms of reduplication—initial (C)V., initial (C)VCV., and final .CV. Either of the first two can be combined with the third, making five formal types in all. Just occasionally, there is double (or even triple) reduplication of final .CV.

As mentioned in §4.1.1, reduplicated verbs (whether the underlying form was inflecting or non-inflecting) are non-inflecting, and take a reduplication auxiliary (AUXb, as described in §5.1). If the original verb was non-inflecting then its auxiliary (AUXa) may be retained as well—see §9.2. Pronominal prefixes, miscellaneous suffixes from the third to sixth echelons, tense-modal suffixes, and mood suffixes must all go onto the reduplication auxiliary.

Productive verbal reduplication has four kinds of function:

- As described in §8.1.2, one variety of causative derivation involves final .CV reduplication with an auxiliary constituent consisting of causative prefix *niha-* (after which the auxiliary verb is omitted). This causative construction often means ‘let it happen’, in contrast to a construction without final reduplication which may mean ‘make it happen’.
- There is an ‘iterative’ derivation (‘happens a lot’) which has initial CV. (or, occasionally, CVCV.) reduplication, with a reduplication auxiliary (*to-)ha-*; this is discussed in §9.3.2.
- As described in §§5.7–8, there are some suffixes from the fourth echelon, and one from the fifth, which either require or frequently take initial CV. (or, occasionally, initial CVCV. reduplication).
- All forms of reduplication can mark semantic modification of the verb; the reduplication auxiliary is here always *-na-*. Preliminary illustration of the semantic effect of each form of reduplication can be provided with the verb *ori -na-* ‘to paddle’. The verb is used intransitively, without reduplication, in:

(9.1a) mee ori ni-ne-ke
 3nsgS paddle AUXa-CONTf-DECf
 they are paddling

Initial (C)V. reduplication can indicate ‘do a bit’:

- (9.1b) mee o.'ori ni-ne-ke
they are paddling just a bit (i.e. lazily)

Initial (C)VCV. reduplication indicates ‘do with force’:

- (9.1c) mee ori.'ori ni-ne-ke
they are paddling hard

Final .CV reduplication can indicate, with this verb, that many people take part in the activity:

- (9.1d) mee ori.ri ni-ne-ke
they (everyone in the canoe) are all paddling

This sense can be combined with either of the first two:

- (9.1e) mee o.'ori.ri ni-ne-ke
they (i.e. everyone in the canoe) are all paddling a bit
(9.1f) mee ori.'ori.ri to-ki-ne-ke
they (everyone in the canoe) are all paddling hard

Speakers included prefixes *to-* ‘away’ and *ka-* applicative in the auxiliary for (9.1f); i.e. *to-ki-ne-ke* ‘AWAY-APPLIC-CONTF-DECL’; as an alternative to *to-ki-ne-ke* they gave *to-ka-na-ke* ‘AWAY-APPLIC-AUX-DECL’ (without the continuous suffix *-ine*).

A full account of the semantics of the varieties of semantic modification is in §9.3.1.

9.1 FORM

The formal rules for reduplication are:

- (i) Initial (C)V. type. Repeat, before the verb, the first mora and the preceding consonant (if there is one), e.g. *ka.kaba*. If there is a vowel sequence, just the first member is reduplicated, e.g. *ta.tai*, and if there is a long vowel just the first mora is reduplicated, e.g. *ha.haa*.
- (ii) Initial (C)V(C)V. type. Repeat, before the verb, the first two moras and the consonants that precede them, e.g. *niki.niki*, *baa.baa*, *kete.ketebe*.
- (iii) Final .CV type. Repeat, after the verb, the final mora and its preceding consonant, e.g. *noho.ho*, *koma.ma*. (We have no examples of final .CV reduplication of roots ending in a long vowel or a sequence of two vowels.)

There are two special phonological features of reduplication:

(a) If the underlying root begins with a vowel, then a glottal stop is added at the reduplication boundary, e.g. *a.'amosa*, *o.'ori*, *i.'ibe*, and *ata.'atabo*; this is discussed in §2.11.

Note that although /ori/ has alternative pronunciations [ori] and [wori] (since there is no contrast between [o] and [wo]—see §2.3), it reduplicates as *o.'ori*, not as *o.wori*. This provides support for taking the underlying form to be /ori/.

(b) A reduplicated verb always constitutes one grammatical word. An initial CVCV. reduplicand is a separate phonological word within this grammatical word, e.g. (using ‘.’ to mark a phonological word boundary within a grammatical word) *máwa.máwa* ‘be red all over’. The fact that there are two phonological words is shown by the stress rule, which operates

independently within each word, stressing the penultimate mora, e.g. *áta.atábo* ‘be muddy all over’ (see §2.7).

An initial CV. reduplicand does not count as part of the following phonological word (consisting of the verb root, plus any prefixes and suffixes). That is, syllable counting for realization of morphophoneme *I* and for omission of an unstressed *-ha-* (§2.9) ignores this initial syllable. Recall from §2.9.3 that the morphophoneme *I* is realized as *e* in an even-numbered and as *i* in an odd-numbered mora. For example, *forI* ‘lie on a raised surface’ is realized as *fore*; when the 1sg prefix *o-* is added we get *o-forI*, realized as *o-forí*. But, with initial CV. reduplication, *fo.forI* is realized as *fo.fore*. When first echelon miscellaneous suffix *-waha* is added to *wina-* ‘live’ we get *wina-waha* which is reduced to *wina-wa*. With the prefix *o-* we get *o-wina-waha* and the *-ha-* is now in the fifth mora and cannot drop. But with initial CV. reduplication, we get *wi.wina-waha*, which does reduce to *wi.wina-wa*.

It is difficult to decide on the phonological and grammatical status of the initial CV. reduplicand (see §2.7). It appears to be a separate phonological word, although it has only one mora (generally, a phonological word must have two moras), and is added to the following full phonological word after all phonological rules and the stress rule have applied.

A final .CV reduplicand appears to have similar status to the initial CV. variety. Consider verb root *-wa-* ‘stand’ plus suffix *-rI* ‘raised surface’. The unreduplicated *wa-rI* is realized as *wa-re*. With final .CV reduplication we get *wa-re.re*, rather than **wa-re-ri* (which would be the natural realization of *wa-rI-rI*). That is, a final .CV reduplicand appears also to be a one-mora phonological word which is added to the preceding full phonological word after all phonological rules have applied. In §2.7, we suggest that both initial CV. and final .CV reduplicands could be described as a type of ‘inner clitic’ to the phonological word they precede or follow.

There are in the corpus a few verbs that appear to involve inherent reduplication. They include the transitive verb *a'ate* ‘ask’ (recognized as reduplicated from the presence of a glottal stop), and the intransitive *haa.haa -na-* ‘laugh’, which appears to be onomatopoeic (note that it is not related to the transitive verb *haa -na-* ‘call to’). ‘Laugh’ can be productively reduplicated, e.g. *ha.haa.haa -na-* ‘laugh a bit’. Each of these inherently reduplicated forms takes a single AUXa (not AUXa plus AUXb).

9.2 GRAMMATICAL PROPERTIES

Without reduplication, all prefixes and suffixes go directly onto an inflecting verb or onto the auxiliary of a non-inflecting verb. Under reduplication, some of them go onto the reduplication auxiliary. This will be described first for inflecting and then for non-inflecting verbs.

(I) REDUPLICATION OF INFLECTING VERBS

(a) There is generally a reduplication auxiliary, AUXb. This is *-na-* for reduplication that marks semantic modification and *-ha-* for that which marks ‘iterative’. For reduplication marking causative, the causative prefix *niha-* is added to the reduplication auxiliary which then drops; it is impossible to say whether the underlying auxiliary is *-na-* or *-ha-*.

(b) Non-pronominal prefixes (*to-* ‘away’, applicative *ka-*, and causative *na-*) are retained on an inflecting verb and reduplicate. That is, an inflecting verb beginning with *to-*, *ka-*, or *na-* will reduplicate this syllable, e.g. *to-* from *to-ha-wa* in (9.6), *ka-* from *ka-nafi* in (7.75), and *na-* from

na-tafi in:

- (9.2) [jomee_s habo ni]_A owa na.na-tafi
 dog(m) bark AUXa+COMP IsgO REDUP.CAUS-waken
 to-he-himari ama-ka
 AWAY-AUXb-FPem EXTENT-DECM
 the dog's barking used often to waken me

(e) Pronominal prefixes (Isg *o-*, 2sg *ti-*, and O-construction *hi-*) are removed from the inflecting verb and are placed on the reduplication auxiliary. Compare the simple transitive in (9.3) with the initial CV. reduplicated correspondent in (9.4). (And see (4.1) and (4.2) in §4.1.1.)

- (9.3) aba_O o-koba o-ke
 fish(m) IsgA-eat Isg-DECf
 I eat fish
- (9.4) aba_O ka.kaba o-hi-ne o-ke
 fish(m) REDUP.eat IsgA-AUXb-CONTf Isg-DECf
 I eat lots of fish

One text includes a sequence of two clauses each with initial CV. reduplication. The first involves inflecting verb *-iti-* 'marry' in an O-construction; the O-construction prefix *hi-* is transferred to the reduplication auxiliary:

- (9.5) i./iti-wa hi-he-hemete-mone-ni
 REDUP.marry-NEXT.THING Oc-AUXb-FPnf-REPF-BKGF
 the next thing was he is said to have married her

This is followed by an intransitive clause with copula verb *-ha-* 'become'. This must take prefix *to-* and it is this that is reduplicated. Note that the copula *-ha-* is followed by another instance of *-ha-*, this time as the reduplication auxiliary:

- (9.6) fati_{CC} to.to-ha-wa
 3sgPOSS+wife(f) REDUP.AWAY-become-NEXT.THING
 to-he-hemete-mone-ke
 AWAY-AUXb-FPnf-REPF-DECf
 the next thing was that she is said to have become his wife

The copula *-ha-* 'become' always takes prefix *to-* (which may be replaced by *o-*, *ti-*, or *hi-*) and it is this prefix which reduplicates. There is no attested instance of reduplication for the other copula *ama* 'be'; this may relate to the fact that *ama* takes no prefixes (and very few suffixes).

The applicative prefix *ka-* stays on reduplicated inflecting verbs while prefixes such as O-construction marker *hi-* and 2sg *ti-* transfer to the reduplication auxiliary. In §2.9.1 it was stated that *hi-ka-* > *hi-wa-* > *hee-* and *ti-ka-* > *ti-wa-* > *tee-* before *k*. It is interesting to enquire what happens on a verb which commences with *hee-* or *tee-*, a fusion of prefixes which would normally go onto different constituents within a reduplication. We find that the fused prefix *hee-* (and presumably also *tee-*) remains on the inflecting verb, and reduplicates on the CV. pattern as *he.*, as in:

- (9.7) [mee.fanawiri kaa jifo behe]_O
 women POSS buriti.palm(m) palm.part
 mee he.hee-ka-riwa-ino-ka
 3nsgA REDUP.Oc+APPLIC-in.motion-ACROSS-IPnm-DECM
 they crossed (the river) with the women's buriti palm parts

This is one of the few reduplications in the corpus which does not show a reduplication auxiliary; two others are given at (9.14–15). I do not know whether there is any connection between the reduplication of a fusion of two prefixes and the lack of an AUXb (to which *hi-* would normally transfer, together with tense-modal and mood suffixes).

(d) First and second echelon miscellaneous suffixes must be—and the extra-echelon suffix *-waha* ‘now, the next thing’ may be—retained on an inflecting verb, e.g. *-ⁱkima* ‘two’ in (5.116) and *-wa(ha)* in (9.5–6). Miscellaneous suffixes from the third to sixth echelons (including negator *-ra-*) and all tense-modal suffixes and mood suffixes must attach to the reduplication auxiliary. Compare the unreduplicated clause in (9.8a) with the reduplicated version in (9.8b):

(9.8a) mee to-ko-ma-re-hemete-mone-ni
 3nsgS AWAY-in.motion-BACK-NEG-FPef-REPF-BKGF
 they are said not to have gone back

(9.8b) mee to.to-ko-ma to-ha-re-mete-mone-ni
 3nsgS REDUP.AWAY-in.motion-BACK AWAY-AUXb-NEG-FPef-REPF-BKGF
 they are said never to have gone back again

Here, first echelon suffix *-ma* is retained on the inflecting verb *-ka-* ‘be in motion’, but sixth echelon *-ra* plus tense-modal *-(he)mete-* and *-mone-* and mood *-ni* are added to the reduplication auxiliary *-ha-* (this always takes prefix *to-* if there is no pronominal prefix).

§4.3 described how the three pronominal prefixes (*o-*, *ti-*, and *hi-*) plus non-pronominal prefix *to-* form one morphological system in the first prefix slot. If we have a pronominal prefix then this replaces *to-*. Compare (9.9), where the S is 1exc *otaa*, a separate word, and *to-* can be included on the verb:

(9.9) otaa to-ka-ma-bone otaa-ke
 1excS AWAY-in.motion-BACK-INTf 1exc-DECf
 we intend to go back

with (9.10) where the S is a prefix (1sg *o-*) and this displaces the *to-*:

(9.10) o-ko-ma-bone o-ke
 1sgA-in.motion-BACK-INTf 1sg-DECf
 I intend to go back

However, reduplication removes a pronominal prefix from an inflecting verb (or from the auxiliary of a non-inflecting verb), and places it on the reduplication auxiliary. In such a circumstance, the prefix *to-* can surface on a lexical verb or on a verbal auxiliary. Consider an underlying structure:

(9.11) mee ti- to- awa -ma -mata -hi
 3nsgO 2sgA- AWAY- see -BACK -SHORT.TIME -ImmPosIMPf

There are two competing forms for the first prefix slot. Without reduplication, *ti-* ousts *to-* and *ti-* plus *-awa-* becomes *ti-wa*, yielding the sentence:

(9.12) mee ti-wa-ma-mata-hi!
 you look back at them briefly!

However, when we have initial CV. reduplication, with reduplication auxiliary *-na-*, the *ti-* must shift to the reduplication auxiliary, as does sixth echelon suffix *-mata* and imperative

suffix *-hi*. The first echelon suffix *-ma* remains on the lexical verb and the prefix *to-* is now free to appear in surface structure. We get *to-wa-ma*, and the initial *to-* reduplicates:

- (9.13) mee to.to-wa-ma ti-mata-hi!
you take a quick look back at them!

(e) As stated under (a), when an inflecting verb is reduplicated it will generally take a reduplication auxiliary *-na-* or *-ha-*. The *-ha-* always bears a prefix (*to-* or a pronominal prefix) and is never omitted. However, *-na-* may be omitted if it bears no prefix or miscellaneous or tense-modal suffix (mood can be added directly to the reduplicated verb, as it can be to the root of a non-inflecting verb—see (4.50) in 4.5.1). (Example (9.31*b*) below involves a reduplicated verb with the reduplication auxiliary omitted, and here we have 1sg *o-* in the third pronominal position, before declarative).

Out of several hundred examples of reduplication, just a handful have been noted where there is no reduplication auxiliary, so that all prefixes and suffixes remain on the inflecting verb root. These include (9.7) and the two following:

- (9.14) [afo ati]_S to.to-ke-hemete-mone-ni
heart.of.palm(f) sound REDUP.AWAY-in.motion-FPnf-REPF-BKGF
(she took the palm heart apart and) the sound of the palm heart (splitting) is said to
have been heard far away (lit. it is said to have gone far away)

- (9.15) awas_S bo.boke-hemete-mone ama-ke
tree(f) REDUP.fall-FPnf-REPF EXTENT-DECLF
the trees are said to have fallen into the water a bit (as the piranha fish
bit them off)

(II) REDUPLICATION OF NON-INFLECTING VERBS

(a) There is a reduplication auxiliary, AUXb, exactly as on an inflecting verb. This is in addition to the AUXa of the non-inflecting verb.

(b) Non-pronominal prefixes (*to-*, *ka-*, and *na-*) remain on the AUXa. The retention of *to-* is illustrated in (9.16) and of *ka-* in (9.17).

- (9.16) [afiao oje-ne]_S we.wee to-na na-ka
plane(m) light-m REDUP.shine AWAY-AUXa AUXb-DECLm
the plane's light is blinking

- (9.17) himata_O mee ta.tari ka-na to-he-hemete?
what(f) 3nsgA REDUP.strike APPLIC-AUXa AWAY-AUXb-FPef
what did they used to strike (to make fire, in the days before there were matches)?

(c) Pronominal prefixes (*o-*, *ti-*, and *hi-*) are transferred from AUXa to AUXb, as in:

- (9.18) ma.maa to-ha o-ha-hamaro o-ke
REDUP.be.tired AWAY-AUXa 1sgS-AUXb-FPef 1sg-DECLf
I used to be tired all the time (some years ago)

(d) First and second echelon miscellaneous suffixes are—and the extra-echelon suffix *-waha* may be—retained on AUXa, as in (9.19*a*) and (9.27).

- (9.19*a*) tee te.teme na-re na-hi!
2nsgS REDUP.sit(dual S) AUXa-RAISED.SURFACE AUXb-ImmPosIMPf
you two stay sitting (on the raised surface)!

Miscellaneous suffixes from the third to sixth echelons, plus tense-modal and mood suffixes, are placed on AUXb. The auxiliary-taking suffix *-saa -na-* ‘still’ (from the third echelon) is used with reduplication in (5.137). In (9.19*b*), the auxiliary-bound suffix *-waharI* ‘do many times’ is used with intransitive verb *tai (to-)ha-* ‘go in front’ together with iterative reduplication:

(9.19*b*) ta.tai to-ha na-wahare o-ha-hamaro o-ke
 REDUP.go.in-front AWAY-AUXA AUXD-MULTIPLE IsgS-AUXb-FPef Isg-DECf
 I used to go in front many times

In (9.19*c*), both an auxiliary-taking suffix *-raba -na-* ‘do a bit’ (from the fourth echelon) and an auxiliary-bound suffix *-(ha)tI* ‘do all day’ (from the fifth echelon) are used on non-inflecting verb *maa (to-)ha-* ‘be tired’, together with the reduplication expected with *-raba -na-*. A single *-na-* functions both as the AUXC for *-raba -na-* and as the AUXD for *-(ha)tI*. The reduplication auxiliary, AUXb, is deleted from before *-raba -na-*, so that the AUXb constituent consists just of *raba*.

(9.19*c*) ma.maa to-ha raba o-na-hate-hara o-ke
 REDUP.be.tired AWAY-AUXA A.BIT IsgS-AUXC/d-ALL.DAY-IPef Isg-DECf
 I was a bit tired all day

Reduplication of a non-inflecting verb almost always relates to the verbal root. There are, however, just a couple of instances of final .CV reduplication applying to a miscellaneous suffix which is attached to AUXa. For example:

(9.20) Ara_A awa_O joko n-isa.sa na-re-ka
 name(m) wood(f) push AUXa-DOWN.REDUP AUXb-IPem-DECM
 Alan pushed down lots of sticks

(*e*) AUXa *-ha-* always bears prefix *to-* (or a pronominal prefix) and is always retained. AUXa *-na-* will be retained if it bears a non-pronominal prefix or a first or second echelon miscellaneous suffix (or *-waha*), as in (9.16–19) and (9.27); it is generally omitted if it bears no affix, but may be retained, as in:

(9.21) mee o.'ohi na to-he-hemete-mone
 3nsgS REDUP.cry AUXa AWAY-AUXb-FPef-REPF
 it is said they used to cry a lot

AUXb *-na-* may be retained if it bears no affix, as in (9.27), but is often omitted. AUXb *-ha-* must bear a prefix (*to-* or *o-*, *ti-* or *hi-*) and is retained.

All combinations of *-na-* and *-ha-* as AUXa and as AUXb are attested:

AUXa	AUXb	
-na-	-na-	as in (9.16), (9.19 <i>a</i>), (9.20)
-ha-	-ha-	as in (9.18)
-na-	-ha-	as in (9.17), (9.21)
-ha-	-na-	as in (5.249), although here AUXb itself is omitted from the AUXb constituent

Normally, we find gender marked on an inflecting verb, auxiliary, or miscellaneous suffix when it occurs word-finally; a final *a* shifts to *e* to mark masculine and stays as is for feminine. There is no gender marking on a reduplicated verb or its AUXa, the gender marking being transferred to the reduplication AUXb. (9.16) and (9.20) have m S and A NPs, respectively, but

the word-final verbal auxiliary does not show gender. Similarly with the word-final first echelon suffix *-ma* in:

- (9.22) faja a.'amosa-ma to-he-hiri ama-ka
 THEN REDUP.be.good-BACK AWAY-AUXb-RPem EXTENT-DECM
 then he was getting better (from his illness)

We can now examine the co-occurrence of the reduplication auxiliary, AUXb, with the other two kinds of auxiliary—AUXc, following an auxiliary-taking suffix, and AUXd, preceding an auxiliary-bound suffix; see §5.1. In (5.151–2) we get AUXb followed by AUXc. In (5.137) we find the non-inflecting verb *wa(h)a -na-* ‘shine’ followed by its own AUXa (with prefix *to-*) then reduplication auxiliary, AUXb, to which is suffixed the auxiliary-taking suffix *-saa -na-* ‘still’, and then the AUXc of this suffix. There is another example at (5.249) but here the AUXb itself is omitted from the AUXb constituent.

Then there is AUXd, to which an auxiliary-bound suffix from the fifth echelon is added. AUXd follows AUXa and precedes AUXc, as in (5.4), a sentence with *-wi -na-*, the only suffix which is both auxiliary-taking and auxiliary-bound. We can ask where the reduplication auxiliary, AUXb, is located in the predicate, with respect to AUXd. It appears that AUXb follows AUXd, as in:

- (9.23) ka.ka-wa na-ba hi-he-hemeté-mone-ke
 REDUP.APPLIC-stay AUXd-ALL.NIGHT Oc-AUXb-FPnf-REPF-DECf
 (he) would stay with her all night (looking after her)

Here the inflecting verb *-wa-* ‘stand, stay’ takes ‘iterative’ reduplication, marked by AUXb *-ha-*, plus the auxiliary-bound suffix *-(ha)ba* ‘all night’, which attaches to its AUXd, *-na-*. Under reduplication, applicative prefix *ka-* remains on the inflecting verb while the Oc prefix *hi-* transfers from the inflecting verb, over AUXd, and attaches to AUXb. When a non-inflecting verb is reduplicated and then takes an auxiliary-bound suffix, we get a sequence of AUXa plus AUXd plus AUXb, with a pronominal prefix moving from AUXa to AUXb, as in (9.19b).

When the predicate includes both an auxiliary-taking suffix and an auxiliary-bound suffix (always in this order), it appears that a single *-na-* can combine the functions of AUXc and AUXd. This is illustrated in (5.241), where the verb *-ohari-* ‘be one’ is reduplicated and is followed by auxiliary-taking suffix *-kii -na-* (added to the AUXb, which drops) and the auxiliary-bound suffix *-waharI*; these combine to produce *kii na-wahare*, where the *-na-* is both AUXc for *kii -na-* and AUXd for *-waharI*. This combined AUXc/d follows the AUXb constituent. In (9.19c) we get AUXa, an AUXb constituent (with the actual auxiliary omitted) and then the combined AUXc/d.

9.3 FUNCTIONS

9.3.1 Semantic modification of a verb

As mentioned above, each of the three types of reduplication (initial CV., initial CVCV., and final .CV) can be used, with reduplication auxiliary *-na-*, for semantic modification of the verb. This is illustrated in (9.1b–f) and in the following examples with *joko -na-* ‘push’ and *horo -na-* ‘pull’ (see also *jo.joko -na-* in (5.71) and *ho.horo -na-* in (5.50)):

- (9.24a) Okomobi_A awa_O joko na-ka
 name(m) stick(f) push AUXa-DECf
 Okomobi is pushing the stick

- (9.24*b*) Okomobi awa jo.joko na-ka
Okomobi is giving the stick a little push
- (9.24*c*) Okomobi awa joko.joko na-ka
Okomobi is giving the stick a tremendous shove
- (9.24*d*) Okomobi awa joko.ko na-ka
Okomobi is pushing lots of sticks
- (9.25*a*) [jama mati]_O horo o-ne o-ke
thing(f) rope+f pull 1sgA-CONTf 1sg-DECf
I am pulling on the rope
- (9.25*b*) jama mati ho.horo o-ne o-ke
I am giving the rope a little tug (in play)
- (9.25*c*) jama mati horo.horo o-ne o-ke
I am pulling the rope with great force (maybe to dislodge the far end)
- (9.25*d*) jama mati horo.ro o-ne o-ke
I keep on pulling the rope, hand over hand (until I have pulled the far end right up to me)

A set of contrastive examples with *baa -na-* ‘hit, hammer’ is:

- (9.26*a*) bereko_O baa o-ne o-ke
nail(f) hit 1sgA-CONTf 1sg-DECf
I am hitting the nail
- (9.26*b*) bereko ba.baa o-ne o-ke
I am giving the nail lots of light taps
- (9.26*c*) bereko baa.baa o-ne o-ke
I am hitting the nail with force

However, final .CV reduplication (**baa.ba*) was judged unacceptable by speakers, for this verb in this sentence.

Now taking the types of reduplication in turn:

(i) Initial CV., plus reduplication auxiliary *-na-*. This is the most commonly occurring type of reduplication. The basic meaning appears to be ‘a bit’, as in (5.117) and in the examples given above. Other examples include:

- (9.27) [narabo mete]_O tee wa.wari na-waha na
ear+m back+m 2nsg REDUP.twist AUXa-NEXT.THING AUXb+f
you now twist the back of his ear a bit (part of a legend about how fire was first obtained)
- (9.28) faha_O bo.bojo o-na-mati-be
water(f) REDUP.feel 1sgA-AUXb-SHORT.TIME-IMMEDf
I’ll just feel around a bit in the water (with a stick, for fish)
- (9.29) Bakoki_O mee ha.haa ti-na-hi!
name(m) 3nsgO REDUP.call.to 2sgA-AUXb-ImmPosIMPF
you just call out a bit to Bakoki and company!
- (9.30) [wati ino]_S mo.mowi na-ka
arrow(m) point+m REDUP.be.bent AUXb-DECm
the arrow point is a little bent

In (7.75) we have *-nafi-* ‘be much’, plus applicative prefix *ka-* (referring to water being between the banks of a river), reduplicated to *ka.ka-nafi* ‘quite a bit of water’.

Initial CV. reduplication is typically used with *-awa-* ‘see’, with the meaning ‘take a look’—see (9.13). With *wee -na-* ‘shine’ we get *we.wee -na-* ‘(light) blinks’, as in (9.16).

The four main colour lexemes in Jarawara are verbs: *-sawa-* ‘be white’, *-soki-* or *soki -na-* ‘be black’, *mawa -na-* ‘be red’, and *tefo -na-* ‘be blue, green’. However, they are almost always used with initial CV. reduplication, e.g. *ma.mawa -na-*, as in (5.352). On one occasion I did hear colour terms used unreduplicated. Alexandra Aikhenvald had brought T-shirts as presents for three Jarawara men and they described them to us using the inflecting verb *-sawa-* for the background white of a design, and reduplicated *sa.sawa -na-* for a patch of white within another colour, and so on.

As described in §5.7, a number of the prefix-poaching auxiliary-taking suffixes require or frequently take initial reduplication (almost always CV.). They are: *mii -na-* ‘walking around’, *baa -na-* ‘do at/from a distance’, *karahama -na-* ‘continue doing, only do’, *-raba -na-* ‘do a bit’, *-rama -na-* ‘unusual, unexpected’, *-biti -ra-* ‘not even a little bit, not even one’, *-ba -na-* ‘hasn’t been done but should be done, or should be done more’, *kii -na-* ‘be just (one or two)’, *nama -na-* ‘a lot, the most’, and *(to-)sii -na-* ‘going along a path’. The auxiliary-bound suffix *-kawa(ha)* ‘do for a while’ also frequently occurs with reduplication. In some instances the meaning of the suffix seems to relate to the basic meaning of initial CV. reduplication ‘do a bit’; in other cases the connection is less clear.

One speaker contrasted the verb *-wato-* ‘know’ used without any modification, in (9.31a), with initial CV. reduplication in (9.31b), and with suffix *raba -na-* ‘a bit’ (which takes initial CV. reduplication) in (9.31c):

(9.31a) [tee ati]_o o-wato o-ke
2nsg language 1sgA-know 1sg-DECLF
I understand your language

(9.31b) tee ati wa.wato o-ke
I understand your language a bit

(9.31c) tee ati wa.wato raba o-ke
I understand your language just a little bit

Here, (9.31c) was said to describe a lower level of understanding than (9.31b).

Reduplication processes are limited for some verbs, probably for semantic reasons; the semantic effect of a reduplication may not be compatible with the meaning of the verb. For example, *-koma-* ‘be sore, hurt’ can be reduplicated as *koma.koma* ‘be very sore’ or as *koma-ma* ‘be sore all over’ but not as *ko.koma*. This may be because initial CV. reduplication often carries a jocular tone, which would not be appropriate to the meaning of this verb. However, *-koma-* can be used with the fourth echelon miscellaneous suffix *-raba -na-* ‘a bit’ and this suffix engenders initial CV. reduplication, *ko.koma*, as in:

(9.32) o-temes ko.koma raba o-ke
1sg-foot(m) REDUP.be.sore A.BIT 1sg-DECLF
my feet are a bit sore

(ii) Initial CVCV., with reduplication auxiliary *-na-*, is less common than initial CV. reduplication. It carries the general meaning ‘a lot’. With verbs like ‘paddle’, ‘push’, ‘pull’, and ‘hit’ it generally implies ‘do with force’, as in (9.1c, f), (9.24c), (9.25c), and (9.26c). In one story

a Branco got a dangerous ant inside his trousers; it bit him in very tender spots and (this is in T2.68):

- (9.33) joto.hoti_O wiji.wiji ne
 anus REDUP.shake AUXb+m
 he shakes his bottom wildly

Initial CVCV. reduplication can be illustrated with stative verbs *-atabo-* ‘be muddy’ and *-mawa-* ‘be red’:

- (9.34) ata.'atabo o-na-hara o-ke
 REDUP.be.muddy 1sgS-AUXb-IPef 1sg-DECf
 I was muddy all over (after slipping off a log into some mud)
- (9.35) mawa.mawa o-na-haro o-ke
 REDUP.be.red 1sgS-AUXb-RPef 1sg-DECf
 I was red all over (after being painted with urucu, a vegetable dye)

We also find initial CVCV. reduplication used with negation, the sense being ‘not at all’, as in:

- (9.36) o-teme_S koma.koma ra owa
 1sg-foot+m REDUP.be.hurt NEGF 1sgDEP
 my foot didn't hurt at all (although I pretended it did)

(iii) Final .CV reduplication, with reduplication auxiliary *-na-*, is also not too common in texts. It conveys a meaning ‘many times, dispersed’, in contrast with initial CVCV. reduplication which means ‘a lot’. Compare (9.1c) *ori.'ori* ‘paddle hard’ with (9.1d) *ori.ri* ‘everyone paddles’; *joko.joko* ‘give a stick a tremendous shove’ in (9.24c) with *joko.ko* ‘push lots of sticks’ in (9.24d); and *horo.horo* ‘pull with great force’ in (9.25c) with *horo.ro* ‘keep on pulling in, hand over hand’ in (9.25d). Other examples include:

- (9.37) noho.ho na-wahe-ba-no-ho
 be.hurt.by.REDUP AUXb-NEXT.THING-FUT-IPnm-DEP
 he had then been injured in several places (by the jaguar clawing his arm)

When a colour verb is used with final .CV reduplication it means ‘lots of individuals of that colour’; for example:

- (9.38) baras mee soki.ki na mati
 member.of.another.tribe+f 3nsgS be.black.REDUP AUXb+f 3nsgDEP
 lots of strange people who are black (describing a photo of Africans)

Colour verbs with final .CV reduplication can be used to describe sets of beads of a particular colour, etc.

There are examples of multiple final .CV reduplication. For example:

- (9.39) [o-tati kone bite nafi]_S sawa.wa.wa kawaha-ke
 1sgPOSS-head hair little+f all be.white.REDUP.REDUP FOR.A.WHILE-DECf
 all of my little head hairs are getting white

The speaker who gave this said that *sawa.wa* and *sawa.wa.wa* are equally acceptable.

Note that final .CV reduplication refers to ‘lots’ of the referent of the S argument in (9.1d), (9.38–9), and of the O argument in (9.24d).

One day, Okomobi went to view a waterfall on the Madeira River. To describe water tumbling down a rock, and then rising up over a protruding piece of rock before falling again, he said:

- (9.40) faha_S kita-ke, wa-re.re.re kawaha-ke
 water(f) be.strong-DECf stand-RAISED.SURFACE.REDUP.REDUP FOR.A.WHILE-DECf
 the water is strong, it stands up on a raised surface (the protruding piece of rock)

In the second clause of (9.40), the inflecting verb *-wa-* ‘stand’ takes first echelon miscellaneous suffix *-rI* ‘raised surface’, giving *wa-re*; the final *-re* is then reduplicated twice, producing *wa-re.re.re*. (In both (9.39) and (9.40), the reduplication AUXb is omitted, since it takes no affix, as is the AUXd of *-kawaha*.)

It is perfectly possible for either of the mechanisms for initial reduplication to be used with the final mechanism. There is a textual example of this with *fete -na-* ‘flap wing (used of bird)’. One day Okomobi dreamed that Makabi had constructed an aeroplane out of bits of wood nailed together; he recorded the story and said:

- (9.41) [Makabi kaa jama]_S fe.fete.te ka-na-ra
 name(m) POSS thing(f) REDUP.flap.wing.REDUP APPLIC-AUXb-NEGf
 Makabi’s thing (plane) doesn’t (have wings that) flap (like a bird)

Another example describes the properties of marupá wood:

- (9.42a) jafis ja.jara.ra tee ama-ka
 marupá(m) REDUP.split.REDUP HABIT EXTENT-DECM
 marupá wood splits easily (i.e. a bit) and in many places

The transitive verb *-awa-* ‘see’ is reduplicated at both ends in:

- (9.42b) jama_O otaa a.’awa.wa na-ro otaa-ke
 thing(f) IEXcA REDUP.see.REDUP AUXb-RPef IEXc-DECf
 we caught a glimpse of lots of things

It was an easy matter to elicit verbs with double reduplication, as in (9.1e/f).

9.3.2 Iterative

Initial reduplication plus the reduplication auxiliary *-ha-* (which must take *to-* if there is no pronominal prefix) relates to an iterated activity or a continuing state. It typically co-occurs with a past tense—most often far past, as in (5.116) and (9.8), but quite commonly recent past, as in (5.98)—or with the secondary verb *ama*, as in (7.30), or with both, as in (9.2). But neither of these is necessary—see (9.4), which refers to something being done many times in present time.

This kind of reduplication typically refers to someone having habitually done something, as in (7.30) ‘he was copulating with me a lot’, (9.21) ‘they used to cry a lot’, (9.17) ‘what did they used to strike (to make fire)?’ It can refer to residence, as in (5.116) ‘they used to live in two villages’. With verbs that have stative meaning we get (5.98) ‘he was getting better again’, (6.27) ‘we used to be many’, and (9.18) ‘I used to be tired’.

In one text the narrator asked, rhetorically:

- (9.43) [mee tafe]_O mee we.weje to-he-hemete mee awine?
 3nsg food+f 3nsgA REDUP.carry AWAY-AUXb-FPnf 3nsg SEEMSf
 didn’t they use to carry their own food?

In another, the narrator explained how he had heard the story:

- (9.44) *okomise_S a.'ati to-ha-hamaro-ke*
 1sgPOSS+aunt(f) REDUP.tell AWAY-AUXb-FPef-DECf
 my aunt (mother's sister) used to tell (the story)

When Okomobi was telling how he came to be chief, he explained why his grandfather was never chief (this was also given at (7.13b)):

- (9.45) [*okobi bati*]_A *jama_O wa.wato*
 1sgPOSS+father 3sgPOSS+father(m) thing(f) REDUP.know
to-ha-re-mata-mona ama-ka
 AWAY-AUXb-NEG-FPnm-REPM EXTENT-DECm
 my father's father is said not to have been wise (lit. not to have known many things)

Negation is also found with an iterative construction in (9.8b) and in:

- (9.46) *wawasi_S o.'ohari to-ha-ra-marō ama-ke*
 fish.trap(f) REDUP.be.one AWAY-AUXb-NEG-FPef EXTENT-DECf
 there were many fish traps (in those days) (lit. there wasn't just one fish trap)

In all the examples quoted thus far the iterative construction involves initial CV. reduplication. The corpus does include one example with initial CVCV. reduplication:

- (9.47) *mee tafa.tafa to-ha-hamaro mee ama-ke*
 3nsgS REDUP.eat AWAY-AUXb-FPef 3nsg EXTENT-DECf
 they used to eat lots at that time

Examples of the iterative construction with 1sg prefix *o-* are at (9.4) and (9.18) and one with O-construction marker *hi-* is at (9.23). There are further examples of this construction type at T3.53, 56–7, 64.

Noun Phrase Structure

Noun phrase structure is less complicated than predicate structure and, as a rule, fewer of the possibilities are taken up. More than half the NPs in the corpus consist of a single monomorphemic noun, whereas the average predicate includes about five morphemes. Nevertheless, longer NPs are encountered and there are considerable structural possibilities, which are described and explained in this chapter and the next.

§10.1 provides an overview of the structure of the NP, discussing gender, person, animacy, and number. A conundrum concerning whether the head of an NP involving inalienable possession is the possessor or the possessed is aired at the end of §10.1 and solved in §10.1.6.

Complex NPs are discussed in §10.2 and post-predicate NPs in §10.3. Alienable possession is the subject of §10.4, with an excursus on kin possession in §10.4.1. §10.5 describes and contrasts two special elements of an NP—*mee*, the augment marker, and *one/owa* ‘another’. Then §10.6 indicates which of the suffixes within a predicate may apply to NPs.

Two elements of NP structure are of special importance and are accorded a separate chapter. §11.1 discusses possessed nouns (PNs), their patterns of gender agreement, and the diachronic origin of the gender forms. And §11.2 examines the small class of adjectives, their functions, and criteria for distinguishing them from PNs.

10.1 OVERVIEW

In §3.5 it was briefly mentioned that with alienable possession it is the possessed which determines the gender of an NP for predicate agreement, and is to be considered the head, whereas with inalienable possession it is the possessor which determines this gender (and also the gender of inalienably possessed nouns which follow it) and is to be considered the head.

This can be explained by saying that an NP has one obligatory component, the head, which determines its gender. It can be preceded by an embedded NP describing an alienable possessor and/or followed by one or more (inalienably) possessed nouns (PNs). This can be exemplified by repeating (3.26a):

(10.1)	[ami	kaa]	jomee	teme
	mother(f)	poss	dog(m)	foot+m
	ALIENABLE		HEAD	(INALIENABLELY)
	POSSESSOR			POSSESSED
	mother's dog's foot (m)			

That is, the head of the NP, *jomee* ‘dog’, is both the possessed within an alienable possessor construction (*ami kaa jomee*) and also the possessor within an inalienable possessor construction (*jomee teme*).

Note that when the inalienable possessor is a pronoun we get, for example, *ee teme* ‘our feet’ with 1inc *ee* (which is a separate word) and *o-mano* ‘my arm’ with 1sg *o-* (which is a prefix to *mano*). It might be suggested that in *o-mano*, the possessed noun *mano* should be taken as head. In fact, as is shown in §10.1.4, *o-mano* counts as 3rd person in terms of inclusion of the

Oc prefix *hi-*. However, it is the *o-* of *o-mano* which determines the gender of the following PN and also gender agreement on the verb. A PN immediately following a 1st or 2nd person pronoun must have m form (here m *mano* rather than f form *mani*). And when *o-mano* is a core NP it engenders f agreement on suffixes within the predicate; this is determined by *o-* and not by *mano*.

§10.1.6 looks further at the conflict between *o-mano* counting as 3rd person (presumably, on the basis of *-mano*), suggesting that *-mano* should be taken as NP head, and *o-* determining gender determination—both within and without the NP—suggesting that *o-* should be taken as head. The conclusion reached there is that it is always the inalienable possessor (*o-* in *o-mano*) which is head of the NP.

10.1.1 Summary of noun phrase structure

The full structure of an NP is presented in table 10.1. Two of its minor features—noun modifiers and the archaic accusative suffix *-ra*—will be dealt with immediately.

(a) Nouns as modifiers to the head noun. (Note that these do not have the properties of adjectives.) There are three possibilities here:

- (i) A noun referring to the sex of an animate referent of the head noun—*fana* for female and *maki* for male. For example, the free noun *Jara* refers to a Branco and can have m or f gender; *Jara fana* is a Branco woman and has f gender. Further examples were given in §3.3.2; for instance *kerewe* ‘sloth sp.’ generally has f gender, but to refer to a

TABLE 10.1 Structure of the noun phrase

A. Alienable possessor, an embedded NP, plus possessive marker <i>kaa</i> .
§10.4 provides details of how sg pronouns contract with <i>kaa</i> , and describes kinship possession, which is a special subtype of alienable possession.
B. Head of NP (the only obligatory constituent).
This can be a common noun; a pronoun; an interrogative; <i>one/owa</i> ‘another’; a complement clause (see chapter 17); a proper noun or a demonstrative (structural possibilities are limited with a proper noun or demonstrative as head—see §10.1.6 and §12.1.1).
Modifiers to B:
— Bi, a noun referring to sex (<i>fana</i> ‘female’ or <i>maki</i> ‘male’, see §10.5.4); or <i>abono</i> ‘spirit’; or a noun referring to material, e.g. <i>jati</i> ‘stone’, <i>awa</i> ‘wood’.
— Bii, one or more adjectives; see §11.2.
— Biii, augment modifier <i>mee</i> ; see §10.5.
C. One or more possessed nouns (PNs); see §11.1.
Modifiers to a PN at C:
— Ci, one or more adjectives.
D. Contrastive marker <i>taa</i> ; see §10.1.2.
E. Accusative suffix <i>-ra</i> (an archaic feature).

In addition an NP can include one or more of a limited set of tense-modal and/or miscellaneous predicate suffixes; see §10.6. In the corpus these can occur once in an NP, in one of the following positions:

- after the head, at B (and before an adjective at Bii, or a PN at C);
 - after augment modifier *mee* at Biii;
 - after a PN at C.
-

male sloth one can say *kerewe maki*, which has m gender. This is one of only three instances of a modifier determining the gender of the NP. (Discussion of the varying forms of *fana* and *maki* is in §10.5.4.)

- (ii) The noun *abono* (m) ‘spirit’ (see PB11 in the appendix to chapter 11). Note that all animals and plants have a spirit (*abono*) which is always m, whatever the gender of the noun referring to the animal or plant. This is a second instance of a modifier determining the gender of the NP. (The third concerns augment *mee*, discussed in §10.5.)
- (iii) A noun referring to the material out of which something is made, e.g. free noun *jobe* (m) ‘house’ plus *awa* (f) ‘wood’ or *jati* (f) ‘stone’ give NPs *jobe awa* ‘wooden house’ and *jobe jati* ‘stone house’. Note that here the gender of the NP is m, that of the head noun, *jobe*.

A head modifier has been noted which consists of material noun plus possessed noun as its modifier. *Baje* (m) is a free noun referring to a type of palm; *eŋe* is the m form of PN *aŋe/eŋe* ‘leaf’, giving *baje eŋe* ‘palm leaf’. This can modify *jobe* ‘house/thatch’, in *jobe baje eŋe* ‘thatch of palm leaves’, which occurs in (17.49).

The use of nouns as modifiers is limited in Jarawara. For instance, *bihi* (f) is ‘fan’ and *moto* (m) is ‘motor’. Speakers state that a motorized fan cannot be referred to as **bihi moto*, instead *moto kaa bihi* has to be used (the whole being f, the gender of *bihi*, which is alienable possessee and head of the NP).

There are a considerable number of compound nouns, especially for the names of flora and some fauna, often with an adjective or colour term or PN added to a generic-type noun; see §26.1.2.

(b) The archaic accusative suffix *-ra*. An accusative marker *-ra* on NPs occurs in Paumari, in Sorowahá, and in the Jamamadí dialect of Madi; it is probably reconstructable for proto-Arawá. Information concerning use is not available for Sorowahá, but for Paumari, Chapman and Derbyshire (1991: 250–1) indicate that *-ra* goes onto an NP in O function in an A-construction (Ac), which immediately precedes the verb and is not associated with a demonstrative. Pronouns in object functions also include final *-ra*.

It appears that in the Jamamadí dialect of Madi *-ra* may be optionally included on all object pronouns in predicate initial position. This contrasts with Jarawara, where *-ra* is never included on 1sg and 2sg but always on 1inc, 1exc, and 2nsg (in all construction types) and optionally on 3nsg *mee* only in an Ac. Sample O pronouns are:

	JARAWARA	JAMAMADÍ
1sg	owa	owa or owa-ra
1exc	otara	odaa or oda-ra

Jamamadí also typically marks an O NP in an Ac by final *-ra*. This generally only applies if the A argument is also 3rd person, and if the O NP immediately precedes the verb (there are occasional exceptions to both these preferences).

Younger speakers of Jarawara never include *-ra* on an NP. However, older speakers sometimes do, apparently under the same conditions as in Jamamadí—only on an O NP in an Ac, and when the A argument is also 3rd person. For example, (10.48) and:

- (10.2) [okasima one-ra]_O Towija_A iti
 1sgPOSS+younger.sister(f) another+f-ACC name(m) marry
 Towija married my other younger sister

The corpus includes a few examples of *-ra* added to a clause constituent in O function. It is added to a dependent clause (marked by *haa*) in:

- (10.3) [[fare afone bite]_S waa-haa]-ra_O kaa ne-mete-mone-ke
 assai.palm(f) heart small+f stand-DEPF-ACC cut AUX-FPnf-REPF-DECf
 she is said to have chopped down a small assai palm heart (i.e. an assai palm
 with a small heart) that was standing (there)

In the pronominal paradigm given at table 3.1, it will be seen that 1inc, 1exc, and 2nsg are *era*, *otara*, and *tera* (i.e. all ending in *-ra*) for O function in all transitive clause types. However, 3nsg can be *mera* only in an Ac, when the A argument is also 3rd person. This undoubtedly relates to the recent development of the 3nsg pronoun *mee* from noun **madi* ‘person’ which would have functioned as an NP and only have taken *-ra* when in O function in an Ac where the A argument is also 3rd person. As *madi* reduced to become *mee* and became incorporated into the predicate as a pronoun, it retained this property.

The accusative marker *-ra* has the status of a normal suffix, added to the last word of the NP. Like other normal suffixes it forms one phonological word with what precedes it. Stress goes on the penultimate mora of the word, i.e. *oné-ra* in (10.2) and *waá-haá-ra* in (10.3).

10.1.2 Contrastive marker *taa*

This generally comes at the end of an NP, and can be followed only by the archaic accusative suffix *-ra*. It indicates that this NP contrasts with a corresponding NP in a preceding clause. Typically, the preceding clause bears contrastive negative marker *-rihi*. For example, (7.11) ‘Alan is not here (*-rihi*) but Jobeto (*taa*) is living here now’, (7.78) ‘My mother doesn’t exist (*-rihi*) but my elder brother (*taa*) does exist’ (i.e. ‘My mother is dead but I do have an elder brother’), and (7.79) ‘I don’t like cane whisky (*-rihi*) but I do like beer (*taa*)’.

Or the preceding clause can just bear negative suffix *-ra* (rather than *-rihi*), as in:

- (10.4) [bani_O mee kabi]_O o-nofa o-ka-re,
 animal(m) 3nsgO eat+COMP 1sgA-want 1sg-DEC-NEGf
 [[aba mee taa]_O mee kabi]_O o-nofa o-ke
 fish(m) AUG CONTR 3nsgO eat+COMP 1sgA-want 1sg-DECf
 I don’t want to eat land animal (meat), but I do want to eat fish

In one story, the narrator tells how he heard a spirit weeping in the jungle and comments, using two Oc’s:

- (10.5) inamati_O o-wa-ra-re-ka,
 spirit(m) 1sgA-see-NEG-IPem-DECM
 [ati taa]_O o-mita-re-ka [hine jaa]
 voice CONTR 1sgA-hear-IPem-DECM JUSTf PERI
 I didn’t hear the spirit, I only heard its voice

Here the NP *inamati* ‘spirit’ in the first clause contrasts with the NP in the second clause consisting just of the PN *ati* ‘voice’ (with head noun *inamati* omitted under anaphora) and *taa*.

In another text a Branco chafes a middle-aged Indian for wearing a hat all the time, saying (note that (10.6a) was given as (5.354)):

- (10.6a) [ee botee]_A sabeo_O weje tee-ra ama-ke
 1inc old hat(f) wear.on.head HABIT-NEGf EXTENT-DECf
 our old people don’t wear hats all the time

- (10.6b) [ee jati taa]_A sabeo_O weje na
 iinc young CONTR hat(f) wear AUXf
 our young people, in contrast, do wear a hat (all the time)

Sentences (10.6a) and (10.6b) share the O NP *sabeo* ‘hat’ and verb *weje -na-* ‘wear’ but contrast in the A NP being *ee botee* ‘our old people’ in the first clause and *ee jati* (plus *taa*) ‘our young people’ in the second. (The next clause in this text was given at (5.355).)

T3.54–6 feature the names of fishes, each followed by *taa*. In T2.10 *taa* occurs in a post-predicate NP after *haa.owa* ‘myself’, indicating that the speaker (rather than someone else) is going on a hunting expedition because he has hunting dogs.

10.1.3 Gender

Almost every free noun has an inherent gender—feminine (f) or masculine (m). As mentioned in §3.3.2, just a few nouns referring to humans can have either gender, depending on the sex of the referent; these include *inamatewe* ‘child’, *habai* ‘friend’, *hiti* ‘owner’, some kin terms (see §10.4.1), *Jara* ‘Branco’, and tribal proper names such as *Wahati* ‘(member of the) Jamamadí tribe’.

As stated in §3.3.2, all nouns with human reference have sex-determined gender. Other than this, it is difficult to perceive any hard-and-fast principles for gender assignment, although we can identify a number of correlations. Of the non-human animates, about 85 per cent have inherent m gender; however, a sex-determined gender may optionally be specified for higher animals.

About 53 per cent of plant names are f. I can distinguish no overall principle for the division into genders. Note though that most garden plants with a sweet taste are f—*sami* ‘pineapple’, *jifari* ‘banana’, *kana* ‘sugar cane’ (an exception is *ajawa* ‘cashew fruit’, which is m). And most starch foods are m—*fowa* ‘manioc’, *kimi* ‘sweet corn’, *hosi* ‘sweet potato’ (an exception here is *biha* ‘cará (a type of yam)’ which is f).

About 80 per cent of nouns referring to things other than fauna and flora are f. Here a number of principles can be noted:

- (a) All liquids are f: water, river, lake, and also recently introduced liquids such as beer, cane whisky, and gasoline.
- (b) An artefact that is made from a certain plant generally has the same gender as the plant. The noun *wati* indicates both an arrow, and the reed from which it is obtained; both have m gender. The f noun *bihi* is used both for a fan and for the type of palm (*curuá*) from whose frond it is made (lexeme **bihi* can be reconstructed for proto-Arawá with the meaning ‘hand, arm, feather, wing’ suggesting that in this instance the tree is named from the artefact).
- (c) A manufactured foodstuff may have the opposite gender to its main ingredient. For example:

<i>fowa</i>	m	bitter manioc
<i>ijawa</i>	f	toasted manioc meal and the flat bread that is made from it
<i>hasoka</i>	f	sugar (loan from Portuguese <i>açucar</i> , m)
<i>bobo</i>	m	candy, sweet (made from sugar) (loan from Portuguese <i>bombom</i> , m)

- (d) The shape of a pair of artefacts may mirror the shapes of animal sex organs—a vagina-like orifice will be f, and a long penis-like object will be m. Thus *tara* ‘pestle’ is m and *fowa* ‘mortar’ is f.

- (e) The loan word *moto* ‘motor, motor boat’ is m and so are all vehicles which use a motor, e.g. *kaho* ‘car’ and *afiao* ‘plane’. (However, other artefacts that use a motor—such as tape recorder and electric razor—are classed as f.)
- (f) There are two traditional pieces of clothing—the man’s loincloth/penis sheath, *kanatafo*, is f, and the woman’s loincloth, *jajafa*, is m. It appears that these garments have the opposite gender to the sex of the person who wore them. (*Makari*, the general term for all modern-day clothing, is f.)
- (g) *Bahi* ‘sun, thunder’, *abariko* ‘moon’, and *amowa* ‘star’ are regarded as mythical men and have m gender. A watch or clock can be called *bahi* (because one tells the time of day from it, as one does from the sun) or *heroso*, a loan from Portuguese *relógio*. *Heroso* is, like *bahi*, m.
- (h) All free nouns corresponding to PNs have f gender with one exception—*atiwa* ‘thorn’ is m (it is also morphologically irregular, see §11.1.2).

Principles (a–h) only explain a little of the gender assignment for nouns that do not refer to flora and fauna. I do not know why *wati* ‘arrow’ (for use with a bow) is m but *sarehe* ‘dart’ (for use in a blowgun) and *wabise* ‘spear’ are f. And I cannot explain why the loan words *jintero* (or *tintero*) ‘money’ and *bora* ‘ball’ have m gender.

Other Arawá languages have two genders, like Jarawara, but cognate nouns across languages vary a good deal in gender. Portuguese also has two genders but there appears to be no correlation between the gender of a noun in Portuguese and that of a loan based on it in Jarawara; many examples are provided in §2.5.

It is not usually possible to infer the gender from the form of a free noun; the only exceptions appear to be *Wakara/Wakari* ‘member of the Paumarí tribe’ and possibly *bara/bare* ‘member of another tribe’ (see §12.3). The gender of a free noun can be inferred from patterns of agreement, both within its NP and (for a noun which is head of a core NP) with the head and post-head elements in the predicate.

Within the predicate, agreement is with the S argument in an intransitive clause and with the A argument in a transitive Ac. In a transitive Oc, mood agreement is always with the O argument, while earlier elements may agree either with O or with A; full details of the conditioning are in chapter 16. If the relevant argument is expressed by a pronoun within the predicate (in slot A or in slot B—see §3.5 and §4.1), this always takes f agreement. Only if the argument is 3sg animate or 3 inanimate (with zero marking in the predicate) is gender agreement determined by the head noun in the NP. We thus only get m agreement if the NP head is an animate noun with singular reference, which has m gender, or an inanimate noun, which has m gender.

Gender within the predicate is shown as follows:

- (i) Slot D (inflecting verb root) or slot E (auxiliary for a non-inflecting verb) or slot F (miscellaneous suffix) show gender only if word-final and if the underlying final vowel is *a*.
- (ii) All tense-modal suffixes (slot G) and all mood suffixes (slot J), save for *-rihi*, contrastive negator, always show gender, as does the secondary verb *awine/awa* ‘seems’ (slot I).
- (iii) Markers of a dependent clause, *-(ha)aro/- (ha)ari* and *-haa/-hii*, distinguish gender (see chapter 18).

As shown in §4.2, the f vowel is higher/fronter than m in one area of predicate structure, and lower/backer in another area.

Marking of gender for elements of an NP other than the head noun is as follows:

- (a) Slightly less than half of the c.175 PNs have contrastive gender forms; see §11.1.
- (b) Of the small set of fourteen adjectives just *bite/bit* ‘small’ and *one/owa* ‘another’ (which functions as both adjective and noun) have distinct gender forms.
- (c) Of the content interrogative words, only *hibaka/hibake* ‘who’ shows gender.
- (d) Nominal demonstratives can show gender, e.g. *haaha/haahi* ‘this’.

Demonstratives and content interrogatives generally make up a complete NP, but may have anaphoric or cataphoric reference to a free noun, and agree with it in gender. Adjectives agree in gender with the noun they modify. The gender of a PN is determined by the free noun it modifies but in a complex way. A PN immediately following an f free noun or the 3NSG pronoun *mee* has f form, whereas one which immediately follows an m free noun or a 1ST or 2ND person pronoun has m form. For a full statement, see §11.1.1.

Feminine is the functionally unmarked gender on the following evidence:

- (1) All pronouns are cross-referenced as f, whether referring to a man or a woman.
 - (2) The interrogative *himata* ‘what’ takes f gender agreement, when the speaker is unaware of the gender of the item under consideration; for example:
- (10.7) *himata ama-ri?*
 what be-CINTf
 what is it?

Note also *himata ihi* ‘due to what’ in (15.44), where the f form of *ihi/ehene* ‘due to’ is used with *himata*.

- (3) When a general statement is made, if no noun with m gender is involved the NP will take f agreement. The noun *Wahati* ‘Jamamadí person’ can have f or m cross-referencing, as it refers to a man or a woman; in (5.103) there is generic reference to Jamamadí children and we get *Wahati* plus *bite*, the f form of the adjective ‘small, child’, followed by the augment modifier *mee*. In (5.125) the copula subject NP consists just of an adjective *faja* ‘finished’ (referring to people buying); the predicate shows f gender.
- (4) Many PNs have a corresponding free form noun. The free noun has f gender in every case but one (corresponding to *atine/atine* ‘thorn’ there is the free noun *atiwa*, with m gender; this is anomalous both in gender and in form—see §11.1.2).
- (5) As shown under (ix) in §19.1, when a copula has a nominalized clause as subject, a declarative suffix on the copula verb has f form; see (19.3).

There is, however, one piece of conflicting evidence:

- (6) When declarative *-ke/-ka* is followed by negator *-re/-ra*, all speakers have *-ka-ra* for the m sequence. But for the f sequence some speakers say *-ke-re* while others prefer *-ka-re*—as in (10.4)—with gender shown just on the final suffix, not on both. (All speakers recognize the two alternatives as equivalent, and say that which is used is a matter of personal preference.) That is, the m form *-ka* is used as neutralization of *-ke/-ka* before the negative suffix. It does seem that *-ka-re* is a recent innovation.

In summary, there is strong evidence from (1–5) that feminine is the functionally unmarked gender, with mild disagreement from (6) which appears to be due to a recent (and probably ongoing) historical shift.

Functional markedness in the gender system of Jarawara (as of other Arawá languages) is the opposite of that in English and many other languages of the world. The traditional situation in English was to use *he* or *man* for when no gender specification was intended (e.g. *Man is*

mortal) and also for masculine—or, better, non-feminine—when there was a gender specification (e.g. *Men can't bear children*); feminine was the marked gender and *she* and *woman* always had female reference (e.g. *Women can bear children*).

In Jarawara, masculine is the marked gender, and is only used for referring to a human male or something classified as having masculine gender. The unmarked gender, feminine—or, alternatively, non-masculine—is used for reference to human females or things classified as having feminine gender, and also when there is no gender specification.

There is an exception to the principles just stated. The marked gender can, exceptionally, be used to refer to a woman, especially when it is someone who is particularly close to the speaker (e.g. a man's wife). In T1.9, concerning the death and burial of an old shaman called Siko, the narrator used m gender in referring to his own wife, Kamina:

(10.8) Kamina_A Webijo_O haa ne-ri ama-ka
 name(f) name(m) call.to AUX-RP_m EXTENT-DECM
 Kamina called to Webijo

In T1.35–6, m gender is again used for referring to a woman, this time Siko's widow Amoro.

In all such instances, speakers affirmed that f agreement could have been used; (10.8) would then have been *Kamina Webijo haa na-ro ama-ke*.

In summary, the marked gender is normally used only for reference to human males (and other animals and things of m gender). But it can be extended to refer to human females, as a mark of affinity and of respect towards them.

The question of formal markedness is less clear. There are two pieces of evidence.

- (1) An inflecting verb or auxiliary or miscellaneous suffix which is word-final and ends in *a* retains this for f agreement and raises the *a* to *e* for m agreement. However, under (III) in §4.5.2, there was reconstruction of an earlier stage at which f suffix *-ha* and m suffix *-hi* were added, with subsequent changes:

-a-ha > -a -a-hi > -e

The f forms of inflecting verbs, auxiliaries, and miscellaneous suffixes ending in *a* are today formally unmarked, but as a consequence of this diachronic change.

- (2) The continuous suffix in echelon 6 (§5.9) has the f form *-ⁱne*, but m has zero realization. And the polar interrogative suffix has f form *-ⁱni(hi)* but here the m form is nothing (in contrast to zero, see §15.4).

We can conclude that whereas f is the functionally unmarked gender, there is no clear evidence that either gender could be considered as—in overall terms—formally unmarked with respect to the other.

10.1.4 Person

In languages where the predicate does not include information concerning person of subject and object, this may only be shown in NPs, as in English *I saw you*. Head-marking languages have obligatory specification within the predicate of person and number for one or more core arguments; in most cases this information may optionally be repeated in an NP. Thus, in the Australian language Ngalakan one can say (Merlan 1983: 71):

(10.9) ŋaykaʔ_S watji ŋu-rnaŋaniñ
 1sg behind 1sgS-sit+PAST.CONTINUOUS
 I sat behind

The NP consisting of a free pronoun, *ɲayka?*, is here optional. The verbal form *ɲu-rnaɲaniñ*, which includes full specification of the S argument through the 1sg prefix *ɲu-*, may constitute a complete clause.

Jarawara is like Ngalakan in having obligatory specification of person and number of subject and object by bound pronouns within the predicate (3sg being zero). But it is unlike Ngalakan (and unlike most head-marking languages) in that a core NP (in S, A, O, or CS function) cannot consist just of a 1st or 2nd person pronoun (like *ɲayka?* in Ngalakan). The only circumstance under which a pronoun can occur in a core NP is as alienable possessor (as in *oko bari* ‘my axe’, and *tee kaa bari* ‘your (pl) axe’), or as inalienable possessor followed by a PN (e.g. *o-mano* ‘my arm’, *ee mano* ‘our arms’), or when followed by an adjective, as in (10.6a/b).

Note that this restriction applies just to core NPs (in S, A, O, or CS function), which occur before the predicate. A copula complement (CC) NP, which is not marked within the predicate, can consist just of a pronoun (see §13.1). A post-predicate NP typically consists just of a pronoun, preceded by *haa*—see §10.3. And a peripheral NP, marked by a postposition such as *jaa*, can also consist just of a pronoun—see chapter 20.

There is in Jarawara a test for the person of an NP. Recall from §3.4.1 that in an Oc the verb will take prefix *hi-* if both A and O arguments are 3rd person. We find that an NP with a 1st or 2nd person pronoun as inalienable possessor does count as 3rd person with respect to inclusion of *hi-*. For example:

- (10.10) o-manos_S koma-ke,
 1sgPOSS-arm+m be.sore-DECf
 Ara_A o-manos_O hi-wa-haba ama-ke
 name(m) 1sgPOSS-arm+m Oc-see-FUTf EXTENT-DECf
 my arm is sore, Alan will look at my arm (to see what ointment might
 appropriately be applied)

The fact that *hi-* is included in the second clause of (10.10) establishes that *o-mano* counts as a 3rd person NP. And this applies to any pronoun-plus-PN, including the one PN which is a quantifier, *nafi/nafi* ‘all’. Using ‘{...}’ to enclose the predicate, and writing in a zero element in slot B, we can compare:

- (10.11a) {ee tafa-ke}
 1incS eat-DECf
 we (inclusive) are eating
- (10.11b) [ee nafi]_S {∅ tafa-ke}
 1incPOSS all 3inanS eat-DECf
 we (inclusive) are all eating

In (10.11a), *ee* occurs within the predicate, and there is no NP in the clause. In (10.11b) *ee nafi* is the S NP and there is zero marker for the S argument within the predicate. This implies that the S is 3sg. Now compare two Oc’s. That in (10.12a) has *ee* and that in (10.12b) has *ee nafi* as the A argument.

- (10.12a) [Okomobi ati]_O {∅ ee mita-hare-ka}
 name(m) voice 3inanO 1incA listen.to-IPem-DECm
 we listened to Okomobi’s words
- (10.12b) [ee nafi]_A [Okomobi ati]_O {∅ ∅ hi-mita-re-ka}
 1incPOSS all name(m) voice 3inanO 3inanA Oc-listen.to-IPem-DECm
 we all listened to Okomobi’s words

In (10.12a) the A argument is *inc ee* so there is no prefix *hi-* on the verb. The clause is recognizable as an O-construction since the immediate past eyewitness tense/evidentiality suffix has m form *-(ha)re* and the declarative suffix has m form *-ka*, both agreeing in gender with the O argument *Okomobi ati*, an NP with inalienable possessor, *Okomobi* (which supplies the gender for the NP), followed by the PN *ati/ati* ‘voice, speech, language’.

Sentence (10.12b) is recognizable as an O-construction by the prefix *hi-* on the verb. But *hi-* is only used when both core arguments are 3rd person. This provides confirmation that the A argument *ee nafi* ‘us all’ in (10.12b) counts as 3rd person within the grammar of Jarawara.

These facts allow the following conclusion:

(10.13) All NPs in core (S, A, O, or CS) function in Jarawara count as 3rd person

The generalization that all core NPs count as 3rd person relates to the fact that a core NP cannot consist of just a 1st or 2nd person pronoun. The NP *o-mano* ‘my arm’ is 3rd person not because *mano* is 3rd person but simply because every core NP is 3rd person. This applies even to *ee nafi* ‘all of us’, involving the *inc* pronoun *ee* plus qualifier *nafi/nafi* (which is a PN).

10.1.5 Animacy and number

A major distinction in Jarawara grammar is animate versus inanimate. Basically, everything considered animate in English is treated as animate in Jarawara, with the addition of heavenly bodies (sun, moon, and stars, all classed as m). Certain ailments—including *inokowisi* ‘toothache’ (classed as m), *joki* ‘rheumatism (classed as f), and *d’abe* ‘thrush, an infection in the throat and mouth’ (classed as m)—are believed to be due to small insects, and are thus treated as animate.

A number distinction in pronominal cross-referencing is made only for animates. As shown in table 3.1, the 3nsg pronoun *mee* in slots A and B of the predicate is used only for animates; a zero term is employed for 3sg animates and for all inanimates, irrespective of number. The same restriction applies to the cognate form within an NP, augment marker *mee*—it may be used only after a noun with animate reference (see §10.5).

The important point to note is that number is generally not marked within an NP itself, but only in the appropriate slot in the predicate. Consider:

(10.14) Haimoto_A jama_O {mee tee na}
 name(m) thing(f) 3nsgA put.in AUX+f
 Haimoto and others put things (in the bag)

Here the A argument of the verb is realized by the NP consisting of proper name *Haimoto*, and by the 3nsg pronoun *mee* in the predicate. Putting these together we can infer the reference of the A argument as a group of (two or more) people, one of whom is Haimoto.

It will be seen that it is not really satisfactory to say that the pronominal element in the predicate cross-references the free NP, or vice versa. Here *Haimoto* and *mee* are coreferential, they are two parts of the realization of the A argument of the verb *tee -na-* ‘put in’; neither part is more critical or more central than the other.

Another place where number is shown is in the suppletive forms of about twenty verbs, the choice of which relates to the reference of the S or O argument (irrespective of its animacy). For example, the verb ‘kill’ has form *-na(a)boha-* when the O argument has sg and *waka -na-* when it has plural reference; full details are in §26.2.1.

For two of these verbs the suppletive forms relate to number and also animacy:

	singular S	dual S	plural S
'sit'	<i>-ita-</i>	<i>joro -na-</i> and <i>-teme -na-</i>	animate S: <i>-naho-</i>
'stand'	<i>-wa(a)-</i>	(in free variation)	inanimate S: <i>sii -na-</i>

That is, the contrast between 'sit' and 'stand' is neutralized for dual and plural S. But for plural S, different forms are used depending on whether the S is animate or inanimate.

It is interesting to compare the behaviour of an S NP consisting just of the animate noun *hijama* 'white-lipped peccary', in (10.15a/b) and an S NP consisting of free noun *hijama* plus PN *tone* 'bone', in (10.16a/b).

(10.15a) [hijama]_S {∅ ita-ka}
 peccary(m) 3sg.anS sit(singular S)-DECM
 a peccary is sitting

(10.15b) [hijama]_S {mee naho-ke}
 peccary(m) 3nsg.anS sit/stand(plural animate.S)-DECF
 several peccaries are sitting/standing

(10.16a) [hijama tone]_S {∅ ita-ka}
 peccary(m) bone 3inanS sit(singular S)-DECM
 a peccary's bone is sitting

(10.16b) [hijama tone]_S {∅ sii to-na-ka}
 peccary(m) bone 3inanS sit/stand(plural inan.S) AWAY-AUX-DECM
 peccary's bones are sitting

The clauses with sg S, (10.15a) and (10.16a) are similar, with verb *-ita-* and zero pronoun in slot B of the predicate. However, the clauses with nsg S differ markedly. In (10.15b) the S NP has animate reference, the predicate commences with 3nsg animate pronoun *mee*, and the verb is *-naho-*. Here nsg number is shown twice, by the inclusion of *mee* and by choice of *-naho-*. However, (10.16b) lacks *mee* in the predicate and the verb is *sii -na-* (this verb always takes prefix *to-*). Note that here nsg number is shown just once, by the choice of *sii -na-*. Note also that the declarative suffix has m form *-ka* in (10.15a) and in (10.16a/b), agreeing with *hijama*, but f form *-ke* in (10.15b), agreeing with *mee*.

The structure of (10.16b) shows that *hijama tone* is treated as an inanimate NP. Further checking shows that the following generalization applies in Jarawara:

(10.17) Any NP including a PN is treated as inanimate. Like all inanimate NPs, it cannot engender a number specification (nsg, marked by *mee*, versus sg, with zero marking) in slots A and B of the predicate.

This correlates with the fact that *mee* can be included in an NP before a PN, but not after one, as shown in table 10.1. Once an NP includes a PN it is treated as inanimate and cannot then be marked for number; that is, the augment modifier *mee* cannot follow a PN. See also §10.5.

10.1.6 The head of a noun phrase

Superficially, there might appear to be a problem in determining what is the head of an NP such as *o-mano* 'my arm'. It counts as 3rd person and as inanimate; these properties could be

thought to relate to the PN *mano*, such that *mano* should be considered head of the NP. However, we concluded in (10.13) that all NPs in core function count as 3rd person, and in (10.17) that any NP including a PN is treated as inanimate. The fact that *o-mano* is 3rd person is a consequence of its being an NP, and the fact that it counts as inanimate is a consequence of it being an NP which includes a PN, rather than either of these properties being a function of *mano* itself.

The only variable associated with an NP is gender. And the gender—for agreement within the NP (see §11.1.1), and in the predicate—is determined by the element which we designated in (10.1) and in table 10.1 as the head.

There is a further observation which supports this analysis. Consider an extract from a text describing how the narrator and a companion were tied up in the middle of the jungle by some evil spirits:

- (10.18) (a) [mee.inamati]_A {era ∅ wete na}
 spirits(f) iincO 3sgA bind AUXf
 the spirits bind us (with string)
- (b) [ee mano]_S {∅ soki kasa}
 iincPOSS arm(m) 3inanS tie ALL.AT.ONCEF
 our arms are tied together
- (c) [ee iso]_S {∅ soki kasa}
 iincPOSS leg(m) 3inanS tie ALL.AT.ONCEF
 our legs are tied together
- (d) [mee.inamati]_A {era ∅ wete na}
 spirits(f) iincO 3sgA bind AUXf
 the spirits bind us

The pivot running through these four clauses is the *iinc* pronoun, *ee*. In (a) it is in O function in a transitive clause, in (b) and (c) it is in S function in an intransitive clause, and in (d) again in O function in a transitive clause, which in fact repeats (a). Note that we just get *era* (the O form of *ee*) within the predicate in (a), but in each of (b) and (c) *ee* is elaborated by a PN—*ee mano* ‘our arms’ and *ee iso* ‘our legs’—and then becomes an NP outside the predicate. In (d) the pivot reverts to being just *ee* (in accusative form). The point is that *ee mano* and *ee iso* are each regarded as a type of *ee*. The only way of dealing with this kind of pivot elaboration and reversion is in terms of *ee* being the head of the NPs in (b) and (c). In an NP showing a ‘whole-part’ relationship in Jarawara, it is always the element referring to the ‘whole’ which is head of the NP. (There is a further illustration of this in (16.17).)

Additional evidence in favour of an inalienable possessor being head of its NP involves adjective agreement; see §11.2.3. And the fact that the inalienable possessor functions as common argument within a relative clause construction; see (24.3).

We can now briefly look at the possibilities for the head slot in a core NP (in S, A, O, or CS function):

- (a) A common noun (a free noun in the terminology used here) can be head of any type of NP, with any or all of the elements shown in table 10.1. The same applies to *one|owa* ‘another’, which can function as a free noun or as an adjective (see §10.5 and §11.2).
- (b) A 1st or 2nd person pronoun may only function as head (in slot B) if there is also a PN (in slot C) or an adjective (in slot Bii); it cannot occur with an alienable possessor in slot A. (It may function as a complete NP which fills the alienable possessor slot, A.)

- (c) The 3nsg pronoun *mee* is like 1st and 2nd person pronouns but with the additional property that it can be alienable possessee, as in *Kasanofa kaa mee* ‘the people of Casa Nova (village) (lit. Casa Nova’s they)’. This is no doubt a relic of the history of *mee*, its evolution from the noun *madi* ‘person/people’.
- (d) Proper nouns and content question words (see §15.3) can function as head, and always make up a complete NP. (Like pronouns, they can function as a complete NP which fills the alienable possessor slot, A.) Nominal demonstratives generally make up a full NP but they are occasionally followed by a PN, as in (12.7) in §12.1.1.
- (e) A complement clause can also function as the head of an NP, and can be modified by an adjective or a PN. This unusual feature of Jarawara is described and exemplified in §17.5.

An NP which makes up a complete clause can have a pronoun as head, as in (10.61). An NP in CC or in peripheral function also has the possibility that its head can be a pronoun—see §13.1 and chapter 20. And there is the anaphoric element *fee* ~ *hee*, which can be head of an NP in non-pivot function. It is attested for the O argument in an Ac, for the CC in a copula clause, and in a peripheral NP; see §12.2.2.

The head of an NP can be omitted under several kinds of circumstance. One is anaphora with a preceding NP in the same clause, as in:

- (10.19) Jima_A fati_O jori ne-no
 name(m) 3sgPOSS+wife(f) swive AUX-IPnm
 the Jima man swived (copulated with) his wife

The underlying O NP in (10.19) is *Jima fati* ‘the Jima man’s wife’; the head noun *Jima* is anaphorically omitted since it is understood from the preceding NP. (If the Jima man were swiving someone else’s wife, then a head element would have to be included in the O NP.)

Sentence (10.5) shows anaphora to the preceding clause. The O NP of the second clause is stated as *ati taa*, but is understood to be underlyingly *inamati* ‘spirit’ (head) plus *ati* ‘voice’ (PN) plus the contrastive element *taa*. The head *inamati* comprised the O NP for the preceding clause and is here omitted. The head (possessed) noun can also be omitted from an alienable possessive construction; see §10.4.

10.2 COMPLEX NOUN PHRASES

A core slot in a clause can be filled by a simple NP or by two NPs in apposition; the latter will be referred to as a complex NP.

The most frequently encountered complex NPs involve one simple NP consisting just of a proper noun, as in T2.23, 36, and (10.20), or a demonstrative, as in (10.21), and the other having a common noun as head.

- (10.20) [habai]_A [Ara]_A ati na-re-ka
 friend(m) name(m) say AUX-IPem-DECM
 friend Alan said (this)

- (10.21) [haa]_O [majatera]_O Jara_A mee taba hi-ka-n-isa-hani
 THIS gill.net(f) Branco(m) 3ngA stick OC-APPLIC-AUX-DOWN-IPnf
 the Brancos had stuck (a post with) this gill-net (attached) (into the river bed here)

We also find some examples of a complex NP, each of whose simple NPs has a common noun as head, e.g. T2.88, (10.67), and:

- (10.22) [anoti tefe]_O [jamata]_O awe-hiba-no-ho
 3sgPOSS+elder.brother(m) food+m food(f) see-FUTM-IPnm-DEP
 he will have seen his elder brother's food (in a legend concerning the creation of
 food supplies, where the elder brother provided food for all his people)

Here the first O NP includes PN *tafe/tefe* 'food', modifying *anoti* 'his elder brother', and the second O NP is made up of free noun *jamata* 'food'.

10.3 POST-PREDICATE NOUN PHRASES

NPs in core function prototypically occur before the predicate. However, it is possible to include an NP as a clause-final element, after the predicate; this will expand the reference of the S, A, O, or CS argument. (I have never encountered two post-predicate NPs, expanding both O and A.)

There may have been an explicit NP before the verb and the post-predicate NP will repeat it, adding more information, as in:

- (10.23a) Motobi!, kanawaa_O ti-mato-hi,
 name(m) canoe(f) 2sgA-tie.up-ImmPosIMPF
 [Jara mee kaa kanawaa]_O!
 Branco(m) AUG POSS canoe(f)
 Motobi! you tie up the canoe, the Brancos' canoe!

- (10.23b) kaho_O otaa to-na-ka-ma-habone otaa-ke [kaho owa]_O
 car(m) IexcA AWAY-CAUS-in.motion-BACK-INTf Iexc-DECL car(m) another(m)
 we should take a car, another car (different from the car we've been in earlier on)

The post-predicate NP adds an alienable possessor to the already-stated noun in (10.23a), and an adjective in (10.23b), the noun being repeated in each instance.

In (10.24a), which is an Oc, the O NP before the predicate consists of an f free noun, and the post-predicate NP simply adds an f PN (agreeing in gender).

- (10.24a) [kanawaa]_O tama o-na-haro-ke, [ifi]_O
 canoe(f) hold 1sgA-AUX-RPef-DECL side+f
 I grabbed hold of the canoe, of the side (of the canoe)

However, no post-predicate NP has been noted that simply adds an adjective as modifier to an already-stated noun, without also repeating the noun. And, when elicitation was directed to this point, speakers preferred to retain the noun. For example:

- (10.24b) awi_O tao o-ka-na o-ke, [awi ehebotee]_O
 tapir(m) shoot 1sgA-APPLIC-AUXf 1sg-DECL tapir(m) big
 I shot a tapir, a big tapir

Here a post-predicate NP consisting just of *ehebotee* (with no *awi*) was judged just possible, but infelicitous.

A post-predicate NP can expand an argument which was simply coded by a 3nsg pronoun at the beginning of the predicate; for example, (3.16), (10.51), and:

- (10.25a) mee ahaba-marō-ke, [mee nafi]_S
 3nsgS die-FPef-DECL 3nsg all
 they died, all of them

Here the post-predicate NP has 3nsg *mee* as head, and PN *nafi* ‘all’ as modifier. In (10.25b), the pre-predicate NP is *mee ati* ‘their voices’ and the post-predicate NP is *Kamo mati*, specifying that ‘they’ are ‘Kamo and company’:

- (10.25b) [mee ati]_O o-mita-ra mee ama-ke [Kamo mati]_O
 3nsg voice 1sgA-hear-NEG 3nsg EXTENT-DECf name(m) AUG
 I didn’t hear their voices, Kamo and company’s

A 3sg argument is coded by zero at the beginning of the predicate. This can also be expanded by a post-predicate NP, as in T3.23 and:

- (10.26) jama_O jabe-hemete-mone ama-ke [maka]_A, [maka-tee-ba]_A
 thing(f) give.name-FPnf-REPF EXTENT-DECf snake(f) snake(f)-HABIT-FUT
 she is said to have given names to all the things (the crops), the snake did, the
 one who was to become a snake did

The predicate shows f agreement, indicating that the A argument is f. We then have two post-predicate NPs. The first is just *maka* ‘snake’ (which is f) providing specification of the zero-marked 3sg A argument. The second provides further specification of *maka*, adding suffixes *-tee* ‘habitual’ and FUT *-ba* so that we get *maka-tee-ba* ‘that which is to become a snake’. This sentence comes from a legend concerning an old grandmother who turned into a snake, and before she did so gave names to all the food plants her son had provided.

We also find post-predicate NPs that expand on a 1st or 2nd person pronominal argument. The next two examples show *iinc* and *1sg* repeated, each with the PN *nafi* ‘all’:

- (10.27) jama_O ee ahi na-ba ee-ke [ee nafi]_A
 thing(f) 1incA work.on AUX-FUTf 1inc-DECf 1inc all
 we’ll work on the thing, all of us

- (10.28) owa kijo ne-ri-ka [oko nafi]_O
 1sgO paint AUX-RPem-DECM 1sg all
 he painted me (red, with urucu vegetable dye), all of me (i.e. he painted me all over)

Sometimes we simply get a post-predicate NP repeating a 1st or 2nd person pronominal argument, with no addition; this is a kind of emphasis. Such a post-predicate NP begins with *haa*, and has the form:

1sg	haa.’owa	1inc	haa.’ee	1exc	haa.’otaa
2sg	haa.tiwa	2nsg	haa.tee	3nsg	haa.mati

It appears that each of these forms is one grammatical word consisting of two phonological words. As is normal in this circumstance (see §2.11), a glottal stop separates vowels at the boundary.

We find *haa.’otaa* in (3.17), T2.114, and in the copula clause:

- (10.29) [kereti mee]_{CC} otaa ama-ka-re [haa.’otaa]_{CS}
 crente AUG 1excCS be-DEC-NEGf EMPH.1exc
 we are not crentes (strict evangelical Protestants), we ourselves

And *haa.’owa* is used in:

- (10.30) hijama_O o-naboha-hamaro ama o-ke [haa.’owa]_A
 white.lipped.peccary(m) 1sgA-kill-FPef EXTENT 1sg-DECf EMPH.1sg
 I killed the white-lipped peccary, all by myself

For a more complex example, see T2.10. An alternative to *haa'owa* in a sentence such as (10.30) was given as *fara owa*; see §12.3 for discussion of *fara/fare* 'the very (one)'.

A nominal demonstrative can also function as post-predicate NP; see §12.1.

It will be seen that post-predicate NPs can relate to any of the core functions—to S in (3.17), (10.25*a*) and (10.26); to A in (10.26–7) and (10.30); to O in (3.16), (10.23*a/b*), (10.24*a/b*), (10.25*b*), and (10.28).

There is sometimes an intonation break before a post-predicate NP (marked in the transcription by a comma) and sometimes not.

10.4 ALIENABLE POSSESSION

Three basic types of possession can be recognized, on cross-linguistic grounds:

- (a) Part-whole relationship, e.g. 'my foot', 'its top'. This may be extended, as in Jarawara, to such things as 'name', 'language', 'smell', 'home', and 'companion'.
- (b) Kinship possession, both consanguineal (e.g. 'her mother') and affinal (e.g. 'John's wife').
- (c) Others, generally termed 'alienable possession', e.g. 'your knife', 'Mary's dog'.

Languages vary in how many possessive constructions they have, and what these cover. In a classic article, Sapir (1917) distinguished:

- (i) A single construction, covering all of (a–c), as in Yana and Southern Paiute [and in English].
- (ii) Three different constructions, one for each of (a), (b), and (c), as in Siouan and Haida.
- (iii) One construction covering (a) and (b), with a second one for (c), as in Chimariko.
- (iv) One construction for (b) and another covering (a) and (c), as in Takelma.

Jarawara shows a further pattern. Kinship possession (discussed in §10.4.1) is essentially a subtype of alienable possession; the possessed is the head of the NP and determines gender. But it differs in two ways from regular alienable possession, and is then similar to inalienable possession, involving PNs:

(1) A noun as alienable possessee must be preceded by *kaa* (e.g. *Okomobi kaa kanawaa* 'Okomobi's canoe') whereas only some kin terms require *kaa*, and then only with certain possessors (for example, there is no *kaa* in *Okomobi mati* 'Okomobi's mother'). Full details are in §10.4.1 and table 10.2.

(2) The verb *-kiha-* 'have' can be used to link any two NPs which are in a relation of alienable possession; for example:

(10.31) Jara_A kanawaa_O kiha-ka
 Branco(m) canoe(f) have-DECm
 the Branco has a canoe

But *-kiha-* cannot be used for kinship or inalienable possession. That is, we cannot say, using *-kiha-*, 'the Branco has big feet' or 'I have an elder brother', only 'the Branco's feet are big' or 'my elder brother exists', as in (7.78).

The alienable possessor fills slot A of NP structure, in table 10.1. This is typically a single noun, either a proper noun, as in *Makabi kaa jama* 'Makabi's thing', in (9.41), and *Jara kaa isiri* 'the Branco's basket', in (8.22), or a free (common noun). It can be a noun with inanimate reference, as in *jati kaa faha* (lit. 'stone poss water') 'waterfall'.

Slot A may be filled by a full NP, with any of the components set out in table 10.1. In (10.32) it includes augment marker *mee* and PN *ati* ‘language’.

- (10.32) [Sesowi mee ati] kaa jama hani
 name(m) AUG language poss thing(f) writing+f
 B Biii C
 A B C
 the writing down of the language of Jesus and company (lit. Jesus and others’
 language’s writing thing)

Here *Sesowi* is head of the embedded NP, in slot A, and *jama* is head of the matrix NP.

Compare this with the post-predicate NP from (7.14), repeated here as (10.33), where augment modifier *mee* and PN *ati* modify the head of the matrix NP in slot B (whereas in (10.32), *mee* and *ati* modify the head of the embedded NP in slot A).

- (10.33) tika Jara mee ati
 2sg+POSS Branco(m) AUG language
 A B Biii C
 your (knowledge of) the Brancos’ language

A demonstrative or interrogative can function in slot B (as NP head) only when it makes up a full NP. It may also function as alienable possessor, in slot A, as in:

- (10.34) [himata kaa barafoso]_{CS} ama-ri?
 what POSS screw(f) be-CINTf
 what does this screw come from? (lit. what’s screw is it?)
 (10.35) [haaha kaa barafoso]_{CS} ama-ke
 THISf POSS screw(f) be-DECf
 it belongs to this (pointing at machine) (lit. this’s screw is)

We noted in §10.1.6 that a pronoun can only occur in slot B (as NP head) when there is also a PN in slot C or an adjective in slot Bii. However, any pronoun can function as alienable possessor, in slot A, without there being a PN in the NP. Like proper nouns, common nouns, interrogatives, and demonstratives, nsq pronouns in slot A are simply followed by *kaa*, as in *otaa kaa ajaka* ‘our (exc) party’ in (6.45) and *mee kaa kanawaa* ‘their canoe’ in:

- (10.36) [mee kaa kanawaa]_S to-wana-ro-ke
 3nsg POSS canoe(f) AWAY-be.joined-RPef-DECf
 their canoe was joined on (to ours, i.e. someone was holding them together)

When the alienable possessor is a singular pronoun we get:

- 1sg *o-* plus *kaa* becomes *oko* ‘my’
 2sg *ti-* plus *kaa* becomes *tika* ‘your (sg)’

Interestingly, the form corresponding to *oko* in the Jamamadí dialect is *oka* (B. Campbell 1985: 142–3); this lacks the assimilatory change in Jarawara *oka* > *oko*. (Note that *oka* is retained with some Jarawara kin terms, listed in table 10.2.)

It will be recalled that 3sg is marked as zero in all predicate slots. However, there is a non-zero form (undifferentiated for gender), *hina*, used in slot A of NP structure. We then get:

- 3sg *hina* plus *kaa* becomes *hinaka* ‘his/her’

The form *hina* only occurs in *hinaka*. There are instances of *hinaka* in (6.22a) ‘his maone (tapir)’, (8.14) ‘his thing’, and T2.69 ‘his clothes’; of *tika* in (5.93) ‘your paddle’; and of *oko* in (6.37a/b) ‘my clothes’, among many other examples.

The normal situation is for an alienable possession construction to have both possessor and possessed explicitly stated. But there are occasional examples of the possessed being omitted. Example (10.37) repeats part of (5.299), said by a Jarawara man as he examined a pair of earphones:

- (10.37) haaha_{CS} [karafato kaa]_{CC} ama-ke,
 THISf tape.recorder(f) POSS be-DECLf
 this is the tape recorder’s [earphones]

The meaning of the alienable possession construction in Jarawara is very similar to the meaning of comparable constructions in other languages. The possessor has—and is acknowledged by their social group to have—ownership of the thing in question. In (11.4–5) of §11.1, examples are given illustrating alienable and inalienable possessive constructions with the same possessed thing.

There are two ways in which the meaning of the alienable possession construction can extend beyond the prototypical sense. The first is where the referent of the possessor noun or pronoun is not the possessor of the object at present, but wants to be. We then find future affix *-ba* added to the NP. In one text the narrator wanted to borrow a knife from a friend and said to him:

- (10.38) [oko jimawa] -ba_{PERI} owa tee-kawa-habana ti-ke
 1sgPOSS knife(f) -FUT 1sgO 2sgA+APPLIC-give-FUTf 2sg-DECLf
 you’ll lend me a knife (lit. you give me my future knife)

Here *owa* ‘me’ is the O argument for *ka-kawa* ‘give’ and the thing given, *oko jimawa-ba*, is in peripheral function; this is generally marked by *jaa* but here *jaa* is omitted, as it sometimes can be (see chapter 20).

If, when visiting another house or village, one feels thirsty, the normal thing is to say to one’s host:

- (10.39) [oko faha] -ba_O taa ti-na-hi!
 1sgPOSS water(f) -FUT give 2sgA-AUX-ImmPosIMPF
 let me have some water! (lit. you give (me) my future water!)

Another extension from the prototypical meaning of the alienable possession construction comes from the story of how an ant fell into the trousers of a corpulent Branco and bit him in tender places. It eventually fell to the ground and the Indian narrator of the story used an O-construction to describe what he did to it (this is T2.76):

- (10.40) [hinaka jimo]_O o-nabohe-himari-ka
 3sg+POSS ant(m) 1sgA-kill-FPem-DECLm
 I killed his ant

Here the ant did not belong to the Branco, but was associated with him. (This may possibly represent interference from Portuguese, since this would have been the language used by the Indian and the Branco to describe what was happening at the time.)

A nominalized clause can function as alienable possessor; see (d) in §19.3 and examples (19.18–20).

There is a postposition *kaa* which functions as the marker of a type of peripheral NP and a type of subordinate clause—see §21.1. This must be distinguished from the possessive *kaa*, although the two forms may well be historically related.

10.4.1 Kinship possession

As mentioned in §1.4, the Jarawara have a classificatory kinship system, which is essentially of the Dravidian type. Each kin term has a basic referent, which is used in the glosses here. There are also a number of extended referents by application of equivalence rules. For instance, a person's same-sex siblings count as equivalent to that person, so that mother's sister's children and father's brother's children (parallel-cousins) count as equivalent to mother's children and father's children; they are classificatory siblings. However, cross-cousins (where there is a different-sex link at parents' generation, i.e. mother's brother's children and father's sister's children) are treated quite differently; the most common marriage is with an (actual or classificatory) cross-cousin.

There are five forms for each kin term, depending on whether the possessor is:

- 1sg, e.g. *okobi* 'my father';
- 2sg, e.g. *abi* 'your (sg) father';
- A nsg pronoun, e.g. *ee kaa abi* 'our (inc) father', *mee kaa abi* 'their father';
- 3sg, e.g. *bati* 'his/her father', *Okomobi bati* 'Okomobi's father'.

There is also a vocative form, e.g. *abi!* 'father!'

Table 10.2 sets out the varying forms of kin terms for the five functions (there are many examples of the various forms throughout texts T1–3). Note that only for set VI, 'daughter' and 'son', are all five columns distinct. The full forms for 1sg possessor, 2sg possessor, and vocative are given in these columns. The form in the nsg column follows a nsg pronoun plus *kaa*. The form in the 3sg column is used alone for 'his/her X', and following a noun, Y, for 'Y's X'.

A suffix *-ri* is optionally or obligatorily included on certain kin terms; I do not yet understand its origin or significance.

It will be seen that the 1sg form in sets I–VI involves *oka-* fused with the root. These forms were discussed under (F) in §2.9.4, where the following assimilation rule was given:

- P6h possessive *-ka-* → *-ko-* after *o-* and before a kin term that begins with *(a)b*, *(a)m*, *w*, or *(a)Co* (where C is any consonant)

Thus we get *oka-* → *oko*, together with the omission of root-initial *a* (if there is one), with *abi*, *ami*, *wabo*, *ajo*, *aso*, *koma*, and *(a)to*. The exception to the rule is *oka-koko* 'my mother's uncle'. As mentioned in §2.9.4, *koko* 'mother's brother' is the loan word par excellence across much of Amazonia, referring to 'father-in-law' in the case of cross-cousin marriage. In fact younger speakers are beginning to use *oko-koko* in preference to *oka-koko*, a change involving analogic extension of vowel assimilation.

Note that initial *i* is retained in the 1sg form of *iti* 'grandfather', i.e. *oka+iti* → *okiti*. If the *i* were dropped and the *a* retained we would get *okati*, a form already in use for 'my elder sister'.

We can now consider in turn the seven sets of kinship forms in table 10.2. Sets I–III use the root for 2sg and nsg and (save for some occurrences of *-ri*) for vocative. They differ in 3sg forms.

- In set I, the sg form ends in *-ti*. For 'father' and 'mother' the initial *a* is omitted and final *i* replaced by *ati*, thus *abi* → *bati* and *ami* → *mati*. For elder brother we get the irregular form *anoti*.

TABLE 10.2 Types of possessive marking for kin terms

	1sg	2sg	nsg+kaa+	vocative	3sg	
I	okobi	abi	abi	abi	bati	'father'
	okomi	ami	ami	ami	mati	'mother'
	okojo	ajo	ajo	ajo(ri)	anoti	'elder brother'
II	okati	ati	ati	ati	hinakati	'elder sister'
	okasima	asima	asima	asima	hinakasima	'younger sister'
	okiti	iti	iti	iti	hinakiti	'grandfather'
	okaki	aki	aki	aki	hinakaki	'grandmother'
	okoso	aso	aso	aso	hinakaso	'father's sister'
III	okaniso	niso	niso	niso(ri)	nisori	'younger brother'
	okakoko	koko	koko	kokori	kokori	'mother's brother'
IV	oko-wabo	tika-wabo	wabo	wabo(ri)	wabori	'male-cross-cousin'
	oka-naki(ri)	tika-naki(ri)	naki	nakiri	nakiri	'female cross-cousin'
V	oko-koma	tika-koma	koma	(oko-koma)	hinaka koma	'child-in-law'
VI	okoto	tikoto	inamatewe	iseni	bite	'daughter'
	okatao	tikatao		bese	biti	'son'
VII	oko jibotee	tika jibotee	jibotee	ebe	fati	'wife'
					maki	'husband'

There is a further noun *hiti* 'owner of, person who raises (e.g. animals)' which functions exactly like a kin term. Compare *Jara bati* 'the Branco's father' and *jomee hiti* 'the dog's owner'. As with kin possession, in an expression like *jomee hiti* the gender is determined by *hiti*; this can be m or f, depending on whether it refers to a male or female owner. Thus *hiti* belongs in the 3sg column (and ends in *-ti*, like *bati*, *mati*, and *anoti*); there are no corresponding forms in the other columns.

Terms for 'father's brother' and 'mother's sister' involve the addition of *-se* to the terms for 'father' and 'mother' respectively, i.e. *okobise*, *abise*, *batise* and *okomise*, *amise* and *matise*.

- In set II, the 3sg forms involve a fusion of *hinaka* ('3sg+POSS') with the root. As with 1sg, the initial *i* of *iti* is retained, giving *hinakiti* 'his/her grandfather' (*hinakati* is 'his/her elder sister').
- In set III, the root form (with final *-ri*) is also employed in the 3sg column.
- Set IV differs from set III in that 2sg involves the regular form for alienable possession, *tika*, here employed as a prefix.
- Set V differs from set IV in two respects. The 3sg form involves *hinaka* (probably as a separate word). And here there is really no vocative form; although the 1sg form can be used in vocative function. The form *-koma-* refers to sister's daughter or daughter-in-law (for a man) or brother's son or son-in-law (for a woman).

Note that a full list is provided in table 10.2 of the members for sets I–IV and VI–VII. For set V, just one sample term is provided. This set also includes *noti* ‘grandchild’, *bitimi* ‘sister’s child (for a man); brother’s child (for a woman)’ and a number of more specialized terms for types of cousin.

- Set VI is unusual in that the root does not occur alone. For 3sg, the adjective *bite/bit* ‘small’ is employed, in a special kinship sense, and for nsg the free noun *inamatewe* ‘child’ (which is m or f according to the sex of its referent) is used, in a special kinship sense. Vocative forms are suppletive *iseni* and *bese*.

The root for ‘son’ can be taken to be *tao*; there is a cognate form *da'o* ‘son’ in the Dení dialect of Kulina-Dení (Koop and Koop 1985). Interestingly, one old woman in Casa Nova who was brought up speaking a different variety of Jarawara would say *mee kaa tao* ‘their sons’, in place of the regular *mee kaa inamatewe*, showing that *tao* was originally used in the nsg column.

For ‘daughter’ the underlying form could be taken to be *to* (or perhaps *oto* or *ato*); the cognate in Dení is *to* (no term for ‘daughter’ was given by the old woman mentioned in the last paragraph). The interesting point here is that the 2sg form is not *tikato* but *tikoto*, with assimilation of the *a* of *tika* to the *o* of *to* even though the preceding vowel is not *o*. This is presumably by analogy to *okoto* (see §2.10.2).

- Set VII is rather different from the rest. The term *jibotee* ‘spouse’ occurs just with 1sg *oko*, 2sg *tika*, and the nsg pronouns, each a separate word (just as in alienable possession). There is a suppletive vocative form *ebe*. The 3sg forms for ‘husband’ is *maki*, which is also the free noun ‘man’ and for ‘wife’ we have *fati*, which is a special kin term (the free noun ‘woman’ is *fana*, corresponding to *maki* ‘man’; see §10.5.4). (For proto-Arawá, **panadi* is reconstructed with the tentative meaning ‘(his) wife’. It is likely that both *fana* and *fati* are descended from **panadi*, by different historical routes, perhaps involving borrowing from another dialect or language.)

It will be seen that there is some semantic basis to the organization of kin terms into sets — parents, grandparents, and siblings appear in sets I–III, where the 2sg, nsg, and vocative forms fall together, while other terms are in sets IV–VII, where 2sg is marked by *tika*.

Turning now from consideration of form and reference to that of function, a kin expression can function, iteratively, in slot A of NP structure. For example:

- (10.41) [mati kaa faha]_s ahaba-ni
 3sgposs+mother(f) poss water(f) be.finished-IPnf
 his mother’s water (a stream associated with his mother) was all gone (i.e. dried up)

Sentence (10.42) has an NP involving kinship possession embedded as alienable possessor, with the whole NP marked by intention suffix *-bone*.

- (10.42) [okobi kaa hemejo] -bone
 1sgposs+father(m) poss medicine(f) -INTf
 (I’ve come for) my father’s intended medicine

And kin expressions can be iteratively embedded, as in *okasima maki* ‘my younger sister’s husband’, *oko jibotee biti* ‘my wife’s son’, and *okobi bati* ‘my father’s father’, with the 1sg and then 3sg possessive forms of ‘father’. This last occurs in (7.13a/b) and is used in preference to

okiti 'my grandfather' since the speaker wished to specify here that he was talking of his paternal (not maternal) grandfather.

A kin term can be followed by a PN and/or the augment modifier *mee*, e.g. *okomi mee* 'my mother's people', and *ee kaa abi mee* 'our father's people' in:

(10.43) [ee kaa abi mee] -tee-ba_s mee joto-hemete-mone-ke
 Iinc POSS father(m) AUG -HABIT-FUT 3nsgS follow-FPnf-REPF-DECF
 those who were to be our father's people are said to have followed on behind
 (a group of ancestors whose exploits had just been described)

10.5 AUGMENT MODIFIER AND 'ANOTHER'

Two grammatical items which each belong to two grammatical classes, and can function in different slots in an NP, are dealt with here.

10.5.1 *mee*: augment modifier and 3nsg pronoun

The form *mee* is a 3nsg pronoun which occurs in slot A, B, or H of predicate structure (§4.1) or as head (slot B) in NP structure (§10.1). It also functions as a modifier to an NP head (in slot Biii), marking nsg number, and will here be called an augment modifier (AUG). In (10.23a) we have [*Jara mee*] *kaa kanawaa* 'the Brancos' canoe' where *mee* provides nsg modification for *Jara* 'Branco', the head of the alienable possessor NP. We can get *Jara mee ati*, with NP head *Jara* 'Branco', augment modifier *mee*, and then PN *ati* 'language', the whole meaning 'the Brancos' language'; and *Jara mee nafi*, where the PN is *nafi/nafi* 'all', the whole meaning 'all the Brancos'. When *mee* is used after a personal name it means 'a group of (two or more) people centred on that person', e.g. [*Batirii mee*] *kaa moto* 'the motor boat belonging to Padre's people' in (6.82), and *Sesowi mee ati* 'the language of Jesus and company' in (10.32). See also (10.25b).

Just as the 3nsg pronoun *mee* can only be used of animates, so the augment modifier *mee* can only be used after a noun with animate reference. As pointed out in §10.1.5, an NP which includes a PN counts as inanimate. The augment marker may be included (in slot Biii) between head (in slot B) and a PN (in slot C), e.g. *Jara mee tame* (Branco(m) AUG foot+f) 'the Brancos' feet', but it cannot be included after a PN. That is, one cannot say **Jara teme mee*.

The augment marker *mee* can occur in an NP with a 1st or 2nd person pronoun but only if the pronoun is alienable possessor and *mee* modifies the head of the matrix NP, e.g. *ee kaa abi mee* (Iinc POSS father AUG) 'our fathers' people' in (10.43).

There is obviously a close connection between *mee* as 3nsg pronoun and *mee* as augment modifier. Consider:

<i>mee</i>	<i>kaa</i>	<i>kanawaa</i>	and	[<i>Jara</i>	<i>mee</i>]	<i>kaa</i>	<i>kanawaa</i>
3nsg	POSS	canoe		Branco	AUG	POSS	canoe
their	canoe			the	Brancos'	canoe	

It might be possible to say that *mee* has a single sense (something like '3rd person animate augment') but a series of functions: in a predicate, as NP head, and as NP modifier. However, it makes the statement of grammatical restrictions and possibilities in Jarawara much easier and clearer if we talk in terms of two distinct but related forms *mee*.

As mentioned in §10.1.5, number will typically be marked in the predicate, not in an NP. Thus, in (10.14) the *mee* is a pronoun at the beginning of the predicate and not a modifier in

the A NP. Another example of this is the O-construction:

- (10.44) bita_A otara mee katoma-ro otaa ama-ke
 mosquito(m) 1excO 3nsgA bother-RPef 1exc EXTENT-DECf
 fahi
 THERE.NON.VISIBLE
 the mosquitoes bothered us there

Here, the lexical component of the A argument is expressed by NP *bita* ‘mosquito’ with the number component supplied by 3nsgA pronoun *mee* in slot B within the predicate. It is not acceptable to say **bita mee otara katoma-ro otaa ama-ke* nor **bita mee otara mee katoma-ro otaa ama-ke*.

The augment modifier *mee* only normally occurs in an NP, which is in core function, when the scope of *mee* is less than the whole NP, e.g. when it is in an alienable possessor embedded within the core NP (*Jara mee kaa kanawaa* ‘the Brancos’ canoe’) or followed by a PN (*Jara mee ati*, ‘the Brancos’ language’). That is, when it is not the final element in a core NP. In (10.43) we find *mee*, as augment modifier, in the middle of the S NP (followed by *tee* and *-ba*); the whole NP is plural animate and so a second *mee* occurs, as 3nsg pronoun, at the beginning of the predicate. Similarly, in the second complement clause of (10.4), *mee* occurs in the O NP followed by *taa*; again, the whole NP is plural animate and so a second *mee* occurs, as 3nsg pronoun, at the beginning of the predicate.

We do find *mee* at the end of an NP which is not cross-referenced in the predicate (that is, where there is no possibility of number being marked by *mee* in slot A or B of the predicate). For example, in a copula complement NP, as in (10.29) and (10.52*b*), in a post-predicate NP as in (10.52*a*), and in an NP marked by a postposition as in *bani mee tabijo* (animal AUG LACK.OF) ‘for the lack of animals’ in T2.7.

Of course, if a clause includes an NP in S or O function, which comes immediately before the predicate, as in (10.45), it might be thought hard to tell whether *mee* is the last word in the NP or the first in the predicate. It is treated as the first element in the predicate by analogy with (10.44), where the A NP and the A pronoun in the predicate are separated by the O pronoun, *otara*, and *mee* is clearly within the predicate.

- (10.45) bani_O mee o-nofa o-ka-re mata
 animal(m) 3nsgO 1sgA-want 1sg-DEC-NEGF SHORT.TIME
 I don’t want (to eat) land animal (meat) just now

As happens with 3nsg pronoun *mee* (see table 3.1), the augment marker *mee* has form *mati* when used at the end of a clause; see, for example, (10.52*a*) and also T3.63, where we get *wasabi mati* (‘catfish AUG’) ‘many catfish’ as an NP making up a clause in contrastive function.

One important property of *mee* is that it overrides the gender of a preceding head noun and determines the overall gender of the NP as being f (just as do 3nsg *mee* and all other pronouns). Compare (10.46*a*) where the S NP has free noun *jaki* ‘toucan’ as head, and PN *afe/efe* ‘feather’ as modifier, and (10.46*b*) where the head is followed by augment marker *mee*.

- (10.46*a*) [jaki efe]_S soo to-sa-ka [bofe jaa]
 toucan(m) feather+m lie AWAY-CLEANLY-DECM ground(f) PERI
 a toucan’s feathers are lying on the ground

- (10.46*b*) [jaki mee afe]_S soo to-sa-ke [bofe jaa]
 toucan(m) AUG feather+f lie AWAY-CLEANLY-DECf ground(f) PERI
 toucans’ feathers are lying on the ground

In (10.46a) the head noun *jaki* 'toucan' selects the m form of the PN *afe/efe* and of the declarative suffix *-ke/-ka*. In (10.46b) the augment marker *mee* follows *jaki* and it requires the f form of *afe/efe* and of *-ke/-ka*.

10.5.2 *one/owa* 'another'

One/owa 'another' has two grammatical affiliations—it functions as an adjective, modifying a noun, and also as a noun, in NP head slot.

Typical examples of *one/owa* functioning as an adjective are (10.2), (10.23b), and (this is TI.65):

- (10.47) [fatara botee one]_O otaa to-wasi-witiha
 garden(f) old another+f IEXCA AWAY-find-FROM.PLACEf
 we come upon another old garden (as we go along an old track)

In (10.48) *one/owa* functions as head of an NP, in fact as (alienable) kinship possessor to *fati* 'wife' (compare *owa fati* 'another(m)'s wife' with *Manowaree fati* 'Manowaree's wife').

- (10.48) [owa fati] -bonehe-ra_O a.'ahi to-he
 another+m wife -INTF-ACC REDUP.SWIVE AWAY-AUXM
 he is swiving (copulating with) another man's intended wife

The relationship between *one/owa* as head of an NP and as modifier is brought out in (10.49a/b). On an expedition into the forest a lot of Brazil nuts were found and a Jarawara youth told me that I should say, in order to ask for another, either of:

- (10.49a) [oko owa] -ba_S ee-ra?
 IsgPOSS another(m) -FUT what.about-CINTM
 can I have another? (lit. what about my future another?)
- (10.49b) [oko mowe owa] -ba_S ee-ra?
 IsgPOSS brazil.nut(m) another+m -FUT what.about-CINTM
 can I have another brazil nut? (lit. what about my future another brazil nut?)

In (10.49a) *owa* is NP head (in slot B of table 10.1) whereas in (10.49b) the noun *mowe* 'brazil nut' is NP head (slot B) and *owa* is an adjective (in slot Bii).

Just as we could, conceivably, work in terms of just one grammatical form *mee*, so it would be possible to relate all uses of *one/owa* to a single grammatical element (saying that it is an adjective but that the head noun is typically omitted from before it). But a head noun cannot normally be omitted, leaving an adjective as the first element in an NP which is in S, A, O, or CS function, and there are many examples of an NP commencing with *owa/one*. As with *mee*, it makes for clearer exposition and explanation to deal with two distinct but related forms *one/owa*.

Homonymous forms *one/owa* are often used in reference to kin relations. For example, 'sister's husband' can be referred to by *owa*, as an alternative to *wabo*, and 'brother's wife' with *one*, as an alternative to *naki(ri)*.

10.5.3 *mee* and *one/owa*

The full grammatical range and meaning of *mee* and of *one/owa* can be seen from combinations of them, such as:

(i) 3nsg *mee* as alienable possessor (slot A) with *one/owa* as NP head (slot B), e.g. *mee kaa owa* ‘another (m) of them’ (lit. their another (m)) as in:

- (10.50) [mee kaa owa]_S to-foja-misa-ma-hare-ne
 3nsg POSS another(m) AWAY-be.inside-UP-BACK-IPem-BKGM
 another of them was up inside the canoe (it had tipped over and thrown its
 occupants into the water, but one of them had climbed back in)

(ii) 3nsg *mee* as NP head (slot B) and *one/owa* as modifier (Bii), e.g. *mee one* ‘others of them’ (lit. they another), as in the post-predicate NP of the sentence following (10.50) in a text:

- (10.51) mee mata ni-fe-hara-ni [mee one]_S
 3nsgS lie(dual S) AUX-WATER-IPef-BKGF 3nsg another+f
 they two were lying in the water, the others of them

Mee, as a pronoun, must be followed by the f form of an adjective, and so we must get *mee one* (not **mee owa*). This contrasts with combination type (i) where we could have *mee kaa one* ‘another (f) of them’ or—as in (10.50)—*mee kaa owa* ‘another (m) of them’.

(iii) *one/owa* as NP head (slot B) and *mee* as augment modifier (Biii), e.g. *one mee* ‘another lot’. This can occur with an alienable possessor such as 1exc *otaa*, as in (6.65) and:

- (10.52a) [otaa mano]_O mee wara.ra na-ra-ke
 1exc arm+m 3nsgA hold.REDUP AUX-IPef-DECf
 [otaa kaa one mati]_A
 1exc POSS another(f) AUG
 they took hold of our arms, they who were related to us (lit. another lot of us)

- (10.52b) [otaa kaa one mee]_{CC} tee ama-ra
 1exc POSS another(f) AUG 2nsgCS be-NEGF
 you are not our people (lit. you are not others of us) (this was said to a group of
 Brancos, as a reason for declining an invitation to attend a party given by the
 Brancos)

(iv) *mee* as augment modifier (slot Bii) and *one/owa* ‘another’ as adjective modifier (slot C), as in:

- (10.53) [wafa mee one]_O jete ne-bone-ka
 woolly.monkey(m) AUG another+f hunt AUX-INTM-DECf
 he intends to hunt other woolly monkeys (larger ones than those presently in view)

10.5.4 Non-singular forms of nouns

Just four nouns have special plural forms:

	sg	nsg
‘child’	inamatewe	matehe (often reduced to matee or mate)
‘spirit’	(h)inamati	mee.(h)inamati
‘woman’	fanawi	mee.fanawi(ri)
‘man’	makiti	mee.makiti

For ‘child’ the forms are suppletive, but for ‘spirit’, ‘man’, and ‘woman’, the nsg form is a compound with *mee*. This is undoubtedly related to the 3nsg pronoun and augment modifier *mee*. It is interesting that *mee.fanawi(ri)* ‘women’ involves *mee* even though *-rawa* is used as a predicate suffix and NP modifier for referring to nsg f, instead of *mee* in a pre-head slot within the predicate; see (4) in §5.9.

The nsg nouns beginning with *mee* have a special grammatical characteristic. When one of them is used in an NP in core function, then the appropriate 3nsg pronoun (*mee* or *mera*) is generally not included in slot A or B of the predicate. Thus:

(10.54) Jotobiro_A mee.fanawi_O wasi waha
 name(m) women(f) find NEXT.THING
 then Jotobiro finds the women

(10.55) mee.inamati_A era ahi na ee
 spirits(f) incO do AUXf incDEP
 the spirits do things to us

That is, we do not get, as we might expect to, *mera* just before *wasi* in (10.54) (or *-rawa* as a suffix to the verb) or *mee* between *era* and *ahi* in (10.55). It is, however, clear that there is a 3nsg pronoun included—in (10.56) it again fails to surface before the verb but does appear in the third pronominal position, before *ama*:

(10.56) [mee.fanawi nafi]_S ka-ke-haro mee ama-ke
 women(f) all in.motion-COMING-RPef 3nsg EXTENT-DECF
 all the women came

The words for ‘man/male’ and ‘woman/female’ are particularly interesting in that they have a number of forms, each with a different function (note that there is no such multiplicity of forms for ‘child’ and ‘spirit’). Thus:

noun modifier in NP	maki	fana	‘male’, ‘female’ (animate), see §10.1.1
head of NP, sg	makiti	fanawi	‘man’, ‘woman’ (human)
pl	mee.makiti	mee.fanawi(ri)	‘men’, ‘women’ (human)
PN	makitiri	fanawiri	‘male’, ‘female’ (animate)

For example, one could say either of:

(10.57a) [[[Jamamadí mee] kaa fanawi]_S jowiri ni]_{CS} ama-ke
 name AUG POSS women(f) sing AUX+COMP be-DECF
 it’s the Jamamadí women singing jowiri-style (lit. the Jamamadí women’s singing jowiri-style is)

(10.57b) [[Jamamadí mee fanawiri]_S jowiri ni]_{CS} ama-ke
 name AUG women(f) sing AUX+COMP be-DECF
 it’s the Jamamadí women (lit. female Jamamadí) singing jowiri-style (lit. the female Jamamadí’s singing jowiri-style is)

In (10.57a), the NP *Jamamadí mee* is alienable possessor (slot A in table 10.1) and *fanawi* is NP head (slot B). In (10.57b), *Jamamadí* is NP head (slot B), followed by augment marker *mee* (slot Biii) and then the PN *fanawiri* (slot C). Speakers say that these two sentences have essentially the same meaning.

10.5.5 Summary of properties of *mee*

The 3nsg pronoun, *mee*, differs in several ways from 1inc, 1exc, and 2nsg:

- (i) Whereas other nsg pronouns take accusative *-ra* in O function (slot A of predicate structure, in table 4.1) in all transitive clause types, *mee* takes *-ra* (and then only optionally) just in an Ac, and then only when the A argument is also 3rd person.
- (ii) *Mee* only occurs in the third pronominal position when there is a secondary verb in the clause. All other pronouns may occur in third pronominal position whether or not a secondary verb is present. See §4.4 and §16.4.5.
- (iii) Only *mee* can be alienable possessee within an NP; see §10.1.6.
- (iv) Only *mee* has a homonym as augment modifier.
- (v) Only *mee* occurs as first element in three plural nouns.
- (vi) Only *mee* has a distinct clause-final allomorph (*mati*).
- (vii) A PN immediately following *mee* (as NP head) has f form, whereas a PN immediately following a 1/2 pronoun (as NP head) has m form; see §11.1.1.

It is worth noting that while other Arawá languages have cognates for 1inc *ee* and 2nsg *tee* in Jarawara, they have no 3nsg pronoun. It is likely that *mee* ~ *mati* (*mee* ~ *mati* in Jamamadí) has developed fairly recently from the general noun **madi* ‘man, person’ in proto-Arawá; its occurrence as the first element of plural nouns may be a relic of this nominal status.

10.6 PREDICATE SUFFIXES ON NOUN PHRASES

A number of the suffixes that primarily occur in the predicate also have limited occurrence in an NP. Those attested are:

- Three miscellaneous suffixes: *-tasa* ‘again’ and *-bisa* ‘also, on the other hand’ from the sixth echelon, plus the extra-echelon suffix *-tee* ‘habitual, customary’.
- Nine tense-modal suffixes. These include four of the past/evidentiality forms:

RPe	-ro/-ri	IPn	-ni/-no
FPe	-maro/-mari	FPn	-mete/-mata

The past tenses not included here are RPn (which is rarely used on predicates) and IPe, which has a number of unusual features (it has initial *-ha-* in both f and m; it does not occur with 1inc, 1exc, or 2nsg; it is not found in the Jamamadí and Banawá dialects) and may have evolved as a predicate suffix rather recently; see §§6.1–2.

All five modality suffixes are found on NPs:

INT	-bone/-bona	FUT	-ba/-ba
HYPOTH	-mene/-mana	IRR	-ne/-na
REP	-mona/-mona (used either alone or after FPn)		

As noted in §6.1, the initial *-hV-* syllable on tense-modal suffixes is only included in certain contexts. It is never used with an NP.

- The declarative suffix, *-ke/-ka*, may be included after a tense-modal suffix on an NP which makes up a complete clause.

It is useful to distinguish four functional types of NPs with a predicate suffix: (a) an NP which makes up a complete clause; (b) the copula subject or copula complement NP of a clause with *ama* 'be'; (c) a core NP in a verbal clause; (d) an NP in peripheral function, marked by postposition *jaa*.

Discussing these possibilities one at a time:

(a) Rather rarely, we find a clause consisting just of an NP, to which a mood suffix may be added (this is the only circumstance in which mood can be included in an NP). Such an NP can include *-tee* and/or tense-modal suffixes. For example:

- (10.58) *jama*_O *tii* *ne-mata-mona*, *Kimi*_A; *Kimi-mata-mona-ka*
 thing(f) cut AUX-FPnm-REPM name(m) name(m)-FPnm-REPM-DECM
 he was said to have cut the things, Kimi did; it is said to have been Kimi

In (10.58) we first get a transitive clause with no A NP before the predicate but m gender agreement indicating that the A is m; then a post-predicate NP specifying that the A argument is the man called Kimi. This is followed by a clause consisting just of *Kimi* with FPnm tense, reported modality and declarative mood.

Other examples include IPnf *-ni* plus declarative *-ke* in the second clause of (6.66), and:

- (10.59) *Wakari-ri-ka*
 name(m)-RPem-DECM
 it was (a man called) Wakari

In one text a man discovers that two women have been taking *mahawa* fruit that belong to him and suggests that they should permit him to copulate with them as compensation. We find a clause consisting of the noun *mahawa* plus PN *manakone* 'price, exchange' and future suffix *-ba*:

- (10.60) [*mahawa manakone*] *-ba*
 fruit(m) price -FUT
 it will be the price for (taking) mahawa fruit

In §6.2.4, it was pointed out that the hypothetical suffix can only be used in a clause when the following clause is marked for irrealis. The hypothetical clause can consist just of an NP, as in (here the second clause is an Oc):

- (10.61) *owa-menehe*, *o-nahabi-hina ama-ka*
 1SG-HYPOTHF 1SGA-kill-IRRM EXTENT-DECM
 if it had been me, I would have killed him

There is an example of *-tee* 'customary' plus future plus unmarked past (realized by IPn) on a clausal NP, with final *-hi* marking a dependent clause:

- (10.62) *fati-tee-ba-ni-hi*
 wife(f)-HABIT-FUT-IPnf-DEP
 she was to become (his) wife

In (20.8) we find a peripheral NP [*otaa taboro*]-*bonehe*] *jaa* 'at our intended dwelling place'. Here the NP has as head the 1EXC pronoun *otaa*, followed by the m form of PN *tabori*/*taboro* 'home, dwelling place' (see §11.1.1). This is followed by the f form of the intention suffix *-bonehe*/*-bonaha*, the f gender being selected by *otaa* as head of the NP.

(b) The copula verb *ama* very seldom takes any suffixes except mood and negation. If a tense-modal or miscellaneous suffix is to be used in a copula clause, it is generally added to the copula subject NP, as in T1.61, 69, and (10.63–4). It appears that a tense-modal suffix cannot be added to a CS which is a pronoun, as in (10.65), or a specifier, as in T1.66, or *himata* ‘what’, as in (15.41); in these instances, a tense-modal suffix may be added to the copula complement NP.

(10.63) [mee kaa awi ino] -ri_{CS} ama-ka [maone]_{CC}
 3nsg POSS tapir(m) name+m -RPem be-DECM name
 their name for tapir (lit. their tapir name) was ‘maone’

(10.64) jama-maroc_{CS} ama-ke haaro
 forest(f)-FPef be-DECM THIS.ONE.VISIBLEf
 the forest was here

(10.65) [inamatewe bati] -mari_{CC} ama o-ke, temene ita
 child father(m) -FPem be 1sgCS-DECf grave(m) sit(sg S)
 haari
 THIS.ONE.VISIBLEm

I was the father of the child, his grave is here (i.e. whose grave is here)

(c) It is perfectly acceptable to include predicate suffixes on a core NP in a verbal sentence. There is future *-ba* on an NP in S function in (10.49), and on an NP in O function in (8.5) and (10.39). We find intention *-bone/-bona* on an NP in O function in (10.48) and in an S NP in (this is T3.24):

(10.66) [tati ewene] -bona_S bere ahi
 prow wood+m -INTm be.put.across HERE.VISIBLE
 the piece of wood for the prow (of the bark canoe (m), understood head of the
 S NP) is placed across (the canoe) here

In one story, two Indians were urged to take *tee taboro-bone* (2nsg place-INTf) ‘your (reserved) places (on the boat)’.

An example of FPn plus reported on an S NP is:

(10.67) [[[mee tabori] -mete-mone] jokana]_S [boto]_S joro ni-kimi-ne-ke
 3nsg home+f -FPnf-REPF real clearing(f) sit(du.S) AUX-TWO-CONTf-DECf
 the two clearings of their reported past villages were there

We get irrealis marking on the O NP in:

(10.68) [oko jibotee] -ne_O o-katomi-ne
 1sgPOSS spouse -IRRF 1sgA-fight.with-CONTf
 I fight with (and kill) one who could have been my wife (he said)

We get *-tee* ‘habitual’ plus future *-ba* on an NP in S function in (5.360) and (10.43), and on a post-predicate NP in A function in (10.26). Each of these sentences has future marked on an NP and a past tense in the predicate.

There are examples of the same modality marked on an NP in O function and on the predicate. Intention *-(ha)bone* occurs twice in:

(10.69) [tee kaa jama] -bone_O taa o-na-habone
 2nsg POSS thing(f) -INTf sell 1sgA-AUX-INTf
 I’ll sell the things you’ll have in the future (that is, when I’m chief, I’ll sell things
 for you)

And future *-ba* occurs twice in the Oc:

(10.70) [ee kaa hemejo] -ba_O fonai_A mata ne-ba ee-ke
 iinc POSS medicine -FUT FUNAI send AUX-FUTM iinc-DECf
 FUNAI will send the medicine intended for us

(d) There are also examples of an NP in peripheral function bearing predicate suffixes, e.g. T2.112, (10.38), (5.361), and *-tasa* ‘again’ in:

(10.71) [[[jama wehe one] -tasa] jaa]
 thing(f) brightness+f another+f -AGAIN PERI
 Kowata_S ka-maki-bona;
 name(m) in.motion-FOLLOWING-INTM
 ka-maki-re ama-ka
 in.motion-FOLLOWING-NEGM EXTENT-DECM
 Kowata was planning to come another day (lit. in another thing’s brightness);
 but he didn’t come

As stated in table 10.1, predicate suffixes are attested at a number of places in NP structure (where it consists of more than just a head):

- after the augment modifier *mee*, as in (6.65);
- after a PN, as in T2.88, 112, T3.32, (8.5), (10.63), (10.66); in (10.67) the predicate suffix comes after a PN and is itself followed by an adjective;
- between head noun and adjective, or between modifier noun and PN, as in:

(10.72) [[Jara fana] -mone noki]_O ti-wa
 Branco woman(f) -REPF face+f 2sgA-look.at
 you look (to have) the face of what appears to be a woman (said as a joke—the narrator saw someone in a canoe and pretended that it looked like a woman, but he knew it was really a man, a friend of his)

Possessed Nouns, and Adjectives

This chapter discusses two important elements within the NP—possessed nouns, in §11.1, and adjectives, in §11.2.

11.1 POSSESSED NOUNS

One of the most notable features of Jarawara grammar is the class of possessed nouns (PNs) which go into slot C in noun phrase structure, after the head noun and optional augment *meē*. A PN, like the head noun, can be modified by an adjective.

It is perfectly normal to have two (or more) PNs in an NP, as in (note that (11.3) is T2.106):

(11.1) [majawari kone maho]_O hisi to-ne-himata-mona-ne
 titi.monkey(m) hair smell+m smell AWAY-AUX-FPnm-REPM-BKGM
 he is said to have smelt the smell of the (burning) hair of a titi monkey (and died as
 a result)

(11.2) [jama nafi manakone]_O o-nahabi-haa
 thing(f) all price 1sgA-kill-DEP
 I will pay all the debts (lit. I kill prices of all things)

(11.3) [o-tenehe kome]_S fawa-ke
 1sg-scrotum+m pain+f disappear-DECF
 the pain in my balls has gone away (after applying a curative medicine)

The rules for allocating gender to sequences of PNs in NPs are described in §11.1.1.

The corpus includes about 175 PNs. About fifty-seven of these have at least three syllables and end in *-ri* and there are eight with four or more syllables and final *-rine*. Most of these *ri*-final and *rine*-final forms appear to be derived—from free nouns, adjectives, or verbs (see §11.1.2 and §25.1). The remaining forms do not involve any derivation.

There are no clear, well-attested loans in this word class. However, there are a number of recent loans from Portuguese which are gradually infiltrating the language and tend to be used in slightly variant ways (sometimes with slightly variant forms) by different speakers. These are *saokato* (from *salgado*) ‘salted’, *saoti* (from *saúde*) ‘health’ (as in (23.7)), *birikisa* or *berikisa* or *berekisa* (from *preguiça*) ‘lazy’, *kobato* (from *ocupado*) ‘busy’, and *itero* (from *inteiro*) ‘whole, entire’. They are all used to modify a head noun within an NP, being employed sometimes like a PN and other times like an adjective. It is not possible, at this early stage of their integration into the language, to assign each of them definitively to a particular word class.

The PNs ending in *-ri* and in *-rine* make no distinction between f and m forms. Of the remaining c.110 PNs, about 65 have distinct f/m forms. Those in examples (11.1–3) are *mahi/maho* ‘smell’, *tanehe/tenehe* ‘scrotum’, and *kome/komene* ‘pain’. The remainder do not show a gender difference and have a single form—*kone/kone* ‘hair’, *nafi/nafi* ‘all’, and *manakone/manakone* ‘price, exchange’ in the examples just given. By comparison with the forms of PNs in other Arawá languages, the proto-Arawá system has been reconstructed—at that stage,

every PN was marked for gender. §11.1.2 describes the formal marking of gender on PNs in Jarawara, and the development of this from proto-Arawá.

In the appendix to this chapter, the full set of well-attested PNs is set out, with all forms and meanings, example sentences, details of combinations with other PNs, and associated free noun and verb (if there are these). PNs cover a wide semantic range. It will be useful here to state the main semantic fields with the approximate number of PNs in each and with sample members. (Note that many PNs have several different senses, e.g. *habi/habo* is ‘muscle, tendon’, ‘buttress root’, and ‘courage’. In the rough count here each PN has been categorized according to what appears to be its central meaning.)

- PA, Orientation (17 members) include *mese/mese* ‘top surface of’, *tori/toro* ‘inside of’.
 PB, Whole and part (14): *boni/bono* ‘whole thing’, *kote/kote* ‘piece’, *hoti/hotone* ‘hole’.
 PC, Body parts (62): *noki/noko* ‘eye, face’, *tame/teme* ‘foot’, *jifori/jifori* ‘tail’.
 PD, Parts of plants (19): *mowe/mowe* ‘flower’, *mati/matone* ‘cord, rope’.
 PE, Physical characteristics and properties (18): *kakitiri/kakitiri* ‘itch’, *mahi/maho* ‘smell’.
 PF, Noise and language (4): *moni/moni* ‘noise’, *ini/ino* ‘name’.
 PG, Image and dream (5): *hani/hano* ‘design, picture’, *watari/watari(ne)* ‘dream’.
 PH, Association (9): *tehe/tehene* ‘something mixed with’, *tase/tesene* ‘companion of’.
 PJ, Containers and other artefacts (7): *wije/wijene* ‘vessel, container’, *atori/atori* ‘ornament’.
 PK, Water, fire, and light (11): *jifi/jifone* ‘fire, firewood’, *fehe/fehene* ‘liquid, juice, sap, water’.
 PL, Food (3): *tafe/tefe* ‘food’, *saharine/saharine* ‘broth, mush’.
 PM, Place (6): *hawi/hawine* ‘path’, *tame/temene* ‘grave’.

For some PNs there are a number of different ways in which they may relate semantically to the head of an NP. Consider *fehe/fehene* ‘liquid, juice, sap, water’. Added to PN *noki/noko* ‘eye’ we get *noki fehe/noko fehene* ‘tears’. Added to PN *inohoti/inohoti* ‘mouth’ we get *inohoti fehe/inohoti fehene* ‘saliva’. The PN with 1sg pronoun *o-* as head, *o-fehene*, meaning ‘my water’, can be used to describe a stream where I habitually fish. *Tehe/tehene* is generally used to describe something mixed with something else, as a seasoning or additive; for example, *sina tehe* describes something mixed with crushed tobacco leaves (*sina*) to make snuff. It can be used of ‘poison’ or ‘medicine’. In text 2—from which (11.3) is taken—a Branco has been bitten in tender places by an ant, and an Indian friend squeezes a medicinal vine to rub the sap on the sore place; it is described as *jimo tehene* (ant(m) medicine+m), medicine used against ant bite. Similarly ‘bad cold’ is an f free noun *ito*, and *ito tehe* describes a medicine for colds. ‘Termite’ is *mototo* and *mototo mee tehe* is used for termite poison.

As would be expected, many PNs have metaphorical extensions from their prototypical sense. The orientation term *tori/toro* ‘inside’ can be used for ‘stomach’, and *baki/bako* ‘underside, inside surface’ is used for ‘chest’. The human body part term *atari/atara* ‘skin’ is used for ‘bark of a tree’ and ‘leather skin of a football’.

Body part and orientation PNs can be used with the free noun *makari* ‘clothing’ (f) to describe different types of garment, for example:

makari isi	trousers	from	isi/iso	lower leg
makari neme	shirt, blouse	from	neme/neme	upper part

An example of a PN with a multiplicity of meanings is *tati/tati*. They include:

- (a) head (of a person or animal)—the central meaning;
- (b) the top/roof of a house—because of similarity of orientation;
- (c) the top branches of a tree, and the clump of leaves on the top of a pineapple—again a similarity in orientation;
- (d) the prow (but not the stern) of a canoe—because it is the front end;

- (e) either end of a runway—here the ends are indistinguishable since a plane can land or take off in either direction;
 (f) the round outer shell of a brazil nut—because it is a similar shape to a head;
 (g) the point of a knife is *jimawa tati boni*, lit. ‘knife head beak’.

Quite a number of PNs have a corresponding free form, sometimes with more or less the same meaning, sometimes with a related meaning, for example:

	BOUND		FREE	
a	fehe/fehe-ne	‘liquid, juice, sap, water’	faha (f)	‘water’
b	mati/mato-ne	‘cord, rope’	mato (f)	‘cord, rope, vine’
c	hawi/hawi-ne	‘path’	hawi (f)	‘path’
d	tone/tone	‘bone’	tona (f)	‘bone’
e	neme/neme	‘top part of’	neme (f)	‘sky’
f	bofe/bofe	‘bottom part of’	bofe (f)	‘ground’

It will be seen that the free form is the same as the undifferentiated bound form in (e) and (f), but differs from it in (d). In (c) it is the same as the f form, in (b) the same as the m form minus *-ne*, and in (a) different from both.

All free nouns relating to PNs are of f gender with one exception—we get bound *atine/atine* and free *atiwa* (m) ‘thorn’; this is unusual in both gender and form (see §11.1.2).

A free noun will be used when there is no particular association with a possessor. *Faha* is used for water in general—a river or rain or a cup of water to drink; as a free noun it can take an alienable possessor, e.g. *oko faha* in (10.39).

The contrast between the use of a free noun and the corresponding PN can be illustrated with ‘path’. The track from the Jarawara village of Casa Nova to the main Jamamadí village is referred to by:

(11.4) [Wahati mee hawi]_{CS} ama-ke
 Jamamadí AUG path+f be-DECf
 it is the Jamamadí’s path (lit. the Jamamadí’s path is)

Here *Wahati* is head of the subject NP (slot B in table 10.1), *mee* is the augment marker (slot Biii), and *hawi* is a PN modifying it (slot C); the path is inalienably associated with the Jamamadí people.

In a story about Brancos who had been catching fish in Indian waters, the narrator described the tracks made by the Brancos through some long grass by:

(11.5) [mee kaa hawi]_S moto kabote na-ni-ke
 3nsg POSS path(f) go.round IMMEDIATELY AUX-IPnf-DECf
 their track immediately turned back on itself

Here the track is not habitually used by the Brancos, and is not one they would have a right to make or use. In these circumstances an alienable possession construction, marked by *kaa*, is appropriate, with free noun *hawi* as NP head (slot B) and *mee* as alienable possessor (slot A).

For a number of PNs there is a cognate verb. For example:

	PN		FREE NOUN		VERB
b	mati/mato-ne	‘cord, rope’	mato	‘cord, vine’	-mato- ‘tie up’
e	neme/neme	‘top part of’	neme	‘sky’	-neme- ‘be high, tall’
g	nafi/nafi	‘all’	—	—	-nafi- ‘be big, much’
h	hoti/hoto-ne	‘hole’	hoti	‘hole’	-hoti- ‘have hole(s)’
i	ini/ino	‘tooth’	—	—	-ino- ‘be sharp’
j	kome/kome-ne	‘pain, fever’	—	—	-koma- ‘be in pain’

Again there are a number of formal relations involved. The verb is the same as the gender-undifferentiated PN in (e) and (g), the same as the f form in (h), the same as the m form in (i), the same as the m form but for *-ne* in (b), and different from both in (j). Note that *-mato-* is an S = O ambitransitive; the other verbs quoted here are intransitive.

It is interesting to compare the different grammatical possibilities and meanings of *nafi* as a PN and as a verb. Once an Indian asked me if a particular garment was new. I wanted to reply that all of my clothes were old and said:

(11.6) oko makari nafi botee ama-ke
 1sgPOSS garment(f) old be-DECf

Everyone present laughed and explained that I should have said:

(11.7) [oko makari botee nafi]_{CS} ama-ke
 1sgPOSS garment old all be-DECf
 all of my garments are old (lit. all my old garments are)

In (11.7) we have a single-argument copula clause whose subject NP has head *makari*, inalienable possessor *oko*, adjectival modifier *botee*, and PN *nafi*. Sentence (11.6) is perfectly grammatical but has a quite different meaning. This is interpreted as a two-argument copula clause with adjective *botee* as copula complement NP:

(11.6') [[oko makari]_S nafi]_{CS} botee_{CC} ama-ke
 1sgPOSS garment be.big+NOM old be-DECf

The subject of the copula verb is a nominalized clause with the verb *nafi* as predicate and *oko makari* 'my garment' as its S. I was told that (11.6) means 'I have one huge garment and it is old' (lit. 'my garment which is huge is old').

When we do get several PNs in an NP their order is generally semantically determined. In (11.1) we have 'the smell of the hair of the monkey' (not 'the hair of the smell') and in (11.3) 'the pain in my scrotum' (not 'the scrotum of my pain'). One text included, in consecutive sentences:

(11.8) jamata nafi mahi
 crops(f) all smell+f
 the smell of all the crops

(11.9) jama ini nafi
 thing(f) name+f all
 all the names of things

Note also *o-tati kone bite nafi* in (11.61) and *jama nafi manakone* in (11.2). These examples show that *nafi* may be first or last in a string of PNs, according to the sense intended.

It was mentioned that there appear to be no well-established loans in the class of PNs. The Jarawara have recently come into contact with various kinds of machine, including the tape recorder which is called by the free noun *karafato* (a loan from Portuguese *gravador*). In some cases an existing PN has its meaning extended to refer to a tape-recorder component, e.g. *karafato inohoti* (tape-recorder(f) mouth) for 'speaker' and *karafato narabi* (tape-recorder(f) ear+f) for 'microphone'. For 'screw' there is a loan word *barafoso* (from Portuguese *parafuso*) and this is a free noun; it has to be treated as alienably possessed, with *kaa*, as in:

(11.10) [karafato kaa barafoso]_O wari o-na
 tape.recorder(f) POSS screw(f) twist 1sgA-AUXf
 I twist (unscrew) the screw of the tape recorder

An important point to bear in mind when speaking Jarawara is that it is not normally permissible to talk of a part without also mentioning the whole. For instance, the PN *boni/bono* ‘fruit’ should be used with the name of the plant whose fruit is being referred to; for example *omi boni* ‘fruit of the ice cream bean (f)’ and *tamijara bono* ‘fruit of the matamatá tree (m)’. If one wished to talk of a tree fruit in the abstract, as it were, it is proper to say *awa boni*, using the generic term *awa* (f) ‘tree’. As another illustration, one day I was asking some sentences with the verb *-kamo-* ‘bury’ (to study morphophonological alternations after a root ending in *o*) and tried to use *tone* ‘bone’ as the O NP. This is a PN, and the NP was corrected to *jama tone*, with the general noun *jama* (f) ‘thing’ as NP head, or—better—to *bani tone* with *bani* (m) ‘animal’ as head. (There is in fact a free noun *tona*, but it is used rather rarely.)

Just as a complete NP can be anaphorically omitted, within the context of a text, so may the head component of an NP be omitted when it is coreferential with a complete NP in an immediately preceding clause. Thus in text 1, the story of a burial, we find (TI.70):

(11.11) *hoti*_O *otaa* *na-mosa*, *ifi*_O *otaa* *na-mosa*
 hole(f) IEXCA CAUS-be.good+f side+f IEXCA CAUS-be.good+f
 we make the hole good (i.e. clear out the grave that has been dug), we make the
 sides (of the hole) good

Here *hoti* ‘hole’, used as a free noun, is the O NP for the first clause, and *hoti* plus PN *ifi* ‘side’ is O for the second clause but *hoti* is anaphorically omitted (note that the gender of *ifi* does agree with that of *hoti*). A similar example, involving a post-predicate NP, is given in (10.24a).

11.1.1 Gender assignment on possessed nouns within a noun phrase

It has been stated that it is the head of an NP that determines its gender, as reflected in agreement within the predicate, as in (13.7) (and on an NP-final modality marker, as in (20.8)). An m noun as NP head demands m agreement, an f noun f agreement, and a pronoun also demands f agreement.

The NP head also determines the gender of PNs that follow it within the NP. However, rather different rules apply here. Table 11.1 illustrates what happens when a single PN follows the head; here the PN *mani/mano* ‘arm’ is added to every kind of NP head—m free noun, f free noun, sg pronoun, 1/2 nsg pronoun, and 3nsg pronoun. The f form, *mani*, is used after an f free noun and after the 3nsg pronoun; and the m form, *mano*, is used after an m free noun and a 1/2 pronoun. (There are three vowel-initial PNs that are exceptions with respect to a sg pronoun as possessor, using f instead of the normal m forms; these are discussed in §11.1.3.)

Note that if augment modifier *mee* comes between head noun and PN, then *mee* overrides the gender of the head noun and requires that the PN be in f form. Compare *borokoo ataro* (‘pirarucu(m) scale+m’) ‘scales of a pirarucu’ with *borokoo mee atari* (‘pirarucu(m) AUG scale+f’) ‘scales of pirarucus’.

Because of this distribution of gender marking, one is able to ascertain the f and m forms of every PN. Consider ‘scrotum’, an exclusively masculine body part. The m form, *tenehe*, occurs in *Okomobi tenehe* ‘Okomobi’s scrotum’, *o-tenehe* ‘my scrotum’, and *ee tenehe* ‘our scrotums’. But 3nsg must be followed by the f form of a PN, and we get the f form *tanehe* in *mee tanehe* ‘their scrotums’.

TABLE 11.1 Gender on the possessed noun in a noun phrase with one possessed noun

NP HEAD	GENDER OF PN	EXAMPLE	GLOSS
m free noun	m	Okomobi mano	Okomobi's arm
f free noun	f	Jane mani	Jane's arm
1sg o- 2sg ti-	m	o-mano ti-mano	my arm your (sg) arm
1inc ee 1exc otaa 2nsg tee	m	ee mano otaa mano tee mano	our (inc) arms our (exc) arms your (nsg) arms
3nsg mee	f	mee mani	their arms

When we have two or more PNs following the head of an NP, the principles of gender choice are again different. This is illustrated, in table 11.2, with *mani/mano* 'arm' followed by *baki/bako* 'underside, inside'. It will be seen that whereas the first PN is m when following any 1/2 pronoun, the second and later PNs are f following 1/2sg and m following 1/2nsg.

Note that the 1sg and 2sg gender determinations are the same whether the possessor is shown by *o-* and *ti-* or by *oko* and *tika* (see §11.1.3). Textual examples of *o-* and *ti-* followed by two PNs (the first in m and the second in f form) are at (11.3) and T2.94. Note also that the whole NP from the top row counts as m for gender agreement with verbal suffixes, etc., by virtue of its head being an m noun; and the NPs in the remaining rows all count as f for agreement, by virtue of the head being either an f noun or a pronoun.

As mentioned in §3.3.1, the 3nsg pronoun is a recent innovation in Jarawara and the other Madi dialects, having developed from the free noun **madi* 'people'. If the free noun had had f gender, this could explain why today the 3nsg pronoun *mee* requires f agreement on following PNs. There is a cognate noun *madi(ha)* in Kulina-Dení; the sources (Koop and Koop 1985: 107 on Dení and Silva and Monserrat 1984: 37 on Kulina) both say that it can be of either

TABLE 11.2 Gender on possessed nouns in a noun phrase with two or more possessed nouns

NP HEAD	GENDER OF FIRST PN	GENDER OF LATER PNs	EXAMPLE	GLOSS
m free noun	m	m	Okomobi mano bako	Okomobi's inside arm
f free noun	f	f	Jane mani baki	Jane's inside arm
1sg o- 2sg ti-	m	f	o-mano baki ti-mano baki	my inside arm your (sg) inside arm
1inc ee 1exc otaa 2nsg tee	m	m	ee mano bako otaa mano bako tee mano bako	our (inc) inside arms our (exc) inside arms your (nsg) inside arms
3nsg mee	f	f	mee mani baki	their inside arms

gender. To explain the gender requirements of 3nsg *mee* in Jarawara we have to assume that in proto-Madi the free noun *madi* had f gender (but there is no definite evidence for this).

The reasons for the gender of PNs following 1st and 2nd person pronouns are not at present understood.

Examples of NPs with two PNs are at (11.1–3), (11.8–9), (11.61), and (13.7). Sentence (11.12) includes three PNs. This comes from a legendary tale in which the back of an ancestor's ear is twisted to obtain the fire that is secreted there. The head of the S NP is anaphorically omitted, but all three PNs are in m form, agreeing with it in gender.

(11.12) [narabo mete oje-ne]_s ka-so-himata-mona ama-ne ahi
 ear+m back+m light-m APPLIC-fall-FPnm-REPM EXTENT-BKGM HERE.VISIBLE
 the light from the back of his ear (lit. the back of his ear's light) is reported to have
 fallen here

Example (11.13) lists the parts of a pirarucu fish that a person carried home. The first two NPs each consist of the head noun *borokoo* 'pirarucu (m)' plus a single PN, *hifene* 'egg+m' and *tone* 'bone' respectively. Then the third NP repeats *borokoo* as head and adds three PNs, *noko* 'face+m', *bako* 'side+m', and *ime* 'meat'.

(11.13) [borokoo hifene]; [borokoo tone]; [borokoo noko
 pirarucu(m) egg+m pirarucu(m) bone pirarucu(m) face+m
 bako ime] ne-himari
 side+m meat LIST-FPm
 (he said that he carried) pirarucu eggs; pirarucu bones; and flesh from the side of the
 pirarucu face

11.1.2 Historical origin of gender forms for possessed nouns

Table 11.3 presents a representative sample of PNs, showing for each the code used in the appendix to this chapter (where full details are given), an abbreviated gloss, f and m forms of the PN, how to say 'my PN' (this is discussed in §11.1.3), the related free noun (if there is one), and the associated verb (again, if there is one).

We can begin by focusing on the f and m forms:

- Set O. Gender distinguished by final vowel, *i* for f and *o* for m, as in *noki/noko* 'eye'; some members of the set also have m marked by suffix *-ne*, as in *mati/mato-ne* 'cord'.
- Set I. Both f and m forms end in *i*, and coincide (shown by '=' in the table), as in *ati/ati* 'voice', except that one member of the set includes suffix *-ne* on the m form, and this serves to distinguish gender: *hawi/hawi-ne* 'path'.
- Set E₁. Both f and m end in *e* but they differ in the first vowel, which is *a* for f and *e* for m; the only member of this set is *ate/ete* 'stalk'.

Note that gender is shown by a difference in the final vowel for set O but in the non-final vowel for set E₁.

- Set E₂. Both f and m forms end in *e* and are identical, as in *neme/neme* 'top part', save that some members also include suffix *-ne* on the m and this serves to distinguish gender, as in *wije/wije-ne* 'container'.
- Set A₁. Similarly to set E₁, f and m forms both end in *e* but are distinguished by the preceding vowel, which is *a* for f and *e* for m, as in *tame/teme* 'foot'; some members of the set also include *-ne* on the m form, as in *ame/eme-ne* 'blood'.

TABLE 11.3 Sample data on possessed nouns

SET	CODE	SHORT GLOSS	PN, f FORM	PN, m FORM	'my PN'	FREE NOUN	ASSOCIATED VERB
O	PCb3	'eye, face'	noki	noko	o-noko		-noko- 'be awake'
	PG1	'design'	hani	hano	oko hano		-hano- 'be striped'
	PCb5	'tooth'	ini	ino	o-w-ini		-ino- 'be sharp'
	O+ne	PD2	'cord'	mati	mato-ne	oko mato-ne	mato
I	PF1	'voice'	ati	= ati	o-w-ati	ata	ati -na- 'speak'
	PCb1	'head'	tati	= tati	o-tati	tata	
	PCb1	'liver'	wahati	= wahati	oko wahati		
	I+ne	PM3	'path'	hawi	hawi-ne	oko hawi-ne	hawi
E ₁	PA16	'stalk'	ate	ete			
E ₂	PA6	'top part'	neme	= neme	o-neme-ne	neme	-neme- 'be high'
E ₂ +ne	PJ2	'container'	wije	wije-ne			
A ₁	PCb2	'forehead'	ate	ete	o-w-ete		
A ₁ +ne	PCe3	'foot'	tame	teme	o-teme		
	PCa6	'blood'	ame	eme-ne	oko eme-ne	ama	
A ₂	PCd5	'hand'	jehe	= jehe	o-jehe		
A ₂ +ne	PK1	'water'	fehe	fehe-ne	oko fehe-ne	faha	
A ₃	PCb9	'cheek'	abate	ebete	o-bete		
A ₄	PCf2	'scrotum'	tanehe	tenehe	o-tenehe		
A ₅	PL2	'meat'	ime	= ime	o-w-ime		-ima- 'be fat'
A ₅ +ne	PCa1	'hair'	kone	= kone	oko kone	kona	
	PE2	'pain'	kome	kome-ne	oko kome-ne		-koma- 'be hurt'
RI	PCg2	'urine'	jokari	= jokari	oko joka	joka	
	PG5	'dream'	watari	= watari(ne)	oko wata	wata	-watami- 'dream'
NE	PCa8	'pus, sap'	atahone	= atahone			
	PF4	'news'	tamine	= tamine	o-tamine		
RINE	PE8	'coldness'	siririne	= siririne			-siri- 'be cold'

- Set A₂. Both f and m forms end in *ehe*, and are identical, as in *jehe/jehe* 'hand', save that some distinguish m through the suffix *-ne*, as in *fehe/fehe-ne* 'water'.
- Set A₃. Like A₁, with both f and m ending in *e*, but with all preceding vowels being *a* for f and *e* for m, as in *abate/ebete* 'cheek'.
- Set A₄. A blend of A₃ and A₂, with both f and m ending in *ehe*, but the first vowel being *a* for f and *e* for m—*tanehe/tenehe* 'scrotum'.
- Set A₅. All vowels coincide in f and m forms, the final vowel being *e* and preceding vowel *i* or *o*, as in *ime/ime* 'meat' and *kone/kone* 'bone'; some members include *-ne* on the m forms and this distinguishes gender, as in *kome/kome-ne* 'pain'.
- Set RI. No gender distinction, all forms end in *-ri*, as in *jokari/jokari* 'urine'.
- Set NE. Again no gender distinction, all forms ending in *-ne*, this being preceded by *o* or *i* (but not by *ri*), as in *atahone/atahone* 'pus, sap' and *tamine/tamine* 'news about'.

- Set RINE. Again no gender distinction, all forms ending in *-rine*, as in *siririne/siririne* ‘coldness’.

Comparison of PNs from other Arawá languages enables reconstruction of the original forms and provides an explanation for the variant ways of marking gender in some Jarawara PNs, and the lack of gender marking in others. Cognates in other languages and the full set of reconstructions are in Dixon (1995, forthcoming *b*). Here the original forms and development of PNs in Jarawara are summarized (with some notes on the Jamamadí and Banawá dialects, where these differ).

In proto-Arawá, each PN had a single base form, which could end in any of the four vowels (*a, e, i, o*); suffix *-ni* was added to the base for f and *-ne* for m gender. The sets in table 11.3 are labelled in terms of the original final vowel of the base: O for *o*, I for *i*, etc.

The original gender suffixes, *-ni* and *-ne*, have undergone quite different developments. The f suffix *-ni* is maintained in all of the other Arawá languages for which we have good data (Paumarí, Kulina-Dení, and also Sorowahá) but is everywhere lost in the Madi dialects. The following changes have applied to the final vowel of the base and *-ni*:

- (i) *-o-ni* > *-i*, *-i-ni* > *-i*, *-e-ni* > *-e*, *-a-ni* > *-e*

That is, *-ni* drops without trace from a base ending in *i* or *e*, but engenders a vowel change on a base ending in *o* or *a*.

As mentioned in §2.1 and §2.9, at many places in the grammar of Jarawara the vowel *e* assimilates a preceding *a* to become *e*. One of the major instances of this concerns the m suffix on PNs, *-ne*. Any base-final *a* becomes *e* before *-ne*, as do all preceding *a*'s in the base (so long as a non-*a* vowel does not intervene):

- (ii) *a* > *e* /-*ne*, and *a* > *e* /-*Ce*

The final *-ne* is retained in the m form of about thirty-three PNs, but omitted from the remainder. For example, **tama-ne* > *teme* ‘foot’, **ama-ne* > *eme-ne* ‘blood’, and **abata-ne* > *ebete* ‘cheek’.

Interestingly, once a final *e* is created in an f form, by change *a-ni* > *e*, this does not normally engender assimilation of an immediately preceding *a* to *e*. Thus **tama-ni* > *tame* ‘foot’, **ama-ni* > *ame* ‘blood’, and **abata-ni* > *abate* ‘cheek’. This implies that application of the assimilation change, (ii), was completed before change (i) applied to f forms. There is just one circumstance in which *e*-assimilation applies to f forms of PNs, when the consonant between the two final vowels is *h*. Thus f *jaha-ni* > *jahe* > *jehe*, alongside m *jaha-ne* > *jehe-ne* > *jehe* ‘hand’.

It will be useful to review the historical changes which have applied to PNs in terms of the original final segment, as set out in table 11.3. A summary of the number of PNs in each set, divided into those for which cognates are available and those for which they are lacking, is provided in table 11.4, after the review.

- (1) Original final *o*, set O. Here f *-o-ni* > *-i*, and m *-o-ne* > *-o-ne* or *-o*. Thus we get:

<i>*nokho-ni/nokho-ne</i>	>	<i>noki/noko</i>	‘eye, face, end of long object, seed’
<i>*hano-ni/hano-ne</i>	>	<i>hani/hano</i>	‘design, decoration, picture’
<i>*ino-ni/ino-ne</i>	>	<i>ini/ino</i>	‘tooth, blade’
<i>*mado-ni/mado-ne</i>	>	<i>mati/mato-ne</i>	‘cord, rope’

Besides the forms for which a base with final *o* can be reconstructed, on the basis of cognates in other Arawá languages, there are a number of PNs lacking cognates but with a final *i/o* alternation which suggests an original base ending in *o*; for example *sabi/sabo-ne* ‘foam’ probably goes back to an original **sabo-ni/sabo-ne*.

(2) Original final *i*, set I. Here *f* *-i-ni* > *-i* and *m* *-i-ne* > *-i* or *-i-ne*; if there is no suffix *-ne* on the *m*, then *f* and *m* forms fall together. Thus we get:

* <i>athi-ni/athi-ne</i>	>	<i>ati/ati</i>	‘voice, sound, language, talking’
* <i>da'di-ni/da'di-ne</i>	>	<i>tati/tati</i>	‘head, upper end, top, roof’
* <i>wahati-ni/wahati-ne</i>	>	<i>wahati/wahati</i>	‘liver’
* <i>hagi-ni/hagi-ne</i>	>	<i>hawi/hawi-ne</i>	‘path, trail’

As for set O, there are some PNs for which no cognates are available but where the likely form of the original base can be inferred from the modern forms; for example *bari/bari* ‘outer part, back’ is likely to go back to **bari-ni/bari-ne*.

(3) Original disyllabic form with final vowel *e* and first vowel *a*, set E₁. There is just one PN in this set. We find the following cognates in modern dialects:

<i>ede-ni/ede</i>	‘plant, tree’	in the Dení dialect of the Kulina-Dení language
<i>ade/ede</i>	‘stalk, trunk’	in Jamamadí and Banawá
<i>ate/ete</i>	‘stalk, trunk’	in Jarawara

Proto-form **ade-ni/ade-ne* can be reconstructed. For the *f* form there is the change *-e-ni* > *-e* and for the *m* form the *e* of *-ne* and the final *e* of the base form engender assimilation of the initial *a* to *e*; that is:

* <i>ade-ni/ade-ne</i>	>	<i>ate/ete</i>	‘stalk, trunk’
------------------------	---	----------------	----------------

(It appears that Dení has here assimilated vowels within the root, *ade* > *ede*.)

(4) Original form with final vowel *e* and penultimate vowel not *a* (*o* and *e* are attested, but there are no examples of *i*), set E₂. There is no penultimate *a*, which could assimilate to following *e*'s. The *f* suffix *-ni* is simply dropped; some PNs retain *m* suffix *-ne* but others drop it and then *f* and *m* forms fall together. Thus we get:

* <i>mowe-ni/mowe-ne</i>	>	<i>mowe/mowe</i>	‘flower, blossom’
* <i>neme-ni/neme-ne</i>	>	<i>neme/neme</i>	‘top/upper part of something, above’
* <i>wijehe-ni/wijehe-ne</i>	>	<i>wije/wije-ne</i>	‘container, vessel (e.g. for liquid)’

(5) Original disyllabic form, with final vowel *a* and first vowel also *a*, the intervening consonant being anything other than *h*, set A₁. Here the *f* form undergoes change *-a-ni* > *-e*. For *m*, both the *a* vowels assimilate to the *e* of suffix *-ne*, which is then omitted from some PNs but retained on others. Thus we get:

* <i>dama-ni/dama-ne</i>	>	<i>tame/teme</i>	‘foot’
* <i>ama-ni/ama-ne</i>	>	<i>ame/eme-ne</i>	‘blood’

The PN ‘forehead’ is of particular interest. Cognates include:

<i>atha-ni/ethe</i>	‘forehead’	in the Dení dialect of the Kulina-Dení language
<i>atha-ni/atha</i>	‘forehead’	in Paumari
<i>ate/ete</i>	‘forehead’	in Jarawara

This points to, in proto-Arawá, **atha-ni/atha-ne*. That is, we have in Jarawara:

in set E ₁	* <i>ade-ni/ade-ne</i>	>	<i>ate/ete</i>	‘stalk, trunk’
in set A ₁	* <i>atha-ni/atha-ne</i>	>	<i>ate/ete</i>	‘forehead’

Due to the changes that have applied in Jarawara, what were originally distinct forms for the PNs ‘stalk, trunk’ and ‘forehead’ have fallen together as homonyms.

There are two disyllabic PNs for which we lack cognates, where the *f* form has vowels *a* and *e* and the *m* form has vowels *e* and *e*. These could go back to a base form in proto-Arawá that

ended in *e*, or one that ended in *a*. For example, *tame/teme-ne* ‘grave for, hole for’ could go back to **tama-ni/tama-ne* or to **tame-ni/tame-ne*; we cannot tell whether it should be assigned to set A₁ or to set E₁.

(6) Original disyllabic form, with final vowel *a* and first vowel also *a*, the intervening consonant being *h*, set A₂. The same changes apply as in set A₁, with the addition of assimilation—over the intervening *h*—of the initial *a* of the f form to the final *e* (which arises from change *-a-ni* > *-e*). Thus, f and m forms fall together, unless suffix *-ne* is retained on the m. We get:

*japa-ni/japa-ne > jehe/jehe ‘hand’
 *phaha-ni/phaha-ne > fehe/fehe-ne ‘liquid, juice, sap, water, stream, rain’

The three dialects of the Madi language differ in only minor details. One of these is that the assimilation-across-*h* for f PNs is confined to Jarawara. However, the Jamamadí and Banawá dialects show two other changes, which are not found in Jarawara.

First, whereas Jarawara has *-a-ni* > *-e* in f PNs whatever the preceding consonant, Jamamadí and Banawá have:

-a-ni > *-i* after *-ah-*, as in *faha-ni* > *fahi* ‘water’
-a-ni > *-e* elsewhere, as in *tama-ni* > *tame* ‘foot’

Compare the reflexes of three PNs whose base form ended in *-aha* in proto-Arawá:

PROTO-ARAWÁ	JARAWARA	JAMAMADÍ	BANAWÁ	
*phaha-ni/phaha-ne	fehe/fehe-ne	fahi/fehe-ne	fahi/fehe-ne	‘water’
*jaha-ni/jaha-ne	jehe/jehe-ne	jahi/jehe	jahi/jehe-ne	‘fat’
*japa-ni/japa-ne	jehe/jehe	jahi/jehe	jahi/jehe	‘hand’
*baha-ni/baha-ne	behe/behe	bahi/behe	bahi/behe	‘crotch, leaf stalk’

In Jarawara f and m forms of ‘water’ and ‘fat’ differ only in the retention of *-ne* on the m; for ‘hand’ and ‘crotch, leafstalk’, f and m forms fall together. In Jamamadí f and m forms always differ but, since *-ne* is lost from all but ‘water’, ‘fat’ and ‘hand’ fall together. Banawá has the same forms as Jamamadí, but is like Jarawara in retaining *-ne* on ‘water’ and ‘fat’; here it is just the f forms of ‘fat’ and ‘hand’ which coincide.

(Generally, proto-Arawá *p* is reflected by *f* in Madi. ‘Hand’ shows a further, nonce change *f* > *h*. However, the Jamamadí dictionary gives *jehe* and *jefe* as alternatives for the m form, marking the intermediate stage. And this may help to distinguish ‘hand’ from ‘fat’.)

(7) Original form trisyllabic with all vowels *a*, and the consonant between the last two vowels being something other than *h*, set A₃. This is like set A₁. All vowels in the m form assimilate to the *e* of suffix *-ne* (which is then lost in the two attested examples), and only the last *a* of the f form undergoes change, *-a-ni* > *-e*. We get:

*abatha-ni/abatha-ne > abate/ebete ‘tongue, cheek’

(8) Original form trisyllabic with all vowels *a*, and the consonant between the last two vowels being *h*, set A₄ (consisting of a single PN, in the data collected). This is a blend of A₂ and A₃. All vowels in the m form assimilate to the *e* of suffix *-ne*, which then drops. In the f form we get final *-a-ni* > *-e* and then assimilation over *h* to the immediately preceding *a*, which also becomes *e*. The second and third vowels coincide, as *e*, in f and m forms, but the first vowel is *a* in the f and *e* in the m:

*danapha-ni/danapha-ne > tanehe/tenehe ‘scrotum’

(9) Original form ended in *a*, penultimate vowel not *a* (*o* and *i* are attested, there being no instance of *e* in the data collected), set A₅. Here only the final vowel of the m form is *a*, and thus open for assimilation to the *e* of suffix *-ne*. We get the change *-a-ni* > *e* in the f form, which then falls together with m (except for the one PN where *-ne* is retained in the m). We thus get:

*ima-ni/ima-ne	>	ime/ime	‘meat’
*kona-ni/kone-na	>	kone/kone	‘hair’
*koma-ni/koma-ne	>	kome/kome-ne	‘pain’

Now there is a further change that occurs in the Jamamadí dialect, but not in Jarawara: an *i* as the penultimate vowel of an m root assimilates to a final *e*. Thus, *ima-ne > ime-ne > eme. Jamamadí has *ime/eme* for ‘meat’, where Jarawara has *ime/ime*. This change also applies to the one PN from set E₂ whose penultimate root vowel is *i*. Compare:

PROTO-ARAWÁ	JARAWARA	JAMAMADÍ	
*wijehe-ni/wijehe-ne	wije/wije-ne	wije/weje-ne	‘container’

Interestingly, the Banawá dialect appears to have *ime/eme* for ‘meat’, like Jamamadí, but *wije/wije-ne* for ‘container’, like Jarawara.

There are thirteen PNs (for which no cognates are available) whose f and m forms end in *e*, with the penultimate vowel being something other than *a* (all of *o*, *i*, and *e* are attested), for example *ibe/ibe* ‘piece of’. It is impossible to tell whether the final vowel of the original base form was *a* or *e*. That is both *iba-ni/iba-ne and *ibe-ni/ibe-ne would become *ibe/ibe* in modern-day Jarawara. We cannot decide whether such forms belong in set A₅ or in set E₂.

(10) Three syllables or longer with f and m forms coinciding, both ending in *-ri*, set RI. As mentioned above, there appears to be a semi-productive process for forming new PNs by adding *-ri* to a verb, free noun or adjective. For example:

verb	-kanaha-	‘be heavy’	PN	kanahari/kanahari	‘heaviness’
free noun	fanawi	‘woman’		fanawiri/fanawiri	‘female’
adjective	botee	‘old’		boteri/boteri	‘oldness’

However, there are seven polysyllabic forms ending in *-ri* for which cognates are known in other languages. These can be reconstructed for proto-Arawá, with the base form ending in *-ri*, to which f *-ni* and m *-ne* were added. They include:

*jokhari-ni/jokhari-ne	>	jokari/jokari	‘urine’
*wadari-ni/wadari-ne	>	watari/watari	‘dream’

Interestingly, the free nouns associated with these PNs are *joka* and *wata* respectively.

It seems likely that proto-Arawá had a process for forming new PNs, through use of the derivational suffix *-ri*, with the regular gender suffixes *-ni* and *-ne* then being added to the PN. As with other *i*-final forms, the final *-ni* has dropped during the development to Jarawara, and *-ne* appears also to have dropped in almost all instances, so that f and m fall together. And the derivational process persists, with *-ri* now being used to derive a new PN without regard for gender differentiation. (For ‘dream’ the m form is generally *watari* but *watarine* has also been heard; this is presumably a rare trace of the original m suffix on a *-ri* PN.)

(11) Three syllables or longer with f and m forms coinciding, both ending in *-ne* (not preceded by *-ri*), set NE. There are three PNs from this class for which cognates are known and a proto-Arawá reconstruction is possible:

*tanikho-ni/tanikho-ne	>	tanakone/tanakone	‘sweat’
*manako-ni/manako-ne	>	manakone/manakone	‘exchange, price’
*aphone-ni/aphone-ne	>	afone/afone	‘soft part in middle’

For ‘sweat’ and ‘exchange, price’, it seems clear that the original m form, ending in *-ne*, has been generalized to cover f as well. In support of this, the Jamamadi dialect has *manaki/manoko-ne* ‘exchange, price’, precisely what would be expected from a set O form. (Older speakers of Jarawara recognize *manaki* as the archaic f form, but today prefer *manakone* for both genders.) For ‘soft part in middle’ it appears that the proto-Arawá root included final *-ne*, i.e. *aphone*.

For other members of this set no cognates are available, but a similar path of development is likely (although not certain). For example *atahone/atahone* ‘pus, sap’ may relate to an earlier **ataho-ni/ataho-ne*, and *tamine/tamine* ‘news about’ may go back to **tami-ni/tami-ne*.

(12) Four syllables or longer with f and m form coinciding, both ending in *-rine*, set RINE. This set appears to combine properties of the last two—a PN derived by suffix *-ri*, for which the m form, marked by *-ne*, has been generalized to also cover f. For example:

verb *-siri-* ‘be cold’ plus derivational affix *-ri*,
gives PN *siri-ri-ni/siri-ri-ne* > *siririne/siririne* ‘coldness’

Table 11.4 shows how many PNs there are in each set (and how many retain *-ne* on the m form), in terms of those for which cognates are known and those for which no cognates are currently attested. In the table, C indicates any consonant, C’ any consonant except *h*, V indicates any vowel, V’ any vowel except *a*. Note that there are no forms in class E₁ with more than two syllables. (Note that a few PNs have two forms and are counted twice in table 11.4. Compounds and PNs with remodelled forms are not included.)

There is one other kind of change involved in the development from proto-Arawá to Jarawara and to other languages and dialects. It appears that the modern Arawá languages prefer not to have a sequence of unlike vowels in a word. This is especially evident in words of three or more syllables; if all vowels differ from their neighbours, there is a tendency to change

TABLE 11.4 Distribution of forms of possessed nouns in Jarawara

SET	SYLLABLES IN BASE	BASE ENDING IN	WITH COGNATES	COGNATES LACKING
O	any number	<i>-o</i>	21 (4 with <i>-ne</i>)	9 (6 with <i>-ne</i>)
I	any number	<i>-i</i>	11 (1 with <i>-ne</i>)	15
A ₁	2	<i>-aC’a</i>	9 (3 with <i>-ne</i>)	2 (both with <i>-ne</i>) in A ₁ or E ₁
E ₁	2	<i>-aC’e</i>	1	
A ₂	2	<i>-aha</i>	6 (4 with <i>-ne</i>)	—
E ₁	2	<i>-ahe</i>	—	
A ₃	3	<i>-aC’a</i>	2	—
A ₄	3	<i>-aha</i>	1	—
A ₅	any number	<i>-V’Ca</i>	6 (1 with <i>-ne</i>)	13 (10 with <i>-ne</i>) in A ₅ or E ₂
E ₂	any number	<i>-V’Ce</i>	4 (2 with <i>-ne</i>)	
RI	two or more	<i>-ri</i>	7	50
RINE	two or more	<i>-rine</i>	—	8
NE	two or more	<i>-one</i>	3	2
		<i>-ine</i>	—	2

one of them so that it is identical with a neighbour (or, with another vowel in the word). For example, a vowel sequence **a-i-o* becomes *a-a-o* in both:

proto-Arawá **naribo* > original Jarawara *narabo* ‘ear’
**tanikho* > *tanako* ‘sweat’

With the word for ‘tail’ we get different changes in two of the three Madi dialects:

proto-Arawá **jopari* > Jamamadí *jofari*
 Banawá *jofori*
 Jarawara *jifori, jofori*

That is, a form including three different vowels, *o-a-i*, is retained in Jamamadí but shifted to *o-o-i* in Banawá and to *i-o-i* in Jarawara (here *jifori* is in free variation with *jofori*). Note that the Kulina-Dení language has *jopori*.

Polysyllabic PNs where not all vowels are different tend to retain their vowels. For example, proto-Arawá **danapha*, **manako*, and **nokoshi* have become in Jarawara (before recent changes) *tanaha* ‘scrotum’, *manako* ‘exchange’, and *nokosi* ‘in front of’, respectively. (A fuller account of this change in vowel sequences is in Dixon 1995: 271–3.)

A small number of PNs have irregular form in Jarawara.

- (i) The PN ‘house, village’ is *tabori/taboro*, suggesting original forms *taboro-ni/taboro-ne*. There is a free noun (but no PN) *taboro* ‘seat, bed’ in Kulina-Dení. The corresponding free noun in Jarawara is *tabora*. It is possible that the original proto-Arawá form was *tabora*, which is retained as the free form in Jarawara, with the vowel change *a o a > a o o* for the free noun in Kulina-Dení and for the PN in Jarawara.
- (ii) In Jarawara the PN ‘thorn’ is *atine/atine* and the free noun is *atiwa*. Kulina has PN *ati-ni/ati-ne* while both Kulina and Dení have free noun *ati(w)a*. It is likely that this item had irregular forms in proto-Arawá, with PN *ati-ni/ati-ne* and free noun *ati(w)a*. Interestingly, the free noun has m gender in Jarawara as it does in Dení; all other free nouns related to PNs in Jarawara have f gender.
- (iii) The relational noun *ihí/ehene* ‘due to, because of’, described in chapter 22, has formal and functional similarities to PNs. But the vowels in its f and m forms are a little unexpected; in §22.1 they are explained in term of inter-dialectal borrowing.
- (iv) The PN ‘faeces’ *joti/joto*, has corresponding free form *ijo*. This involves the merger of two PNs. Proto-Arawá had:

**joto-ni/joto-ne* ‘buttocks’
**ijo-ni/ijo-ne/ijo* ‘faeces’

The PN with base form *joto* has shifted its meaning to ‘faeces’. But there was apparently no free form and it has retained the original free form *ijo*. (This is further discussed in §11.1.3.)

There is one other clear example of lexical merger. Consider the PNs ‘tooth’, ‘branch’, and ‘name’ in proto-Arawá, and their reflexes in the three Madi dialects:

PROTO-ARAWÁ	EXPECTED REFLEX IN MADI	JAMAMADÍ	JARAWARA AND BANAWÁ	
<i>*ino-ni/ino-ne</i>	<i>ini/ino</i>	<i>ini/ino</i>	<i>ini/ino</i>	‘tooth’
<i>*ini-ni/ini-ne</i>	<i>ini/ini</i>			‘branch’
<i>*oni-ni/oni-ne</i>	<i>oni/oni</i>	<i>oni/oni</i>		‘name’

The forms for ‘tooth’ are as expected in all dialects. ‘Branch’ would be expected to be *ini/ini*, with its f form the same as ‘tooth’; the m form has been analogized to be the same as that for ‘tooth’ (and different from the f form for ‘branch’), again in all dialects. The expected forms for ‘name’, *oni/oni*, are retained in Jamamadí; but the Jarawara and Banawá dialects have reversed the vowels in the m form, from *oni* to *ino* (the same as for ‘tooth, branch’), and analogized across the f form, so that ‘name’ is now *ini/ino* in these dialects, a further homonym with ‘tooth’ and ‘branch’.

As exemplified under *a-j* in §11.1, there is a free noun relating to about thirty of the PNs, and a verb relating to about fifty-five of them (about twenty of the verbs are non-inflecting, with the remainder being inflecting); these classes do overlap. In many instances, the form of free noun and/or of verb relate to the original proto-Arawá base form, while phonological changes that applied to f and m PNs have developed rather different forms for PNs. Consider (repeating the identifying letter from §11.1, where appropriate):

	PROTO-ARAWÁ BASE FORM	F/M PNS IN JARAWARA	FREE NOUN	VERB
<i>b</i>	*mado	mati/mato-ne	mato ‘cord’	-mato- ‘tie up’
<i>i</i>	*ino	ini/ino	— ‘tooth’	-ino- ‘be sharp’
<i>a</i>	*phaha	fehe/fehe-ne	faha ‘water’	—
<i>j</i>	*koma	kome/kome-ne	— ‘pain’	-koma- ‘be hurt’
<i>e</i>	*neme/neme	neme/neme	neme ‘top’	-neme- ‘be high’
<i>c</i>	*hagi	hawi/hawi-ne	hawi ‘path’	—

For all six of these items, the free noun and verb coincide with the reconstructed base form (save for changes in the consonant system **d > t*, **ph > f*, and **g > w*).

There are further items for which we do not have cognates, where the form of the free noun and/or verb suggests what the base form in proto-Arawá may have been. For example:

	F/M PNS IN JARAWARA	FREE NOUN	VERB	SUGGESTED BASE FORM IN PROTO-ARAWÁ
	bori/boro-ne	boro ‘nest’	—	*boro
	hiwe/hiwe-ne	— ‘heat’	-hiwa- ‘be hot’	*hiwa
	tafe/tefe	— ‘food’	-tafa- ‘eat’	*tafa
<i>g</i>	nafi/nafi	— ‘all’	-nafi- ‘be big’	*nafi

Just a few free nouns and/or verbs have unexpected forms. These include:

	PROTO-ARAWÁ BASE FORM	F/M PNS IN JARAWARA	FREE NOUN	VERB
<i>f</i>	*nabopa	bofe/bofe	bofe ‘ground’	—
	*kota	kote/kote	— ‘piece of’	kote -na- ‘divide up’
<i>h</i>	*hodi	hoti/hoto-ne	hoti ‘hole’	-hoti- ‘have a hole’
	*athi	ati/ati	ata ‘voice, language’	ati -na- ‘speak’
	*da’di	tati/tati	tata ‘head’	—

For the first two rows (and for a few other items), it appears that the free noun or the verb (or both) have been formed recently, based on the modern form of the PN. We would expect the free noun based on *bofe/bofe* (< **nabopa*) to be *bofa* (or *nabofa*) and the verb related to

kote/kote (< **kota*) to be *kota*. Looking at the third row, the proto-Arawá form for ‘hole’ was *hodi-ni/-ne*, with the free noun and the verb in modern Jarawara reflecting this. There may have been vowel assimilation in the PN, with *hoti* > *hoto*; the modern PN appears to relate to an earlier *hoto-ni/hoto-ne*. For *ati/ati* ‘voice, language’ the verb root is, as expected, *ati*, but the free noun is *ata*; this appears to be a recent (and unexplained) innovation. The free form *tata*—corresponding to PN *tati/tati* ‘head’—is only attested in *tata kona* ‘head hair’. This is also likely to be a recent innovation and may involve assimilation of the last vowel of *tati* to the last vowel of *kona*, within an NP.

In summary, the great majority of free nouns and associated verbs relate to the original base form; they did not bear suffix *-ni* or *-ne* and so did not undergo the changes which have applied to f and m PNs. But a handful of free nouns and verbs appear to have been created rather recently and are based on the form of the modern PN (some of these may have replaced earlier forms, others may be full innovations).

It was noted that forms ending in *-ri* (or in *-rine*) appear to be derived from a free noun, a verb, or an adjective, either at the proto-Arawá stage or more recently. In each case, the *-ri* is missing from the corresponding free noun or verb. For example:

PN	FREE NOUN	VERB
jokari/jokari	joka ‘urine’	—
sinari/sinari	— ‘strong tasting’	-sina- ‘have strong taste’
siririne/siririne	— ‘coldness’	-siri- ‘be cold’

There is one irregularity. The PN *watari/watari* (**wadari-ni/wadari-ne*) ‘dream’ has free form *wata* but associated verb *-watami-* ‘dream’. Note that the Paumarí language has free noun and verb both as *wadami*, suggesting that all forms may go back to proto-Arawá.

The question of why *-ne* is retained on some PNs and lost from others is an interesting one, to which I do not have a complete answer. The *-ne* is retained on about 33 PNs in Jarawara (out of about 100 PNs which do not have both f and m forms ending in *-ri* or *-rine* or *-ne*). And it is kept on about 40 per cent of PNs in Paumarí (here it is *-na*, through regular phonological change) and on 10 per cent (or maybe a little more) in Kulina-Dení. In all languages, *-ne* has generally dropped from PNs referring to orientation (‘in front of’, ‘inside’) and surface body parts (‘nose’, ‘foot’) but is retained on a fair proportion of other PNs (‘blood’, ‘fat’, ‘pain’, ‘liquid, water’, ‘fire, firewood’, ‘brightness’, ‘accompanied by’, etc.).

11.1.3 Singular pronominal possessors with possessed nouns

PNs divide into two classes according to the form of a 1sg or 2sg inalienable possessor (in the head slot of the NP). One class take *o-* and *ti-* and the other class take *oko* and *tika*. For example:

o-teme	‘my foot’	but	oko jehene	‘my fat’
o-taboro	‘my home’		oko hawine	‘my path’

It is interesting that nsg pronouns and nouns as NP heads show no differences here; for example:

ee teme	‘our feet’	ee jehene	‘our fat’
mee tame	‘their feet’	mee jehe	‘their fat’
Okomobi teme	‘Okomobi’s foot’	Okomobi jehene	‘Okomobi’s fat’

Having now dealt with all the types of marking of possession, these can be summarized:

POSSESSOR	TYPES OF POSSESSION			
	ALIENABLE	KIN	PN ₁	PN ₂
noun (N)	N <i>kaa</i> —	N—*	N—	N—
nsg pronoun, e.g. Iinc	<i>ee kaa</i> —	<i>ee kaa</i> —	<i>ee</i> —	<i>ee</i> —
sg pronoun, e.g. Isg	<i>oko</i> —	<i>oka</i> —**	<i>oko</i> —	<i>o</i> —

*kin terms have a special 3sg possessed form, some of which begin with *hinaka*-.

** the *oka* is in almost every case fused with the root (see §10.4.1).

That is, nouns take *kaa* just in alienable possession and nsg pronouns (Iinc *ee*, Iexc *otaa*, 2nsg *tee*, and 3nsg *mee*) take it in alienable and in kin possession. However, Isg *o*- and 2sg *ti*- take *kaa*—in fused forms *oko/oka* and *tika*—in alienable possession, in kin possession, and with one class of PNs.

We find that all PNs (bar one) whose f and m forms coincide and end in *-ri*, *-rine*, or *-ne* take *oko* and *tika*. Of the remainder, about forty-five PNs take *o*- and *ti*-. These generally refer to a close and inherent association between PN and pronominal possessor. PNs taking *o*- and *ti*- come from the following semantic fields:

- Orientation (field PA in §11.1, and in the appendix), e.g. *o-nowati* ‘behind me’;
- Specific, surface body parts (PCb-*f*), e.g. *o-tati* ‘my head’, *ti-mano* ‘your arm’;
- Noise and language (PF), e.g. *o-moni* ‘my noise’, *ti-tamine* ‘news about you’;
- Food (PL): *o-tefe* ‘my food’, *ti-w-ime* ‘your meat’;
- Others are *o-moho* ‘my smell’, *ti-tesene* ‘your companion’, *o-taboro* ‘my home’, and *ti-bo* ‘your courage’.

Those PNs which might be expected to take *o*- and *ti*-, but in fact take *oko* and *tika*, include words referring to general and to internal body parts—such as ‘hair’, ‘skin’, ‘bone’, ‘blood’, ‘fat’, ‘liver’, plus ‘dream’ and ‘path’. Full details are in the appendix.

Note that some PNs only occur following other PNs and thus cannot directly take a pronominal possessor. For example, *hotokori/hotokori* must follow *namiti/namiti* ‘neck’, as in *o-namiti hotokori* ‘my throat’ (one cannot say **o-hotokori* or **oko hotokori*). Some PNs do not relate to humans but I was able to elicit a pronominal possessor by suggesting that, in a story, an animal might be able to talk; speakers said that the animal could say *oko jifori* (rather than **o-jifori*) ‘my tail’. (This is consistent with the generalization which was arrived at later, that forms ending in *-ri* take *oko* and *tika*.)

Not all PNs are marked by *oko* or *o*- in the list in the Appendix. It can be taken that those not marked will take *oko*, if they may have a Isg possessor. For example, if a person has a flower, it is an alienable possession; although the PN *mowe/mowe* will be used (there is no corresponding free noun) one could only say *oko mowe*, never **o-mowe*.

There are two correlations of form:

(i) No PN that takes *o*- and *ti*- retains *-ne* on its m form. That is, the class of PNs which retain *-ne* is included within the class of items that take *oko* and *tika*.

The PNs *tame/teme* ‘foot’ and *tame/temene* ‘grave’ differ only in the latter including *-ne* on the m form. Note that ‘my foot’ is *o-teme* but ‘my grave’ is *oko temene*; we have here two markers of difference, *o/oko* and *o/-ne*. Contrast this with *Jane tame*, which is ambiguous between ‘Jane’s foot’ and ‘Jane’s grave’, and *mee tame*, which can mean ‘their feet’ or ‘their grave’ (each of these involves the f form of the PN).

TABLE 11.5 Comparison of possessed forms of possessed nouns

f PN/m PN//free noun		form after free noun or nsg pronoun, e.g. <i>rinc ee</i>	forms after 1sg or 2sg, e.g. 1sg <i>oko</i>
jokari/jokari//joka	‘urine’	ee jokari	oko joka
wahati/wahati//—	‘liver’	ee wahati	oko wahati
joti/joto//ijo	‘faeces’	ee joto	oko ijo

(ii) As already mentioned, PNs ending in *-ri* or *-rine* generally do not take *o-* or *ti-*. In fact, these PNs omit the *-ri* or *-rine* when they take *oko* and *tika*, but retain it with any other possessor. Table 11.5 shows a PN ending in *-ri* and, for comparison, one that does not end in *-ri*. The last line shows the ‘merged’ PN ‘faeces’. It will be seen that both for *jokari/jokari//joka* and *joti/joto//ijo*, the sg pronouns *oko* and *tika* appear to take the free noun form.

However, this only applies for forms ending in *-ri* and for this one irregular PN. In virtually all other instances, *oko* and *tika* are followed by the m form of the PN.

Interestingly, when *joti/joto//ijo* is followed by another PN, with *oko* as possessor, the expected form *joto* is used; one says *oko joto tafe* ‘my intestines’ (and not **oko ijo tafe*).

There is one odd PN form after 1sg *o-*. The PN *neme/neme//neme* ‘top/upper part of’ uses *neme-ne* just with *o-* and *ti-*, e.g. *o-neme-ne jaa* ‘above me’. The original m suffix *-ne* appears to be retained in just this context for this PN.

We can now turn to a different matter, the addition of *o-* or *ti-* to a PN beginning with a vowel. The basic rule appears to be:

(1) If the PN has three or more moras, simply delete the initial vowel of the m form:

abate/ebete	‘cheek, tongue’	o-bete	‘my cheek, tongue’
anate/enete	‘chin’	o-nete	‘my chin’
enekeri/enekeri	‘jaw(bone), gill’	o-nekeri	‘my jaw’

Note that *enekeri/enekeri* is the sole PN ending in *-ri* which takes *o-* and *ti-*.

(2) If the PN has only two moras, add a *w* between prefix and the m form:

ate/ete	‘forehead’	o-w-ete	‘my forehead’
ati/ati	‘voice, language’	o-w-ati	‘my voice, language’
ime/ime	‘meat’	o-w-ime	‘my meat’

There is a small set of exceptions to the rule that *o-/ti-* is added to the m form. The three PNs of the form *iCi/iCo* use the f form. That is:

ifi/ifo	‘lower lip’	o-w-ifi	‘my lower lip’	ti-w-ifi	‘your lower lip’
isi/iso	‘leg’	o-w-isi	‘my leg’	ti-w-isi	‘your leg’
ini/ino	‘tooth, name’	o-w-ini	‘my tooth/name’	ti-w-ini	‘your tooth/name’

Note that when there is a second PN this is f, as would be expected, e.g. *o-w-isi ate* (1sg-leg+f shin+f) ‘my shin’. That is, we get here PN+f PN+f after *o-/ti-*, whereas the normal sequence is PN+m PN+f.

The word for ‘mouth’ is *inohoti* which is plainly a historical compound based on *ini/ino* ‘tooth’ and *hoti/hoto* ‘hole’, literally ‘tooth-hole’ (but note that it involves the m form of ‘tooth’ and the f form of ‘hole’). Today, it is treated as an unanalysable PN *inohoti/inohoti*.

Compare:

Okomobi ino	‘Okomobi’s tooth’	o-w-ini	‘my tooth’
Okomobi inohoti	‘Okomobi’s mouth’	o-nohoti	‘my mouth’

For *eenoki/eenoki* ‘waist, middle part’, there is variation in the sg possessed form. Some speakers give the 1sg form as *oko eenoki* and others as *o-w-eenoki* (using *o-* and not *oko*, and adding a *w*, as is normal with two-mora roots). (This PN has four moras and begins with a vowel, albeit a long vowel.)

The PN *ijori/ijori* ‘shoulder’ has a slightly irregular sg possessed form, *owajori* ‘my shoulder’, in place of the expected **o-jori* or **owijori*.

There is one grammatical form that could be regarded as a divergent member of the class of PNs—*ihi/ehene* ‘due to, because of’. This marks a type of NP and a type of subordinate clause; it is labelled a ‘relational noun’ and discussed in chapter 22. The 1sg and 2sg forms are *o-w-ehene* and *ti-w-ehene*. This would be the only PN to retain the m suffix *-ne* and take *o-/ti-*.

A number of the phonological rules discussed in §2.9 apply to PNs. As mentioned in §2.9.4 we get assimilation of an *a* in a PN to the *o* of the 1sg prefix just in:

o-moho	‘my smell’	from	mahi/maho
o-boko	‘my chest’	from	baki/bako
o-fanoko	‘my thigh’	from	fanaki/fanako

It appears that the assimilation applies to a PN which commences with a bilabial (*m*, *b*, or *f*) and where the *a* in the PN is immediately followed by *ko* or *ho*. Note that the assimilation applies to the second *a* of ‘thigh’ (which is followed by *ko*) and not to the first *a* (which is followed by *n*). It does not apply to *mani/mano* ‘arm’; the *a* here is followed by *n* and we get *o-mano* ‘my arm’.

As pointed out under (I) in §2.10.2, the form with assimilation is also used, analogically, after *ti-*, e.g. *ti-moho* (not **ti-maho*).

The Jamamadí dialect marks sg pronominal possessors before a PN in a slightly different manner. Whereas in Jarawara *o-* and *ti-* plus possessive marker *kaa* have developed into *oko* and *tika*, in Jamamadí they have become *owa* and *tiwa*. There appear to be very few examples of just *o-* and *ti-* on PNs in Jamamadí. For instance ‘my head’ is *owa tati* and ‘your foot’ is *tiwa teme* in Jamamadí, where Jarawara has *o-tati* and *ti-teme*. There are just a few examples of PNs taking a prefix, e.g. *o-noko* ‘my face’, *ti-noko* ‘your face’ but alongside these there are also instances of *owa noko* and *tiwa noko*. Jamamadí does use prefix *o-* on *mani/mano* ‘arm’ and here (unlike in Jarawara) there is assimilation: *o-mono* ‘my arm’. (See B. Campbell 1985: 145.)

The Jarawara PN *habi/habo* refers to ‘root’, ‘tendon, muscle’, and also ‘courage’. In the last sense it takes *o-* and *ti-*. The underlying forms *o-habo* and *ti-habo* become *o-bo* and *ti-bo* with omission of the *-ha-*, which is unstressed on the underlying cycle; see (C) in §2.9.6. (This is the only example in the corpus of a PN which takes *o-/ti-* beginning in *ha-*.)

11.1.4 Reflexive use of possessed nouns

In English it is perfectly acceptable to say *I cut myself*, *He heard himself* (on the tape recorder), or *I saw myself* (in the mirror). The preferred strategy in Jarawara is to specify a body part or

other PN, e.g. ‘I cut my hand’, ‘He heard his voice on the tape recorder’, ‘I saw my face in the mirror’ or ‘I saw my reflection in the mirror’.

With 1sg and 2sg we simply have the normal A pronoun prefixed to the verb or auxiliary and also *o-/ti-* (or *oko/tika*) to the PN within the O NP:

- (11.14) o-moho_O hisi o-ne o-ke
 1sg-smell+m sniff 1sgA-CONTf 1sg-DECf
 I am sniffing my own smell (i.e. I am smelling myself)
- (11.15) o-noko_O o-wa.katoma o-ke
 1sg-face+m 1sgA-watch 1sg-DECf
 I am watching my own face (i.e. I am watching myself) (in the mirror or river)
- (11.16) [oko kanamori]_O o-wa o-ke
 1sgposs reflection 1sgA-see 1sg-DECf
 I am looking at my reflection (i.e. I look at myself) (in the mirror or river)
- (11.17) ti-jehē_O bobi ti-sa ti-ke
 1sg-hand cut 2sgA-CLEANLY 2sg-DECf
 you cut your hand

With a nsg pronoun we get a similar grammatical arrangement. The pronoun appears twice, once as possessor within the O NP and once in A function at the beginning of the predicate:

- (11.18) [otaa maho]_O otaa hisi ni-ne-ke
 1exc smell+m 1excA sniff AUX-CONTf-DECf
 we are sniffing our own smells (i.e. we are sniffing ourselves)
- (11.19) [mee kanamori]_O mee awa-ke
 3nsg reflection 3nsgA see-DECf
 they are looking at their own reflections (each is holding a mirror and sees himself in it)

When this reflexive-type construction involves a noun (as head—that is, inalienable possessor—in the O NP) we do not get the noun stated twice. That is, rather than

- (11.20) *Miotō_A [Miotō noko]_O ka.katoma-ka
 name(m) name(m) face+m watch-DECM

the *Miotō* from the second NP must be anaphorically omitted, giving:

- (11.20') Miotō_A noko_O ka.katoma-ka
 name(m) face+m watch-DECM
 Miotō is watching his face (i.e. is watching himself) (in the mirror)

We find similar omission with alienable possession. In (11.21), the A NP is *Manira* and the O NP is *Manira kaa jifo* ‘Manira’s hammock’. Here one of the two occurrences of *Manira* is omitted:

- (11.21) Manira kaa jifo kaho na-ro ama
 name(f) poss hammock(m) tie AUX-RPef EXTENT
 Manira tied up her (Manira’s) hammock

Manira, in (11.21), could be said to be simultaneously functioning as A argument of the clause and as alienable possessor within the O argument. Note that the preceding clause in this text is [oko jifo]_O o-kaho (1sgposs hammock 1sgA-tie) ‘I tied up my hammock’; here 1sg must be stated twice, as prefix *o-* to the verb (here in A function) and as possessive form *oko* within the O NP.

The A NP may be anaphorically omitted from an A-construction that is non-initial in discourse, as in the following, from the story of the Branco bitten by an ant (this is T2.71):

- (11.22) *tenehe*_O *kisa* *ka-ne-himari-ka* [kasiro *jaa*]
 scrotum+m shake APPLIC-AUX-FP_{em}-DEC_m a.lot PERI
 he shook his balls a lot (so that the ant would fall to the ground)

Here the textual pivot relates to the Branco, and is the understood A argument, marked by m gender in tense-modal and mood suffixes. This is also the understood head (again anaphorically omitted) of the O NP, which contains PN *tenehe*, in m gender.

It might be thought that a sentence like (11.20')—or (11.22)—is potentially ambiguous; the other meaning being 'Mito is watching [somebody's] face', where the face refers to a different person, perhaps mentioned in the immediately preceding discourse. However, if the head of the O NP were omitted under anaphora with a preceding clause, then the O NP would be the pivot and the sentence would have to be an Oc. Since both O and A are 3rd person, the verb would take the Oc prefix *hi-*. The fact that *hi-* is not included in (11.20') and (11.22) indicates that each of these is a reflexive construction, with the omitted head of the O NP coreferential with the stated head of the A NP.

The item *fara/fare* 'the very one' (§12.3) can be included in the O argument of a reflexive construction, as in:

- (11.23) *Jobeto*_A [fare *maho*]_O *hisi* *na-ka*
 name(m) VERY.ONE+m smell+m sniff AUX-DEC_m
 Jobeto is sniffing his own smell
- (11.24) *Okomobi*_A [fare *ati*]_O *ka-mita-ka*
 name(m) VERY.ONE+m voice APPLIC-*hear*-DEC_m
 Okomobi is listening to his own voice (on the tape recorder)

Although the preferred way of expressing a reflexive-type meaning in Jarawara is with a PN, there is an alternative mechanism which simply involves pronouns with identical reference in slots A and B of the predicate (e.g. 'I cut me'). For 3sg, the form *hine/hiwa* can be used, with a reflexive sense; see §11.1.5. Note that all types of reflexive construction require a transitive verb.

11.1.5 *hine/hiwa* 'just' and reflexive

The forms *hine/hiwa* have a range of functions and meanings. Basically, they can be taken to indicate 'just this and nothing else', with overtones of 'this is how it is' and 'let it happen (what can be done about it?)'. With a transitive verb, *hine/hiwa* becomes a marker of reflexive (literally, 'person looked at just (themselves)').

(a) *Hine/hiwa* may follow a noun in an S NP which precedes an intransitive predicate, as in:

- (11.25) [Jara *hine*]_S *mee* *naho-ke*
 Branco(m) JUST 3nsgS stand(plural S)-DEC_f
 the Brancos are just standing (there) (let them do it, we'll ignore them and go off upstream by ourselves)
- (11.26) [jomee *hiwa*]_S *ahaba-ka*
 dog(m) JUST_m die-DEC_m
 the dog is just dying (let it die)

(b) The S NP of an intransitive clause can consist just of *hine/hiwa*, with the S argument being further specified by a pronoun within the predicate, as in:

- (11.27) *hine*_S *mee* *ka-ke*
 JUSTf 3nsgS in.motion-COMING
 they are just coming (let them come, there is nothing we can do about it)

(c) If *hine/hiwa* occurs in a transitive clause it appears always to be in O function, and carries a reflexive meaning, as in T2.73, 100, 120, and:

- (11.28) *Kamo*_A *hiwa*_O *ka.katoma-ka*
 name(m) JUSTm stare.at-DECM
 Kamo is staring at himself (in a mirror)

Here the O NP consists only of *hiwa* ‘just’, literally ‘Kamo is staring at just Kamo’; the O NP could be taken to be underlyingly *Kamo hiwa*, with the *Kamo* ellipsed. An alternative analysis of (11.28) would be to take this to be an intransitive clause (although the verb is basically transitive), with an S NP *Kamo hiwa*. There is little to choose between these analyses; I prefer that shown in (11.28) as being simpler with respect to the remainder of the grammar.

The A argument can be shown just by agreement on verbal suffixes, with *hine/hiwa* being retained before the predicate, as in:

- (11.29) *hiwa*_O *kijo* *na-wahe-mari-ka* *waha*
 JUSTm rub AUX-NEXT.THING-FP_m-DECM NEXT.THING
 the next thing was he rubbed himself

- (11.30) *hiwa*_O *kamine-mari-ka*
 JUSTm speak.about-FP_m-DECM
 he spoke about himself

We find reflexives of causatives, such as:

- (11.31) *hiwa*_O *na-hato-mata-monaha-ne*
 JUSTm CAUS-be.pretty-FP_m-REPM-BKGM
 he is said to have made himself pretty (by painting himself)

The reflexive of 3nsg (‘each of them did it to themselves’) has *hine* as O NP and *mee* in the A slot of the predicate:

- (11.32) *hine*_O *mee* *na-hato-mata-monaha*
 JUSTf 3nsgA CAUS-be.pretty-FP_m-REPM
 each of them is said to have made himself pretty (by painting himself)

Reflexives can be used with inanimate participants. Describing a Disprin tablet that dissolved when placed in water, one speaker said:

- (11.33) *hine*_O *to-na-fijo-ke*
 JUSTf AWAY-CAUS-end-DECf
 it is making itself come to an end

There is nowadays a tendency to use *hine* for both f and m reference. For example, (11.26) was first given as *jomee hine ahaba-ka* and only on reflection corrected to *jomee hiwa ahaba-ka*. Note that *hine* is used in (11.25) where *hiwa* would be expected, agreeing with an m head noun. Some speakers, especially from the younger generation, would use *hine* in place of *hiwa* in (11.26) and (11.28–31).

Interestingly, the Jamamadí dialect has just *hini* as the reflexive pronoun, with no distinction of gender (the Banawá dialect has f *hini* and m *hija*). The tendency to generalize the f form to also cover m, noted for younger speakers of Jarawara, appears to have spread right through Jamamadí. (Note that this is a further instance of f being the unmarked term within the gender system—see §3.3.2 and §10.1.3.)

(d) We find a fair number of instances of a peripheral NP *hine jaa* ‘just, for no reason that I know of, this is the way it is’. This involves the f (and functionally unmarked) form *hine*, never the m form *hiwa*. I have the habit of going for a walk in the jungle just before the sun sets. The Jarawara find the idea of walking simply for the sake of exercise rather strange. They told me to say, on setting off:

(11.34) *jaka o-ne o-ke [hine jaa]*
 walk 1sgS-CONTf 1sg-DECf JUST PERI
 I’m just walking for no reason

Other examples include:

(11.35) [*ee komene*]_S *to-wata haa [hine jaa]*
 1inc pain+m AWAY-exist DEP JUST PERI
 when someone has a pain (lit. when someone’s pain comes into existence) for no reason that we know of (then one of us passes his hands over the invalid, and the pain goes away)

(11.36) *faha*_S *soro.ro ki-ne-ke [hine jaa]*
 water(f) swirl.REDUP APPLIC-CONTf-DECf JUST PERI
 the water just swirls around (at the rapids) (that’s the way it is)

The question of which word class *hine/hiwa* belongs to is an interesting one. In (11.25–6) it follows a head noun, like an adjective or a PN. It is attested followed by a PN within an S NP, in:

(11.37) [*jama hine boti*]_S *homa-ke*
 thing(f) JUSTf lots.of+f lie.on.ground-DECf
 lots of things are just lying on the ground (leave them there)

However, a PN can follow both a PN and an adjective (see table 10.1). That is, *hine* in (11.37) could be either an adjective or a PN. The standard tests to distinguish an adjective from a PN, set out in §11.2.3, were inconclusive when applied to *hine/hiwa*. These forms do not felicitously appear in an NP with augment modifier *mee*. And the gender test—as shown in (11.75–6)—is unclear because of the tendency to use *hine* for both f and m agreement. *Hine/hiwa* is probably most appropriately classed (at least tentatively) as a special type of PN.

Note that the only item with f/m form similar to *hine/hiwa* is the adjective *one/owa* ‘another’, discussed in §11.2.1.

11.1.6 The collective/reciprocal construction

Jarawara has markers *abee* and *ibee*, which appear to be used interchangeably (in the Jamamadí and Banawá dialects there is a single corresponding marker, *ibi*). At first blush they appear to indicate that the clause in which they occur is a reciprocal construction.

A reciprocal clause must, of course, have a transitive verb and a nsg argument; in Jarawara this is shown by a nsg pronoun: 1inc *ee*, 1exc *otaa*, 2nsg *tee*, or 3nsg *mee*. The reciprocal

marker, *abee* or *ibee*, is placed immediately after this pronoun, as in:

- (11.38) *otaa abee nofa*
 Iexc RECIP like+f
 we get on well with each other
- (11.39) *mee abee hijara mee*
 3nsg RECIP talk.to+f 3nsgDEP
 they talk to each other
- (11.40) *mee abee tao ni-ne-ke*
 3nsg RECIP shoot AUX-CONTF-DECf
 they are shooting each other (describing a picture of a battle in the American Civil War)
- (11.41) *mee abee sari na-wahe-mete-mone-he*
 3nsg RECIP burn AUX-NEXT.THING-FPnf-REPF-DEP
 it was reported that the next thing was they burnt each other (during a female initiation ceremony)

The verb can be a derived transitive, the causative version of an intransitive, as in:

- (11.42) *faja mee abee siwa ni-hara-ke fahi*
 THEN 3nsg RECIP be.playful CAUS-IPef-DECf THERE.NON.VISIBLE
 then they joked with each other (lit. made each other be playful) there

Now the question is how to analyse the *otaa abee* and *mee abee* in such clauses. There are a number of possibilities:

- (a) Say that *otaa*, *mee*, etc. is the A pronoun and *abee* a reciprocal marker in O slot. The difficulty with this solution is that in all other circumstances an O must precede an A pronoun, and here we would get A first.
- (b) Say that *otaa* or *mee* is the O and *abee* the A pronoun. But, cross-linguistically, it is virtually always the case that it is the A pronoun which is specified for person and number, and the O which is a reciprocal marker, the opposite of what this solution implies.

For these reasons, neither (a) nor (b) is an attractive solution. We plainly need to explore other possibilities. One is that *otaa abee* or *mee abee* might not be part of the predicate at all, but could make up a pre-predicate NP. This analysis is supported by examples such as:

- (11.43) [*ee ibee maho*] *hisi na*
 Iinc RECIP smell+m sniff AUXf
 we are sniffing each others' smells
- (11.44) *faja [mee mani abee] hoka na mee*
 THEN 3nsg arm+f RECIP pull.on AUXf 3nsgDEP
 then they are arm-wrestling (lit. pushing each others' arms to see which could be pushed onto the table top)

This suggests treating the reciprocal marker *abee* (or *ibee*) as a type of PN within an NP that precedes the predicate. In (11.43) it is followed by a PN, *maho*, and so plainly *abee* cannot here be a predicate element; in (11.44) a PN comes between *mee* and *abee*, showing that *mee* cannot here be a predicate element. Rather than having to create a new grammatical category to accommodate *abee* or *ibee*, I prefer to say that it is a PN (one that does not distinguish gender) and can be preceded or followed by other PNs within an NP that has a nsg pronoun as head. Note that *maho* in (11.43) shows appropriate gender for a PN in such a sequence, with *Iinc ee* as NP head (see §11.1.1).

It appears that reciprocal constructions involve a transitive verb but include a single argument that must be realized by an NP (including the reciprocal marker *abee* or *ibee*) preceding the predicate. The clause appears to be intransitive; it cannot take Oc prefix *hi-*, something that is restricted to transitive clauses. By this analysis the PN *abee* (or *ibee*) effectively derives a reciprocal construction, which is intransitive but must include a transitive verb.

This analysis is supported by (11.45), where the S NP includes a non-singular noun plus *abee*:

- (11.45) [mee.fanawiri abee] nofa
 women(f) RECIP like+f
 the women get on well with each other

The fact that *abee* or *ibee* can follow, but never precede, the augment modifier *mee* within an NP indicates that they are PNs and not adjectives.

The item *fara/fare* ‘the very one’ (§12.3) which is often used in reflexives, may also appear in reciprocal constructions; for example:

- (11.46) fara [otaa abee] hijara na
 self+f IEXC RECIP talk.to LISTf
 we spoke to each other, to our own (people)

The reciprocal construction can involve verbs over a fair semantic range, as illustrated in the examples given—‘like’, ‘talk to’, ‘shoot’, ‘burn’, ‘joke with’, ‘smell’, ‘pull on’, and also ‘ask’, ‘cure’, ‘whip (each other in a ceremony)’, ‘bawl out’, ‘copulate with’, ‘kick’, ‘call’, ‘see’, ‘hear’.

There are some sentences involving *abee* or *ibee* which suggest that ‘reciprocal’ might not be the most appropriate label. For instance, a photo of two alligators, one lying across the other, was described as:

- (11.47) [inohowe mee ibee] jafa ka-na-ke
 alligator(m) AUG RECIP lie.on.top.of APPLIC-AUX-DECf
 the alligators are lying on top of each other

In fact there was one alligator lying over a second; the second one was not also lying across the first. The sense here is ‘the two alligators, as a set, one lying on the other’.

And (11.48) describes a group of people, with one member of the group grabbing something from another member.

- (11.48) [mee ibee] hose ka-na-ke
 3nsg RECIP pull.away.from APPLIC-AUX-DECf
 (one of) them pulls something from (another of) them

Examples (11.47–8) suggest that *abee* and *ibee* should be regarded as basically having a collective meaning. They refer to a group of people (or animals), involved in an action that is described by a transitive verb, such that one of the group is referent of the A argument and another the referent of the O argument for the verb. That is, the referents of the A and O arguments are referred to, collectively, by a single core NP, with a nsg pronoun as head.

A collective construction, marked by *abee* or *ibee* in the sole core NP, can refer to a single action, as in (11.47–8). Or it can refer to a number of tokens of a particular action, with one member of the group being in A function and one in O function for one token, a different member being in A function and a different one being in O function for a second token, and so on. This—a particular instance of the collective construction—is what is called ‘reciprocal’.

(There is significant similarity between this collective/reciprocal construction in Jarawara and the collective/reciprocal construction in Fijian. When prefix *vei-* is added to a transitive

verb in Fijian, it derives an intransitive, whose S argument is the sum of the underlying A and O; that is, X-plus-Y as S argument indicates that one of X and Y is the A argument and the other one the O argument, without specifying which is which. We must thus say that *vei-* has a collective meaning. When the passive suffix is added to a transitive verb bearing collective prefix *vei-*, this implies that each participant is alternately A and O; that is, reciprocal is a particular sense of the collective prefix. See Dixon 1988a: 175–81.)

11.2 ADJECTIVES

Like other Arawá languages and dialects, Jarawara has a small closed class of adjectives. I have identified fourteen members, just two of which have distinct f/m forms. Adjectives are most similar in their grammatical properties to PNs.

§11.2.1 details the adjectives, §11.2.2 lists their grammatical properties, §11.2.3 presents criteria for distinguishing adjectives from PNs, and then §11.2.4 shows how adjectives differ from the nominalized forms of verbs.

11.2.1 Membership

Adjectives in Jarawara fall into a number of semantic types:

A. DIMENSION

- | | | | |
|--|--------------|----------------------|-----------------|
| A1. <i>ehebotee</i> (or <i>wehebotee</i>) | ‘big, large’ | A2. <i>bite/bití</i> | ‘little, small’ |
| A3. <i>howe</i> | ‘large type’ | A4. <i>biri</i> | ‘small type’ |

We find *howe* and *biri* used for large/small varieties of some animal or thing. Thus, a picture of elephants drew the response *bani howe* ‘a large type of animal’. Batteries (called *bija*, from Portuguese *pilha*) are especially important in a village with no electricity, and they come in various sizes. D-cells are called *bija howe* ‘large type of battery’ and AA-cells are *bija biri* ‘small type of battery’.

In one text the narrator saw some large specimens of *pirarucu* (which is the largest freshwater fish in the world) and said:

- (11.49) [borokoo howe]_{CS} mee ama-ke
 pirarucu(m) large.type 3nsgCS be-DECf
 they were large pirarucus (lit. large pirarucus were)

As pointed out in §10.4.1, *bite/bití* is also used for ‘daughter/son’ of a 3sg possessor.

In the Banawá dialect there is adjective *bati* ‘big’; I have heard this once in a Jarawara text and was told that it is ‘used a bit’ in Jarawara. The intransitive verb *-howari-* ‘grow, intensify’ has similar meaning to *howe*.

B. PHYSICAL PROPERTY

- B1. *tati* ‘(fruit) full-sized but not yet ripe and ready to eat’
 B2. *kini* ‘small, immature (fruit) which has not yet reached its full size’

Words for ‘be ripe’ are discussed in §11.2.4.

C. AGE

- C1. *jati* ‘new, young’ C2. *botee* ‘old’

There is a PN *boteri/boteri* ‘oldness’, derived from *botee*; this is discussed in §11.2.3. And there is a non-inflecting verb *jati -na-* ‘be alive, be raw (not sufficiently cooked)’ which is probably diachronically related to the adjective.

Botee can be used for an old person and or old thing, and *jati* for a young person or thing; see (10.6a/b). Once, when someone mentioned Sowi and I asked whether the person they were referring to was *Etina maki* ‘Etina’s husband’, the reply came that he was *Etina maki botee* ‘Etina’s ex- (lit. old) husband’. The Jarawara believe that a new sun (*bahi*) comes into the sky each day, and can describe this as *bahi jati* ‘new sun’. When one is referring to one’s children ‘my younger daughter/son’ is described as *okoto/okatao jati*. (‘My elder daughter/son’ is *okoto/okatao tai.ti*, based on the verb *tai -ha-* ‘go in front’.)

D. VALUE

There is no adjective ‘good’ in Jarawara, but instead a verb *-amosa-* ‘be good’ that has very wide use. There are the following adjectives:

D1. *towe* ‘bad’. This is recognized by the Jarawara but said to be ‘really a Jamamadí word’. They prefer to use the verb *-hija-* ‘be bad, broken, ruined’, which generally takes the negative affix *-ra* (redundantly, it appears, see §7.3), or else the verb *-amosa-* ‘be good’ plus negative suffix, *-ra*.

D2. *faja* ‘enough’. This has a wide range of meaning, e.g. ‘slept enough’, ‘had enough food’, ‘dug a hole deep enough to bury a corpse’ (in T1.69). It is typically used to signal the end of a story: *faja ama* ‘that’s enough’; see T1.90 and T2.123, and (6) under (c) in §26.2.6.

D3. *jokana* ‘real, prototypical’. This can be used to describe the prototypical variety of some plant or animal, e.g. *fowa jokana* is ‘bitter manioc (*Manihot esculenta*)’ which is the staple food of the people. As mentioned in §1.5.1, the Jarawara call themselves *ee jokana* ‘we, the real people’. See also (10.67).

E. QUALIFICATION AND QUANTIFICATION

E1. *one/owa* ‘another’. This can function as an adjective or as a noun; it was discussed in §§10.5.2–3.

E2. *hinita* ‘empty, alone’. This can be used to refer to an empty canoe or an empty tape recorder (with no cassette in it) or an empty cassette (with nothing recorded on it) or an unmarried person. Or it can refer to something unaccompanied by anything else; for example:

(11.50) [mato hinita]_O mee kabe-hemete-mone-ni
piquiá(m) alone 3nsgA eat-FPnf-REPF-BKGF
they are said to have eaten piquiá (a plant) alone (that is, nothing but piquiá)

(11.51) [aba hinita]_S foje
fish(m) alone be.inside+m
there is fish alone inside (the bundle) (nothing else)

E3. *hinama* ‘all and only (that is, all this and nothing/no one else)’. Examples of its use include:

(11.52) [kimi hinama]_O tii ne
sweet.corn(m) all cut AUXM
he cuts only sweet corn (and nothing else)

(11.53) [Jobeto kaa jama hinama]_{CS} ama-ke
name(m) POSS thing(f) all be-DECLF
all the things (on the shelf) are Jobeto’s (and no one else’s) (lit. Jobeto’s things all are)

(11.54) [mee.fanawi hinama]_S afi ni-ne-ke
women(f) all bathe AUX-CONF-DECLF
all the people bathing are women (and no men)

The adjective *hinama* can be preceded by *fai* (which is not attested outside this context), the combination then being pronounced *fai.hinama* or *fai.inama* or *fainama*. It appears to mean ‘the same’ or ‘the same size’, as in:

- (11.55) [o-jee fai(hi)nama]_S fama-ke
 1sgposs-hand same.size be.two-DECL
 my two fingers are the same size (lit. my fingers same size is two)

A case could be made out for regarding *fai(hi)nama* as a fifteenth adjective. I prefer to treat it as nonce form *fai* followed by the adjective *hinama*.

Just two adjectives have distinct gender forms, *bite/bití* ‘small’ and *one/owa* ‘another’. The actual forms are different from each other, and from almost all other gender pairs in Jarawara although, as pointed out in §11.1.5, there is formal similarity between *one/owa* and *hine/híwa* ‘just’. For ‘small’ Dení has *bede-ní/bedi* and for ‘another’ it has *oni’i/owa’a*, whereas for ‘other’ Kulina has *onini/oni’i* (with *owa’a* as a free noun), suggesting that these may have been irregular forms in proto-Arawá.

Adding to the stock of fourteen monomorphemic forms, there are a small number of derived adjectives. A semi-productive process which involves adding *-bote* to a verb appears both to derive an adjective and to add an intensive meaning. From verb *-hiwa-* ‘be hot’ is formed adjective *hiwa-bote* ‘very hot’, as in the copula clause:

- (11.56) [jama]_{CS} [hiwa-bote]_{CC} {ama-ke}
 thing(f) be.hot-VERY be-DECL
 the weather (lit. thing) is very hot

All the verbs attested with *-bote* are intransitive and inflecting, referring to states. They include ‘be cold’, ‘be strong’, ‘be strong tasting’, ‘be good’, ‘be mean, nasty’, ‘be angry’, ‘be tall’, and ‘be many’.

Corresponding to intransitive verb *-amosa-* ‘be good’, there is the derived adjective *amosa-wi* ‘very, very good’ (we were told that this indicates a higher degree of excellence than *amosa-bote*). This suffix *-wi* is not attested with any other word.

Derived adjectives may function as copula complements, as in (11.56), but not as modifiers within an NP.

Most of the other concepts that are expressed through adjectives in languages with a large open class of adjectives are coded as verbs in Jarawara. This includes terms referring to colour, speed, physical properties (such as ‘be wet’, ‘be hot’, ‘be sharp’, ‘be tired’), human propensities (e.g. ‘be happy’, ‘be angry’, ‘be afraid’), and numbers. There are also verbs relating to dimension (‘be high’, ‘be far’, ‘be deep’) and to value (‘be good’, ‘be all right, acceptable’). Modification of a noun by an adjectival verb is generally achieved through a dependent clause construction, as illustrated in (18.54).

And some adjectival concepts are coded through PNs; for example orientation terms (‘inside’, ‘middle’), physical property (‘rotten, spoiled’, ‘naked’), and quantification (‘all’). For some concepts, periphrastic means are employed. For example, a description ‘courageous’ involves the PN *habi/habo* ‘aerial root, tendon’, used in the extended sense ‘courage’, as subject of the verb *-kowi-* ‘be deep’; literally ‘[his] courage is deep’.

11.2.2 Grammatical functions

Adjectives can function at two slots within an NP, or as the sole constituent of a copula complement. Taking these one at a time.

(I) Modifier within an NP. Most frequently, an adjective (in slot Bii from table 10.1) follows the head noun (which is in slot B), as in (11.49–55) and:

- (11.57) [Jara botee]_A era haa-ka
 Branco(m) old incO call.to-DECM
 the old Branco calls to us

The adjective *jokana* modifies a pronoun in the Jarawara's auto-denomination *ee jokana* 'we, the real people'. And note that an adjective may modify a complement clause which functions as head of an NP—see (17.51).

The other possibility for occurrence within an NP is slot Ci, immediately following a PN (in slot C) which is itself modifying the head noun, as in (10.71) and:

- (11.58) [Jobeto tomene ehebotee]_{CS} ama-ka
 name(m) size+m big be-DECM
 Jobeto is big (lit. Jobeto's size big is)

In (11.59) the adjective follows two PNs:

- (11.59) [Jara teme bako ehebotee]_{CS} ama-ka
 Branco(m) foot+m underside+m big be-DECM
 the Brancos have big soles on their feet

Compare these with (11.60), where the adjective *ehebotee* (in slot Bii) follows the head, and is itself followed by a PN (in slot C):

- (11.60) [bani ehebotee tone]_{CS} ama-ka
 animal(m) big bone be-DECM
 they are the bones of a big animal

There is a further example of an adjective followed by a PN at 11.51.

An NP can include a sequence of PNs and any one of them may be modified by an adjective. In (11.61)—which repeats one variant of (9.39)—we get 1sg *o-* as NP head, followed by two PNs ('head' and 'hair'), then adjective *bite* 'small', then another PN 'all':

- (11.61) [o-tati kone bite nafi]_S sawa.wa kawaha-ke
 1sg-head hair small+f all be.white.REDUP FOR.A.WHILE-DECf
 all of my little head hairs are getting white now

An alternative analysis could be offered for (11.58–9), in which *ehebotee* is an NP in CC function. However, (11.61) is syntactically unambiguous, clearly illustrating an adjective following a PN within a core NP.

The corpus does not include any example of an adjective in slot Bii and one in slot Ci, within the same NP.

Although Jarawara has a small class of adjectives, two or even three can be used together in an NP. In (10.47) we get *botee* 'old' followed by *one* 'another' modifying *fatara* 'garden'. Once, when the Casa Nova youths were having to use a small children's ball for their football games, I offered to buy a proper football for them, and was told to say:

- (11.62) [bora jati jokana]_O o-kanika-bana o-ke
 ball(m) new real 1sgA-buy-FUTf 1sg-DECf
 I'll buy a proper, new ball

On another occasion, Motobi and I visited the Jamamadí village and the batteries on my small tape recorder ran out. A few days later Motobi noticed the recorder in operation again and

used a string of three adjectives after the head in surmizing that I had inserted:

- (11.63) [bija bite one jati]
 battery(f) small+f another+f new
 lit. new other small batteries

In an account of a hunting expedition, a small woolly monkey is seen. One man says that it is not worth shooting and declares his intention of looking for *wafa ehebotee jokana taa*. In this NP, the free noun *wafa* ‘woolly monkey’ is modified by adjectives *ehebotee* ‘big’ and *jokana* ‘real, prototypical’; the NP is completed by the contrastive marker *taa* (see §10.1.2).

When elicitation was directed to what might be the preferred order of adjectives, it was consistently stated that both orders were equally acceptable, e.g. *bija botee howe* (battery old large-type) and *bija howe botee* are equally acceptable, as are *bite botee* (small old) or *botee bite* to describe a fruit.

(2) As copula complement. A copula clause can have just one argument, in copula subject function, e.g.

- (11.64) okoto_{CS} ama-ke
 1sgPOSS+daughter(f) be-DECf
 I have a daughter (lit. my daughter is)

Or it can have a second argument, in copula complement function; this comes between the copula subject NP and the copula verb, as in:

- (11.65) okoto_{CS} birototo_{CC} ama-ke
 1sgPOSS+daughter(f) pilot be-DECf
 my daughter is a pilot

Now a copula complement can be a full NP or just an adjective, as in:

- (11.66) faja_{CC} ama o-ke
 enough be 1sgCS-DECf
 I (have said) enough (lit. I am enough) (said at the conclusion of a story)

- (11.67) jifari_{CS} tati_{CC} ama-ke
 banana(f) unripe be-DECf
 the banana is unripe

Note that an adjective can also be modifier within the subject NP of a single-argument copula clause, as in:

- (11.68) [jifari tati]_{CS} ama-ke
 banana(f) unripe be-DECf
 it is an unripe banana (lit. an unripe banana is)

The sentence *jifari tati ama-ke* is thus ambiguous between the parsing and meaning in (11.67) and those in (11.68); it would be likely to be disambiguated by the discourse context.

11.2.3 Distinguishing adjectives from possessed nouns

At first blush, adjective and PN have rather similar grammatical properties; most basically, both may follow the head of an NP. There are, however, a number of criteria for distinguishing them.

(1) *Place with respect to mee within an NP.* It will be seen, from the statement of NP structure in table 10.1, that the augment modifier *mee* (in slot Biii) will follow an adjective (in slot Bii), but precede a PN (in slot C). That is, we can have adjective-plus-*mee*, as in

(11.69) haaha_{CS} [bani howe mee]_{CC} ama-ke
 THISf animal(m) large.type AUG be-DECLf
 these are animals of a large type

And we can get *mee*-plus-PN, as in:

(11.70) [Jara mee tame]_{CS} ama-ke
 Branco AUG foot+f be-DECLf
 the Brancos' feet

Note that we cannot get PN-plus-*mee*. That is, **Jara teme mee* is ungrammatical. (This is a consequence of the fact that, as pointed out in §10.1.5, an NP including a PN counts as inanimate, and *mee* can only be applied to animates.)

We can, of course, get adjective (slot Bii)-plus-*mee*-plus-PN, as in *Jara howe mee tame* 'the feet of the large type of Brancos' and *mee*-plus-PN-plus-adjective (slot Ci), as in *Jara mee tame howe* 'the large type feet of the Brancos'.

(2) *Possibilities as copula complement (CC).* A CC can be an NP (with the full structural possibilities set out in table 10.1) or just an adjective. It cannot be just a PN. That is, an adjective can make up a complete CC or can modify a noun within an NP which is CC, but a PN can only modify a noun within an NP which is CC.

It was mentioned that, corresponding to the adjective *botee* 'old', there is a PN *boteri/boteri* 'oldness'. These can be used to illustrate the different possibilities for adjective and for PN within a copula clause. Using the adjective *botee*, one can say both:

(11.71) Jowao_{CS} botee_{CC} ama-ka waha
 name(m) old be-DECLm NOW
 João is now old

(11.72) Jowao_{CS} [iti botee]_{CC} ama-ka waha
 name(m) grandfather old be-DECLm NOW
 João is now an old grandfather

Using the possessed noun *boteri/boteri* we can only have a sentence corresponding to (11.72), where the PN modifies the noun *iti* 'grandfather, elderly relative':

(11.73) Jowao_{CS} [iti boteri]_{CC} ama-ka waha
 name(m) grandfather old be-DECLm NOW
 João is now an old grandfather

We cannot have a sentence corresponding to (11.71) where *boteri* makes up the whole CC. That is, **Jowao boteri ama-ka waha* is unacceptable.

(3) *Gender marking within an NP.* Only two adjectives show distinct f and m forms, but these provide a third criterion for distinguishing adjectives from PNs.

Recall from table 11.2 that if two PNs follow a 1/2 nsg pronoun, each must be in m form, as in:

(11.74) ee mano bako
 1incposs arm+m inside+m
 our (inc) inside arms

We can examine what happens when a 1/2 nsg pronoun is followed by a PN and then an adjective. The PN is in m form, as expected, but the adjective is in f form. Examples include:

(11.75) ee taboro one, and not *ee taboro owa
 1incPOSS village+m another+f 1incPOSS village+m another+m
 our other village

(11.76) ee teme bite and not *ee teme biti
 1incPOSS foot+m small+f 1incPOSS foot+m small+m
 our small feet

If *one/owa* and *bite/bit* were PNs, they would be in m form in these NPs. Examples (11.75–6) point to a crucial difference between the gender assignment for PNs and for adjectives within an NP. That for PNs is complex, and is set out in table 11.2. That for adjectives is simple. Just as a pronoun in pivot function requires f agreement within the predicate, so it requires f agreement on a modifying adjective within its NP (whether or not a PN intervenes between pronominal head and adjective).

This provides further support for the conclusion, reached in §10.1, that, in an NP such as *o-mano* ‘my arm’ or *ee teme* ‘our feet’, it is the pronominal possessor (here *o-* and *ee*) which is NP head. Both *mano* and *teme* are in m form and if they were head we should expect a following adjective to be in m form. The adjective is actually in f form, this being determined by the pronominal head of the NP.

(4) *Ordering within a sequence of adjectives or of PNs.* It was mentioned that if an NP includes more than one adjective, these may occur in any order with no apparent difference in meaning. In contrast, PNs generally occur in a fixed order, which is semantically determined. For example, *fowa bete maho* (manioc(m) rotten+m smell+m) ‘the smell of rotten manioc’.

However, this is a less sharp criterion than (1–3). There can occasionally be fluidity in the ordering of PNs. For example, we have heard *fowa maho bete*. Strictly speaking, this should mean ‘the rotten smell of manioc’, implying that all manioc has a bad smell. But all manioc does not have a bad smell and this piece of common knowledge ensures that *fowa maho bete* is understood as ‘the smell of rotting manioc’, despite the liberty which a speaker took with the ordering of PNs in this instance. (Speakers considered *fowa maho bete* and *fowa bete maho* to be equally acceptable, and to have the same meaning.)

Although the distinction between PNs and adjectives is fairly clear, it is not absolutely clear-cut. I have found *hinita* ‘empty, alone’ used like an adjective in most circumstances but like a PN in some (for example, following augment modifier *mee* within an NP). And the PN *kori/koro-ne* ‘nakedness, lack of cover’ appears sometimes to behave like an adjective (being followed by *mee* within an NP). It was mentioned that *one/owa* ‘another’ may function both as a free noun and as an adjective; there are, in addition, just a few instances where it appears to behave like a PN. The word classes set up for Jarawara are fairly self-contained, but there appears to be a little overlap between them, with *hinita*, *kori/koro-ne*, and *one/owa* each having a foot in more than one class.

11.2.4 Distinguishing adjectives from nominalized verbs

There are three intransitive verbs with meanings similar to the adjectives *tati* ‘(fruit) full-sized but not yet ripe and ready to eat’ and *kini* ‘small, immature (fruit) which has not yet reached its full size’. They are:

- hata- ‘be ripe, mature’
- kaha- ‘be roasted’
- haro- ‘be boiled’

The verb *-hata-* is used of fruit which has come into an edible state naturally; it falls into the same semantic system as *tati* and *kini*. The other two verbs are used to describe the two ways of making fruit, meat, or fish edible by cooking.

These three verbs are typically used in complement clauses or in other nominalized frames. There is then no formal change to *-haro-* but the final *a* of *-kaha-* and *-hata-* changes to *i* and the forms become *-kahi-* and *-hati-*. These have similar meanings to adjectives but there are grammatical differences. Consider a sentence:

(II.77) *aba mee kahi to-ha mee awine-ke*
 fish(m) AUG be.roasted+NOM AWAY-become+f 3NSG SEEMSF-DECf
 it seems that there is roasted fish

Now if *kahi* were a (simple or derived) adjective it would have to precede augment modifier *mee* (see table 10.1). The only possible analysis of (II.77)—which was given before as (7.21)—is for *aba mee kahi* to be a nominalized clause which is subject of the copula verb *-ha-* ‘become’. Within the nominalized clause, *aba* is S NP, *mee* is 3NSG pronoun in S function, and *-kaha-* is the verb, its final *a* changing to *i* as the mark of nominalization. The full parsing of (II.77) is:

(II.77') [*aba_S mee kahi*]_{CS} *to-ha mee awine-ke*
 fish(m) 3NSGS be.roasted+NOM AWAY-become+f 3NSG SEEMSF-DECf
 it seems that there is roasted fish (lit. fish being roasted appears to become)

That is, the semantic field which describes foodstuffs as being raw or ripe, raw or cooked, involves two adjectives (*tati* and *kini*) and three verbs (*-hata-*, *-kaha-*, and *-haro-*). And, as mentioned in §II.2.1, there is also the verb *jati-na-* ‘be alive, be raw (not sufficiently cooked)’ (which is probably diachronically related to the adjective *jati* ‘new, young’). We have seen that the nominalized forms of the verbs have different grammatical behaviour from the adjectives.

A related question concerns distinguishing between two verbs which have similar meaning and form:

-hata- ‘be ripe, mature’
-hati- ‘be burnt’

It is worth investigating whether *-hati-* can be analysed as a nominalized form of *-hata-* (bearing in mind that in some languages a single lexeme covers both ‘be ripe’ and ‘be burnt’). In fact it cannot. The form *-hati-* is a verb root, like *-hata-*. It can function as predicate head, as in (II.78), parallel to *-hata-* as predicate head in (II.79).

(II.78) *jifaris hati-ke (jifo jaa)*
 banana(f) be.burnt-DECf fire(f) PERI
 the banana is burnt (by the fire)

(II.79) *jifaris hata-ke*
 banana(f) be.ripe-DECf
 the banana is ripe

The verb *-hata-* can be nominalized as *-hati-*, but only when functioning in a nominalized clause, as in (II.80), where the nominalized clause is subject of the copula verb *ama*.

(II.80) [*jifari hati*]_{CS} *ama-ke*
 banana(f) be.ripe+NOM be-DECf
 it is a banana which is ripe

That is, we cannot get, with *-hati-*, the nominalized form of ‘be ripe’, **jifari hati-ke*. (There is an example of *-hati-* ‘be ripe’ in a complement clause in O function in (5.57).)

The Banawá dialect retains a distinction between *d* and *t*, which has been lost in Jarawara. The corresponding forms in Banawá are *-hada-* ‘be ripe, mature’ and *-hati-* ‘be burnt’. This difference in form in Banawá (and, presumably, in proto-Madi) supports the conclusion that these are two quite distinct verbs.

APPENDIX: LIST OF POSSESSED NOUNS

Entries are organized in the following way:

Code, f form/m form//free noun (if there is one) [etymology, with proto-Arawá reconstruction from Dixon 1995, forthcoming *b* shown by *; and etymological notes], if attested, whether sg pronominal forms are *o-* (and *ti-*) or *oko* (and *tika*), which are followed by m PN unless stated otherwise

central meanings (and meaning of free noun if different)

- examples of use
- combination(s) with other PNs, where — indicates this PN, and the other PN is identified by (code)
- related verb (abbreviations as for Vocabulary, see p. 615)

PA, Orientation

PA1, nokosi/nokosi [*nokhoshi-ni/ne, probably related to PCb3 nokho-ni/ne, eye, face],
o- before (in space or time), in front of

- o-nokosi jaa, (he walked) in front of me; okobi mee kobo to-ka-na-makiha mee nokosi jaa, (my brother died) just before my parents arrived

PA2, nowati/nowati, o-

after (in space or time), behind

- otaa nowati jaa, (they followed on) behind us

PA3, tosi/tosi, o-

behind part, waist

- [makakora tosi]_S baka to-na-ke, the makakora snake’s back is broken; oko makari tosi, back of my (trouser) waist
- — bari/bari (PA8), lower back, hip
- verb, tosi -na-, int, break in the middle, fart

PA4, mese/mese, o-

top surface of

- boroko mese jaa, (the chicken is sitting) on top of the pig
- verb, -ke-mese-, int, lie on top of

PA5, baki/bako [*bakho-ni/ne], o-boko

underside, inside surface, chest, width (of cloth)

- mase bako, chest of a mutum bird; titisa baki, inside of bow; and see T3.22
- — hoti/hoto-ne (PB13), hollow in chest (xiphisternal notch); — hasosori/hasosori, burp; and see PCb3, PCd3, PCd5, PCe3
- verb, -bakomisa-, int, lie chest up (inherent inclusion of verbal suffix -misa-, up)

PA5a, hasosori/hasosori, only attested in baki/bako hasosori/hasosori, burp

- may relate to verb hasoso -na-, int, be a breeze

PA6, neme/neme//neme [**neme-ni/ne*], o-neme-ne, ti-neme-ne (but ee neme)

top/upper part of, above (free noun neme, sky)

- o-neme-ne jaa, above me; Manira neme jaa, (I was lying in a hammock) above Manira; makari neme, shirt; and see PK3
- verb, -neme(ha)-, int, be high, tall

PA7, bofe/bofe//bofe [**nabopa-ni/ne*], o-

bottom/lower part, below (free noun 'ground')

- o-bofe, space below me; makari bofe, trousers

PA8, bari/bari, o-

outer surface, outer part; back, behind

- karafato bari, back of tape recorder; titisa bari, outside of bow; bari kaa jaa, (he fell) backwards; and T3.2, part of bark of tree cut out for bark canoe
- see PA3, PB8, PCc1, PCd1, PCd5, PCe3

PA9, boti/boti [**bodi-ni/ne*], oko-

inside of, deep part

- faha boti jaa, under the water
- see PF1

PA10, tori/toro [**doro-ni/ne*], o-

inside of; abdomen

- rako tori jaa, (set nets) in the middle of the lake; jobe toro, inside of house; faha tori, stream bed; wami tori, hole in ground; atami tori, cave (lit. hill inside); and see T3.49
- — kome/kome-ne (PE2), labour pains

PA11, ibotori/ibotori

side of

- faha ibotori jaa, by the side of a stream; jobe ibotori, beside the house

PA12, baikani/baikani

middle

- faha baikani jaa, in the middle of the river; awa baikani jaa, in the middle of the garden; and see T3.4
- see PCd5

PA13, eenoki/eenoki, oko eenoki and o-w-eenoki are both attested

middle, waist

- eenoki wara hi-na-haaro, he grabbed her by the waist; jama soki eenoki jaa, in the middle of the night; baraja eenoki jaa, in the middle of the beach

PA14, beheri/beheri [may be related to PCc6, behe/behe, crotch], o-

side, beside

- babeo beheri, the other side of the paper
- verb, behe -na-, O, turn opposite way from normal orientation; a sentence with both verb and PN is: abohi_s behe to-na-hara-ke fahi, [[awa beheri] jaa], the rotten (alligator) was lying on its side next to a log

PA15, kowani/kowani

other side, far side

- Foro kowani jaa, (he sat) on the other side of the Purús River; kowani kaa jaa (monkeys jump from tree to tree) along the side (of the path)

PA16, ate/ete [**ade-ni/ne*, homonym with PCb2, ate/ete, forehead < **atha-ni/ne*]
trunk, stalk, edge

- [atami ete jaa] ki.kii o-waha-ma-hara o-ke, on the hill bank I saw them (a long way off); kimi ete, cob of corn; jifari ate, banana stalk
- — mate/mete (PB8), front of waist; and see PCe2

PB, Whole and part

PB1, nafi/nafi [**na'bi(ha)-*], oko
all

- meefanawi nafi, all the women; tati nafi, all of his head (was bald); [oko nafi]_s bosaro na-ro o-ke, I had sores all over (lit. all of me had sores)
- verb, -nafi-, int, be big, large

PB2, boni/bono [**bono-ni/ne*; homonym with PCb7 boni/bono, upper lip, beak, snout; these may have been homonyms in proto-Arawá]

whole thing, fruit

- makari boni, cloth in roll; faha (PK1) boni, ice; awa boni, fruit of tree
- see PCc2, PE5
- verb, -bono-, int, (tree) produces fruit

PB3, kote/kote [**kota-ni/ne*]

piece of, section of, part of

- mano kote to-ha-haari, his arm was a stump (after the alligator had bitten it); Hirina hawi (PM3) kote kaa jaa, along a section of the Hirina road
- verb, kote -na-, tr, divide up

PB4, ibe/ibe

piece of, half of

- borokoo ibe, half a pirarucu (fish); babeo ibe, piece of paper; makari ibe, piece of cloth (e.g. when torn off)
- verb, i'.ibe -na-, int, be reduced to a piece

PB5, ibisiri/ibisiri

small piece

- borokoo ibisiri, small pieces of pirarucu (fish)

PB6, tahi/tahi [**tahieri-ni/ne*]

sliver (of wood), splinter; song

- bani mee tahi, song about animals

PB7, soke/soke-ne

residue after preparation of vegetable

- fowa sokene ama-ka, residue after preparation of bitter manioc

PB8, mate/mete [**mata-ni/ne*], o-

back end of, buttock, stump

- awa mate, tree stump; see T3.31, 40, end of canoe
- — bari/bari (PA8), buttocks; — tone/tone (PCa2), hip bone; and see PA16, PB13, PCb1, PCb12

PB9, kobabari/kobabari [**khobabari-ni/ne*]

joint of bone or bamboo, knot on tree

- see P*Ce*2

PB10, batori/batori

joint of two bones, juncture of rivers (note free noun *bato*, downstream)

- Mamori batori jaa, at the mouth of the Mamori River
- see P*Cc*6, P*Cd*3

PB11, aboni/abono [**abono-ni/abono-ne*]main part of, real thing, e.g. *sitati aboni*, city centre

- *katoso aboni*, loaded shotgun shell

[Each animal and plant has a spirit, referred to by *abono*; it is always *m*, irrespective of the gender of the noun describing the animal or plant. This *abono* appears to be a free noun, which can function in slot *Bi* of table 10.1; see (*aii*) in §10.1.1. For example, the spirit of *jifari* (f) ‘banana’ is *jifari abono*, which is *m*.]

PB12, *afone/afone//afo* [**aphone-ni/ne*]

soft part in middle of something

- *fare afone*, heart of assai palm
- see P*Cb*1

PB13, *hoti/hoto-ne//hoti* [**hodi-ni/ne*; PN underwent vowel assimilation *hoti* > *hoto*; free noun and verb retain form *hoti*]

hole, opening

- *sako hoti*, mouth of bag; *faha hoti*, old stream course; *jama hoti*, basin; *oko makari mate* (PB8) *hoti jaa*, in my hip pocket
- see P*A*5, P*Cb*4, P*Cb*6, P*Cb*12, P*Cc*7
- verb, *-hoti-*, int, have a hole

PB14, *tome/tome-ne*

size; measuring thing

- *sirikaa tomene*, weight for use on scale when weighing rubber
- verb, *tomi -na-*, O, be equal in measure to, measure, weigh

PC, Body parts

*PCa, General body parts*P*Ca*1, *kone/kone//kona* [**kona-ni/ne*], *oko*

hair (unmarked reference is body hair, e.g. on arms); fur

- *majawari kone*, fur of *titi* monkey
- see P*Cb*1, P*Cb*3, P*Cb*7, P*Cb*10, P*Cc*6, P*Cd*2

P*Ca*2, *tone/tone//tona* [**tona-ni/ne*], *oko*

bone

- see PB8
- verb, *tone.tone -na-*, int, be skin-and-bones

- PCa3, atari/ataro [*atero-ni/ne or *etaro-ni/ne; atori/ataro in Janawadi], oko
skin; scales (on fish); bark (on tree), outer shell on fruit, leather of football
- awa atari, tree bark (T3.47); kobaja ataro, peccary skin (T2.21); jawita ataro, shell of peach palm fruit; bora ataro, leather of football
 - see PCd5, PCe3
- PCa4, habi/habo [*habo-ni/ne], o-bo
tendon, muscle; aerial root of tree; courage
- see PCd3
- PCa5, kowisari/kowisari
muscle
- see PCd3
 - verb, -kowisa-, int, be hurt (e.g. throat)
- PCa6, ame/eme-ne//ama [*ama-ni/ne], oko
blood, menstruation; sap of some trees
- PCa7, jehe/jehe-ne//jaha [*jaha-ni/ne], oko
fat on animal, lard, oil
- kete-hene ama-ke [jaha jaa], it needs to be lubricated with oil; awi jehene, fat on a tapir; mowe jehene, milk of a brazil nut
- PCa8, atahone/atahone
pus, sap, resin, latex
- sofa atahone, latex from the sorva tree; Kahamina noko atahone, pus from Kahamina's eye

PCb, Head

- PCb1, tati/tati//tata [*da'di-ni/-ne], o- [the free noun tata is only attested in the compound tata kona, head hair]
head, upper end; top (e.g. of pineapple plant, or of tree); roof of house; either end of aeroplane runway, prow of canoe
- awa ini (PD4) tati jaa, at the top of the branches of the trees; atami tati bono, top of hill; mowe tati, large outer nut of brazil nut (named because it is round like a head); and see T3.16
 - — mate/mete (PB8), back of head; — kone/kone//koba (PCa1) head hair; — mate/mete kone/kone, hair on back of head; — afone/afone (PB12), brains; — atori/atori (PJ4), head decoration
- PCb2, ate/ete [*atha-ni/ne, homonym with PA16, ate/ete 'trunk, stalk, edge' < *ade-ni/ne], o-w-ete
forehead
- PCb3, noki/noko [*nokho-ni/ne], o-,
eye, face; end of long object, seed; small battery (f)
- kitora noki, spool of thread; jifo noki, live coal
 - — baki/bako (PA5), side of face, temple; — masiri/masiri kone/kone (PCa1), eyelash; — jowahari/jowahari kone/kone, eyebrow; — bori/borone (PJ1), eyelid (extended to: lid of

anything); — fehe/fehene (PK1), tears; — kori/korone (PE6), eyeball; and see PCe2, PCe3, PCf2, PK4, notes to PCf, PCh

- verb, -noko-, int, be awake

PCb3a, masiri/masiri, only in noki/noko masiri/masiri kone/kone, eyelash

PCb3b, jowahari/jowahari, only in noki/noko jowahari/jowahari kone/kone, eyebrow

PCb4, witi/witi [*wiridi-ni/ne], o-

nose; edge of stream or forest; button on machine

- faha (PK1) witi, bank of stream; awa witi, (we'll burn) the edge of the forest
- — hoti/hotone (PB13), nostril; and see PCe2

PCb5, ini/ino [*ino-ni/ne; homonym with PD4, branch, and PF3, name—see those entries and Dixon 1995: 280, forthcoming b], o-w-ini

tooth, blade of a tool

- — tabori/taboro (PM1), gums
- verb, -ino-, int, be sharp

PCb6, inohoti/inohoti [compound of PCb5, ini/ino and PB13, hoti/hoto-ne, lit. mouth-hole, but now a separate lexeme with no gender contrast, and different mechanism for 1sg, 2sg possessor], o-nohoti

mouth

- karafato inohoti, speaker on tape recorder
- — fehe/fehene (PK1), saliva (lit. mouth liquid) (in T2.90)

PCb7, boni/bono [*bono-ni/ne; homonym with PB2 boni/bono, whole thing, fruit; these may have been homonyms in proto-Arawá], o-

upper lip, beak, snout

- kanawaa tati boni, prow of canoe (in T3.30); majatera tati boni, end of gill-net
- — kone/kone (PCa1), moustache

PCb8, ifi/ifo [*ipo-ni/ne], o-w-ifi

lower lip, edge, side, hem

- hoti ifi, side of grave (in T1.70); kanawaa ifi, side of canoe

PCb9, abate/ebete [*abatha-ni/ne], o-bete

tongue, cheek

- Manira ebete, Manira's tongue

PCb10, anate/enete [*kanada-ni/ne], o-nete

chin

- — kone/kone (PCa1), beard on chin

PCb11, enekeri/enekeri, o-nekeri

jaw(bone), gill

PCb12, narabi/narabo and warabi/warabo (forms in free variation) [*naribo-ni/ne; narabi/narabo in Jamamadí dialect, warabi/warabo in Banawá dialect, both forms in Jarawara; note vowel change a i o > a a o], o-

ear

- otaa narabo hawiha otaa-ke, we could hear all right (lit: our ears were working); karafato narabi, tape-recorder microphone

- — mate/mete (PB8), base of ear; — awe/ewene (PD1), horn (of animal); — hoti/hotone (PB13), ear hole
- complex verb, [X —]_O nima, tr, want to talk to, ask to do, e.g. o-narabo_O mee nima na, they wanted to talk to me

PCc, Neck and trunk

PCc1, namiti/namiti [*TaBidi-ni/ne, see Dixon 1995: 286, forthcoming *b*], o-neck, throat

- — hotokori/hotokori, throat; — wari/wari, nape; — bari/bari (PA8), back of neck; and see PCe2

PCc1a, hotokori/hotokori, only in namiti/namiti hotokori/hotokori, throat

PCc1b, wari/wari, only in namiti/namiti wari/wari, nape

PCc2, johari/johari//joha [*johari-ni/ne], oko breast

- — boni/bono (PB2), main body of breast; — noki/noko (PCb3), nipple (lit. breast eye); — fehe/fehene (PK1), mother's milk

PCc3, tahari/tahari, oko rib

- oko tahari ama-ke, it's my rib

PCc4, nabati/nabati, o-belly, stomach

- faha nabatiri, deep place in stream (form nabatiri appears to be used just with faha, water, stream)
- — kome/komene (PE2), stomach pain (e.g. labour pains); see also PCe2, PCg1

PCc5, sobori/sobori [*shobori-ni/ne], oko sobi and oko sobori are both attested navel

PCc6, behe/behe [*baha-ni/ne], o-crotch, new leaves on palm which cover fruit

- — batori/batori (PB10), hip; — kone/kone (PCc6), pubic hair

PCc7, jotohoti/jotohoti, or jototi/jototi [compound of PCg1 joti/joto, faeces, shit, and PB13 hoti/hotone, hole, i.e. shit hole; now being reduced by loss of third syllable], oko

anus, bum, rear end

- see T2.66

PCc8, jotomiri/jotomiri(ne) [compound whose first element is PCg1, joti/joto, faeces; second element unattested elsewhere], oko small intestine

PCc9, batasi/batasi, o-middle of back

- see (15.20)

PCd, Shoulder and arm

PCd1, ijori/ijori, o-wajori shoulder

- — bari/bari (PA8), back of shoulder

PCd₂, faroboti/faroboti, o- [one speaker gave fariboti/fariboti]
armpit

- jobe faroboti, rafters (lit. armpit of house)
- — kone/kone (PCa1), armpit hair; — mahi/maho (PE4), armpit smell

PCd₃, mani/mano, o- (the Jamamadí dialect has o-mono but Jarawara has o-mano)
arm, front paw; shirt sleeve

- faha mani, tributary of river; jifari mani, bunch of bananas; o-mano_O kini o-ko-mati-be, I'll just roll up my shirt sleeve
- — tehekani/tehekani, inside of elbow; — baki/bako (PA5), inside of arm; — batori/batori (PB10), (top of arm at) shoulder, e.g. o-mano batori, my shoulder; — habi/habo (PCa4), tendon in arm, e.g. o-mano habi, tendon in my arm; — kowisari/kowisari (PCa5), arm muscle, e.g. o-mano kowisari, my arm muscle; — afe/efe (PD8), bird's wing (lit. arm feather)

PCd_{3a}, tehekani/tehekani, only in mani/mano tehekani/tehekani, inside of elbow

PCd₄, jokohori/jokohori, oko
elbow; stinger on wasp

PCd₅, jehe/jehe, (often shortened to je/je) [*japa-ni/ne], o-
hand

- jehe bati, thumb (lit. father of hand); jehe mati, knuckle at base of fingers (lit. mother of hand)
- — tonokori/tonokori, knuckle; — jotofi/jotofi, base of palm of hand; — baki/bako (PA5), palm, inside of hand; — bari/bari (PA8), back of hand; — baikani/baikani (PA12), middle three fingers; — atari/atara (PCa3), fingernail, claw on animal; — tabi/tabu (PH6), wrist; — hone/honene (PH5), instrument, tool, weapon (lit. hand possession); — bite/bitu (adjective 'small'), little finger; — ehebotee (adjective 'big'), thumb

PCd_{5a}, tonokori/tonokori, only in jehe/jehe tonokori/tonokori, knuckle

PCd_{5b}, jotofi/jotofi, only in jehe/jehe jotofi/jotofi, base of palm of hand, and in tame/teme (PCe3) jotofi/jotofi, heel

PCe, Leg and foot

PCe₁, fanaki/fanako [*panakho-ni/ne], o-fanoko
thigh

- see T2.72

PCe₂, isi/iso [*isho-ni/ne], o-w-isi
lower leg, stalk, handle

- makari isi, trousers, pants; fowa iso, manioc stalk; bari isi, axe handle; faha isi, visible rain
- isi/iso jobati/jobati, knee; — ate/ete (PA16), shin; — namiti/namiti (PCc1), back of knee; — nabati/nabati (PCc4), back of lower leg, calf; — witi/witi (PCb4), knee (lit. nose of lower leg); — kobabari/kobabari (PB9), knee joint (lit. lower leg joint)

PCe_{2a}, jobati/jobati, only in isi/iso jobati/jobati, knee

PCe₃, tame/teme [*dama-ni/ne], o-
foot, back paw of animal, foot of bird, footprint

- tame/teme bati, big toe (lit. father of foot); awi teme, footprint of tapir; moto teme efe (PD8), propeller
- — jotofi/jotofi (PCd5b), heel; — rabi/rabo, ankle; — rabi/rabo noki/noko (PCb3), ankle bone; — baki/bako (PA5), sole of foot; — bari/bari (PA8), top of foot; — atari/ataro (PCa3), toe-nail, bird's claw; — noki/noko (PCb3), toe; — bite/bití (adjective 'small'), any toe (other than big toe); — ehebotee (adjective 'big'), big toe

PCe3a, rabi/rabo, only in tame/teme rabi/rabo noki/noko (PCb3); ankle

PCf, Genitalia

PCf1, sowiri/sowiri, oko sowi
penis

PCf2, tanehe/tenehe [*danapha-ni/ne], o-
scrotum

- tenehe komene, pain in his scrotum (T2.77, 104–6)
- — noki/noko (PCb3), testicles

Note that 'vagina' is jama noko; this consists of free noun jama (f) 'thing' plus (surprisingly) the m form of PN noki/noko 'eye' (PCb3), the whole having f gender; e.g. fana kaa jama noko, woman's vagina.

PCg, Bodily emissions

PCg1, joti/joto//ijo [*joto-ni/ne for f/m forms; *ijo-ni/ne for suppletive free form, see Dixon 1995: 279–80, 284, forthcoming *b*], oko ijo [But ee joto, see §11.1.3. One speaker gave ee kaa ijo in place of the standard ee joto; note the inclusion of kaa with ijo, due to its being a free noun.]

faeces, excrement, shit

- ijo (PM3) hawi, shit path (i.e. path reserved for shitting, at the side of a village); abija mee joti, beeswax
- — nabati/nabati (PCc4), large intestine; — tafe/tefe (PL1), intestines (note that one says oko ijo, my faeces, but oko joto tefe, my intestines); and see PCc7, PCc8

PCg2, jokari/jokari//joka [*jokhari-ni/ne], oko joka
urine, pee

Interestingly, there is no PN (or free noun) 'vomit'. To describe a pool of vomit, one simply uses the nominalization of verb saa -na- 'to vomit', i.e. saa ni.

PCh, Internal organs

PCh1, wahati/wahati and wahatirine/wahatirine (the two forms are said to be equivalent) [*wahati-ni/ne], oko

liver

- awi wahati, tapir's liver; and see T2.22

PCh2, makawari/makawari [form in the Banawá dialect is wakamari], oko
heart

PCh3, sitakari/sitakari, oko
gall bladder

PCh4, hasabori/hasabori [*washabori-ni/ne], oko
lungs; inside of fruit
• kasi hasabori, inside of a gourd

PCh5, siro.noki/siro.noki, oko (the second element in this compound is a homonym of the f form of noki/noko ‘eye’, PCb3)
kidney

PCh6, tabari/tabari, oko
intestines

PCi, Animal body parts

PCi1, hife/hife-ne
egg of bird, fish
• jama hife is a complex free noun; borokoo hifene, pirarucu eggs
• verb, -hifa-, int, brood (of bird)

PCi2, jifori/jifori and jofori/jofori [*jopari-ni/ne], oko
tail (of animal, snake, bird)
• jomee jifori, jaguar tail

PCi3, kokowiri/kokowiri
fatty lump at back of neck on some animals
• awi kokowiri, fatty lump at back of neck on tapir

PCi4, meteri/meteri
breast feathers on a bird

PCi5, bosiri/bosiri
scent gland of peccary
• verb, bosí -na-, int, squirt

PCi6, wasi/waso-ne
scale on fish, pattern on the surface of a football
• aba waso-ne, scale on matrinxão fish; sako.fana wasi, scale on traira fish; bora waso-ne, pattern on football

PD, Parts of plants

PD1, awe/ewe-ne//awa [*aga-ni/ne], oko
stick, beam, handle, post, wood, tree [the free noun does not cover palm trees]
• jobe ewene, house frame (T2.114); and see T3.24, 32
• see PCb12

PD2, mati/mato-ne//mato [*mado-ni/ne], oko
cord, rope (free noun also covers vine and inner bark of tree from which cord or rope is made)
• kabikana mati, fishing line; titisa mati, bow cord
• verb, -mato-, O, tie up (to something)

PD3, botofi/botofi
heartwood (hardest part of a tree, in the centre)

PD4, ini/ino [*ini-ni/ne, changed analogically to be homonym of PCb5, ini/ino, tooth; also homonym with PF3, ini/ino, name—see Dixon 1995: 280, forthcoming b]
branch

- awa ini tati jaa, (the sun was) at the top of the branches of trees; and see PCb1

PD5, mohi/moho-ne

sucker, sprout

- kore mohone, sprouts of a maharaja palm; fatara mohi, weeds (lit. garden sproutings)

PD6, mowe/mowe [*mowe-ni/ne]

flower, blossom

- awa mowe, flowers on a tree; sina mowe, tobacco seeds
- verb -mowa-, int, blossom, flower

PD7, atine/atine//atiwa(m) [possibly *atinV/ati(w)a]

thorn, sliver, spine (can be used of electric eel)

- verb, -atina-, int, be thorny, have spines; a sentence with both PN and verb is: jomati atina-re-ka, atine tama-hare-ka, the electric eel had spines, its spines (small bones) were many

PD8, afe/efe [*apha-ni/ne]

leaf, feather

- wanako afe, butterfly wings; tati efe, individual leaf of palm frond; and see T2.62–3, 84, and (10.46a/b)
- — bakari/bakari, new leaf; — akabori/akabori, young leaf, e.g. wasinoti efe akabori kaba-tee ama-ka, the young leaves of the jutaí tree (wasinoti) are edible; and see PCd3, PCe3

PD8a, bakari/bakari, only in afe/efe bakari/bakari, new leaf

PD8b, akabori/akabori, only in afe/efe akabori/akabori, young leaf

PD9, tomari/tomari

section of bamboo

PD10, jowakari/jowakari

ear of corn

PD11, nore/nore-ne

scum on water, dried sap on trees

- faha nore ama-ke, water with scum on top

PD12, hasakari/hasakari

seedless fruit

- yawita hasakari, a seedless peach palm fruit

PD13, sonari/sonari

unripe fruit (similar meaning to adjective kini, immature, not yet reached full size)

- kimi sonari, unripe corn

PD14, akori/akori

cotton

- wafe akori, the cotton of the wafe plant

PD15, mohari/mohari (note free noun moha, a tree that produces cotton)

cotton

- sarehe mohari, cotton for (tail of blowgun) dart

PD16, botokori/- (this is only attested with the free noun kimi (f), sweet corn, maize)
poor quality corn cob (with just a few kernels on it)

- kimi botokori, sweet corn with few kernels
- note similarity to verb -boto-, int, be old, rot

PD17, arabone/arabone

young fruit on a tree

- jawita arabone, young fruit on peach palm

PE, Physical characteristics and properties

PE1, kakitiri/kakitiri, oko

itch

PE2, kome/kome-ne [*koma-ni/ne], oko

pain, sickness, fever

- jama kome, pain, malaria; and see T2.77 ff.
- see PA10, PCc4
- verb, -koma-, int, be hurt, be hurtful (as poison, or as a boil); be strong (e.g. of cane whisky and spicy pepper)

PE3, tanakone/tanakone [*tanikho-ni/ne; note vowel change a-i-o > a-a-o, and m form being generalized to be also used for f], oko

sweat

- oko tanakone nafi-ke, I'm sweating a lot (lit. my sweat is much)
- verb, tanako -ha-, int, be sweaty, perspire

PE4, mahi/maho [*maho-ni/ne], o-m_oho

smell

- akira mahi, (I can discern) the smell of ginger; and see T2.94
- see PCd2, PE5

PE5, bate/bete [*'batha-ni/ne]

rotten, spoiled

- jao bete maho (PE4), the smell of the rotten sloth (is strong); awa boni (PB2) bate, rotten fruit
- verb, -bata-, int, be rotten

PE6, kori/koro-ne [*khorihā-ni/ne], oko

nakedness, bareness, lack of cover

- tabora kori jaa, in the village square (lit. in the bare place of the village); tati korone, bald head
- see PCb3

PE7, hiwe/hiwe-ne

heat

- jama hiwe, dry (and hot) season; bahi hiwene, the sun's heat (is strong)
- verb, -hiwa-, int, be hot

PE8, siririne/siririne

coldness

- faha (PK1) siririne, coldness that comes after rain
- verb, -siri-, int, be cold

PE9, sinari/sinari

strong tasting

- kafe sinari kita-ke, the coffee has a strong taste; jama sinari amosa-ke, the sweetness of the thing is good (said of tinned peaches)
- verb, -sina-, int, have strong taste (can be very sweet or very sour)

PE10, bitari/bitari

bitterness

- aba bitari kita-ke, the fish is very bitter (lit. the fish's bitterness is very strong)
- verb, -bita-, int, be bitter

PE11, sokirine/sokirine

blackness

- jama sokirine, (there's) a dark thing (in my eye)
- verbs, -soki- and soki -na-, int, be black

PE12, kanahari/kanahari

heaviness

- kanahari ti-mita-jaho!, you feel the heaviness (of the meat)!
- verb, -kanaha-, int, be heavy

PE13, boteri/boteri [derived from adjective botee, old]

oldness, ancestor

PE14, jawari/jawari

being upset, angry

- [noki jawari]_S nafi-haaro, she was very angry (lit. her face being angry is much)
- verb, -jawa-, int, be angry, be jealous over, grieve

PE15, bowawari/bowawari

blowing bubbles (e.g. an alligator)

- verb, bowawa -na-, tr, blow bubbles underwater (O: water)

PE16, kamoniri/kamoniri//kamoni (perhaps only following PF1, ati/ati, voice)

loneliness, homesickness

- [owati kamoniri] kita-hamaro o-ke, I was very homesick (lit. my homesickness thoughts were strong)
- verb kamoni -na-, int, be empty

PE17, fanawiri/fanawiri

female; see §10.5.4

PE18, makitiri/makitiri

male; see §10.5.4

PF, Noise and language

PF1, ati/ati//ata [*athi-ni/ne], o-w-ati

voice, sound, language, talking

- mee ati, (I couldn't understand) their language; Batirii ati ehene, due to what the Padre said; and see T2.121

- — *boti/boti* (PA9), thought, e.g. [owati boti]_S ati na-ro -ke, I thought (lit. my thought spoke); [ati boti]_S ohi ne-mata-mona-ka, he was said to be sad (lit. his thought was said to be crying)
- verb, -ati- na, A and O, speak, say, make noise

PF2, *moni/moni//moni* [*moni-ni/ne], o-
noise, sound

- *faha moni*, sound of the water; *faha abe* (PH1) *moni*, noise of creatures in the water
- verb *moni -na-*, int, make a noise

PF3, *ini/ino* [*oni-ni/ne, retained as *oni/oni* in Jamamadí dialect, but changed in Banawá and Jarawara to be a homonym with PCb5, *ini/ino*, tooth, and PD4, *ini/ino*, branch; see Dixon 1995: 280, forthcoming *b*], o-w-*ini*
name

- *jama ini* is complex free noun, as in *Jomee.kaba jama ini*, the name [was] *Jome.kaba*
- complex verb, [X *ini/ino*]_O *hiri -na-*, tr, ask for X (by saying the name of X), e.g. *owini*_O *mee hiri-ke*, they are asking for me

PF4, *tamine/tamine*, o-
news about

- *sarabo tamine*, (they brought) news about (the) measles (epidemic); *oko ajo tamine*, the news about my elder brother; *owati tamine*, news of what I said

PG, Image and dream

PG1, *hani/hano* [*hano-ni/ne], *oko*
design, decoration, picture

- *jama hani*, writing
- verb, -hano-, int, be striped

PG2, *jome/jome-ne* [*jome-ni/ne], *oko*
indistinct figure

- *awa ini jome*, indistinct representation of branches in water (by reflection)

PG3, *kanamori/kanamori*, *oko*
shadow, reflection, photograph of, spirit

- *ee kanamori*, our shadow, *tikatao kanamori* (I'll look at) the photograph of your son

PG4, *korimari/korimari*, *oko*
spirit, soul

PG5, *watari/watari(ne)//wata* [*wadari-ni/ne], *oko wata* and *oko watarine* both attested
dream

- [oko wata] *ati na-ra o-ke*, my dream spoke; *mee watari*, their dream
- verb, -watami-, int, dream

PH, Association

PH1, *abe/ebe-ne*, *oko*

animal or person inhabiting; often used for 'insect' (with *jama abe* as a complex free noun)

- *Wara abe*, people who live at Wara lake; *awa abe*, beetle that lives in trees

- see PF2
- verb, -aba-, int, be buggy, full of lice; and note noun a'aba, thrush (mouth infection)

PH2, tase/tese-ne [*tesha-ni/ne], o- (oko also attested)

companion of

- see TI.39–40
- verb, tetesene -ha-, int, go with someone

PH3, ejeheri/ejeheri, oko

object used to attract an animal, companion of an animal

- wakowa ejeheri, (that bug is) the companion of a paca (wakowa)

PH4, tehe/tehe-ne [*tasha-ni/ne], oko

seasoning for, something mixed with; minor ingredient of, medicine for, poison

- iha tehene, ingredient of arrow poison, mixed with iha (the poison ingredient); sina tehe, ingredient mixed with tobacco to make snuff; mototo mee tehe, termite poison; jimo tehene, medicine against ant (bite) (T2.86)
- verb, -teha-, tr, apply (e.g. cream to ear)

PH5, hone/hone-ne, oko

possession

- awa hone, dried sap (lit. tree possession)
- jehe/jehe (PCd5) —, instrument, weapon, tool (lit. hand possession)
- verb, hona -na-, int, have something (in hand, if S NP includes PCd5 jehe/jehe, hand); water/jungle (has) animals

PH6, tabi/taboo

cluster, bunch (e.g. of fruit, arrows); houses close together; books on a shelf

- oko jifo taboo, my hammock rolled up
- see PCd5
- verb, taboo -na-, O, curl up, crush, fold a fishing line up concertina-fashion

PH7, tafowe/tafowe

something wrapped up, package

- aba mee tafowe, wrapped bundle of fish; wati tafowe, bundle of arrows with tips (coated with a lethal poison) wrapped (for safety)

PH8, manakone/manokone [*manako-ni/ne; the Jamamadí dialect retains manaki/manako-ne, but in Banawá and Jarawara the m form has been generalized to also cover f (the f form manaki is recognized as archaic)], oko

exchange, recompense, price

- jifari manakone, the price of bananas; [jama nafi manakone]_O o-nahabiha, I'll pay (lit. kill) all the debts (i.e. prices owing); mawa manakone-ba, the recompense for (your taking my) mawa fruit will (be that I should swive (copulate with) you); [jori ni] manakone, the price of a swive, in (8.53)
- verbs -manako-, int, be the exchange for, be the price (of); manako -ha-, tr, exchange, pay back

PH9, nokobiri/nokobiri//nokobi and nokobirine/nokobirone//nokobiri

door, doorway, window

- mee nokobiri, entrance to their (animal's) hole in ground, kaho nokobirine, car door

PJ, Containers and other artefacts

PJ1, bori/boro-ne//boro, oko

insect nest, animal house, container, pen, (small) basket

- arakawa mee bori, hen house; fita bori, box for cassette tape; fowa borone, enclosure in river for soaking bitter manioc
- see PCb3

PJ2, wije/wije-ne [*wijehe-ni/ne; wije/weje-ne in Jamamadí dialect]

container, vessel (e.g. for liquid)

- jama wije, box, basket; sina wije, snuff container; kabikana wije, container for fish-hooks
- note verb weje -na-, tr, carry on back with straps over both shoulders

PJ3, tafi/tafo-ne

having nothing inside, e.g. empty shell, piece of wood whose inside has been eaten by insects

- bora tafone, football with no air in it; irimao tafi, soft lemon
- verb, tafo -ha-, int, be soft

PJ4, atori/atori [Jamamadí dialect appears to have atori/atáro, homonym with PCa3, atori/atáro, skin, fish scales, bark], oko

ornament, decoration

- see PCb1

PJ5, tanarine/tanarine//tana

grill made of sticks for roasting fish or meat

PJ6, tahi/tahi in alternation with tani/tani

hunter's weapon; hunter

- jatika_{CS} [sire tahi]_{CC} ama-ke, a harpoon (jatika) is a weapon to kill river turtles (sire) with; [aba mee tahi]_{CC} ama-ka rafi_{CS}, the hawk (rafi) is a hunter of fish (aba); maka tahi, weapon to kill a snake with; jama tahi, weapon

PJ7, tobe/tobe-ne

slings to carry baby in

- inamatewe fana tobe, slings to carry a female child in

PK, Water, fire, and light

PK1, fehe/fehe-ne//faha [*phaha-ni/ne], oko

liquid, juice, sap, water, stream, rain

- Sorowaha mee fehe batori jaa, (we arrived at) the mouth of the Sorowahá people's stream; sirikaa fehene, rubber tree latex
- see PB2, PCb3, PCb6, PCc2

PK2, rike/rike-ne

wave

- faha rike kita-ke, the waves are strong

PK3, sabi/sabo-ne

foam

- neme (PA6) sabi, cloud (lit, sky foam)

- verb, sabo -na-, tr, to soap, lather (someone) (it is unlikely that either PN or verb is related to Portuguese sabão, soap)

PK4, sararine/sararine//sara

seasonally flooded area

- faha (PK1) sararine, flood water

PK5, jifi/jifo-ne//jifo [*jipho-ni/ne]

fire, firewood

- jifo noki (PCb3), live coals; baro jifi, fire of apunã wood (baro); mowe jifone, firewood from the brazil nut tree (mowe); jifo wehe (PK11), brightness of fire

PK6, hote/hote-ne

smoke, cloudiness

- jama hote, fog; jifo hote, smoke from fire; fowa hotene, smoke from (burning) bitter manioc (fowa); moto hotene, smoke from a motor
- verb, hoto -na-, tr, muddy up (e.g. person muddies up water) (may not be cognate)

PK7, hasawiri/hasawiri

smoke

PK8, nakosiri/nakosiri

ashes

PK9, hobokori/hobokori or homokori/homokori

ashes, dust

- jama hobokori, particles of dirt (in gasoline); jifo hobokori, (she threw away) the ashes from the fire; awa hobokori, sawdust; bisikowito hobokori, biscuit crumbs

PK10, oje/oje-ne

light source, light emitted

- [afiao ojene]_s we.wee to-na na-ka, plane's light is blinking; rabiao oje, the light of a lantern; jifo oje, light of a fire; jama oje, a lighted thing
- verb, -oja-, int, give off light

PK11, wehe/wehe-ne [*waha-ni/ne], oko

brightness of

- jama wehe, dawn (see T1.7, 8); jifo wehe, brightness of fire; abariko wehene, brightness of the moon; oko wehe-ne, my bright clothes (especially at night)
- verb, -waha-, int, shine, become dawn
[note that one can have oke/oje-ne plus wehe/wehe-ne in sequence]

PL, Food

PL1, tafe/tefe [*tapa-ni/ne], o-

food (free noun jamata 'food' is probably a contraction of jama tafa)

- kabikana tafe, bait (lit. fish-hook food)
- see PCg1
- verb, -tafa-, int, eat

PL2, ime/ime [*ima-ni/ne], o-w-ime

meat, soft thing (e.g. soft outer part of a tree, dough)

- boroko ime, pork (lit. pig meat); fowa ime, manioc pulp; sina ime, snuff (lit. tobacco soft stuff); wami ime, dirt (lit. ground soft thing)
- verb, -ima-, int, be fat, be muddy

PL3, saharine/saharine//sahari

broth, mush

- aba saharine, fish broth; ijawa saharine, manioc meal mush

PM, Places

PM1, tabori/taboro//tabora [*tabora-ni/ne; vowel assimilation tabora > taboro for PNs, tabora retained for free noun], o-

home, dwelling place, village, villagers, place of

- [okomi mee tabori]_O o-wato o-ka-re, I don't know my mother's people's home; [otaa taboro ino]_{CS} ama-ke Kasanofa_{CC}, the name of our village is Casa Nova; [Joraci mee tabori] kaa rago, Juraci's people's lake; bari tabori, place where the axe is kept; bowi tabori, pasture for cattle; Kamo taboro, Kamo's home/village and see T2.112
- see PCb5

PM2, boti/boto-ne

place where there is a lot of something

- fowa botone, field of manioc plants; jifo boto-ne, collection of hammocks (lying on the ground), as in (18.10); [mee kaa majatera boti]_S homa na-ni-ni, their gill-nets were lying there
- see PM4

PM3, hawi/hawi-ne//hawi [*hagi-ni/ne], oko

path, trail

- bani hawine, tracks of an animal; sirikaa hawine, rubber trail (trail around a number of rubber trees, to collect latex at each of them)
- see PCg1

PM4, tame/teme-ne//tama, oko

grave for, hole for

- Boniwa temene, Boniwa's grave (T1.51); tama boti (PM2), cemetery (lit. place where there are lots of graves)

PM5, sikirine/sikirine//siki [*shiki- 'sand']

white sand of

- Fahabiri sikirine, white sand of Fahabiri stream

PM6, atabori/atabori//atabo

clay of

- Foro atabori ama-ke, clay of the Purús River

The relational noun *ihi/ehe-ne* (1sg form *o-w-ehe-ne*) 'due to, because of' behaves in some ways like a PN; it is discussed in chapter 22. We also concluded in §§11.1.5–6 that *hine/hiwa* 'just' and the collective/reciprocal forms *abee* and *ibee* are best analysed as PNs.

Demonstratives and Related Forms

§12.1 discusses the forms, meanings, and functions of nominal and spatial adverbial demonstratives. §12.2 then deals with a number of grammatical forms (somewhat like 3rd person pronouns) which have an anaphoric or specifying function. §12.3 examines *fara/fare* ‘the very one’ and *bara/bare* ‘a different one’. Finally, in §12.4 four locational nouns (‘near’ and ‘far’, ‘upstream’ and ‘downstream’) are discussed.

12.1 DEMONSTRATIVES

Demonstratives are here defined as grammatical elements (other than 1st and 2nd person pronouns) which can have pointing (or deictic) function; see Dixon (2003*b*). In Jarawara there are two kinds of demonstratives: (1) nominal, which can occur as a core NP in either pre-predicate or post-predicate position (or within a peripheral NP); and (2) spatial adverbial, a peripheral element which can occur in either clause-initial or clause-final slot.

The forms of demonstratives are set out in table 12.1. Two points should be noted, concerning specification of gender and of visibility:

- Gender. It will be seen that nominal demonstratives may show gender through a final syllable, or they may omit this syllable and just use a gender-neutral form *haa* or *faa*. Adverbial demonstratives do not show gender.
- Visibility. There are two sets of forms for each box in the right-hand column—for a post-predicate nominal or a clause-final adverbial—one with the meaning ‘visible’ and one with ‘non-visible’. (The criterial factor is generally visibility but it is sometimes just distance, with a *fa-* form referring to something that is relatively far.) In contrast, nominal demonstratives in pre-predicate position and adverbials in clause-initial position do not distinguish visibility (or distance).

It is instructive to examine the forms of demonstratives. Since the initial parts of nominal demonstratives in the right-hand column begin with *h* for ‘visible’ and *f* for ‘non-visible’, we

TABLE 12.1 Forms of nominal and adverbial demonstratives

NOMINAL	PRE-PREDICATE NP	POST-PREDICATE NP
	haaha/haahi, and haa ‘this/that’	haaro/haari, and haa ‘this one (visible)’ faaro/faari, and faa ‘this/that one (non-visible)’
ADVERBIAL	IN CLAUSE-INITIAL POSITION	IN CLAUSE-FINAL POSITION
	aja ‘here/there’	ahi ‘here (visible)’ fahi ‘here/there (non-visible)’

might expect the same for adverbials in clause-final position, perhaps *hahi* and *fahi*. In fact we get *ahi* and *fahi*. It is possible that there was an earlier form **hahi* which then lost its initial *h*, but this is pure speculation.

Looking now at the gender-specifying endings, the *-ha/-hi* found on nominal demonstratives in pre-predicate position is identical with the f/m suffix on inflecting verbs (see (III) in §4.5.2). The *-ro/-ri* on nominals in post-predicate position also occurs in dependent clause marking (see chapter 18) and is found in other Arawá languages (see §24.4). It should be noted here that the m nominal form *haahi* can undergo assimilation to *heehi* in the mouths of some younger speakers.

When we look at the relative frequency of the occurrence of demonstratives, those in the right-hand column are used considerably more often than those in the left-hand column, for both nominals and adverbials. Among nominals in post-predicate position, the *haa-* forms are much more frequent than those beginning with *faa-*. In contrast, among clause-final adverbials *fahi* is about two-and-a-half times more frequent than *ahi*. This is undoubtedly due to the fact that, in addition to its deictic function, *fahi* has a pervasive function as marker of discourse organization (*ahi* does too, but to a far more limited extent); see §12.1.2.

It was mentioned in §10.3 that, although a pronoun cannot make up a pre-predicate NP, it can function as a post-predicate NP, and then has *haa* preposed. This *haa* has an emphatic effect, e.g. *haa.'owa* '(I did it all by) myself' in (10.30). The *haa* used with a pronoun in post-predicate position is undoubtedly to be identified with the initial *haa* of a nominal demonstrative. We then have:

	IN PRE-PREDICATE NP	WITHIN THE PREDICATE, PRECEDING ITS HEAD	IN POST- PREDICATE NP
NOMINAL DEMONSTRATIVE	haa(-ha/-hi)	—	haa(-ro/-ri)
PRONOUN, e.g. <i>iinc ee</i>	—	ee	haa.'ee

All 1st and 2nd person pronouns have, by their nature, implicit pointing reference. Adding *haa* to them, when used in post-predicate position, serves to emphasize the identity of this argument of the predicate, e.g. 'it was us'. In similar fashion, the pre-predicate nominal demonstratives *haa(ha/hi)* are glossed as 'this/that' but for those in post-predicate position, *haa(ro/ri)*, the gloss 'this/that one' is preferred.

12.1.1 Nominal demonstratives

One day, I was explaining that a pair of earphones went with a tape recorder, and was told that it was permissible to say either (12.1a)—which repeats (10.37)—or (12.1b).

(12.1a) haaha_{CS} [karafato kaa]_{CC} ama-ke
 THISf tape.recorder(f) POSS be-DECf
 this is the tape recorder's

(12.1b) [karafato kaa]_{CC} ama-ke haaro_{CS}
 tape recorder(f) POSS be-DECf THIS.ONE.VISIBLEf
 it is the tape recorder's, this one

Each of these is a copula clause with *karafato kaa* as copula complement (CC). The copula subject (CS) is a nominal demonstrative, with deictic reference to the earphones. In (12.1a) it is in pre-predicate position, with form *haaha*, while in (12.1b) it is in post-predicate position, with form *haaro*. Speakers say that both (12.1a) and (12.1b) are fully accepted, but that (12.1b) is to be preferred. That is, a demonstrative is typically emphatic, with ‘this one’ being favoured over a simple ‘this’.

When Jarawara people want to refer to something in the context of speaking with a single-word utterance (while pointing to it), they will invariably say *haaro/haari* ‘(it’s) this one (that I am referring to)’ rather than *haaha/haahi*. (If *haaha/haahi* were to be used, it would probably require a following copula plus declarative suffix, e.g. *haaha ama-ke* ‘this is (it)’.)

A nominal demonstrative will typically be the sole realization of a core argument, as in (5.299), (12.1a/b), and:

(12.2) *haahi*_{CS} *Jobeto*_{CC} *ama-ka-ra*
 THISM name(m) be-DEC-NEGM
 this (photo of a man) isn’t Jobeto

(12.3) *haaha*_{CS} *owa*_{CC} *ama-ka-re*
 THISf 1sg be-DEC-NEGF
 this (photo of a person) isn’t me

Since f is the unmarked gender, *haaha* is the default form and is used as such in (12.3). However, speakers explained that, if the photograph was clearly of a man, one could use the m form *haahi* and say, as an alternative to (12.3), *haahi owa ama-ka-ra* ‘this isn’t me’ (with m form of the final suffix, agreeing with the m CS).

A core argument can be expressed both by a pronoun within the predicate and by a demonstrative in a pre-predicate NP. A nominal demonstrative is linked to 3nsg pronoun *mee* in (12.16b) and to 1inc *ee* in:

(12.4) *haaha*_S *ee* *joto-hemete* *ee* *ama-ke*
 THISf 1incS follow-FPnf 1inc EXTENT-DECf
 we these followed on (after the ancestors, just mentioned in the discourse) (that is,
 we (their descendants) are those who followed after)

A core argument can be realized both by a nominal demonstrative, in pre-predicate position, and by a noun. One day Kamo came to ask if I had any clothes that needed washing by his wife. After handing them over, I decided to include the trousers I was wearing. Kamo instructed me to say:

(12.5) *haaha*_{CS}, *makari*_{CS} *to-ha* *na-bana-ke*
 THISf clothing(f) AWAY-become LIST-FUTf-DECf
 this piece of clothing is to be included also

There are two ways of analysing a clause such as (12.5), either with the CS being one two-word NP, *haaha makari*, or with it being a complex NP (see §10.2), made up of two single-word NPs, *haaha* and *makari*. The latter alternative seems most appropriate, mainly because there can be an intonation break (‘comma intonation’) after the demonstrative. (There is a similar example at (10.21) in §10.2.)

We can now turn to nominal demonstratives in post-predicate position, *haa(ro/ri)* and *faa(ro/ri)*. The visibility distinction is brought out in the contrast between the two clauses

in (12.6). This comes from the story of a canoe which hit a submerged stump and overturned. The occupants explained:

- (12.6) (a) [awa mate]_S iti-fi-ne-ke faaro_S
 tree(f) stump+f sit-WATER-CONF-DECf THAT.ONE.NON.VISIBLEf
 the tree stump was sitting in the water, that one out of sight
- (b) otara kabi ka-na haaro_A
 IexcO snag APPLIC-AUXf THIS.ONE.VISIBLEf
 it snagged us, this one here

In the first clause, the tree stump is referred to by *faaro* to indicate that it could not be seen. In the second clause, the narrator emphasizes that the stump became visible as it overturned the canoe by including post-predicate *haaro*, in A function.

It is possible to include both *haaha* and *haaro* in the same clause, as in:

- (12.7) [haaha wije]_{CS} ama-ke haaro_{CS}
 THISf container.of+f be-DECf THIS.ONE.VISIBLEf
 this is the container for this (thing) (lit. this's container is, this one)

Here *haaha* is the head of the NP in CS function, and is modified by the PN *wije* 'container of'; *haaha* refers to the contents of the container. The post-predicate demonstrative *haaro* relates to the whole CS NP; that is, to the container. For example, *haaha* could refer to a cassette (pointing at the cassette), and *haaro* to the cassette box (pointing at the box).

Most typically, clauses with *haaro/haari* or *faaro/faari* refer to the context of speaking and have direct deictic reference, as in (note that (12.10) is in T3.34):

- (12.8) 'bataro_S ee-ra?'
 patrão(m) be.where-CINTM
 'bataro_S wa-re-ka haari_S'
 patrão(m) stand-RAISED.SURFACE-DECM THIS.ONE.VISIBLEM
 'where's the patrão (local boss)?' 'the patrão can be seen standing here on the verandah (lit. the patrão is standing on the raised surface, (he is) this visible one)'

- (12.9) 'ee-ri katoso_S?', izaki_A ati na-re-ka;
 be.where-CINTf cartridge(f) name(m) speak AUX-IPem-DECM
 katoso_O tama o-ki-ne o-ke haaro_O
 cartridge(f) hold.in.hand IsgA-APPLIC-CONF Isg-DECf THIS.ONE.VISIBLEf
 'where are the cartridges?', Izaki asked; I showed him that I was holding the cartridges in my hand (lit. I was holding the cartridges in my hand, these visible ones)

- (12.10) jifo_S ka-witi-ne faaro_S
 fire(f) APPLIC-be.located-CONF THAT.ONE.NON.VISIBLEf
 the fires are located over there (lit. the fires are located, those ones)

When Kasawara, in the village of Nazare, had finished telling a story, he made a comment about the tape recorder:

- (12.11) o-wati_O ka-mita, ita-ri-ne-ke haaro_S
 Isg-voice APPLIC-hear+f sit-RAISED.SURFACE-CONF-DECf THIS.ONE.VISIBLEf
 it hears my voice, this visible one sitting here on the platform (with me)

Both *haaro/haari* and *faaro/faari* may also be used in a narrative when there is no direct reference to the context of speaking. They may then have the sense 'this one

who does it':

- (12.12) [okobi_S hijari]_S ati nofe ama-ka haari_S
 1sg+father(m) talk+COMP say RECENTm EXTENT-DECM THIS.ONE.VISIBLEm
 my father is the one who tells that story (lit. my father's talking speaks during
 recent time, (he is) this one (who does it))

Or there can be reference to a situation established within the narrative:

- (12.13) one_O o-ka-tisa-tasa; majatera_S moto
 another+f 1sgA-APPLIC-untie-AGAINf gill.net(f) be.in.a.circle
 ka-waha-ma-hani-ke faaro_S
 APPLIC-NOW-BACK-IPnf-DECf THAT.ONE.NON.VISIBLEf
 I again untied another (net); the gill-net was (tied) in a circle, that one was

In T1.66 we find *haaro* and *haari* in successive clauses: 'it (f) is the olden-days garden *haaro* (this one, f), the fish poison plant (m) is located (here) *haari* (this one, m)'. Other textual examples of *haaro/haari* are T2.74, 85, and T3.10, and one of *faaro* is T3.34.

As shown in table 12.1, the gender marking can be omitted from a nominal demonstrative. In pre-predicate position we can have just *haa*, as in T3.4 *haa_S wina* 'this (vine) is situated (round the middle of the tree)'. And a post-predicate NP can also be just *haa*, as in T2.48, T3.22, and:

- (12.14) mase_O o-karabohe, hato o-ne haa_O
 mutum(m) 1sgA-shoot.with.blowgun+m cut.up 1sgA-CONF THIS.ONE.VISIBLE
 I shoot a mutum (bird) with a blowgun, I cut it up, this one (lit. this is the
 one I cut up)

In (12.16*b*) we find—in the same clause—*haaha* as pre-predicate NP and *haa* in post-predicate position, with the same reference.

In similar fashion, just *faa* may be used in place of *faaro/faari*, as in (12.15), which comes from an account of going to the Purús River to sell rubber. Okomobi has his own rubber weighed and then Motobi's is weighed. Okomobi remarks:

- (12.15) [hinaka kiro]_O o-wato-ra-hara faa_O
 3sgPOSS kilo 1sgA-know-NEG-IPef THAT.ONE.NON.VISIBLE
 I don't know how many kilos he had (lit. I don't know his kilos, the ones there)

A nominal demonstrative can also occur in a peripheral NP, marked by the all-purpose postposition *jaa*. It then always has the form *haa*, which could equally well relate to *haaha/haahi* or to *haaro/haari*. We find *haa jaa* used twice in a row in T3.9 'at this (corner) and at this (corner)'. It is in clause-initial position in (5.150) and in both clause-initial and clause-final position in (12.16*a*). This comes from an account of how a man has been creeping at night into a woman's hammock and copulating with her. She wants to see him in the light of day, to discover his identity. As he leaves, at dawn, she tries to follow, but:

- (12.16) (a) [haa jaa] to-ko-me-mata-mona-ka [haa jaa],
 THIS PERI AWAY-in.motion-BACK-FPnm-REPM-DECM THIS PERI
 (she tried to see him but) he is said to have gone away to this (other place);
 (b) haahas mee wina haas mee
 THISf 3nsgS live+f THIS.ONE.VISIBLE 3nsgDEP
 where these people (of his) live

- (c) ka-ke-rihi
 in.motion-COMING-Contr.NEG
 (but) he didn't come (to his own home)
- (d) aja ka.ka-ke to-he-himata-mona-ka
 HERE REDUP.in.motion-COMING AWAY-become-FPnm-REPM-DECM
 he is said to have kept on coming here (in the night, to copulate with the woman)

As already mentioned, there is considerable homonymy in Jarawara. One way of marking a postposed dependent clause (see chapter 18) is with *-haaro/-haari*. This is identical to the post-predicate form of nominal demonstrative 'this one visible'. However, the dependent markers are verbal suffixes, and the initial *-ha-* drops when unstressed on the underlying cycle, whereas the demonstratives are separate words. Another difference is that tense-modal and mood affixes may come before the demonstratives but never before the dependent clause markers.

It is possible to have a demonstrative following a dependent clause marker but it appears that it is then always the reduced form *haa* (we have no examples involving *faa(ro/ri)*), probably to avoid having *-haaro/-haari* and *haaro/haari* in sequence. For example (18.10) and:

- (12.17) Koromi_S mee kisa-make-haaro haas
 Indian 3nsgS move.downstream-FOLLOWING-DEP THIS.ONE.VISIBLE
 (a canoe has been espied, then its occupants are recognized:) these are Indians
 who are coming downstream (lit. Indians are coming downstream, these ones)

12.1.2 Adverbial demonstratives

Jarawara has no manner adverbial demonstratives ('do it this/that way') but it does have spatial adverbial demonstratives. *Ahi* 'here, visible' and *fahi* 'here/there, not visible' occur in clause-final position and are very common.

The adverbial demonstrative *aja* is far less common. It generally occurs in clause-initial position and indicates 'here/there' without any specification of visibility, as in (12.16d). There is just one exceptional instance, in non-initial position; this occurs twice in the corpus, in identical form, suggesting that it may be idiomatic:

- (12.18) [bahi_S aja ite] jaa
 sun(m) HERE sit+m PERI
 when the sun sits here (speaker points to the horizon), i.e. when the sun sets

Here the adverbial demonstrative *aja* comes between the S NP, *bahi* 'sun', and the verb. There are occasional occurrences of a peripheral element intruding into the core of a clause (see chapter 20) and this may be best treated as one such, perhaps frozen into an idiom.

Prototypically, *ahi* and *fahi* refer to the context of utterance, or to a context established within a narrative:

- (12.19) Inaso_A owa haa ne:
 name(m) 1sgO call AUXM
 'Okomobi! ti-ka-make-habone ti-ke ahi'
 name(m) 2sgS-in.motion-FOLLOWING-INTf 2sg-DECF HERE.VISIBLE
 Inaso called me: 'Okomobi! You should come here'

- (12.20) 'Safato! hika kosi_O ti-jaba-ri-ni?'
 name(m) WHERE urucuri(m) 2sgA-pick-CINTf-IPnf
 'kosi_O o-jaba-re-ka ahi'
 urucuri(m) 1sgA-pick-IPem-DECM HERE.VISIBLE
 'Safato! Where did you pick the urucuri (fruit)?' 'I picked the urucuri right here'

Another example comes from a story about how a group of Indians, when searching for some Branco poachers, see a mark on a tree indicating that a canoe has rubbed against it. The narrator says:

- (12.21) awa_S hi.hija ni-ne-ke haaro_S;
 tree(f) REDUP.be.damaged AUX-CONTf-DECf THIS.ONE.VISIBLEf
 Karijo_S mee to-ka mee awine-ke ahi
 Branco 3nsgS AWAY-in.motion+f 3nsg SEEMsf-DECf HERE.VISIBLE
 this tree is damaged (lit. a tree is damaged, this one); the Brancos seem to have gone
 by here (they dragged a canoe along the path, which rubbed bark off the tree)

In the first clause the nominal demonstrative *haaro* indicates that 'this tree' is damaged, with the adverbial demonstrative in the second clause inferring that the Brancos had gone by 'here'. In TI.6I, we also find nominal demonstrative *haaro* in the first clause and adverbial demonstrative *ahi* in the following one: 'it is the olden-times place, this one (*haaro*); it seems to be here (*ahi*)'.

Consecutive clauses contrast *ahi* and *fahi* in:

- (12.22) tee naho fahi, mee.inamati_S wina-ke ahi
 2nsgS stay THERE.NON.VISIBLE spirits(f) be.located-DECf HERE.VISIBLE
 you all stay there, the spirits are here

At the end of one story the narrator said:

- (12.23) otaa kobo na-ma otaa-ke waha ahi
 1excS arrive AUX-BACKf 1exc-DECf NEXT.THING HERE.VISIBLE
 [Kasanofa jaa]
 place PERI
 now we arrived back here, at Casa Nova (the place where the story was being
 recorded)

These two adverbial demonstratives have a further function, as markers of discourse organization. We often find *fahi* used to mark the climax of some particular segment of discourse. In one recorded story the narrator spends sixteen clauses telling how his tape recorder wouldn't work, he took the back off, fixed the inside, put it together again, and then (including *fahi* on the final clause of this segment):

- (12.24) karafato_O jaro o-ka-na-ma-hara-ke fahi
 tape.recorder(f) start.up 1sgA-APPLIC-AUX-BACK-IPef-DECf CLIMAX
 I switched the tape recorder back on

When Okomobi told the story of how he became chief, he described discussing the matter with his father, the previous chief, and then, as a climax:

- (12.25) faja [okobi ati ehene]
 THEN 1sgPOSS+father(m) words DUE.TOM
 towisawa_{CC} o-ha-wa-hamaro ama o-ke fahi
 chief(m) 1sgCS-become-NEXT.THING-FPef EXTENT 1sg-DECf CLIMAX
 then, as a result of what my father said, I did become chief

In a story of seduction, several clauses describe how the man finds the woman, grabs her, put her down on the ground, and then, as a climax:

- (12.26) jori hi-ne-hemete-mone-ke fahi
 swive Oc-AUX-FPnf-REFP-DECL CLIMAX
 he is said to have swived (copulated with) her

In (12.27), a number of clauses describe someone getting out his snuff and preparing it; then *fahi* is included in the clause where he actually sniffs the snuff:

- (12.27) sina_O wara to-ka-ne; sina_O kara n-ise;
 snuff(f) get.hold.of AWAY-APPLIC-AUXm snuff(f) tap.out AUX-DOWNM
 sina_O hisi ne-ri-ka fahi
 snuff(f) sniff AUX-RPem-DECM CLIMAX
 he got hold of the snuff; he tapped out the snuff (from its container into his hand); and then he sniffed the snuff

In its discourse climax sense, *fahi* is frequently used with verbs *jana -na-* ‘set off’ and *kobo -na-* ‘arrive’ as these often mark particular highlights in a story. A clause with *fahi* in its discourse climax sense invariably shows mood (generally declarative *-ke/-ka*, occasionally backgrounding *-ni/-ne*) indicating that it is a main clause.

Sometimes *fahi* may be used in both the discourse climax and deictic sense simultaneously; for example:

- (12.28) o-sawari-wite-hara o-ke fahi
 1sgS-get.lost-FROM.PLACE-IPef 1sg-DECL THERE/CLIMAX
 (I was running in the forest and then) I got lost there

The demonstrative *ahi* is also used with a discourse function (although much less often than *fahi*). It can be used in a clause indicating some ‘lead up’ within a segment of discourse. (Quite often, *ahi* is used with this sense in the first or second clause of a story.) Unlike *fahi*, when *ahi* is used in its discourse function it only occasionally co-occurs with mood.

In (12.29) we have a sequence of five clauses. Each of the first three is marked by *ahi*, in its discourse function, and the final clause—marking the climax of this segment of discourse—has *fahi*. This comes from a legend about how the only burning thing was secreted in the ear of a man. The other people twisted the back of his ear to extract the burning thing. It fell to the ground. And then, finally, they could make a fire:

- (12.29) (a) [warabo mete]_O mee wari hi-wahe-mata-monaha-ne ahi
 ear+m back+m 3nsgA twist Oc-NEXT.THING-FPnm-REPM-BKGM LEAD.UP
 the next thing was they are said to have twisted the back of his ear
- (b) [narabo mete ojene]_s ka-so-himata-mona ama-ne
 ear+m back+m burning.thing+m APPLIC-fall-FPnm-REPM extent-BKGM
 ahi
 LEAD.UP
 the burning thing in the back of his ear is said to have fallen out
- (c) to-wa-ke-mata-mona ahi
 AWAY-APPLIC-be.in.motion-FPnm-REPM LEAD.UP
 he (the one who had had the burning thing) is said to have run off
 (into the jungle)

- (d) to-ko-wita-wite-himata-mona-ne
 AWAY-APPLIC-sit-FROM.PLACE-FPnm-REPM-BKGM
 he is said to have stayed, sick, in another place (and never returned)
- (e) faja jifo_O mee afo ka-ne-hemete-mone-ke fahi
 THEN fire(f) 3nsgA make.a.fire APPLIC-AUX-FPnf-REPF-DECL CLIMAX
 then they are said to have lit a fire

12.2 ANAPHORIC ELEMENTS

In many languages, demonstratives have an anaphoric as well as a deictic use. For instance, in English one can say *She eats a lot of meat believing that this will keep her healthy*, where *this* could be taken to be anaphoric on *lots of meat* or on *eats lots of meat*. Demonstratives in Jarawara do not have any anaphoric function. There are, however, two sets of elements which are largely anaphoric in function: *afa/efe* and *ifa/ife* are described in §12.2.1 and *fee ~ hee* in §12.2.2.

12.2.1 Specifiers *afa/efe* and *ifa/ife*

The forms *afa/efe* and *ifa/ife* appear to be interchangeable, with no difference in meaning, similar to the collective/reciprocal markers *abee* and *ibee* (§11.1.6). It is plausible to hypothesize that the original forms might have been **afa-ha/afa-hi* and **ifa-ha/ifa-hi* and with changes **afa-ha > afa*, **afa-hi > afe > efe*, and **ifa-ha > ifa*, **ifa-hi > ife*, similar to the changes that have applied to the endings of verb roots and to possessed nouns.

These forms are used to specify a core argument without referring to it directly, often relating anaphorically to a coreferential NP in an earlier clause which did refer to it directly. Over 80 per cent of the occurrences of *afe/efe* and *ifa/ife* are as copula subject, in a clause which also includes a copula complement. For example:

(12.30a) afa_{CS} ti-moni_{CC} ama?
 SPECIF 2sg-noise be
 is it your noise? (lit. is the specified thing your noise?)

(12.30b) afa_{CS} o-moni_{CC} ama
 SPECIF 1sg-noise be
 it is my noise (lit. the specified thing is my noise)

An interesting anaphoric use of *ife* comes from a story in which a padre's boat was expected to come up the river. Someone said that a boat had gone past; when asked whether it had been the Padre's, he replied:

(12.31) ee awa-ka-re, ife_{CS} moto_{CC} to-he awa-ka
 1incS see-DEC-NEGF SPECIFM boat(m) AWAY-become+m SEEMSM-DECLM
 we don't know, it could have been the boat

A little bit later someone commented:

(12.32) moto_{CS} ife_{CC} to-he awa-ka
 boat(m) SPECIFM AWAY-become+m SEEMSM-DECLM
 the boat could have been it

In (12.31) *ife* is CS and *moto* CC, and in (12.32) these are reversed.

In one story Okomobi, hearing some Brancos call, says (12.33a), Izaki asks (12.33b), and Okomobi replies with (12.33c):

(12.33) (a) Izaki! [Karijo_S mee haa ni]_S ka-mi-ne-ke
 name(m) Branco 3nsgS call AUX+COMP in.MOTION-BACK-CONTF-DECF
 haaro [[ee nowati] kaaro]
 THIS.ONE.VISIBLEF Iinc behind PERIF
 Izaki!, these Brancos are coming here calling (lit. the Brancos' calling is
 coming this one) behind us

(b) afa_{CS} [mee haa ni]_{CC} ama?
 SPECIF 3nsg call AUX+NOM be
 are they calling? (lit. is the specified thing them calling?)

(c) ee, afa_{CS} [mee haa ni]_{CC} to-ha-hara-ke
 YES SPECIF 3nsgS call AUX+NOM AWAY-become-IPef-DECF
 yes, they are calling (lit. the specified thing has become their calling)

Note that in (12.33b/c), where *afa* is CS, the CC is a complement clause.

In some utterances, *afa/efe* or *ifa/ife* appears to be a dummy, simply to fill an obligatory core argument slot (similar to the role of *it* in an English sentence such as *It annoys me that you smoke*, derived by extraposition from *That you smoke annoys me*). This applies to *ifa* in (12.34–5).

The Jarawara believe that when they go into a state of trance their spirits can leave their bodies. A common greeting goes like this:

(12.34) Okomobi, ifa_{CC} ama-ti?
 name(m) SPECIF be-2sgCS
 Okomobi, is it you? (lit. are you the specified one?)

The meaning is: 'is your spirit in your body at this time?' The normal reply is:

(12.35) (ee), ifa_{CC} ama o-ke
 YES SPECIF be 1sgCS-DECF
 (yes,) it is me (lit. I am the specified one)

Interestingly, there are alternatives to (12.34–5) if the person being referred to is a man: the m form *ife* can be substituted for the f (and unmarked) form *ifa*. That is, the CC can either have the gender which reflects the sex of its referent, or it can agree with the CS (a pronoun, which always takes f agreement).

With a 3sg m CS, the copula complement must be m, i.e. *ife* or *efe*:

(12.36) efe_{CC} ama-re?
 SPECIFm be-NEGM
 isn't it him? (lit. isn't the specified one him?)

One use of *it* in English is to fill the obligatory S slot with a weather verb (for example, *it is raining*). A similar use of *ifa* is found in:

(12.37) tama o-ne-hibana-ne waha, ifa_S joma-ba ama-haaro
 grab 1sgA-AUX-FUTM-BKGM NEXT.THING SPECIF get.dark-FUTF EXTENT-DEPF
 I will grab him, tonight (lit. when the specified one gets dark)

The verb *-joma-* ‘get dark’ typically has the very general noun *jama* ‘thing’ as its S, but in the subordinate clause of (12.37) it is replaced by *ifa*.

Afa/efe or *ifa/ife* almost always makes up a complete NP. However, we have encountered them modified by a PN, as in the NP:

- (12.38) [ife ati ehene]
 SPECIFM speaking DUE.TOM
 due to his (referring back to father’s) speaking (in fine fashion, he was made chief)

There are a fair number of examples where a core argument is specified by *afa/efe* or *ifa/ife* in pre-predicate position and then by nominal demonstrative *haaro/haari* in a post-predicate NP. For example:

- (12.39) afa_{CS} tabora_{CC} ama-ke haaro_{CS}
 SPECIF village(f) be-DECLF THIS.ONE.VISIBLEF
 this is the village (pointing towards it) (lit. it is the village, this one)

12.2.2 Non-pivot anaphoric element *fee* ~ *hee*

In Jarawara discourse, a 3rd person pivot argument is typically omitted if it was included in a preceding clause. This applies to the S argument in an intransitive clause, to the A argument in an Ac, to the O argument in an Oc, and to the CS argument in a copula clause. Occasionally, a pivot NP may be realized by specifier *afe/efe* or *ifa/ife*; as mentioned, these forms occur predominantly in CS function.

A 3rd person argument in non-pivot function is generally stated explicitly, by means of an NP with a noun as head (or an NP consisting of pronominal head plus PN). There is, however, an anaphoric element that can be used in a non-pivot NP; this has the form *fee* for most speakers but is rendered as *hee* by some younger speakers (in each instance, there is no marking for gender). Very old speakers do say *fai* (or *fai-ra* in O function in an Ac) and in the Jamamadí dialect the form is *fai*. It appears that, somewhat similar to the reduction from noun *madi* ‘person’ to 3nsg pronoun *mee* (*madi* > *mai* > *mee*), there has been a series of changes *fai* > *fee* > *hee*.

The most typical function for *fee* ~ *hee* is as O argument in an Ac. In (12.40) ‘brother-in-law’ is pivot for clauses (a) and (b), but ‘water monster’ (the pervasive topic of the story) reappears as pivot for (c) and for following clauses. The O argument, ‘brother-in-law’ in (c) is non-pivot, and *fee* is used to indicate its anaphoric relation to the pivot in the preceding two clauses.

- (12.40) (a) waboris to-ke-himata-mona-ka
 brother-in-law(m) AWAY-in.motion-FPnm-REPM-DECLM
 faari;
 THAT.ONE.NON.VISIBLEM
 his brother-in-law is said to have gone away
- (b) hiwa wato-mako;
 JUSTM know-NO.RESPONSIBILITYM
 he was frightened (lit. he couldn’t help knowing himself);
- (c) fee_O wate-himata-mona-ne
 3sg grab-FPnm-REPM-BKGM
 (the water monster) is said to have grabbed him

Example (12.41) is from the story of how a man left his wife cutting out palm hearts in the jungle while he pursued some woolly monkeys. There is a description of how a jaguar killed the woman. Then the storyteller switches attention to the man, saying ‘her husband (A) went away, \emptyset (A) was shooting woolly monkeys, \emptyset (S) wasn’t there, \emptyset (S) didn’t come back’. And then:

- (12.41) (a) *bani*_O *mera* *iso* *ne*
 animal(m) 3nsgO carry AUXm
 he was carrying the animals (dead woolly monkeys)
- (b) *hee*_O *haa* *ne-mata-mona-ne*
 3sg call.to AUX-FPnm-REPM-BKGM
 he is said to have called to her

The husband is pivot, in A function, for both clauses in (12.41), realized by m agreement on the verb. The O NP of clause (a) is shown by *bani* ‘animal’ as an NP and by 3nsgO pronoun *mera* at the beginning of the predicate. In (b) the O argument is shown as *hee*, referring to the wife, who had been pivot for a long sequence of clauses which finished six clauses back.

Example (12.42) is taken from a different husband-and-wife story. The pivot for all three clauses is ‘husband’ (stated, as a noun, near the beginning of the story); it is in S function in the intransitive clause at (a), in O function in the Oc at (b), and in A function in the Ac at (c), being in each instance shown by m agreement on the verb. The ‘wife’, which was pivot a couple of clauses earlier, is in A function in (b)—with no overt realization—and in O function in (c), being shown here by *hee*.

- (12.42) (a) *ka-me*
 be.in.motion-BACKm
 he went back
- (b) *ko.kowa* *hi-ne*
 REDUP.whistle.to Oc-AUXm
 she whistled a bit to him
- (c) *hee*_O *awe*
 3sg see+m
 then he saw her

The great majority of instances of *fee* ~ *hee* are as O argument in an Ac. Note that the corpus does not include any instances of it as A argument in an Oc. However, it does also occur in CC function. The clause immediately following (12.32) is:

- (12.43) *Atoni!* *moto*_{CS} *fee*_{CC} *ama-re* *awa-ka*
 name(m) boat(m) 3sg be-NEGM SEEMS+m-DECM
 Atoni! maybe the boat wasn’t it (the one we are waiting for)

(In going over this text later the storyteller said that he could have used *ife* in place of *fee*.) Note that here *fee* has inanimate reference.

Fee ~ *hee* may also be used in a peripheral NP, always marked by *ni-jaa* (see chapter 20), as in (repeating (8.14)):

- (12.44) *faja* [hinaka jama]_O *to-na-wata-me-mari*
 THEN 3sgPOSS thing(f) AWAY-CAUS-be.located-BACK-FPm
 ama-ka [fee ni-jaa]
 EXTENT-DECM 3sg PERI
 then he (the shaman) put his thing (the sacred pebble) back in himself
 (he introduced it into his arm)

In (12.44) *fee* in the peripheral NP is anaphoric on the A argument of the clause. In (12.45) it is anaphoric on the kinship possessor in the S NP:

- (12.45) [Jobeto fati]_S eheto-ke [fee ni-jaa]
 name(m) 3sgPOSS+wife be.suitable-DECf 3sg PERI
 Jobeto's wife is suitable for him

We saw, in (12.7), that a nominal demonstrative can be modified by a PN, and in (12.38) that the specifier *afa/efe* or *ifa/ife* can also be. In similar fashion, *fee* ~ *hee* may be modified by a PN, as in *fee tanako jaa* 'it bit him) on his thigh' and in:

- (12.46) inamatewe_S wee-himata-mona ahi [[hee nokosi] jaa]
 child(m) stand-FPnm-REPM HERE.VISIBLE 3sg in.front.of PERI
 a boy is said to have stood here, in front of it (the snake)

Note that 'the snake' was pivot for the immediately preceding clauses.

12.3 *fara/fare* 'THE VERY ONE' AND *bara/bare* 'A DIFFERENT ONE'

There are two words in Jarawara which have similar form and almost opposite meaning:

- fara/fare* 'the very one, self, (its) own'
bara/bare 'a different one, member of another tribe'

Bara/bare can follow a noun, as in *aba bare* 'a different kind of fish'. It often functions as a full NP and then means 'a different kind of person'. *Bara/bare* was once used to describe a picture of black Africans; it is typically employed to mean 'an Indian of a different tribe'.

I first classified *fara/fare* as a grammatical element and *bara/bare* as a free noun (although it would be one of only two free nouns to show gender in its form). But when I was eliciting around *fara/fare*, Okomobi volunteered a sentence which contrasted *bare* and *fare*:

- (12.47) bare_{CC} ama o-ka-re, fare_{CC} ama o-ke
 DIFFERENT.KINDm be 1sgCS-DEC-NEGF VERY.ONEM be 1sgCS-DECf
 I'm not from another tribe, I'm from this tribe

In view of this, *bara/bare* and *fara/fare* should perhaps be classified in the same way. This is a difficult matter, which requires further investigation. This section describes the grammatical properties of *fara/fare*.

In addition to its meaning 'the very one, self, (its) own', *fara/fare* sometimes carries an anaphoric reference, as in:

- (12.48) afiao_S wete to-na-ma-re-ka
 aeroplane(m) return AWAY-AUX-BACK-IPem-DECM
 [fare taboro jaa]
 VERY.ONEM home+m PERI
 the plane has returned back to its own home

Here *fare* as head of the peripheral NP refers back to the S NP, *afiao* 'aeroplane'. Note, though, that *fara/fare* only sometimes carries an anaphoric load. It does so in (12.52) and (12.56) but not in (12.51) and (12.53–5).

Fara/fare is often used in a reflexive construction. It can be included in a clause which has a 1st or 2nd person pronoun in both A and O functions, as in T2.97, or with *hine/hiwa* ‘just’ in its reflexive sense, as in:

- (12.49) fare-ba_O hiwa iti-himata-mona-ne
 VERY.ONEM-FUT JUSTM take-FPNM-REPM-BKGM
 he is said to have held himself up (lit. he is said to have taken himself; that is, braced himself so that he didn’t fall, when he caught the jaguar as it sprang at him)

Fara/fare can also be included in a reflexive construction shown by a body-part PN, as in (11.23–4). In §11.1.6, it was noted that *fara/fare* can be included in a collective/reciprocal construction marked by *abee* or *ibee*, to help indicate a reciprocal sense, as in (11.46).

In the second clause of (12.50), *fara/fare* occurs in the O NP together with *okoto* ‘my daughter’:

- (12.50) okoto_O tee-kana-kosa-rija!
 1SGPOSS+daughter(f) 2sgA+APPLIC-leave-MIDDLE-DisNegIMPF
 fara_O okoto_O toma ti-ni-ja!
 VERY.ONEF 1SGPOSS+daughter(f) cure 2sgA-AUX-DisPosIMPF
 don’t you leave my daughter! you cure that very daughter of mine!

And in (12.51), *fara/fare* makes up the S argument together with proper noun *Okomobi*.

- (12.51) Okomobi_S fare_S ita-ri-hare-ka
 name(m) VERY.ONEM sit-RAISED.SURFACE-IPem-DECM
 [oko jobe jaa]
 1SGPOSS house(m) PERI
 Okomobi himself was sitting in my house

Speakers said that *Okomobi* and *fare* can occur in either order in (12.51); that is, *fare Okomobi itarihareka oko jobe jaa* is equally acceptable and has the same meaning. This suggests an analysis of the S argument in (12.51) as being a complex NP, made up of two one-word NPs, *Okomobi* and *fare*. The same analysis would apply to *fara* and *okoto* in (12.50).

It is clear that *fara/fare* can function as head of an NP and may be modified as shown in table 10.1. It is followed by a PN in (12.48), and by augment modifier *mee* plus a PN in:

- (12.52) ka-me [[[fara mee tabori]_S wati] jaa]
 in.motion-BACKM VERY.ONEF AUG home+f exist+NOM PERI
 he goes back to where their own home is (lit. exists)

Fara/fare may be used in copula complement function, as in (12.47) and (12.53). One day Botenawaa had a hat exactly like mine, and said:

- (12.53) [fara one]_{CC} ama-ke
 VERY.ONEF another+f be-DECf
 it is another the very same

Here *fara* is modified by adjective *one*. In the reflexive examples at (11.23–4), *fara/fare* is modified by a body-part PN within the O NP. An example of *fare* modified by adjective *owa* ‘another’ and PN *temene* ‘grave’ is in T1.51.

A core argument may be realized by both *fara/fare* in an NP and a pronoun within the predicate. There is an example of *fara* with 1sg *o-* in (12.54) and with 3ns *mee* in (12.55).

- (12.54) faras o-wahari-ha
 VERY.ONEf 1sgS-be.alone-f
 I was all by myself
- (12.55) faras mee to-ko-make-hara-ke
 VERY.ONEf 3nsgS AWAY-in.motion-FOLLOWING-IPef-DECf
 they themselves went following

We also find *fara/fare* used as kinship possessor. For example *fare mati* ‘his own mother’, and *fare nisori* ‘his own younger brother’, as in:

- (12.56) inohowe-tee-ba_A [fare nisori]_O nabohe
 alligator(m)-HABIT-FUT VERY.ONEM 3sgPOSS+younger.brother(m) kill+m
 the alligator-to-be (i.e. the man who would later become an alligator) killed
 his own younger brother

However, when I tried to use *fare* as alienable possessor, saying *fare kaa fatara* for ‘his own garden’, this was corrected to:

- (12.57a) fare [hinaka fatara]
 VERY.ONEM 3sgPOSS garden
 his own garden (lit. he himself, his garden)

Here we plainly have two NPs in apposition, one consisting of *fare* and the other of *hinaka fatara*, together making up a complex NP (§10.2), and with *fare* and *hinaka* being coreferential.

Fara/fare is often used in (or as the whole of) a post-predicate NP; for example:

- (12.57b) ati ne-ri ama-ka [fare abono]_S
 speak AUX-RPem EXTENT-DECM VERY.ONEM spirit(m)
 he said it, he himself, (his) soul (that is, his soul was in his body when he said it)

Quite often, *fara/fare* is used in conjunction with *ni-ma* ‘be similar to, be the same as’; see (21.47–9) in §21.4.

12.4 LOCATIONAL NOUNS

There are four nouns which refer to distance or direction on the river:

- ajata ‘near’ bato ‘downstream’
 hike ‘far’ nakani ‘upstream’

The nouns *ajata* and *hike* are only attested as head of an NP in peripheral function, marked by postposition *jaa* (see chapter 20) or *kaa(ro/ri)* (see §21.1), as in (17.14), (18.6), and:

- (12.58) otaa ka-kajoma-ma otaa-ke [ajata jaa]
 IexcS APPLIC-get.dark-BACKf Iexc-DECf near PERI
 it gets dark on us when we are near home (lit. we are with getting dark at near)
- (12.59) [majatera one]_S na-hara-ke [hike jaa] ahi
 gill.net(f) another+f exist-IPef-DECf far PERI HERE.VISIBLE
 there was another gill-net visible a long way over there

These two nouns have a similar meaning to the verb *-jabo-* ‘be far’. In fact, I was told that a simple clause with peripheral NP *hike jaa*, as in (12.60a), can be paraphrased with the main clause in (12.60a) becoming, in (12.60b), a complement clause in S function to the verb *-jabo-*.

(12.60a) okobise_S wina-ka [hike jaa]
 IsgPOSS+uncle(m) live-DECM far PERI
 my uncle lives far away

(12.60b) [okobise_S wini]_S jabo-ka
 IsgPOSS+uncle(m) live+COMP be.far-DECM
 my uncle lives far away (lit. my uncle’s living is far away)

This equivalence is repeated in (12.61a/b), where *ajata* replaces *hike* and the verb *-jabo-* is marked with negative suffix.

(12.61a) okobise_S wina-ka [ajata jaa]
 IsgPOSS+uncle(m) live-DECM near PERI
 my uncle lives near by

(12.61b) [okobise_S wini]_S jabo-ka-re
 IsgPOSS+uncle(m) live+COMP be.far-DEC-NEGM
 my uncle lives near by (lit. my uncle’s living is not far away)

The river directional terms *bato* ‘downstream’ and *nakani* ‘upstream’ are also used with peripheral postpositions *jaa* and *kaa(ro/ri)*. For example:

(12.62) [Jara fana]_S wina-ke [bato/nakani jaa]
 Branco woman(f) live-DECf downstream/upstream PERI
 a Branco woman lives downstream/upstream

Bato and *nakani* (but not *ajata* and *hike*) have also been encountered apparently used in CS function, together with a post-predicate nominal demonstrative:

(12.63a) bato_{CS} ama-ke haaro_{CS}
 downstream(f) be-DECf THIS.ONE.VISIBLEf
 this is downstream (pointing in direction) (lit. downstream is, this one)

(12.63b) nakani_{CS} ama-ke haaro_{CS}
 upstream (f) be-DECf THIS.ONE.VISIBLEf
 this is upstream (pointing in direction) (lit. upstream is, this one)

How to say ‘with my left/right hand’ was discussed under *-ihina*, at (4) in §5.7.

Copula Clauses

The great majority of clauses in Jarawara discourse have as predicate head a verb (transitive or intransitive) with referential meaning. But about 2 per cent of clauses have as predicate head one of two copula verbs, which have a relational rather than a referential meaning. The copula verbs are *(to-)ha-* ‘become’ (homonymous with auxiliary *(to-)ha-*), which behaves morphologically like referential verbs, and *ama* ‘be’ (homonymous with secondary verb *ama* ‘extended in time’), which is morphologically quite unusual, lacking prefixation and having only limited suffixation (see §13.3). A summary of the differences between secondary verb *ama* and copula *ama* is in §7.1.1.

To qualify as a copula, a verb must be able to occur with two core arguments, copula subject (CS) and copula complement (CC), and mark some or all of the relations of attribution, identity, equation, and naming. In some languages (including Jarawara but not including English), a copula verb may also occur with a single argument (CS), then indicating existence. But note that if a verb were *only* to occur with one argument, then it should be classified as an intransitive verb, not as a copula.

§13.1 discusses the realization and marking of CS and CC and then §13.2 deals with the five relational meanings of copulas in Jarawara. There is an account of the morphology of the two copulas in §13.3, and of their syntax in §13.4. In §13.5, there is brief consideration of the relation between the copula verbs, their homonyms in Jarawara, and cognates in other Arawá languages, with some speculation on directions of development. Finally, §13.6 appends a short note on intransitive verbs ‘exist’.

13.1 CORE ARGUMENTS

When writing a grammar of any language, it is important to distinguish S and A functions; in Jarawara they behave quite differently in complement clause constructions (see chapter 17). In addition, CS should always be recognized as a distinct function. In most languages, CS is marked in the same way as S but in Ainu it is marked like A and differently from S (Tamura 2000: 50–1). In Jarawara, CS does in most ways behave like S and A. That is, it is shown by a pronoun in slot B of predicate structure, which can be repeated in slot H (see table 3.1), and it engenders gender agreement on a verb root and its suffixes. It can be realized by a pre-predicate NP and occasionally also by a post-predicate NP, as in (12.7) and (13.2). The head of a pre-predicate NP in CS function can be a nominalized clause, as in (11.6′) and (11.77′).

The CC argument has special characteristics:

- (i) It is never shown by a pronominal element at the beginning of the predicate, nor by gender agreement on a verb or its suffixes.
- (ii) It is shown by an NP-type element which generally immediately precedes the predicate.

This can be:

- (a) A full NP, as in table 10.1 (which can have a nominalized clause as its head, as in (12.33b)).
- (b) Just an adjective. This is the only predicate argument which can consist just of an adjective.
- (c) A pronoun. Whereas an NP in A, S, O, or CS function cannot consist just of a pronoun, one in CC function may. Moreover, the pronominal paradigm for CC function (in an NP before the predicate) is different from those for O and for S/A/CS (as part of the predicate). As shown in table 3.1, the cardinal pronoun—which is used in CC function—has the same form as S/A/CS (in predicate slot B) for nsg, and the same form as O (in predicate slot A) for sg. Illustrating with one sg and one nsg form from table 3.1:

	CARDINAL PRONOUN, NP IN CC FUNCTION	SLOT A OF PREDICATE (O FUNCTION)	SLOT B OF PREDICATE (S, A, AND CS FUNCTIONS)
Isg	owa	owa	o-
Iinc	ee	era	ee

Note that there is no 3sg animate or 3rd person inanimate pronoun which could go into the CC slot; an NP must be used instead.

13.2 RELATIONAL MEANINGS

The relation expressed by a copula clause depends, in part, on the nature of the CC argument.

(a) Attribution, when the CC is simply an adjective, which is stated as an attribute of the CS, as in (11.67) ‘the banana is unripe’, (11.71) ‘João is now old’, and:

- (13.1) botē_{CC} ama o-ke
 old be IsgCS-DECf
 I am old

(b) Identity, where the copula clause indicates that the referent of the CS is (or is not) a member of a certain class, described by the CC (which is an NP). Examples involving *ama* include (10.52b) ‘you are not our people’, (11.69) ‘these are animals of a large type’, (12.47) ‘I’m not from another tribe, I’m from this tribe’, and:

- (13.2) [kereti mee]_{CC} otaa ama-ka-re [haa.‘otaa]_{CS}
 crente AUG IEXCS be-DEC-NEGF EMPH.IEXC
 we ourselves are not crentes (strict evangelical Christians)

This sense of *ama* is often used in joking. One day I caught a moth and put it outside the door. An Indian commented:

- (13.3) Jobeto_{CS} kiso_{CC} ama-ka
 name(m) capuchin.monkey(f) be-DECm
 Jobeto is (sc. similar to) a capuchin (a species of monkey that eats moths)

In one text a number of Indians visited the local patrão to sell rubber, but one man had only brought bananas to sell. Someone said to him:

- (13.4) *irara*_{CC} *ama* *ti-ke*
 weasel(m) be 2sgCS-DECf
 you are (sc. similar to) a weasel (an animal which likes to eat bananas)

Identity clauses involving *(to-)ha-* ‘become’ include (7.13a) ‘my father’s father is said not to have become a chief’, (7.13c) ‘but then later on my father did become a chief’, and (7.14) ‘you should now become a chief’.

(e) Equation, where the copula marks equality (or lack of equality) between two referential specifications, that of the CS and that of the CC (which is an NP or a pronoun). Examples involving *ama* include (12.2/3) ‘this (photo) isn’t Jobeto/me’, (12.30b) ‘it is my noise’, (12.35) ‘it is me (lit. I am the specified one)’, and (12.39) ‘it is the village, this one’.

Equational clauses involving *(to-)ha* include T1.40 ‘I’ll be Wero’s companion for a while’, and:

- (13.5) *selo*_{CS} *faha*_{CC} *to-ha-ke*
 ice(f) water(f) AWAY-become-DECf
 ice becomes water (when it melts)

One legend describes how at one time there was very little water in what is now the Purús River, and then the water volume got greater:

- (13.6) *fahas* *nafi-re-mete-mone...* *Foro*_{CC} *to-hi-ne-ke*
 water(f) be.lots-NEG-FPnf-REPF name(f) AWAY-become-CONTf-DECf
 the water was said to be very little... (then) it (increased in size and) became the
 Purús River

This example begins with an intransitive clause whose predicate head is *nafi* ‘be lots’ and S argument is *faha* ‘water’. *Faha* continues as the implicit CS argument for the following copula clause, whose CC is *Foro* ‘the Purús River’.

The meanings of *ama* and *(to-)ha* are similar to those of *be* and *become*, respectively, in English. The copula *(to-)ha* indicates change over time. In T1.40 it looked as if Wero would have no companion and the speaker volunteered to ‘become’ his companion. See also (9.6) ‘she is said to have become his wife’. In (12.33b/c) we find a question involving *ama*, ‘is the specified thing their calling?’, followed by a response involving *to-ha* ‘yes, the specified thing has become their calling’.

For attribution, identity, and equation, the order of NP and predicate constituents is:

CS CC Predicate (with copula verb as head)

As illustrated in (13.2), it is possible also to include a post-predicate NP, providing further specification of the CS. For the fourth copula relation, a different order applies.

(d) Naming, where the CC is a name and the CS includes the PN *ini/ino* ‘name’, as in (10.63), (19.20), and:

- (13.7) [*otaa* *taboro* *ino*]_{CS} *ama-ke* *Kasanofa*_{CC}
 1excross village+m name+m be-DECf name
 the name of our village is Casa Nova

- (13.8) ino_{CS} ama-ka Bamana_{CC}
 name+m be-DECM name(m)
 his name is Bamana

As can be seen, the constituent order for a copula clause of naming (involving either of the copulas) is

CS Predicate (with copula verb as head) CC

Whereas relations (*a-d*) involve two arguments, CS and CC, a fifth type of relation involves just a CS:

(e) Existence, of the CS. Examples involving *ama* include (5.317) ‘there are many cangati fish (here)’ (lit. ‘many cangati fish are (here)’), (10.64) ‘the forest was here’, and:

- (13.9) aba_{CS} mee ama-ra
 matrinxão(m) 3nsgCS be-NEGF
 there are no matrinxão (fish) (here) (lit. matrinxão are not (here))

- (13.10) sire_{CS} ama-ke
 coldness(f) be-DECf
 it is cold (today) (lit. coldness is)

The contrast between *ama* in an attributive copula clause (with two arguments) and in an existence clause (with one argument) is shown by (11.67) ‘the banana is unripe’ and (11.68) ‘it is an unripe banana’ (lit. ‘the unripe banana is’).

When copula (*to-)*ha is used with just a CS argument it means ‘come into being’. This is shown very clearly in:

- (13.11) fana_{CS} to-ha-ke
 female(f) AWAY-become-DECf
 (then) a girl was born (lit. a female came into being)

The explanation for how a certain place came to get its name was:

- (13.12) [jomee_O mee mee kabi] -mete-mone_{CS} ama-ke ahi,
 jaguar(m) 3nsgO 3nsgA eat+NOM -FPnf-REPF be-DECf HERE.VISIBLE
 [Jomee-kabe jama ini]_{CS} to-hi-ne-ke
 jaguar-eat+m thing(f) name+f AWAY-become-CONTf-DECf
 the people are reported to have eaten jaguars here (lit. their being reported to have eaten jaguars is, here); (and) the name Jomee-Kabe (lit. Jaguar-eating) came into being

Both clauses in (13.12) are copula clauses of existence. The first involves copula *ama* and a nominalized clause (plus tense-modal suffixes) as CS. The second involves copula *to-ha* with its CS being a complex NP involving the name, *Jomee-kabe*, the general noun *jama* ‘thing’, and the PN *ini* ‘name’.

The meaning of the copula (*to-)*ha- extends to something coming into view. One day a canoe was noticed coming down the river. Eventually it was seen that the canoe contained Indians, and someone said:

- (13.13) Koromi_{CS} mee to-ha-ke
 Indian 3nsgCS AWAY-become-DECf
 they are Indians (lit. the Indians have come into being, i.e. visibility)

In most languages one can indicate the name of a thing by just using a noun, e.g. (pointing at a picture or at that animal itself) ‘dog’, ‘tapir’, or by using a two-argument copula clause (in

English, *that's a dog, that's a tapir*). Citation in Jarawara generally involves a single-argument copula clause with *ama* plus declarative mood suffix *-ke/-ka* (which shows the gender of the noun), e.g. *awi ama-ka* 'that's a tapir' (lit. 'tapir is'). One day I had a sore on my leg and a speaker taught me the word for this by saying:

- (13.14) *bosaro*_{CS} *ama-ke*
 sore(f) be-DECLf
 it's a sore (lit. a sore is)

As described in chapter 22, the relator *ihí/ehene* 'due to, because of' has a fair range of functions—it can mark a clause or a core NP or a peripheral NP; in (13.15) it occurs in the CS NP of a copula clause. A canoe sank and, when asked why, the occupants replied that they had encountered a submerged tree stump, saying:

- (13.15) [*awa mate ihí*]_{CS} *ama-ke*
 tree(f) stump+f DUE.TOF be-DECLf
 it was due to a tree stump (lit. being due to a tree stump is)

An example of an NP marked by *ihí/ehene* as CS to copula (*to-)**ha* is at T2.54.

Jarawara does have a transitive verb *-kiha* — 'have' but this is only used for alienable possession (e.g. 'I have two dogs' or 'I have a bad cold'; note that *ito* 'bad cold' is a free noun). For kinship possession one normally uses a copula construction, as in (11.64) 'I have a daughter' (lit. 'my daughter is'). A copula clause must also be used to describe possession of something coded by a PN. Thus a way of saying 'he has big feet' is, literally, 'his big feet are', as in (11.59–60).

In the case of alienable possession a copula construction may be used as an alternative to a construction with the verb 'have', as in:

- (13.16) [*oko sirikaa*]_{CS} *ama-ka*
 1sgPOSS rubber(m) be-DECLm
 I have some rubber (lit. my rubber is)

One day I wanted to say 'my daughter sent me a letter' and was instructed to use a copula clause:

- (13.17) [*okoto kaa jama hani*]_{CS} *ama-ke*
 1sgPOSS+daughter POSS thing(f) writing+f be-DECLf
 my daughter's writing is (i.e. I have what she wrote)

In many languages, a copula verb may also be used to indicate location, e.g. *The dog is in the garden* in English. Jarawara generally uses a stance verb—rather than a copula—for location; that is, one should indicate whether the dog is sitting, standing, lying, etc. in the garden.

13.3 MORPHOLOGY

The copula (*to-)**ha* behaves very much like an intransitive or transitive verb, taking almost the full set of prefixes and suffixes set out in §4.1. For instance, it occurs with 1sg CS prefix *o-* in (12.25) and T1.40, with miscellaneous suffix *-waha* 'now, the next thing' in (7.14), with *-²ne/ø* 'continuous' in (13.6) and (13.12), with negator *-ra* in (6.35) and (7.13a), and with tense-modal suffixes in (7.28) and (12.33c), among many other examples. Like its homonym, the auxiliary (*to-)**ha*, the 'become' copula requires prefix *to-* (unless this is displaced by 1sg *o-* or 2sg *ti-*).

A pronoun in CS function may be repeated in the third pronominal position, as with referential verbs—see T1.40 and (7.14).

There is in the corpus no instance of the applicative prefix *ka-* being added to copula (*to-)**ha-* but there are examples of the causative suffix. This has the form *niha-* with copula *-ha-* and the copula *-ha-* then drops (as with auxiliary *-ha-*). For example:

- (13.18) [titisa mati]_O otaa to-niha-tee ama-ke
 bow(f) string+f 1EXCA AWAY-CAUS-[become]-HABIT EXTENT-DECLf
 we make bowstrings (lit. we make bowstrings become)

Like referential verbs, copula (*to-)**ha-* may show reduplication, as in (9.6).

The other (and more frequent) copula verb *ama* has very restricted morphology. Unlike (*to-)**ha*, it does not reduplicate, and it does not show gender agreement on its final vowel; *ama* takes very few suffixes and no prefixes whatsoever. That is, *ama* cannot occur with applicative *ka-*, with causative *na-* ~ *niha-*, or with *to-* ‘away’.

Under (I) in §4.5.2, it was remarked that the verb *amosa-* ‘be good’ cannot take pronominal prefixes (although it can take causative prefix *na-*). One simply cannot use *amosa-* with a 1sg or 2sg S argument (the semi-synonym *-tamina-* ‘be well’ is employed instead). The copula *ama* differs in that although it cannot itself take any prefixes, it can occur with 1sg *o-* and 2sg *ti-* as markers of its CS.

A nsg pronoun in CS function will come immediately before the copula verb, just like a nsg pronoun in S or A function; for example, 1exc *otaa* in (13.2) and 3nsg *mee* in (13.9). 1sg *o-* and 2sg *ti-* are normally prefixed to a verb or verbal auxiliary, and may then be repeated in the third pronominal position. If *o-* or *ti-* occurs with *ama*, it attaches to a mood or other affix following *ama*, effectively in the third pronominal position. Examples include *ama o-ke* in (12.35) and (13.1), and *ama ti-ke* in (13.4). If the CS is 3sg and is not expressed by an NP, the only marking for it may be gender on the mood suffix, as in (12.36) and (12.53).

The copula *ama* may not be directly followed by a tense-modal suffix or by any miscellaneous suffix other than negative *-ra*. In fact, the only suffixes which can immediately follow copula *ama* are negator *-ra*, declarative *-ke/-ka*, backgrounding mood *-ⁱni/-ne* (there is an example of this at (13.21)), polar interrogative *-ⁱni(hi)/nothing*, and content interrogative *-ri/-ra*. The normal rules for placement of negator *-ra* apply. If there is none of tense-aspect or secondary verb or mood, then *-ra* attaches to *ama*, as in (12.36). If there is also mood, then the negator follows the mood suffix, as in (13.2). One unusual feature of *ama* is that if there is a sg pronominal prefix, in CS function, and negator but no mood, then the prefix attaches to the negative suffix, as in (13.19). This comes from an account of a dream about a god. The dreamer reports having said in the dream:

- (13.19) Teoso! ama ti-ra-haa?
 God be 2sgCS-NEGF-DEPF
 God! Is it not you?

The corpus does not include any example of a (non-interrogative) copula clause with *ama* and 1sg *o-* or 2sg *ti-* which does not include either a declarative suffix or negative suffix *-ra*, to which the pronominal prefix can attach.

The interesting point is that tense-modal suffixes can be included on copula *ama* following a mood suffix or following negative suffix *-ra*. We find *ama-ka-no* in (6.82), the combination of declarative mood (*-ka*) and IPn (*-no*) bearing its normal meaning of uncertainty. In (15.40) there is *ama-ra-no* with the m form of the content interrogative, *-ra*, followed by the m form

of IPn, *-no*. In (7.6) we find IPnm *-mete* and REPM *-mona* following negator *-ra*. A further example comes from Bible translation:

- (13.20) Ihajeo_{CS} mee ama-ra-bone-ke
 name 3nsg_{CS} be-NEG-INTf-DECf
 the Israelites will not be (like this)

It is reasonable to ask how, if there is no negator, a tense-modal or miscellaneous suffix specification can be made in a copula clause involving *ama*. The answer is that a tense-modal or miscellaneous suffix is often added to an NP in CS function, as in:

- (13.21) Kimi-mata-mona_{CS} ama-ne
 name(m)-FPnm-REPM be-BKGM
 it was reported that Kimi was (the man who came) (lit. Kimi past reported is)

Other examples are (10.64–5) and T1.61, 69. In T1.90 the miscellaneous suffix *-mata* ‘short time’ is added to the adjective in CS function. Sometimes the CS argument cannot take a tense-modal suffix—this applies when it is a pronoun, within the predicate, as in (10.65), or an NP consisting of the specifier *afa/efe*, as in T1.66, or an NP consisting of interrogative *himata* ‘what’, as in (15.41). In these circumstances, a tense-modal suffix can be added to the CC NP.

Note that the corpus includes no example of a tense-modal or miscellaneous suffix added to an NP in CS or in CC function in a copula clause with *(to-)ha*; as noted above, these suffixes can here be directly added to the copula verb itself.

An NP as CS for either of the copula verbs often has a nominalized clause as its head or just comprises a nominalized clause. Examples include (11.6′) with *ama*, and (11.77) with *(to-)ha*. When a nominalized clause is in CS function for *ama*, it may be followed by a tense-modal suffix, just as a plain NP may be. Examples of this include (13.12), (13.25b), T1.85, T2.75, and T3.56–7, 62.

It appears that both copula verbs may occur in a predicate with both secondary verbs:

- (i) Copula *(to-)ha* ‘become’ occurs with secondary verb *ama* ‘extended in time’ in (6.35), (7.13a), and (12.25).
- (ii) Copula *(to-)ha* ‘become’ occurs with secondary verb *awine/awa* ‘seems’ in (12.31–2). Note that this combination appears to have a slightly idiomatic meaning ‘it could be’, ‘I think it is’ (which is not quite the expected ‘it seems to become’).
- (iii) Copula *ama* ‘be’ occurs with secondary verb *ama* ‘extended in time’ in (7.6).
- (iv) Copula *ama* ‘be’ occurs with secondary verb *awine/awa* ‘seems’ in:

- (13.22) owa_{CC} ama-ra awine-ke
 1sg be-DECf SEEMSF-DECf
 I think that it wasn’t me (that gave the Brancos permission to fish in Indian waters)

The CS is here unspecified and the declarative suffix has the form of the unmarked gender, f.

13.4 SYNTAX

As expected, there are no examples of reflexive or reciprocal copula clauses. Both copula verbs can feature in polar and content interrogatives; see §15.3–4. Only *(to-)ha* ‘become’ is attested in an imperative construction; see (15.33).

One interesting feature of the copula *ama* is that, when not taking any suffixes, it may be omitted, as in:

- (13.23) towisawa-bona_{CC} (ama) ti-ke waha
 chief(m)-INTM be 2gsCS-DECf NOW
 you're going to be a chief now

This sentence is deemed equally acceptable whether or not *ama* is included; however, the copula *ama* is only very occasionally omitted. Note that the copula verb (*to-*)*ha* is like referential verbs in that it can never be omitted.

The CS argument is pivot of a copula clause and functions in the same way as the other pivots—S from an intransitive clause, A from an Ac, and O from an Oc. In (13.6) the CS is not shown in the copula clause since it is identical with the S of the preceding intransitive clause. Further examples are T1.69 and (16.20a).

However, the majority of instances of copulas in texts are outside of a pivot sequence. A copula may be used to provide a comment on a participant, often one that is not in pivot function. In (13.24) the first and third clauses (both Ac's) have *borokoo* 'pirarucu (fish)' as O argument while the middle clause is an attributive copula clause with *borokoo* as CS.

- (13.24) [borokoo mee]_O Karijo_A mee naabahi-ke-ni;
 pirarucu(m) AUG Branco 3nsgA kill-DECf-IPnf
 borokoo_{CS} howe_{CC} mee ama-ke;
 pirarucu(m) large.type 3nsgCS be-DECf
 borokoo_O tiwa o-na-habana o-ke
 pirarucu(m) carry.on.shoulder 1sgA-AUX-FUTf 1sg-DECf
 the Brancos killed some pirarucus; the pirarucus are of large size; I'll carry
 the pirarucu on my shoulders

A copula clause is often employed in discourse for an aside such as 'what is it?' or 'where is he?' Or it can be a parenthetical comment, such as 'this is the place' in T1.61. It is typically used at the end of a story, with adjective *faja* 'enough', to signify 'that's all'—see T1.90 and T2.123.

A further function for a copula is to host a nominalized clause as its CS, for stylistic effect; see §19.3. For example, instead of the straightforward

- (13.25a) mee otaa kaba-hamaro otaa-ke fahi
 3nsgO 1excA eat-FPef 1exc-DECf THERE.NON.VISIBLE
 we ate them (fish) there

we find, at T3.62:

- (13.25b) [mee otaa kabi] -maro_{CS} ama-ke fahi
 3nsgO 1excA eat+NOM -FPef be-DECf THERE.NON.VISIBLE
 our eating of them (fish) was there

The core of (13.25a) becomes a nominalized clause in CS function to *ama* in (13.25b). There are other examples at T1.85, T2.75, and T3.56–7.

The copula (*to-*)*ha* has a special discourse function. Typically, when someone is listing things or people or properties, *to-ha-* will be included following each item in the list. Thus,

describing the food offered at a lunch, *to-ha-* came after each noun:

- (13.26) barakija_{CS} mee to-ha, fesao_{CS} to-ha,
 branquinha(m) 3nsgCS AWAY-become+f feijão(f) AWAY-become+f
 jifari_{CS} to-ha
 banana(f) AWAY-become+f
 (there was) branquinha (a small fish), feijão (cooked beans), bananas

The next example comes from when an Indian was looking at the colours of beads in a necklace; here *to-ha* comes after each stative verb plus auxiliary.

- (13.27) soki.ki na to-ha, mawa.wa na
 be.black.REDUP AUXf AWAY-become+f be.red.REDUP AUXf
 to-ha, sawa.wa na to-ha
 AWAY-become+f be.white.REDUP AUXf AWAY-become+f
 (there are) black ones, red ones, white ones

A list can include pronouns such as 'me', 'you', and 'us'. The pronominal forms used are the same as in post-predicate position, commencing with emphatic *haa*, as in:

- (13.28) haa.owa o-ha, haa.tee to-ha, ...
 EMPH.1sg 1sg-become+f EMPH.2nsg AWAY-become+f
 me, all of you, ...

Note that when 1sg *haa.owa* is included in a list, the 1sg prefix *o-* replaces *to-*; similarly with 2sg we get *haa.tiwa ti-ha*. However, with a nsg pronoun we simply get *to-ha* (see *haa.tee to-ha* in (13.28)) as with a list of nouns, in (13.26) or stative verbs, in (13.27). See the discussion in §23.1 of a list marked by *(to-)ha* followed by the list verb *na*, illustrated in (23.7).

13.5 HOMONYMS AND COGNATES

All of the other Arawá languages for which there is data (Paumarí, Kulina-Dení, and Sorowahá) also have *ha* as both a verbal auxiliary and a copula verb, suggesting that these go back to proto-Arawá.

Although within the grammar of Jarawara two distinct items *(to-)ha-* are recognized—auxiliary and copula—these are clearly historically related. Both take prefix *to-*, which is displaced by 1sg *o-* or 2sg *ti-*. Both take allomorph *niha-* of the causative prefix and the auxiliary/copula *-ha-* drops after *niha-*; this is the only circumstance in which copula *-ha-* or auxiliary *-ha-* can be omitted.

The copula *ama* and the secondary verb *ama* occur in Jamamadí and Banawá, the other dialects of the Madi language, but in no other Arawá language. It is likely that *ama* was introduced into proto-Madi as a copula, and then became grammaticalized to be a secondary verb (while still also continuing as a copula). It is suggested in §16.4.5 and chapter 27 that the third pronominal position and *ama* as secondary verb evolved jointly, through reanalysis of a two-clause construction (the second clause with copula *ama*) into a single-clause construction.

13.6 OTHER VERBS 'EXIST'

There are two other verbs, *-wata-* and *-na-*, which can be used to indicate existence, similar to relation (*e*) for the two copula verbs. However, *-wata-* and *-na-* never occur with two

non-oblique arguments (CS and CC)—expressing relations of attribution, identity, equation, or naming—and are thus most appropriately classified as intransitive verbs, taking an S argument.

Verb *-wata-* can be glossed as ‘exist, be located, be born’. It occurs in (6.73) ‘there’s not going to be any food for the animals’ (lit. ‘the animal’s food won’t exist’), and in (7.78) ‘I don’t have a mother’ (lit. ‘my mother doesn’t exist’). Note that *-wata-* can be used as an alternative to *ama* in a sentence like (11.64) ‘I have a daughter’ (lit. ‘my daughter exists’). It is commonly used with negator *-ra* to mean ‘there isn’t any’, as in:

- (13.29) [Kimi tati kone]_S wata-ka-ra
 name(m) head hair exist-DEC-NEGM
 Kimi hasn’t any head hair (lit. Kimi’s head hair doesn’t exist)

There are a number of homonymous verbs *-na-* in Jarawara. One is the auxiliary *-na-*; another is the list verb *-na-*, discussed in chapter 23. There is a further verb *-na-* which is an S=O ambitransitive meaning ‘put’ or ‘exist, be located’. In one story, a man asks where his deodorant is and receives the reply:

- (13.30) estrato_S na-hara ahi
 deodorant(f) exist-IPef HERE.VISIBLE
 the deodorant is (lit. exists) here

There is a further example at (12.59) ‘there was another gill-net visible a long way over there’ (lit. ‘a gill-net existed . . .’). Interestingly, this verb *-na-* cannot be used with negative suffix *-ra*. The opposite of *-na-* was consistently given as *-wata-* plus *-ra-*.

Structure of a Verbal Main Clause

A sentence has a main clause which may be followed and/or preceded by dependent clauses (described in chapter 18). As stated in §3.4, a clause may include the following elements (note that only the predicate is obligatory):

1. CLAUSE-INITIAL ELEMENTS—see §14.2.
2. CORE NPs. One NP in S function for an intransitive clause, one or two NPs in A and/or O function for a transitive clause, and one or two NPs in CS and/or CC function for a copula clause. The structure of NPs is discussed in chapters 10–11.
3. PREDICATE, which includes obligatory reference to core arguments (except for CC).
4. CLAUSE-FINAL ELEMENTS—see §14.3.
5. A POST-PREDICATE NP, expanding the reference of an S, A, O, or CS argument; these are used sparingly, for afterthoughts and special emphasis—see §10.3 and §12.1.

Core NPs in O, A, S, or CS function are coreferential with pronominal markers within the predicate. A post-predicate NP repeats or expands on the reference of a pre-predicate core NP (in O, A, S, or CS function), or on reference within the predicate (§10.3). The corpus does not include an example of a clause including more than one post-predicate NP.

Note that a core NP in O, A, S, or CS function cannot consist just of a pronoun; this must instead be placed within the predicate. As shown in §10.1, a pronoun can only function within a core NP as alienable or inalienable possessor. In contrast, a post-predicate NP can be just a pronoun, preceded by *haa*, e.g. *haa.'otaa* in (10.29) and *haa.'owa* in (10.30).

14.1 ORDER OF CONSTITUENTS

It is a fad of modern linguistics for one of the first questions asked about any language to be ‘what is its word order?’, by which is meant ‘what is the order of clausal constituents?’ For some languages—especially those, like English, where syntactic function is largely marked through constituent order—this is a relevant question. But for very many languages the order of clausal constituents is neither important nor significant.

There are certain sequences that are fairly fixed in Jarawara, and these are shown in the ordering given above: clause-initial elements generally precede core NPs which precede the predicate which precedes clause-final elements (these should perhaps be called ‘penultimate elements’) which precede a post-predicate NP. A peripheral constituent (NP or clause) marked by *jaa* is generally restricted to clause-initial or clause-final slot. However, I have heard a *jaa* constituent placed in the middle of the core, between S NP and predicate, and this order was maintained when attention was directed to it (see §20.1). This indicates that the order of constituents given above is conventional but not significant and can be varied without altering meaning or grammatical status.

Of the types of transitive clauses, an A-construction is likely to have an explicit O NP and an O-construction is likely to have an explicit A NP. Very few transitive clauses (no more than 3 per cent) have both A and O NPs. In an A-construction with two NPs, the A NP comes first about 85 per cent of the time (from a textual sample) while in an O-construction the O NP comes first about 73 per cent of the time. The order of NPs can be considered to be, to some extent, at the whim of the speaker.

For example, in an account of a dream in which a god appeared to cure the dreamer we find, in consecutive clauses:

- (14.1) o-boko_O teoso_A niki na-ke-hare-ka ahi;
 1sgPOSS-chest+m god(m) press AUX-COMING-IPem-DECm HERE.VISIBLE
 teoso_A o-boko_O niki na-ke-hare-ka [wata jaa]
 god(m) 1sgPOSS-chest+m press AUX-COMING-IPem-DECm dream PERI
 the god came and pressed on my chest here; the god came and pressed on my
 chest in the dream

Both clauses are A-constructions but the order of core NPs is OA in the first and AO in the second. (Another example was given at (3.19), being T3.15.)

14.2 CLAUSE-INITIAL ELEMENTS

There are a number of possibilities in the clause-initial slot. Only very seldom do two of them co-occur—see (14.8) for an example of this. Note that these elements generally occur in a main clause only when it is in sentence-initial position; that is, not preceded by a dependent clause (they could be called ‘sentence-initial elements’). We may get any combination of

- 1a.** An interjection—see §14.2.1.
- 1b.** A discourse-time marker—§14.2.2.
- 1c.** The locational demonstrative *aja* ‘here’—see §12.1.2; or the locational interrogative *hi(ba)ka* ‘where’—see §15.3.3.
- 1d.** A peripheral NP or clause indicated by a postposition or a relational marker—see chapters 20–2.

We can also get an addressee’s name or kin label (or something like *habai* ‘friend’ or *kobati* ‘companion, mate’) at the very beginning or at the very end of a clause. This is regarded as a distinct element, in apposition to the clause. Note that such a vocative element can be followed by a clause-initial element, within the clause proper, e.g. *hika* ‘where’ in (14.2) and *hima* ‘come on, let’s go’ in (14.3).

- (14.2) Safato!, hika kosi_O ti-jaba-ri-ni?
 name(m) WHERE urucuri(m) 2sgA-pick-CINTf-IPnf
 Safato! where did you pick the urucuri (fruit)?
- (14.3) Hatinahi!, hima mee ee awi-beja
 name(m) COME.ON 3nsgO 1incA look.at-IMMEDf
 Hatinahi! let’s go and have a look at them.
- (14.4) Kiwi_A owa a.‘ahi to-he-hino-ne, ami
 name(m) 1sgO REDUP.SWIVE AWAY-AUX-IPnm-BKGM mother
 Kiwi kept on swiving me, mother

Further examples are at T1.10, T2.1, 36, 80–106.

14.2.1 Interjections

These are elements which can be used alone, but more frequently come at the beginning of a clause, generally with contrastive intonation. They could, alternatively, be regarded not as part of the clause but—like names used vocatively—as a separate element in apposition with the clause.

There is an interjection *ee* ‘yes’, but this is used sparingly and is invariably followed by a full clause, e.g. (12.33c) and (12.35). It is the *ee* which may be omitted, not the affirmative clause. (Note that there is no interjection ‘no’ in Jarawara; one has to use an appropriate verb with the negative suffix *-ra*; see §7.3.)

As in many languages, interjections show special phonetic properties, e.g. the final vowel is often lengthened, and bears rising intonation. And there are phonetic elements which do not occur in other words, such as *f* and *ɔ*. The following have been noted but there are undoubtedly more:

ai	‘hey’, expression of surprise, when impressed
hikaa <i>or</i> kaa	‘goodness’, another expression of surprise
jee	‘oh no’, unpleasant surprise
ami <i>or</i> ahami	cry of anger or fear
hoo	call to find out where someone is (the same call would be given in response) or to give warning that one is coming
hii	call to attract attention
aaah	‘what is it?’ (often a response to one’s name being called)
φφhh hmm	exclamation on being tired
habo	‘uuhh’, when lifting something heavy
inaa	‘that’s a good smell!’
haa	used after making a mistake in talking, before correcting oneself

There are, in addition, many sound-symbolic expressions (or ideophones) which reproduce the noise of some activity. Here I simply list a small but representative sample:

sf sf sf sf sf-sf sf-sf	sound of bark separating from tree, see T3.6
fooo booo	sound of a flute
teo teo teo teo	sound of chopping
beʔ, tɔɔ	sound of rushing water
s ^y a s ^y a s ^y a s ^y a	sound of a woolly monkey
tɔkɔɔ-lələl tɔkɔɔ-lələl tɔkɔɔ-lələl	sound of an armadillo

These appear to have the same syntactic function as interjections.

14.2.2 Discourse-time markers

The first two forms listed—*hima* ‘come on, let’s go’; *hiba(re)* ‘wait a while’—are close to interjections. They can be used alone or with a following clause and are set off from it by contrastive intonation. The final syllable bears rising pitch and is often lengthened.

(i) *Hima* ‘come on, let’s go’ is a common invitation, as in (8.51c) ‘come on, let us both shit’, T1.76 ‘come on, let’s go back’, T3.21 ‘come on, (the canoe) is finished, let’s take it back down

to the river', and (14.3). In (14.5) *hima* introduced an invitation to come, to an addressee who will be O argument of the following clause:

- (14.5) *hima!* Sorowaha_A era mee awi-beja
 COME.ON tribal.name 1incO 3nsgA see-IMMEDF
 come on, let's go for the Sorowahá to see us

Hima is often used in conjunction with the 'immediate' mood suffix *-ibe(ja)/-ba(ja)*; see (7.51) and (7.53–5).

Hima can be an invitation, as in the examples just mentioned, or, used alone and with rising intonation, it can be a question 'shall we go?'

There is a transitive delocutive verb *hima -na-* 'say "hima" to someone', as in (5.168) and

- (14.6) *faja otara mee hima na*
 THEN 1excO 3nsgA say.'hima'.to AUXf
 they called us to go (lit. said 'hima' to us)

(ii) *Hiba* appears at first blush to have two quite different meanings: 'wait a bit' and 'just after starting'. These can, however, be linked in terms of a general meaning in which *hiba* relates together the temporal location of two events. A sentence '*hiba*, X, Y' indicates that the event of 'X' has begun before that of 'Y' commences, as in:

- (14.7) *hiba,* [ta.tafa o-ne jaa], Mito_S ka-ke-ka
 JUST.BEGUN REDUP.eat 1sgS-CONTf PERI name(m) in.motion-COMING-DECM
 when I'd just started to eat, Mito came

- (14.8) *faja hiba,* ka.ka-ma o-na, maa o-na-ma owa
 THEN JUST.BEGUN REDUP.in.motion-BACK 1sgS-AUXf, stop 1sgS-AUX-BACKf 1sgDEP
 then, just after I started to go back, I stopped

The 'X' clause typically involves initial CV. reduplication of its verb, indicating 'do a bit'; that is, 'when I'd eaten a bit, Mito came', 'when I'd gone back a bit, I stopped'. Note that in (14.7), 'X' is a peripheral clause marked by *jaa* while 'Y' is the main clause; in (14.8), 'X' is the main clause and 'Y' is a dependent clause.

However, *hiba* often occurs with just one following clause, 'X'. If this has marking relating to the future—for example, future modality, or *-mata* 'a short while' plus *-ibe(ja)/-ba(ja)* 'immediate'—then the meaning of *hiba* can be 'wait until X' (before doing anything else), as in (7.52) and (14.9). In one story a Jarawara man had asked a Branco for a loan of a paddle and had been refused. He was going off but then stopped and said to his companions:

- (14.9) *hiba!* [a.'ate ni]_S forima o-ne-hibana-ka
 WAIT ask AUX+COMP do.properly 1sgA(of COMP)-AUX-FUTM-DECM
 wait! until I go back to ask him again properly (before you do anything else)

The verb *forima -na-* 'do something properly (often, do something better a second time that was not done well the first time)', has as its S argument an O-construction complement clause involving the verb *a.'ate -na-* 'ask'. The A argument of the complement clause is raised to be a prefix to the main verb; see §17.6.

If the following clause does not have future reference then *hiba* can indicate 'just begun', as in:

- (14.10) *hiba fana ne*
 JUST.BEGUN get.married AUXm
 he has just got married (lit. he has just begun to be married)

Hiba can be used by itself, as a complete sentence, and then means ‘wait a bit!’ It can be followed by an explanation of why the addressees are being urged to wait (and the verb of this clause will not be reduplicated), as in:

(14.11) *hiba!*; o-tafa-saa oo
 WAIT IsgS-eat-STILL Isg
 wait a bit! I’m still eating

If someone says to you *hima* ‘come on, let’s go’ (as invitation or question) you can reply just *hima* if you do want to go, or else just *hiba* if you don’t want to. There is an alternative form *hibare* which appears to be used when *mata* ‘short time’ follows. The answer to an injunction ‘come on, let’s go’ (involving *hima*) was heard as *hibare mata* ‘wait for a short while’; this is a sentence consisting just of clause-initial element *hibere* and clause-final element *mata*.

There is likely to be a historical connection between clause-initial element *hiba(re)* ‘wait a bit, just after starting’ and aspect time lexemes *hibati* (which can be shortened to *hiba*) ‘completed’ and *hibajata* ‘close in time’, discussed in §6.4. The nature of the relationship has not yet been worked out.

Unlike *hima* and *hiba*, the remaining items in slot 1a form one intonation group with what follows.

(iii) *Faja* is used a great deal in Jarawara discourse and can be roughly glossed ‘then’. It generally indicates a new pivot in the discourse or a new type of activity concerning an established pivot. It is often used after a clause (or clauses) that describes people talking, to introduce a definite action, as in:

(14.12) *faja to-ke*
 THEN AWAY-in.motion+m
 (‘we’ve got no food at all’, he said) and then he went out (into the forest)

Faja may be used in a clause that sums up something which has been completed, as in:

(14.13) *faja karafato_s karoro na-waha-ma*
 THEN tape.recorder(f) go.round AUX-NOW-BACKf
 (the tape recorder is faulty, so Okomobi takes the back off, mends it, replaces the back, and says, in a narrative about this:) and then the tape recorder goes round (all right)

There are many instances of *faja* throughout texts T2 and T3 (and at T1.68). We do encounter *faja* plus *hiba*, in that order, in (14.8).

This clause-initial particle may be cognate with the adjective *faja* ‘enough’ (D2 in §11.2.1). Its use in clause-initial slot may indicate (or may originally have indicated) that there has been ‘enough’ of what has been described by the preceding clause(s).

(iv) *Manakobisa* or *manakobote* marks a point of particular contrast in the discourse. Often this relates to time, ‘much later’. In (7.13) Okomobi told of how his grandfather never became a chief and then said, referring to the next generation: ‘later on (*manakobisa*) my father did become a chief.’ And then, referring to a time thirty years further on, he said

(14.14) *manakobisa okobi_s kita-ma-re,*
 LATER IsgPOSS+father be.strong-BACK-NEGM
 towisawa_{CC} o-ha-wa-habone
 chief IsgCS-become-NOW-INTf
 later on my father lost his strength (lit. became not strong) and now I had to become chief

However, *manakobisa* can mark many other kinds of contrast, involving actions or participants—for example, ‘we went downstream, came to a river junction, and *manakobisa* we went upstream’, ‘we rowed one boat and *manakobisa* the Brancos were in another boat’, ‘a few of them came and *manakobisa* many more followed behind’. Kakai recorded a story telling how one day he went hunting game, then came home at dusk, and

- (14.15) *manakobisa faha_o kii o-na-bone o-ka tasa*
 CONTRAST water(f) search IsgA-AUX-INTf IsgS-in.motion+f AGAIN
 (the next day) I planned to go out again (this time) in contrast to catch fish
 (lit. search water)

He described catching fish, coming home at dusk, and

- (14.16) *manakobisa o-wita*
 CONTRAST IsgS-sit(singular S)+f
 (the next day) in contrast, I stay at home

In the Jamamadi dialect *manakobote* (which can be shortened to *makobote*) is used where one would hear *manakobisa* in Jarawara. However, speakers of Jarawara maintain that they can use *manakobote* and that the two forms are equivalent. Both involve *manako*, the root of PN *manakone/manakone* (at an earlier stage *manako-ni/manako-ne*) ‘exchange, price’ and of verb *manako -ha-* ‘exchange for’. The second elements are miscellaneous suffix (and clause-final modifier) *(-)bisa* ‘also’ and adjective *bote(e)* ‘old’. Thus, from ‘exchange+also’ and ‘exchange+old’ has developed this clause-initial discourse marker. I have also heard *manako* used alone, with no second element, as a clause-initial contrast marker.

Three other forms appear at first sight to relate to this slot, but are better analysed in another way. As described in §11.1.5, *hine/hiwa* ‘just’ may be the only element preceding an intransitive predicate (which begins with 3nsg *mee*) and has meaning ‘just this (and nothing else)’. However, it is best analysed as being a reduced NP in a core function; see (11.27) and (11.29–33) in §11.1.5.

The form *-kasiro-* functions as an intransitive inflecting verb ‘do a lot’, typically with a complement clause as S argument. It may also be followed by the general postposition *jaa*, and then has an adverbial sense, ‘a lot’, as in (20.41) and:

- (14.17) *otaa ori na otaa-ke [kasiro jaa]*
 IexcS paddle AUX Iexc-DECF a.lot PERI
 we paddled a lot

Kasiro is sometimes found in clause-initial position with no postposition *jaa*, as in:

- (14.18) *kasiro ori o-na-hara o-ke*
 a.lot paddle IsgS-AUX-IPef Isg-DECF
 I paddled a lot

However, this is probably best treated as an instance of a *jaa* constituent with the *jaa* omitted, as happens occasionally (see chapter 20), rather than *kasiro* being regarded as a clause-initial element similar to *faja* or *hiba*.

The rather uncommon form *fajari* ‘uncertain of location’ can occur clause-initially, as in the sole textual example:

- (14.19) *fajari o-keha owa awine o-ke*
 UNCERTAIN.LOCATION IsgS-COMING Isg SEEMSF Isg-DECF
 I didn’t know where I’d come to

However, elicitation revealed that *fajari* can often be (and preferably is) followed by *jaa*, suggesting that it is best classified not as a single-word clause-initial element, but rather as some kind of nominal (what sort is not entirely clear) which is typically followed by post-position *jaa*, although the *jaa* may be omitted. Speakers explained *fajari* as meaning ‘on the wrong road’ or ‘don’t know where you are’.

14.3 CLAUSE-FINAL ELEMENTS

As set out in §3.4, there are a number of clause-final elements (which mainly occur when the main clause is in sentence-final position). There can be any combination of:

4a. One or more clause-final modifiers, each of them homophonous with a miscellaneous or mood verbal suffix. The full list is:

mina	‘in the morning, tomorrow’	see (2) in §5.5
baha	‘do first’	see (3) in §5.5
rama	‘unusual, unexpected’	see (10) in §5.7
tasa	‘do again’	see (1) in §5.9
bisa	‘also’	see (2) in §5.9
mata	‘short time’	see (5) in §5.9
waha	‘now, the next thing, then’	see (1) in §5.10
makoni	‘unusual, take no responsibility for’	see §7.2.4

4b. An adverbial demonstrative (see §12.1):

ahi	‘here (visible)’ or
fahi	‘here/there (non-visible)’

4c. A peripheral NP or clause marked by a postposition, the same as (*Id*) in clause-initial elements.

A dependent clause also allows:

4d. A non-affixal marker referring to the person and number of the linking argument.

Examples (3.13–15) in §3.4 present examples of several clause-final elements in one clause: *4c* is followed by *4a* in (3.13), *4a* is followed by *4b* which is followed by *4c* in (3.14), *4b* is followed by *4a* in (3.15). From these and other examples it can be inferred that there is no set ordering of elements within the clause-final slot.

14.4 DIRECT AND INDIRECT SPEECH

14.4.1 Direct speech

Narrative in Jarawara includes a good deal of direct speech, quoted as it was spoken. There are two, rather different, ways of marking direct speech.

(a) The transitive verb *a'ate -na-* (with inherent reduplication) can be glossed ‘ask’ or, better, ‘make a request of’. The O argument must be the person of whom the request is made.

A clause with *a'ate -na-* may be followed by direct speech, which is likely to commence with the name—in vocative function—of the person who is O argument of *a'ate -na-*, as in:

- (14.20) okobi_O a'ate o-na:
 1sgPOSS+father(m) ask 1sgA-AUXf
 'abi!, towisawa_{CC} o-ha-wa-habone o-ke?'
 father chief(m) 1sgCS-become-NOW-INTf 1sg-DECf
 I ask my father: 'father! should I become a chief now?'

Note that the direct speech is in apposition to the clause with verb *a'ate -na-*; it is not an argument of this clause. The S = A verb *haa -na-* 'call (to)' behaves in a similar manner. When used transitively, its O NP must be the addressee, and—like other verbs of speaking—it can be followed by direct speech.

(b) The ambitransitive verb *ati -na-* can be glossed 'say' or 'ask' or 'order'. When used transitively it generally follows a segment of direct speech (which can be a statement or a question or a command), with the direct speech functioning as O argument for *ati -na-*. There are many examples of this in the texts; for instance, the O argument of *ati -na-* is a question in T2.81, a request in T2.93, and a statement in T2.94, as it is in (14.21).

- (14.21) [Okomobi_S kobo na-re-ka]_O Rosira_A ati na-ra-ke
 name(m) arrive AUX-IPem-DECM name(f) say AUX-IPef-DECf
 'Okomobi has just arrived', Lucilia said

An alternative analysis of (14.21) would be to take *Rosira* as the S argument of the verb *ati -na-* used intransitively, with the preceding direct speech being in apposition to the *ati -na-* clause (a similar analysis to that of (14.20)). Verbal suffixes agree with A in a transitive and with S in an intransitive clause, so that agreement would be with *Rosira* under either analysis. That the correct analysis of (14.21) is as a transitive clause (an A-construction) is shown when we examine the corresponding O-construction, in (14.22). Here O-construction marker *hi-* is added to the auxiliary of *ati -na-* (and, as described in §4.5.1, the lexical root *ati* is omitted when its auxiliary bears prefix *o-*, *ti-*, or *hi-*).

- (14.22) [Okomobi_S kobo na-re-ka]_O Rosira_A hi-na-hare-ka
 name(m) arrive AUX-IPem-DECM name(f) Oc-AUX-IPem-DECM
 'Okomobi has just arrived', Lucilia said

Note that in (14.22) verbal suffixes in the main clause agree with the pivot of the direct speech which is O argument of *ati -na-* (this is the S argument of the verb *kobo -na-* 'arrive', which is the man's name *Okomobi*). There are further examples at (4.57–8).

We do find direct speech within direct speech. Text 2 tells how a Branco was bitten on the balls by an ant. His Indian companion, Okomobi, located a type of leaf in the forest whose juice would palliate the pain. The Branco was at first sceptical about whether this would work but later admitted that it did. Okomobi says, in narrating the story (this is T2.108–9):

- (14.23) 'owati_O ti-ka-sawari-hara ti-ke, ["hemejo_S amosa
 1sgPOSS+words 2sgA-APPLIC-get.lost-IPef 2sg-DECf medicine(f) be.good
 awine-ke]_O o-na-hara o-ke" o-na-hamaro o-ke
 IN.MY.OPINION-DECf 1sgA-AUX-IPef 1sg-DECf 1sgA-AUX-FPef 1sg-DECf
 'you didn't believe what I said (lit. you were frustrated by my words), (but) I said
 "the medicine is, in my opinion, good"', I said

The final clause belongs to the narrative and is in FPe, the tense of the narrative. The preceding clause describes what Okomobi said at an earlier point in the adventure and is in IPe tense. (Note that *ati* is dropped from both instances of the verb, since its auxiliary bears the 1sg prefix *o-*.)

14.4.2 Indirect speech

Most speech is reported as direct speech, but texts do include a number of examples of indirect speech. This also functions as O argument of the verb *ati -na-* ‘say’. It is distinguishable from direct speech by the fact that person reference is shifted.

We can again illustrate from text 2. In T2.92 there is an instance of indirect speech:

- (14.24) [kijo o-ne-hibona]_O ati ne-mari-ka
 rub 1sgA-AUX-INTM say AUX-FP_m-DECM
 he said (i.e. asked) that I should rub him

The first clause is a transitive O-construction, as indirect speech. The O is the male speaker, realized only through m agreement on the intention suffix. The A of the main clause (an A-construction), with *ati -na-*, is shown only by the m forms of FPe and declarative suffixes.

This was followed in T2.93 by almost the same statement rendered through direct speech:

- (14.25) ‘[kobati!, o-tenehe_O kijo ti-na-habana ti-ke]’_O
 companion 1sg-scrotum+m rub 2sgA-AUX-FUTf 2sg-DECF
 ati ne-mari-ka
 say AUX-FP_m-DECM
 ‘friend! you’ll rub it (on) my balls (where they were bitten by an ant)’, he said

The initial clauses of (14.24) and (14.25) have the same reference—the A of the direct speech, in (14.25), is *ti-* ‘you’ whereas for the indirect speech, in (14.24), it is *o-* ‘I’; the O of the direct speech is *o-tenehe* ‘my balls’ whereas for the indirect speech it is ‘him’ (shown by m cross-referencing).

Further examples of indirect speech include:

- (14.26) [mii ne-bona]_O ati ne-no-ho
 shit AUX-INTM say AUX-IP_{nm}-DEP
 he wanted to shit, he said

There are two main differences between direct and indirect speech. The first, as already mentioned, is shift in argument reference. The second is that direct speech may take the full possibilities of a main clause, including any tense-modal and mood suffixes. In contrast, indirect speech may not include a mood specification but it can include tense-modal suffixes such as intention, *-(ha)bone/- (hi)bona*, as in (14.24) and (14.26).

Commands and Questions

15.1 COMMANDS

Jarawara has four imperative mood suffixes, positive and negative in each of ‘immediate’ and ‘distant’. However, just as in other languages, not all commands involve an imperative suffix and not all clauses with imperative suffixes are true commands (see, for example, (15.18–19), (15.31a/b), and (15.33)).

Jarawara is similar to English in that an imperative is pragmatically direct, and is used to convey an urgent message. For instance, a man had been talking from his hammock at night and keeping others awake. Someone said to him:

- (15.1) Inaso, amo ti-na-hi!
 name(m) sleep 2sgS-AUX-ImmPosIMPf
 Inaso, go to sleep!

Or, when telling some people in a canoe to get a move on:

- (15.2) [tee ori ni]_s kita-hi!
 2nsgS paddle AUX+COMP be.strong-ImmPosIMPf
 you all paddle hard! (lit. let your paddling be strong!)

Compare these with (14.25), where a Branco wants a favour from Okomobi, his Indian companion. In the narrative he uses a clause in future modality, rather than one marked by imperative mood. Okomobi declines the request to rub the Branco’s balls, saying that the balls have a strong smell (at which the Branco laughs). Then, to make the message direct, Okomobi uses an imperative:

- (15.3) fara tiwa ti-ke-te-hi!
 JUSTf 2sgO 2sgA-APPLIC-rub-ImmPosIMPf
 you rub yourself!

(It is hard to decide whether *fara* in (15.3) is in A or in O function.)

That is, a mild command may use future modality, as in (14.25) or—more often—intention modality, as in (15.4a), in each instance followed by declarative mood.

- (15.4a) Okomobi! ti-ka-make-habone ti-ke ahi
 name(m) 2sgS-in.motion-FOLLOWING-INTf 2sg-DECf HERE.VISIBLE
 Okomobi! would you like to come over here (lit. you should come over here)

When the Casa Nova football team asked me to take their photograph, the intention suffix was used:

- (15.4b) Jobeto!, otara tira ti-na-habone ti-ke [tika makina jaa]
 name 1exco take 2sgA-AUX-INTf 2sg-DECf 2sgPOSS machine PERI
 Jobeto! will you take us (i.e. our photo) (lit. you should take us) with your
 machine (camera)

When Okomobi recorded the story of his father's final illness and death, almost all commands were indirect, involving the intention modality suffix. A friend says, 'you should (INT) go to the hospital to see your father.' Once there, Okomobi says to his father, 'you should (INT) eat' and 'you should (INT) drink.' Only after his father has died does the first imperative come in; it is addressed to the Christian God: 'take (ImmPosIMP) my father's arm, and he will (FUT) be together in your village (i.e. heaven).'

Like most languages outside Europe, Jarawara does not have anything directly corresponding to *hello* and *goodbye*. But there are fixed speech formulas for particular kinds of leave-taking. Anyone who wishes to depart from your house will say *o-ko-ma-bone o-ke* (1sg-in.motion-BACKf-INTf 1sg-DECf) 'I intend to go away'. Before they can leave, you must respond with the imperative:

- (15.5) *ti-ka-ma-hi!*
 2sgS-in.motion-BACK-ImmPosIMPf
 you (sg) go!

Or, if there are two or more people, you should say *tee to-ko-ma-hi!* (2nsg AWAY-in.motion-BACK-ImmPosINTf) 'you (pl) go!'

15.2 IMPERATIVES

15.2.1 Form

Like other mood suffixes, each of the four imperatives has f and m forms:

immediate positive	A	-hi/-ho
distant positive	**	ⁱ ja-hi/-ja-ho
immediate negative	*	-rima -na-hi/-rama -na-ho
distant negative	*	-ri-ja-hi/-ra-ja-ho

The immediate positive is the most straightforward, simply involving the suffix *-hi/-ho*. If it is directly added to an auxiliary *-na-*, the *-na-* is retained (as shown by code letter A). This is illustrated in (15.1–3) and (15.5).

The distant positive involves *-hi/-ho* added to ⁱ*ja/-ja*, with the added feature that an immediately preceding auxiliary *-na-* is omitted if it also bears a prefix (code **). The distant negative can be analysed as negative suffix *-ra* plus distant positive ⁱ*ja-hi/-ja-ho*, giving *-ri-ja-hi/-ra-ja-ho*. This is of type * (like negative *-ra* used alone) where an immediately preceding auxiliary always drops.

The next four examples contrast immediate positive and distant positive with 2sgA (which is a prefix, *ti-*, to the auxiliary) and with 2nsg A (which is a separate word, *tee*, coming before the lexical verb), with the non-inflecting transitive verb *noki -na-* 'wait for'.

- (15.6) *otara noki ti-na-hi!*
 1excO wait 2sgA-AUX-ImmPosIMPf
 you(sg) wait for us (here and now)!

- (15.7) *otara noki ti-jahi!*
 1excO wait 2sgA-DisPosIMPf
 you(sg) wait for us (in some distant time or place)!

(15.8) otara tee noki na-hi!
 1excO 2nsgA wait AUX-ImmPosIMPf
 you (all) wait for us (here and now)!

(15.9) otara tee noki ni-jahi!
 1excO 2nsgA wait AUX-DisPosIMPf
 you (all) wait for us (in some distant time or place)!

In (15.6) and (15.8) the immediate positive imperative suffix *-hi* is added to the auxiliary *-na-* which is retained, whether it bears a prefix, as in (15.6), or not, as in (15.8). In (15.9) the distant positive imperative suffix *-ⁱja-hi* is added to *-na-* (which bears no prefix), giving *-nijahi*. But in (15.7) the auxiliary does bear 2sg prefix *ti-* and the auxiliary drops, an underlying *ti-na-ⁱja-hi* becoming *tijahi*.

The corresponding distant negatives are:

(15.10) otara noki ti-rijahi!
 1excO wait 2sgA-DisNegIMPf
 you (sg) don't wait for us (in some distant time or place)!

(15.11) otara tee noki rijahi!
 1excO 2nsgA wait DisNegIMPf
 you (pl) don't wait for us (in some distant time or place)!

Thus the auxiliary *-na-* always drops when followed by the distant positive imperative, whether it bears a prefix, as in (15.10), or not, as in (15.11).

The most complex form is the immediate negative. The first element is *-rima/-rama*. This appears to begin with the negative morpheme *-ra*, perhaps followed by *-ⁱma/-ma* (although no morpheme with this form is attested elsewhere in the language). This *-rima/-rama* functions like a prefix-poaching auxiliary-taking suffix (see §5.2 and §5.7). When added to an auxiliary, the auxiliary always drops from before it (as it always does before negative suffix *-ra*). The *-rima/-rama* must be followed by an auxiliary *-na-*, to which all affixes (including 2sg prefix *ti-*) are attached. This auxiliary takes the imperative mood suffix *-hi/ho*. Thus:

(15.12) otara noki rima ti-na-hi!
 1excO wait ImmNegIMPf 2sgA-AUX-IMPf
 you (sg) don't wait for us (here and now)!

(15.13) otara tee noki rima na-hi!
 1excO 2nsgA wait ImmNegIMPf AUX-IMPf
 you (pl) don't wait for us (here and now)!

The final *-hi/ho*, which is shared by all imperatives, may freely be omitted (with no change in meaning) if the S or A is 2nd person. For the three longer forms the final *-hi/ho* is omitted from about half of their textual occurrences; there is enough of the form remaining to recognize these suffixes for what they are. The immediate positive is marked only by *-hi/ho* and this is omitted relatively rarely—in perhaps 10 per cent of instances. The fact that we have an imperative is then inferable from the S or A being 2sg or 2nsg, from context, and from intonation. Note that the final *-hi/ho* is omitted from the immediate positive imperative in T2.90, T3.13, and (15.32a), from the distant positive in T1.32, (15.22), (15.26), and (15.32b), from the immediate negative in (15.28), and from the distant negative in (15.19), (15.31a), and (15.32a).

With a non-inflecting verb in imperative mood, the whole auxiliary constituent (involving auxiliary root, imperative suffix, and perhaps 2sg prefix) is occasionally omitted, especially in a strongly pragmatic context. A spectator at a football match between teams from two Jarawara villages called out just *taro!* ‘kick!’, omitting the auxiliary component from the canonical structure:

- (15.14) *taro (ti-na-hi)!*
 kick 2sgA-AUX-ImmPosImpf
 (you) kick (it)!

15.2.2 Person and gender

As in all languages, most imperatives relate to 2nd person. Generally, 2sg or 2nsg make up the whole S or A argument, as in (15.1), (15.3), and (15.5–14). Alternatively, the S or A can be an NP with 2sg or 2nsg as head, followed by a PN. One old man, while recording a story, became annoyed at the noise some small boys nearby were making, and addressed an aside at them, using an immediate negative imperative:

- (15.15) [*tee ati*]_S *wata-rima na-hi!*
 2nsg voice exist-ImmNegImpf AUX-IMPf
 shut up! (lit. let your voices not exist, here and now!)

Or the S or A argument can be a complement clause which itself has a 2nd person pronoun as S or A, e.g. (15.2) ‘let your paddling be hard!’

There are also examples of imperatives with 1st or 3rd person as S or A. We often get imperatives with *tinc* (which of course includes ‘you’) as subject; for example:

- (15.16) *hima ee to-ko-ma-hi!*
 COME.ON! *tinc*S AWAY-in.motion-BACK-ImmPosImpf
 come on, let’s go back!
- (15.17) *ee to-ko-ma-rima na-hi!*
*tinc*S AWAY-in.motion-BACK-ImmNegImpf AUX-IMPf
 let’s not go back now!

When an Indian was at a feast organized by missionaries and had already had a lot to eat, he declined the offer of more food by using a 1st person distant negative imperative:

- (15.18) *saa o-rijahi!*
 vomit 1sgS-DisNegImpf
 I might vomit! (if I ate more) (lit. I mustn’t vomit later on!)

An example of 1sg A with an imperative is (15.19). Here the speaker wanted to give away at most a small piece of his large *pirarucu* fish, not half of it; he used a distant negative imperative to convey this desire.

- (15.19) *borokoo ibe, borokoo_O bobi o-rija*
pirarucu(m) half.of pirarucu cut 1sgA-DisNegImpf
 half of a *pirarucu*, I don’t want to cut off (that much) *pirarucu* (for you)

As shown in §10.1.5, an NP including a PN counts as inanimate 3rd person. In (15.20) the S argument of an intransitive imperative is an NP including 2sg *ti-* plus a PN.

- (15.20) *ti-batasi_S waa-ma-hi!*
 2sg-back stand-BACK-ImmPosImpf
 turn your back upwards! (lit. let your back stand around!)

In one story, two women have illicitly taken some fruit belonging to a man and agree with his suggestion that he should copulate with them as recompense. One sister tells the other to go first, using an imperative that does include 2sg, but as O argument, with 3sgm as A argument:

- (15.21) tiwa jori ni-ba-ho!,
 2sgO swive AUX-DO-FIRST-ImmPosImpm
 tiwa tai to-ni-ha-ho!
 2sgO be.first AWAY-CAUS-AUX-ImmPosImpm
 let him swive you! let him take you first!

Other examples with 3sg subject are (15.30–3).

Since all pronouns are cross-referenced as *f*, an intransitive imperative with 2nd person as S or a transitive A-construction imperative with 2nd person as A must take *f* cross-referencing on verbal suffixes. This accounts for the great majority of imperative clauses. But there are some with *m* agreement:

- (a) where the S or A is 3sgm, as in (15.21), (15.30), and (15.33); or
 (b) in an O-construction with 3sgm as O argument, as in:

- (15.22) faja tee to-wa-ka-ma-ja!
 THEN 2nsgA AWAY-APPLIC-in.motion-BACK-DisPosImpm
 you take him back then, later on!

When going over the text in which this occurred, speakers stated that *-ho* could be added (i.e. *to-wa-ka-ma-jaho*) and that an alternative (an A-construction, with the same meaning) would be *faja tee to-wa-ka-mi-ja(hi)* with the *f* form of the distant positive imperative suffix, agreeing with the A argument, 2nsg *tee*.

15.2.3 Meaning

Dealing first with positive imperatives, the immediate form gives a command to do something right here and now, e.g. (15.1–2). The distant form relates either to doing something in a different place, or at a different time. One might say to someone whose meal is ready:

- (15.23) ti-tafa-hi!
 2sgS-eat-ImmPosImpf
 you eat (here and now)!

This is an invitation to eat it now, in your presence. But if someone is in your house and is called to go and eat in their own house, it would be appropriate for you to use the distant form:

- (15.24) ti-tafi-jahi!
 2sgS-eat-DisPosImpf
 you eat (in some other place, and/or at a different time)!

When I enquired how great a spatial distance was required for appropriate use of a distant—rather than an immediate—imperative, I was told that any distance would suffice. Immediate imperative should be used in a command to eat some foodstuff right in front of the speaker,

and distant imperative in a command to eat another foodstuff which is 10 metres, or 1 metre, or just a few centimetres further away.

Another example of a distant imperative is:

- (15.25) *ti-na-ka-maki-mini-jahi!*
 2sgA-CAUS-in.motion-FOLLOWING-TOMORROW-DisPosIMPF
 you come (here) tomorrow to fetch (the tape recorder)!

In one legend, an ancestral hero tells his people to return to a certain place at the season when the piquiá fruit drops.

- (15.26) [*mato_S sone jaa*], *tee ka-mi-ja!*
 piquiá(m) fall+m PERI 2nsgS in.motion-BACK-DisPosIMPF
 when the piquiá falls, you return!

The same distinction applies to the two negative imperatives. The immediate negative relates to the time and place of the speech event, as in (15.15) and

- (15.27) *bora_O taro rima ti-na-hi!*
 ball(m) kick ImmNegIMPF 2sgA-AUX-IMPf
 don't you kick the ball!

Text 1 relates how, after an old shaman had died and been buried, Manowaree told his companions that they should not fear the dead man's spirit (this is T1.84):

- (15.28) *tee kakome-rima na!*
 2nsg be.afraid-ImmNegIMPF AUX
 don't you be afraid (here and now)!

Someone in the village once said, jokingly:

- (15.29) [*Jara fana*]_O *jori ti-rijahi!*
 Branco woman(f) swive 2sgA-DisNegIMPF
 don't you swive (copulate with) a Branco woman!

The distant negative had to be used here, since there was no Branco woman in the vicinity.

An imperative may be used with a 3rd person S or A with the sense 'it should (or shouldn't) be'; for example:

- (15.30) [*moto ati*]_S *fawa rajaho*
 motor(m) noise disappear DisNegIMPF
 it's not good to let the motor stop (lit. the motor's noise should not be allowed to disappear)

In one story a garden is cropless and someone says:

- (15.31a) *ita-tee-rija*
 sit-HABIT-DisNegIMPF
 it should not stay permanently (in that state, cropless)

One day I gave Okomobi a folding hairbrush; one had to snap it open and then press on the back for the brush to appear. He described this using an impersonal imperative:

- (15.31b) *bari_S joko na-misa-hi*
 back push AUX-UP-ImmPosIMPF
 the back is to be pushed

Here the S=O ambitransitive verb *joko -na-* ‘push’ is being used intransitively, and its S argument is *bari* ‘back (of the brush)’.

A negative imperative may also have the sense ‘lest’ or ‘so that something should not happen’. In one story, we find:

- (15.32a) Motobi!, kanawaa_O ti-mato-ma!,
 name(m) canoe(f) 2sgA-tie.up-BACK(-ImmPosImpf)
 kanawaa_S to-kisa-rija!
 canoe(f) AWAY-move.downstream-DisNegImpf
 Motobi! tie up the canoe! lest the canoe move off downstream! (lit. the canoe must not move off downstream)

The first clause here is an immediate positive imperative, and the second clause is a distant negative imperative (with an inanimate 3rd person S argument). Note that in this sentence final *-hi* is omitted from both imperative verbs.

In the story of his father’s death, a narrator urges:

- (15.32b) ee to-ko-mi-ja ah!,
 1incS AWAY-in.motion-BACK-DisPosImpf HERE.VISIBLE
 abi_S bata-rajaho!
 father(f) be.rotten-DisNegImpf
 let us go here! (to bury him), lest father(’s body) gets putrid!

Imperatives can be used on a wide range of verbs including the copula (*to*)-*ha-* ‘become’ (but not, it appears, the copula *ama* ‘be’). An example of an imperative with (*to*)-*ha-* ‘become’ is:

- (15.33) [kote_O ti-nofe jaa], kote_{CS} [tiwa ni-jaa] to-ha-ho
 piece.of 2sgA-want+m PERI piece 2nsg PERI AWAY-become-ImmPosImpf
 if you want a piece of it, you’ll get a piece of it (lit. a piece become to you)

Note that the omitted head of the NP which includes PN *kote* ‘piece’ (which does not itself show gender) must be m. The first clause (marked by *jaa*) is an O-construction, showing m agreement with the O argument, and the second, copula, clause shows m agreement with its CS.

Imperative verbs tend to have a fairly simple structure, but there are examples of one or several miscellaneous suffixes before the mood, e.g. *-ma* ‘back’ in (15.5), (15.16–17), and (15.32b), *-misa* ‘up’ in (15.31b), *-makI* ‘following’ and *-mina* ‘tomorrow’ in (15.25), *-ma* ‘back’ and *-mata* ‘short time’ in T1.10. In T3.34 we find verb *-naho-* ‘sit/stand (inanimate pl)’, with initial CV. reduplication, followed by the prefix-poaching auxiliary-taking suffix *-karahama* ‘continue doing, do without stopping’, plus immediate positive imperative suffix.

There are no examples in the corpus of imperative suffixes with tense-modal suffixes, with other kinds of mood suffix, or with either of the secondary verbs.

15.3 CONTENT QUESTIONS

A content question seeks a specific piece of information, in contrast to a polar question (discussed in §15.4) which seeks a ‘yes’ or ‘no’ answer.

A content question in Jarawara involves two things: (a) a content question word; and (b) a content interrogative mood suffix.

(a) The content question words are:

himata	‘what’—see §15.3.1
hibaka (f); hibeke, hibake, or hike (m)	‘who’—see §15.3.2
hibaka or hika	‘where’—see §15.3.3
ee -na-	‘what about, how is, where is, how many is’—see §15.3.4

These words are grouped together as interrogatives since they may co-occur with the content interrogative mood suffix. But, as pointed out in §3.3, they essentially belong to different word classes: *ee -na-* ‘what about’ is a non-inflecting intransitive verb; *hibaka* ~ *hika* ‘where’ behaves like an adverbial demonstrative, going into clause-initial slot; and both *himata* ‘what’ and the various forms for ‘who’ behave like nouns.

Ways of saying ‘why’ all involve *himata* and are discussed in §15.3.1. In §15.3.5 we survey the techniques for asking ‘when’. An alternative way of asking ‘where is X’ is to add suffix *-ra* to an NP referring to X; this is described in §15.3.6.

Note that ‘who (f)’ and ‘where’ can have the same form but different meanings and functions; this is yet another example of the promiscuous homonymy that pervades Jarawara.

(b) The content interrogative (CINT) mood suffix *-ri/-ra* is included in the great majority of content questions but may occasionally be omitted. A final *-ha* is sometimes added, giving *-riha/-raha*, see (15.34) and (15.64). This suffix is of type *; that is, an auxiliary *-na-* always drops when immediately followed by *-ri(ha)/-ra(ha)*.

There is probably the potential for any miscellaneous suffix to precede CINT but only *-riwa(ha)* ‘away’, *-waha* ‘now’, and *-ⁱne* ‘continuous’ are attested. The corpus includes instances of CINT being preceded by a tense-modal suffix, future *-haba*, as in TI.48; see also (15.42) and (15.67).

CINT can be followed by any of the following:

-ni/-no, IPn tense (probably a neutralization, in this context, of all past tenses), as in

(14.2), (15.40)

-mone/-mona, reported

-ⁱbe(ja)/-ba(ja), immediate, as in (7.57–9), (15.49), (15.55), (15.56b), (15.63), and (15.68–9).

There is a tendency for content interrogatives to occur early in the clause. ‘Where’ is always in clause-initial slot. ‘Who’ and ‘what’ will generally be the first NP in their core although there are exceptions (e.g. 15.43); and they may be preceded by a clause-initial element, e.g. *faja* ‘then’ before *hibaka* ‘who’. The interrogative verb *ee (-na-)* can be clause-initial, with a post-predicate NP—as in (15.57)—but most often it follows core NPs like any normal verb.

The content interrogative words will now be discussed one at a time.

15.3.1 *himata* ‘what’

Himata is an NP in CS function in (15.34), in O function in (15.35), and in CC function in (15.36). Sentence (15.34) occurs several times in the corpus, sometimes with final *-ri* and other times with final *-riha*.

- (15.34) *himata*_{CS} ama-ri(ha)?
 what be-CINTf
 what is it?

(15.35) himata_O rawi ti-ne ti-ri?
 what write 2sgA-CONTf 2sg-CINTf
 what are you writing?

(15.36) [Ara kaa jama]_{CS} himata_{CC} ama-ri?
 name(m) poss thing(f) what be-CINTf
 what is Alan's thing? (lit. Alan's thing is what?)

In (10.34) *himata* is alienable possessor within an NP in CS function ('what's screw is it?'). *Himata* is in a peripheral NP to an O-construction in (15.37) and to an intransitive clause in (15.38).

(15.37) [himata jaa] [warabo mete]_O mee wari hi-waha-ra?
 what PERI ear+m back+m 3nsA twist Oc-NOW-CINTf
 with what did they twist the back of his ear? (to make the secreted fire drop out)

(15.38) [himata mese jaa] ti-wita-ri-ne ti-ri?
 what top.surface.of PERI 2sgS-sit-RAISED.SURFACE-CONTf 2sg-CINTf
 what are you sitting on (top of)?

Note that in (15.38) *himata* is modified by the PN *mese/mese* 'top surface of'.

Himata can be used in contiguity with a noun, for example *bani* 'animal' in:

(15.39) himata_{CS} bani_{CC} ama-ra?
 what animal(m) be-CINTm
 what (type of) animal is it? (lit. what is animal?)

Now (15.39) could be analysed as a monovalent copula clause with *himata bani* as the CS argument. This would involve *himata* functioning as modifier to *bani* (which is head of the NP); but note that all other modifiers (other than alienable possessor) follow an NP head, as shown in table 10.1. The most satisfactory way of analysing (15.39) is by treating it as a bivalent. A similar example is:

(15.40) himata_{CS} [Karijo ati]_{CC} ama-ra-no?
 what Branco(m) voice be-CINTm-IPnm
 which Branco said that? (lit. what was Branco's voice?)

A more complex example is:

(15.41) himata_{CS} [bani_O Kakai_A tao ka-ne] -no_{CC} ama-ra?
 what animal(m) name(m) shoot APPLIC-AUXm -IPnm be-CINTm
 what animal did Kakai shoot? (lit. what is the animal Kakai shot?)

Here *bani Kakai tao ka-ne* is a nominalized clause (see chapter 19) which functions as CC in the copula clause which has *himata* as CS. As often happens in copula clauses, the tense suffix is added to an argument (here the CC, not the CS, since the CS is an interrogative, which cannot be followed by a tense-modal suffix) rather than to the copula verb. Note that if *tao* were the main verb of the clause (and *ama* a secondary verb), we would get 'APPLIC-AUX-IPnm' realized as *ka-ne-hino*, rather than *ka-ne-no* as here. (Tense-modal suffixes have an initial *-hV* syllable when added to a verb root or to an auxiliary, but not when added to an NP or to a nominalized clause.)

Himata has no inherent gender, but takes a gender appropriate to the context in which it is used. For example, in (15.39) *himata* engenders m agreement on the content interrogative suffix to the copula verb, because it refers to *bani* 'animal' (the CC argument) which has m

gender. However, in (15.34), where there is no information about gender, it takes f agreement (showing that f is the unmarked member within the Jarawara gender system).

There is an idiomatic expression *himata_O ebe -na-* (the verb *ebe -na-* is not attested outside this expression) which appears to mean ‘what is intended’. For example (7.58–9) and:

- (15.42) [himata_O Jara_A mee ebe ni] -bana-ri?
 what Branco 3nsgA have.purpose AUX+NOM -FUT-CINTf
 what do the Brancos intend to do?

We sometimes get a *himata ebe -na-* clause followed by another clause with the meaning ‘X happened’, the biclausal construction then being ‘why did X happen?’. In this case the content interrogative mood marker goes just onto the final clause, e.g. (5.327) and:

- (15.43) inamatewe_A himata_O ebe ne, ohi na-ra?
 child(m) what have.purpose AUXm cry AUX-CINTm
 why is the boy crying? (for what reason is the boy crying?)

Another way of saying ‘why’ is through using *himata* in an NP marked by *ihí/ehene* ‘due to’, literally ‘due to what’ (see chapter 22); for example:

- (15.44) [himata ihí] ti-wati_{CS} ama-ri?
 what DUE.TO 2sgPOSS-voice be-CINTf
 why are you calling out? (lit. due to what is your voice?)

A third way of asking ‘why’ in Jarawara involves the postposition *tabijo* ‘due to the absence/lack of’ (see §21.2) following *himata*. One *-ta-* can be lost by haplological change (§2.10.4) with the whole blending into *himatabijo* ‘why, due to the lack of what’, as in:

- (15.45) himata(ta)bijo owa ti-kako-ne ti-ri?
 what+LACK.OF 1sgO 2sgA-be.angry.with-CONTf 2sg-CINTf
 why are you angry with me?

Interestingly, there is another form, *himata-ba* ‘why’, which is said by speakers to be equivalent to *himata-tabijo* and *himata-bijo*. It may be a shortened form of *himata-(ta)bijo*, but if so the phonological process involved is unusual. *Himata-ba* can be substituted for *himata(ta)bijo* in (15.45). A textual example is:

- (15.46) himata-ba [boko noko]_O jo.jome ti-hi-ne ti-ri-ja?
 why imbãuba(m) seed+m REDUP.eat 2sgA-AUX-CONTf 2sg-CINTf-IMMEDf
 why have you been eating imbãuba tree seeds?

Himata is often used with *ni-ma* ‘be similar to, be the same as’; see (21.42–3) in §21.4.

In the Jamamadí dialect ‘what’ is *hinijamata* (this could just possibly be *hini-jama-ta*, involving the general noun *jama* ‘thing’) and in the Banawá dialect it is *taa*. It is likely that Jarawara *himata* and Banawá *taa* have developed as shortened versions of *hinijamata*.

15.3.2 *hibaka* (f); *hibeke*, *hibake*, or *hike* (m) ‘who’

There is variation in the forms used for ‘who’. The f form is *hibaka*; for the m form, older speakers use *hibeke* and younger ones *hibake*, but this is often shortened to *hike*.

The meaning is generally ‘who’ but it can have an indefinite sense ‘anyone, someone’. One story about a man whose soul had been taken away by spirits, and then brought back by other spirits, included the exchange (after the soul had been reinstated):

(15.47) *hike*_{CC} ama ti-ri?
 who+m be 2sgCS-CINTf
 who are you? (someone says to the man who had lost his soul)

(15.48) *hibake*_{CC} ama o-ka-re, [tee kaa abise]_{CC} ama o-ke
 who+m be 1sgCS-DEC-NEGM 2nsg POSS father’s.brother be 1sgCS-DECf
 I’m not just anyone (lit. who am I not?), I’m your father’s brother (the man replies)

‘Who’ can be alienable possessor, as in (repeating (7.57)):

(15.49) [*hike* kaa kanawaa jaa] ee ka-riwa-ri-be?
 who+m POSS canoe(f) PERI 1incS in.motion-ACROSS-CINTf-IMMEDf
 in whose canoe are we going to cross (the river)?

It is interesting to ask how one can ascertain the syntactic function of ‘who’ in a transitive clause. This is straightforward if the other participant is referred to by a pronoun, e.g. 2sg. In (15.50) we get the O form of 2sg, *tiwa*, showing that *hike* ‘who (m)’ must be in A function, and in (15.51) we have the subject form, *ti-*, showing that *hike* must be in O function:

(15.50) *hike*_A tiwa awa-ra?
 who+m 2sgO see-CINTm
 who (m) saw you?

(15.51) *hike*_O ti-wa-ri?
 who+m 2sgA-see-CINTf
 who (m) did you see?

These two sentences are also distinguished by gender agreement with the A—this is m in (15.50), agreeing with ‘who (m)’ as A, and f in (15.51), agreeing with 2sg as A. However, if ‘who’ were f, the only distinguishing mark would be the pronominal form, i.e. *hika tiwa awa-ri* ‘who (f) saw you?’ and *hika ti-wa-ri* ‘who (f) did you see?’

When the other argument is 3sg and of the same gender as ‘who’ we do get ambiguity. Consider:

(15.52) *hike* Okomobi ka.katoma-ra?
 who+m name(m) watch-CINTm
 who (m) was watching Okomobi? *or* who (m) was Okomobi watching?

It has been stated that A and O core NPs can essentially occur in either order (although A most often comes first in an A-construction, and O first in an O-construction) and also that an interrogative word normally comes first of the core participants. But these are not hard-and-fast rules. Constituent order can never be relied upon for disambiguation.

In fact, the syntactic function of an argument in a clause is not always inferable from the grammatical structure of the clause itself, but rather from the organization of the discourse of which the clause forms a part. When the ambiguity of a sentence like (15.52) was discussed with an intelligent speaker (Okomobi), he offered the following solution. One should use a biclausal construction, the first clause having a copula verb with ‘who’ as S argument and the second involving a transitive verb. There are two possibilities. First:

(15.53) *hibake*_{CS} ama-ra, Okomobi_O ka.katoma-haari?
 who(m) be-CINTm name(m) watch-DEPM
 who was it, who watched Okomobi?

The transitive clause here is an A-construction (shown by absence of prefix *hi-*). Its A NP is taken to be coreferential with the S NP of the preceding clause, *hibake* ‘who (m)’, and the NP stated in the clause, *Okomobi*, is taken to be in O function. Compare this with:

- (15.54) *hibake*_{CS} *ama-ra*, *Okomobi*_A *hee.katoma-ari?*
 who(m) be-CINTM name(m) Oc+watch-DEPM
 who was it, who Okomobi watched?

Here the transitive clause is an O-construction, with prefix *hi-* on the verb. Then the O is taken to be coreferential with the S of the preceding clause, with the explicit NP in the transitive clause taken to be in A function. (The underlying form of the verb in the second clause of (15.54) is *hi-kakatoma-ari*, and this becomes *heekatomaari* by rules P1a and P2a in §2.9.1.)

15.3.3 *hibaka* or *hika* ‘where’

This goes into slot 1c of clause-initial elements (§14.2), the slot which is also available for *aja* ‘here’ (§12.1.2). Examples include T1.48, (14.2), and

- (15.55) *hika* [*ee kaa jama*]_{CS} *to-ha-ri-be?*
 where Iinc POSS thing(f) AWAY-become-CINTf-IMMEDf
 where are our things now?

‘Where’ has the same long form as ‘who (f)’. Often, one can tell that *hibaka* is ‘where’, rather than ‘who (f)’, since there is already a full quota of core arguments.

A question with *hi(ba)ka* ‘where’ is likely to be answered with a sentence including a peripheral phrase marked by postposition *jaa*, but *hi(ba)ka* itself is only rather rarely followed by *jaa*. Occasionally, *hi(ba)ka* makes up a whole clause and then *jaa* must be included. In one story, Wero heard someone crying in the jungle and then, the narrative continues:

- (15.56a) [*hika jaa?*]_O *Wero*_A *ati ne-mari ama-ka*
 where PERI name(m) say AUX-FPem EXTENT-DECM
 ‘where (is it)?’, Wero asked

Hi(ba)ka can also be used to enquire ‘by which route’ and is then likely to take *jaa*, as in:

- (15.56b) [*hika jaa*] *ti-kisa-ma-ri-be* [Rabira *jaa*]
 where PERI 2sgS-go.DOWN-BACK-CONTf-IMMEDf place PERI
 how (lit. by where) will you go down to Lábrea?

15.3.4 Interrogative verb *ee -na-* ‘what about, etc.’

Jarawara is notable in having an intransitive interrogative verb *ee -na-*. When bilingual speakers are asked to gloss (in Portuguese) an extratextual sentence involving *ee -na-* they invariably specify ‘where’. The interrogative verb can have this sense, as in (12.8–9), but it often has a much more general meaning.

One day I was helping Okomobi and Jacinto to get a chainsaw working, in order to scoop out an itaúba tree to make a dug-out canoe. Kamo came into the clearing and asked:

- (15.57) *ee-ri* *kanawaas?*
 what.about-CINTf canoe(f)
 how’s the canoe coming on? (lit. what about the canoe?)

He could see the canoe there and wasn't enquiring about its location but implied only a general question: 'what about the canoe, how is the work on it progressing?' A similar example is at (10.49a/b).

Other examples include:

(15.58) ee ti-ri?
what.about 2sgS-CINTf
how are you?

(15.59) Jojo, sirikaa_s ee-ri?
name(m) rubber(m) what.about-CINTm
Jojo, have you any rubber?

(15.60) Fatira, [oko estrato] -bone_s ee-ri?
name(f) 1sgPOSS deodorant(f) -INTf what.about-CINTf
Fatira, can you let me have some deodorant?

In (15.58) we have 'what about you?' which here means 'how are you?' (15.59) is 'what about the rubber?' or 'where is (your) rubber?' or 'have you any rubber?' (15.60) is literally 'what about my-intended deodorant?' or 'where is my-intended deodorant?', i.e. 'have you any deodorant for me?'

In sum, *ee -na-* has a general interrogative meaning 'what about', which can be interpreted, according to the context of discourse, as 'how is' or 'is there any', or as 'where is', as in:

(15.61) Jara_s mee ee-ri?
Branco(m) 3nsgS what.about-CINTf
where are the Brancos?

In an appropriate context, *ee -na-* can mean 'how much/many', as in:

(15.62) kiro_s ee-ri?
kilo(f) what.about-CINTf
how many kilos are there (of rubber)?

(15.63) [tika amo+ni]_s ee-ri-be?
2sgPOSS sleep+AUX+COMPL what.about-CINTf-IMMEDf
how many nights have you left (until you depart)? (lit. how many will your sleeps be?)

However, in the majority of instances where *ee -na-* is used to mean 'how much' or 'how many', the secondary verb *awine/awa* is included in the predicate. For instance:

(15.64) jomee_s mee ee na mee awine-riha?
dog(m) 3nsgS what.about AUXf 3nsg SEEMSf-CINTf
how many dogs do you think there are?

(15.65) [[tiwa tefe o-ni] kaa tinero]_s ee ne
2sgO owe 1sgA-AUX+NOM POSS money(m) what.about AUXm
awa-ra?
SEEMSM-CINTm
how much money do you think I owe you? (lit. my owing you's money appears to be how much?)

It is appropriate that 'how many' should be expressed by a verb in Jarawara, since numbers are verbs. (There is one textual example of *ee -na-* having a non-interrogative sense, 'be like this', in (7.70a).)

It will be seen that the *-na-* of *ee -na-* seldom surfaces, since the content interrogative suffix *-ri(ha)/-ra(ha)* is of type *, omitting an immediately preceding auxiliary. However, the *-na-* does occur before secondary verb *awine/awa*, as in (15.64–5).

15.3.5 ‘When’

Jarawara has no specific word ‘when’, but it can enquire about time through appropriate use of *hi(ba)ka* ‘where’, of *ee -na-* ‘what about’, and of *himata* ‘what’. However, one must know the appropriate time frame in order to know how to phrase a ‘when’ question.

Time within today relates to the position of the sun in the sky, as in:

- (15.66) *hika bahi_s ita-ra?*
 where sun(m) sit-CINTM
 what’s the time? (lit. where does the sun sit (in the sky)?)

Thus, enquiring ‘when’ within the frame of today involves *hi(ba)ka* ‘where’ in relation to *bahi* ‘sun’, as in:

- (15.67) [*hika bahi_s ite jaa*], *ti-tafi-bana ti-ri?*
 where sun(m) sit+m PERI 2sgS-eat-PFutINTf 2sg-CINTf
 when will you eat? (lit. where will the sun be sitting in the sky, will you eat?)

Note that here the peripheral clause, marked by *jaa*, includes content interrogative word *hika* ‘where’, and the main clause is marked by the content interrogative suffix *-ri*.

A ‘when’ question relating to number of days requires interrogative verb *ee -na-*, in its ‘how many’ sense, and a complement clause with verb *amo -na-* ‘sleep’, as in (15.63). A full question ‘when will you return’, in terms of days, would go:

- (15.68) [[*tika amo-ni_s ee ni jaa*]
 2sgS sleep-AUX+COMP what.about AUX+NOM PERI
ti-ka-ma-ri-be [Kasanofa jaa]?
 2sgS-in.motion-back-CINTf-IMMEDf name PERI
 in how many days will you return to Casa Nova? (lit. in how many of your sleeps will you return to Casa Nova?)

If the time frame is months then one would ask ‘how many *abariko* (moon)’ and if in terms of years it would be ‘how many *faha.fowe* (lit. water floods)’. Or, one can just use *himata* ‘what’ plus the very general noun *jama* ‘thing’ in a peripheral constituent. For example:

- (15.69) [*himata jama jaa*] *ti-ka-ma-ri-be?*
 what thing(f) PERI 2sgS-in.motion-back-CINTf-IMMEDf
 when (lit. at what thing) will you return?

Here the postposition *jaa* supplies a temporal sense to *himata* ‘what’.

15.3.6 Noun phrase plus *-ra* ‘where’

There is another way of asking ‘where’. This simply involves an NP plus suffix *-ra* (with no verb present); the suffix does not vary for gender. Thus, with f and m nouns:

- (15.70) *bataro-ra?*
 patrão(m)-NOM.INT
 where is the patrão (local boss)?

- (15.71) Watati-ra?
 name(f)-NOM.INT
 where is Watati?

These are pretty well synonymous with the interrogative verb *ee-* used in its locational sense:

- (15.72) bataros ee-ra?
 patrão(m) what.about-CINTm
 where is the patrão?

- (15.73) Watatis ee-ri?
 name(f) what.about-CINTf
 where is Watati?

Note the gender agreement of interrogative marker *-ri/-ra* in (15.72–3) but the invariable form of *-ra* in (15.70–1).

This *-ra* is typically added to the non-pivot anaphoric element *fee* (see §12.2.2); that is, *fee-ra* ‘where is he/she’ (referring to someone just mentioned in the discourse). The suffix may also be added to a pronoun plus emphatic marker *haa* (as occurs as a post-predicate NP), with a slightly different meaning; for example *haa.owa-ra* ‘is it me?’ (i.e. ‘is it my turn?’). An example of *-ra* added to a full NP is:

- (15.74) [tika jifo] -ra?
 2sgPOSS fire(f) -NOM.INT
 where is your fire?

15.4 POLAR QUESTIONS

A polar question is generally shown in two ways. First, by rising intonation on the penultimate syllable, followed by a fall. Secondly, by one of four morphological markings:

- (1) The polar interrogative mood suffix; this has form *-ⁱni(hi)* for f agreement, and has no realization for m agreement.
- (2) Future polar interrogative marker *-ⁱbana/-bana*.
- (3) Secondary verb *awine/awa*.
- (4) Secondary verb *ama*.

Now the future marker *-ⁱbana/-bana* and secondary verb *awine/awa*, when used in a question, may optionally be followed by *-ni/-ne* (in contrast, *ama* used interrogatively cannot be followed by *-ni/-ne*). It is hard to decide on the status of this *-ni/-ne*. It could be regarded as an allomorphic variant of the polar interrogative mood suffix, which is *-ⁱni(hi)* for f and nothing for m. Or it could be regarded as an allomorphic variant of the backgrounding mood suffix *-ⁱni/-ne* (§7.2.1) with the difference that for f we get *-banani* rather than *-banini* (that is, the *-ni* does not raise a preceding *a* to *i*). There are no advantages elsewhere in the grammar attached to choosing one of these alternatives over the other. The backgrounding mood interpretation is chosen as being slightly simpler.

A feature of polar questions in Jarawara texts and conversation is that more than half of them include the negative suffix *-ra*. That is, people are more likely to ask ‘isn’t it him?’, as in (12.36), than ‘is it him?’ See also T2.37, T3.25, (15.75–6), (15.84b), (15.92), and (15.100–2).

The four morphological markers will be discussed in turn.

15.4.1 Polar interrogatives with ⁻ⁱni(hi)/nothing

The f suffix ⁻ⁱni(hi) is of type *, with the auxiliary *-na-* of a non-inflecting verb dropping when immediately followed by the suffix, as in (15.83a).

An example in a copula clause is:

- (15.75) ratena_{CS} ama-ri-ni(hi)?
flashlight(f) be-NEG-PINTf
isn't it a flashlight?

The corresponding question with m agreement bears no interrogative suffix, as in:

- (15.76) afiao_{CS} ama-re?
plane(m) be-NEGM
isn't it a plane?

Under (7) in §5.9, there was discussion of the sixth echelon miscellaneous suffix ⁻ⁱne/ø 'continuous', where m involves a zero suffix which blocks the raising of final *a* to *e* to mark m agreement. We saw that, in (5.325b) *moto waka ne* 'the motor (m) broke', the final vowel of auxiliary *-na-* is raised to *e*, for m agreement with the argument, *moto*. In contrast, (5.326b) *moto waka na* 'the motor is broken', has final *na*, indicating 'AUX-CONTM'. I assigned ø (zero) to 'CONTM' and this zero (i.e. 'AUX-CONTM' is *na-ø*) blocks the raising of final *a* to *e*.

In (15.76) we do get final *a* raised to *e* for m agreement. It is thus not appropriate to say that the m form of the polar interrogative mood suffix has zero form, in the sense in which 'zero' is used in this grammar. We are left with saying that the m equivalent of the PINTf suffix is simply nothing, in contrast to zero. The fact that (15.76) is a question is shown only by intonation (together with the absence of a declarative mood suffix).

Looking now at the f suffix ⁻ⁱni(hi), there are in the corpus no instances of this preceded by a tense-modal suffix, or co-occurring with any other mood suffix. It can be preceded by a miscellaneous suffix; those attested include *-kosa*₂ 'do once/a bit', *-kI* 'coming', *-ma* 'back', *-maKI* 'following', *-ra* 'negator', and *-waha* 'now, the next thing'. A critical feature is whether or not ⁻ⁱni(hi) is preceded by the miscellaneous suffix ⁻ⁱne/ø 'continuous'.

(a) If continuous suffix ⁻ⁱne is included before polar interrogative ⁻ⁱni (in this context there is no final *-hi*), then the question is likely to relate to an action which is continuing in the present. If the pivot is 1sg or 2sg then it is repeated in third pronominal position, between ⁻ⁱne and ⁻ⁱni(hi).

- (15.77) [jama hani]_O rawi ti-ne ti-ni?
thing(f) design+f write 2sgA-CONTf 2sg-PINTf
are you (sg) writing?

For a sentence like this, the final *-ni* can be omitted, leaving 2sg *ti* as clause-final element; this then lengthens its vowel, to form a phonological word on its own:

- (15.78) jama hani rawi ti-ne tii?
are you (sg) writing?

The same comments apply to questions with 1sg S or A—we can get final *o-ni* or just *oo* (the vowel of 1sg *o* being lengthened when it stands alone):

- (15.79) [jama hani]_O rawi o-ne o-ni (or oo)?
thing(f) design+f write 1sgA-CONTf 1sg-PINTf 1sg
am I writing?

Examples with an inflecting verb, *-kaba-* 'eat', are:

- (15.80) aba_O ti-kabi-ne ti-ni (or tii)?
 fish(m) 2sgA-eat-CONTf 2sg-PINTf 2sg
 are you eating fish?

Note that if the pivot argument is a nsg pronoun, this does not occur in the third pronominal position. For example:

- (15.81) [jama hani]_O tee rawi ni-ne(-ni)?
 thing(f) design+f 2nsgA write AUX-CONTf(-PINTf)
 are you (pl) writing?

An example where the pivot is 3rd person f is:

- (15.82) Mamoni_A [jama hani]_O rawi ni-ne(-ni)?
 name(f) thing(f) design+f write AUX-CONTf(-PINTf)
 is Mamoni writing?

(b) If the suffix *-ine* is not included before polar interrogative *-ini(hi)*, then the question is likely to relate to an action in the immediate past. There cannot, in this construction, be a 1/2sg pronoun in the third pronominal position. In this context the interrogative suffix can have form *-ini* or *-inhi*; I have no information as to what (if anything) conditions the inclusion or omission of the *-hi*.

Examples corresponding to (15.77–8) and (15.80) are:

- (15.83a) [jama hani]_O rawi ti-ni?
 thing(f) design+f write 2sgA-PINTf
 did you (sg) write?
- (15.83b) aba_O ti-kabi-ni?
 fish(m) 2sgA-eat-PINTf
 did you eat fish?

Other examples include T3.25, (5.104), and:

- (15.84a) owa ti-wi-ni?
 1sgO 2sgA-see-PINTf
 did you see me?

In an O-construction, agreement is with the O argument, as in:

- (15.84b) a.'awa ti-re?
 REDUP.see 2sgA-NEGM
 didn't you see him?

The contrast between a question with and without *-ine*/nothing is brought out in the following, with intransitive inflecting verb *-sa-* (allomorph of *-sona-* 'fall').

- (15.85a) ti-si-ne tii
 2sgS-fall-CONTf 2sg
 were you falling (for a period)?
- (15.85b) ti-si-nihi
 2sgS-fall-PINTf
 did you fall?

The expected replies to (15.85a/b) are (15.86a/b) respectively:

(15.86a) o-si-ne o-ke
 1sgS-fall-CONTf 1sg-DECf
 I was falling

(15.86b) o-sa-ra o-ke
 1sg-fall-IPef 1sg-DECf
 I fell

Note how the question with *-i-ne*, in (15.85a) requires a response with *-i-ne*, in (15.86a); recall that *-i-ne* cannot be followed by a tense-modal suffix. And the question without *-i-ne*, in (15.85b), requires a response with the IPe suffix, in (15.86b), indicating that the event just happened.

15.4.2 Polar interrogative future marker *-i-bana/-bana*

The suffix *-i-bana/-bana* marks a polar interrogative with future reference. Note that this suffix has similar form to the future modality suffix *-(ha)ba(na)/-(hi)ba(na)*. The differences are: there is no initial *-hV* syllable, the final *-na* is obligatory, and the *f* form raises an immediately preceding *a* to *i*. This suffix is of type **; an immediately preceding auxiliary is dropped when there is also a prefix, as in (15.93–4). As mentioned above *-i-bana/-bana* may optionally be followed by *-ni/-ne* which I take to be the backgrounding suffix; however, *-ni/-ne* is only included in a minority of instances.

Examples with 3sg *f* and 3sg *m* S are:

(15.87) Watati_S to-ki-bana(-ni)?
 name(f) AWAY-in.motion-PFutINTf(-BKGF)
 will Watati go?

(15.88) Miotos_S to-ka-bana(-ne)?
 name(m) AWAY-in.motion-PFutINTm(-BKGM)
 will Miotos go?

With 2sg or 1sg as S or A, we get the pronominal prefix repeated in third pronominal position, after *-i-bana* and before *-ni*. The constituent *ti-ni* in (15.89–90) may optionally be omitted:

(15.89) ti-ki-bana (ti-ni)?
 2sgS-in.motion-PFutINTf 2sg-BKGF
 will you go?

(15.90) jana ti-na-mini-bana? (ti-ni)?
 set.off 2sgS-AUX-MORNING-PFutINTf 2sg-BKGF
 will you set off in the morning?

It will be seen that the pronoun in the third pronominal position follows *-i-bana* and precedes the mood suffix *-ni*. This indicates that, although *-i-bana/-bana* is functionally in the mood system, it is placed in the same slot as tense-modal suffixes (slot G in §4.1).

With a *nsg* pronoun as S or A, there cannot be a third pronominal position:

(15.91) tee to-ki-bana(-ni)?
 2nsgS AWAY-in.motion-PFutINTf(-BKGF)
 will you all go?

- (15.92) bora_O tee taro ri-bana(-ni)?
 ball(m) 2nsgA kick NEG-PFutINTf(-BKGF)
 don't you want to play football? (lit. won't you kick the ball?)

Examples where the auxiliary of a non-inflecting verb is omitted when preceded by a prefix and immediately followed by *-bana/-bana* are:

- (15.93) sami_O jome ti-bana?
 pineapple(f) eat 2sgA-PFutINTf
 will you eat some pineapple?
- (15.94) mee afi ki-bana?
 3nsgS bathe APPLIC-PFutINTf
 are the two of them going to bathe?

Note that in (15.94) the applicative prefix *ka-* has its dual sense, (e) in §8.2.2.

15.4.3 Polar interrogatives with *awine/awa*

A polar question can be marked by *awine/awa* as secondary verb, occasionally followed by what can be identified as the backgrounding mood suffix *-ni/-ne*. This construction can involve a non-eyewitness past tense suffix, as in (6.5a) and in the O-construction at (15.95), and then refers to past time. It cannot involve an eyewitness past tense suffix.

- (15.95) [jawita wai]_O ti-we-himata awa-ne?
 peach.palm(m) stand+COMP 2sgA-see-FPnm SEEMSM-BKGM
 did you see the peach palm standing (there)?

In the absence of a past tense suffix, an *awine/awa* question has reference to present time and, it appears, generally to a non-continuous action. Examples include T3.28 and:

- (15.96) faha_S tasi na-ke awine(-ni)?
 water(f) come.out AUX-COMING SEEMSF(-BKGF)
 has the water come (out of the pipe, when it is being pumped)?
- (15.97) Okomobi_S to-ko-me awa(-ne)?
 name(m) AWAY-in.motion-BACKM SEEMSM(-BKGM)
 has Okomobi returned yet?
- (15.98) [otaa ati]_S amosa awine(-ni)?
 1exc language be.good SEEMSF(-BKGF)
 is our language good?

An alternative to (15.98) is *otaa ati amosa otaa awine(-ni)*; that is, the possessor pronoun from the S NP (1exc *otaa*) may optionally be repeated in the third pronominal position (see §4.4.6).

If S or A (in an A-construction) or O (in an O-construction) is 2sg or 1sg, *awine* must be followed by *ti* or *oo* (or by *ti-ni* or *o-ni*). As is normal (see §7.1.2), the secondary verb *awine/awa* must then also be preceded by *tiwa* or *owa* respectively. For example:

- (15.99) maa ti-ha tiwa awine tii (or ti-ni)?
 be.tired 2sgS-AUXf 2sg SEEMSF 2sg 2sg-BKGF
 are you tired?

- (15.100) Ijo_O mee a.'ate o-ra owa awine oo (or o-ni)?
 Indian 3sgO ask 1sgA-NEGF 1sg SEEMSF 1sg 1sg-BKGF
 hadn't I already asked the Indians? (said by a Branco who had been accused of
 fishing in Indian waters without permission)

15.4.4 Polar interrogatives with *ama*

A polar interrogative may be marked by the secondary verb *ama*; this marking mechanism is much rarer than those discussed in §§15.4.1–3. Unlike *-i'bana|bana* and *awine|awa*, it appears that *ama* in its interrogative use cannot be followed by *-ni|ne*.

With 2sg pivot, the *ti-* is repeated in the third pronominal position after *ama*, and then functions as a suffix to *ama*, with *amá-ti* being stressed as one phonological word (see §2.7).

Examples include T2.1, 37, 81, and:

- (15.101) Juraci! borokoo_O tee-ka-ma-ra-ba ama-ti?
 name(m) pirarucu(m) 2sgA+APPLIC-in.motion-BACK-NEG-FUTf EXTENT-2sg
 Juraci, aren't you going to take the pirarucu?

Here the prefixes *ti-ka-* ('2sgA-APPLIC') fuse as *tee-* (see §2.9.1).

Slightly later in the same text we find an *ama*-question with 3rd person subject:

- (15.102) [borokoo nafi]_{CS} to-ha-re-ba-no ama?
 pirarucu(m) all AWAY-become-NEG-FUTm-IPnm EXTENT
 shouldn't it have been a whole pirarucu?

Note that an *ama*-question can refer to the future, as in (15.101), or to the present, as in T2.37 and T2.81, or to future in past, as in (15.102).

A clause with copula verb *ama* 'be' can also be questioned, with a final 3sg *ti* becoming a suffix to the copula verb *ama*, as in (12.34).

15.4.5 Time reference

Polar questions were found to be one of the hardest parts of the grammar of Jarawara to understand. Tentatively, it seems that the time reference of the first three mechanisms is:

<i>-i'ni</i> with continuous <i>-i'ne</i>		present (generally continuous action)	
<i>-i'ni(hi)</i> without continuous <i>-i'ne</i>	immediate past		
<i>-i'bana bana</i>			future
<i>awine awa</i> with past tense	past		
<i>awine awa</i> without past tense		present (generally non-continuous action)	

Polar questions with *ama* appear to be able to have any time reference; these are fairly rare, making it difficult to generalize about them. However, it does appear likely that an

ama-question expects a 'yes' answer. Thus:

(15.101) Juraci, aren't you going to take the pirarucu? (I expect that you will)

(15.102) shouldn't it have been a whole pirarucu? (I think that it should have been)

T2.37 wouldn't you be afraid of a jaguar? (I expect that you would)

T2.81 friend, do you know of any medicine (for ant bite)? (I expect that you do)

A-Constructions and O-Constructions

This is a central chapter in the grammar of Jarawara. It commences with discussion of how different types of pivot operate in languages with accusative syntax (S/A pivot) or ergative syntax (S/O pivot). §16.2 explains how the two transitive construction types, A-construction and O-construction, function within Jarawara discourse. This permits the marking of a pivot linkage between clauses that share a common argument which has any core grammatical relation in either of them, combining the properties of S/A and S/O pivots found in other languages. §16.2.2 briefly outlines why ‘passive’ and ‘antipassive’ analyses are inappropriate for Jarawara. §16.3 provides exemplification of the functioning, in discourse context, of the two transitive construction types. In §16.4 the rather complex grammatical structure of an O-construction, in contrast to that of an A-construction, is described in detail. Finally, §16.5 considers corresponding construction types in other Arawá languages and suggests a line of historical development.

16.1 SYNTACTIC PIVOTS

A discourse is organized around a ‘topic’, a participant that recurs in successive clauses and serves to knit them together. In some languages topics are wholly pragmatic and can only be recognized as such through their recurrence in successive clauses within a discourse. Other languages have a grammaticalized topic that can be called ‘pivot’. According to the grammatical conventions of the language, a pivot argument is recognizable for every clause, even when it is quoted outside a discourse context. And the rules for pivot assignment specify the way in which clauses can be combined to form a discourse, linked by a common pivot. (A full justification of the theoretical category ‘pivot’ is in Dixon 1994: 143–81.)

There are basically two kinds of pivot—S/A and S/O. English has an S/A pivot, so that for any clause it is the S argument (if intransitive) or the A argument (if transitive) which can be discourse topic. A second or later occurrence of an NP in a discourse stretch can be omitted, if it is in pivot function in each occurrence. Thus, in

(16.1) Mick_A saw Bill_O and Ø_S ran away

we know that the omitted S argument from the second clause must be the same as the A argument from the first, i.e. it is Mick who ran away.

Dyirbal, in contrast, has an S/O pivot. If the same NP occurs in two clauses the second occurrence can be omitted if it is in a pivot (S or O) function in each clause. Thus in:

(16.2) Bili_O Migi-ŋgu_A buran Ø_S judanyu
 Bill Mick-ERGATIVE saw ran. away

we know, from the fact that the language operates with an S/O pivot, that the omitted NP from the second clause must be the same as the O NP of the first clause; that is, the sentence means ‘Mick saw Bill and Bill ran away’.

Some languages have an S/O pivot (they are said to have ‘ergative syntax’). Some have an S/A pivot (these are said to have ‘accusative syntax’). There are some which have an S/A pivot for certain types of clause combining and S/O pivot for other types (e.g. Tongan—see Dixon 1994: 176).

And very many languages have no grammatical pivot at all. Lacking such a grammatical constraint, the identity of an omitted NP is inferred pragmatically. In a pivotless language, a sentence like (a) ‘Mick_A hit Bill_O and Ø_S cried’ would be likely to be interpreted as stating that Bill cried, since people who are hit do tend to cry. And, in (b) ‘Mick_A hit Bill_O and Ø_S laughed’ it would probably be assumed that Mick did the laughing, since people who are hit are, in normal circumstances, unlikely to laugh. However, in a language with an S/A pivot, such as English, (a) and (b) would have to be interpreted as saying that it was Mick who did the crying and the laughing respectively (however pragmatically implausible the Mick-crying interpretation of (a) might be). And in a language with an S/O pivot, (a) and (b) would be interpreted as saying that it was Bill who did the crying and laughing (however pragmatically implausible the Bill-laughing interpretation of (b) might be).

Languages with an S/A pivot typically have a passive derivation, one of whose functions is to ‘feed’ the pivot constraint. One can omit the second occurrence of *John* from *John_S came in and (John_A) saw Mary_O*, since *John* is in pivot function in each clause. However, the second occurrence of *John* cannot be omitted from *John_S came in and Mary_A saw John_O*, since *John* is not in pivot function in the second clause. The second clause can be passivized, putting *John* into S function, and it can then be omitted from *John_S came in and (John_S) was seen by Mary*. In a parallel way, languages with an S/O pivot almost always have an antipassive derivation; this takes an argument which is in the non-pivot function, A, and places it in pivot function, S. (There is exemplification in Dixon 1994: 9–16.)

16.2 THE TWO TRANSITIVE CONSTRUCTIONS IN JARAWARA

The linking of clauses in Jarawara operates in terms of a pivot. But there is not a restrictive S/A or S/O pivot. Instead, the language has two transitive construction types:

- (i) An A-construction (Ac) is used when the pivot argument (an argument that is shared with preceding and/or following clause(s)) is in A function in this clause.
- (ii) An O-construction (Oc) is used when the pivot argument (an argument that is shared with preceding and/or following clause(s)) is in O function in this clause.

An intransitive clause has one core argument, in S function, and gender agreement of the verbal mood suffix is with the S. This is illustrated in:

(16.3) Mito_S ki-joma-ke-ka
 name(m) in.motion-THROUGH.GAP-COMING-DECM
 Mito (a man) came in

(16.4) Watati_S ki-joma-ke-ke
 name(f) in.motion-THROUGH.GAP-COMING-DECf
 Watati (a woman) came in

Now consider a transitive clause ‘Mito saw Watati’. This may be expressed by an A-construction, as in (16.5), or by an O-construction, as in (16.6).

(16.5) Ac: (Mito_A) Watati_O awa-ka
 name(m) name(f) see-DECM

(16.6) Oc: (Watati_O) Mioti_A hi-wa hi-ke
 name(f) name(m) Oc-see Oc-DECLf

If one wanted to say ‘Mioti came in and saw Watati’, then (16.3) would be coordinated with (16.5), an A-construction which has *Mioti* as pivot, giving:

(16.7) Mioti_S ki-joma-ke-ka, Ø_A Watati_O awa-ka

Note that in an A-construction the mood suffix agrees in gender with the A argument—here we have masculine declarative form *-ka* agreeing with *Mioti*. The A NP is generally omitted, since it is known from a previous clause in which it was introduced as pivot argument. In an A-construction where both A and O are 3rd person there is no prefix on the verb.

If one wanted to say ‘Watati came in and Mioti saw her’, then (16.4) would be linked to the O-construction, (16.6), where *Watati* is pivot argument:

(16.8) Watati_S ki-joma-ke-ke, Ø_O Mioti_A hi-wa hi-ke

In an O-construction, gender agreement is with the O argument—we here get the feminine form of declarative, *-ke*, agreeing with *Watati*. The O NP is often omitted since it is known from a previous clause in which it was introduced as pivot argument. In an O-construction where both A and O are 3rd person there is a prefix *hi-* on the verb (here *hi-* plus *awa* gives *hi-wa*), and the prefix *hi-* is repeated before the mood suffix, *-ke*.

The transitive clause ‘Watati saw Mioti’ may also be expressed either by an A-construction, as in (16.9) or by an O-construction, as in (16.10):

(16.9) Ac: (Watati_A) Mioti_O awa-ke
 name(f) name(m) see-DECLf

(16.10) Oc: (Mioti_O) Watati_A hi-wa hi-ka
 name(m) name(f) Oc-see Oc-DECLm

Now to say ‘Mioti came in and Watati saw him’, we coordinate (16.3) and (16.10), in which *Mioti* is pivot, giving:

(16.11) Mioti_S ki-joma-ke-ka, Ø_O Watati_A hi-wa hi-ka

And to say ‘Watati came in and saw Mioti’ we combine (16.4) and (16.9), which has *Watati* as pivot:

(16.12) Watati_S ki-joma-ke-ke, Ø_A Mioti_O awa-ke

16.2.1 Basic properties of A-constructions and O-constructions

The contrasting properties of Ac’s and Oc’s are set out in table 16.1, an expanded version of table 3.2. A pivot NP is most often omitted, but the non-pivot argument is generally fully specified. Note that in an intransitive clause the S argument is pivot, and in a copula clause the CS argument is pivot. (As a pivot, CS behaves like S, and will generally not be separately mentioned in the discussion that follows.)

Against the differences shown in table 16.1, there are important similarities between Ac’s and Oc’s. First, both construction types are fully transitive, with O and A arguments marked in almost precisely the same way in slots A and B of predicate structure. The forms presented in table 3.1 apply for all transitive clauses, with the single difference that 3nsg in O function (where A is also 3rd person) is *mee* in an Oc but either *mee* or *mera* in an Ac.

TABLE 16.1 Contrasting properties of A-constructions and O-constructions

A-CONSTRUCTION	O-CONSTRUCTION
A argument is pivot for this part of the discourse.	O argument is pivot for this part of the discourse.
An NP in A function is seldom included.	An NP in O function is sometimes included.
There is very nearly always some explicit specification of the O argument, through a pronoun within the predicate or by the inclusion of an NP in O function.	There is generally some explicit specification of the A argument, through a pronoun within the predicate or by the inclusion of an NP in A function.
If both A and O NPs are included in the clause, there is a preference (85% on textual count) for A to precede O, although either order is possible.	If both A and O NPs are included in the clause, there is a preference (73% on textual count) for O to precede A, although either order is possible.
3nsg O pronoun (in slot A of predicate) can have form <i>mera</i> or <i>mee</i> , if A is also 3rd person.	3nsg O pronoun (in slot A of predicate) can only be <i>mee</i> .
Never a prefix <i>hi-</i> .	<i>hi-</i> occurs in first prefix slot if A and O are both 3rd person.
Pronominal possessor within a core NP may optionally be copied into third pronominal position (see §4.4.6).	Pronominal possessor within a core NP may not be copied into third pronominal position.
Mood suffixes agree in gender with A (unless a pronominal possessor is copied into third pronominal position, in which case mood suffixes agree with it).	Mood suffixes agree in gender with O.
Tense-modal suffixes agree in gender with A.	Tense-modal suffixes agree in gender with O in certain circumstances, and with A in others; details are in tables 16.4 and 16.7.
The third pronominal position repeats a 1/2sg pronoun from A function.	The third pronominal position repeats a 1/2sg pronoun from O function in certain circumstances, and from A function in others; details are in tables 16.4 and 16.7.

Note that both the Ac and the Oc can be used with any transitive verb—there are no lexical restrictions. There are no syntactic operations that are sensitive to whether a transitive clause is an Ac or an Oc. Note also that pivot identification, and the consequential use of Ac or Oc, extends throughout a text, covering all types of main clauses and every variety of subordinate clause other than nominalizations. There are dependent clauses within a pivot chain in (16.15), (16.18), (16.20), and (16.26–9). See also the discussion of complement clauses, in §17.3.

The Ac can be regarded as the unmarked transitive construction type in Jarawara, used when the pivot is in A function and also in unmarked circumstances (for instance, in the great majority of single-clause utterances), and the Oc as the marked construction type, used just when the pivot argument is in O function. In addition, an Ac is possible for all combinations of A and O argument, and all possibilities of predicate elements, whereas there are limitations on an Oc—see §16.4.

Of the transitive clauses in a textual sample, about 70 per cent are Ac's and about 30 per cent Oc's. However, the proportion of Oc's varies widely between texts, from 12 per cent to over 80 per cent. A pivot is most likely to be in A function in a transitive clause, since most texts describe people doing things, and here we get a high percentage of Ac's. But stretches of text may describe things being done to an object or to a person, and here Oc's are likely to predominate. For instance, the first forty-four lines of text 3 describe how an olden-days bark canoe was made. Of the sixty-nine clauses in this part of the text, two are copula clauses, thirty-one are intransitive, and thirty-six are transitive; of the latter, thirty (83 per cent) are Oc's while only six (17 per cent) are Ac's. This is because the focus is on the canoe, which is prototypically an O argument. In contrast, text 2 is more typical in having two copula clauses, ninety-six intransitive, and forty-seven transitive; of these thirty-six (77 per cent) are Ac's and eleven (23 per cent) are Oc's.

Exemplification of the role of Ac's and Oc's in discourse is in §16.3; and then §16.4 examines the rather complex morphological structure of the predicate in an Ac and in an Oc. But it is first appropriate to deal with suggestions that Ac's and Oc's in Jarawara (and the very similar constructions in other Arawá languages) can be appropriately described in terms of received notions of passive and antipassive.

16.2.2 Difficulties with a passive or antipassive interpretation

It is natural to try to describe a new language in terms of existing theoretical apparatus, and in fact two suggestions have been made concerning Ac's and Oc's in Arawá languages:

- (a) *Passive analysis*. The Ac is taken as the canonical 'active' construction, and the Oc as a derived passive. B. Campbell (1986) follows this analysis for Jarawara's sister dialect Jamamadí.
- (b) *Antipassive analysis*. The Oc is taken as the canonical 'active' construction, and the Ac as a derived antipassive. Adams and Marlett (1991) adopt this option for the related language Madiha (Kulina), working in terms of the formalism of Relational Grammar. Vogel (1989) also suggested this analysis for Jarawara, at a preliminary stage of his analysis of the language.

Now in the widely accepted definition of passive, this is a derived intransitive construction, with the original O becoming S and the original A being demoted to be a peripheral argument which may optionally be omitted. And, in the corresponding definition of antipassive, this is a derived intransitive construction, with the original A becoming S and the original O being demoted to be a peripheral argument, which may optionally be omitted (Dixon 1994: 146–52; Dixon and Aikhenvald 1997: 72–7). But both an Ac and an Oc are fully transitive, with two obligatory core arguments (A and O) which are marked in almost exactly the same way at the beginning of the predicate. There is no sense in which an Oc could be regarded as a derived intransitive—under analysis (a)—or that an Ac could be—under analysis (b).

All this can be illustrated by examining 'minimal pairs' of Ac and Oc. Examples are chosen where both A and O are explicit pronouns (avoiding 3sg, which has zero realization in pronominal slots). First, with 1sg as A and 3nsg as O:

- (16.13) Ac mee o-wa.katoma-ra o-ke
 3nsgO 1sgA-stare.at-IPef 1sg-DECL
 I stared at them
- Oc mee o-wa.katoma-ra-ke
 3nsgO 1sgA-stare.at-IPef-DECL
 I stared at them

Here the Ac has A pronoun *o-* repeated in the third pronominal position and the Oc lacks this. Gender agreement is with 1sg *o-* in the Ac and with 3nsg *mee* in the Oc, but this is f in each case since all explicit pronouns take f agreement. Now, examples with 1sg as O and 3nsg as O:

(16.14)	Ac	owa	mee	ka.katoma-hara-ke	
		1sgO	3nsgA	stare.at-IPef-DECf	
		they stared at me			
	Oc	owa	mee	ka.katoma-hara	o-ke
		1sgO	3nsgA	stare.at-IPef	1sg-DECf
		they stared at me			

Again, the construction types are distinguished just in terms of the third pronominal position; this is filled by *o-* in the Oc, repeating the 1sg O argument (but as a prefix), and is not filled in the Ac. The point to note is that the Ac and the Oc in each of (16.13) and (16.14) have exactly the same forms in first and second pronominal slots.

It will be seen from this how inappropriate are analyses (motivated by a desire to fit into some pre-existing theoretical conception) that Oc should be derived from Ac, or the reverse. And, as shown in §16.5 (see table 16.8), the two clause types are not available for all combinations of A and O in each language. In the Kulina-Dení language, only an Ac may be used if A is 3rd person and O is non-3rd and only an Oc if O is 3rd person and A non-3rd. It is just when both A and O are 3rd person that there is a choice between Ac and Oc (information on Kulina from Arlene Agnew, p.c., and on Dení from Fred and Paula Boley, p.c.); these facts appear not to have been known to Adams and Marlett (1991). This is hardly the basis for a ‘canonical-Oc-and-derived-Ac’ analysis.

In the Paumari and Madi languages, an Ac is available for all combinations of A and O arguments, but an Oc has restricted occurrence (as shown in table 16.8). This makes the ‘passive analysis’, (a), more plausible than the ‘antipassive analysis’, (b). However, for Paumari, Chapman and Derbyshire (1991) (and see Aikhenvald 1993) show that, in addition to the Ac and the Oc (referred to by Chapman and Derbyshire as the ‘accusative system’ and the ‘ergative system’ respectively), Paumari also has a bone fide passive; this serves to focus on an underlying O and/or to avoid stating the underlying A.

If things were stretched to suggest that an Arawá language had a passive (the Oc), it would have to be admitted that it has two core arguments, neither of which can be omitted. But Keenan (1985: 249) points out a major universal: ‘If a language has passives with agent phrases then it has them without agent phrases.’ The ‘Oc-as-passive’ analysis would entail a counter-example to Keenan’s generalization.

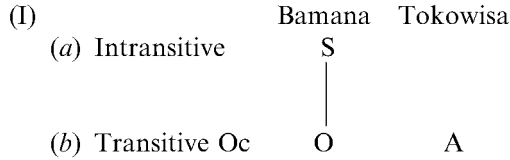
Enough should by now have been said to demonstrate the inadequacy of a passive or an antipassive analysis as applied to Ac and Oc. Jarawara (and other Arawá languages) simply have two alternative transitive construction types, somewhat similar to alternative ‘focus’ constructions in Philippine languages (see Dixon and Aikhenvald 1997). Their use is determined by discourse considerations.

Languages with an S/A or an S/O pivot have one transitive construction type, and also need a valency-reducing derivation which will put an argument that is not in a pivot function into a pivot function (passive putting O into derived S function, and antipassive putting A into derived S function). Jarawara discourse can operate with either type of pivot, and to this end it has two transitive construction types, the Ac and the Oc. It combines properties of a language with an S/A pivot (a syntactically accusative language) with those of a language with an S/O pivot (a syntactically ergative language). The Ac is similar to the basic transitive construction type in an accusative language, and the Oc is like the basic transitive construction type in an

ergative language. (And of course, with these two transitive construction types, there is no need for valency-reducing derivations such as passive and antipassive whose purpose is to put an argument which is in non-pivot function into pivot function.)

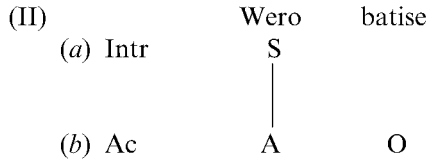
16.3 EXEMPLIFICATION OF DISCOURSE ROLE

The roles of and rationale for Ac's and Oc's can best be appreciated through a series of textual examples. For every example the function of core arguments in each clause is shown (by S, CS, A, O) and occurrences of the pivot argument are linked by a vertical line.



- (16.15) (a) $Bamana_S$ to-ko-make-himata-mona-ka
 name(m) AWAY-in.motion-FOLLOWING-FPnm-REPM-DECM
 Bamana is said to have gone following
- (b) $Tokowisa_A$ haa hi-ne-hiba-no-ho
 name(m) call.to Oc-AUX-FUTm-IPnm-DEP
 (and) Tokowisa was going to call to him

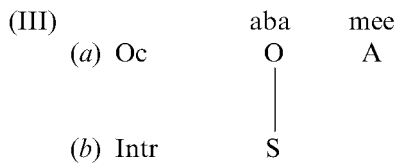
Clause (b) is recognized as an Oc since it has prefix *hi-*. We then infer that the O argument of (b) is the same as the S of (a), *Bamana* and that the NP stated in (b), *Tokowisa*, is in A function. Note that here both core participants are m, and so gender agreement would be the same in an Ac and in an Oc.



- (16.16) (a) $Wero_S$ ka-me
 name(m) in.motion-BACKm
 Wero went back
- (b) $batise_O$ wasi-me-no
 3sgPOSS+uncle(m) find-BACK-IPnm
 (and) found his (dead) uncle

Here the absence of prefix *hi-* (with 3rd person A and O) shows that (b) is an Ac with the A argument being identical with the S of the preceding clause, so that the stated NP in (b) must be in O function. (Example (16.16) is T1.11-12.)

We can also have an Oc when the O argument is identical with the S argument of a following clause, as in:



- (16.17) (a) [aba tafowe]_O mee hi-ka-tisa-we
 fish(m) package 3nsA Oc-APPLIC-unwrap-NOWM
 now they unwrap the fish package
- (b) [aba hinita]_S foje
 fish(m) alone be.inside+m
 just fish is inside

Clause (a) introduces a new pivot into the text, *aba* ‘fish’—here modified by possessed noun *tafowe* ‘package’—in O function. We can tell that (a) is an Oc since the verb bears prefix *hi-* and agrees in gender with the m noun *aba* in O function (the A argument, 3nsg *mee*, would—like all pronouns—take f agreement). As expected, the O of (a) is coreferential with the S argument of clause (b) (here adjective *hinita* ‘alone’ is added to *aba*, indicating that there was just fish inside the package).

We can contrast this with an A-S coreference sequence that demands an Ac:

(IV)		mee	hijara	jama
	(a) Ac	A	O	
	(b) Ac	A		O
	(c) Intr	S		

- (16.18) (a) hijara_O mee mita mati
 story(f) 3nsgA hear 3nsgDEP
 they listen to the story
- (b) jama_O mee jete na
 game(f) 3nsgA hunt AUXf
 they hunt animals
- (c) mee to-ka haa
 3nsgS AWAY-in.motion+f DEPf
 they go out

It will be seen that the pivot identification in a transitive clause can either look backwards (I, II) or forwards (III, IV) in the text. In many cases it goes both ways, as in:

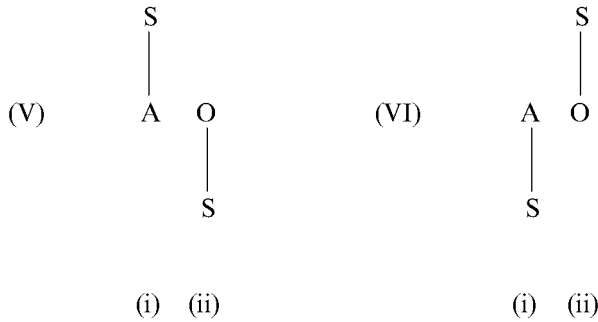
		Wabao	okobi
(a) Intr		S	
(b) Oc		O	A
(c) Intr		S	

- (16.19) (a) faja Wabao_S ka-me-hibona
 THEN name(m) in.motion-BACK-INTM
 then Wabao (grandfather) plans to return

- (b) okobi_A hi-karawato
 1sgPOSS+father(m) Oc-wait.for
 my father waits for him
- (c) ka-ma-re
 in.motion-BACK-NEGM
 (but) he (Wabao) doesn't come back

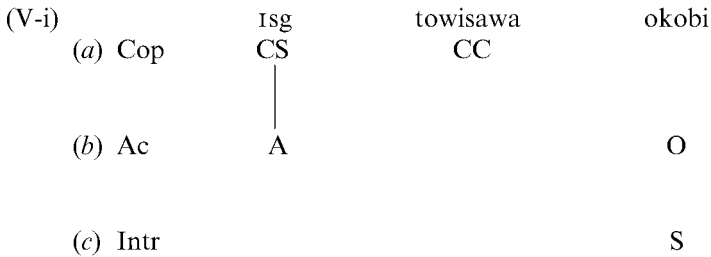
Prefix *hi-* marks (b) as an Oc and indicates that the stated NP, *okobi* 'my father', is in A function. The O argument of (b) is identical to the S of the preceding clause. Clause (c) has its S argument indicated only by m agreement on the final suffix; it is taken to be identical with the O of the preceding Oc.

There may, of course, be conflicting possibilities of pivot identification in terms of what comes before and what comes after a particular transitive clause. Consider (V) and (VI):



In each of (V) and (VI) the transitive clause in the middle could be (i) an Ac, grammaticizing the link between its A and the preceding S in (V) or the following S in (VI); or (ii) an Oc, grammaticizing the link between its O and the preceding S in (VI) or the following S in (V). (Note that only one of these coreferentiality links can be marked in the grammar, not both of them.)

We do get all four possibilities attested; just two will be illustrated here. In (16.20) the discourse sequence begins with a copula clause (CS functions exactly like S):



- (16.20) (a) towisawa_{CC} o-ha-habana o-ke
 chief(m) 1sgCS-become-FUTf 1sg-DECf
 I'm going to become a chief,
- (b) okobi_O asota o-na-habana o-ke waha
 1sgPOSS+father(m) help 1sgA-AUX-FUTf 1sg-DECf NEXT.THING
 then I will help my father (the old chief),
- (c) okobi_S kita-ma-re kaaro
 1sgPOSS+father(m) be.strong-BACK-NEGM PERIf
 since my father is not so strong any more

Here (b) is an Ac, shown by f gender agreement with 1sg *o-* as A (rather than m agreement with the O NP, *okobi* ‘my father’), grammaticizing the S-A link between clauses (a) and (b) in preference to the O-S link between clauses (b) and (c). The next example is from T1.3–5.

- (VI-ii)
- | | | | |
|----------|--|------|------|
| | | ‘he’ | otaa |
| (a) Intr | | S | |
| | | | |
| (b) Oc | | O | A |
| | | | |
| (c) Intr | | | S |
- (16.21) (a) *to-ke-hita-ka* [jama soki jaa]
 AWAY-IN.MOTION-RPnm-DECM thing(f) be.black+NOM PERI
 he went out in the dark
- (b) *otaa awa-re-ta-ka*
 IexcA see-NEG-RPnm-DECM
 we didn’t see him
- (c) *otaa amo ne-te otaa-ke*
 IexcS sleep AUX-RPnf Iexc-DECF
 we were sleeping

Clause (a) is the last of a sequence of seven intransitive clauses with the same S, which was stated just in the first clause (as *Siko*, a man’s name). Clause (b) shows m gender agreement with the O NP (rather than f agreement with the A argument, *otaa*), grammaticizing the S-O link between (a) and (b) rather than the A-S link between (b) and (c).

We now give some representative text fragments showing the interrelation between Ac’s and Oc’s. In (16.22) we get the same A and O for two successive clauses, but the first is an Ac and the second an Oc; this is because the O of the first two clauses will go on to be O for a third clause that has a different A.

- | | | | | |
|--------|--|----------------|-------|-----|
| | | Sorowahá chief | maone | 1sg |
| (a) Ac | | A | O | |
| | | | | |
| (b) Oc | | A | O | |
| | | | | |
| (c) Oc | | | O | A |
- (16.22) (a) *faja maone_O bobi na-kose-no*
 THEN tapir(m) cut.up AUX-MIDDLE-IPnm
 then he (the Sorowahá chief) cut up the tapir
- (b) [*hinaka maone*]_O *hee-ka-me-hino*
 3sg+POSS tapir(m) Oc+APPLIC-IN.MOTION-BACK-IPnm
 he brought (a piece of) his tapir
- (c) *wara o-ne*
 hold 1sgA-AUXm
 (and) I took it

The first clause is an Ac whose pivot ‘the Sorowahá chief’ was introduced half a dozen clauses earlier. Clause (b) is an Oc as can be seen from prefix *hi-* (here combining with applicative prefix *-ka-* as *hee-*). It is unusual in being an Oc with an O NP explicitly stated (and no stated A NP); the context makes clear that ‘(a piece of) his tapir’ must be O and not A for the verb ‘bring’. That clause (c) is an Oc can be inferred from the m gender agreement on the auxiliary, which must be with the O argument (tapir) since the A argument, 1sg *o-*, would take f agreement.

Sometimes a transitive clause can be stated twice (with the same verb), the first time as an Ac and the second as an Oc (or vice versa). This is to provide pivot links both with what precedes and with what follows. For example:

		cartridges	Isg	Izaki
(a)	Ac/Oc	O	A	
(b)	Ac		A	O
(c)	Oc		A	O
(d)	Ac	O		A

(16.23) (a) katoso_O tama o-ki-ne o-ke
 cartridge(f) hold.in.hand IsgA-APPLIC-CONTF Isg-DECF
 haaro
 THIS.ONE.VISIBLEf
 I hold the cartridges in my hand, showing him

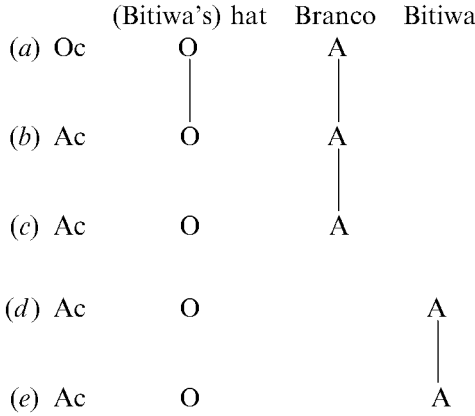
(b) faja Izaki_O o-wa-kawa-hara o-ke
 THEN name(m) IsgA-APPLIC-give.to-IPef Isg-DECF
 I gave them to Izaki

(c) Izaki_O o-wa-kawe
 name(m) Isg-APPLIC-give.to+m
 I give them to Izaki

(d) katoso_O wara to-ka-ne
 cartridge(f) hold AWAY-APPLIC-AUXm
 he takes them

From its formal properties the first clause could be an Ac or an Oc (if the O were m we could distinguish the two construction types here—see table 16.4 in §16.4.3); it is likely to be an Ac, from the discourse context. The second clause can be recognized as an Ac by the fact that mood agrees in f gender with the A (not in m gender with the O NP, Izaki). Clause (c) is an Oc since we here have m agreement with the O NP, Izaki. And clause (d) is an Ac since both A and O are 3rd person and there is no *hi-* prefix. The main point here is that (b) and (c) involve the same verb *ka-kawa-* ‘give to’, which is an Ac in (b), to mark the pivot link between A of (b/c) and A of (a), but in an Oc in (c), to mark the pivot link between O of (b/c) and A of (d). Here the verb occurs with tense and mood in (b) and without these in (c); in other instances a verb may be repeated in Ac and Oc with exactly the same set of suffixes.

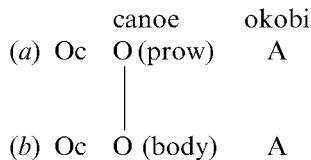
It has been seen that an Ac will normally omit an A NP, and an Oc will normally omit an O NP. However, an Ac will, as a rule, include an O NP and an Oc will include an A NP (if these arguments are 3rd person). We normally only get anaphoric omission of one argument from a single clause. In one text, a new episode begins:



- (16.24) (a) [Bitiwa_O kaa sabeo]_O Jara_A soba hi-witiha
 name(m) poss hat(f) Branco(m) pull.off Oc-FROM.PLACEF
 the Branco pulls Bitiwa's hat off (from his head)
- (b) sabeo_O kote n-isa-hare-ka
 hat(f) throw.forcibly AUX-DOWN-IPem-DECM
 he threw the hat forcibly down
- (c) sabeo_O kote n-ise
 hat(f) throw.forcibly AUX-DOWNm
 he throws the hat forcibly down
- (d) Bitiwa_A sabeo_O to-ti-make
 name(m) hat(f) AWAY-take-FOLLOWING
 Bitiwa takes the hat
- (e) sabeo_O weje na-ma-bisa-hare-ka
 hat(f) put.on AUX-BACK-ALSO-IPem-DECM
 he also put the hat back on his head

All clauses involve 3rd person A and O. We can see that (a) is an Oc by the inclusion of *hi-* and that (b–e) are Ac's by the lack of *hi-*; gender agreement is consistent with this. Clause (a) introduces two new participants, Bitiwa's hat and the Branco, and has two explicit NPs. Clause (d) introduces Bitiwa as new participant, in A function, but it is an Ac to establish a pivot chain with the following clause, (e). The point to note is that *sabeo* 'hat' is the O argument for five successive Ac's, (b–e) but it is explicitly stated in each. Anaphoric omission is limited to the A argument in an Ac: *Jara* 'Branco' in (b–c) and *Bitiwa* in (e).

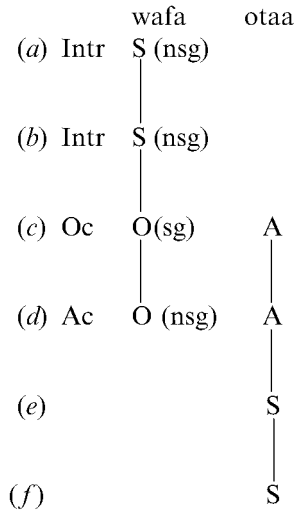
Similar remarks apply, although not quite so rigidly, to a repeated A argument in a string of Oc's. The story about making a bark canoe includes (this is T3.39–40):



- (16.25) (a) faja tati_O okobi_A tama hi-ne-himari ahi
 THEN prow 1sgPOSS+father(m) grab.hold.of Oc-AUX-FPem HERE.VISIBLE
 then my father grabbed hold of the prow [of the canoe (m)] here
- (b) mete_O okobi_A tama hi-ne
 body(m) 1sgPOSS+father(m) grab.hold.of Oc-AUXm
 he grabs hold of the body [of the canoe]

Both clauses here are Oc's, marked by prefix *hi-*. The point is that the A NP, *okobi* 'my father', is included in each clause. Anaphoric omission is here limited to the O argument *kanawaa* 'canoe' (here just a PN, specifying a part of the canoe, is included in each clause).

We have seen, in (16.22–4) various examples of overlapping of pivot sequences. A further example, at (16.26), shows the switch from one pivot (*wafa* 'woolly monkey') to the next (*otaa* 'we (two)').



- (16.26) (a) wafa_S mee haa na-marō mee ama-ke
 woolly.monkey(m) 3nsgS call.out AUX-FPef 3nsg EXTENT-DECf
 some woolly monkeys were calling out
- (b) wafa_S mee haa na mee
 woolly.monkey(m) 3nsgS call.out AUXf 3nsgDEC
 some woolly monkeys call out
- (c) otaa to-na-ka-me
 IexcA AWAY-CAUS-in.motion-BACKm
 we go after it (a woolly monkey)
- (d) wafa_O mee otaa tao na-marō otaa-ke
 woolly.monkey(m) 3nsgO IexcA shoot AUX-FPef Iexc-DECf
 we shot some woolly monkeys
- (e) Wero_{OPERI} otaa fama otaa
 name(m) IexcS be.two+f IexcDEP
 Wero and I are the two (of us)
- (f) faja otaa ka-ka-ma
 THEN IexcS APPLIC-in.motion-BACKf
 then the two of us go back

Wafa ‘woolly monkey’ is the S argument for (a) and (b) and the O argument for (c) and (d); it is marked as nsg (by *mee* in the predicate) in (a), (b), and (d) but is sg (referring to just one woolly monkey) in (c). *Otaa* ‘we (exclusive)’ is the A argument for (c) and (d) and the S argument for (e) and (f). To facilitate the switch of pivot, the storyteller used an Oc for the first of the two transitive clauses and an Ac for the second. (The peripheral marker *jaa* could have been included after *Wero* in (e) but is here omitted (see §20.1); this clause is, literally, ‘we were two with *Wero*’.) In (f) the applicative prefix *ka-* has dual meaning.

The way in which the properties of Oc’s and Ac’s have to be fully understood in order to calculate what the function of each NP is, and what each clause means, is demonstrated by the following text fragment.

	Saba (and companions)	Jima (nsg)	serikaa tomene
(a) Ac	A(sg)	O	
(b) Oc	O(sg)	A	
(c) Intr	S (nsg)		peripheral (<i>jaa</i>)
(d) Ac	A(nsg)		O
(e) Oc	O(nsg)	A	
(f) Ac	A(nsg)	O	
(g) Intr	S (nsg)		

- (16.27) (a) faja Jima_O mera naahabi-himata-mona-ka fahi
 THEN tribe 3nsgO kill-FPnm-REPM-DECM THERE.NON.VISIBLE
 then he (Saba) is said to have killed the Jima people there
- (b) Jima_A mee hi-bane
 tribe 3nsgA Oc-throw.at+m
 the Jima people throw (things) at him
- (c) mee hasi ne-mete-mone-ke [serikaa tomene jaa]
 3nsgS escape AUX-FPnf-REPF-DECF rubber(m) piece+m PERI
 they (Saba and his companions) are said to have escaped from the pieces of a
 rubber press (that were thrown at them)
- (d) [serikaa tomene]_O mee sii
 rubber(m) piece+m 3nsgA be.on.ground
 to-nihe-mete-mone-ni
 AWAY-CAUS-FPnf-REPF-BKGF
 they are said to have made the parts of a rubber press fall to the ground
 (by magic)

- (e) Jima_A mee mee hi-bana mati
 tribe 3nsgO 3nsgA Oc-throw.at+f 3nsgDEP
 the Jima people are throwing things at them
- (f) Jima_O mee mee naahabihe-mete-mone-ni
 tribe 3nsgO 3nsgA kill-FPnf-REPF-BKGF
 they are said to have killed the Jima people
- (g) mee ka-me-hemete-mone-ke fahi
 3nsgS in.motion-BACK-FPnf-REPF-DECf THERE.NON.VISIBLE
 they are said to have gone back home there

All of the five transitive clauses involve 3rd person A and O. Clauses (a), (d), and (f) can be recognized as Ac's by the absence of prefix *hi-*, and (b) and (e) as Oc's by the inclusion of *hi-*. We also get accusative suffix *-ra* on 3nsg O *mee* in (a), the mark of an Ac, and gender agreement in (a) is with the m A, not with the 3nsg O *mera* (which would demand f agreement). In (b), gender agreement is with the O argument, not with the A, 3nsg *mee* (which would require feminine agreement). In (d), gender agreement is f, with the 3nsg A, *mee* (rather than m with the O NP, *serikaa tomene*). In (e) and (f), both A and O are 3nsg, taking f agreement, and here gender cannot help to distinguish between Ac and Oc.

This comes from the story of how a Jarawara man, Saba, went with some companions on a revenge expedition against a hostile tribe, the Jima. Saba is the established pivot for the text and is pivot for each of these seven clauses (just Saba in (a–b), and Saba and his companions in (c–g)). Thus, an Ac is used when Saba (and companions) are in A function, and an Oc when they are in O function. Note that the pivot argument, *Saba*, is not stated once in the sequence of seven clauses (it was stated earlier in the text). *Jima mee* 'the Jima people' is in non-pivot function in each clause in which it occurs and must always be explicitly stated—as O argument in the Ac's, (a) and (f), and as A argument in the Oc's, (b) and (e). Note that we can only tell what function an explicitly stated NP is in, in a given clause, by knowing whether it is an Ac or an Oc and how it fits into the pivot organization of the text.

A given pivot must maintain a constant head, but may be specified in different ways in the clauses in which it occurs. In (16.27) the pivot began as just *Saba* (with m agreement) and was then augmented to *Saba mee* 'Saba and his companions', the 3nsg/augment marker *mee* demanding f agreement.

The way in which Ac's and Oc's are deployed can affect the orientation of a story. Consider two segments from a text about two men hunting and being hunted by two jaguars (note that both 'man' and 'jaguar' are m gender). In the first segment one jaguar attacks the men:

		men/man	jaguar
(a)	Ac	O (nsg)	A
(b)	Ac	O (nsg)	A
(c)	Oc	A (sg)	O
(d)	Oc	A (sg)	O
(e)	Intr		S

- (16.28) (a) *mera mono na-wahe-ba-no-ho*
 3nsgO attack AUX-NEXT.THING-FUTm-IPnm-DEP
 then it (the jaguar) planned to attack them
- (b) *mera mono ne*
 3nsgO attack AUXm
 it attacks them
- (c) *wara hi-mise*
 hold Oc-UPm
 he (one of the men) grabs it high up
- (d) *joko hi-witi*
 push Oc-FROM.PLACEm
 he pushes it away from him
- (e) *fito na-ma-tase-himata-mona-ka*
 run.up.to AUX-BACK-AGAIN-FPnm-REPM-DECM
 it is said to have run up to (them) again

The Oc's can be recognized by the presence of *hi-* in (c–d) and the Ac's by its absence in (a–b), together with gender agreement. This passage is unusually elliptical, with no NPs included at all. The identification of participants is, to some extent, left to the listener in terms of what a man can do to a jaguar (grab it), which is something a jaguar could not do to a man. It will be seen that the jaguar is pivot for the sequence of five clauses. Six clauses later we get a similar sequence but with the men/man as pivot. To accommodate this, Ac becomes Oc and Oc becomes Ac:

	men/man	jaguar
(a) Oc	O(nsg)	A
(b) Ac	A(sg)	O
(c) Intr	S(sg)	
(d) Intr	S (sg)	

- (16.29) (a) *jomee_A mee mono hi-na*
 jaguar(m) 3nsgO attack Oc-AUXf
 the jaguar attacks them
- (b) *jomee_O wara to-misa-rima ne-mata-mona-ka ahi*
 jaguar(m) grab AWAY-UP-REPEAT AUX-FPnm-REPM-DECM HERE.VISIBLE
 he (the man) is said to have repeatedly grabbed the jaguar high up here
- (c) *noho.ho na-wahe-ba-no-ho*
 be.injured.REDUP AUX-NEXT.THING-FUTm-IPnm-DEPM
 he (the man) was getting injured (from the animal)
- (d) *maa to-ha-haari*
 be.tired AWAY-AUX-DEPM
 he (the man) gets tired

The clause with *mono -na-* ‘attack’ was an Ac in (16.28*b*) but is here an Oc, shown by prefix *hi-* and gender agreement with the O argument, 3nsg *mee*. The clause with *wara -na-* ‘grab’ was an Oc in (16.28*c*) but is here an Ac, shown by lack of *hi-* prefix. Note that here we do get the non-pivot NP stated in each clause in which it appears—*jomee* ‘jaguar’ is in A function in the Oc, clause (*a*), and in O function in the Ac, clause (*b*).

There may be a number of reasons for the jaguar being identified as pivot in (16.28) and the man as pivot in (16.29). One is that (16.28) ends with an intransitive clause with ‘jaguar’ as S and (16.29) concludes with two intransitive clauses that have ‘the Jarawara man’ as S. Another factor is that up to (16.28) in the story the jaguars had the upper hand, and looked as if they might win the fight. From (16.29) the men are gaining ascendancy. One man is a little injured and is getting tired but he does in fact kill the jaguars quite soon in the story.

It will be seen that the full significance of a clause in Jarawara can only be appreciated if it is considered in a discourse context. The choice of pivot (which motivates the choice of an Ac or an Oc) may be looking forward in discourse, as in (16.17), etc. Or it can be looking backwards, as in (16.20–1), etc. If it is looking backwards, then the pivot argument will probably not be explicitly stated in that clause (although it will be shown by gender agreement on verbal suffixes) but will be understood from its statement in an earlier clause of the discourse.

16.4 THE STRUCTURE OF O-CONSTRUCTIONS

We should first recapitulate the structure of the predicate in an intransitive clause, and in an Ac, before looking in detail at Oc’s. Those parts of the predicate that are critical for the discussion which follows are identified by V, W, X, Y, Z.

The relevant parts of predicate structure are:

First pronominal position—marks O in all transitive clauses:

1/2nsg pronouns are always marked by *-ra*

in an Ac, 3nsg is optionally marked by *-ra* if A is 3rd person (never if A is 1/2);

in an Oc, 3nsg is never marked by *-ra*.

Second pronominal position—marks S in all intransitive, A in all transitive clauses:

nsg pronouns are separate words. 3sg is zero. 1sg *o-* and 2sg *ti-* are prefixes which move into first prefix slot.

First prefix slot, to inflecting verb or to auxiliary of non-inflecting verb:

filled by: 1sg, 2sg SA prefixes *o-*, *ti-*, or Oc marker *hi-*, or *to-* ‘away’.

Second and third prefix slots, filled by applicative *ka-* and causative *na-* ~ *niha-*.

- | | | |
|---|---|---|
| V | { | Verb root—inflecting or non-inflecting |
| | | Auxiliary, if verb root is non-inflecting |
| | | Miscellaneous suffixes (optional) |
| W | | Tense-modal suffixes (optional) |
| X | | Third pronominal position (generally only included in a non-interrogative clause if there is a mood suffix) |
| Y | | Secondary verb— <i>ama</i> or <i>awine/awa</i> (optional) |
| Z | | Mood suffix (optional) |

The constituents that must or may show gender agreement with the pivot are:

- V (an inflecting verb, auxiliary, or miscellaneous suffix) shows gender when predicate-final, or when immediately followed by a non-prefix pronoun at X, or a secondary verb at Y. It does not show gender when immediately followed by W or Z, or a prefixal pronoun (or *hi-*) at X
- W tense-modal suffixes, always show gender
- Y secondary verb *awine/awa* ‘seems’ shows gender
- Z mood suffixes, always show gender (except for contrastive negator *-rihi/-rihi*)

For a full investigation of Ac’s and Oc’s we must work in terms of two parameters:

(1) *Nature of A and O*. We need to consider separately, for each of A and O, whether it is 1/2sg, 1/2nsg, 3sg, or 3nsg (making a total of sixteen combinations). An Oc exists for only some of these possibilities:

- | O | A | |
|---------|-----|---|
| (a) 1/2 | 1/2 | only Ac, no Oc |
| (b) 1/2 | 3 | always Ac, only Oc if both tense-modal and mood are specified (choice (iv) under parameter (2)) |
| (c) 3 | 1/2 | both Ac and Oc |
| (d) 3 | 3 | both Ac and Oc |

(2) *Which late predicate elements are included*. There must always be a V element—verb root, plus auxiliary if the verb is non-inflecting, with optional addition of miscellaneous suffixes. But the tense-modal (W) and mood (Z) elements are optional. This gives four basic possibilities:

- | | | | |
|------------------------------------|---|---|-------|
| (i) neither tense-modal nor mood | V | | |
| (ii) with tense-modal but no mood | V | W | |
| (iii) with mood but no tense-modal | V | | (X) Z |
| (iv) with tense-modal and mood | V | W | (X) Z |

Note that the third pronominal position, X, is only normally filled before a mood specification at Z. The possibility of a secondary verb, in slot Y, is here being left to one side; this will be brought into the discussion in §16.4.5.

There are three possibilities for V—not to be marked for gender (if immediately followed by W or Z, or prefix *o-*, *ti-*, or *hi-* at X), or to be marked for f gender or for m gender (when predicate-final, or when followed by a nsg pronoun—*otaa*, *ee*, *tee*, or *mee*—at X, or a secondary verb at Y). These alternatives are clearly distinguished with a form that ends in *o*, *e*, or *i*, e.g. *-wato* ‘to know’.

- | | |
|-----------------------|----------------|
| not marked for gender | <i>wato</i> |
| f gender agreement | <i>wato-ha</i> |
| m gender agreement | <i>wato-hi</i> |

However, the majority of forms end in *a*, and here changes **a-ha* > *a*, **a-hi* > *e* have applied. With *-tafa-* ‘to eat’, for example, we have:

- | | |
|-----------------------|-------------|
| not marked for gender | <i>tafa</i> |
| f gender agreement | <i>tafa</i> |
| m gender agreement | <i>tafe</i> |

That is, the form which is not marked for gender (the gender-neutral form) and the f form often fall together. In these circumstances great care has to be taken to distinguish gender-neutral from f forms.

All tense-modal choices except for IPe behave in the same way for all possibilities at A and O. Any 1/2sg or 1/2nsg pronoun in S function (in an intransitive clause) or in A function (in an Ac) or in O function (in an Oc) is repeated in the third pronominal position. When no tense-modal choice is made, a 1/2sg S or A is repeated in the third pronominal position, but not a 1/2nsg.

As seen in §§4.4.1-2, the immediate past eyewitness (IPe) tense choice is realized in two different ways. If the S or A (in an Ac) or O (in an Oc) is 1/2sg or 3sg or 3nsg then the regular IPe suffix *-hara/-hare* is used, with a 1/2sg S or A being repeated in the third pronominal position. But with 1/2nsg S or A or O we get no tense-modal suffix, the tense choice being signalled by repetition of the 1/2nsg pronoun in this pronominal slot. This can be shown in tabular form (repeating the information from table 4.1):

<u>S or A (in Ac) or O (in Oc)</u>	<u>any tense-modal choice except IPe</u>	<u>IPe tense- modal choice</u>	<u>no tense- modal choice</u>
1/2sg	V W X Z	V W X Z	V X Z
1/2nsg	V W X Z	V — X Z	V — Z
3sg/3nsg	V W — Z	V W — Z	V — Z

We will now look at gender agreement, and filling of the third pronominal position, for intransitive clauses, transitive Ac's, and then transitive Oc's.

16.4.1 Intransitive clauses

Gender agreement and third pronominal position for the four types of predicate structure, (i-iv), are shown in table 16.2. 'S' indicates agreement with the S argument and 'N' indicates a gender-neutral form. Here all W (tense-modal) and Z (mood) suffixes always show gender agreement with S, and V does so when predicate-final or before a 1/2 nsg pronoun in slot X.

16.4.2 Transitive A-constructions

Table 16.3 summarizes the gender agreement and third pronominal position data for Ac's. The first columns show the type of argument in O slot, whether it bears accusative suffix *-ra* (parentheses indicate that *-ra* is optional on 3nsg when A is also 3rd person), the type of argument in A slot, and whether *hi-* is included in first prefix slot (it is absent for all Ac's, but

TABLE 16.2 Structure of an intransitive predicate

	(i) no tense- modal or mood	(ii) tense-modal but no mood	(iii) mood but no tense-modal	(iv) tense-modal and mood
S	V	V-W	V (X) Z	V-W (X) Z
1/2sg	S	N-S	N S S	N-S S S
1/2nsg	S	N-S	N — S	N-S S S*
3sg	S	N-S	N — S	N-S — S
3nsg	S	N-S	N — S	N-S — S

* For IPe tense-modal choice with 1/2nsg S we have (see §4.4.1):

<u>S</u>	<u>V W (X) Z</u>
1/2nsg	S — S S

TABLE 16.3 Structure of the predicate of an A-construction

O	-ra	A	hi-	(i) no tense-modal or mood V	(ii) tense-modal but no mood V-W	(iii) mood but no tense-modal V (X) Z	(iv) tense-modal and mood V-W (X) Z
1/2sg		1/2sg		A/O	N A/O	N A A/O	N A/O A A/O
1/2nsg	-ra	1/2sg		A/O	N A/O	N A A/O	N A/O A A/O
1/2sg		1/2nsg		A/O	N A/O	N — A/O	N A/O A A/O*
1/2nsg	-ra	1/2nsg		A/O	N A/O	N — A/O	N A/O A A/O*
1/2sg		3sg		A	N A	N — A	N A — A
1/2nsg	-ra	3sg		A	N A	N — A	N A — A
1/2sg		3nsg		A/O	N A/O	N — A/O	N A/O — A/O
1/2nsg	-ra	3nsg		A/O	N A/O	N — A/O	N A/O — A/O
3sg		1/2sg		A	N A	N A A	N A A A
3nsg		1/2sg		A/O	N A/O	N A A/O	N A/O A A/O
3sg		1/2nsg		A	N A	N — A	N A A A*
3nsg		1/2nsg		A/O	N A/O	N — A/O	N A/O A A/O*
3sg		3sg		A	N A	N — A	N A — A
3nsg	(-ra)	3sg		A	N A	N — A	N A — A
3sg		3nsg		A	N A	N — A	N A — A
3nsg	(-ra)	3nsg		A/O	N A/O	N — A/O	N A/O — A/O

* For IPe tense-modal choice with 1/2nsg A we have:

<u>O</u>	<u>A</u>	<u>V W X Z</u>
any 1/2nsg	A — A	A

present for some Oc's). 'A' marks agreement with the A argument, 'O' agreement with the O argument, and 'N' a gender-neutral form.

Note that we only find m agreement if an argument has an animate m noun as head and singular number (3sg pronominal forms are zero). If an argument is 1st or 2nd person, or 3nsg (i.e. shown by a non-zero pronoun) then it takes f agreement, as also does a singular NP with an f noun as head. If neither A nor O is 3sg, both will take f agreement and it is then impossible to distinguish A from O in agreement—this is shown by 'A/O' or 'O/A' in the tables.

It is clear from table 16.3 that in an Ac all gender agreement is with A, and the third pronominal position, when it is filled, repeats A (the A/O values are, effectively, A).

16.4.3 Transitive O-constructions

Things become more complicated when we come to consider Oc's. There is no Oc if both A and O are 1st or 2nd person. There is always an Oc if O is 3rd person. When A is 3rd person and O is 1st or 2nd person we have a distinct Oc only when both tense-modal and mood suffixes are included. Gender agreement and filling of the third pronominal position in an Oc are summarized in table 16.4.

The blanks at the top of table 16.4, for 1/2 O and 3rd person A, require comment. On the principle that V in (i) and W in (ii) are the same as W in (iv), we can posit forms for columns (i) and (ii); these would be the same as for an Ac, in table 16.5, and should be marked with a °. For the blanks in column (iii) we can extrapolate from the lower part of the column—Z should

TABLE 16.4 Structure of the predicate of an O-construction

O	-ra	A	hi-	(i) no tense-modal or mood V	(ii) tense-modal but no mood V-W	(iii) mood but no tense-modal V (X) Z	(iv) tense-modal and mood V-W (X) Z
1/2sg		3sg					N A O O
1/2nsg	-ra	3sg					N A O O*
1/2sg		3nsg					N A/O O O/A
1/2nsg	-ra	3nsg					N A/O O O/A*
3sg		1/2sg		O	N O	N A O	N O — O
3nsg		1/2sg		O/A°	N O/A°	N A O/A°	N O/A — O/A
3sg		1/2nsg		O	N O	N — O	N O — O
3nsg		1/2nsg		O/A°	N O/A°	N — O/A°	N O/A — O/A
3sg		3sg	hi-	O	N O	N hi- O	N O — O
3nsg		3sg	hi-	O	N O	N hi- O	N O — O
3sg		3nsg	hi-	O	N O	N hi- O	N O — O
3nsg		3nsg	hi-	O/A	N O/A	N hi- O/A	N O/A — O/A

° For this A, O, and predicate structure combination there is no distinction between Ac and Oc (that is, the entry in table 16.4 is identical to that in table 16.3).

* For IPe tense-modal choice with 1/2nsg O we have:

<u>O</u>	<u>-ra</u>	<u>A</u>	<u>hi-</u>	<u>V</u>	<u>W</u>	<u>X</u>	<u>Z</u>
1/2nsg	-ra	3sg	—	A	—	O	O
1/2nsg	-ra	3nsg	—	A/O	—	O	O/A

be O (or O/A where both O and A take f agreement), and X should be blank (since for this combination of A and O the verb does not take prefix *o-*, *ti-*, or *hi-* and it is these which are copied into the third pronominal position in this column). This would give predicted structures:

O	-ra	A	hi-	(i) no tense-modal or mood V	(ii) tense-modal but no mood V- W	(iii) mood but no tense-modal V (X) Z
1/2sg		3sg		A°	N A°	[N — O]
1/2nsg	-ra	3sg		A°	N A°	[N — O]
1/2sg		3nsg		A/O°	N A/O°	N — O/A°
1/2nsg	-ra	3nsg		A/O°	N A/O°	N — O/A°

The only boxes in the chart which differ from the corresponding boxes in table 16.3, for an Ac, are the top two in column (iii), which are enclosed in square brackets. These ‘extrapolated structures’ do not in fact occur and are not judged acceptable by speakers. It is for this reason that we must leave the blanks at the top of column (iii) in table 5; the blanks in columns (i) and (ii) could, however, be filled as just shown.

The columns in table 16.4 can be considered one at a time:

- It will be seen that the accusative suffix *-ra* is obligatory on a 1/2nsg O pronoun (as in an Ac) but cannot be used with 3nsg in O function in an O (unlike in an Ac).

- The *hi-* prefix, in the fourth column, must be included if both A and O are 3rd person.
- The mood suffix, Z, in (iii) and (iv) always agrees with O (we assume that O/A relates to O).
- V in (i) and W in (ii) and (iv) have the same value. We get
 - agreement with 3sg: if 3sg is O (and A is 1/2), and
if 3sg is A (and O is 1/2)
 - agreement with O if both A and O are 3rd person (and one of them 3sg)
 - ambiguous agreement with A or O when both are 3nsg

There are plainly two factors at work here: agreement with O, and agreement with 3rd person. The generalization can be stated in two ways. Either:

- (a) agreement is with O, except
- (b) when A is 3rd person and O is not 3rd person, then we get agreement with A

Or:

- (a) agreement is with a 3rd person argument if there is one
- (b) agreement is with O if both O and A are 3rd person
- The filling of the third pronominal position (X) is fascinating and differs between (iii), with just mood, and (iv), with tense-modal and mood.
 - (1) In (iii), if there is 1sg *o-*, 2sg *ti-*, or Oc marker *hi-* in the first prefix slot, this is repeated in the third pronominal position, e.g. (16.6), (16.10).
 - (2) In (iv), if the O pronoun (in the first pronominal slot) is 1st or 2nd person, this is repeated in the third pronominal position, with each pronoun taking on the form it would have in the second pronominal slot (see table 3.1). For example, 1sg *owa* in the O slot is repeated as *o-* in the third pronominal position, as in:

(16.30) [jomee_S habo ni]_A owa tafi-are o-ke
 dog(m) bark AUX+COMP 1sgO waken-IPem 1sg-DECL
 the dog's barking woke me up

Note that in this example the A argument is a complement clause 'the dog's barking'. The pivot of this complement clause—*jomee* 'dog', which is m—determines the gender of the tense suffix (which relates to the A argument) in (16.30).

Note that principle (1) appears also to apply to Ac's in table 16.3—in column (iii) only a pronominal prefix, 1sg *o-* or 2sg *ti-*, is copied into the third pronominal position. Principle (2) also applies to Ac's in table 16.3, with O replaced by A—in column (iv) any 1/2 pronoun in A function is repeated in the third pronominal position.

Note also the * construction, at the bottom of tables 16.3 and 16.4. In an Ac, the IPe tense-modal choice has a special realization when A is 1/2nsg—no tense-modal suffix but the A pronoun repeated in slot X. In an Oc, the IPe suffix *-hara/-hare* is perfectly acceptable when A is 1/2nsg but it is not possible when O is 1/2nsg. We then get no explicit tense-modal suffix but instead the 1/2nsg O pronoun repeated in the third pronominal position. When this happens the V constituent agrees in gender with A, as it does in predicate type (i).

In table 16.4, those places where the Oc and Ac fall together are marked by °. Note that Oc and Ac always differ if we have a full predicate structure, in column (iv), with tense-modal and mood choices, and also if both A and O are 3rd person (since we then have prefix *hi-* just in the Oc). They fall together in columns (i), (ii), and (iii) if one of A and O is 3nsg and the other is 1/2.

16.4.4 Exemplification of contrast between A-constructions and O-constructions

Examples were collected for each of the sixteen possibilities for intransitive clauses, in table 16.2, for each of the sixty-four possibilities for Ac's, in table 16.3, and for the corresponding possibilities for Oc's, in table 16.4. Most of these were found in texts, with careful elicitation being employed to check on the remainder (some of these did turn up in texts, as the corpus was steadily expanded).

It is unnecessary to exemplify each of the thirty-six 'minimal pairs' between tables 16.3 and 16.4. In this section, four examples are presented which illustrate the main parameters. In §16.3, I was concerned to show how Oc's function and each was quoted together with some textual context. In this section the focus is on the structure of Oc's and so just the Oc is given (adding in parentheses an O NP that was stated in a preceding clause), together with the corresponding Ac.

3sg O, 1/2sg A—(iii) mood but no tense-modal:

- (16.31) Ac: Okomobi_O o-nofa o-ke
 name(m) 1sgA-like 1sg-DECf
 I like Okomobi
 Oc: (Okomobi_O) o-nofa o-ka
 name(m) 1sgA-like 1sg-DECM
 I like Okomobi

3sg O, 1/2nsg A—(iv) tense-modal and mood specified:

- (16.32) Ac: kanero_O otaa kaba-haro otaa-ke
 mutton(m) 1excA eat-RPef 1exc-DECf
 we ate some mutton, a fair time ago
 Oc: (kanero_O) otaa kabe-hiri-ka
 mutton(m) 1excA eat-RPem-DECM
 we ate some mutton, a fair time ago

3sg O, 3sg A—(iii) mood but no tense-modal:

- (16.33) Ac: Okomobi_A [oko siraba]_O kaba-ka
 name(m) 1sgPOSS cangati(f) eat-DECM
 Okomobi is eating my cangati (fish sp.)
 Oc: ([oko siraba]_O) Okomobi_A hi-kaba hi-ke
 1sgPOSS cangati(f) name(m) Oc-eat Oc-DECf
 Okomobi is eating my cangati

3sg O, 3sg A—(iv) tense-modal and mood specified:

- (16.34) Ac: Okomobi_A [oko siraba]_O kabe-hino-ka
 name(m) 1sgPOSS cangati(f) eat-IPnm-DECM
 Okomobi ate my cangati
 Oc: ([oko siraba]_O) Okomobi_A hi-kaba-ni-ke
 1sgPOSS cangati(f) name(m) Oc-eat-IPnf-DECf
 Okomobi ate my cangati

16.4.5 With a secondary verb

We can now extend the discussion to include constituent Y, the secondary verbs *ama* ‘extended in time’ and *awine/awa* ‘seems, in my opinion’. In non-interrogative sentences, secondary verbs are almost always followed by mood (we have too few examples without mood to be able to generalize on these). There are thus two additional predicate structures:

- (v) secondary verb and mood, without tense-modal choice: V (X) Y Z
- (vi) secondary verb and mood, plus a tense-modal choice: V W (X) Y Z

If we have a non-zero pronoun in S function for an intransitive clause, or A for an Ac or O for an Oc, then it will be repeated in third pronominal position. A raised ^h indicates that 1sg *o-* and 2sg *ti-* at X hop over Y and attach themselves to mood (Z), e.g. ... *mee* (X) *ama-ke* (Y-Z), ... *otaa* (X) *ama-ke* (Y-Z) but ... *ama* (Y) *o-ke* (X-Z).

Gender agreement and filling of the third pronominal position for an intransitive clause is shown in table 16.5. Note that gender agreement is with S and that any non-zero S pronoun is repeated in the third pronominal position. Information about an Ac with a secondary verb is in table 16.6. All gender agreement is with A, and any non-zero pronoun in A slot is repeated in the third pronominal position. Note that with secondary verbs we do not get the

TABLE 16.5 Structure of an intransitive predicate with a secondary verb

S	(v) mood but no tense-modal				(vi) tense-modal and mood			
	V	(X)	Y	Z	V-W	(X)	Y	Z
1/2sg	S	S ^h	S	S	N S	S ^h	S	S
1/2nsg	S	S	S	S	N S	S	S	S
3sg	S	—	S	S	N S	—	S	S
3nsg	S	S	S	S	N S	S	S	S

TABLE 16.6 Structure of the predicate of an A-construction with a secondary verb

O	<i>-ra</i>	A	(v) mood but no tense-modal				(vi) tense-modal and mood			
			<i>hi-</i>	V	(X)	Y	Z	V-W	(X)	Y
1/2sg		1/2sg	A/O	A ^h	A/O	A/O	N A/O	A ^h	A/O	A/O
1/2nsg	<i>-ra</i>	1/2sg	A/O	A ^h	A/O	A/O	N A/O	A ^h	A/O	A/O
1/2sg		1/2nsg	A/O	A	A/O	A/O	N A/O	A	A/O	A/O
1/2nsg	<i>-ra</i>	1/2nsg	A/O	A	A/O	A/O	N A/O	A	A/O	A/O
1/2sg		3sg	A	—	A	A	N A	—	A	A
1/2nsg	<i>-ra</i>	3sg	A	—	A	A	N A	—	A	A
1/2sg		3nsg	A/O	A	A/O	A/O	N A/O	A	A/O	A/O
1/2nsg	<i>-ra</i>	3nsg	A/O	A	A/O	A/O	N A/O	A	A/O	A/O
3sg		1/2sg	A	A ^h	A	A	N A	A ^h	A	A
3nsg		1/2sg	A/O	A ^h	A/O	A/O	N A/O	A ^h	A/O	A/O
3sg		1/2nsg	A	A	A	A	N A	A	A	A
3nsg		1/2nsg	A/O	A	A/O	A/O	N A/O	A	A/O	A/O
3sg		3sg	A	—	A	A	N A	—	A	A
3nsg	<i>(-ra)</i>	3sg	A	—	A	A	N A	—	A	A
3sg		3nsg	A	A	A	A	N A	A	A	A
3nsg	<i>(-ra)</i>	3nsg	A/O	A	A/O	A/O	N A/O	A	A/O	A/O

TABLE 16.7 Structure of the predicate of an O-construction with a secondary verb

O	-ra	A	hi-	(v) mood but no tense-modal			(vi) tense-modal and mood					
				V	(X)	Y	Z	V-	W	(X)	Y	Z
1/2sg		3sg		A	O ^h	O	O	N	A	O ^h	O	O
1/2nsg	-ra	3sg		A	O	O	O	N	A	O	O	O
1/2sg		3nsg		A/O	O ^h	O/A	O/A	N	A/O	O ^h	O/A	O/A
1/2nsg	-ra	3nsg		A/O	O	O/A	O/A	N	A/O	O	O/A	O/A
3sg		1/2sg		O	—	O	O	N	O	—	O	O
3nsg		1/2sg		O/A	O	O/A	O/A	N	O/A	O	O/A	O/A
3sg		1/2nsg		O	—	O	O	N	O	—	O	O
3nsg		1/2nsg		O/A	O	O/A	O/A	N	O/A	O	O/A	O/A
3sg		3sg	hi-	O	—	O	O	N	O	—	O	O
3nsg		3sg	hi-	O	O	O	O	N	O	O	O	O
3sg		3nsg	hi-	O	—	O	O	N	O	—	O	O
3nsg		3nsg	hi-	O/A	O	O/A	O/A	N	O/A	O	O/A	O/A

special construction marked by * at the bottom of tables 16.2–4; this is because neither secondary verb can co-occur with an IPe tense-modal choice.

Predicate structure in an Oc with a secondary verb is shown in table 16.7. This is, when compared with table 16.4, relatively simple:

- V in (v) and W in (vi) have exactly the same gender agreement as V in (i) and W in (ii) and (iv) of table 16.4. One way of stating this is to say that agreement is with a 3rd person argument if there is one, and with O if both A and O are 3rd person.
- Y (the secondary verb) and Z (mood) always agree with O (treating O/A as, effectively, O).
- In both (vi), with a tense-modal suffix, and in (v), without this, the third pronominal position (X) repeats the O pronoun from the first pronominal position, simply altering its form to be that appropriate to the second pronominal position (see table 3.1); for example, 1exc *otara* becomes *otaa* and 1sg *owa* becomes *o-*, as in:

1/2sg O, 3nsg A—(vi) with tense-modal suffix:

(16.35) Oc: bita_A otara mee katoma-ro otaa ama-ke
 mosquito(m) 1excO 3nsgA bother-RPef 1exc EXTENT-DECf
 the mosquitoes were bothering us

1/2sg O, 3sg A—(vi) with tense-modal suffix:

(16.36) Oc: inohowe_A owa fito ka-ne-hina ama o-ke
 alligator(m) 1sgO grab APPLIC-AUX-IRRM EXTENT 1sg-DECf
 the alligator might have grabbed me (if it had been alive)

Thus, in a construction with a secondary verb, all of X, Y, and Z reflect S in an intransitive clause, A in an Ac, and O in an Oc.

We can now provide some contrastive examples of Ac's and Oc's with secondary verbs. First, with the most common secondary verb, *ama*, which does not vary for gender:

3nsg O, 1/2nsg A—(vi) with tense-modal suffix:

(16.37) Ac: aba_O mee otaa kaba-haro otaa ama-ke
 fish(m) 3nsgO 1excA eat-RPef 1exc EXTENT-DECf
 we were eating the fish

Oc: (aba_O) mee otaa kaba-haro mee ama-ke
 fish(m) 3nsgO 1excA eat-RPef 3nsg EXTENT-DECf
 we were eating the fish

Note that here both O and A are non-zero pronouns (*mee* and *otaa* respectively) each of which takes f agreement.

And now a pair of clauses with secondary verb *awine/awa*, which does agree in gender—with A in an Ac and with O in an Oc:

3sg O, 3sg A—(v) no tense-modal choice:

(16.38) Ac: Jane_A boro_O nofa awine-ke
 name(f) cake(m) like+f SEEMSF-DECf
 Jane seems to like cake

Oc: (boro_O) Jane_A hi-nofe awa-ka
 cake(m) name(f) Oc-like+m SEEMSM-DECM
 Jane seems to like cake

We should now compare the structure of Oc's without a secondary verb, in table 16.4, and those with a secondary verb, in table 16.7. It will be seen that there is a considerable difference between the two structures that include mood but lack tense-modal choice—(iii) with no secondary verb and (v) with a secondary verb. In (iii) the third pronominal position repeats a verbal prefix (*o-*, *ti-*, or *hi-*) whereas in (v) it repeats the O pronoun, just as in (vi). (This explains why *hi-* is never included in third pronominal position with a secondary verb.)

In fact it is more useful to consider (v) and (vi) in table 16.7 as predicate types (i) and (ii) from table 16.4 (filling in the gaps at the tops of columns (i) and (ii) in table 16.4 by copying the corresponding boxes from table 16.3), with the addition of pronoun+secondary verb+mood, rather than as (iii) and (iv) with a secondary verb inserted. This provides a clue to the origin of predicate types (v) and (vi). It is likely that originally there was a biclausal construction, with the first clause involving a lexical verb (with tense-modal but no mood) and the second clause the copula *ama* (or *awine/awa*). This has now evolved into a uniclausal construction, with a secondary verb between third pronominal position and mood. Such a diachronic scenario would help to explain the structure of modern Jarawara, and the difference between predicate types (iii) and (v); it is further discussed in chapter 27.

The Jarawara, Jamamadí, and Banawá dialects share over 95 per cent vocabulary, have very similar grammars (with Ac's and Oc's), and are mutually intelligible. Unfortunately, grammatical information in Jamamadí and Banawá is scanty, especially with respect to the few points of significant difference from Jarawara. It is clear that the 'third pronominal position' does occur in these dialects but in a much more restricted fashion than in Jarawara. My own limited observations of Banawá suggest that it can be filled in a predicate of structure (iii), with mood but no tense-modal, but not in one of structure (iv), with tense-modal and mood. (I have no information about the occurrence of a third pronominal position in a predicate with a secondary verb, for Banawá.) For Jamamadí, it is reported (Campbell and Campbell 1993) that the third pronominal position is only filled if there is a secondary verb *ama* (all the examples given involve 1sg *o-*). In fact the Jamamadí sentences look like biclausal constructions where the second part involves a copula verb, providing some support for the suggestion, at the end of the last paragraph, that secondary verb predicates in Jarawara may have evolved from biclausal constructions. This discussion is continued in chapter 27.

16.5 COMPARISON WITH OTHER ARAWÁ LANGUAGES

It is clear that there are two transitive construction types, corresponding to Ac and Oc in Jarawara, in the other Arawá languages for which grammatical information is available—Paumarí and Kulina-Dení.

Both languages have a similar predicate structure to Jarawara (with A/S bound pronouns as the outermost prefix to the verb) and also share the following features:

- (a) two genders, m and f, with f unmarked;
- (b) 1/2 pronouns take f agreement;
- (c) verb suffixes agree in gender with a core argument.

Note that Madi is the only language with a 3nsg pronoun (as noted in §10.5.5, it appears that this developed recently from the noun *madi* ‘people’). In the other languages all NPs with an m head noun take m agreement (whether sg or nsg).

PAUMARÍ has an Ac for all values of A and O, but an Oc only when O is 3rd person (Chapman and Derbyshire 1991; Aikhenvald 1993; Chapman, p.c.). Properties of the two construction types are:

(i) Ac (Chapman and Derbyshire’s ‘accusative system’):

- (a) Basic constituent order OVA (with variant AOV).
- (b) O NP is marked by accusative suffix *-ra* (when it is definite and before the verb); A NP bears no suffix.
- (c) A is definite and an A NP which immediately follows the verb generally begins with a demonstrative.
- (d) 3sg A pronominal prefix is \emptyset (as is the S prefix on an intransitive verb).
- (e) Gender-sensitive verb-final suffixes reflect the gender of A.

(ii) Oc (Chapman and Derbyshire’s ‘ergative system’):

- (a) Basic constituent order AVO (with variant O, AV where ‘,’ indicates a pause).
- (b) A NP is marked by ergative suffix *-a* (which also marks a number of peripheral functions); O NP bears no suffix.
- (c) O is definite and an O NP which immediately follows the verb generally begins with a demonstrative.
- (d) 3sg A pronominal prefix is *bi-*.
- (e) Gender-sensitive verb-final suffixes reflect the gender of O.

Points of similarity with Jarawara are:

- O is marked by *-ra* in an Ac (although this occurs on an NP in Paumarí and on a nsg pronoun in Jarawara; as noted under (b) in §10.1.1, *-ra* occurs on NPs in Jamamadí and in an earlier stage of Jarawara).
- Verbal suffixes agree with A in an Ac and with O in an Oc.
- The 3sg pronominal A prefix is *bi-* in an Oc (for which O must be 3rd person) in Paumarí; this may be cognate with the Oc prefix *hi-* (used when both A and O are 3rd person) in Jarawara.
- In Jarawara, A is the pivot in an Ac and O is the pivot in an Oc; these have definite reference. In Paumarí the A in an Ac and the O in an Oc are definite (and ‘focused’), and generally marked by a demonstrative when they follow the verb.

- Basic constituent orders for Paumarí are OVA in an Ac and AVO in an Oc. In Jarawara the preferred orders are AOV in an Ac and OAV in an Oc. These are iconic, with the final constituent in Paumarí corresponding to the initial one in Jarawara. And note that the variant orders in Paumarí—AOV in an Ac and O, AV in an Oc—are identical to the orders in Jarawara.

A point of difference is that there is in Jarawara nothing corresponding to the ergative suffix *-a* in Paumarí.

KULINA-DENÍ differs from Paumarí and Jarawara in lacking an accusative suffix *-ra*, and from Paumarí in lacking an ergative suffix *-a*.

If one or both of O and A is 1st or 2nd person, there is a single construction type, with gender agreement on verbal suffixes as follows:

- with A if A is 3rd person and O is 1st or 2nd person (this is like an Ac);
- with O if O is 3rd person and A is 1st or 2nd person (this is like an Oc);
- indeterminate (f) agreement if both A and O are 1st or 2nd person.

Only when both O and A are 3rd person, are there two construction types:

- an Ac where the preferred constituent order is AOV; verbal suffixes agree in gender with the A; and the verb bears \emptyset prefix for 3sg A;
- an Oc where the preferred constituent order is OAV; verbal suffixes agree in gender with the O; and the verb bears prefix *i-* for 3sg A (this is almost certainly cognate with *hi-* in Jarawara and probably also with *bi-* in Paumarí).

Table 16.8 summarizes the distribution of Ac's and Oc's in the three languages. A tentative hypothesis concerning their origin and development goes as follows (in outline):

(1) Proto-Arawá had an Ac for all combinations of A and O, and an Oc just when O was 3rd person. This has been maintained in Paumarí.

(2) Kulina-Dení lost the Ac for combination of 3rd person O and 1st or 2nd person A; the Oc is the sole transitive construction type for this combination of O and A. The reason for this appears to be a preference for having gender agreement with a 3rd person argument, if there is one, i.e. with A if A is 3rd person and O is 1/2 (an Ac) and with O if O is 3rd person and A is 1/2 (an Oc).

(3) Jarawara has extended the scope of the Oc and innovated an Oc, in contrast to the established Ac, for the combination of 3rd person A and 1st or 2nd person O. But this new Oc only exists for a predicate with tense-modal and mood suffixes both stated, and/or with a secondary verb.

TABLE 16.8 Distribution of A-constructions and O-constructions in Arawá languages

O	A	Paumarí		Kulina-Dení		Jarawara
1/2	1/2	Ac		(Ac)		Ac
1/2	3	Ac		Ac		Ac limited Oc*
3	1/2	Ac	Oc		Oc	Ac Oc
3	3	Ac	Oc	Ac	Oc	Ac Oc

* Oc only if tense-modal and mood suffixes are stated, or if there is a secondary verb within the predicate

We suggested, in §16.4.5, that constructions in Jarawara with secondary verbs developed from biclausal constructions in which the secondary verb was the main verb of the second clause. This would have been the introduction of a clause allowing an Oc when A was 3rd and O was non-3rd person; it initially applied only when there was a secondary verb (which must be followed by a mood specification). It is likely that this new possibility for an Oc—the second row in table 16.8—was then analogically extended to apply when there was no secondary verb but provided that both a mood and a tense-modal specification were included. These ideas are further developed in chapter 27.

Complement Clauses

Some verbs, as predicate head, require just NPs as core arguments, whereas others may accept an NP or a complement clause in certain roles. For instance, in English one can say I_A *tried* [*the pudding*]_O, with an NP in O slot, or I_A *tried* [*to eat the pudding*]_O, with a complement clause in O slot.

There are three main types of complement clause in English, each with distinctive meaning—(*'s*) *ing*, *that*, and (*for*) *to*. In English, complement clauses most frequently occur in O slot, for example:

- (17.1) I_A want [Mary to go first]_O
 (17.2) Fred_A enjoys [Mary's playing the piano]_O
 (17.3) She_A saw [that they had painted the fence]_O

They can occur in A slot, with one type of verb:

- (17.4) [Mary's always being late]_A annoys John_O
 (17.5) [That Mary is always late]_A worries Fred_O

or, with extraposition: [*It*]_A *worries* Fred_O [*that Mary is always late*]_A.

In English, complement clauses are seldom found in S slot. One example is:

- (17.6) [That Mary is always late]_S doesn't really matter

For a full account of complement clauses in English, see Dixon (1991: 32–84, 207–66).

Jarawara has just one type of complement clause that can function as core argument in the main clause. It is often translatable by an (*'s*) *ing* clause in English. For example (this is T1.35, and note that Amoro, a woman, is here accorded m gender agreement, as a mark of respect):

- (17.7) [Amoro_S ohi ni]_S sai-hiri ama-ka
 name(f) cry AUX+COMP be.audible-RPem EXTENT-DECM
 Amoro could be heard crying (lit. Amoro's crying was audible)

With *-nofa* 'want, like' as main verb, a complement clause in O function may be translatable by a (*for*) *to* complement in English.

- (17.8) [to-ki]_O o-nofa o-ke [wahati mee
 AWAY-in.motion+COMP 1sgA-want 1sg-DECf Jamamadí AUG
 tabori jaa]
 village+f PERI
 I want to go to the Jamamadí village

In brief, a complement clause in Jarawara has a similar structure to the nucleus of a main clause, with final *a* shifting to *i*. Full details of the structure of complement clauses are in §17.2

and of their syntax in §17.3–7. But first, §17.1 presents the way in which complement clauses are used in this language.

17.1 MODE OF USE

Complement clauses in Jarawara are used in a quite different way from those in English and other familiar languages of Europe. The great majority of complement clauses in English are in O slot, to verbs of attention, such as *see*, *hear*, and *show*; to mental activity verbs such as *think*, *know*, and *believe*; to speaking verbs such as *tell*, *discuss*, *inform*, and *order*; and to verbs such as *like*, *copy*, *arrange*, *compare*, and *depend (on)*. Complement clauses are found in A slot with verbs such as *amoy*, *frighten*, *please*, *anger*, and *disappoint*, and also *resemble*, *depend (on)*, and the like. There are very few instances of complement clauses in S function—one example was given at (17.6).

The most common situation in Jarawara is for a complement clause to relate to the S argument of (a) a verb of motion or of rest; (b) a verb with stative meaning, which would be translated by an adjective in many other languages, e.g. ‘be good’, ‘do well’, ‘be strong’, ‘be audible’, ‘be fast’, ‘be far’; (c) a verb referring to quantity, such as ‘be one, alone’, ‘be two’, ‘be many’, ‘be a lot’; (d) an intransitive verb such as ‘be ready, accomplished’, ‘start, begin’, and ‘take a long time’.

If a sentence in Jarawara is to include a verb from the types specified in the last paragraph, together with a verb describing some action, then it is the action verb that will be placed into the complement clause. Thus, with (a), a verb of motion or of rest, as main clause predicate:

(17.9) [jomee_O tiwa ni]_S to-ke
 jaguar(m) carry AUX+COMP AWAY-in.motion+m
 he carries the jaguar off (lit. his carrying the jaguar goes off)

(17.10) faja [jama_O tama ka-ni]_S
 THEN thing(f) hold APPLIC-AUX+COMP
 o-wa-riha
 1sgA(of COMP)-stand-RAISED.SURFACEf
 then I stand holding a full thing (plate) (lit. then my holding a full thing stands)

The ‘raising’ of the 1sg A argument from the complement clause to the main clause is discussed in §17.6. Other examples with a verb of motion in the main clause include (3.33), (7.29), (12.33a), and with a verb of rest T1.37, T2.52.

A complement clause as S argument to (b), a stative verb, is illustrated in (3.32) ‘Filipe is rocking energetically (in his hammock) (lit. Filipe’s rocking is strong)’, (17.7) and (17.11–12).

(17.11) [tika hijari]_S amosa-tee ama ti-ke
 2sgS talk+COMP be.good-HABIT EXTENT 2sg-DECf
 you always talk well (lit. your talking is always good)

Note that this would be rendered in English with ‘talk’ as main verb and ‘good’ coded through an adverb. In (17.12)—which is from T2.104—*jabo-* ‘be far’ is the main verb and *jaka -na-* ‘walk’ is placed in the complement clause; in English ‘walk’ would be the main verb and there would be an adverbial phrase ‘for a long way’.

(17.12) [[otaa jaka ka-ni]_S jabo] jaa
 1excS walk APPLIC-AUX+COMP be.far PERI
 when we had walked a long way (lit. when our walking was far)

Similarly, where English would employ an adverbial element such as ‘twice’ or ‘many times’, Jarawara uses (c), an intransitive verb of quality, in the main clause. Examples include ‘be many’ in (5.196), ‘be one’ in (17.46), and ‘be two’ in:

- (17.13) [soki na-ki]_S o-fama o-ke
 tie AUX-COMING+COMP IsgA(of COMP)-be.two Isg-DECf
 I tie two (knots in my shoelaces) (lit. my tying is two)

That is, where English might say *I tie twice*, Jarawara prefers ‘my tying is two’.

Set (d) of verbs which typically take a complement clause as S argument includes *hawa* (10-)ha- ‘be accomplished’, which occurs in T2.21, 27, 78, T3.31, (3.28), (3.34b), and (4.37a). We find *jana -na-* ‘begin, commence’ with a complement clause in:

- (17.14) [inamatis_S haa ni]_S jana na-ma-hare-ka [ajata jaa]
 spirit(m) call AUX+COMP start AUX-BACK-IPem-DECM near PERI
 the spirit started calling out nearby (lit. the spirit’s calling out started nearby)

Complement clauses in Jarawara can also function as O argument of verbs like ‘see’, in (15.95) and (17.15), ‘hear’ in (6.6) and (17.16), ‘remember’ in (17.66), ‘want, like’ in (3.29) and (17.8), and ‘know, understand’ in (4.20), (7.23), and (7.84).

- (17.15) faja [karafatos_S karoro na-wahi]_O o-wa
 THEN tape.recorder(f) rotate AUX-NOW+COMP IsgA-see+f
 then I see the tape recorder now going around (after I have repaired it)

- (17.16) [mee hijari]_O otaa ka-mita
 3nsgS talk+COMP IexcA APPLIC-hear+f
 we hear them talking

In (17.17) the complement clause is O argument for ‘follow’:

- (17.17) [habo ni]_O otaa to-na-ka-maki
 bark AUX+COMP IexcA AWAY-CAUS-in.motion-FOLLOWINGf
 we followed (the noise of the dog’s) barking

Other examples of a complement clause in O slot are at T1.75 and T2.22.

Complement clauses in Jarawara may also relate to the A argument in a main clause, almost exclusively with causative versions of intransitive verbs, e.g. (3.30) ‘the dog’s barking woke me’, and (8.34c) ‘the Branco’s falling over made me laugh’.

17.2 STRUCTURE

Complement clauses have significant structural similarities with nominalized clauses, described in chapter 19, so that it is sometimes not easy to distinguish between these subordinate clause types. There are, however, important differences. For ease of comparison, the same numbering is used for structural features of a complement clause here, and of a nominalized clause in §19.1. (Table 24.1 in §24.3 contrasts the properties of seven types of clause.)

(i) Unlike a main clause, a complement clause cannot include any clause-initial or clause-final elements. That is, there can be no peripheral constituents in a complement clause; they must be placed in the main clause.

(ii) It must include a predicate element. This can include predicate-initial pronouns, prefixes, verb root, auxiliary (for a non-inflecting verb), and miscellaneous suffixes from the first

four echelons, together with the extra-echelon suffix *-waha* ‘now, the next thing, then’. It cannot include miscellaneous suffixes from the fifth and sixth echelons, nor the extra-echelon suffix *-tee* ‘habitual’.

(iii) It cannot include tense-modal or mood suffixes, or a secondary verb, or the third pronominal position.

(iv) The predicate of a complement clause may include just three of the six prefixes: *to-* ‘away’, as in (17.8), applicative *ka-* as in (17.10), and causative *ni-* ~ *niha-* in (17.43). 1sg prefix *o-* and 2sg prefix *ti-* from a main clause become *oko* and *tika*, at the beginning of the complement clause. The Oc prefix *hi-* from the predicate of a complement clause is transferred to the predicate of the main clause.

(v) A 3nsg pronoun in O function within an Ac as complement clause generally has the form *mee*, but can be *mera* (as in a main clause).

(vi) As the mark of a complement clause, if the last element of the predicate (be it verb, auxiliary, or miscellaneous suffix) ends in *a*, this is raised to *i*. For example, verb *-ka-* ‘in motion’ becomes *ki* in (17.8), verb *hijara* ‘talk’ becomes *hijari* in (17.11), miscellaneous suffix *-waha* ‘now’ becomes *-wahi* in (17.15), and auxiliary *-na-* becomes *ni* in (17.17). If the predicate of a complement clause ends in *i*, *e*, or *o*, then it undergoes no change (and may not take final *-ha/-hi*, see (III) in §4.5.2). If the complement clause ends with morphophoneme *I*, this is realized as *i* (irrespective of whether it is in an odd- or even-numbered syllable of a word); for example, in (17.13) *na-kI* becomes *na-ki*.

(vii) If the complement clause ends in auxiliary *ni*, this cannot be omitted.

(viii) There is no gender agreement within the predicate of a complement clause. However, if the complement clause is in pivot function in the main clause, then the final element(s) in the predicate of the main clause will agree in gender with the pivot of the complement clause. In (17.14) the tense and mood suffixes of the main clause are in m form, agreeing with *inamati* ‘spirit’, which is pivot (in S function) of the complement clause which is in turn pivot (S function) of the main clause. The declarative suffix on the main verb in (17.25) is in f form, agreeing with *oko* ‘I’, the pivot (S function) of the complement clause which is itself in pivot function (again S) in the main clause. Example (3.30) ‘the dog’s barking woke me’ has an Ac as complement clause in A (pivot) function within a main clause which is also an Ac. The tense and mood suffixes of the main clause are in m form agreeing with *jomee* ‘dog’, which is pivot (in S function) of the complement clause.

(ix) The predicate of the complement clause may, as in a main clause, be preceded by one or more core NPs—in S function as in (17.14), or in O function as in (17.9–10), or in A function, or in both A and O functions, as in (17.22) and:

(17.18) [Jobeto_A [jama hani]_O rawi ni]_S hawa
 name(m) thing(f) design+f write AUX+COMP be.accomplished
 to-ha-ka
 AWAY-AUX-DECM
 Jobeto has finished writing (lit. Jobeto’s writing is accomplished)

Further illustration of these properties will now be provided. First (ii), concerning which miscellaneous suffixes may be included in a complement clause. Sentence (17.19) includes two miscellaneous suffixes, *-mina* ‘in the morning’ and *-bisa* ‘also’. When this becomes a complement clause in S function to main verb *hawa (to-)ha-* ‘be accomplished’, in (17.20), the second echelon suffix *-mina* remains on the complement clause predicate but *-bisa*, from the sixth echelon, is not permitted in a complement clause and must move over into the main clause. As stated above, only suffixes from the first four echelons may be included in a complement clause.

(17.19) Okomobi_S afi na-mina-bisa-ka
 name(m) bathe AUX-MORNING-ALSO-DECM
 Okomobi also bathed in the morning

(17.20) [Okomobi_S afi na-mini]_S hawa
 name(m) bathe AUX-MORNING+COMP be.accomplished
 to-ha-bisa-ka
 AWAY-AUX-ALSO-DECM
 Okomobi has also completed his morning bathe (lit. Okomobi's bathing in the morning is also accomplished)

First echelon suffix *-ki* 'coming' is retained in the complement clause in (17.13), as are *-tima* 'upstream' and *-ma* 'back' (both also from the first echelon) in:

(17.21) [[otaa ka-tima-mi]_S jabo] jaa
 IexcS in.motion-UPSTREAM-BACK+COMP be.long PERI
 after we went back upstream for a long distance (lit. after our going back upstream was long)

The fourth echelon suffix *-kaba -na-* 'do without stopping' is included in the complement clause of:

(17.22) [Kakai_A bora_O taro kaba ni]_O o-wa-hara o-ke
 name(m) ball(m) kick WITHOUT.STOPPING AUX+COMP IsgA-see-IPef Isg-DECf
 I saw Kakai continually kicking the ball

The miscellaneous suffix *-waha* 'now, the next time, then' is used in a complement clause in (17.15).

Negation is shown by the sixth echelon suffix *-ra*. We cannot get negation within a complement clause, only in a main clause, for example:

(17.23) okojo_A [ahabi]_O nofa-re-no-ka
 IsgPOSS+elder.brother die+COMP want-NEG-IPnm-DECM
 my elder brother didn't want to die

There is thus no possibility of a contrast such as that in English between *He doesn't want to go* and *He wants not to go*, where the negator can go either in main clause or in complement clause.

Structural property (iv) will now be illustrated. We have seen that, in a main clause, 1sg or 2sg subject is shown by prefix *o-* or *ti-* to an inflecting verb or to the auxiliary of a non-inflecting verb. In a complement clause, 1sg or 2sg subject is shown by *oko* or *tika* at the beginning of the clause (before any NPs). Compare the main clause in:

(17.24) o-tafa o-ke
 IsgS-eat Isg-DECf
 I am eating

with the complement clause in:

(17.25) [oko tafi]_S hawa to-ha-ke
 IsgS eat+COMP be.accomplished AWAY-AUX-DECf
 I have finished eating (lit. my eating is accomplished)

Non-singular pronominal subjects maintain the same position in the structure of main clauses and of complement clauses. They are retained in the predicate as the constituent immediately

preceding the verb. Compare the transitive main clause in (17.26) and the corresponding complement clause in (17.27), with 1sg subject, and the pair in (17.28–9) with 1exc subject. The pronominal prefix *o-* to the auxiliary in (17.26) is replaced by *oko*, before the O NP in (17.27), whereas in (17.28) and (17.29) 1exc *otaa* maintains its position between O NP and verb root.

(17.26) sina_O hisi o-ne o-ke
snuff(f) sniff 1sgA-COMP 1sg-DECf
I am sniffing snuff

(17.27) [oko sina_O hisi ni]_S hawa to-ha-ke
1sgA snuff snuff AUX+COMP be.accomplished AWAY-AUX-DECf
I have finished sniffing snuff (lit. my sniffing snuff is accomplished)

(17.28) sina_O otaa hisi ni-ne-ke
snuff 1excA sniff AUX-COMP-DECf
we are sniffing snuff

(17.29) [sina_O otaa hisi ni]_S hawa to-ha-ke
snuff 1excA sniff AUX+COMP be.accomplished AWAY-AUX-DECf
we have finished sniffing snuff (lit. our sniffing snuff is accomplished)

The Oc prefix *hi-* is dealt with in §17.3, which discusses Oc's in relation to complement clause constructions.

It was mentioned in §4.3 that *to-* 'away' in the first prefix slot is displaced by 1sg *o-* or 2sg *ti-*. Thus, for an underlying structure

(17.30) o- to- -ka- -ma
1sgS- AWAY- -in.motion- -BACKf

the *o-* goes into the prefix slot and the *to-* is omitted, giving (with assimilation):

(17.31) o-ko-ma
1sgS-in.motion-BACKf
I return

However, if (17.30) is recast as a complement clause, the *o-* prefix is replaced by clause-initial *oko* and now *to-* is included in the predicate:

(17.32) [oko to-ko-mi]_S jabo-ke
1sgS AWAY-in.motion-BACK+COMP be.long-DECf
I return over a long distance (lit. my returning is long)

All types of 1/2 pronouns in O function are retained as is in a complement clause, in the first slot in predicate structure; for example:

(17.33) Mito_A [otara awi]_O nofa-ka
name(m) 1excO see+COMP like-DECm
Mito likes to watch us

§3.3.1 described how, in a main clause which is an Ac, the 3nsg O pronoun is generally *mera* if the A argument is 3sg, as in (17.34). Feature (v) states that a 3nsg O pronoun within a complement clause, where the A is 3sg, is generally *mee*, although it can be *mera*, as in (17.35).

(17.34) aba_O mera weje na-re-ka
fish(m) 3nsgO carry AUX-IPem-DECm
he carried the fish

- (17.35) [aba_O mee/mera weje ni]_S ka-ma-hare-ka
 fish(m) 3nsgO carry AUX+COMP in.motion-BACK-IPem-DECM
 he went back carrying the fish (lit. his carrying the fish went back)

One significant property of complement clauses is that they often include what is basically a transitive verb used in an intransitive S = O sense (something like an impersonal passive in other languages). Most of the examples of this involve a complement clause as S argument for the verb *hawa (to-)ha-* 'be accomplished'. A verb may first be used in its regular transitive sense, as predicate of a main clause, and then in the S = O sense as predicate of a complement clause to *hawa (to-)ha-*.

- (17.36) [jobe biti]_O otaa hiri na, [[jobe
 house(m) small+m 1exCA build AUXf house(m)
 biti]_S hiri ni]_S hawa to-he
 small+m build AUX+COMP be.accomplished AWAY-AUXM
 we build a small house, the building of the small house was completed

Note that in (17.36), the auxiliary *-ha-* of *hawa (to-)ha-* shows m gender, agreeing with *jobe biti* 'small house' as S argument of the complement clause.

- (17.37) faja jama_O o-kanika-tasa,
 THEN thing(f) 1sgA-buy-AGAINf
 [jama_S kaniki]_S hawa to-ha
 thing(f) buy+COMP be.accomplished AWAY-AUXf
 then I buy things again, and the buying of things is completed

Examples of a transitive verb being used with an S = O intransitive sense in the complement clause to a verb other than *hawa (to-)ha-* include (17.45*b*) and:

- (17.38) [Jara_S mee hijari]_O Izaki_A nofa-ra-re-ka
 Branco(m) 3nsgS be.spoken.to+COMP name(m) want-NEG-IPem-DECM
 Izaki doesn't want the Brancos to be spoken to

17.3 O-CONSTRUCTIONS AND COMPLEMENT CLAUSES

All the examples of complement clauses given thus far have involved intransitive clauses and transitive Ac's. We can now examine Oc's, first as main clause and then as complement clause.

Example (17.39*a*) has an Ac as main clause and an intransitive complement clause as O argument while (17.39*b*) has an Oc as main clause with the same intransitive complement clause in O function.

- (17.39*a*) Ac [Jara_S toho ni]_O o-mita o-ke
 Branco(m) cough AUX+COMP 1sgA-hear 1sg-DECf
 I heard the Branco coughing
- (17.39*b*) Oc [Jara_S toho ni]_O o-mita o-ka
 Branco(m) cough AUX+COMP 1sgA-hear 1sg-DECM
 I heard the Branco coughing

Example (17.39*b*) shows no tense-modal suffix and the 1sg A pronoun *o-* is repeated in the third pronominal position. But, since this is an Oc, the mood agrees in m gender with *Jara*, which is pivot of the complement clause that is, in turn, pivot argument for the main clause (see table 16.4).

In (17.40) we get another example of an intransitive complement clause in O function within a main clause O-construction, but this time with a pronoun as S of the complement clause and an m noun as A argument in the main clause. Since the main clause includes a tense suffix, the pronominal subject of the complement clause is copied into the third pronominal position of the main clause (again see table 16.4, and the discussion in §17.6).

- (17.40) Jara_A [tika tafi]_O awa-hare ti-ke
 Branco(m) 2sgS eat+COMP see-IPem 2sg-DECLf
 the Branco just saw you eating

There is a textual example where both S of the complement clause (again in O function) and A of the main clause are third person, and the main clause verb shows prefix *hi-*:

- (17.41) [to-ko-mi]_O hi-we-hibona-ha
 AWAY-in.motion-BACK+COMP Oc-see-INTm+DEP
 (she) plans to watch him going (lit. (she) plans to see his going)

In (17.41), *hi-* indicates that gender agreement is with the O argument, and the m form of intentional suffix, *-hibona*, shows that the S of the complement clause which is in O function must be m. (This sentence gives no information about the reference of the A; it is identifiable as ‘she’ from the textual context.)

We can also get a main clause O-construction which has a complement clause in A function, e.g. (compare with the corresponding A-construction in (3.30)):

- (17.42) [jomee_S habo ni]_A owa na-tafi-are o-ke
 dog(m) bark AUX+COMP 1sgO CAUS-waken-IPem 1sg-DECLf
 the dog’s barking woke me up

Here the O-construction was used to establish a pivot link with the preceding clause in the text, which had 1sg as S—*amo o-na-hani* ‘I had been sleeping’.

When Oc’s functioning as complement clauses are examined, all examples in the corpus have an intransitive main clause, with the complement clause as S argument. As stated under (iv) in §17.2, the Oc prefix *hi-* cannot be included in a complement clause and must be transferred to be a prefix in the predicate of the main clause. For example:

- (17.43) [Botenawaa_O mee na-mosi]_S hi-jabo hi-ka
 name(m) 3nsgA CAUS-be.good+COMP Oc(in COMP)-be.long Oc-DECLm
 they are curing Botenawaa for a long time (lit. their making Botenawaa better is long)

Note that we here get prefix *hi-* on the main clause verb, which is intransitive *-jabo-* ‘be long’. This indicates that the complement clause is an O-construction. The main clause mood suffix, *-ka*, is in m form, indicating the O argument of the complement clause in S function must be m, i.e. the complement clause is ‘they cure him’. Note that, since there is no tense-modal suffix in the main clause, prefix *hi-* is repeated in the third pronominal position (see table 16.4). Another example is (17.44), a clause in peripheral function:

- (17.44) [mee mee kosi ni]_S hawa hi-hi jaa
 3nsgO 3nsgA whip AUX+COMP be.accomplished Oc-AUX+NOM PERI
 (they put them in jail) when they had finished whipping them (lit. when their whipping them was finished)

Here *hi-*, the marker of the complement clause as an O-construction, goes on the auxiliary of the main clause verb *hawa (to-)ha-* ‘be accomplished’.

It was stated in §16.2.1 that a pivot chain runs through every type of clause in a discourse, both main and subordinate (excepting nominalized clauses). Consider:

- (17.45) (a) *jomee*_A *awa*_O *bisi* *hi-na-hani*
 jaguar(m) *tree*(f) *scratch* *Oc-AUX-IPnf*
 a jaguar scratched the tree
- (b) [*awas*_S *bisi* *ni*]_S *waa-haa*
 tree(f) *scratch* *AUX+COMP* *stand-DEP*
 the tree which had been scratched is standing (there)

Neither *jomee* ‘jaguar’ nor *awa* ‘tree’ had occurred in the preceding discourse. (17.45*a*) is coded as an O-construction to establish a pivot chain involving *awa*, the O argument in (17.45*a*) and the S argument of the complement clause, which is in S function in the main clause, in (17.45*b*). (Note that this is another example of a predominantly transitive verb being used with an S = O intransitive sense in a complement clause, as discussed at the end of §17.2.)

17.4 TYPES OF COMPLEMENT CLAUSE CONSTRUCTION

A complement clause construction has a main clause and a complement clause. There are, potentially, three possibilities for complement clause (intransitive clause, transitive Ac, and transitive Oc) and five possibilities for its function in the main clause (S function in an intransitive main clause, A or O function in an Ac or Oc main clause) giving fifteen combinations in all. Only eight occur in the corpus; these are set out in table 17.1.

The constraints on clause types in a complement clause construction appear to be:

- (1) An Ac complement clause cannot function as A argument of an Ac main clause. There are no examples in the corpus and when elicitation was directed in this direction, no sentence of the type was accepted.
- (2) If one of the clauses in a complement clause construction is an Oc, then the other must be intransitive. That is, if ‘transitive Oc’ occurs in the first column, then ‘intransitive’ must be in the third column, and vice versa. This observation is based on occurrence in

TABLE 17.1 Types of complement clause constructions

type of complement clause	function of complement clause in main clause	type of main clause	examples include
intransitive	S	in intransitive	(17.7), (17.11–12), (17.14), (17.20)
intransitive	O	in transitive Ac	(17.8), (17.15–17), (17.23), (17.38)
intransitive	A	in transitive Ac	(8.34 <i>c</i>), (17.56)
intransitive	O	in transitive Oc	(17.39 <i>b</i>), (17.40–1)
intransitive	A	in transitive Oc	(17.42)
transitive Ac	S	in intransitive	(17.9–10), (17.13), (17.18), (17.27)
transitive Ac	O	in transitive Ac	(17.22), (17.33), (17.47), (17.64–6)
transitive Oc	S	in intransitive	(14.9), (17.43–4), (17.55), (26.42)

the corpus; I have attempted no more than a smattering of elicitation to try to supply the missing combinations (without any success).

It has already been mentioned that if two core NPs are stated in a transitive clause, they may occur in either order. The same appears to apply when there is an NP in one core transitive function and a complement clause in the other. For example, we get an NP in A function followed by a complement clause in O function in (17.23), (17.33), and (17.40), but the reverse order in (17.38).

There are examples of iteration; that is, a complement clause within a complement clause. For example:

- (17.46) [[oko hijari]_S jana ni]_S ohari-hara o-ke
 1sgS speak+COMP start AUX+COMP be.one-IPef 1sg-DECF
 (at the meeting of chiefs) I started to speak (just) once (lit. my speaking's starting was once)

Note that it is here the stative verb *-ohari-* 'be one, be alone' that is the main clause predicate; *jana -na-* 'begin' is in the first embedding with *-hijara-* 'speak' in the inner embedding.

- (17.47) [[tee ajaki]_O awi]_O otaa nofa-ri
 2nsgS sing+COMP see+COMP 1excA want-NEG+NOM
 we don't want to go to your party (lit. we don't want to watch you singing)

Here *-nofa-* 'want, like' is the main clause verb with *-awa-* 'see' in the first complement clause and *-ajaka-* 'sing' in the inner one.

There is an example, just from elicitation, of complement clauses as both A and O arguments of a main verb:

- (17.48) [makis jaka ni]_O [fatis jaka ni]_A
 3sgPOSS+husband(m) walk AUX+COMP 3sgPOSS+wife(f) walk AUX+COMP
 tomi hi-ka-na hi-ka
 measure Oc-APPLIC-AUX Oc-DECM
 the wife walks as fast as the husband (lit. his wife's walking measures up to her husband's walking)

Alternatively, the A argument could be just *fati* 'his wife', omitting the second *jaka ni*, with no apparent difference in meaning.

17.5 MODIFICATION OF A COMPLEMENT CLAUSE

A core argument slot is generally filled by a noun, which may be modified by a possessed noun and/or an adjective, etc. (see table 10.1). Alternatively, a core argument slot can be filled by a complement clause, and this too may be modified by a possessed noun or by an adjective.

When the Jarawara people at Casa Nova built me a house, visitors from another village admired the woven thatched roof, and remarked:

- (17.49) [[[jobe baje efe]_S boto ni] nafi]_S
 thatch(m) palm.sp(m) leaf+m weave.roof AUX+COMP all
 amosa-ka
 be.good-DECM
 all of the palm-leaf thatch weaving is good

Here *baje afe* ‘palm leaves’ is a modifier to the head of the NP (*jobe* ‘thatch’), describing the material used (slot Bi in table 10.1). The S argument of the main clause verb *-amosa-* ‘be good’ involves a complement clause modified by the PN *nafi* ‘all’.

In the recounting of a dream, we find a complement clause modified by PN *watari* ‘dream’:

- (17.50) [[*awa_S* *jai* *to-ka-ni* *watari*]_O *o-wa-hara* *o-ke*
 pole(f) be.straight AWAY-APPLIC-AUX+COMP dream IsgA-see-IPef Isg-DECLf
 I saw a straight pole in the dream

I was once asked whether I liked to drink cane whisky and replied that I didn’t but do sometimes drink a little beer. Speakers instructed me to say:

- (17.51) [[*seseja_O* *fawi*] *jokana*]_{CS} *o-ha-tee-ra*
 beer(f) drink+COMP real IsgA(of COMP)-become-HABIT-NEG
ama-ke
 EXTENT-DECLf
 I don’t habitually drink beer very much (lit. my real beer-drinking is not habitual)

Here the CS argument of the copula main clause involves a complement clause modified by the adjective *jokana* ‘real’.

There are rather few examples of copulas in complement clause constructions but, on the evidence available, CS appears to behave exactly like S.

17.6 PRONOMINAL RAISING

If a transitive clause, whose A argument is shown by a pronoun, is in S function in a transitive main clause, then the pronominal A of the complement clause may optionally be ‘raised’, to attach to the predicate of the main clause. Once a pronoun has been raised, it may then be copied into the third pronominal position of the main clause, provided that the main clause does not include a tense-modal suffix or a secondary verb. Thus, we may have (17.27) without raising, or (17.27’) with raising, and (17.29) without or (17.29’) with raising. There appears to be no meaning difference between these alternatives.

- (17.27) [*oko* *sina_O* *hisi* *ni*]_S *hawa* *to-ha-ke*
 IsgA snuff sniff AUX+COMP be.accomplished AWAY-AUX-DECLf

- (17.27’) [*sina hisi ni*]_S *hawa* *o-ha* *o-ke*
 IsgA(of COMP)-AUX Isg-DECLf
 I have finished sniffing snuff (lit. my sniffing snuff is accomplished)

- (17.29) [*sina_O* *otaa* *hisi* *ni*]_S *hawa* *to-ha-ke*
 snuff IexcA sniff AUX+COMP be.accomplished AWAY-AUX-DECLf

- (17.29’) [*sina hisi ni*] *otaa* *hawa to-ha-ke*
 IexcA(of COMP)
 we have finished sniffing snuff (lit. our sniffing snuff is accomplished)

It will be seen that the raising of an A pronoun from the complement clause is independent of whether it is a sg form—such as Isg which has the form *oko* in (17.27) but reverts to being prefix *o-* in (17.27’)—or a nsg form—such as Iexc *otaa* which has the same form (and positioning, immediately before the verb) in the complement clause of (17.29) and in the main clause of (17.29’).

Note that the pronoun which is A argument of the complement clause can be stated as A of the complement clause or in S slot in the main clause, but *not* in both places—thus **oko sina hisi-ni o-ha o-ke* and **sina otaa hisi ni otaa hawa to-ha-ke* are both unacceptable.

Raising from A of a complement clause to S slot in the main clause is very common and is found in more than half the constructions of this type in the corpus. However, if there is a tense-modal suffix or a secondary verb present, then the raised pronoun is not repeated in the third pronominal position of the main clause. Adding IPef *-hara* to (17.27) we get:

(17.52) [oko sina_O hisi ni]_S hawa to-ha-hara-ke
 IsgA snuff sniff AUX+COMP be.accomplished AWAY-AUX-IPef-DECf
 I have just finished sniffing snuff

With raising of the A argument of the complement clause into the S pronominal slot within the predicate of the main clause, we get:

(17.52') [sina hisi ni]_S hawa o-ha-hara-ke
 IsgA(of COMP)-AUX-IPef-DECf
 I have just finished sniffing snuff

We do not get **[sina hisi ni] hawa o-ha-hara o-ke*, with the raised pronoun *o-* repeated in third pronominal position of the main clause. There is a further example at (14.9).

Examples of raising include (17.10), (17.13), (17.51), and:

(17.53a) [boro_O kabi]_S otaa joto-tasa
 cake(m) eat+COMP IexcA(of COMP) follow-AGAINf
 (we finish eating pork), then we eat cake (lit. our eating cake follows again)

(17.53b) [kojari_O tiwa ni]_S o-ko-make
 paddle(m) carry AUX+COMP IsgA(of COMP)-in.motion-FOLLOWING
 I follow behind, carrying the paddle (lit. my carrying the paddle follows behind)

Example (26.42) is similar to (17.53b) except that the complement clause is an Oc. The Isg A argument from the complement is raised into S slot in the main clause, but the predicate-final auxiliary of the main clause shows m agreement, with the pivot (in O function) of the complement clause.

All explicit pronouns may undergo A-to-S raising, including 3nsg *mee*, as in the peripheral clause:

(17.54) [faja [faha_O wisa ka-ni]_S
 THEN water(f) bail APPLIC-AUX+COMP
 mee hawa to-hi] jaa
 3nsgA(of COMP) be.accomplished AWAY-AUX+NOM PERI
 when they had finished bailing water (from the canoe) (lit. when their bailing water was completed)

Note that there are two quite distinct processes of 'raising' from complement clauses to main clauses in Jarawara:

- (1) The prefix *hi-* from an Oc complement clause is S function in a main clause *must* be transferred to the predicate of the main clause, as in (17.43–4).
- (2) A pronominal argument in A function within a complement clause that is in S function in an intransitive main clause *may* optionally be transferred to the predicate of the main clause.

That these are independent processes can be seen from the fact that both may apply to the same sentence, as in:

- (17.55) [[Sesowi_O siba ni]_S mee
 name(m) look.for AUX+COMP 3nsgA(of COMP)
 hi-jabo-mata-mona-ka
 Oc(of COMP)-be.long-FPnm-REPM-DECM
 they are said to have looked for Jesus for a long time (lit. their looking for Jesus was said to be lengthy)

Here both the A pronoun, 3nsg *mee*, and the O-construction marker, *hi-*, from the complement clause are raised to the main clause predicate.

In fact, A-to-S is the only type of raising that is found in Jarawara. We do not get raising of an S pronoun from a complement clause in S function to the S slot of the main clause. That is, one cannot say **tafi hawa o-ha o-ke* as an alternative to (17.25) [*oko tafi*]_S *hawa to-ha-ke* 'I have finished eating' (lit. 'my eating is finished'), nor **amo ni otaa hawa to-ha* as an alternative to (3.28) [*otaa amo ni*]_S *hawa to-ha* 'we have finished sleeping' (lit. 'our sleeping is finished').

Neither is it permitted to raise an S pronoun from a complement clause in A function to the A slot of the main clause. That is, one can say:

- (17.56) [*oko jee ni*]_A Jara_O na-tafi-ara-ke
 1sgS yell AUX+COMP Branco(m) CAUS-waken-IPef-DECf
 my yelling wakened the Branco

but not **jee ni Jara o-na-tafi-hara-ke*.

As shown in table 17.1, it appears that we cannot have an Ac complement clause in A function for an Ac (or an Oc) main clause. The possibilities for pronominal raising are summarized in table 17.2.

As noted, when a pronoun is raised it is also included in third pronominal position in the main clause if there is no tense-modal suffix or secondary verb present. Now, in a construction where no raising has taken place, the subject pronoun of a complement clause may be copied into the third pronominal position of the main clause (that is, without the pronoun having been transferred to a position at the beginning of the main clause predicate). Interestingly, this only happens if the main clause includes a tense-modal suffix or a secondary verb (or both).

The complementarity of conditions is noteworthy. A pronoun raised from a complement clause into the S slot of a main clause can only be repeated in the third pronominal position if

TABLE 17.2 Possibilities for pronominal raising

	function of pronominal argument in complement clause	function of complement clause in main clause	
(a)	A in Ac or Oc	S	optional raising (and filling of third pronominal position when no tense-modal suffix or secondary verb is present in the main clause)
(b)	S in intransitive	S	no raising
(c)	S in intransitive	A	no raising
(d)	A in Ac or Oc	A	no construction

there is *no* tense-modal suffix or secondary verb in the main clause. A pronoun not raised from a complement clause can only be stated in the third pronominal position in the main clause if there *is* a tense-modal suffix or a secondary verb in the main clause. This is an intriguing situation, for which I can at present offer no explanation.

Repetition of complement clause subject pronoun in third pronominal position of the main clause applies to type (a) from table 17.2 when raising (which could have applied) has not applied (here all the examples noted involve an Ac, not an Oc, complement clause). For example, repeating (4.37a), a variant of (17.52) is:

- (17.57) [oko sina_O hisi ni]_S hawa to-ha-hara o-ke
 1sgA snuff(f) sniff AUX+COMP be.accomplished AWAY-AUX-IPef 1sg-DECf
 I have finished sniffing snuff (lit. my sniffing snuff is accomplished)

Note that if the tense-modal suffix were omitted from (17.57) then the third pronominal position could not be filled (final *to-ha-hara o-ke* would be replaced by *to-ha-ke*). Example (17.57) is a complement clause construction with a tense-modal suffix; one can either raise the 1sg A pronoun of the complement clause into S slot (but not into third pronominal position) in the main clause, as in (17.52'). Or one can repeat it in the third pronominal position (but not also raise it into S slot), as in (17.57).

In addition, copying into the third pronominal position applies for a construction from line (b) of table 17.2, where raising is not permitted. As with constructions from line (a), the main clause must include a tense-modal suffix or a secondary verb. Examples include (17.11), (17.46), and:

- (17.58) [oko kana ni]_S to-ko-ma-ra o-ke
 1sgS run AUX+COMP AWAY-in.motion-BACK-IPef 1sg-DECf
 I ran back (lit. my running went back)
- (17.59) [mee hii ni]_S ka-ma-haro mee ama-ni
 3nsgS call.'hii' AUX+COMP in.motion-BACK-RPef 3nsg EXTENT-BKGF
 they went back calling 'hii, hii' as they went (lit. their calling 'hii, hii' went back)
- (17.60) [otaa amo ni]_S fama-haro otaa ama-ke
 1excS sleep AUX+COMP be.two-RPef 1exc EXTENT-DECf
 we slept (there) for two nights (lit. our sleeping was two)
- (17.61) [[toho ti-ni] jaa],
 cough 2sgS-AUX+NOM PERI
 [tika toho ni]_S fawa ra tiwa awine ti-ke
 2sgS cough AUX+COMP disappear NEGf 2sg SEEMSF 2sg-DECf
 when you cough, you won't be able to stop coughing (lit. when you cough, your coughing will seem not to disappear)

Copying into third pronominal position is also possible for a construction from line (c) of table 17.2. For example, a variant of (17.56) is [*oko jee ni*] *Jara na-tafi-ara o-ke*.

As illustrated in (17.40), an S pronoun from a complement clause which is in O function within an Oc main clause may also be copied into the third pronominal position, again if there is a tense-modal suffix or a secondary verb. This is the only instance, in the corpus, of raising which is additional to those set out in table 17.2.

For all these instances of copying (without raising), any pronoun (including 3nsg) can be copied if there is a secondary verb but only a 1/2 pronoun (not 3nsg) if there is a tense-modal element but no secondary verb.

In §4.4.1, it was described how, with 1/2nsg as S of an intransitive clause, or A of a transitive A-construction, or O of a transitive O-construction, IPe is marked simply by repeating the pronoun in the third pronominal position. It appears that this also applies if the S of a complement clause in S function in the main clause is 1/2nsg. A sentence from a text told in IP tense is:

- (17.62) [otaa ka-fowi]_S jabo-ha otaa-ke
 IexcS APPLIC-lie.in.water+COMP be.long-f Iexc-DECf
 we sat in (a canoe) in the water for a long time (lit. our being in (a canoe which was) lying in the water was lengthy)

Note that, to mark IPe, we get a 1/2nsg pronoun in third pronominal position within a clause without any tense-modal suffix or secondary verb.

The same applies to a complement construction from line (a) of table 17.2 which has not undergone raising; a 1/2nsg pronoun which is in A function in a complement clause which is, in turn, in S function within the main clause can be copied into third pronominal position of the main clause to mark the IPe tense/evidentiality value, as in:

- (17.63) [sina_O otaa hisi ni]_S hawa to-ha otaa-ke
 snuff(f) IexcA sniff AUX+COMP be.accomplished AWAY-AUXf Iexc-DECf
 we have finished sniffing snuff

17.7 SHARED ARGUMENTS

It is interesting to enquire whether the complement clause and the main clause can share an argument, and what happens in such circumstances.

In fact, complement clauses in Jarawara show quite restricted possibilities for argument sharing. Recall that we cannot have an Ac complement clause in A function in a main clause, and an Oc must always co-occur with an intransitive clause. I have not encountered (and have been unable to elicit) the sharing of the S argument of an intransitive complement clause (which is in A function in the main clause) with the O argument of the main clause, nor sharing of the O argument of a transitive Ac complement clause (which is in O function in the main clause) with the A argument of the main clause. (Consultants simply offered different construction types, with a nominalized clause or a dependent clause.)

The only type of argument sharing which occurs is between (i) the S argument of an intransitive complement clause or the A argument of a transitive Ac complement clause (which is in O function in the main clause) and (ii) the A argument of the main clause. For example, in T2.96 we get:

- (17.64) [tiwa ke-tehi]_O o-nofa o-ka-re
 2sgO APPLIC-rub+COMP IsgA-want Isg-DEC-NEGF
 I don't want to rub you

Here Isg is the A argument in both main and complement clauses; it is stated just once, in the main clause. Similar examples include:

- (17.65) [boro_O taro ni]_O o-nofa-ri kaaro
 ball(m) kick AUX+COMP IsgA-want-NEG+COMP PERIF
 because I didn't want to play football (lit. because I didn't want me to kick the ball)

(17.66) [hijama_O kabi]_O wati o-waha o-ke
 peccary(m) eat+COMP remember 1sgA-NOW 1sg-DECLf
 I remember eating peccary (lit. I remember my eating peccary)

In (17.67) the A of the main clause is identical with the copula subject of the complement clause:

(17.67) [towisawa_{CC} to-hi]_O o-nofa o-ka-re
 chief(m) AWAY-become+COMP 1sgA-want 1sg-DEC-NEGF
 I don't want to be chief (lit. I don't want my becoming chief)

Example (17.8) is similar, but with 1sg as A of the main clause and as S of the complement clause. In (17.47), the 1exc pronoun *otaa* is A of both main and complement clause. All of these examples have the pronominal argument stated just in the main clause, not in the complement clause.

When the shared argument is expressed by a noun, rather than by a pronoun, this comes right at the beginning of the clause. Examples include (17.33) 'Mioto likes to watch us' and:

(17.68) Tiek_O [Ø_S tai to-ha-mi]_O nofa-ka
 name(m) be.in.front AWAY-AUX-BACK+COMP want-DECM
 Tiek_O wants to go first on the way back

Since a shared pronoun is always placed in the main clause, (17.68) is analysed in similar manner. An alternative parsing would be with the shared argument stated in the complement clause and cataphorically omitted from the main clause; that is:

(17.68') Ø_A [Tiek_S tai to-ha-mi]_O nofa-ka

There is little to choose between these analyses. I opt for (17.68) since this parallels the pronominal examples in (17.64–7), for which no alternative analysis is possible.

There might appear to be another way of looking at some of these sentences. At the end of §17.2, it was mentioned that complement clauses often include what is basically a transitive verb in an intransitive S = O sense (a bit like an impersonal passive). It could be suggested that the complement clause in (17.66) is intransitive with the whole being, literally, 'I remember peccary being eaten'. Similarly, (17.65) could be 'I didn't want the ball to be kicked'. However, these do not bear the correct meanings; the speaker didn't just remember someone eating peccary, he was the one who did the eating. And in (17.65) the speaker didn't want the others to stop playing football, he just didn't want to join in himself. A further vitiation of such an analysis is the occurrence of a pronoun in O form in (17.33) and in (17.64), showing that in these sentences the complement clause is transitive.

Dependent Clauses

Whereas a complement clause functions as a core argument within a main clause (MC), what is here called a dependent clause (DC) falls outside the core. Most often it occurs after the core (a postposed DC) but it does sometimes precede the core (a preposed DC). There is generally—but not always—a core argument shared between a DC and its MC; this is likely to be the pivot argument in one or both clauses.

Dependent clauses cover a wide semantic range. Examples in earlier chapters and in the texts include:

- T2.43, ‘he walked (MC), he leads in front of me (DC)’; that is ‘he walked in front of me, leading the way’, where the MC and DC describe different aspects of a single event;
- T1.2 (part is at (14.26)), ‘he goes out (MC), he intends to shit (MC), he said (DC)’, where the DC frames the indirect speech;
- (3.2I), ‘the Branco spoke (MC), and we laughed at his words (DC)’, where the DC describes something that is the result of the event described in the MC.

In (18.1) the DC describes something that happened after the event of the MC.

- (18.1) MC faja jama_O mee naha ka-na
 THEN thing(f) 3nsgA open APPLIC-AUXf
 then they open the thing (bottle of cane whisky)
- DC jama_O mee fawa mee
 thing(f) 3nsgA drink 3nsgDEP
 they drink the thing (the cane whisky)

In (18.2) the DC provides descriptive information about the shared argument in the MC.

- (18.2) MC Wakari_S mee ka-basa-waha-ma-hara-ke
 Paumarí 3nsgS in.motion-EDGE-NOW-BACK-IPef-DECf
 the Paumarí (Indians) now came to the edge (of the river, to watch our boat arrive)
- DC Wakari_S mee tama-tee-hani mee
 Paumarí 3nsgS be.many-HABIT-IPnf 3nsgDEP
 the Paumarí were numerous

In (18.3) the DC involves the intention suffix *-bone* and describes a purposive action, following on from that of the MC (which, in this instance, also includes INT *-bone*):

- (18.3) MC [... kobo o-na-mi jaa], [Rabira jaa]
 arrive 1sgS-AUX-BACK+NOM PERI name PERI
 o-kisa-ma-habone o-ke
 1sgS-travel.downstream-BACK-INTf 1sg-DECf
 when I arrive home (in the village, from Porto Velho), I’ll go downstream
 to (the town of) Lábrea (with my father)

DC [okobi kaa tinerō]_O otaa tira na-bone otaa
 1sgPOSS+father POSS money(m) 1excA take AUX-INTf 1excDEP
 for us to draw my father's money (i.e. pension)

Note that there is here only partial coreferentiality, between 1sg *o-* in the MC and 1exc *otaa* in the DC.

From the examples just given it will be seen that DCs do not simply provide further information about a core argument in the main clause, in the way that a relative clause does. A further argument against using the label 'relative clause' for DCs is that a quite different subordinate clause type is recognized as a relative clause—see §24.1.

§18.1 describes the structure of DCs and their marking. Then, §18.2 describes their syntax, in particular the sharing of arguments between MC and DC. §18.3 considers in more detail the semantic relations between MC and DC. Finally, §18.4 briefly considers DCs that consist just of an NP.

18.1 STRUCTURE AND MARKING

The corpus includes over four hundred DCs. The great majority (almost 90 per cent) are postposed DCs, following the MC, with the remainder being of the preposed variety. These have different markings, described in §18.1.2–3, but essentially the same structure.

18.1.1 Structure

Like a main clause, a DC has an obligatory predicate, optionally preceded by one or two core NPs (in S, or A and/or O function). The predicate can include miscellaneous suffixes (of all echelons) and tense-modal suffixes but no mood, no secondary verb (and no third pronominal position). (See table 24.1, in §24.3, for a comparison of the properties of various clause types.)

Unlike complement clauses, DCs can include a sg pronominal subject prefix, 1sg *o-*, or 2sg *ti-*, just like a main clause. For example:

(18.4) MC mee bao o-ka-na-ra o-ke
 3nsgO hurry.up 1sgA-APPLIC-AUX-IPef 1sg-DECf
 I hurried them up
 DC o-fimiha owa
 1sgS-be.hungry 1sgDEP
 since I was hungry (and wanted to get home to eat)

A preposed DC may have a clause-initial element such as *faja* 'and then'—as in (18.15)—or *manakobisa* 'later'—as in (18.11)—but allows no clause-final elements. A postposed clause does not permit clause-initial elements but can, very occasionally, show a clause-final element. This can be a post-predicate NP, as in (18.42) and in:

(18.5) MC mee hima o-na-ma mee ama-ke
 (Oc) 3nsgO call.to.come 1sgA-AUX-BACK 3nsg EXTENT-DECf
 I call them to come
 DC mee kobo n-isa-make mati [Botenawaa mati]
 3nsgS arrive AUX-DOWN-FOLLOWING 3nsgDEP name(m) 3nsg
 they arrived, (they were) Botenawaa's group

Or there can be a clause-final modifier such as *bisa* ‘also’, *waha* ‘now, the next thing’, or *makoni* ‘unusual, take no responsibility for’ (as in T2.63), or there can be a demonstrative as in:

- (18.6) MC [majatera one]_S na-hara-ke [hike jaa]
 gill.net(f) another+f exist-IPef-DECf far PERI
 there’s another gill-net far out
 DC ka-fama-aro ahi
 APPLIC-be.TWO-DEPf HERE.VISIBLE
 there’s two of them visible here

Note that these clause-final elements follow the dependent clause marker in each case.

In (10.3) we find the archaic accusative marker, *-ra*, added after dependent clause suffix *-haa*.

18.1.2 Marking on postposed dependent clauses

A postposed DC is marked as such by a final element, which either repeats or agrees in gender with the pivot argument. The actual marking depends on the nature of the pivot.

(i) If the pivot is not 3sg (that is, if it is shown by a non-zero pronoun), then the cardinal form of the pivot pronoun is included at the end of the DC. For example, 1sg *owa* in (18.4) and 1exc *otaa* in (18.3).

When the pivot is 3nsg there are two possibilities: either *mee*—as in (18.1–2)—or *mati*—as in (18.5). As stated earlier (§10.5.5) it is likely that 3nsg *mee* developed rather recently from the generic noun *madi* ‘people’, with the allomorph *mati* being a relic of the original form. It appears that the form *mati* is gradually being replaced by *mee*; *mati* occurs almost exclusively in sentence-final position (in a post-predicate NP or as a DC marker) but *mee* is taking over even here.

A DC with 2sg pivot occurs in:

- (18.7) MC Koromi_O mee a./ate ti-ra-hamone
 Indians 3nsgO ask 2sgA-NEG-REFP
 you are reported not to have asked the Indians (for permission to fish in their lake)
 MC Juraci_S ati na-re-ka
 name(m) say AUX-IPem-DECM
 Juraci said
 DC keje_O hiri ti-na tiwa
 lie(f) tell 2sgA-AUXf 2sgDEP
 you told a lie (saying that you had obtained permission)

This is followed in the text by:

- (18.8) MC ti-wati_O o-mita-ra o-ke
 2sgPOSS-talk 1sgA-listen-IPef 1sg-DECf
 I’ve listened to your talk
 MC keje_O hiri ti-ne ti-ke
 lie(f) tell 2sgA-CONTf 2sg-DECf
 you’re telling lies

It is instructive to compare the second clause of (18.8), which is a main clause, with the final clause of (18.7), which is the same thing cast as a dependent clause. In (18.8) we get the declarative mood suffix *-ke* preceded by *ti-* in third pronominal position, and—as is obligatory in such a construction—the auxiliary constituent includes the continuous suffix *-ⁱne* (with the auxiliary *-na-* dropping from before this). In the DC of (18.7) there is no mood, no third pronominal position, and no *-ⁱne*, but there is a final *tiwa*, the cardinal form of the 2sg pronoun, as the marker of a DC with 2sg pivot.

(ii) If the pivot is 3sg and the predicate ends in a tense-modal suffix, then dependent clause status is shown by a final *-hV* to this suffix, where the *V* is an echo of the preceding vowel. (Future shows a slightly different strategy; this is described in §18.1.4.) Thus we get *-ho* after IPnm *-no* in (3.21) and (14.26) and *-ha* after INT *-hibona* in:

- (18.9) MC Bojiko_s ka-maki-bona
 name(m) in.motion-FOLLOWING-INTM
 Bojiko (a male Branco) was planning to come behind
 MC mee haa na-ra-ni
 3nsgA call.to AUX-IPef-BKGF
 they called to him
 DC mee hi-nabohe-hibona-ha
 (Oc) 3nsgA Oc-kill-INTM-DEP
 they wanted to kill him

Note that the DC in (18.9) is an O-construction, with the pivot being *Bojiko*, the name of a man; the predicate then takes the m form of the intention suffix.

This *-hV* echo syllable is normally only added to a tense-modal suffix which is clause-final. That is, it is generally not included when there is a final pronoun as DC marker, under (i).

(iii) If the pivot is 3sg and there is no tense-modal suffix then a final *-(ha)aro/- (ha)ari* is added at the end of the verb, for f/m agreement with the pivot; this suffix goes into the mood slot of the predicate (slot J in §3.5 and §4.1). Like many other *-ha-*'s, the *-ha-* from this suffix drops when unstressed on the underlying stress cycle; that is, when it is an even-numbered mora counting from the beginning of the phonological word (see rule P8e in §2.9.6). For example, there is no reduction from *to-ha-make-haari* in T2.43 or from *n-isa-haari* in T2.63, but, in (18.6), underlying *ka-fama-haaro* reduces to *ka-fama-aro*.

As stated in §12.1.1, the post-predicate nominal demonstratives *haaro/haari* 'this one (visible)' are homonymous with DC markers *-haaro/-haari*. They differ in that the DC markers are suffixes, and the initial *-ha-* drops when unstressed on the underlying cycle, whereas the demonstratives are separate words. Also, tense-modal and mood suffixes may precede the demonstratives but not the DC markers. A further difference is that a word-final verb, auxiliary, or miscellaneous suffix will mark gender before a demonstrative. Still, there are instances where which homonym was intended can only be inferred from meaning and context (plus the fact that a demonstrative is often accompanied by a deictic gesture).

It is in fact possible to have a dependent clause marker *-(ha)aro/- (ha)ari* followed by a 'this one (visible)' demonstrative but the latter then generally has the short form *haa* (rather than the long form *-haaro/-haari*). One example was given at (12.17); another is in the final clause of:

- (18.10) MC [mee kaa jifo botone]_s home-hino
 3nsg poss hammock(m) lots.of+m lie.on.ground(singular S)-IPnm
 lots of (rolled up) hammocks were lying on the ground

- MC otaa to-wasi-maki-hare-ka
 (Oc) IexCA AWAY-find-FOLLOWING-IPem-DECM
 we (came) following (them and) found (the hammocks)
- MC otaa to-wasi-maki
 (Oc) IexCA AWAY-find-FOLLOWINGM
 we (come) following (them) and find (the hammocks)
- DC [mee kaa jifo]_s na-ari haa
 3nsg POSS hammock(m) exist-DEPM THIS.ONE.VISIBLE
 their hammocks which are here.

In Jarawara, sentence boundary is recognized by rising intonation and nasalization of the final syllable of the sentence. A postposed DC is sentence-final, and this marking applies to its final syllable.

18.1.3 Marking on preposed dependent clauses

There are here just two marking mechanisms, conditioned by whether the pivot is 3nsg or something else.

(i) If the pivot is not 3nsg (that is, if it is 1st or 2nd person or 3sg) and if there is no tense-modal suffix, then a preposed DC is marked by a final suffix (in the mood slot of the predicate) agreeing in gender with the pivot of the DC:

- haa* for an f pivot (1st or 2nd person or f 3sg)
- hii* for an m pivot (m 3sg)

Examples with *-haa* include (18.11), where the pivot is 1inc *ee*; (18.12), where it is 1nsg *o-*; and (18.13) where it is *majatera* ‘gill-net (f)’.

- (18.11) DC manakobisa ee tafi-ma-ra-haa
 LATER 1incS wake-BACK-NEG-DEPF
 later, if we are not getting better (lit. waking back) (from an illness)
- MC [ee kaa owa]_A era siba ne-ba
 1inc POSS another+m 1incO look.for AUX-FUTM
 one of us (a shaman) will go and look for us (our souls) (in the forest, where they have been taken by evil spirits, and will return them to our bodies, thus curing our illness)
- (18.12) DC karafato_O o-ka-kiti-haa
 tape.recorder(f) 1sgA-APPLIC-take-DEPF
 having taken up the tape recorder
- MC [karafato kaa barafoso]_O wari o-na
 tape.recorder(f) POSS screw(f) twist 1sgA-AUXF
 I twist (unscrew) the tape recorder’s screw (to take its back off and repair it)
- (18.13) DC [majatera boti]_s homa-haa
 gill.net(f) group.of+f lie.on.ground-DEPF
 a group of gill-nets are lying on the ground
- MC majatera_O ti-ka-jaba!
 gill-net(f) 2sgA-APPLIC-take.off+f
 you take the gill-nets off!

Examples with *-hii* include (18.14), where the pivot is the m proper name, *Isaki*:

- (18.14) DC Isaki_S ka-ke-hii
 name(m) in.motion-COMING-DEPM
 Izaki came
 MC otaa nofa-hare-ka
 (Oc) IexcA like-IPem-DECM
 we got on well with him

(ii) If the pivot is 3nsg then a preposed DC is marked by clause-final *mee* (never by *mati*, which is reserved for sentence-final position), as in:

- (18.15) DC faja mee otaa a.'awa ra mee
 THEN 3nsgO IexcA REDUP.see NEGf 3nsgDEP
 we didn't see them
 MC otara mee fija to-na-ma-ni-ke
 IexcO 3nsgA go.past AWAY-AUX-BACK-IPnf-DECf
 as they went past us (on the other side of the long grass)
- (18.16) DC Abatati_S mee joro to-na-kosa-bisa mee
 name(f) 3nsgS sit(duS) AWAY-AUX-MIDDLEf-ALSOf 3nsgDEP
 Abatati and her companion had also been sitting in the middle (of the plane)
 MC fowa_O mee bore na-ni
 manioc(m) 3nsgA pull.up AUX-IPnf
 they (got out and) pulled up manioc

Thus, a preposed DC, in which the pivot is 3nsg, will end in *mee*. But the following MC may consist just of a predicate and the first element of this can be a *mee* which is coreferential with the DC pivot. This will happen if 3nsg is the S argument of the MC or if it is the O argument with the A being 1st or 2nd person (if the A is 3rd person then 3nsg O may be realized as *mera*, not *mee*). We should then get two *mee*'s in succession, one belonging to the DC and one to the MC, and with the same reference. In such circumstances one of the *mee*'s is normally omitted and we get just one *mee* which has Janus-like properties, effectively belonging to both clauses.

Example (18.17) shows a Janus *mee* which is in S function in both DC and MC, while (18.18) has it in A function in the DC and in S in the MC. I place this *mee* at the end of the DC, but it could equally well have been written at the beginning of the MC.

- (18.17) DC faja Abatati_S mee jana to-ka-na mee
 THEN name(f) 3nsgS set.off AWAY-APPLIC-AUXf 3nsgDEP/3nsgS
 then Abatati and her companion were setting off
 MC to-wa-ka-maki-bisa-ra-ke [hawi jaa]
 AWAY-APPLIC-in.motion-FOLLOWING-ALSO-IPef-DECf road(f) PERI
 they also went back following along the road
- (18.18) DC otara mee kobo na-mone mee
 IexcO 3nsgA meet AUX-REPF 3nsgDEP/3nsgS
 they (the Sorowahá people) having met us
 MC jajairi na-ro-ke
 be.happy AUX-RPef-DECf
 they were happy

The reported suffix *-mone* in the DC of (18.18) probably refers to the Sorowahá people having been told that their visitors (a group of Jarawara) spoke a similar (and related) language: ‘when they met us, us reported to be who we are, they were happy.’

In the next example the *mee* relates to the S argument of the preposed DC and the O argument of the MC:

(18.19) DC	<i>mee</i>	<i>naho-hani</i>	<i>mee</i>
	3nsgS	stand(plS)-IPnf	3nsgDEP/3nsgO
	they were standing		
MC	<i>otaa</i>	<i>to-wasi-ma-haro-ke</i>	
(Oc)	IEXCA	AWAY-find-BACK-RPef-DECF	
	when we found them		

If there is a *mee* in the MC but it is not the initial element, then it will not appear contiguous to the *mee* which ends the DC and both must be retained. Examples are (18.15) where we get [...*mee*]_{DC} [*otara*_O *mee*_A ...]_{MC} and (18.16) with [...*mee*]_{DC} [*fowa*_O *mee*_A ...]_{MC}.

Only a small proportion of preposed DCs (about 10 per cent) include a tense-modal suffix; this is in contrast to postposed DCs, where almost half have tense-modal specification. When the DC pivot is 3nsg, the tense-modal suffix is included before the DC marker *mee*, as in (18.18–19). When the DC pivot is not 3nsg, the normal *-haa/-hii* marker is not included after a tense-modal suffix; for example:

(18.20) DC	<i>Jima</i> _A	<i>fati</i> _O	<i>jori</i>	<i>ne-no</i>
	name(m)	3sgPOSS+wife	swive	AUX-IPnm(DEP)
	while the Jima man was swiving his wife (in a hammock)			
MC	<i>hi-te-himata-mona-ka</i>			
(Oc)	Oc-pierce-FPnm-REPM-DECM			
	(Saba) is said to have speared him			

The few examples in the corpus of a tense-modal suffix in a preposed DC with a pivot that is not 3nsg all involve IPn, which is the neutralized form of all past tenses in a DC. In (18.20) it corresponds to FPn in the main clause. It is through this use of the neutralized past tense form that we recognize there to be a DC in (18.20) and similar examples. This tense neutralization is discussed in the next subsection.

18.1.4 Tense-modal specification in dependent clauses

As already mentioned, almost half the postposed and a scattering of preposed DCs include a tense-modal specification. There are special features, which set DCs off from MCs:

- (i) in most circumstances, the six past tense choices are neutralized, and the IPn form is used;
- (ii) we commonly get a combination of future-plus-IPn for ‘future in past’ (this is also attested in MCs, but is quite rare there).

We also get:

- (iii) intention, irrealis, reported, and future suffixes in DCs.

(i) *Past tense neutralization*

In main clauses there are six past tense/evidentiality choices—immediate past, recent past, and far past each combined with eyewitness or non-eyewitness evidentiality. Each narrative is

usually set in a particular time frame. A story about something that happened last week will be in IP, something that happened a few months ago will be RP, whereas an event from many years in the past will be in FP.

The normal convention is for any past tense in a DC to be realized by the IP_n form, whatever past tense specification is used elsewhere in the text (in the adjoining MC and/or in other nearby clauses) and whether or not the event or state of the DC was eyewitnessed by the narrator. For instance, the DCs in (18.2) and (18.19) each show IP_n marking but refer to something that was witnessed. It thus appears that the IP_n form is used as an undifferentiated past tense marker in DCs and does not have the meanings ‘immediate past’ or ‘non-eyewitness’.

Examples where the actual time frame is FP_n (shown in the MC) but the DC uses an IP_n form include (18.20) and:

- (18.21) MC hi-we-himata-mona-ka
 (Oc) Oc-see-FP_{nm}-REPM-DECM
 (she) is said to have seen him
 DC ka-maki-no-ho
 in.motion-FOLLOWING-IP_{nm}-DEP
 as he was following (along the road)

We get FPe as the narrative tense, but the IP_n form in a DC, in:

- (18.22) MC [‘[o-wati]_O tee mita-ra tee awine’]_O
 1sgPOSS-voice 2nsgA hear-NEGF 2nsg SEEMSF
 ‘it seems that you couldn’t hear my voice’
 MC ati ne-mari-ka
 say AUX-FP_{em}-DECM
 he said
 DC mee wete hi-ne-hino-ho
 (Oc) 3nsgA tie Oc-AUX-IP_{nm}-DEP
 because they (the spirits) had tied him up (far away in the forest)

There is an example including RPe in the MC in (18.19). We get IPe in the MC in (18.2) and in:

- (18.23) MC [jao bete maho]_S kita-hare-ka
 sloth(m) rottenness+m smell+m be.strong-IP_{em}-DECM
 the rotting sloth was stinking a lot (lit. the sloth’s rottenness’s smell was strong)
 DC bokosenero_A sobi hi-ne-hino-ho
 (Oc) black.vulture(m) suck Oc-AUX-IP_{nm}-DEP
 and the black vulture sucked it

We can also get the IP_n form in a DC where the reference is, in fact, to an event in the immediate past that was not witnessed, as in:

- (18.24) MC Isaki_S ka-maki-no
 name(m) in.motion-FOLLOWING-IP_{nm}
 Izaki came following (and I didn’t see him)
 DC mee ka-tima-maki-hani mee
 3nsgS in.motion-UPSTREAM-FOLLOWING-IP_{nf} 3nsgDEP
 they (Izaki and his companions) came following upstream (and I didn’t see them)

As mentioned above, the use of IP_n in a text which is set in FP or RP (or IPe) is an indication of a DC. This applies to preposed DCs whose pivot is not 3nsg, such as (18.20); in these cases it may be the only indicator of DC status. As in MCs, tense-modal specification is

optional in DCs. We often find that the MC has a tense-modal suffix but there is none in the DC, as in T2.43, 63, and (18.6–7).

There are in the corpus gathered just a few examples of RPe or FPe being used in a DC (and not replaced by the neutralized past tense, the IPn form). This appears to happen when the main clause relates to present time (and has no tense-modal suffix) but the DC relates to past time. Thus (note that (18.26) is T2.3):

- (18.25) MC ifa_{CS} ama-ke haaro_{CS}
 SPECIFf be-DECf THIS.ONE.VISIBLEf
 this is the one (the harpoon)
 DC o-wasi-haro-ho
 (Oc) 1sgA-find-RPef-DEP
 that I found
- (18.26) MC Jara_O o-komina-mati-be
 Branco(m) 1sgA-tell.about-SHORT.TIME-IMMEDf
 I'll tell, right now—for a short time—(a story) about a Branco
 DC [otaa tabi] -maro-ho
 1exc be.together+NOM -FPef-DEP
 about how we (the Branco and I) were together (on a trip) a long time ago
- (18.27) MC [awa ini]_{CS} ama-ke,
 tree(f) name+f be-DECf
 (this) was the name of the tree,
 DC Owiri_A hi-kamina-haro-ho
 (Oc) name(m) Oc-tell.about-RPef-DEP
 Owiri told about (it)

These are, however, exceptional cases. When a DC belongs to the same time frame as the MC, its past tense must be shown just by the IPn form.

(ii) *Future plus past*

There are a fair number of instances of a DC having a sequence of future suffix plus the unmarked past (IPn) suffix. (This is also attested in MCs, but is rather uncommon there.) We thus get f *-(ha)ba* plus *-ni* and m *-(hi)ba* plus *-no*; that is, *-(ha)ba-ni*/*-(hi)ba-no*. This indicates that the event of the DC followed that of the MC, both taking place in past time. If the plain neutralized past suffix is used it indicates that the DC refers to the same or an earlier time in the past as the MC.

Often, what is described in the DC follows as a consequence of the action described by the MC, as in (note that (18.29) repeats (6.34)):

- (18.28) MC okiti_A mee hi-kahati-hemete-mone mee
 (Oc) 1sgPOSS+grandfather 3nsgO Oc-cast.a.spell-FPnf-REPF 3nsg
 ama-ke
 EXTENT-DECf
 my grandfather is said to have cast a spell over them (the fish in the river)
 DC mee fawa tee-haba-ni mati
 3nsgS disappear HABIT-FUTf-IPnf 3nsgDEP
 and then they disappeared
- (18.29) MC jomee_O wara to-misa-rima ne-mata-mona-ka ahi
 jaguar(m) grab AWAY-UP-REPEAT AUX-FPnm-REPM-DECM HERE.VISIBLE
 he (the Jarawara man) is said to have repeatedly grabbed the jaguar high up here

DC noho.ho na-wahe-ba-no-ho
 be.injured.REDUP AUX-NEXT.THING-FUTm-IPnm-DEP
 and he got injured (from the jaguar's claws)

The last two examples had FPN in the MC. An example with FPe in the MC is:

(18.30) MC jamanakora_S ki-misa-ke-hamaro ama-ke
 sacred.stone(f) in.motion-UP-COMING-FPef EXTENT-DECf
 [o-mano baki jaa]
 IsgPOSS-arm+m inside+f PERI
 the sacred stone (inserted by the shaman) came up inside my arm
 DC fawa na-misa-ke-haba-ni-hi
 disappear AUX-UP-COMING-FUTf-IPnf-DEP
 and it disappeared from view, coming up

And an example where the MC tense suffix is IPe:

(18.31) MC 'irara_{CC} ama ti-ke'
 weasel(f) be 2sgCS-DECf
 'you're like a weasel (wanting to eat bananas all the time)'
 MC Kabero-sibara_A ati na-re-ka
 name(m) say AUX-IPem-DECM
 Kabero-sibara said
 DC ati_O otaa haa.haa ka-ne-hiba-no-ho
 (Oc) voice IexcA laugh APPLIC-AUX-FUTm-IPnm-DEP
 and we laughed at what he said

There is an example of something that failed to happen in the future (in past) in (6.41e).

(iii) *Non-past modal suffixes*

There are many examples of the intention suffix, *-(ha)bona/- (hi)bone*, in DCs. (Note that, unlike future, this cannot be combined with a past tense marking.) It can be used together with an intention suffix in the MC, as in (18.3), or with a past tense in the immediately preceding MC, as in (18.9) and in (6.41b).

The reported suffix occurs in a preposed DC in (18.18), and in a postposed DC in (18.37). The irrealis *-(he)ne/- (hi)na* is in a postposed DC in:

(18.32) MC jehe_O wara o-ka-ni-bote o-re rama
 hand grab IsgA-APPLIC-AUX-SOON Isg-RAISED.SURFACE UNUSUAL
 (taking the fish from the Branco poacher) I grab his hand in an unexpected way
 DC horo o-ka-na-ke-hina-ha
 (Oc) pull IsgA-APPLIC-AUX-COMING-IRRm-DEP
 and almost pull him (into the water)

As described in §6.2.4, the hypothetical suffix *-(he)mene/- (hi)mana* occurs only in the first clause of a biclausal sentence, the second clause of which is marked by the irrealis suffix. Interestingly, the hypothetical suffix appears always to bear an echo syllable *-hV*. That is, it is marked like a postposed DC although in fact it always comes before its MC.

The future suffix is different from other tense-modal choices in that it has a longer form *-(ha)bona/- (hi)bona*, with a final *-na*, and a shorter form *-(ha)ba/- (hi)ba*, omitting the *-na*. §6.1 detailed the environments in which the variant forms appear. When future is used in a DC

(not followed by the IPn form) we get the shorter form *-(ha)ba/- (hi)ba* when it is not sentence-final; for example, when followed by a pronominal DC marker, as in:

- (18.33) MC ee to-ko-ma-ba ee-ke
 IincS AWAY-in.motion-BACK-FUTf Iinc-DECf
 we'll go back (to another house)
 DC ee amo na-ba ee
 IincS sleep AUX-FUTf IincDEP
 and we'll sleep there

And we get the longer form when used sentence-finally, in a postposed DC with 3sg pivot, as in:

- (18.34) MC Atiro! [ee kaa tosi] -ba_O ti-kanika-habana ti-ke
 name(m) Iinc POSS cane.whisky -FUT 2sgA-buy-FUTf 2sg-DECf
 Atiro! you buy some cane whisky ('doce') for us (lit. you will buy...)
 DC ee fawa-habana
 IincA drink-FUTf(DEP)
 and we'll drink it

At the end of a preposed DC we get the shorter form of the future suffix since it is then not in sentence-final position, as in (repeating (17.67)):

- (18.35a) DC 'towisawa_{CC} o-ha-haba'
 chief(m) IsgCS-become-FUTf(DEP)
 'I'm going to become chief'
 MC '[towisawa_{CC} to-hi]_O o-nofa o-ka-re'
 chief(m) AWAY-become+COMP IsgA-want Isg-DEC-NEGF
 'but I don't want to become chief' (I said)

It must be noted that an MC which shows the future tense-modal suffix and no following mood will use the long form *-(ha)bana/- (hi)bana*, the same as in a DC. In such a case, criteria other than the form of the suffix (e.g. intonation) would have to be brought in to decide whether we are dealing with an MC or with a postposed DC.

18.2 SHARED ARGUMENTS

In the corpus of DCs, all but about ten share an argument with the associated MC. (Those lacking a shared argument are discussed at the end of this section.)

For each of MC and DC it is necessary to recognize:

- (a) the function of the pivot argument—this is S in an intransitive clause, A in a transitive A-construction, and O in a transitive O-construction; and
- (b) what function the shared argument is in each clause.

There are then four possibilities: (i) shared argument is identical to pivot in both clauses; (ii) shared argument is identical to pivot in DC but not in MC; (iii) shared argument is identical to pivot in MC but not in DC; (iv) shared argument is identical to pivot in neither clause. These are discussed one at a time, first for postposed dependent clauses.

(i) *Shared argument identical to pivot in both MC and DC*

More than 90 per cent of DCs are of this type. There are nine basic possibilities. Quoting pivot function in MC then a slant line then pivot function in DC we get, for postposed DCs

(mentioning just some of the examples for each combination):

- (1) S/S, as in (18.2), (18.6), (18.30)
- (2) S/O, as in (18.23)
- (3) S/A, as in (18.3)
- (4) A/S, as in (18.4), (18.29)
- (5) A/O, as in (18.22), (18.31)
- (6) A/A, as in (18.1)
- (7) O/S, as in (18.5), (18.10), (18.21)
- (8) O/O, as in (18.35*b*)
- (9) O/A, as in (18.35*c*)

- (18.35*b*) MC bata hi-ka-ne-mete-mone-he
 (Oc) grab Oc-APPLIC-AUX-FPef-REPF-DEP
 (he came up) and grabbed her (where she was, in the tree)
 DC hi-ti-basa-haba-ni-hi
 (Oc) Oc-take-EDGE-FUTf-IPnf-DEP
 he then took her (off the tree)

Here ‘the woman’—the established pivot of the discourse, shown just by feminine agreement in the two clauses of (18.35*b*)—is O argument for the MC and for the DC, both of which are Oc’s.

- (18.35*c*) MC namiti_O toni_A mee wete hi-se-himata-mona
 (Oc) neck spirit(m) 3nsgA tie Oc-CLEANLY-FPnm-REPNM
 the spirits tied his neck tightly (to a tree)
 DC siraba_O waka na-rawa-ari
 cangati(f) kill (pl O) AUX-F.NSG-DEPM
 because he had been killing lots of cangati fish

Here a man (named Abatosii) is the established pivot of the discourse, being included as O argument in the MC (an Oc)—shown here just by the PN *namiti* ‘neck’—and as A argument in the DC (an Ac)—shown by m agreement on the predicate.

(ii) *Shared argument identical to pivot in DC but not in MC*

We find this where there is a change of pivot. The old pivot (which has applied through several preceding clauses) ends in the MC and a new one commences in the DC (and continues through succeeding clauses). It is interesting that the new pivot essentially begins at the shared argument within the MC.

The corpus includes about fifteen examples of this type, including:

- (18.36) MC Jara_O mee otaa kobo na otaa-ke fahi
 Branco(m) 3nsgO iexcA meet AUXf Iexc-DECF THERE.NON.VISIBLE
 we met the Brancos there
 DC mee ka-kisa-ke mati
 3nsgS APPLIC-motion.down-COMING 3nsgDEP
 as they were coming downstream

The MC in (18.36) is an A-construction with the A argument, *iexc otaa*, as pivot. *3nsg mee* is the O argument in the MC and the S argument (and pivot) in the DC.

- (18.37) MC Jara_O mee jofi ti-ka-na-bana ti-ke
 Branco(m) 3nsgO show 2sgA-APPLIC-AUX-FUTf 2sg-DECf
 you'll show (me) the Brancos
- DC Jara_A faha_O mee kii na-mone mati
 Branco(m) water(f) 3nsgA look.at AUX-REPF 3nsgDEP
 who are said to be fishing (lit. looking at the water) (in your lake)

The MC here is an Ac with the A argument, 2sg *ti-*, as pivot. *Jara...mee* 'the Brancos' is O in the MC and pivot (in A function) of the DC, which is also an Ac.

(iii) *Shared argument identical to pivot in MC but not in DC*

The corpus includes seven examples of this type. There is an established pivot, which is continued in the MC, and the pivot argument is shared with an argument in the DC. But the shared argument is not the pivot of the DC. Interestingly, in each of these examples, the 'new pivot' (in the DC) does not extend into any following clause. The examples include (this is T2.39–40):

- (18.38) MC [jomee_O o-wi jaa], jomee_O tao o-ka-na
 jaguar(m) 1sgA-see+NOM PERI jaguar(m) shoot 1sgA-APPLIC-AUXf
 owa awine o-ke [jama_S jabo] jaa]_O
 1sg SEEMsf 1sg-DECf thing(f) be.far PERI
 'if I should see a jaguar, I think I'd shoot him from a long way off'
- MC o-na-hamaro o-ke
 1sgA-AUX-FPef 1sg-DECf
 I said
- DC owa haa.haa ka-ne-hiba-no-ho
 1sgO laugh APPLIC-AUX-FUTm-IPnm-DEP
 for him (the Branco) to laugh at me

The MC *o-na-hamaro o-ke* (with *ati* from *ati-na-* 'say' omitted) is a transitive A- construction with the preceding direct speech as O argument; 1sg *o-* is the A argument and pivot. This is identical to the O argument in the DC but here the pivot is the A argument 'he (the Branco)' marked by m forms of the tense-modal suffixes.

It appears that in this type of construction a new pivot (different from the shared argument) is chosen just for the DC, to focus on that argument in the clause (i.e. on 'he (the Branco)' in (18.38)).

(iv) *Shared argument different from pivot in MC and in DC*

This is a theoretical possibility where the MC completes one pivot chain and the DC begins another, with the two clauses being linked by a shared argument that is distinct from both old and new pivots. (This requires that both MC and DC be transitive.) A couple of examples of this kind are attested; for example:

- (18.39) MC jomee_O to-wa-ke-mata-mona-ka fahi
 dog(m) AWAY-APPLIC-in.motion-FPnm-REPM-DECM THERE.NON.VISIBLE
 he is said to have taken the dog with him there
- MC jomee_O to-wa-ke
 dog(m) AWAY-APPLIC-in.motion+m
 he took the dog with him
- DC jomee_A bani_O mee mee hi-kijoha mee
 (Oc) dog(m) animal(m) 3nsgO 3nsgA Oc-chase+f 3nsgDEP
 and the dogs chased the animals (into their holes)

Here the established pivot is ‘he’ (a Jarawara man), which is A argument of the MCs, which are Ac’s (and is marked by m agreement on verbal suffixes). The DC is an Oc and the pivot here (and in the following clause) is *bani...mee* ‘animals’. The shared argument linking the two clauses is the O NP *jomee* ‘dog’ in the MCs and the A argument *jomee...mee* ‘dogs’ in the DC, which is pivot in neither clause. (Note that we have here the same reference but a difference in number—‘dog’ in the MCs and ‘dogs’ in the DC; this is not unusual.)

It appears that the same possibilities apply for preposed DCs. Here the corpus is smaller and most examples are again of type (i), where the shared argument is identical to the pivot in both DC and MC. In terms of pivot of DC/pivot of MC we get S/S in (18.17); S/O in (18.14) and (18.19); S/A in (18.16); A/S in (18.18); A/A in (18.12); A/O in (18.20). We find type (ii), where the shared argument is in pivot function in the DC, but not in the MC, in (18.11) and (18.13). In (18.15), there are two shared arguments; ‘we’ is in pivot function in the DC and ‘they’ in the MC.

It is possible to get iteration of DCs, i.e. a DC to a DC. Consider:

- (18.40) MC [Botiko ati]_S tai to-ka-ha-maki-hare-ka
 name(m) voice go.in.front AWAY-APPLIC-AUX-FOLLOWING-IPem-DECM
 Botiko went ahead (of us), talking (lit. Botiko’s voice went ahead)
- DC majatera_O tiwa na-ari
 gill.net(f) carry.on.shoulder AUX-DEPM
 he was carrying the gill-net on his shoulder
- DC [sako jaa] iha-haaro
 sack(f) PERI be.placed-DEPF
 it was in a sack (on his shoulder)

Here *Botiko* (the name of a Branco) is the shared argument linking the MC and the first DC— it is in pivot function in each, S in the MC and A in the first DC. *Majatera* ‘gill-net’ is the shared argument linking the two DCs; it is in O (non-pivot) function in the first and in S (pivot) function in the second.

There are a number of special points to be made concerning sharing of arguments, some grammatical and some semantic.

Grammatically, a shared argument can be in core function in either clause, or it can be a constituent within an NP that is in core function. In (18.8) 2sg *ti-* is inalienable possessor in the O NP of the MC, and is A argument in the DC. In (18.41) the shared argument *Branco* (the proper name of a specific Branco) is the A argument in the MC but is alienable possessor within the A NP in the DC (note that the DC marker is *mee*, relating to the whole pivot NP, not just to its coreferential possessor):

- (18.41) MC Baraco_A owa heta na-re-ka [hibati jaa]
 name(m) 1sgO lease.from AUX-IPem-DECM completed PERI
 Branco used to lease (our lake from) me
- DC [Baraco kaa frekesi]_A jama_O mee ahi na mee
 name(m) POSS worker(m) thing(f) 3nsgA work.at AUX 3nsgDEP
 and Branco’s workers used to work at this (i.e. fish in the lake)

Or the shared argument can be the pivot of a complement clause which fills an argument slot in the MC. In (18.42), 3nsg *mee* is S of the complement clause which fills O slot in the MC, and is the S argument in the DC.

- (18.42) MC [mee hijari]_O otaa wasi-ma-ra-ni
 3nsgS talk+COMP 1excA find-BACK-IPef-BKGF
 we found them talking,
 DC mee naho-basa mati [Nanatoboto mati]
 3nsgS stand(pl)-EDGEF 3nsgDEP name(m) AUG
 they were standing on the bank, Nanatoboto's people

There is one example where the shared argument is in a core NP marked by *ihi* 'due to' in both MC and DC:

- (18.43) MC [fara mee ihi]_{CS} to-ha-saa na-ra-ni
 VERY.ONEF AUG DUE.TOF AWAY-become-STILL AUX-IPef-BKGF
 that which was due to them (their track) was still continuing
 DC [mee ihi]_S to-ko-basa-wa-make mati
 3nsg DUE.TOF AWAY-in.motion-EDGE-NOW-FOLLOWING 3nsgDEP
 that which was due to them (their track) went following on right to the edge

We also find reciprocal and reflexive constructions, in MC or in DC. In T2.120 the MC is a reflexive construction and in (18.44) the DC is a reciprocal construction.

- (18.44) MC [mee ati]_S fawa ka-na
 3nsg voice disappear APPLIC-AUXf
 their voices died away
 DC [mee abee]_S mono na-ni mee
 3nsg RECIP fight AUX-IPnf 3nsgDEP
 as they were swiving (lit. fighting) one another

Semantically, there is sometimes not exact coreference between arguments in MC and DC. The referent of one can include the referent of the other. In (18.3) the shared argument is 1sg *o-* in the MC and 1exc *otaa* in the postposed DC, i.e. the referent of the argument in the DC includes that of the argument in the MC. We can also get a shared 3rd person argument having sg number in the MC but nsg in the DC, as in (18.24) and (18.39).

There is, in addition, a type of argument sharing relating to different tokens of the same type. (18.45) comes from a story about a man fighting two jaguars. The MC describes him grabbing the first jaguar (which is pivot of this O-construction) and the DC describes the second jaguar (in S function and pivot) coming up behind the man.

- (18.45) MC wara to-misa-rima hi-ne-himata-mona-ka ahi
 (Oc) grab AWAY-UP-REPEAT Oc-AUX-FPnm-REPM-DECM HERE.VISIBLE
 he is said to have repeatedly grabbed (the first jaguar) high up here (narrator points to place)
 DC owa_S ka-maki-wahe-ba-no-ho
 other+m in.motion-FOLLOWING-NEXT.THING-FUTM-IPnm-DEP
 and the other (jaguar) came following up (behind him)

Sometimes a postposed DC appears to relate not to the immediately preceding clause (which is 'X says/said') but to the clause before that, the last clause of a section of quoted speech. This can be seen in (18.7), where the shared argument is 2sg *ti-*.

In other examples a clause 'X said' can be a DC to a statement of direct speech that precedes it, as in (18.27), or to a statement of indirect speech, as in:

- (18.46) MC faja fowa_O mee kanika-bone
 THEN manioc(m) 3nsgA buy-INTf
 they wanted to buy manioc

DC mee ati na mee
 3nsgS say AUXf 3nsgDEP
 they said

As mentioned at the beginning of this section only about ten of the corpus of DCs do not have an argument shared with the MC. However, in most cases the pivots of the two clauses are clearly contrasted in the discourse; for example:

(18.47) MC otaa to-ka-tima-natiha
 IexcS AWAY-in.motion-UPSTREAM-ALL.DAYf
 we were moving upstream all day
 DC Sorowaha_s mee ka-kisa-ke-hani mee
 tribe.name 3nsgS APPLIC-move.downstream-COMING-IPnf 3nsgDEP
 and the Sorowahá people were moving downstream

Note that the second clause here is recognizable as a DC by the final *mee* and by the IPnf tense form *-hani* in a story where the time frame of the narrative is RP. Another example is:

(18.48) DC faja mee ki-misa-ke mee
 THEN 3nsgS in.motion-UP-COMING 3nsgDEP
 MC otaa tai to-ka-ha-misa otaa-ke
 IexcS be.in.front AWAY-APPLIC-AUX-UPf Iexc-DECLf
 they came up (the sloping river bank) and we went up in front (of them)

18.3 MEANING

As mentioned at the beginning of this chapter, there can be a wide range of semantic relations between a DC and its MC.

Sometimes a postposed DC can simply repeat the information in the MC, generally omitting any tense-modal specification (and always omitting mood). For example, T1.33, (16.26a/b), and:

(18.49) MC mee to-ko-fore-misa-hara-ke fahi
 3nsgS AWAY-APPLIC-lie.on.raised.surface-UP-IPef-DECLf THERE.NON.VISIBLE
 they were lying (in a canoe) raised up (on a submerged tree stump) there
 DC mee to-ko-fore-misa mee
 3nsgS AWAY-APPLIC-lie.on.raised.surface-UPf 3nsgDEP
 they lie (in a canoe) raised up

Another type of repetition is for the MC of one sentence to be repeated as a preposed DC in the next sentence, as in T2.104–5.

In most instances the MC and DC have different meanings. The relations between the two can be summarized (stating what the tense-modal specification is in each clause, if there is one):

(a) *A postposed DC provides expansion of the information in the MC*, as in T2.54 and:

(18.24) Izaki came following (MC, IPn), they (Izaki and his companions) came following upstream (DC, IPn)

(18.50) MC ... o-na-hara o-ke fahi
 IsgA-AUX-IPef Isg-DECLf THERE.NON.VISIBLE
 ('we'll have to return soon',) I said

DC Atoni_O o-hijara owa
 name(m) 1sgA-tell+f 1sgDEP
 I told Atoni

Note that here the preceding direct speech is O argument for the MC (from which the lexical verb *ati* is omitted, since its auxiliary bears a pronominal prefix—see §4.5.1).

(18.51) MC noko_S jawa kanikima-hare-ne
 eye+m be.angry SCATTERED-IPem-BKGM
 he was angry
 DC borokoo_O mera ka-jawa-ari
 pirarucu(m) 3nsgO APPLIC-be.angry-DEPM
 he was angry about the pirarucus (fishes)

Each clause here involves the intransitive verb root *-jawa-* ‘be angry’. In the MC it is used intransitively in an idiomatic expression with *noko* ‘eye’ and the suffix *kanihima* ‘scattered’ (lit. ‘angry all over his face’). In the DC it is transitivized with the applicative prefix *ka-*, the underlying S becoming A and with the O referring to what he was angry about.

(b) *MC and DC describe different aspects of the same event*, as in:

T2.43 he walked (MC, FPe), he leads in front of me (DC)

(18.17) then Abatati and her companion were setting off (DC), they also went back following along the road (MC, IPe)

(c) *MC and DC describe two events happening simultaneously*, as in (3.36), (14.8), (18.36), (18.47), and:

(8.29) my father lived with us (MC), when we were small (DC)
 (18.19) they were standing (DC, IPn) when we found them (MC, RPe)
 (18.20) while the Jima man was swiving his wife (DC, IPn), Saba speared him (MC, FPn+REP)
 (18.21) she is said to have seen him (MC, FPn+REP), as he was following along the road (DC, IPn)

Note that in (8.29), (18.20–1) we get ‘MC when/while/as DC’ but in (18.19) the message is ‘DC when MC’.

Okomobi’s narrative of a visit to the Sorowahá tribe includes a fascinating example:

(18.52) MC [abarikos ohari]_O otaa nahabi-haro otaa ama-ke
 moon(m) be.one+COMP 1excA make+finished-RPef 1exc EXTENT-DECf
 DC otaa kobo to-witiha-haba-ni otaa
 1excS arrive AWAY-FROM.PLACE-FUTf-IPnf 1excDEP
 [Sorowaha mee tabori jaa]
 tribe.name AUG village+f PERI

The literal meaning of (18.52) is ‘we having made moon-which-was-one finish, we arrived at the Sorowahá village’; or, in more idiomatic English ‘it took us a month to get to the Sorowahá village’.

(d) *DC specifies the identity of the shared argument in the MC*, as in:

(18.25) this is the one (MC) that I found (DC, RPe)

(18.37) you’ll show me the Brancos (MC, FUT) who are said to be fishing (DC, REP)

(e) DC involves a stative verb which provides further specification for the shared argument in the MC, as in:

- (18.53) MC mee wete ka-na-me-mete-mone-ke
 3nsgS return APPLIC-AUX-BACK-FPnf-REPF-DECF
 they (the two men) are said to have returned (home)
 DC mee kakome mati
 3nsgS be.scared 3nsgDEP
 they were scared (having seen signs of a hostile tribe, who might attack them)

Many adjectival concepts are expressed through stative verbs in Jarawara. Modification of a noun (which would be achieved by adjective-plus-noun within an NP in a language such as English) is typically shown through a dependent clause; for example:

- (18.54) jimawa_O o-kanika-hara o-ke, ino-haaro
 knife(f) 1sgA-buy-IPef 1sg-DECf be.sharp-DEPF
 I bought a sharp knife (lit. I bought a knife, which is sharp)

(f) DC involves a quantity verb which provides further specification for the shared argument in the MC, as in T1.58, T2.114, (I6.26e), and:

- (18.2) the Paumarí now came to the shore (MC, IPe), the Paumarí were numerous (DC, IPn)
 (18.6) there's another gill-net far out (MC, IPe), there's two of them visible here (DC)

In T3.53 we get the MC supplying the quantity of something specified by the DC:

T3.53 the baskets which they wove (DC, IPn), there were many of them (MC, FPe)

(g) A postposed DC may rephrase the message of the MC, as in:

- (18.7) you are reported not to have asked the Indians (MC, REP) . . . you told a lie (saying that you had asked them) (DC)

(h) There can be a sequential relationship between MC and DC.

Dealing first with postposed DCs:

(h-i) The event of the DC simply follows in time that of the MC, as in:

T2.29 we slept (DC, IPn) and then the day dawns on us (MC)

- (18.16) Abatati and her companion had been sitting in the middle (of the plane) (DC), they (got out and) picked manioc (MC, IPn)

- (18.55) MC otaa ka-waha-mina
 1excS APPLIC-become.dawn-MORNINGf
 in the morning, the day dawned on us
 DC otaa jaka ka-na-hate-haa
 1excS walk APPLIC-AUX-ALL.DAY-DEPF
 we walked on through the day
 MC otaa ka-kajoma
 1excS APPLIC-get.dark+f
 it got dark on us
 DC otaa jaka kana-haba-tasa-haa
 1excS walk APPLIC-AUX-ALL.NIGHT-AGAIN-DEPF
 we walked again, all through the night

- MC otaa ka-waha-mina
 IexcS APPLIC-become.dawn-MORNINGf
 in the morning, the day dawned on us
- MC jama_o otaa jete na-bone
 game(f) IexcA hunt AUX-INTf
 so that we hunted game

(h-ii) *The event of the MC is done in order that the event of the DC should follow*, as in: T2.40, (6.31), (7.15), (18.9), (18.33), and:

- (18.3) ...I'll go downstream to Lábrea (MC, INT) for us to draw my father's money (DC, INT)
- (18.28) my grandfather is said to have cast a spell over them (MC, FPn+REP) and they disappeared (DC, FUT+IPn)
- (18.34) you buy some cane whisky (MC, FUT) and we'll drink it (DC, FUT)

(h-iii) *The event of the DC follows naturally, as a result of the event of the MC*, as in (3.21) and:

- (18.29) he is said to have repeatedly grabbed the jaguar high up here (MC, FPn+REP) and he got injured (DC, FUT+IPn)

(h-iv) *The event of the DC was undertaken in order that the event of the MC could be done*, as in:

- (18.12) having taken up the tape recorder (DC), I undo the tape recorder's screw (MC)

(i) *There is a logical relationship between MC and DC*. With postposed DCs we can get 'MC because DC', as in T2.10, 75, and:

- (18.4) I hurried them up (MC, IPe) since I was hungry (DC)
- (18.22) it seems you couldn't hear my voice (MC), he said (MC, FPe) because they (the spirits) had tied him up (DC, IPn)

(j) *One of MC and DC can specify who said what is reported in the other clause*. The DC specifies who said what is in the MC, in (14.26) (which is T1.2) and in:

- (18.46) they wanted to buy manioc (MC, INT), they said (DC)

18.4 NOUN PHRASES AS DEPENDENT CLAUSES

As mentioned under (a) in §10.6, one does very occasionally find a clause which consists just of an NP, to which a tense-modal suffix and/or mood may be added. There are a few examples of a DC which consists just of an NP, with a tense-modal suffix (often preceded by the miscellaneous suffix *-tee* 'habitual'). In (18.26) the DC is a nominalized clause (see chapter 19), plus tense-modal suffix.

In one legend (told in the FPn) a Jarawara ancestor encounters something in a river. By feeling, he ascertains that it is a monster in the form of a snake. There is a DC consisting of *maka* 'monster' plus IPnm *-no* and echo syllable *-ho* marking that this is a DC:

- (18.56) MC maka_o bojo ne-mata-monaha-ne
 monster(m) feel AUX-FPnm-REPM-BKGM
 he is said to have felt (what seemed to be) a snake (under the water)

DC *maka-no-ho*
 monster(m)-IPnm-DEP
 it was a snake

The next two examples have a DC which is an NP marked by FUT+IPn (future in past); that is, ‘who was/were to be’.

(18.57) MC *fee_O na-jawa.tase-himata-mona-ka*
 3sg CAUS-be.angry.AGAIN-FPnm-REPM-DECM
 she is said to have made (him) angry again

DC *fati-tee-ba-ni-hi*
 3sgPOSS+wife-HABIT-FUT-IPnf-DEP
 she who was to be his wife

(18.58) MC *faja [jama_O mee jete na-ma-tasi] -mete-mone_{CS}*
 THEN game(f) 3nsgA hunt AUX-BACK-AGAIN+NOM -FPnf-REF
ama-ke waha
 be-DECLf NEXT.THING

then they are reported to have gone hunting again (lit. their going hunting again was said to be)

DC *[[otaa kaa abi] mee] -tee-ba-ni mati*
 Iexc POSS father(m) AUG -HABIT-FUTf-IPnf 3nsgDEP
 they who would be our ancestors

Here the NP which makes up the DC has a nucleus of possessed kin noun *otaa kaa abi* ‘our father (with the sense here: ancestor)’ plus augment marker *mee*, with the habitual suffix *-tee*, and then future plus past. The MC is a copula clause, whose CS argument is a nominalized clause taking tense-modal suffixes—see §19.3.

Nominalized Clauses

What are referred to as nominalized clauses can refer to the action described in the clause, or to its place, or to its time.

This chapter describes the general properties of nominalized clauses and explains how they may function as subject argument of a copula predicate, or make up a complete clause, or function as alienable possessor within an NP, or (less frequently) function as a core argument in a main clause. The next two chapters deal with nominalized clauses in peripheral function—when followed by peripheral marker (*ni-)*jaa (chapter 20), or by markers *kaa(ro|ri)*, *tabijo*, and *namoni* (chapter 21).

Compare the straightforward main clause in (19.1) with the nominalized clause in CS function to copula *ama* in (19.2). (These two examples come from the same page of text.)

(19.1) mee to-ke-hemete-mone-ke [Koriwa jaa]
 3nsgS AWAY-in.motion-FPnf-REPF-DECL name PERI
 they are said to have gone to the Curiá River

(19.2) [mee to-ki] -mete-mone_{CS} ama-ke [Koriwa jaa]
 3nsgS AWAY-in.motion+NOMF -FPnf-REPF be-DECL name PERI
 their going is said to have been to the Curiá River

In (19.1) the predicate nucleus is *mee to-ka*; the *a* of *ka-* is raised to *e* before FPnf suffix *-hemete*. In (19.2) the final *a* of the predicate nucleus is raised to *i*, as the mark of a nominalized clause. This nominalized clause is followed by tense-modal suffixes *-mete* (without the initial *-he-* found in (19.1)) and reported *-mone*; it functions as CS of a monovalent copula clause, with copula *ama*, which takes the declarative suffix *-ke*.

19.1 STRUCTURE

The structure of a nominalized clause shows some similarities to and some differences from that of a complement clause. For ease of comparison, the same order of structural features will be followed as was employed in the discussion of complement clauses, in §17.2 (and see table 24.1 in §24.3).

(i) Whereas a complement clause cannot include any clause-initial or clause-final elements, a nominalized clause may include NP-plus-*jaa* as a peripheral component, as in (20.5).

(ii) It must include a predicate element. This can include predicate-initial pronouns, prefixes, verb root, auxiliary (for a non-inflecting verb), and all types of miscellaneous suffixes. This is different from complement clauses, which only permit miscellaneous suffixes from the first four echelons. The fifth echelon suffix *-(ha)ba* ‘all night’ is in (19.10) and the sixth echelon suffix *-ra*, negator, is in (19.16–17).

(iii) Again like a complement clause, a nominalized clause cannot itself include tense-modal or mood suffixes, or a secondary verb, or the third pronominal position. However,

unlike a complement clause, a nominalized clause may be followed by tense-modal suffixes. These then take the form they have when added to an NP, without the initial *-hV-* syllable.

(iv) The predicate of a nominalized clause may (like that of a complement clause) include prefixes: causative *ni-* ~ *niha* as in T3.56, applicative *ka-* as in (19.15), and *to-* ‘away’ as in (19.2). It is unlike a complement clause in that it may also include 1sg *o-* as in (19.8), (19.14–16), 2sg *ti-* (recall that in a complement clause these are replaced by *oko* and *tika* respectively, in clause-initial position), and Oc prefix *hi-*, as in T3.42.

(v) The corpus includes no example of a 3nsg pronoun in O function having the form *mera*; it is always *mee* (in contrast to a main clause or a complement clause where it can be either *mee* or *mera*).

(vi) Gender marking on the last element of the predicate nucleus is retained. A final *a* becomes *e* for m agreement, and is raised to *i* for f agreement. Recall that in a complement clause a final *a* is always raised to *i*, irrespective of gender. If the predicate nucleus ends with morphophoneme *I*, this is always realized as *i* (as in a complement clause).

(vii) If a nominalized clause ends in auxiliary *ni* (auxiliary *na* with the final *a* raised to *i*) and if this auxiliary has one or more prefixes, then it may optionally be omitted, as in (19.8) and (19.13–15). This is a major point of difference from a complement clause, where a predicate-final auxiliary may never be omitted.

(viii) A nominalized clause is unlike a complement clause in that it does not engender agreement in the predicate of the main clause. Consider (19.3), where the pivot argument within the nominalized clause is m (shown by final *a* being replaced by *e*). The declarative suffix on the copula in the main clause is in f form; that is, it takes the unmarked value from the gender system.

(19.3) [[kana ni]_S to-ke]_{CS} ama-ke ahi
 run AUX+COMP AWAY-in.motion+NOMm be-DECLf HERE.VISIBLE
 here’s where he ran away (lit. his running away in motion is here)

(ix) The predicate of the nominalized clause may, as in a main clause and in a complement clause, be preceded by one or more core NPs. There is an O NP in (19.9) and (19.16), and an S NP in (19.4–5).

A further point of similarity is that the corpus does include some examples of a nominalized clause modified by an adjective (there are no instances of modification by a PN). For example:

(19.4) [[fati_S fani] jati]
 3sgPOSS+wife be.married+NOMf new
 (this story is about) a newly married spouse (lit. new his wife being married)

(19.5) [[ratena_S hiri ni] ehebotee] rama ahi
 flashlight(f) be.alight AUX+NOMf big UNUSUAL HERE.VISIBLE
 the flashlight’s illumination (is) unusually great here

There is a clear difference of function between complement clauses and nominalized clauses. A complement clause generally functions as core argument in an intransitive or transitive main clause. The main functions of a nominalized clause are to be CS argument to the copula verb *ama*, to make up a complete clause by itself, and to function as a peripheral element, marked as such by (*ni-*)*jaa*, *kaa(ro/ri)*, *tabijo*, or *namoni*. Just occasionally, a nominalized

clause may function as S, A, or O argument and a complement clause as CS argument; it may then be difficult to distinguish between a nominalized clause and a complement clause.

There are two verbs *ama* in Jarawara, a copula verb and—as described in §7.1.1—a secondary verb that comes between tense-modal and mood suffixes. In (19.6) we have a main clause with the secondary verb *ama* and in (19.7) a nominalized clause as S argument of the copula verb *ama*.

(19.6) *otaa jana-hamaro otaa ama-ke [Wara jaa]*
 IexcS grow.up-FPef Iexc EXTENT-DECf name PERI
 we grew up at (the lake called) Wara

(19.7) *faja [Amowa jaa] [otaa kobo ni] -ro_{CS}*
 THEN name PERI IexcS arrive AUX+NOMf -RPef
ama-ke fahi
 be-DECf THERE.NON.VISIBLE
 then the place that we arrived at there was Amowa

In (19.6) the subject pronoun *otaa* must be included in third pronominal position before secondary verb *ama*. In (19.7) there can be no *otaa* immediately before copula *ama*.

Similarly, if (19.2) were a main clause, with *ama* a secondary verb, then *mee* would have to be included before *ama-ke*, in addition to *to-ki-mete-mone* being replaced by *to-ke-hemete-mone*. (It will be recalled that a 1nsg or 2nsg pronoun must always be included in the third pronominal position after a tense-modal suffix, but that 3nsg *mee* only appears in this slot before a secondary verb.)

19.2 MEANING

As already mentioned, there are three possible meanings for a nominalized clause. That referring to time requires a peripheral marker *jaa* and is described in the next chapter.

The ‘place’ sense is illustrated by (19.2–3), (19.7), and (19.8–9).

(19.8) *[Makabi taboro jaa] [kobo oo] -maro_{CS} ama-ke*
 name(m) village+m PERI arrive 1sgS -FPef be-DECf
 Makabi’s village was the place where I arrived

An alternative to (19.8) would be for the nominalized clause to be *kobo o-ni*. But, as mentioned above, the nominalized auxiliary *-ni-* may be omitted when it is the final element in the nominalized clause, and if it bears a prefix (here 1sg *o-*). When the *ni-* is omitted the erstwhile prefix *o-* becomes a word in its own right and the vowel is lengthened, to *oo*.

(19.9) *[aba_O mee otaa kabi] -maro_{CS} ama-ke*
 fish(m) 3nsgO IexcA eat+NOMf -FPef be-DECf
 the place where we ate fish long ago is (over there)

I was told that (19.9) would be accompanied by a deictic gesture, pointing out the house in which the meal had taken place (perhaps on a previous visit to that village).

The third type of meaning of a nominalized clause is to refer to the action described by the clause. Examples include:

- T1.85 ‘our being not habitually afraid is reported to be’ (with reported suffix)
- T2.3 ‘our being together a long time ago’ (with FPe suffix and dependent clause marking)
- T2.75 ‘the Branco’s being so laughable (lit. laughed at) was’ (with FPe suffix)
- T3.56 ‘their always catching lots of catfish was’ (with FPe suffix)
- T3.57 ‘their always eating the piranhas was’ (with FPe suffix)

- T3.62 'our eating them was' (with FPe suffix)
 (18.58) 'their going hunting again was said to be' (with FPn and reported suffixes)
 (19.10) [ee to-ko-ma na-bi] -ro_{CS} ama-ke
 IincS AWAY-in.motion-BACK AUX-ALL.NIGHT+NOMf -RPef be-DECf
 we were travelling all night

The literal translation of (19.10) is 'our travelling all night was'. It is a stylistic variant of the corresponding main clause, *ee to-ko-ma na-ba-ro ee (ama)-ke*. English lacks this subtlety of expression and the two alternatives have to be accorded identical translation in English.

19.3 FUNCTION

The occurrence of nominalized clauses with a peripheral marker is discussed in the next two chapters. Here illustration is provided of their typical use as subject of a copula clause, their occasional use as core argument of an intransitive or transitive clause, their making up a complete clause, their functioning as alienable possessor within an NP, and an idiomatic use.

(a) As CS argument in a monovalent copula clause with verb *ama*

This is the most common non-peripheral function of a nominalized clause; examples (19.2–3) and (19.7–10) are of this type. As remarked in the discussion of copula clauses (chapter 13), *ama* is not normally itself followed by a tense-modal suffix (this is only possible if negative *-ra* intervenes). Instead, tense-modal suffixes are typically added to the CS constituent, whether an NP or a nominalized clause.

There are also some examples of a nominalized clause in copula complement function—see (12.33*b/c*).

(b) Filling a core argument slot in an intransitive or transitive clause

This function is rather rare. An example of a nominalized clause plus the reported suffix in S function is at (19.11). Here the message is that the time for a group of people to return has not yet arrived; the narrator actually says:

- (19.11) [mee amo ni] -bone_S ahaba-ke-re
 3nsgS sleep AUX+NOMf -INTf be.finished-DECf-NEGf
 their sleeps (away) are not (yet) finished

Here *mee amo ni* can be recognized as a nominalized clause, and not a complement clause, since only a nominalized clause can be directly followed by tense-modal suffixes.

Under certain conditions, it can be difficult to distinguish between a complement clause and a nominalized clause in a core slot: when the subordinate clause does not have a 1sg or 2sg subject, does not have a 3sg m subject, does not include a fifth or sixth echelon miscellaneous suffix, does not omit its auxiliary, and is not followed by tense-modal suffixes.

(c) Making up a complete clause

It was mentioned in §10.6 that a clause can consist just of an NP, which may then take tense-modal and/or mood suffixes. In similar fashion, a main clause may consist just of a nominalized clause, which may take tense-modal suffixes (the allomorphs appropriate to an NP, not those used in a predicate) and/or mood. Examples include T2.3, (5.116), (19.4–5), and:

- (19.12) [otaa to-wa-ka-mi] -bone
 IexcS AWAY-APPLIC-in.motion-BACK+NOMf -INTf
 we're going back (lit. our going back is an intention)

(19.13) Jima, [tiwa mowa oo] -bone-he
 tribe 2sgO fight.against 1sgA -INTF-DEP
 Jima man, I'm going to fight you (lit. my fighting you is an intention)

(19.14) [owa sari o-ko] -bone-he
 1sgO burn 1sgA-APPLIC -INTF-DEP
 I'm going to burn myself (lit. my burning myself is an intention)

Note that in both of the last two examples the auxiliary *-ni* is omitted (from *o-ni* and *o-ka-ni* respectively) since it is final element in the nominalized clause and bears a prefix.

An example of a nominalized clause plus backgrounding mood comprising a full main clause is:

(19.15) [baka o-ki] -ni
 break 1sgS-APPLIC+NOMf -BKGF
 the (branch) I'm on is breaking (lit. my being with is breaking)

Again, the auxiliary *-na-* is omitted when at the end of the nominalized clause and preceded by a prefix (here, in fact, two prefixes, 1sg *o-* and applicative *ka-*).

Note that in (19.15) an underlying *o-ka-na* becomes *o-ki*; that is, the auxiliary *-na-* is omitted before application of the rule that raises final *a* to *i* in a nominalized clause. However, in (19.14) an underlying *o-ka-na/-bone-he* becomes *o-ko/-bone-he*. First, the *-na-* is dropped, and then rule P6a from §2.9.4—by which *-ka-* becomes *-ko-* after prefix *o-* and before a bilabial—is applied before the rule that would raise a final *a* to *i*. Consultants stated that *o-ko* could be replaced by *o-ki* in (19.14), giving an equally acceptable sentence with the same meaning.

A nominalized clause functioning as a main clause will often include the negative suffix *-ra* (which becomes *-ri* as last element of a nominalized clause), as in:

(19.16) [jifo_O o-kiha-ri]
 fire(f) 1sgA-have-NEG+NOMf
 I've got no fire (lit. my not having fire)

A negative nominalized clause may also be followed by tense-modal and/or mood suffixes, as in:

(19.17) [Koromi_S mee ka-ke-ri] -mone-ke
 Indian(m) 3nsgS in.motion-COMING-NEG+NOMf -REP-DECL
 the Indians are said not to have come (lit. the Indians not coming (is) reported)

(d) As alienable possessor within an NP

A nominalized clause relating to some event can function as alienable possessor within an NP, linked by possessor *kaa* (§10.4) to a noun referring to something that is associated with the event. For example (this is an Oc):

(19.18) [[[Jaras mee jani] -mete-mone] kaa jama]_O
 Branco(m) 3nsgS start+NOM -FPef-REPF POSS thing(f)
 otaa awa-hamaro ama-ke
 1exCA see-FPef EXTENT-DECL
 (coming across an abandoned settlement) we saw the relics of where the Brancos had, it is said, started (to live) (that is, established a town) (lit. we saw the Brancos' having said to be started's things)

The next example related to a canoe's having sunk some time ago in a river. The water level has now fallen and a group of Indians say to each other:

- (19.19) [[[[mee ka-boki] -ni] kaa jama]_O
 3nsgS APPLIC-sink+NOM -IPnf POSS thing(f)
 ee siba na-mata
 IincA look.for AUX-SHORT.TIMEf
 let's spend a short while looking for the things that they lost when they sank
 (lit. let's for a short while look for their having sunk's things)

'What is possessed' is *jama* 'thing' in (19.18–19). It is *faha* 'water' in (19.20) a copula clause of naming.

- (19.20) faja [[Fatalesa_S wa-ri] kaa faha batori ini]_{CS}
 THEN name stand-RAISED.SURFACE+NOM POSS water(f) juncture name
 ama-ke Itimari_{CC}
 be-DECf name
 then, the name of the mouth of the river bank which is where (the town of)
 Fortaleza stands is Itimari (lit. Fortaleza's standing's river mouth name is Itimari)

(e) Idiomatic use

There is one further type of use of a nominalized clause, which appears to be idiomatic. It involves the verb *-kiha* 'have' (which becomes *kihi* at the end of a nominalized clause), postposed to the main clause, as in:

- (19.21) sahari_O o-fawa o-ke [mafo_O mee kihi]
 broth(f) IsgA-drink Isg-DECf ant(m) 3nsgO have+NOMf
 I drank the broth, with ants in it

The postposed element, [*X kihi*], is used when X is something extraneous and unwanted in the referent of the O of the main clause (which is taken to be the A argument of *-kiha-*). Note that [*X kihi*] must be clause-final; in (19.21), for example, *mafo mee kihi* cannot be moved.

A textual example of this is (note that the second and third clauses are both Oc's):

- (19.22) (a) faja majatera_O o-ka-tisa
 THEN gill.net(f) IsgA-APPLIC-untie+f
 then I untie the (two) gill-nets
 (b) ho.horo o-na-hara-ke
 REDUP.pull IsgA-AUX-IPef-DECf
 I pulled them in
 (c) tee o-ka-na-ra-ke [hasabote_O kihi]
 put.in (du O) IsgA-APPLIC-AUX-IPef-DECf dead.leaves(f) have+NOMf
 I put them in (to the canoe), with the dead leaves that were in them

Peripheral Markers *jaa* and *ni-jaa*

Postposition *jaa* typically follows an NP or a nominalized clause and marks it as a peripheral constituent of the main clause, coming in clause-initial or clause-final slot (that is, before or after the core). There are just a few examples of NP-plus-*jaa* intruding in the middle of the core. The marker *jaa* may sometimes be omitted from a peripheral NP, if there is no danger of ambiguity. It has a wide range of meaning—indicating ‘at’, ‘in’, ‘on’, ‘into’, ‘to’, ‘from’, or ‘with’ with an NP, and ‘when’, ‘after’, ‘while’, ‘until’, ‘at’, ‘if’, or ‘since’/‘because’ with a nominalized clause.

There is a variant form, *ni-jaa*, which is not used with nominalized clauses, but only after NPs with human reference; it carries a non-local meaning (see §20.2). Both *jaa* and *ni-jaa* may also come after a main clause, or a sequence of clauses, relating the whole sequence to what follows.

There are many instances of a main clause including two (*ni-*)*jaa* constituents. In (20.1) we get NP-plus-*jaa* in clause-initial and NP-plus-*ni-jaa* in clause-final slot:

- (20.1) [kanawaa jaa] mee kobo ka-n-isa-makiha
 canoe(f) PERI 3nsgS arrive APPLIC-AUX-DOWN-FOLLOWINGf
 [mee kaa ami ni-jaa]
 3nsg POSS mother(f) PERI
 (travelling) in a canoe, they arrive down at their mother’s (residence)

In (20.2) there is nominalized-clause-plus-*jaa* at the beginning of the sentence and NP-plus-*jaa* at the end. Note that the initial *jaa* constituent includes a complement clause, *otaa amo ni*, as S argument for the verb *trei -na-* ‘be three’, and the main clause has copula *ama* with a nominalized clause as its CS argument.

- (20.2) [[[otaa amo ni]_S trei ni] jaa]
 IexcS sleep AUX+COMP be.three AUX+NOM PERI
 [otaa to-kisi] -ro_{CS} ama-ke
 IexcS AWAY-motion.down+NOM -RPef be-DECLf
 [Sorowaha mee tabori jaa]
 tribe AUG village+f PERI
 after three nights (in Lábrea) we travelled downstream to the Sorowahá village (lit. after our sleeping being three, our travelling downstream was to the Sorowahá village)

In (20.3) there are two nominalized-clauses-plus-*jaa*, one before and one after the main clause:

- (20.3) [[otaa amo ka-na-mi] jaa]
 IexcS sleep APPLIC-AUX-BACK+NOM PERI
 otaa wete to-ka-na-ma-haba otaa-ke
 IexcS return AWAY-APPLIC-AUX-BACK-FUTf IEXC-DECLf
 [[motos ka-tima-re] jaa]
 boat(m) in.motion-UPSTREAM-NEGf PERI
 after sleeping (here, one more night), we’ll have to return (home), if the boat doesn’t come

We can also get more than one *jaa* constituent before (or after) the main clause. In (20.4) two *jaa*-nominalized-clauses precede a main clause that begins with a *jaa*-NP.

- (20.4) manakobisa [[o-ko-mi] jaa]
 LATER IsgS-in.motion-BACK+NOM PERI
 [[kobo o-na-mi] jaa]
 arrive IsgS-AUX-BACK+NOM PERI
 [Rabira jaa] o-kisa-ma-habone o-ke
 name PERI IsgS-motion.down-BACK-INTf Isg-DECf
 later on, when I go back, when I arrive back (home), I'll go downstream to Lábrea

And we can have a *jaa*-NP within a *jaa*-nominalized-clause, as in:

- (20.5) [[[[awa ini tati] jaa] bahiṣ ite] jaa]
 tree(f) branch+f head PERI sun(m) sit+m PERI
 otaa ka-ma
 IexcS in.motion-BACKf
 when the sun sits on the topmost branches of the trees, we go back

§§20.1–2 discuss *jaa* and then *ni-jaa* marking on NPs. §20.3 deals with *jaa* marking on nominalized clauses, and then §20.4 mentions these postpositions following a main clause or a dependent clause.

20.1 NOUN PHRASE FOLLOWED BY *jaa*

An NP that is followed by *jaa* (or by *ni-jaa*) has normal structural possibilities. The head can be preceded by an alienable possessor NP, marked by *kaa*, as in (20.1) and

- (20.6) [[Jara mee] kaa kanawaa] jaa]
 Branco(m) AUG POSS canoe(f) PERI
 ee ka-riwa-haba ee-ke
 IincS in.motion-ACROSS-FUTf Iinc-DECf
 we'll cross (the river) in the Brancos' canoe

And it can include an adjective or—as in (20.2) and (20.5)—one or more possessed nouns.

It is also possible to get predicate suffixes on an NP before postposition *jaa*, as in (5.361) and (note that (20.8) is from T2.112):

- (20.7) otaa to-kisa [[Banawaa batori] -tee-monehe] jaa]
 IexcS AWAY-motion.down+f name mouth -HABIT-REPf PERI
 we travel downstream to what was said to be the mouth of the Banawáa River
- (20.8) otaa kobo to-witiha-hamaro otaa-ke
 IexcS arrive AWAY-FROM.PLACE-FPef Iexc-DECf
 [[otaa taboro] -bonehe] jaa]
 Iexc dwelling.place+m -INTf PERI
 we arrived at what was to be the place where we were to stay

The postposition *jaa* can correspond to almost every preposition in English. The following are in examples from earlier chapters, and from the texts (the NP-plus-*jaa* is in square brackets):

— 'at': (20.8) and

- (3.14) 'we arrived back here [at Casa Nova]'

(8.13) ‘we make the ball arrive [at our heads]’ (when heading the ball in soccer)

— ‘in’: T3.49, (20.1), (20.6), and

(6.20) ‘the pump torch was lying on a raised surface [in my house]’

(7.57) = (15.49) ‘[in whose canoe] are we going to cross the river just now?’

— ‘on’: T2.4, (20.5), and

(5.333) ‘a sore is sitting [on my leg]’

(5.47) ‘then we sat down there [on the path]’

— ‘into’: T1.73, T2.15, and

(3.13) ‘we won’t go following [into their village]’

(5.266) ‘I threw lots of bits of manioc stalk [into the holes]’

— ‘to’: (20.2), (20.4), (20.7), and

(5.65) ‘then I go back [to my own home]’

(4.12a) ‘I am going back [to Porto Velho]’

— ‘from’:

(4.12b) ‘I am coming [from Porto Velho]’

— ‘with’ in a comitative sense:

(8.47) ‘the Branco died [with his dog]’

T3.64 ‘we would eat fish [with manioc meal]’

— ‘with’ in an instrumental sense: T2.90, T3.27, and

T3.16 ‘my uncle scrapes the prow of the canoe [with a small knife]’

(6.43) ‘it needs to be lubricated [with oil]’

More abstract senses include ‘in a dream’, as in (14.1) and ‘(speak) in a language’, as in:

(20.9) [[Jara ati] jaa] mee hiri hi-ne-hemete-mone ama-ke
 Branco language PERI 3nsgA speak.to Oc-AUX-FPnf-REPF EXTENT-DECf
 they are said to have spoken to her in the Brancos’ language

It is interesting that *jaa* can mark both ‘to’ and ‘from’. In §4.3 it was shown how the meaning can be inferred from the presence of prefix *to-* ‘away’, *-ma* ‘back’, and *-ki* ‘coming’ on the verb, and from contextual information.

In fact, the meaning of *jaa* in a peripheral NP may largely be inferable from the meaning of verb-plus-suffixes and the referent of *jaa*-NP. Compare the following three examples (all from the same text).

(20.10) [Itosi jaa] otaa to-ka-tima
 name PERI 1exCS AWAY-in.motion-UPSTREAMf
 we go up the Ituxi River

(20.11) [Jara mee nafi]_S to-ko-misa-hamaro mee ama-ke
 Branco AUG all AWAY-in.motion-UP-FPef 3nsg EXTENT-DECf
 [awa jaa] [hijama ehene]
 tree(f) PERI peccary(m) DUE.TOM
 all the Brancos went up a tree, due to (for fear of) the peccary

- (20.12) kanawaa_O otaa ka-ka-riwaha-marō-ke
 canoe(f) IexcA APPLIC-in.motion-ACROSS-FPef-DECf
 [[faha kowani] jaa]
 water(f) other.side PERI
 we took the canoe across to the other side of the river

In (20.10) the verb suffix *-tima* ‘upstream’ implies that the travel was ‘up’ (*jaa*) the Ituxi River. In (20.11) the verb suffix *-misa* ‘up (other than upstream)’ implies that the motion was ‘up’ (*jaa*) a tree. And in (20.12) the verbal suffix *-riwaha* ‘across’ implies that the motion was ‘across to’ (*jaa*) the other side of the river.

A meaning specification which may be shown by use of a particular preposition in English can be rendered by including an appropriate PN within an NP marked by the all-purpose postposition *jaa* in Jarawara. In (5.24) ‘the chicken is sitting on the pig’ is rendered by *boroko mese jaa* (‘pig top.surface PERI’); literally ‘at the pig’s top surface’. Similarly, *yati witi jaa* (‘rock edge PERI’) is used for ‘next to the rock’; literally ‘at the edge of the rock’.

The postposition *jaa* is used with time words *hibati* ‘completed’ and *hibajata* ‘close in time’ (§6.4), as in (6.84–9), (6.93–4), and (18.41); with locational nouns *ajata* ‘near’, *hike* ‘far’, *bato* ‘downstream’, and *nakani* ‘upstream’ (§12.4), as in (12.58–62) and (18.6); sometimes with demonstratives such as *haa* ‘this’, as in (12.16); and just occasionally with *hi(ba)ka* ‘where’, as in (15.56).

Under (*d*) in §11.1.5, examples were given of *hine* ‘just’ with postposition *jaa*, the peripheral NP then having the meaning ‘just, for no reason that I know of’; see (11.34–6). The commonly occurring NP *kasiro jaa* ‘do a lot’ is illustrated in T2.71.

It was explained in §8.1 how, when the causative prefix *na-/niha-* is applied to a transitive verb, the causer comes in as A, the original A becomes O, and the original O is now marked by *jaa*, as in (8.16*b*), (8.20–2). In most of the examples this underlying O is non-human—pineapple, sugar cane, medicine, a basket, tapir meat—but when it is human (e.g. child) the marking is still *jaa* (rather than *ni-jaa*).

One fascinating use of a *jaa*-NP is with the verb *-fama-* ‘be two, be a pair’. This can first be illustrated by using this verb without any peripheral NP:

- (20.13) ee to-fama-ma-habone ee-ke
 IincS AWAY-be.a.pair-BACK-INTf Iinc-DECf
 the two of us will go back together (lit. we’ll be a pair, away back)

Here it is clear that the *Iinc* pronoun, as subject of *-fama-*, refers to ‘I and you (sg)’. However, the *Iexc* pronoun, when used as subject of *-fama-*, is ‘I and someone else (not you)’. The identity of the someone else can be shown by an NP-plus-*jaa*, as in:

- (20.14) [Haimoto jaa] otaa fama otaa
 name(m) PERI IexcS be.a.pair+f IexcDEP
 Haimoto and I are a pair (lit. with Haimoto we are a pair)

When the 3nsg pronoun is used as subject of *-fama-* we get (this is T3.1):

- (20.15) [okobi jaa] mee fama
 IsgPOSS+father(m) PERI 3nsgS be.two+f
 my father and one other (lit. they are two, with my father)

An alternative construction is shown in (this is T1.44):

- (20.16) [Bakoki jaa] fama-hii
 name(m) PERI be.two-DEPM
 (Haimoto intended to go fishing, he went) with Bakoki he was two

Here *Haimoto*, the established topic of the discourse, is S argument for *-fama-* (shown by the m form of the suffix). There is another example at (8.53).

The postposition *jaa* (but never *ni-jaa*) may sometimes be omitted. In commenting on a text where this happens, speakers would always mention that it could be included. This typically happens with *kasiro*—see §14.2.2. And a clause with *-fama-* often omits the *jaa* from its peripheral NP; for example, the *jaa* could be omitted from each of (20.14–16). There are examples of *jaa* being omitted from a clause with *-fama-* at (16.26e) and the second clause of T2.114.

The postposition *jaa* is sometimes omitted from a straightforward local NP, as in:

- (20.17) [borokoo mee]_O Jara_A mee hee-ka-ke-hani
 pirarucu(m) AUG Branco 3nsgA Oc+APPLIC-in.motion-COMING-IPnf
 [mee hawi]
 3nsg track+f
 the Brancos brought the pirarucu (fish) along their track

One would expect *jaa* after *mee hawi*, and in commentary on the text speakers said that it could be added here. In all the examples gathered where *jaa* is omitted, it appears that there is no possibility of misunderstanding.

As can be seen from the examples, a *jaa*-NP almost always comes before or after the nucleus of the clause. But this is not an invariable rule. The corpus contains a few examples of *jaa* intervening between core constituents. These include T3.4, 16, and:

- (20.18) farina_O [saha jaa] na-tabe
 toasted.manioc.meal(f) salt(f) PERI CAUS-be.with+m
 he mixes the toasted manioc meal with salt (lit. he makes come together
 toasted manioc meal with salt)

The postposition *jaa* may co-occur with peripheral marker *kaa*—details are given in §21.1.1.

20.2 NOUN PHRASE FOLLOWED BY *ni-jaa*

The postposition *ni-jaa* is used with human NPs and then has a non-local sense, indicating that the referent of its NP is affected by the activity described by the clause. For example, it can mark the peripheral argument of an intransitive verb as in ‘the dog barked [at me]’ in (8.35a), ‘I laughed [at them]’ in (8.34a), ‘they got up early [on us]’ in (8.26), ‘my father lived [with us]’ in (8.28), and, repeating (12.45):

- (20.19) [Jobeto fati]_s eheto-ke [fee ni-jaa]
 name(m) 3sgPOSS+wife(f) be.suitable-DECf 3sg PERI
 Jobeto’s wife is suitable (i.e. just right) for him

Other examples are at (8.14), (8.59), (15.33), and (22.26).

Now in §10.1.5 it was shown that any NP including a PN is treated as inalienable. In keeping with this, an NP with a human head but including PN(s) must take postposition *jaa* rather than *ni-jaa*. We have *boroko mese jaa* ‘on top of the pig’ (lit. ‘pig top.surface at’) in (5.24) and *o-wisi jaa* ‘(a sore is sitting) on my leg’ in (5.333), together with:

- (20.20) Makabi_s to-wa-ka-re-ka [o-nemene jaa]
 name(m) AWAY-APPLIC-in.motion-IPem-DECm 1sg-above+m PERI
 Makabi went over me (in his plane) (lit. Makabi went in my above (space))

The contrast in meaning between *jaa* and *ni-jaa* is seen in:

- (20.21) Ara_S to-ko-me-bona-ka [Botofejo jaa]
 name(m) AWAY-in.motion-BACK-INTM-DECM name PERI
 Alan will go back to Porto Velho
- (20.22) Ara_S to-ko-me-bona-ka [fati ni-jaa]
 name(m) AWAY-in.motion-BACK-INTM-DECM 3sgPOSS+wife(f) PERI
 Alan will go back to his wife

In (20.21) the peripheral NP simply refers to Alan's destination, the town of Porto Velho, and takes *jaa*. In (20.22) the peripheral NP is *fati* 'his wife' and takes *ni-jaa*; this indicates that he will become involved with his wife, will join up with her. We get a similar situation in (20.1) where they arrived at their mother's residence, not just as a place to be at, but in order to be together with their mother; again we get *ni-jaa* on the peripheral NP.

There are two intransitive verbs, *-taba-* and *-sawi-*, that appear at first sight to have similar meanings, 'be with'. But *-taba-* can only take *jaa* and *-sawi-* only *ni-jaa* on the peripheral NP, referring to the group of people the subject is with. A speaker explained the difference in meaning between these two verbs through the following sentences, with contrasting initial *jaa* constituents:

- (20.23) [[Jarawara mee tabori] jaa] o-sawi o-ke [mee ni-jaa]
 tribe AUG village+f PERI 1sgS-be.part.of 1SG-DECF 3nsg PERI
 I'm going to be part of the Jarawara village, be with them
- (20.24) [[Jarawara mee] jaa] o-taba o-ke [mee jaa]
 tribe AUG PERI 1sgS-be.with 1SG-DECF 3nsg PERI
 I'm going to be with the Jarawara people, be with them

The verb *-sawi-* means 'become one of a group' and takes *ni-jaa* on the NP referring to the group; the initial *jaa*-NP 'the Jarawara people's village' indicates that the speaker will become an integral part of the village. This is similar to the use of *ni-jaa* on *fati* in (20.22) and on *mee kaa ami* in (20.1). In contrast, *-taba-* simply means 'be accompanying' (and not 'be integrated with') and here just *jaa* must be used.

The verb *-jofi-* 'show' involves three arguments—the person showing (always in A function), the thing shown, and the person to whom it is shown. There are two syntactic frames. In one, the thing shown is in O function and the NP referring to the person to whom it is shown is marked by *ni-jaa*, as in:

- (20.25) jimawa_O jofi ti-ka-na-hi [owa ni-jaa]!
 knife(f) show 2sgA-APPLIC-AUX-ImmPosIMPf 1SG PERI
 you show the knife to me!

Alternatively, the person it is to be shown to can be in O function, and the thing-shown NP is then marked by *jaa*, as in (7.64) and:

- (20.26) tiwa jofi o-ka-na o-ke [jimawa jaa]
 2sgO show 1sgA-APPLIC-AUX 1SG-DECF knife(f) PERI
 I'm showing you my knife

There are two verbs 'give', both having the donor as A argument. With *taa -na-* the gift is generally in O function with the recipient being marked by *ni-jaa*; for example:

- (20.27) jimawa_O taa ti-na-hi [owa ni-jaa]!
 knife(f) give 2sgA-AUX-ImmPosIMPf 1SG PERI
 you give the knife to me!

And with *-ka-kawa-*, the recipient is in O function, with the gift being marked by *jaa*:

- (20.28) *owa tee-kawa-hi* [jimawa jaa!
 1sgO 2sgA+APPLIC-give-ImmPosIMPF knife(f) PERI
 you give me the knife!

Another place from which *jaa* can be omitted is a construction with *-ka-kawa-* ‘give’. Instead of (20.28) one could just say *owa tee-kawa-hi jimawa* (there is an example of *jaa* being omitted here at (10.38)). In such *-ka-kawa-* clauses we have two NPs without any postposition and in theory either of them could be the O. But since a gift is always non-human and a recipient almost invariably human there is in fact no possibility of misunderstanding.

A further verb involving three arguments is *-kahabana-* ‘command something (typically, a spirit or a dog) to do harm to someone’. There are again two possibilities for what is O. It can be the thing commanded (here, a dog) as in (20.29). The human victim (a member of the Jamamadí tribe, called Wahati by the Jarawara) is then marked by *ni-jaa*.

- (20.29) [Wahati ni-jaa] jomee_O o-kahabana o-ke
 tribe PERI dog(m) 1sgA-command.to.harm 1sg-DECLF
 I command the dog to hurt the Jamamadí person

Alternatively, the victim can be O, and the dog is in peripheral function, marked by *jaa* (not by *ni-jaa*), as in:

- (20.30) [jomee jaa] Wahati_O o-kahabana o-ke
 dog(m) PERI tribe 1sgA-command.to.harm 1sg-DECLF
 I command the dog to hurt the Jamamadí person

Thus, the person-to-whom-shown or the recipient (with human reference) is marked by *ni-jaa*, while the thing-shown or the gift (inanimate in these examples) is marked by *jaa*, in (20.25–8). In (20.29–30) the victim (necessarily human) is marked by *ni-jaa* while the thing commanded to administer the hurt (animate non-human) takes *jaa*.

It is tempting to speculate about the origin of the *ni* in *ni-jaa*. It could come from a nominalized form of the auxiliary *na* or of the cumulation ‘list’ verb *na* (chapter 23); but there is no firm evidence to support this or any other etymology.

20.3 WITH NOMINALIZED CLAUSES

A nominalized clause, as described in the last chapter, is often followed by *jaa*, never by *ni-jaa*, and appears on the periphery of the main clause. About two-thirds of the instances from the corpus are in clause-initial and the remaining one-third in clause-final slot. In §3.4 and in §14.3 it was pointed out that there is no fixed ordering between a *jaa*-marked constituent and other clause-final elements; they occur in many different orderings.

There is sometimes a core argument common to main clause and *jaa* nominalized clause, as in T2.39, (20.3), and:

- (20.31) *owa noki ti-ja* [[kobo o-na-mi] jaa!
 1sgO wait.for 2sgA-DisPosIMPF arrive 1sgS-AUX-BACK+NOM PERI
 you wait for me until I return (lit. arrive back)!

However, in most cases there is not, as in T3.64 and:

- (20.32) [[bahi_S to-ke] jaa] otaa kobo na-ro otaa-ke
 sun(m) AWAY-in.motion+m PERI 1excS arrive AUX-RPef 1exc-DECLF
 when the sun was setting (lit. going away), we arrived

- (20.33) [[[[Motobi kaa jama]_S kaniki]_S hawa to-hi] jaa]
 name(m) POSS thing(f) buy+COMP be.completed AWAY-AUX+NOM PERI
 faja o-ko-make
 THEN 1sgS-in.motion-FOLLOWING
 when Motobi had finished buying things (lit. when the buying of Motobi's things
 was completed) then I went following (to make my own purchases)

As mentioned in chapter 19, a nominalized clause may include miscellaneous suffixes from all six echelons, including negative *-ra*, as in (20.38) and T3.64, but no tense-modal or mood suffixes. Gender agreement is retained: masculine is shown by a final *a* being raised to *e* and this is kept before *jaa*, as in (20.3) *moto* (m) *ka-time-re* (m) *jaa* and (20.32) *bahi* (m) *to-ke* (m) *jaa*; and feminine is shown by a final *a* being raised to *i*.

A nominalized-clause-plus-*jaa* may have the following types of meaning:

(a) *Time of day*. This typically involves a clause describing where the sun is in the sky. Examples include T1.56, 89, T2.112, 116, (7.25), (20.32), and

- (20.5) ‘when (*jaa*) the sun sits on the topmost branches of the trees’
 (5.194) ‘when (*jaa*) the sun was about to set’
 (12.18) ‘when the sun sits here (pointing to the horizon)’ (that is, ‘when the sun sets’)
 (15.67) ‘where will the sun be sitting in the sky when you eat?’ (that is, ‘when will you eat?’)
 T1.34 ‘when the sun is following far off’ (that is, ‘in mid-morning’)

To say ‘at night’, one uses the subordinate clause [*jama soki*] *jaa*, literally ‘when the thing is dark’, as in (3.36), (16.21a), and T1.1, 3. In (6.7b) ‘in the middle of the night’ is rendered by ‘when (*jaa*) the thing was cold following on’. Other ‘time of day’ *jaa* clauses are at (5.137), (10.71), and T1.8.

A time expressed in terms of number of days includes a nominalized clause with verb *amo-na-* ‘sleep’. For example, in (20.2) ‘after three nights’ is rendered by ‘after (*jaa*) our sleeping being three’. And see (15.68).

(b) *Time relation between two clauses*. This corresponds to ‘when’, ‘after’, ‘while’, ‘until’.

- ‘when’: examples include (7.60b), (8.4), (14.7), (15.26), T2.104, T3.32, and
- (20.4) ‘when (*jaa*) I go back, when (*jaa*) I arrive home, I’ll go downstream to Lábrea’
 (20.33) ‘when (*jaa*) Motobi had finished buying things, then I went following’
 T3.64 ‘when (*jaa*) there is no flour, we would eat fish with manioc meal’

Note that ‘after’ could be used as the translation in place of ‘when’ in (20.33). Further examples are:

- (20.34) tiwa afo o-na-habana o-ke
 2sgO make.into.shaman 1sgA-AUX-FUTf 1sg-DECf
 [[abi_O a.’ate o-ni] jaa]
 2sgPOSS+father(m) ask 1sgA-AUX+NOM PERI
 I’ll make you into a shaman, after I ask your father
- (20.35) [[jobe_S hiri ni]_S ahabe jaa] otaa amo na-bone
 house(m) build AUX+NOM be.finished+m PERI IexcS sleep AUX-INTf
 after the house’s being built is finished, we are going to sleep

- ‘while’: examples include

(5.146) ‘I’m the only person here feeling sleepy, while (*jaa*) you are all talking away’
T2.27 ‘while (*jaa*) Maneo is talking, he eats’

- ‘until’: see (20.31).

(c) *Place*. Examples include (12.52) and

(5.64) ‘in (*jaa*) forest which is good in the middle’ (that is, ‘in a clearing’)

T1.51 ‘where (*jaa*) his friend’s grave is’

(20.36) [[Safato_S wine] jaa] otaa kobo na-ke
name(m) live+m PERI IexcS arrive AUX-DECf
we arrive at (the place where) Safato lives

To indicate ‘from a long way off’ one says [*jama jabo*] *jaa* (‘things_S be.far PERI’), as in (5.177) and (18.38).

(d) *A logical relation*. This corresponds to ‘if’ or ‘since/because’.

- ‘if’: examples include (15.33), (20.3), T2.50, 52, and

(18.38) ‘if (*jaa*) I should see a jaguar, I think I’d shoot him from a long way off’

(23.17) ‘if (*jaa*) Okomobi comes, I think he will come’

(6.51) ‘if (*jaa*) the vine had snapped, if (*jaa*) I had fallen, I might have died’

(6.48) ‘if (*jaa*) you had protected your waters, they wouldn’t have fished the waters’

(20.37) [[ee hijari] jaa] ee hijara na-ba ee-ke
IincS talk+NOM PERI IincS talk LIST-FUTf Iinc-DECf
if we want to talk, we should talk (now) (because it is getting late)

- ‘since/because’: examples include:

(20.38) [[jobe_S wata-re] jaa] [hinaka jobe] -bona_O
house(m) exist-NEGM PERI 3sgPOSS house(m) -INTM
otaa hiri ne
IexcA make AUXm

since there wasn’t a house (for Alan), we made a house for him (lit. we made his intended house)

(20.39) [[Haimoto_S hija-re], [to-kisa-me] jaa]
name(m) be.bad-NEGM AWAY-MOTION.DOWN-BACKM PERI
bahi_S foro na-ka
thunder(m) growl AUX-DECM

because Haimoto is bad (ill) and is going downstream, the thunder is growling

Note that here the *jaa* constituent includes two clauses, with common subject *Haimoto*.

All the examples given thus far have involved a nominalized clause simply followed by *jaa*. Occasionally tense-modal suffixes are found after the nominalized clause and before the *jaa*, as in:

(20.40) mee fija to-ne-hemete-mone-ke
3nsgS go.past.without.stopping AWAY-AUX-FPnf-REPF-DECf
[[[mee wete na-mi] -mete-mone] jaa]
3nsg return AUX-BACK+NOM -FPnf-REPF PERI

they are said to have gone past without stopping, when they were said to be returning

Note that we get the final *a* of the nominalized clause raised to *i* (*-ma > -mi*) and then the FPnf allomorph *-mete* (without no initial *-he-*), as is found on NPs. In the main clause we do get *-hemete* added to the predicate auxiliary (and this engenders assimilation of a preceding *a* to *e*).

20.4 AFTER MAIN CLAUSES AND DEPENDENT CLAUSES

There are some examples of the peripheral marker *jaa* after a main clause or a sequence of main clauses. In (20.41)—which is T2.71—the final *jaa* follows a main clause (this is not a nominalized clause since it uses tense allomorph *-hibona*, with initial *-hi-*).

- (20.41) tene_O kisa ka-ne-himari-ka [kasiro jaa]
 scrotum+m shake APPLIC-AUX-FP_m-DEC_m vigorously PERI
 [jimos_S sone-hibona] jaa
 ant(m) fall-INT_m PERI
 he shook his balls vigorously, so that the ant would be dislodged (lit. fall down)

There is another example at T2.65.

The other peripheral marker *ni-jaa* is not found with nominalized clauses but it can follow a main clause or a dependent clause. In (20.42) it follows a sequence of two dependent clauses.

- (20.42) (a) mee to-wa-ka mee
 3_{nsgS} AWAY-APPLIC-in.motion 3_{nsgDEP}
 when they had gone
 (b) mee maa to-ko-wite mee, ni-jaa
 3_{nsgS} stop AWAY-APPLIC-FROM.PLACE 3_{nsgDEP} PERI
 and when they had stopped
 (c) monis jana na-ma-tase-himata-mona-ka
 noise+m start AUX-BACK-AGAIN-FP_{nm}-REP_m-DEC_m
 the noise is said to have started up again

A further use of *jaa* is with relative clauses; this is discussed in §24.1.

Other Peripheral Markers

This chapter deals with the remaining postpositions that follow an NP and/or a nominalized clause—*kaa(ro/ri)* in §21.1; *tabijo* ‘due to the lack of’ in §21.2; and *namoni* ‘taking news of’ in §21.3. Then, §21.4 considers the unusual forms *ni-ma* and *ti-ma* ‘be similar to’.

21.1 *kaa(ro/ri)* ‘ALONG, THROUGH, BECAUSE, ETC.’

Like *jaa*, this postposition can follow NPs or nominalized clauses and forms a peripheral constituent. It has the form *kaa* when preceding the main clause and either *kaa* or *kaa(ro/ri)* when following it; the final *-ro/ri* recurs in demonstratives and in dependent clause marking (see §24.4).

Peripheral marker *kaa* must be distinguished from possessive marker *kaa* (§10.4), although the two forms may be historically related.

21.1.1 With noun phrases

With NPs, postposition *kaa(ro/ri)* has a locational meaning ‘along, through’. A *kaa* NP can precede the main clause, as in:

- (21.1) [tehafimi kaa] ee wina-ha [[jama_S jabo] jaa]
 terra.firme PERI IincS live-f thing(f) be.far PERI
 we (Indians) live along terra firme (ground that never floods) over a long extent

Note that the final *jaa* clause, *jama jabo jaa* ‘over a long extent’, reinforces the ‘along’ meaning of *kaa* here.

Most frequently, a *kaa* NP follows the main clause and is then often followed by peripheral marker *jaa*. In (21.2) *kaa* has the meaning ‘along’, in (21.3) ‘through’, and in (21.4) ‘into (i.e. through into)’.

- (21.2) mee to-wa-ka-maki-bisa-ra-ke
 3nsgS AWAY-APPLIC-in.motion-FOLLOWING-ALSO-IPef-DECL
 fahi [hawi kaa jaa]
 THERE.NON.VISIBLE track(f) PERI PERI
 they two also went following along the road there
- (21.3) otaa to-ka-hamaro otaa-ke [jama.kabani kaa jaa]
 IexcS AWAY-in.motion-FPef Iexc-DECL forest PERI PERI
 we went through the forest
- (21.4) faja o-foja-waha-maki-hara
 THEN IsgS-be.inside(singular S)-NEXT.THING-FOLLOWING-IPef
 o-ke [[moto owa] kaa jaa]
 Isg-DECL boat(m) other+in PERI PERI
 then I followed into the other boat

See also T3.2 ‘(cut) along the outer surface (cutting around the outline of bark for a canoe)’; and T2.69, T3.22, 49.

In some instances, either *kaa* or *jaa* or *kaa jaa* could be used, for example:

- (21.5) mato_S [baikani kaa/jaa] wina-ha
 vine(f) middle PERI be.situated-f
 the vine is round the middle (of the tree)

In a recorded text (T3.4), Siko used *jaa* in this sentence; when Okomobi was helping transcribe this text he preferred *kaa*, but said that either *kaa* or *jaa* was acceptable here (with no difference in meaning). Note that (21.5) provides another (rare) example of a peripheral NP intruding between core constituents.

However, in some examples there is a clear contrast in meaning between *kaa (jaa)* and plain *jaa*. Consider:

- (21.6) afiao_S ka-ma-ka [bofe kaa jaa]
 plane(m) in.motion-BACK-DECM ground(f) PERI PERI
 the plane is going along the ground

- (21.7) afiao_S ka-ma-ka [bofe jaa]
 plane(m) in.motion-BACK-DECM ground(f) PERI
 the plane goes (to land) on the ground

In (21.6), with *bofe kaa jaa*, there is the understanding that the plane stays in contact with the ground, not taking off. In (21.7) *bofe jaa* is the end point of the motion—it lands on the ground. Note that to describe a plane flying through the air one should say:

- (21.8) afiao_S ka-ma-ka [neme kaa jaa]
 plane(m) in.motion-BACK-DECM sky(f) PERI PERI
 the plane is flying through the air

Speakers said that just *neme jaa* could be used in (21.8). That is, *kaa (jaa)* is effectively a hyponym of *jaa*, providing further specification; *jaa* can always be substituted for *kaa (jaa)*, not the reverse.

A clause-final *kaa* (with no following *jaa*) may optionally have gender-specified form, *kaaro* (f) or *kaari* (m). Interestingly, the gender agreement appears to be with the pivot argument in the main clause, not with the head of the peripheral NP. The main clause in (21.9) is an O-construction with *kosi* ‘urucuri fruit’ (m) as the pivot. In (21.10) the main clause is intransitive with *Makabi* (m) as pivot. In each case the m form of the postposition, *kaari*, is used, although in both sentences the NP before *kaari* has f gender. (Note that the NP *tee hawine* has f gender by virtue of its head being the pronoun 2nsg *tee*.)

- (21.9) kosi_O o-jaba-re-ka ahi [[tee hawine] kaari]
 urucuri(m) 1sgA-pick-IPem-DECM HERE.VISIBLE 2nsg track+m PERIM
 I picked urucuri fruit along your track

- (21.10) Makabi_S kaa-ki-no haari [neme kaari]
 name(m) APPLIC+in.motion-COMING-IPnm THIS.ONE.VISIBLEM sky(f) PERIM
 Makabi (in his plane) came here through the air

There is an example with *kaaro* in (12.33a).

The time words *hibati* ‘completed’ and *hibajata* ‘later today’ (§6.4) can occur with *kaa (ro/ri)*, referring to ‘through time’—see (6.92–3). And *kaa(ro/ri)* is also used with the four locational nouns—*ajata* ‘near’, *hike* ‘far’, *bato* ‘downstream’, and *nakani* ‘upstream’ (§12.4).

For example:

- (21.11) *bani_S mee wina-tee-hani, otaa ati na-marō otaa-ke,*
game(m) 3nsgS live-HABIT-IPnf IexcA say AUX-FPef Iexc-DECf
 [nakani kaaro] [Itimari kaaro]
 upstream PERIF name PERIF
 there are lots of animals (lit. lots of animals exist), we remarked, along the upper reaches of the Itimari River

A modern-day use of *kaaro* is in ‘the telephone spoke, through (*kaaro*) its loudspeaker’.

21.1.2 With nominalized clauses

There are two distinct constructions involving a nominalized clause with *kaa(ro/ri)*, differing in meaning and in structural possibilities.

Again, we get just *kaa* on a nominalized clause that precedes the main clause and *kaa(ro/ri)* on one that follows. As is always the case with nominalized clauses, a final *a* (for f gender agreement) is raised to *i*, while a final *e* (for m agreement) is retained. And a clause-final auxiliary *-na-* may optionally be omitted if it bears a prefix.

(i) The first type of nominalized clause plus *kaa(ro/ri)* has the following properties:

- the pivot of the main clause is understood also to be a peripheral argument in the *kaa(ro/ri)* peripheral clause;
- the peripheral marker *kaaro/i* agrees in gender with the pivot in the main clause;
- the nominalized clause is often followed by tense-modal suffixes, before the *kaaro/i* postposition;
- the *kaaro/i* clause refers to a background element—place, instrument, etc.

All examples in the corpus of a nominalized clause of this type follow the main clause. In (21.12), *kaaro/i* relates to the pivot of the main clause (a vehicle) being in locative function in the peripheral clause.

- (21.12) *ife_{CS} moto_{CC} to-he awa-ka*
SPECIFm boat(m) AWAY-become+m SEEMSM-DECM
 [[[otaa to-ka-timi] -bone] kaari]
 IexcS AWAY-in.motion-UPSTREAM+NOM -INTf PERIF
 this may be the boat we’ll be going upstream in (lit. this may be the boat, we are going upstream (in it))

Note that the final *a* of the nominalized clause is raised to *i* (showing f gender) and it is followed by the f form of the intention suffix—agreeing in gender with the S argument of the nominalized clause, *otaa*. But these are followed by *kaari*, the m form of the peripheral marker, agreeing in gender with *ife*, the pivot of the main clause.

In (21.13), the pivot of the main clause refers to a place, which is a peripheral argument for the *kaaro*-clause.

- (21.13) *jama_S jabo-ke [faha_O otaa kii ni] kaaro*
thing(f) be.far-DECf water(f) IexcA search.in AUX+NOM PERIF
 the place where we fish is far off (lit. the thing (place) is far off, we search the water (at it))

Example (21.14) has an instrument as pivot argument of the main clause, and this is a peripheral argument (with instrumental sense) in the *kaaro*-clause.

- (21.14) [rima.tere.rato]_S naa awine [[biko_O hiri oo] -bone] kaaro?
 file(f).three.side exist SEEMSF point(f) make 1SGA -INTF PERIF
 is there a triangular (lit. three-sided) file, that I can make an (arrow) point (with)?

Note that the auxiliary *-na-* is here omitted from the end of the nominalized clause since it has a prefix *o-* (which remains, as *oo*). It could be included, giving [*biko hiri o-ni*]-bone.

There is a further example at T2.30.

(ii) The second type of nominalized clause plus *kaa(ro/ri)* has the following properties:

- there need not be a coreferential argument linking main clause and nominalized clause (although there can be);
- the peripheral marker shows no gender agreement; it is *kaa* when not sentence-final and always the unmarked form *kaaro* (never *m kaari*) when sentence-final;
- the nominalized clause is generally not followed by a tense-modal suffix;
- the meaning of 'Y *kaa*, X' or 'X, Y *kaaro*' (where X is a main clause and Y a subordinate clause) is 'X because Y'.

Examples of this type of subordinate clause coming before the main clause include:

- (21.15) [[afi o-ni] kaa] Tiyeko_S afi na-bisa-ka
 bathe 1SGS-AUX+NOM PERI name(m) bathe AUX-ALSO-DECM
 because I'm bathing, Diego is also bathing

- (21.16) [[ti-wini] kaa] otaa wini-ne-ke
 2sgS-stay+NOM PERI 1EXCS stay-CONF-DECF
 because you're staying here, we're staying here (too)

- (21.17) manakobisa [[okobis kita-ma-re] kaa]
 LATER 1SGPOSS+father be.strong-BACK-NEGM PERI
 towisawa_{CC} o-ha-wa-habone
 chief(m) 1SGCS-become-NEXT.THING-INTF
 later on, because my father (the old chief) was no longer strong, I became chief

A little later in the same text as (21.17) we find (16.20), 'I'm going to become a chief, then I will help my father, because (*kaaro*) he is no longer strong'; here *kaaro* is used despite the fact that the nominalized clause which precedes *kaaro* has a pivot ('my father') with *m* gender.

An alternative to (21.16) has the nominalized clause following the main clause:

- (21.18) otaa wini-ne-ke [[ti-wini] kaaro]
 1EXCS stay-CONF-DECF 2sgS-stay+NOM PERIF
 we're staying here because you're staying here

Other examples include:

- (21.19) keje_O hiri o-na-hara o-ke,
 lie(f) tell 1SGA-AUX-IPef 1SG-DECF
 [[[bora_O taro ni]_O o-nofa-ri] kaaro]
 ball(m) kick AUX+COMP 1ngA-want-NEG+NOM PERIF
 I told a lie (saying I had a sore foot), because I didn't want to play football (lit. kick ball)

- (21.20) o-ra-haro o-ke
 IsgS-NEG-RPef Isg-DECf
 [[[mee ati]_O o-wato-ri] kaaro]
 3nsg language IsgA-understand-NEG+NOM PERIF
 (they spoke to me but) I didn't answer (lit. speak), because I didn't understand their language

The verb of the first clause in (21.20) is *ati -na-* 'speak'; *ati* is dropped when the auxiliary *-na-* bears a pronominal prefix (§4.5.1), and the *-na-* itself is dropped when it is immediately followed by negative suffix *-ra*, as here.

- (21.21) kanawaa_O saa o-sa-marō o-ke
 canoe(f) let.go IsgA-CLEANLY-FPef Isg-DECf
 [[ee.ma.maa.to-na]_S wata-ri] kaaro
 place.to.stop exist-NEG+NOM PERIF
 I let the canoe go, because there was nowhere to stop (lit. because somewhere to stop didn't exist)

There is a further example at T2.65.

There are also some occurrences of postposition *kaa* following a main clause—as in T2.22—again with a meaning like 'because'.

21.2 *tabijo* 'DUE TO THE ABSENCE/LACK OF'

In contrast to *jaa*, which has a very wide meaning—and corresponds to a variety of prepositions in English—the postposition *tabijo* has a specialized meaning 'due to/because of the absence/lack of'. It can follow an NP, or a nominalized clause, or a sequence of main clauses.

(a) With noun phrases.

A peripheral NP marked by *tabijo* may occasionally follow the main clause but generally precedes it. It refers to the absence of something, this absence motivating the action referred to by the main clause, as in:

- (21.22) [faha tabijo] to-ka-tima-make
 water(f) LACK.OF AWAY-in.motion-UPSTREAM-FOLLOWING
 because there isn't any water, (he) goes following upstream (looking for it)
- (21.23) Jima_O mee siba ne-mata-mona-ka
 tribe 3nsgO search.for AUXm-FPnm-REPM-DECm
 [Jima mee tabijo]
 tribe AUG LACK.OF
 he is said to have looked around for the Jima people, because of the absence of any Jima people (there)
- (21.24) [okojo tabijo] ee ohi na-mata
 IsgPOSS+elder.brother(m) LACK.OF IincS cry AUX-SHORT.TIMEf
 we cry for a little while over the death (lit. the absence of) my elder brother

With a stative verb a *tabijo* NP may indicate the reason for the state, as in:

- (21.25) [nisori tabijo] jawe
 3sgPOSS+younger.brother(m) LACK.OF be.angry+m
 he is angry that his younger brother isn't there

See also (8.30a) 'he appeared to be angry over the absence (*tabijo*) of his paddle' and T2.7 'you look in the forest (for game) due to the absence (*tabijo*) of game (here)'.

In §15.3.1, it was mentioned that one way of saying 'why' is to use postposition *tabijo* after *himata* 'what'; one *ta* may then be haplogically omitted, giving *himatabijo*, as in (15.45).

(b) With nominalized clauses.

The corpus includes only a few examples of *tabijo* following a nominalized clause. The first is from a text in which a snake has gone into a hole (this being described by the nominalized clause) and the main clause describes poking a stick into the hole to dislodge it.

- (21.26) [[maka_S foji] tabijo] jama_O kawa o-wahare
 snake(f) be.inside(sg S)+NOM LACK.OF thing(f) poke 1sgA-MULTIPLE
 because the snake has gone into the hole (and is absent) I poke a thing (stick)
 lots of times (into the hole to dislodge it)

The action of the main clause relates to the absence (from the surface of the earth) of the snake, and *tabijo* goes on the clause that describes how this absence came about.

The next example comes from a story where Okomobi looked in a bag belonging to some Brancos for their cartridges. He says:

- (21.27) [sako hoti]_O kii o-na-hara o-ke
 bag(f) hole+f look.at 1sgA-AUX-IPef 1sg-DECL
 [[katoso_S kibi] tabijo]
 cartridge(f) be.inside(pl S)+NOM LACK.OF
 I looked in the bag for the cartridges that (might be) inside

He was looking for cartridges which were out of sight but might be in the bag. Here *tabijo* is postposed to the nominalized clause 'cartridges be inside'.

(c) After a sequence of main clauses.

There are also examples of *tabijo* following a sequence of main clauses, indicating it is because of a lack reported in those clauses that the action described by the next clause takes place.

- (21.28) (a) [karafato kaa ka.karoro.ka-na]_S fawa na
 tape.recorder(f) POSS drive.belt(f) disappear AUXf
 the tape recorder's drive belt disappeared
- (b) maa to-na-haa
 stop AWAY-AUX-DEPf
 it (the tape recorder) stopped
- (c) tabijo
 LACK.OF
 due to the lack of (this)
- (d) jama_O siba o-na haa
 thing(f) search.for 1sgA-AUXf THIS.ONE.VISIBLE
 I looked for this thing

Clause (a) describes how the drive belt (described through a reduplicative nominalization of the verb *karoro -na-* 'spin round', lit. 'thing that spins round') became detached and fell into the bottom of the tape recorder. Clause (b) says that the tape recorder then stopped. We then get (c) *tabijo* saying how because of the loss of the drive belt, (d) the narrator will look for it (*jama* 'thing' is here referring back to *ka.karoro.kana*).

- (21.29) (a) Matesako_S ahaba-mone
 name(f) be.finished-REPF
 it is said that Matesako died
- (b) mee hi-kamo-waha
 3sgA Oc-bury-NEXT.THINGf
 then they buried her
- (c) tabijo
 LACK.OF
 because of (her death and burial)
- (d) mee o.ohi na to-he-hemete-mone
 3nsgS REDUP.cry AUX AWAY-AUX-FPnf-REPF
 they are said to have cried a lot

The first two clauses describe how Matesako died and was buried. Then *tabijo* states that because of the child's death, they cried and cried.

When *tabijo* relates to the absence of 'you (sg)', as in (21.30), we get the 2sg prefix *ti-* attached to the postposition, which is here behaving rather like a PN. One day a small child suddenly missed his mother, who was in another room; someone called out to the mother:

- (21.30) Rosira!, ti-tabijo Tijeko_S awa-ka
 name(f) 2sg-LACK.OF name(m) feel-DECM
 Lucilia! Diego wants you (lit. Diego feels your absence)

21.3 *namoni* 'TAKING NEWS OF'

There is one further specialized postposition, *namoni* 'taking news of'. In (21.31c), *namoni* follows the NP *Jara mee* with the whole forming a peripheral constituent 'taking news of the Brancos'.

- (21.31) (a) Motobii_A Jara_O mera to-wasi-me-hino ama
 name(m) Branco 3nsgO AWAY-find-BACK-IPnm EXTENT
 Motobi found the Brancos
- (b) Jara_O mee to-wasi-me-hino
 Branco 3nsgO AWAY-find-BACK-IPnm
 he found the Brancos
- (c) [[Jara mee] namoni] ka-me-hino ama
 Branco AUG NEWS.OF in.motion-BACK-IPnm EXTENT
 he went back (to the village) taking news of the Brancos

Note that the S argument of clause (c) must be *Motobi* (the pivot of this part of the discourse) because the verb shows m agreement.

Unlike other peripheral constituents, an NP-plus-*namoni* may be inserted within the core of the clause—although it can also precede the core, as in (21.31), or follow it—just before the predicate, as in:

- (21.32) Kamo_S [Haimoto namoni] to-ko-make-ka
 name(m) name(m) NEWS.OF AWAY-in.motion-FOLLOWING-DECM
 Kamo goes off following, taking news about Haimoto

Namoni is also encountered following a main clause, as in:

- (21.33) Kamos_S ka-ke-ka, [[Jaras_S ahabe] namoni]
 name(m) in.motion-COMING-DECM Branco(m) die+m NEWS.OF
 Kamo comes, bringing news of the death of a Branco (man)
- (21.34) Kamos_S ka-ke-ka, [[[Jara fana]_S ahaba] namoni]
 name(m) in.motion-COMING-DECM Branco woman(f) die+f NEWS.OF
 Kamo comes, bringing news of the death of a Branco woman

Note that the final vowel of *ahaba* ‘die’ in (21.34) is *a*, showing that this is a main clause (if it were a nominalized clause, the *a* would have been raised to *i*).

It is likely that *namoni* is cognate with the noun *moni* ‘news’ in Paumarí; at the end of §6.2.5 it was suggested that this may also relate to the reported modality suffix, *-mone/-mona*, in Jarawara.

21.4 *ni-ma* AND *ti-ma* ‘BE SIMILAR TO, BE THE SAME AS’

The marker *nima* is not easy to place within the grammar of Jarawara. Typically, we get a construction (where X and Y are each an NP or a complement clause):

X *nima* Y *na* (plus verbal affixes)

meaning Y is the same as X, or Y is similar to X

For example:

- (21.35) otaa nima Wahati mee ni-ne-ke
 1exc Jamamadí.tribe 3nsg -CONTF-DECF
 the Jamamadí tribe are similar to us (the Jarawara tribe)

However, just occasionally, a tense-modal suffix (lacking the initial *-hV-* syllable) may intrude in the middle of *nima*; *ni-ba-ma*, with future suffix *-ba*, has been noted, and also *ni-mona-ma*, with reported suffix *-mona*, as in:

- (21.36) bare ni-mona-ma ti- -na- -habana ti-ke
 stranger+m -REPM 2sgS- -FUTf 2sg-DECF
 you will be like the stranger (that I told you about)

The inclusion of *-mona* here indicates that the information about the stranger (that he is a good fisherman) is reported; *ni-ma* could be substituted for *na-mona-ma* in this sentence.

This suggests the following analysis. In (21.35) *Wahati mee ni-ne-ke* is the main clause and *otaa ni-* is a constituent which can take a tense-modal suffix and then *-ma*, which is a special peripheral marker ‘be similar to, be the same as’. *Otaa ni* has the appearance of a nominalized clause, with *otaa* as S argument to a verb *-na-* whose final *a* is raised to *i* (the mark of nominalization). The *ni-ma* component generally precedes the main clause but, like other peripheral constituents, it can follow it; an alternative to (21.35) is *Wahati mee nineke otaa nima*. Another example with the *ni-ma* component coming last is at (21.48).

Under this analysis the verb of the main clause is always *-na-* and the verb of the nominalized clause is also *-na-*. There are a number of possibilities for which of the several *na*’s in Jarawara the *na*’s here are. I opt for an identification as the lexical verb *-na-* ‘exist’. (An alternative would be the cumulation ‘list’ verb *-na-*; see chapter 23.)

Sentences (21.35) and (21.36) can now be labelled:

(21.35') [[otaa ni] -ma] Wahati_s mee ni-ne-ke
 I_{exc}S exist+NOM -SIMILAR Jamamadí.tribe 3_{ns}gS exist-CONTf-DECf
 the Jamamadí tribe are similar to us (the Jarawara tribe)

(21.36') [[[bare_s ni] -mona] -ma] ti-na-habana ti-ke
 stranger+m exist+NOM -REPM -SIMILAR 2_{sg}S-exist-FUTf 2_{sg}-DECf
 you will be like the stranger (that I told you about)

There is, however, a complication: *na-mona-ma* was offered as an alternative to *ni-mona-ma* in (21.36). Whereas *ni-mona-ma* has the appearance of a nominalized clause ending in *a* (raised to *i*) followed by *-mona* and *-ma*, *na-mona-ma* has the appearance of a clause ending in *na-mona* (with no nominalization), followed by *-ma*. I have, at present, no explanation for this.

Parallel to *nima* we also find *tima*, which appears to have exactly the same function and meaning. *Tima* has not been encountered with a tense-modal suffix intruding, but in all examples with simply *tima* speakers maintain that *nima* could be substituted for it, with no change in meaning, and vice versa. For example, (21.35) could be said as *otaa tima Wahati mee nineke*. A textual example with *tima* is:

(21.37) [[[arakawa mee bori]_s ti-] -ma] jama_s na
 chicken(m) AUG container+f ? -SIMILAR thing(f) exist+f
 the thing is like a chicken coop

Parallel to the analysis of *nima* into *ni-* and *-ma* we might expect *tima* to be *ti-* plus *-ma*. But what is the *ti-* (or perhaps underlying *ta-*)? Jarawara has no simple verb *ta*, parallel to *-na-*, which is a lexical verb *-na-* 'exist' and the most common verbal auxiliary *-na-* and the list form *-na*. However, the Kulina dialect of Kulina-Dení (another language from the Arawá family) is said to have three auxiliaries *-na-* and *-ha-* (like Jarawara) and also *-ta* (Monserat and Silva 1986: 60). It may be that *ti-ma* involves a reflex of an original proto-Arawá auxiliary-type verb *-ta-*, which has otherwise been lost from Jarawara. (It is likely that the various *na*'s in modern-day Jarawara go back to a single form in proto-Arawá. Similarly, an original *ta* could have developed to be an auxiliary in Kulina and to be a further verb of existence in an earlier stage of Jarawara.)

We can now look at the functional possibilities and meanings of *ni-ma* and *ti-ma* constructions. The main clause S is often 3_{sg}, which has zero realization, and may be understood either by pointing or by speaker and addressee naturally assuming that an obvious object which is in the environment is being referred to. Thus, standing by the framework of Kamo's new house, I was told to say:

(21.38) [[[oko jobe]_s ni] -ma] na-ka
 I_{sg}POSS house(m) exist+NOM -SIMILAR exist-DECM
 it is like my house

The S is here realized by the deictic gesture of pointing at Kamo's house frame. Or, the S could be explicitly stated:

(21.39) [[[oko jobe]_s ni] -ma] [Kamo kaa jobe]_s na-ka
 name(m) POSS house(m) exist-DECM
 Kamo's house is like my house

On one occasion Okomobi lost the key to his suitcase but managed to open the lock with a knife point. He commented:

- (21.40) [[safi_S ni] -ma] jimawa_S na-aro
 key(f) exist+NOM -SIMILAR knife(f) exist-DEPF
 the knife is like a key

Examples with a pronominal S for the main clause include:

- (21.41) [[haahi_S ni] -ma] o-ne o-ke
 THISM exist+NOM -SIMILAR 1SG-CONTf 1SG-DECf
 I’m like this one (I was told to say this, pointing at a photo of a bald man)

The peripheral constituent may be interrogative *himata* ‘what’. At the start of a meeting someone asked:

- (21.42) [[himata_S ni] -ma] [otaa ati]_S na-ba?
 what(f) exist+NOM -SIMILAR 1exc talking exist-FUTf
 what shall we talk about? (lit. what will our talking be like?)

The way to say ‘what is that in your language?’ or ‘how do you say that in your language?’ involves *ni-ma* (and is a frighteningly difficult construction for a linguist just beginning to learn the language, and attempting to use Jarawara rather than Portuguese):

- (21.43) [[himata_S ni] -ma] [ti-wati] -ri-be?
 what(f) exist+NOM -SIMILAR 2sgPOSS-language -CINTf-IMMEDf
 what is it in your language? (lit. your language is like what?)

See also T2.50 ‘if you came and found the jaguar, what would you do?’ (lit. ‘what would you not be like?’).

With *tabora nafi* ‘place all’ as subject of the *ni-ma* clause we can get:

- (21.44) [[[tabora nafi]_S ni] -ma] tee na-ba tee-ke
 place(f) all exist+NOM -SIMILAR 2nsgS exist-FUTf 2nsg-DECf
 you will be (going to) every place (lit. you will be equated with all the places)

The S argument for verb *ni* in *ni-ma* can be a complement clause, as in:

- (21.45) [[[[awa bite]_O baa ni]_S ni] -ma]
 wood(f) small+f hammer AUX+COMP exist+NOM -SIMILAR
 it is like hammering a small piece of wood

In fact, both peripheral and main clause S arguments can be complement clauses. One man who was going to be leaving in ten days’ time commented:

- (21.46a) [[[[ee jee]_S ka-fami] ni] -ma]
 1inc hand APPLIC-be.two+COMP exist+NOM -SIMILAR
 [oko amo ni]_S
 1sgS sleep AUX+COMP
 I have ten more nights (lit. my sleepings are like two of our hands)

A similar example, with different order of constituents, is:

- (21.46b) otaa amo na; [[otaa amo ni]
 1excS sleep AUXf 1excS sleep AUX+COMP
 [[ee jee]_S ka-hari ni] -ma] ni-jaa
 1inc hand APPLIC-be.one exist+NOM -SIMILAR PERI
 we slept; when our sleeping was like one hand (that is, we slept (there) for five nights)

In each of (21.45–6), the *na* verb of the main clause (which would not bear any affix) is omitted. In (21.45), the S argument of the main clause is also omitted. Other instances of this are at T3.17, 30.

The Jarawara love to play soccer (on one end of the missionary airstrip) but—in the mid-1990s—did not play to win. When asked what the score was they would reply (using *fara* ‘the very one’ as S argument of the *ni-ma* clause):

- (21.47) [[fara_S ni] -ma] ni-ne-ke
 VERY.ONEF exist+NOM -SIMILAR exist-CONTF-DECF
 the scores are equal (lit. it is the same as the very one)

There is another type of *nima* construction which has a temporal sense ‘as soon as’. It includes *fara/fare* ‘the very one’ at the beginning of the *ni-ma* constituent, and has a full main clause (rather than one involving *-na* ‘exist’, as in (21.35–40), (21.42), and (21.44)).

- (21.48) [tabo jaa] koba_O otaa sika na,
 steel.drum(f) PERI copaiba(m) IexcA pour AUXf
 [[fara_S [otaa kobo na-mi]_S ni] -ma]
 VERY.ONEF IexcS arrive AUX-BACK+COMP exist+NOM -SIMILAR
 we pour the copaiba (sap) into a steel drum as soon as we arrive (home)

- (21.49) [[fara_S [oko kobo na-mi]_S ni] -ma]
 VERY.ONEF IsgS arrive AUX-BACK+COMP exist+NOM -SIMILAR
 amo o-na-habana o-ke
 sleep IsgS-AUX-FUTf Isg-DECF
 as soon as I arrive home, I’ll go to sleep

It appears that *fara* and the following complement clause, in (21.48–9), are in apposition, as joint realizations of the S argument in the *ni-ma* clause.

The fact that a Isg subject argument in the clause before *ni-ma* is realized by clause-initial *oko*—as in (21.49)—and not by prefix *o-*, shows that this is a complement clause rather than a nominalized clause. This is also demonstrated by the fact that the final vowel of *na* becomes *i* (in *ni-mā*), rather than *e*, even when the pivot of its clause is m, as in (21.39).

There are two homonymous forms *nima*—the prefix-poaching affix-taking suffix ⁱ*nima -na* ‘want to, need to, be about to’ (see (3) in §5.7) and *nima -na-* in the verbal idioms [— *narabi/narabo*]_O *nima -na-* ‘speak to’ (where the O NP must include possessed noun *narabi/narabo* ‘ear’) and [— *ati/ati*]_O *nima -na-* ‘think of (relative)’ (where the O NP must include the PN *ati/ati*). These forms are not analysable (as the form dealt with in this section is, into *ni-* and *-ma*) and there is little likelihood that the *ni-ma* described here is related to either of the other two (although the other two may well be diachronically related to each other).

The Relational Noun *ihi/ehene* 'Due to, Because of'

The word *ihi* (f)/*ehene* (m) 'due to, because of' has a range of functions. It can mark a type of peripheral NP, as in:

- (22.1) [okobi ati ehene] fatara_O bore o-na
 1sgPOSS+father(m) word DUE.TOM garden(f) make.garden 1sgA-AUXf
 because of my father's words (that is, because my father tells me to), I make a garden

Or *ihi/ehene* can follow a clause, marking it as a peripheral constituent:

- (22.2) [faha_S wata-ra ihi] atabo_O sobi ne-mata-mona-ka
 water(f) exist-NEGF DUE.TOF mud(f) suck AUX-FPnm-REPM-DECM
 because there was no water, it is said that he sucked mud (for the moisture it contains)

Lastly, an NP whose final element is *ihi/ehene* can function as a core argument in a main clause:

- (22.3) [mee kaa kanawaa ifi ihi]_S wati-ne-ke haaro_S
 3nsg POSS canoe(f) rim+f DUE.TOF exist-CONTF-DECF THIS.ONE.VISIBLEf
 these (scratch marks on the tree) due to the rim of their canoe (as it was dragged
 along the path) are (here)

In form, *ihi/ehene* is like a possessed noun (PN). In (22.1) and (22.3) it functions as the last element in an NP, agreeing in gender with the head—m in (22.1), f in (22.3)—just like a PN. This is probably its diachronic origin. But it has now expanded functionally, marking the relation of a peripheral NP to the main clause, as in (22.1), or the relation of a subordinate clause to the main clause, as in (22.2).

Mayan linguistics uses the term 'relational nouns' for 'a small set of always possessed nouns' which 'indicates grammatical relations in a sentence' (see, for example, England 1983: 71–4). It seems appropriate to borrow this term and refer to *ihi/ehene* as a 'relational noun'; it is the only relational noun in Jarawara.

The next section discusses the form of *ihi/ehene*. Then follow descriptions of its use as a peripheral NP marker, as a peripheral clause marker, and in a core NP. The final section discusses a number of idioms that include *ihi/ehene*.

22.1 FORM

The relational noun *ihi/ehene* also occurs in Jamamadí and Banawá, the other dialects of the Madi language, but cognates have not been found in any other Arawá language. The final *-ne* in the m form is characteristic of PNs. At first blush the forms seem irregular; however, it is likely that—like every other PN—they developed from a single form in the proto-language.

§11.1.2 described the diachronic changes that gave rise to the variety of gender shapes of PNs in modern Jarawara, and the slightly different changes that have taken place in Jamamadí and Banawá.

The hypothesis is that the ‘due to, because of’ PN has developed from the forms:

feminine *ihá-ni* masculine *ihá-ne*

In terms of the diachronic changes discussed in chapter 11, we would expect the f form **ihá-ni* > *ihé* in Jarawara. However, in Jamamadí and Banawá we get **jáhá-ni* > *jáhi* ‘fat+f’ and **pháhá-ni* > *fáhi* ‘liquid+f’, i.e. *-á-ni* > *i* when an *h* precedes. This would explain

feminine *ihá-ni* > *ihí*

For the m we would expect *ihá-ne* > *ihé-ne* in Jarawara. However, in Jamamadí (and sporadically in Banawá) we get *iCe-ne* > *eCe-ne*, e.g. *wíje(he)-ne* > *weje-ne* ‘container’. This would explain:

masculine *ihá-ne* > *ihé-ne* > *ehe-ne*

That is, the development from putative proto-forms **ihá-ni/ihá-ne* to *ihí/ehene* can be explained through regular diachronic changes that have applied in Jamamadí and Banawá, and which are slightly different from those which have applied in Jarawara. There has, presumably, been inter-dialectal borrowing.

When *ihí/ehene* is used after a singular pronoun we get pronominal forms *o-* and *ti-* (rather than *oko* and *tika*). In §11.1.3 the rule for adding *o-/ti-* to a vowel-initial PN is given (recall that it is always the m form of a PN that is used after a 1st or 2nd person pronoun):

- (1) if the PN has three or more moras, simply omit the initial vowel of the m form, e.g. *ábate/ébate* ‘cheek, tongue’, *o-bete* ‘my cheek, tongue’;
- (2) if the PN has only two moras, add *w* between the prefix and the m form, e.g. *áte/éte* ‘forehead’, *o-w-ete* ‘my forehead’.

With *ihí/ehene* the singular pronominal forms are:

o-w-ehene ‘due to, because of me’

ti-w-ehene ‘due to, because of you (sg)’

That is, *ihé/ehene* behaves like a two-mora form (i.e. the m suffix *-ne* is not included in the mora count).

As pointed out in §11.1.3, *ihí/ehene* is notable as the only PN to both take *o-/ti-* (rather than *oko/tika*) and also retain the *ne*.

Examples of *owehene* ‘due to me’ as a core NP in S and in O function are:

- (22.4) [owehene]_S amosa-ke
 1sg+DUE.TOM be.good-DECLf
 what I did (lit. what was due to me) is good
- (22.5) [owehene]_O ti-wa ti-ke
 1sg+DUE.TOM 2sgA-see 2sg-DECLf
 you saw what I did (lit. what was due to me)

An example of *tiwehene* in peripheral function is:

- (22.6) otaa jajairi otaa-ke [tiwehene]
 1excS be.happy 1exc-DECLf 2sg+DUE.TOM
 we were each happy because of you (having come)

Ihi/ehene functions exactly like a PN with respect to agreement within an NP. Recall, from §11.1.1, the principles for gender agreement on PNs. If the head of an NP is a noun, then all following PNs agree with it in gender. An m example with *ehene* is:

- (22.7) [jomee jee ataro ehene]_s wata-ka
 jaguar(m) hand nail+m DUE.TOM exist-DECM
 scratch marks of a jaguar (lit. that due to the claws of a jaguar) are (on something)

Now if the head of an NP is a 1/2sg pronoun, then the first following PN is in m form with later PNs being f. We find:

- (22.8) [o-jee atari ihi]_s wata-ke
 1sg-hand nail+f DUE.TOF exist-DECF
 my scratch marks (lit. that due to my fingernails) are (on something)

And if the head of an NP is a 1/2nsg pronouns then all following PNs are m. We find:

- (22.9) [ee jee ataro ehene]_s wata-ke
 1inc hand nail+m DUE.TOM exist-DECF
 our scratch marks (lit. that due to our fingernails) are (on something)

Note that the declarative suffix to the verb *-wata-* ‘exist’ is m in (22.7), agreeing with *jomee* ‘jaguar’, and f in (22.8–9), determined by the pronoun as head of the NPs. In these examples, the first PN after the head is *je(h)e* ‘hand’ which does not vary for gender. The critical point is that, in later PN positions, we get *ihi* in (22.8) but *ehene* in (22.9), in line with the rules for gender agreement on PNs.

22.2 WITH A PERIPHERAL NP

A peripheral NP marked by *ihi/ehene* may follow (this happens in about two-thirds of the examples in the corpus) or precede (in about one-third of examples) the core of the clause; there is no recorded instance of its intervening between core constituents. The NP may have the full structural possibilities detailed in chapter 10.

The meanings of a sentence with an *ihi/ehene* peripheral NP can be summarized:

- (i) The main clause describes something that was done ‘due to X’s words’ (peripheral NP)—that is, because X said to do it, as in (22.1) ‘because (*ehene*) of my father’s words, I make a garden’, T2.9 ‘following on from what he said (*ehene*), we set off’, (12.25), (12.38), and:

- (22.10a) manakobisa okobi_{CS} towisawa_{CC} to-he-himata-mona
 LATER 1sgPOSS+father(m) chief(m) AWAY-become-FPnm-REPM
 ama-ka [Kakawa ati ehene]
 EXTENT-DECM name(m) word DUE.TOM

later on, my father is said to have become chief, due to Kakawa’s words (Kakawa, an older chief from another village, appointed my father to be chief in my father’s village)

In (22.10b), a speaker tells his dying father why he has come downriver to visit him:

- (22.10b) [[tiwa ihi] -mone] o-kisa-makiha
 2sg DUE.TOF -REPF 1sgS-go.down-FOLLOWINGf
 due to you(r) reportedly (having asked for me), I followed (you) down (to the hospital)

Here the peripheral NP has the cardinal pronoun *tīwa* ‘you’ as its head, modified by *ihi* ‘due to’, the whole NP then being modified by the reported suffix *-mone*.

(ii) The main clause describes some state, and the peripheral NP explains the reason for it; for example, ‘be sore due to (*ih*) rheumatism’, ‘food is good due to (*ih*) (having been in) the refrigerator’, (7.47) ‘due to (*ih*) (hitting a submerged) tree stump, they sank with (their canoe)’, (20.11) ‘all the Brancos went up a tree, for fear of (*ehene*) the peccary’, and:

(22.11) mawa.mawa o-na-haro o-ke [atehe ih]
 REDUP.be.red 1sgS-AUX-RPef 1sg-DECLf urucu(f) DUE.TOF
 I was red all over due to the urucu (some people painted me with the red dye from urucu fruit)

(22.12) kanawaa_S moo ka-na-hara-ke [majatera ih]
 canoe(f) be.full APPLIC-AUX-IPef-DECLf gill.net(f) DUE.TOF
 the canoe was full due to the gill-net (i.e. the gill-net filled the canoe)

(22.13) o-wakomeha o-ke [jomee ehene]
 1sgS-be.frightened 1sg-DECLf jaguar(m) DUE.TOM
 I am frightened due to the jaguar (because of a report of a jaguar being sighted near here)

(22.14) babeos hoti-ke [Jobeto ehene]
 paper(f) have.holes-DECLf name(m) DUE.TOM
 the paper has holes in it, due to Jobeto (i.e. Jobeto has punched holes in the paper)

(iii) The main clause can describe something that happened because of what is referred to by the *ih*/*ehene* peripheral NP. Examples include: ‘I got high because of (*ih*) snuff (from sniffing snuff)’; ‘due to (*ehene*) Izaki (a stranger, coming into the village), the dog barked’; T2.106 ‘the pain in my balls has gone away due to (*ih*) the medicine’; and

(22.15) [Abatosii nisori]_S ahabe-mata-mona-ka
 name(m) 3sgPOSS+younger.brother(m) die-FPNM-REPM-DECLM
 [toni mee ih]
 spirit(m) AUG DUE.TOF
 Abatosii’s younger brother is said to have died long ago due to the spirits (that is, because the spirits took his soul away)

(22.16) otara tee ka-na-boka-ki-bone [faha rike ih]
 1excO 2nsgA APPLIC-CAUS-sink-DECLf-INTF water(f) wave+f DUE.TOF
 you’re going to make us sink, due to the waves (you are making) (said by the people in a small canoe to the people in a canoe that is passing by, making a big wash)

In one narrative, a Jarawara man recounts a dream in which a god gave him a new heart. He says:

(22.17) [oko korasao jati]_{CS} to-ha-wa-hara-ke
 1sgPOSS heart new AWAY-become-NEXT.THING-IPef-DECLf
 [teoso ehene]
 god(m) DUE.TOM

I got a new heart from the god (lit. my new heart came into being due to the god)

(iv) The main clause describes what someone does, because of what is referred to by the *ih*/*ehene* peripheral NP. Examples include T2.77 ‘he rubbed his balls with both hands because of

(*ihi*) the pain in his balls'; T1.78 'I stopped behind because of (*ihi*) the others'; and:

- (22.18) [hinaka toni mee ihi] ee ka-ne-hemete-mone-ke
 3sgPOSS spirit AUG DUE.TOF yell APPLIC-AUX-FPnf-REPF-DECF
 because of his (the hostile shaman's) spirits (following her, planning to kill her) she
 is said to have yelled out

(v) With *himata* 'what' we get *himata ihi* 'why, due to what' as in (15.44). Note that the f (and unmarked) form *ihi* is here used with *himata* 'what', a word that does not itself have any gender.

22.3 WITH A CLAUSE

The relational noun *ihi/ehene* can mark another type of peripheral constituent—it can be added to a clause which either precedes or follows the main clause (either position is equally acceptable, but here the corpus contains more examples of the *ihi/ehene* constituent preceding the core). Note that this clause does not have nominalized form; that is, a final *a* is maintained—see (22.2), (22.20), and (22.21a)—rather than being raised to *i*.

The meaning here is that something happened or was done voluntarily (described by the main clause) because of what is described by the peripheral clause, e.g. 'I covered myself with a blanket, because (*ihi*) the weather was cold', 'he didn't have a place in the boat, because (*ihi*) the boat was full', (22.2) 'because (*ihi*) there was no water, it is said that he sucked mud', and:

- (22.19) mee jawe-hemete-mone-ke [Airowa_S sone ehene]
 3nsgS grieve-FPnf-REPF-DECF name(m) fall+m DUE.TOM
 they are said to have grieved because Airowa had died (lit. fallen)

- (22.20) [faha_S fawa to-witiha ihi]
 water(f) disappear AWAY-FROM.PLACEf DUE.TOF
 otaa wete ka-na-ma-bone
 IexcS return APPLIC-AUX-BACK-INTf
 because the stream has disappeared from where it should be, we'll have to return
 (this describes a boat crew having taken the wrong turning on a river—it would
 be said in English as 'because we got lost, we'll have to return')

A clause marked by *ihi/ehene* can include a miscellaneous suffix from any echelon or (very rarely) a tense-modal suffix but never, in the data collected, a mood suffix. The sixth echelon negator suffix *-ra* occurs in:

- (22.21a) [hemejo_S wata-ra ihi] Jara_S ahaba-ka
 medicine(f) exist-NEGF DUE.TOF Branco(m) die-DECM
 the Branco died because there was no medicine

- (22.21b) [[wafa ehebotee]_S wate-re ehene]
 woolly.monkey(m) big exist-NEGM DUE.TOM
 o-ko-make-re o-ke fahi
 IsgS-im.motion-FOLLOWING-IPef Isg-DECF THERE.NON.VISIBLE
 because there were no big woolly monkeys (lit. due to big woolly monkeys not
 existing) there, I went following on (looking for bigger ones)

An example of *ihi* following a clause with a non-inflecting verb is at (6.32).

Ihí/ehene agrees in gender with the pivot of the clause it follows. All of (22.2) and (22.19–21) have an intransitive peripheral clause and *ihí/ehene* agrees with the S argument. In (22.22) the peripheral clause is a transitive O-construction and here we get *ehene*, reflecting the gender of the O NP (the pivot):

- (22.22) [awí_O o-kobe ehene] saa o-ne o-ke
 tapir(m) 1sgA-eat+m DUE.TOM vomit 1sgS-CONTF 1sg-DECf
 because of eating (too much) tapir meat, I am vomiting.

22.4 WITH A CORE NP

The postpositions (*ni*)*jaa*, *kaa(ro/ri)*, *tabijo*, and *namoni*, which can mark a peripheral construction, are restricted to that function. *Ihí/ehene* is alone in combining the marking of peripheral NPs and clauses with the function of marking a core NP.

In the corpus, an *ihí/ehene* NP can occur in O function, as in T2.36, 48, (22.5), or in S function, as in (22.3–4).

An *ihí/ehene* core NP refers to something that is ‘due to’ the referent of the head of this NP. The actual nature of the referent will be inferable from the textual context. Compare T2.36, where *jomee ehene* ‘that due to the jaguar’ relates to scratch marks on a tree, with (22.23), where *jomee mee ihí* ‘that due to the jaguars’ refers to some dead otters, which the jaguars had killed and then gone off and left:

- (22.23) [jomee mee ihí]_O mee kii na
 jaguar(m) AUG DUE.TOF 3nsgA observe AUXf
 they observed (the dead otters) due to the jaguars

An *ihí/ehene* NP may be the subject of the copula verb *ama*. Since *ama* does not itself take tense-modal suffixes, these can go on the CS NP, as in the sentence which immediately follows (22.23) in text:

- (22.24) [jomee ehene] -no_{CS} ama-ka
 jaguar(m) DUE.TOM -IPnm be-DECM
 it (the dead otters) was due to the jaguar (lit. due to the jaguar was)

(Note the inconsistency with regard to number in (22.23) and (22.24)—there was a pair of jaguars in the story, but only one actually killed the otters. *Jomee*, a masculine noun, used alone takes the m form *ehene*; when followed by augment marker pronoun *mee* the f form, *ihí*, must be used.) Further examples of an *ihí/ehene* constituent as CS of a copula verb are in (13.15) and (18.43).

As exemplified in (22.4–5), a core NP can consist of a pronoun plus *ihí/ehene*. Since 3sg has zero realization we can get an NP which consists just of *ihí/ehene* ‘due to 3sgf/3sgm’. This will generally have anaphoric reference to the pivot of the preceding clause.

Example (22.25) follows soon after (22.23–4) in a text:

- (22.25) ehene_O joto ka-na-haari
 DUE.TOM bury APPLIC-AUX-DEPM
 he buried that which was due to him

This refers to one jaguar burying an otter he had killed (a different otter from those referred to in (22.23–4)). Here the unstated head of the *ehene* NP (in O function) is identical to the understood A argument (the jaguar).

There is also an example of a peripheral NP consisting just of *ehene*. This comes from a segment of text in which a monster is persecuting a man and his relatives. As soon as they move to a new village, to escape it, they find that the monster is there as well:

- (22.26) (a) [hibati jaa] waa-make-himata-mona ama-ne [mee ni-jaa]
 completed PERI live-FOLLOWING-FPnm-REPM EXTENT-BKGM 3nsg PERI
 as soon as (they arrived at a new place) he (the monster) is said to have been
 living there (too), with them
 (b) ehene kakome-hiba-no-ho
 DUE.TOM be.afraid-FUT-IPnm-DEP
 because of him (the monster), he (the man) became afraid

The peripheral NP *ehene* is here referring back—anaphorically—to the monster, which was pivot of the previous clause.

22.5 IDIOMS

There are a number of idiomatic expressions which include *ihi/ehene*. Just two of them are briefly mentioned here.

(a) [X *ihi/ehene*]_S *-iti-* ‘a killing was due to X’. This construction forms an intransitive clause; the S constituent must be an NP followed by *ihi/ehene*. (There is a transitive verb *-iti-* ‘take, marry’ but it seems unlikely that it related to the verb *-iti-* in the idiom.)

Examples include (6.62) ‘the killing was reportedly due to (*ihi*) others of them’, and

- (22.27) [tee kaa jibotee mee ihi]_S iti-hara
 2nsg POSS husband(m) AUG DUE.TOF killing-IPef
 the killing (of fish) was due to your (nsg) husbands

In (22.28) this idiom occurs in a complement clause in O function:

- (22.28) [[maka ehene]_S iti]_O mee awa mati
 monster(m) DUE.TOM killing 3nsgA see+f 3nsgDEP
 they saw the killing due to the monster

(b) [X_S verb *ihi*]_{CS} *to-ha-* ‘X does “verb” a lot’. Examples here include T2.54 ‘he laughed a lot’, and:

- (22.29) [Jara_S siwa ihi]_{CS} to-ha-ka
 Branco(m) play.around DUE.TOF AWAY-become-DECM
 the Branco played around a lot (he played around all day, and didn’t do any work)
- (22.30) (a) Tafi_O tiki o-ke
 name(m) tickle 1sgA-DECF
 I tickled Tafi
 (b) [Tafi_S haa.haa ihi]_{CS} to-ha-ka
 name(m) laugh DUE.TOF AWAY-become-DECM
 (and) Tafi laughed a lot

There are a number of unusual features here:

(a) in each example the f (and unmarked) form *ihi* is used, although the S argument of the verb—*Jara* in (22.29), *Tafi* in (22.30)—is m. Note that in each case tense-modal and mood suffixes show m agreement.

- (b) The auxiliary *-na-* from *siwa -na-* in (22.29) and from *haa.haa -na-* in (22.30) and T2.54 is omitted.
- (c) The verb *haa.haa -na-* ‘laugh’ is realized as *haa.haa* in (22.30) but reduced just to *haa* in T2.54; that is, an inherently reduplicated verb root is optionally unreduplicated in this idiom.

List Constructions

Verbs in Jarawara divide into non-inflecting, which are followed by an auxiliary (this takes the affixes), and inflecting, which do not have an auxiliary. Yet, on occasion, an inflecting verb may be followed by what appears to be an auxiliary, as in (23.3) and (23.5–6). How can this be? It is an instance of what is here called a ‘list construction’ in which a number of clauses (sometimes just a single clause) or a number of NPs—describing related events or things—are followed by an inflecting verb *-na-*, which is called the ‘list verb’. This *-na-* is generally glossed by bilingual consultants as ‘tambem’ (‘also’); it indicates the end of a cumulative list.

A prototypical list construction is shown in (23.1); this involves a sequence of transitive clauses, each with a non-inflecting verb, sharing the same subject.

- (23.1) [bari isi]_O siri; fatara_O bore; awa_O kaa;
 axe(f) handle+f plane garden(f) make.garden tree(f) chop
 [sirikaa hawi-ne]_O tii;
 rubber.tree(m) trail-m cut
 o-na-habone
 1sgA-LIST-INTf

I intend to plane an axe handle; make a garden; chop down trees; and also cut a rubber trail (that is, a path through the forest for collecting latex from rubber trees)

We have here a sequence of four transitive clauses, each involving a non-inflecting verb: *siri -na-* ‘plane’, *bore -na-* ‘make (garden)’, *kaa -na-* ‘chop’, and *tii -na-* ‘cut’. When occurring in a list, each of them omits its auxiliary *-na-* and the 1sg prefix *o-* that this would carry. The sequence of clauses is followed by list verb *-na-*; this bears pronominal prefix *o-* and intention suffix *-habone*.

Alternatively, a list construction can consist of a sequence of NPs. In one text, Okomobi tells of how, when far from home, he experienced pangs of homesickness:

- (23.2) [otaa taboro]_O wati o-waha; okobi mati;
 1exc village+m think.longingly.of 1sgA-NOW 1sgPOSS+father(m) AUG
 okomi mati; okasima mati;
 1sgPOSS+mother(f) AUG 1sgPOSS+younger.sister(f) AUG
 okojo mati
 1sgPOSS+elder.brother(m) AUG
 mee+na
 3nsg+LISTf

I think longingly of our village; of my father and his people; of my mother and her people; of my younger sisters and their people; and also of my elder brothers and their people

This first clause in (23.2) includes a verb and relates how Okomobi is thinking longingly of his village. This is followed by a list of four kin terms, each with the augment marker. At the end of the list we get list verb *-na-*, preceded by 3nsg pronoun *mee*.

There is a further example of a list of NPs, ending with *-na-*, at (11.13) ‘pirarucu eggs, pirarucu bones, flesh from the side of the pirarucu face’ *ne-himari* (‘LIST-FPem’).

Each of the elements in a list construction has properties of a separate sentence; it has sentence-final intonation and can be followed by a brief pause, shown by ‘;’. And note that in (23.2) the augment marker has sentence-final allomorph *mati* (rather than its regular allomorph *mee*) at the end of each of the listed elements.

An exception concerns the final item, before the list verb. There is sometimes a pause here, as in (23.1), (23.4), and (23.15). But in other examples, the final clause of the list and the clause with the list verb *-na-* run on as one intonation group; this is found in (23.2–3), (23.5), (23.7), (23.9), (23.14), and (23.16).

When the list verb bears no affix, it may be cliticized to the preceding element in its clause; for example *mee+na* in (23.2); this is an example of two grammatical words making up one phonological word (see §2.7). However, it most often lengthens its vowel and constitutes a phonological word on its own, as *nee* in (23.4) and *naa* in (5.81) and (7.77c).

In non-formal speech, the list verb *-na-* is occasionally omitted from the end of a list construction; there is an example of this at T3.55.

23.1 GRAMMATICAL PROPERTIES

(a) Verbs and transitivity

A list construction typically involves a number of verbal clauses. The verbs can be all transitive or all intransitive or all copulas or a mixture of these; and they can be all non-inflecting, as in (23.1), or all inflecting, or a mixture. Both kinds of mixture are shown in (23.3), where the verb in the first clause (*mowa -na-* ‘attack, shoot’) is transitive and non-inflecting while that in the second one (*-ahaba-* ‘die’) is intransitive and inflecting.

- (23.3) hijama_O mee mee mowa; awi_S ahaba
 peccary(m) 3nsgO 3nsgA attack tapir(m) die
 ne-mata-mona ama-ne
 LIST-FPnm-REPM EXTENT-BKGM
 they attacked some peccaries; and a tapir was also dead, it is said

Here the list verb *-na-* sums up events concerning two game animals.

In (23.1) we had a series of transitive clauses, all with different verbs but dealing with a series of related events. In (23.4) the verb is the same in each clause but the O NP differs.

- (23.4) [boka bono]_O jome; [awa one boni]_O jome;
 tento(m) fruit+m eat tree(f) another+f fruit+f eat
 nee
 LISTm
 he (Kimi, discourse topic) eats the fruit of the tento tree; he also eats the fruit of
 another kind of tree

In (23.10b) there are two transitive clauses, with the same A argument but different verbs and O arguments. In (23.5) we have three clauses all with the same intransitive verb but showing different S NPs. This describes a number of people linking hands (verb *-wana-* ‘join up’) in a

dance. Three new people join in:

- (23.5) Jobeto_S wana; Ara_S wana; Fraski_S wana
 name(m) join.in name(m) join.in name(f) join.in
 na-ra-ke
 LIST-IPef-DECf

Jobeto joined in; Alan joined in; Francesca joined in also

Example (23.6) features a copula clause and an intransitive clause, describing related events.

- (23.6) boni_{CS} to-ha; faha_S ka-ke;
 wind(f) AWAY-become water(f) in.motion-COMING
 ne-mete-mone-ke
 LIST-FPnf-REPF-DECf

it is reported that a wind arose, and that rain also came

I have not encountered a list construction involving a mix of Ac's and Oc's. In the corpus, either all transitive clauses are Oc's, as in (23.8–9) and (23.10a), or all are Ac's, as in constructions such as (23.1), (23.4), and (23.10b).

It was mentioned in §13.4 that when someone is listing things or people or properties, *to-ha* will be included following each item in the list. Sometimes a *to-ha* listing is followed by the list verb *-na-*, as in:

- (23.7) [Ijo mee saoti]_{CS} to-ha;
 Indian AUG health AWAY-become
 [[otaa taboro] kaa [otaa nafi saoti]_{CS} to-ha;
 Iexc village+m POSS Iexc all health AWAY-become
 [[Wahati mee tabori] kaa [mee saoti]_{CS} to-ha;
 Jamamadí.tribe AUG village+f POSS 3nsg health AWAY-become
 [[Makabi taboro] kaa [mee saoti]_{CS} to-ha
 name(m) village+m POSS 3nsg health AWAY-become
 na-ra-ke
 LIST-IPef-DECf

the health of Indians; the health of all our people in our village; the health of everyone in the Jamamadí people's village; and the health of them in Makabi's village also (Makabi is chief of the Jarawara village called Agua Branca)

In (12.5) an NP referring to one garment added to a pile of dirty clothes is marked by *to-ha*, followed by list verb *-na-*.

(b) Omitting an auxiliary *-na-* from within the list

If a clause in the list includes a non-inflecting verb, which normally takes an auxiliary *-na-*, this auxiliary will be omitted if it bears no affix or just shows a pronominal prefix 1sg *o-*, 2sg *ti-*, or Oc *hi-*. In (23.1) *o-na* is omitted from each of the four verbs in the list. In (23.3) *-na-* is omitted from the non-inflecting verb *mowa -na-* 'attack, shoot'. The auxiliary *-na-* is omitted from *jome -na-* 'eat' in each clause of (23.4). In (23.8) the two clauses are both Oc's with a non-inflecting verb, *hiri -na-* 'make'; the final *hi-na* is omitted from each (but *hi-* is included on the list verb at the end of the construction).

- (23.8) basora_O fana_A hiri; basora_O maki_A hiri
 broom(f) woman(f) make broom(f) man(m) make
 hi-tee ama-ke
 Oc-HABIT EXTENT-DECf

brooms are habitually made by women; and by men also

Here the list verb *-na-* bears prefix *hi-* and suffix *-tee*; as with the auxiliary *-na-*, list verb *-na-* drops when immediately followed by *-tee*, giving *hi-tee*.

However, if the auxiliary of a verb in a list bears a prefix other than *o-*, *ti-*, or *hi-*, then it must be retained to bear this affix (if there is also a pronominal prefix—1sg *o-*, 2sg *ti-*, or Oc *hi-*—then this is also retained). For instance (11.13) is a list of parts of a pirarucu. This is followed in the text by ‘he said’ and then:

- (23.9) tiwa hi-ka-na
 carry Oc-APPLIC-AUX
 hi-na-hare-ka
 Oc-LIST-IPem-DECM
 he carried (the pieces of pirarucu (m))

Here the verb *tiwa -na-* ‘carry’ takes applicative prefix *ka-* and its auxiliary is retained to host this; the Oc prefix *hi-* is retained too, and also repeated on the list verb. In (23.11) the auxiliary *-na-* of *siwa -na-* ‘be playful’ takes causative suffix *niha-* (with *nihana* reducing to *ni*—see §8.1.1) and this is retained.

(e) Affixes on verbs in a list construction

We have seen that if a non-inflecting verb occurs in a list, and its auxiliary would bear no affix or just prefix *o-*, *ti-*, or *hi-*, then the *na*, *o-na*, *ti-na*, or *hi-na* is omitted. The *o-*, *ti-*, or *hi-* is prefixed to the list verb, as in (23.1) and (23.8).

However, an inflecting verb within a list will retain all prefixes, including *o-*, *ti-*, and *hi-*, and these will also be repeated on the list verb. The *o-* prefix is illustrated in (23.10a).

- (23.10a) [jia one jaa] o-ka-na-mosa;
 day(f) another+f PERI 1sgA-APPLIC-CAUS-be.good
 [jia one jaa] o-ka-na-mosa
 day(f) another+f PERI 1sgA-APPLIC-CAUS-be.good
 o-ne-hibana-ka
 1sgA-LIST-FUTm-DECM
 I’m going to weed (the manioc patch) one day; and I’m also going to weed (the manioc patch) another day

Here ‘manioc patch’, with m gender, is pivot for this part of the discourse and both clauses are transitive Oc’s. Tense-modal and mood suffixes to the list verb agree in gender with this O argument. At T2.90 we find prefix *ti-* on an inflecting verb in a one-clause list and also on the list verb *-na-*.

A clause within a list construction can never include a declarative or backgrounding mood suffix. These go on the list verb *-na-*, as in (23.3), (23.5–7), and (23.9–10a). In addition, a secondary verb may only occur after the list verb—as in (23.3) and (23.8)—and not in a clause within the list. A list construction may be followed by the marker for a dependent clause. (Note that imperative and interrogative clauses are not attested within a list construction.)

Generally, a tense-modal suffix cannot be included on verbs within a list construction, only on the list verb itself. There are, however, occasional exceptions. In (23.10b), the first clause bears intention suffix *-hibona* (‘he should eat fish’) and the list verb bears the RPem suffix *-hiri*, since the whole story took place in recent past time (about nine months previously).

- (23.10b) aba_O kabe-hibona; otara ka-sawari
 fish(m) eat-INTM IexcO APPLIC-get.lost
 ne-ri ama-ka
 LIST-RPem EXTENT-DECM
 (he) should have eaten fish (but wouldn't), he frustrated us

Here the A arguments of the transitive inflecting verbs *-kaba-* 'eat' and *-ka-sawari-* 'frustrate' (lit. get lost with) refer to an invalid, the pivot of this part of the discourse (the invalid declined food and so saddened and frustrated the watching relatives). The verb in each clause shows the m form of tense-modality and mood suffixes, agreeing in gender with this pivot.

There is only a little information on the occurrence of miscellaneous suffixes in a list construction; this is not something which can sensibly be elicited, and only a few of the examples in the corpus include miscellaneous suffixes. There are examples of miscellaneous suffixes from the first, second, and fourth echelons on a verb within a list construction—first echelon *-kasa* 'all at once' in (5.81), second echelon *-ki* 'coming' in (23.6) and *-ma* 'back' in (23.17), and fourth echelon *-ⁱhiti -ha-* 'do quickly' in (5.230). (The corpus does not include examples of third or fifth echelon suffixes with a list construction.)

The only example of a suffix from the sixth echelon is found on the list verb; this is *-ⁱne* in (23.11). It is possible that sixth echelon forms are restricted to occurrence on the list verb *-na-*, rather than on any verb within the list.

- (23.11) tatao_O mee siwa ni;
 shuttlecock(m) 3nsgA be.playful CAUS(+AUX)
 bora_O mee siwa ni
 ball(m) 3nsgA be.playful CAUS(+AUX)
 ni-ne-ke
 LIST-CONTF-DECF

they are going to play with the shuttlecock; they are also going to play with the ball

Note that the extra-echelon suffix *-tee* 'habitual' is only attested on the list verb, as in (23.8).

Negation can be shown on a clause within a list construction by the contrastive negator *-rihi* (§7.2.5). We also find the minor mood suffixes *-ⁱkani/-kani*, counterfactual, and *-ⁱnihī/-noho*, climax (§7.2.2), typically added to a list verb; see §23.2.

(d) Gender

A particular feature of a list construction is that there is no gender marking on verbs of the individual clauses in a list, only on the list verb at the end. Gender agreement is with the pivot of the last clause in the construction, and is shown by the form of suffixes to the list verb *-na-* (or in the form of the list verb itself if it bears no suffixes).

In (23.3), the second clause has an m pivot but the final *a* of the inflecting verb *-ahaba-* 'die' does not change to *e* to show m agreement; however, the immediately following list verb takes m suffixes. In (23.5), the first and second clauses have an m pivot and the third clause has an f pivot but in each case the form of the verb is *wana*, not varying for gender; the list verb takes f tense-modal and mood suffixes reflecting the gender of the pivot in the immediately preceding clause. Similarly, in (23.9) the list verb takes m suffixes reflecting the gender of the pivot of the preceding Oc; but the final vowel of the Oc does not show gender (if it did, final *na* would become *ne*). In (23.4) the m identity of the A in the two preceding clauses (both Ac's) is shown by the m ending of the list verb, *nee*.

(e) Pronouns in list constructions

It is instructive to compare the occurrence of different kinds of pronouns in a list construction: 1sg *o-* in (23.12a)—a variant of (12.1)—1exc *otaa* in (23.12b), and 3nsg *mee* in (23.12c).

(23.12a) *fatarao* bore; *awao* kaa
 garden(f) make.garden tree(f) chop
o-na-habone o-ke
 1sgA-LIST-INTf 1sg-DECf
 I intend to make a garden and chop down trees

(23.12b) *fatarao* *otaa* bore; *awao* *otaa* kaa
 garden(f) 1excA make.garden tree(f) 1excA chop
na-bone otaa-ke
 LIST-INTf 1exc-DECf
 we intend to make a garden and chop down trees

(23.12c) *fatarao* *mee* bore; *awao* *mee* kaa
 garden(f) 3nsgA make.garden tree(f) 3nsgA chop
na-bone-ke
 LIST-INTf-DECf
 they intend to make a garden and chop down trees

If the first two clauses in (23.12a) were used outside a list, we would get *fataro bore o-na-habone o-ke* and *awo kaa o-na-habone o-ke*. Here the auxiliary is omitted from each of the verbs in the list construction. The 1sg pronominal prefix, *o-*, and tense-modality suffix *-habone*, which it would have carried (plus third pronominal position and mood suffix), are just included on the list verb at the end of the construction.

If the first two clauses in (23.12b) were used outside a list, they would be *fataro otaa bore na-bone otaa-ke* and *awo otaa kaa na-bone otaa-ke*. Here the pronoun *otaa* is retained in its position before the non-inflecting verb root in each clause, and is not repeated before the list verb in the final clause. It is, however, included (with the mood suffix) in third pronominal position after the list verb. Similar comments apply for (23.12c) except that there is here no third pronominal position after the list verb, since 3nsg *mee* only occurs in this position after a secondary verb (as in fact it does in (23.15)).

A textual example of a nsg pronoun in a list construction which includes a transitive inflecting verb and an intransitive inflecting verb is:

(23.12d) *kafeo* *otaa* *fawa*; *otaa* *tafa*
 coffee(f) 1excA drink 1excS eat
naa
 LISTf
 we drank coffee, and we ate

We do find a nsg pronoun with the list verb itself, but only when referring to the collection of referents of a preceding series of NPs (that is, when the list consists of NPs, rather than of verbal clauses). Example (23.2) has 3nsg *mee* in this function. In (23.12e), 1exc *otaa* is included before the list verb, serving to add the speaker to the list of people just listed. (As always with 1/2nsg pronouns, the inclusion of *otaa* in the third pronominal position after the list verb is an indicator of IPE tense-evidentiality value.)

- (23.12e) Nokoko; Asina; Abarikini; Naritoni; Narija
 name(m) name(m) name(m) name(m) name(m)
 otaa na otaa-ke
 IEXC LISTf IEXC-DECf
 we were Nokoko; Asina; Abarikini; Naritoni; Narija and me also

23.2 MEANING AND USE

All the clauses or all the NPs in a list construction must have related reference. Looking at NPs, we get a list of types of kin in (23.2), a list of men's names in (23.12e), and a list of parts of a pirarucu fish in (11.13). In (23.13) there is a list of Portuguese greetings (used by Indians in converse with Brancos):

- (23.13) 'bowa'_{CS} to-ha; 'bowanoiti'_{CS} to-ha
 boa AWAY-become boa.noite AWAY-become
 ni-ne-ke haaro
 AUX-CONTf-DECf THIS.ONE.VISIBLEf
 these (greetings) 'boa (good day)' and also 'boa noite (good night)' (are what they say)

When there is a list of clauses, they must all be dealing with similar things. In (23.1) various work tasks are stated, in (23.5) different people joining hands in a dance, in (23.6) related weather phenomena, and so on.

A list construction often includes (somewhere in it) the PN *one/owa* 'another'. Example (23.4), for instance, describes how Kimi ate the fruit of the tento tree and then ate the fruit of another (*one*) tree. In (23.10a) each clause in the list includes the peripheral time NP *jia one jaa* 'on one (*one*) day' ... 'on another (*one*) day'.

There can be discontinuity in the listing of like things; with just the final clause making up a list construction, followed by the list verb *-na-*. In one text the narrator describes how he gathered in one gill-net, using a normal clause with tense-modal and mood suffixes. A few clauses later he says:

- (23.14) [majatera one]
 gill.net(f) another+f
 na-hara-ke
 LIST-IPef-DECf
 and there was also another gill-net

The *-na-* in (23.14) indicates the conclusion of a listing—'one gill-net' and 'another gill-net also'.

In another text, a storyteller recounts how he shot a number of woolly monkeys, using a normal clause with tense-modal and mood suffixes. He then rounds off the inventory of food that was gathered by giving a list construction with a single clause (using the inflecting verb *-tama-* 'be many') followed by the list verb:

- (23.15) oma_S mee tama;
 piranha(m) 3nsgS be.many
 na-marō mee ama-ke
 LIST-FPef 3nsg EXTENT-DECf
 there were lots of piranha fish too (in addition to the woolly monkeys)

There are also single-clause list constructions that simply describe the climax of some activity. In (23.16) Okomobi and a FUNAI official have apprehended some Branco fish poachers who then offered Okomobi a piece of fresh pirarucu; he replies that he also wants some salted pirarucu:

- (23.16) [borokoo mee saokato]_{CS} to-ha
 pirarucu(m) AUG salted AWAY-become
 na-bone-ke
 LIST-INTF-DECf
 there should be a salted pirarucu too

A cumulation construction can imply finality, as in (20.37) ‘if we want to talk, we should talk now’, and:

- (23.17) [Okomobi_S ka-me jaa]; ka-ma
 name(m) in.motion-BACKm PERI in.motion-BACK
 ne-ba awa-ka
 LIST-FUTm SEEMSM-DECm
 if Okomobi comes, I think he (Okomobi) will come

A list verb has special function with respect to three of the suffixes identified in chapter 7 as types of mood. A clause within a list construction can be negated by the contrastive negator *-rihi/-rihi*, as in (7.76), (7.77*b-c*), (7.78), and (7.80) in §7.2.5. And both the counterfactual suffix *-ⁱkani/-kani* and the climax suffix *-ⁱnih/-noho* (§7.2.2) are often added to the list verb *-na-*; see (7.41–50) and (7.70*a*). This use of the list verb shows some differences from its regular use, as described above:

- In (7.41) the *-na-* of a non-inflecting verb is retained before *na-kani* ‘LIST-CNTFACTm’ and before *na-noho* ‘LIST-CLIMAXm’.
- In (7.44), the inflecting verb before a list verb (but not that list verb which hosts the counterfactual suffix) bears a tense-modal suffix. And in (7.47) the inflecting verb before *ni-nihi* ‘LIST-CLIMAXf’ shows the sixth echelon miscellaneous suffix *-ⁱne*.

It is likely that the list verb *-na-* is closely historically related to the auxiliary *-na-* (but not related so closely—if at all—to the lexical verb *-na-* ‘exist’). As noted in discussion of (23.8), the list verb is omitted when followed by *-tee* ‘habitual’, just as the auxiliary *-na-* is. However, when the *-na-* auxiliary takes no affix it must be cliticized to the preceding non-inflecting verb root (see §2.7) whereas when a *-na-* list verb bears no affix it may lengthen its vowel and make up a complete phonological word.

The nature of this diachronic connection remains to be investigated.

Syntactic Organization

This chapter completes the review of Jarawara syntax, by describing relative clauses and juxtaposed coordinate clauses (neither of which has any morphological marking), and comparing the properties of different clause types. §24.4 briefly reviews *f/m* forms ending in *-ro/-ri*, which recur throughout the grammar.

24.1 RELATIVE CLAUSES

The relative clause construction in Jarawara has the following properties:

- (1) The relative clause includes a predicate (which can have miscellaneous and tense-modal but not mood suffixes) and core NP(s), but no clause-initial or clause-final elements (that is, it cannot include a peripheral argument).
- (2) Main clause and relative clause must have a common argument (CA):
 - in the relative clause the CA can be in any core function (S, A, or O);
 - in the main clause the CA can be in a core function (S and O are attested) or in peripheral function.
- (3) If the CA involves an NP, this is stated in the relative clause but not in the main clause (that is, the relative clause is of the ‘internally headed’ type).
- (4) The CA must be the pivot of the relative clause but need not be the pivot of the main clause.
- (5) The relative clause is positioned within the main clause at the place where the CA would be.

Note that relative clauses in Jarawara all have a ‘restrictive’ meaning, providing further specification of the reference of the CA in the main clause. I have not encountered any with a clearly ‘non-restrictive’ meaning. As a natural consequence of this, all examples of relative clause constructions have the CA as 3rd person; there are no instances of 1st or 2nd person as CA.

Examples illustrating these points will first be provided; there is then discussion—and rejection—of alternative syntactic treatments for them.

In (24.1) the common argument *jama* ‘thing’ is in S function in the relative clause and in O function in the main clause, a transitive A-construction:

- (24.1) [jama_S ka-wina]_{REL:O} sota to-ka-ne
 thing(f) APPLIC-be.hanging+f take.off AWAY-APPLIC-AUXM
 he takes down the thing which was hanging (on a hook)

In (24.2) the common argument is *Jara* ‘Branco’ which is in A function in the relative clause (an A-construction) and in O function in the main clause (also an A-construction).

- (24.2) [Jara_A sirikaa_O siri ne-no]_{REL:O} mee wasi-witiha
 Branco(m) rubber(m) tap AUX-IPnm 3nsgA find-FROM.PLACEf
 they encountered a Branco who had been tapping rubber

In (24.3) the common argument is *oko karafato ati* ‘my tape recorder’s sound’ which is in O function in the relative clause (an O-construction) and also in O function in the main clause (an A-construction).

- (24.3) [[oko karafato ati]_O mee fawa hi-niha]_{REL:O}
 IsgPOSS tape.recorder(f) voice 3nsgA disappear Oc-CAUSf
 o-na-mosa-mi-ne o-ke
 IsgA-CAUS-be.good-BACK-CONTf Isg-DECf
 I am repairing (lit. making good) my tape recorder, whose sound they
 had made disappear

In (24.4), the last sentence from a short text, we get a relative clause within a *kaa(ro/ri)* ‘because of’ subordinate construction.

- (24.4) (a) awa_O kaa o-na-mina
 tree(f) chop IsgA-AUX-TOMORROW
 I’ll go and chop trees tomorrow
 (b) [jamas ahi na-ba]_{REL:S} wata-ri kaaro
 thing(f) be.done AUX-FUTf exist-NEG+NOM PERf
 because there’s nothing else to do (lit. things to be done don’t exist)

Here (a) is a main clause and (b) a subordinate construction with *kaaro* ‘because of’ (note the $a > i$ on negator *-ra*, marking a nominalized clause). Within (b) we get a relative clause construction with common argument *jama* ‘thing’, in S function in both relative and main (here *-kaaro*) clauses.

The three possible functions of the CA in a relative clause have been illustrated: S in (24.1) and (24.4), A within an Ac in (24.2), and O within an Oc in (24.3). Within the main clause, the CA can be in S function, as in (24.4), in O function in an Ac in (24.1–3), or in O function in an Oc, as in:

- (24.5) [jomee_A fati_O hi-kabe-mete-mone]_{REL:O} o-komina-bone-ke
 jaguar(m) 3sgPOSS+wife(f) Oc-eat-FPnf-REPF IsgA-tell.about-INTf-DECf
 I’ll tell about his wife who a jaguar ate

Here the CA is *fati* ‘his wife’, which is in O function within an Oc for both clauses. The relative clause is recognized as an Oc by the inclusion of Oc prefix *hi-*, and the main clause by the fact that the A pronoun, Isg *o-*, is not repeated in the third pronominal position. The textual corpus does not include any example of a relative clause construction in which the CA is in A function in the main clause, and I did not consider it judicious to attempt elicitation on this point (I would, however, expect this to be possible).

Note that the relative clauses in (24.1–5) could not be treated as complement clauses filling a core functional slot in the main clause. They can include a tense-modal suffix, as in (24.2) and (24.4–5), which is not allowed in a complement clause, and they do not show a final *a* raised to *i*, which is the formal mark of a complement clause. Also, the meaning is quite different—(24.2) does not mean ‘they encountered a Branco tapping rubber’ which would be a complement clause interpretation (it could not mean this, since the verb *siri -na-* ‘tap’ has a non-eyewitness tense suffix); it means ‘they encountered a Branco who had been tapping rubber’.

Semantic considerations also demand a relative clause interpretation. If there were simply coordination (by juxtaposition) between *jama ahi na-ba* and *wata-ri* in (24.4b) it would have the meaning ‘there will be things to do’ followed by ‘they don’t exist’ (contradictory statements). Treating it as a relative clause the meaning is ‘things, which are to be done, don’t exist’. (There is a similar example at (26.18).)

It might be argued that (24.1–3) could be analysed as simply coordination of two clauses. But in each of these the second clause is a transitive A-construction and it does not have a stated argument in O function (which an A-construction almost invariably has). If (24.1) involved coordination then either *jama* should be repeated in the second clause (*jama ka-wina*, *jama sota to-ka-ne*) or the second clause should be an O-construction, from which the O NP can be omitted (*jama ka-wina*, *sota hi-ka-na*, with prefix *hi-* and the auxiliary showing f agreement—by its final *a*—with the O argument *jama*). Similarly for (24.2–3).

The accusative suffix on NPs, *-ra*, is no longer used by young speakers but did occur in texts recorded from the oldest people. In (24.6), *-ra* is placed after the relative clause in a construction where the CA is in O function in the main clause, which is an Ac (the CA is in S function in the relative clause).

- (24.6) [fahas ita-hara]_{REL:O} -ra mee fa.fawa
 water (f) sit-IPef -ACC 3nsgA REDUP.drink
 they would drink the water that was sitting (in a hole in the rock)

This clearly indicates that the relative clause is, in effect, treated as the O argument of the main clause, in terms of the CA (which is only stated within the relative clause) being in O function in the main clause.

In (24.7) the CA, *faha* ‘water’ is the S argument of the relative clause, and is the unstated head of the NP which is S argument of the main clause.

- (24.7) [fahas soro.ro ka-na]_{REL:HEAD.OF.S.NP}
 water(f) go.round.REDUP APPLIC-AUXf
 [hoti kaa jama]_S nobe ni-fe-haaro
 hole+f POSS thing(f) be.tilted AUX-WATER-DEPF
 the hole of the water which is going round is tilted (that is, the rocky hole of the whirlpool is on a tilt)

Here the S argument of the main clause within the relative clause construction (which has dependent marking) is [*faha hoti kaa jama*] ‘the water’s hole’s thing’, with *faha hoti* as alienable possessor of *jama* ‘thing’. The head noun *faha* is the CA and is omitted from this NP (it is stated within the relative clause), leaving behind its PN *hoti* ‘hole’. The sentence is, literally, ‘the water, which is going round, ’s hole’s thing (i.e. the ground in which the whirlpool is located) is tilted’.

Property (3) of a relative clause construction is that if the CA involves an NP, this is stated in the relative clause but not in the main clause. However, if the CA is partly realized by the 3nsg pronoun *mee*, then this must be included in the predicate of each clause, as in:

- (24.8) [somi_O mee otaa wasiha]_{REL:O} mee otaa
 worm(m) 3nsgO IexcA find 3nsgO IexcA
 to-wa-ka-maroo otaa-ke
 AWAY-APPLIC-in.motion-FPef Iexc-DECf
 we took away some worms, which we had found

Here the CA is realized by NP *somi* ‘worm’ (in the relative clause only) and by 3nsg O pronoun *mee* (in the predicate of both main and relative clauses).

As stated above, the CA can be in a core function in the main clause, or in peripheral function, marked by *jaa*, as in (24.9–10). In (24.9) the common argument *mato* ‘cord’ is in S function in the relative clause:

- (24.9) [[*mato*_S *seti* *na*]_{REL} *jaa*] *owa mee wete na*
 cord(f) be.seven AUXf PERI IsgO 3nsgA tie.up AUXf
 they tied me with seven cords (lit. with cords that were seven)

In (24.10) the common NP *hawi* ‘path, track’ is in O function in the relative clause (an O-construction):

- (24.10) [[*Manowaree*_A *hawi*_O *tii* *hi-ne-hete*]_{REL} *jaa*]
 name(m) path(f) cut Oc-AUX-RPnf PERI
tasi o-na-ma
 come.out IsgS-AUX-BACKf
 I came out onto the path which Manowaree had cleared

There is another example at T2.65, ‘the ant fell into (the gap at) the middle of the back of the top of his trousers, which could be seen’.

Chapter 20 described how the peripheral marker *jaa* can follow an NP or a nominalized clause. The *jaa* constituents in (24.9–10) lack the final *a > i* which is the mark of a nominalized clause, and in (24.10) we find a tense-modal suffix, something which is not permitted in a nominalized clause. This constituent is plainly an NP-plus-*jaa*, the NP being modified by a relative clause. This is also evident semantically. A *jaa* clause has the meaning ‘when, while, after, until’ whereas a *jaa* NP can mean ‘with’, as in (24.9), or ‘on(to)’, as in (24.10), or ‘in(to)’, as in T2.65. We could have a nominalized clause in (24.9) but it would then have the form [*mato sete ni*] *jaa owa mee wete na* and the meaning ‘when/while/after/until the cords were seven, they tied me up’; this is quite different from its actual form and meaning.

The relative clause construction is unusual within the grammar of Jarawara in that it has no explicit marking. In fact, it is recognized as a type of subordinate clause—with properties (1–5)—which bears no explicit marking (in contrast to a complement clause which is shown by final *a* being raised to *i*, or a dependent clause which is shown by final *-haaro/-haari* or in one of a number of other ways, etc.).

24.2 CONJUNCTION BY JUXTAPOSITION

Jarawara has no conjunctions, words for linking together two clauses to make one sentence. As described in the last few chapters, it does have a rich array of types of subordinate clauses, which translate some of the conjunctions from a language like English. To mention just a couple of examples.

- (a) Two English clauses joined by *because* or *since* may be translated by:
- a dependent clause construction, as in (18.4) ‘I hurried them up since I was hungry’;
 - a nominalized clause plus *jaa*, as in (20.38) ‘since there wasn’t a house (for Alan), we made a house for him’;
 - a nominalized clause plus *kaa*, as in (21.16) ‘because you’re staying here, we’re staying here (too)’; or
 - a clause followed by *ihi/ehene*, as in (22.19) ‘they are said to have grieved because Airowa had died’.

(b) A ‘when/while’ construction may be translated by:

- a dependent clause construction, as in (18.19) ‘they were standing, when we found them’; or
- a nominalized clause plus *jaa*, as in (20.33) ‘when Motobi had finished buying things, then I went following’.

There is, however, no explicit grammatical marking for straightforward conjunction (‘and’) or adversative conjunction (‘but’). We simply get two main clauses juxtaposed, to make up one sentence; that is, sentence-final prosodic marking—nasalization and rising intonation—only occur on the last clause in sequence. Examples translatable by ‘and’ include:

- (24.11) ha.haa hi-na; ka-ke-hemete-mone-ke
 REDUP.call Oc-AUXf in.motion-COMING-FPnf-REPF-DECf
 (he) called her; [and] she came, it is said

Note that this sentence begins with a transitive O-construction, and the pivot of this clause (the O argument) is identical with the S of the following intransitive.

A clausal juxtaposition translated by ‘but’ is at (6.39) ‘I’ll want to make a new garden, [but] I won’t be able to make a new garden, the summer won’t be long’ (that is, there won’t be enough dry season left to make a new garden by the time I arrive back home).

In (24.12) we have a sentence consisting of three juxtaposed clauses, with a common pivot ‘she’ (in S function in the first two clauses and in O in the third, an O-construction).

- (24.12) to-ko-misa-ra; to-ko-misa-habone;
 AWAY-in.motion-UP-NEGF AWAY-in.motion-UP-INTf
 bata hi-ka-ne-mete-mone-ke
 grab Oc-APPLIC-AUX-FPnf-REPF-DECf
 she hadn’t gone up (the tree, to escape his attentions); she intended to go up the tree (was just about to do it); (but) he is said to have grabbed hold of her

It is of course a necessary condition, if several main clauses are linked by juxtaposition to form one sentence, that they share a common pivot, as in (24.11–12) and (6.39). And mood marking may only be included on the last clause in such a sequence (it is possible but not obligatory there).

24.3 CONTRASTING THE PROPERTIES OF CLAUSE TYPES

Table 24.1 summarizes some of the main structural features of main clauses and of the various varieties of subordinate clauses. It will be seen that each clause type has slightly different properties. They also have different marking; for example, a complement clause is shown by final *a* being raised to *i* (gender is not marked in the predicate of this clause type), a nominalized clause by final *a* (marking f gender) being raised to *i*, a dependent clause by a variety of devices, and a relative clause by no marking at all. And they have different meanings.

All types of clause enter into the pivot chain of the part of discourse in which they occur, except for relative clauses and for nominalized clauses functioning as derived NPs.

Only a main clause may take clause-initial and clause-final elements (which may include a nominalized clause plus a postposition). Where a sentence involves two or

TABLE 24.1 Contrastive properties of clause types

	miscellaneous suffixes		tense-modal suffix	third pronominal position; secondary verb; mood suffix	is gender marked on predicate of clause?	form of 1sg, 2sg subject pronoun in clause
	echelons 1-4	echelons 5-6				
main clause	√	√	√	√	yes	<i>o-</i> , <i>ti-</i>
dependent clause (chapter 18)	√	√	√	—	yes	<i>o-</i> , <i>ti-</i>
relative clause (§24.1)	√	√	√	—	yes	not applicable ¹
nominalized clause (chapters 19-21)	√	√	— ²	—	yes	<i>o-</i> , <i>ti-</i>
clause followed by <i>ihi/ehene</i> (chapter 22)	√	√	rarely	—	yes	<i>o-</i> , <i>ti-</i>
clause in list construction (chapter 23)	√	?	seldom	—	no	<i>o-</i> , <i>ti-</i>
complement clause (chapter 17)	√	—	—	—	no	<i>oko</i> , <i>tika</i>

¹ There are no examples of a 1st or 2nd person subject in a relative clause.

² A nominalized clause cannot itself include any tense-modal specification but may be followed by a tense-modal suffix (lacking the initial *-hV-* syllable) just as an NP may be.

more main clauses in juxtaposition (as described in the last section) only the first can include clause-initial elements, and only the last can have mood marking and clause-final elements.

The major mark of a sentence boundary is prosodic—the final syllable is nasalized and bears rising intonation. This is found at the end of a postposed dependent clause, if there is one, or on a clause-final element (if this is sentence-final), or on a mood suffix (when this is sentence-final, which it most often is), or on a tense-modal suffix, or on a miscellaneous suffix or verb root, when sentence-final. There is occasionally a pause between the predicate and post-predicate elements in a sentence; when this happens, nasalization and rising intonation are found both on the end of the predicate and on the end of the post-predicate elements.

Jarawara is thus one of those rare languages where it is almost always possible unambiguously to recognize a sentence boundary, and where this is recognized on prosodic, rather than just grammatical, criteria. (See Miller 1995 for a general account of the difficulty of recognizing sentence boundaries in spoken language.)

24.4 THE *-ro/-ri* ENDING

A number of affixes and words in different parts of the grammar have their f form ending in *-ro* and m form ending in *-ri*. These are:

DISCUSSED IN

§6.1	recent past eyewitness (RPe) suffix	-ro/-ri
	far past eyewitness (FPe) suffix	-maro/-mari
§12.1	post-predicate demonstrative NPs	
	‘this one (visible)’	haaro/haari
	‘this/that one (non-visible)’	faaro/faari
§18.1.2	marking on post-predicate dependent clauses, when the pivot is 3sg and there is no tense-modal suffix	-(ha)aro/-(ha)ari
§21.1	peripheral marker	kaaro/kaari

F/m suffixes *-ro/-ri* are also found in other Arawá languages. Kulina-Dení is said to have *-ro/-ri* as ‘neutral aspect’ on verbs, while demonstratives and the interrogative ‘who’ end in *-ro/-ri*. In Sorowahá, the ‘neutral’ suffix on verbs is reported to be *-ro/-ri*.

We find similar f/m forms in languages from the unrelated Arawak family. The 3sg suffixal bound pronoun to a verb (marking object and stative subject) is typically *-ro/-ri*, while the 3sg prefixal bound pronoun to a verb (marking active subject) and to a noun (marking possessor) is typically *ro-/ri-* (Aikhenvald 2001: 172).

Word Class Derivations

Jarawara has a number of ways of changing the word class of a lexical stem—by reduplication, by suffixation, and by altering the quality of the final vowel. These are dealt with in terms of the word class of the derived stem—possessed nouns in §25.1, free nouns in §25.2, verbs in §25.3, and adjectives in §25.4. Compounding is briefly dealt with in §26.1.2.

25.1 DERIVING POSSESSED NOUNS

§11.1.2 discusses the historical origin of the forms of PNs, and also mentions—under (10) and (12) there—derivational processes. Recapitulating, there appears to be a semi-productive process for forming PNs by the addition of *-ri* or *-rine* (with the same form used for f and m) to an intransitive verb, a free noun, or an adjective. For example:

(25.1) verb *-sina-* have strong taste PN *sinari/sinari* strong tasting
 verb *-siri-* be cold PN *siririne/siririne* coldness

(These are PE9 and PE8 in the appendix to chapter 11. Other examples are at PA14, PCi5, PE10–12, PE14–16, and, speculatively, PCa5.)

(25.2) noun *atabo* clay PN *atabori/atabori* clay of
 noun *siki* sand PN *sikirine/sikirine* sand of

(These are PM6 and PM5. Other examples are at PD15, PH9, PJ5, and, speculatively, PB10. See also the discussion in §10.5.4 of free nouns *maki(ti)* ‘man, male’ and *fana(wi)* ‘woman, female’ and PNs *makitiri* ‘male’ and *fanawiri* ‘female’.)

(25.3) adjective *botee* old PN *boteri/boteri* oldness, ancestral

(This is PE13; see also §11.2.3. There are no other examples of this in the corpus.)

For a number of PNs, a form ending in *-ri* can be reconstructed for proto-Arawá; for example **jokhari-ni/jokhari-ne* > *jokari/jokari* ‘urine’ (this is PCg2). Here the modern-day free noun is *joka* (the form also used after *oko* ‘my’ and *tika* ‘your (sg)’). This suggests that the proto-language included a derivation from free noun *jokha* to PN root *jokhari*. Other examples are at PCc2 and PG5 (details of cognates in other Arawá languages can be found in Dixon 1995, forthcoming b).

There are about sixty PNs ending in *-ri/-ri* or in *-rine/-rine* for which no related verb, noun, or adjective (or cognate in another Arawá language) is attested. Some of these are likely to be derivations, with the forms from which they were derived either not in current use in the language, or just lacking from the corpus.

There are two PNs each of which is a compound of two simple PNs.

(25.4) *inohoti/inohoti* mouth (PCb6) from *ini/ino* teeth (PCb5)
 and *hoti/hoto-ne* hole (PB13)
jotohoti/jotohoti anus (PCc7) from *joti/joto* faeces (PCg1)
 and *hoti/hoto-ne* hole (PB13)

It is interesting that in each compound the first PN is in m form (which is also the proto-Arawá root form) and the second is in f form. The same sequence of genders is found in

PNs after a 1sg or 2sg possessive prefix; however, the similarity may be coincidental. The compounds are themselves PNs, with the same form for f and m. As mentioned in §11.1.3, *inohoti* behaves morphologically as an unanalysable root; compare the possessed forms: *o-w-ini* ‘my tooth’, and *o-nohoti* ‘my mouth’.

25.2 DERIVING FREE NOUNS

All derivations of free nouns (leaving aside compounds) come from verbs.

We can first note instances of a verb (plus its auxiliary, if it is of the non-inflecting variety) being used as a noun without any derivational process having applied:

(25.5) VERB			DERIVED NOUN			
(a)	-ajaka-	int	sing in ajaka style, usually with accompanying dance	ajaka	f	song; assembly at which ajaka songs are performed
(b)	-keje(ha)-	tr	trick, fool, tell a lie to	keje	f	a lie
(c)	-katoma-	tr	bother, fight against	katoma	f	anger
(d)	-hijara-	S = A	tell, speak (to)	hijara	f	story, conversation
(e)	mari -na-	S = O	feast on	mari+na	f	feast
(f)	tao -na-	S = O	shoot	tao+kana	f	gun
(g)	kabi -na-	tr	scoop up	kabi+kana	f	fish-hook

The nouns in (a–c), at least, are typically used as the O NP of *hiri -na-* ‘make’, i.e. *ajaka hiri -na-* ‘perform an ajaka song’, *keje hiri -na-* ‘tell a lie’, *katoma hiri -na-* ‘get angry’.

Note that (a–e) refer to the action described by the verbs whereas (f–g) refer to an implement used in the action. The nouns in (f–g) include applicative prefix *ka-*. With *tao -na-* this prefix indicates ‘one object’. With *kabi -na-*, the prefix *ka-* is said to indicate ‘scoop-up lots of water’; this sense of *ka-* may well not relate to the *ka-* in *kabi+kana* ‘fish-hook’.

The next group of verbs derived from nouns does involve a morphological process, that of reduplication. Some derived nouns simply involve initial CV. reduplication of a verb stem (with the auxiliary dropped from a non-inflecting verb). In (g) the miscellaneous suffix *-ma* ‘back’ is added to the verb.

(25.6) VERB			DERIVED NOUN			
(a)	tao -na-	S = O	play shuttlecock	ta.tao	m	shuttlecock
(b)	hori -na-	S = O	blow trumpet	ho.hori	f	trumpet
(c)	kosi -na-	S = O	whip, spank	ko.kosi	f	whip
(d)	-rawa-	S = O	cut (hair)	ra.rawa	f	hair-cutter
(e)	tisa -na-	S = O	shoot with arrow	ti.tisa	f	bow
(f)	-wasi(ha)-	int	get caught	wa.wasi	f	fish trap (in T3.52)
(g)	-kisa-	int	motion down	ki.kisa-ma	f	ladder
(h)	-tafa-	int	eat	ta.tafa	f	place where one eats, kitchen
(i)	amo-na-	int	sleep	a.'amo	f	place to sleep
(j)	-forI-	int	lie on raised surface	fo.fore	f	bed
(k)	baka -na-	S = O	break (e.g. branch)	ba.baka	f	preliminary trail made by breaking small branches to mark the route

Note that (a–b) refer to a cognate object, (c–g) to an instrument, (h–j) to a place, and (k) to a resultant thing. There is also one nominalization of this sort that involves initial CVCV.

reduplication (it is also an instrument):

(l) niki -na- tr squeeze niki.niki m pump torch (squeeze it to produce light)

Other nouns derived from a verb by reduplication include a noun, which was in O or S function for the verb:

(25.7)

	VERB + NOUN			DERIVED NOUN		
(a)	wii-na- + wami	S = O f	dig ground	wami + wi.wii	f	post-hole digger
(b)	jowi -na- + jama	tr f	sweep thing	jama + jo.jowi	f	broom
(c)	-hoti- + babeo	int f	have holes paper	babeo + na.na-hoti	f	paper punch
(d)	wari -na- + faha	S = O f	twist water	faha + wa.wari + ka-waha	f	tap, faucet
(e)	fawa -na- + ati	int f	disappear voice	ati + fa.fawa	f	on/off button (on radio, etc.)
(f)	bati -na- + makari	tr f	hold by pinching clothes	makari + ba.bati + ka-na	f	clothes peg
(g)	na-hato- + babeo	tr f	paint paper	babeo + na.na-hato	f	highlighter. magic marker
(h)	kero -na- + jama + hobokori	tr f PN	scoop up thing dust	jama + hobokori + ke.kero + ka-na	f	dustpan
(i)	howe -na- + jama	S = O f	clean out thing	jama + ho.howe + ka-na	f	rake
(j)	kaa -na- + awa	S = O f	chop wood	awa + ka.kaa	m	beetle that gnaws on wood
(k)	-wasi(ha)- + jamata	tr f	cook food	jamata + wa.wasi	f or m	cook
(l)	-mita- + ee + ati	S = O f	listen iinc voice	ee + ati + mi.mita	f	microphone
(m)	baka-na- + afiao	tr m	pay plane	afiao + ba.baka	f	plane fare
(n)	-rawa- + farina	S = O f	toast manioc meal	farina + ra.rawa	f	shelter in which one toasts manioc meal
(o)	sii(to-)na- + kanawaa	int f	sit/stand (pl inan S) canoe	kanawaa + si.sii + to-na	f	place where canoes stay
(p)	forI + ee + tati	int iinc PN	lie on raised surface head	ee + tati + fo.fore	f	pillow (lit. place where we lay our heads)

Note that the nominalization describes an implement in (*a-i*), an animate or inanimate agent in (*j-l*), a sum of money in (*m*), and a place in (*n-p*). (The applicative prefix *ka-* is included in the derived noun in (*d*), (*f*), (*h*), and (*i*); the causative prefix *na-* in (*c*), miscellaneous suffix *-waha* ‘now, the next thing’ in (*d*).) In (*k*), *jamata+wa.wasi* ‘cook’ can have f or m gender, depending on the sex of the person referred to. Both elements in (*m*) are loans from Portuguese, *baka* from *pagar* ‘pay’, and *afiao* from *avião* ‘plane’.

The derivations exemplified in (25.6–7) have a degree of productivity.

Another morphological process which derives a noun from a verb involves raising a final *a* of the verb or auxiliary to *e*; (25.8) is the only simple example noted of this type of derivation: (25.8) *jete -na-* (tr) ‘hunt (game)’; *jete+ne* (m) ‘teenage boy (i.e. just old enough to hunt)’

Other nominalizations of this kind include a noun that was in S or O function for the underlying verb:

(25.9) VERB + NOUN				DERIVED NOUN		
(a) -fowa-	int	water	floods	faha+fowe	f	wet season, year
+ faha	f	water				
(b) -hiwa-	int	be hot		jama+hiwe	f	hot weather, summer
+ jama	f	thing				
(c) kabi -na-	tr	scoop up		faha+kabi+ne	f	port (where one scoops up water)
+ faha	f	water				
(d) -kaba-	S=O	eat		fowa+kabe	m	sweet manioc
+ fowa	m	bitter manioc				

Note that bitter manioc (*fowa*) requires lengthy preparation, whereas sweet manioc can be eaten with very little preparation; its name, *fowa.kabe*, is literally ‘edible manioc’.

Many place names involve an *a > e* derivation. (25.10) includes a noun that is in A function for the underlying verb:

(25.10) VERB + NOUN				DERIVED NOUN		
-kaba-	S=O	eat		jomee+kabe		place where a jaguar ate,
+ jomee	m	jaguar				see (13.12)

The corpus includes two examples of a nominalization being based on the shortened form of the stem of a non-inflecting verb:

(25.11) VERB + NOUN				DERIVED NOUN		
(a) tabaja -na-	tr	press down		ijawa+tabe	f	manioc cake made by pressing down ijawa in a ceramic pot and then roasting it
+ ijawa	f	grated manioc meal				
(b) tabaja -na-	tr	press down		jiwaha+tabe	f	ceramic pot used for making manioc cake
+ jiwaha	f	ceramic pot				

There is one example of a verb ending in *i* and a nominalization ending in *e*:

(25.12) -siri- (int) ‘be cold’; sire (f) ‘coldness, a cold spell’

§25.1 mentioned the PN *siririne/siririne* based on *-siri-*. This refers to coldness brought on by something, e.g. *faha* (‘water’) *siririne* ‘a cold spell brought on by rain’.

25.3 DERIVING VERBS

There are a number of verbs cognate with PNs. In most instances, the verb has the same form as the original PN root in proto-Arawá. For example:

- (25.13) PROTO-ARAWÁ PN MODERN PN VERB
 *ino-ni/ino-ne ini/ino tooth -ino-, int be sharp
 (This is PCb5 in the appendix to chapter 11. Further examples include PA5–6, PB2–3, PCb3, PD2, PE2–3, PF1–2, PG1, PH8, and PL2.)

In some cases we can tentatively infer the original form of a PN from the form of a related verb. For example, on the basis of intransitive verb *-tafa-* ‘eat’, we can suggest that the modern PN *tafe/tefe* ‘food’ (PL1) is likely to go back to **tafa-ni/tafa-ne*. Similar examples are at PA3–4, PB1, PD6, PH5–6, PJ3, PK3, and PK10.

A few verbs appear to be derived from a PN through initial CV. or initial CVCV. reduplication:

- (25.14) PN VERB
 ibe/ibe piece (PB4) i.'ibe -na- int be reduced to a piece
 tone/tone bone (PCa2) tone.tone -na- int be skin-and-bones
 tase/tesene companion of (PH2) te.tesene to-ha- int go with someone

There are a few examples of a verb being derived by initial CV. reduplication from a free noun and one of derivation from an adjective:

- (25.15) FREE NOUN VERB
 kahana f cane whisky ka.kahana -na- int be dizzy
 makiti m man ma.makiti -na- int be like a man
 fanawi f woman fa.fanawi -na- int be like a woman
 ADJECTIVE
 hinita empty, alone hi.hinita -na- int (water) be empty of fish

When a speaker was explaining that the word *ikeresa* ‘church’ (a loan from Portuguese *igreja* [igréʒə]) has f gender while the native word *jobe* ‘house’ has m gender, he said:

- (25.16) [ikeresa ini]_S fa.fanawi-ke; [jobe ino]_S
 church(f) name+f be.like.a.woman-DECf house(m) name+m
 ma.makiti-ka
 be.like.a.man-DECm
 the name ‘ikeresa’ (for ‘church’) is like a woman; the name ‘jobe’ (for ‘house’) is like a man

As described in chapter 9, there is a rich and productive system of verbal reduplication. Each type of reduplication has its own semantic effect. However, there are a number of reduplicated verbs that have a specialized meaning which could not quite be predicted from the meaning of the underlying verb and the meaning of the type of reduplication involved.

They include:

(25.17)

(a)	-hija- (generally used with negative suffix -ra)	int	be bad	hi.hija -na- int	get hurt
(b)	bojo -na-	O	reach, touch	bo.bojo -na- tr	feel (someone) to see if they have a fever
(c)	horo -na-	tr	drag	ho.horo -na- tr	rake
(d)	tomi ka-na (note that there is a PN tome/tomene ‘size, measuring thing’)	tr	measure, be equal in measure to	to.tomi -na- tr	try

A number of interjections can be used as verb, with auxiliary *-na-*; for example:

(25.18) INTERJECTION VERB

hima	let’s go	hima -na-	tr	say ‘hima’ to—example at (14.6)
bowa	good-day	bowa -na-	tr	say ‘bowa’ to (loan from Portuguese <i>boa</i>)

Kin terms can also be used in a similar way, for example:

(25.19) KIN TERM VERB

abi	father	abi -na-	tr	call [someone] father
-----	--------	----------	----	-----------------------

A number of lexemes can be used both as free noun and as verb. In (25.5) of §25.2, some that appear to be basically verbs with secondary use as a noun were listed. Grammatical criteria for this decision include:

- for (*f-g*) of (25.5) the noun includes verbal auxiliary plus applicative prefix *ka-*;
- for (*a-c*) of (25.5), at least, the derived noun can be O for *hiri -na-* ‘make’, which appears to be a typical property of derived action nouns.

There are other lexemes with double function where it is difficult to decide what the primary word class membership is (if, indeed, one of them should be taken as primary with respect to the other). I tentatively suggest that the following are primarily nouns that have secondary use as verbs (but I do not, as yet, have grammatical support for this feeling).

(25.20) NOUN VERB

(a)	karaboha	f	blowgun	-karaboha- tr	shoot an animal (O) using a blowgun
(b)	fana	f	woman	-fana- int	get married (note that the S argument can refer to a man or a woman)
(c)	bosaro	f	a sore	bosaro -na- int	have sores
(d)	nano	f	manioc squeezer	nano -na- S=O	squeeze manioc in a nano squeezer
(e)	atabo	f	mud	-atabo- int	be/get muddy

Note that there is a PN *atabori/atabori* ‘clay of’ (PM6 in appendix to chapter 11), which in (25.2) was taken to be derived from the verb *-atabo-*.

25.4 DERIVING ADJECTIVES

As described at the end of §11.2.1, there are two processes for deriving adjectives from verbs:

- (i) The suffix *-bote* can be added to a number of stative intransitive roots (all of the inflecting type); it both derives an adjectival stem and adds an intensive meaning, ‘very’. For example, verb *-kita-* ‘be strong’, adjective *kita-bote* ‘very strong’; verb *-amosa-* ‘be good’, adjective *amosa-bote* ‘very good’.
- (ii) The suffix *-wi* is attested with just one verb *-amosa-* ‘be good’, deriving adjective *amosa-wi* ‘extremely good’.

There are a few examples of lexemes with the same or similar form, and similar meanings, which belong to different word classes where it is difficult to determine a direction of derivation. These include:

(25.21)	ADJECTIVE		VERB		
(a)	jati	new, young	jati -na-	int	be alive; be raw (not sufficiently cooked)
(b)	botee	old	-boto-	int	be old
(c)	howe	large kind	-howari-	int	grow, intensify

The forms are identical for (a), but differ at the ends of words in (b–c).

Topics in Semantics

The semantic content of the small closed class of adjectives was discussed in §11.2, that of the larger class of PNs in §11.1, and that of kinship nouns in §10.4.1. This chapter begins with short sections on generic nouns and on compound nouns (in §26.1). Then, §26.2 deals with verbs: number-related suppletive forms, inflecting and non-inflecting subclasses, transitivity subclasses, the relation between semantic roles and syntactic functions, some semantic characteristics of verbs, illustrations of a number of semantic sets, and a brief note on verbal idioms. In §26.3 there is a short note on formulaic expressions.

26.1 NOUN SEMANTICS

As mentioned in §3.3.2, the great majority of free nouns have concrete meaning. The corpus includes just a couple of abstract nouns—*nokobisa* ‘sleepiness’ and *bakasi* ‘thirst’ (hunger is expressed by a verb, *-fimi-* ‘be hungry’). Other concepts which are expressed by abstract nouns in a language like English are coded by verbs in Jarawara; for example, English *joy* would be translated through the Jarawara verb *jajai -na-* ‘be happy’. (But note that there are some abstract PNs, mostly derived from verbs; for example ‘coldness’, ‘heaviness’—see PE7–14 in the appendix to chapter 11.)

A number of bird names (and perhaps some names of other creatures) are onomatopoeic. To mention just one example, a night hawk which likes to perch on roofs on a moonlit night calls out its name, *tobero*.

26.1.1 Generic nouns

There appears to be a small set of nouns with generic reference (they have no special syntactic functions, behaving just like other free nouns). The main ones are:

(a) *Bani* covers all non-aquatic (non-domestic) edible animals. All mammals and birds are considered potentially edible and can be described as *bani*; snakes and lizards are not. Turtles are classed as *bani* (being cold-blooded members of the class) but speakers state that alligators are not (although they can be eaten) since they live almost entirely in the water. If a noise is heard in the forest, people will call out ‘*bani*’ if they do not know what type of animal is moving around; but once the creature is identified it would be referred to by its specific name.

(b) *Aba* is the name for *matrinxão*, the most common (and most liked) species of fish for the Jarawara. This noun can also be used as a generic term for ‘fish’. When it is necessary to distinguish between generic and specific senses, adjective *jokana* ‘real, prototypical’ is added to indicate reference to *matrinxão*—*aba jokana*, the prototypical type of *aba*.

(c) *Maka* is the generic label ‘snake’, used when the type of snake cannot be identified. Once it is, a specific name should be applied. Note that *maka.jokana* (the generic term plus adjective *jokana* ‘real, prototypical’) is used for the highly dangerous *jararaca* (fer-de-lance) snake.

(d) *Awa* can roughly be glossed ‘tree’. It is used to describe most things that are covered by *tree* in English but not all—*awa* is not used for palms, an indication of the special status that palms are accorded in the Jarawara taxonomy. *Awa* has a narrower semantic range than *tree* in this respect but it is wider in another way, being also used for ‘wood/timber’, ‘stick’, and ‘log’.

(e) *Jama* is the generic term par excellence. The normal gloss offered is ‘thing’. It can be used for any new object or foodstuff, for which a name is not known, or simply as a vague term instead of employing a more specific name. *Jama* can be used for ‘season’ or ‘time’. For instance, ‘night’ is *jama soki*, literally ‘thing which is black’, and the cold just before dawn is *jama.siri-make*, literally ‘thing which is cold following’; and see (b) in §26.2.5. *Jama* can be used to refer to the forest (a more specific name is *jama.kabani*; no etymology is known for *kabani*) or to game in the forest, or to the spirits of the forest. *Jama* can also be used to refer to fishes in the river.

A PN is generally used with a free noun; *jama* is often the ‘dummy head’ with a PN. For instance, free noun X plus PN *abe/ebene* is ‘living being associated with X’, e.g. the people inhabiting a place called X. A flea or tick that is found on a dog can be described as *jomee ebene* (lit. creature associated with dog). Insects in general can be described as *jama abe*, literally ‘creatures associated with a thing’, using *jama* in its most general sense. Modern-day writing is *jama hani*, with *jama* modified by the f form of the PN *hani/hano* ‘design, decoration, picture’. And note that the term for vagina is *jama noko*, literally ‘thing eye’. (*Jama* has f gender and *noko* is here the m form of PN *noki/noko* ‘eye’; but note that *noko* is the root form reconstructed for proto-Arawá.)

The wide range of meaning and use of *jama* is exhibited in one sentence from a text which has *jama* as its A argument and also *jama* as its O argument (but with different reference): *jama jama firi kasa* ‘the thing (here, lightning flash) fully illuminates the thing (here, a dead body)’ (*firi -na-* is the verb ‘to illuminate’ and *-kasa* is a miscellaneous suffix ‘a lot at once’).

26.1.2 Compound names

Generally, each species of flora and fauna has a distinct monomorphemic name. Thus, each of the twelve or so species of monkey has a distinct name and there is no morphological or phonological link between these, e.g. *bijo* ‘spider monkey’, *majawari* ‘dusky titi monkey’, *wafa* ‘woolly monkey’, *jiko* ‘howler monkey’. The same applies to most species of birds, fishes, insects, and plants.

There are, however, a number of compound names. For instance, four related species of wasp are called:

NAME OF VARIETY	SECOND ELEMENT		
awani.biri	biri	adjective	small type
awani.so.soki.biri	so.soki -na-	intr verb	be black
awani.noko.jifori	noki/noko	PN	eye, face
	jifori/jifori	PN	tail
awani.totoro	to.toro -na-	intr verb	be short in length

The four kinds of wasp are called, literally, ‘small type of wasp’, ‘small and black type of wasp’, ‘tail-face wasp’, and ‘short wasp’.

The Jarawara have a monomorphemic cover term for each of the common garden plants; for example, *sami* ‘pineapple’, *jifari* ‘banana/plantain’, *biha* ‘yam’, *fowa* ‘manioc’, *kimi* ‘maize,

sweet corn'. But they do carefully distinguish every possible subspecies and variety of these plants. There are a dozen names for varieties of banana and plantain (all beginning with *jifari*), six for types of yam (*biha*), sixteen for varieties of manioc (*fowa*), and so on. For instance, the three varieties of sweet corn (maize) are called:

NAME OF VARIETY	SECOND ELEMENT		
kimi.sawa	-sawa-	intr verb	be white
kimi.mawara	mawara -na-	intr verb	be red
kimi.hanori	-hano-	intr verb	be striped

The variety *kimi.hanori* has yellow and white stripes.

The names of varieties of pineapple are:

NAME OF VARIETY	SECOND ELEMENT		
sami.jokana	jokana	adjective	real, prototypical
sami.noki.howe	noki/noko	PN	eye, face
	howe	adjective	large type
sami.jao	jao	noun (m)	sloth species
sami.majawari	majawari	noun (m)	dusky titi monkey
sami.tati.jori	tati/tati	PN	head
	zoriri -na-	intr verb	slide down
sami.tati.jabo	-jabo-	intr verb	be far, long
sami.akina	< not known outside this compound >		
sami.takawi	< not known outside this compound >		
sami.kamijaka			

Kamijaka is not attested as a free noun but it recurs as the second element of another compound, *fowa.kamijaka* 'manioc species'. When quizzed about this, speakers opined that *kamijaka* is 'just a name', there being nothing in common between *sami.kamijaka* and *fowa.kamijaka*. In similar fashion, there is no consistent explanation for why *sami.jao* involves *jao*, the name for a type of sloth, nor why *sami.majawari* includes *majawari*, the name for dusky titi monkey. Other names are descriptive; for example *sami.tati.jabo* has a long head. (*Sami.akina* and *sami.takawi* are said to be alternative names for the same variety of pineapple.)

There are some further types of compound. For example *inohowe* 'alligator (m)' involves PN *ini/ino* 'teeth' and adjective *howe* 'large type' (literally '(with) a large type of teeth').

26.2 VERB SEMANTICS

All languages code roughly the same set of general concepts (with the addition, for each individual language, of specific concepts related to the beliefs, lifestyle, social organization, economic system, etc. of its community of speakers). However, these may be realized in different ways. For example, it was mentioned in §1.1 that many ideas which are expressed by specific prepositions in other languages may be shown by PNs in Jarawara (for example PN *bofe/bofe* 'part below' for 'under'). And most of the concepts placed in the adjective class for a language with a large class of adjectives are coded as verbs in Jarawara—'be good', 'be hot', 'be black', and many more.

The range of meaning of a lexeme will also differ between languages. For example, the Jarawara verb *hoo -na-* refers to a person snoring and to a dog growling. The verb *growl* in

English describes the threatening noise made by a dog or by thunder. Jarawara uses a quite different verb, *-foro-*, for thunder growling.

In the early stages of understanding a language one may be given, or may infer, a single-word gloss. For instance, the Jarawara verb *-awa-* has a very similar meaning to English *see*. But *-awa-* can take, as O argument, *bakasi* ‘thirst’ or *nokobisa* ‘sleepiness’. Does that mean that in Jarawara one literally ‘sees thirst’ and ‘sees sleepiness’? Not at all. These examples simply show that ‘see’ is not an adequate indication of the range of meaning of *-awa-*. A better gloss is ‘see or feel (internally)’—the Jarawara describe being thirsty or sleepy by saying that they ‘feel sleepiness’ or ‘feel thirst’.

Sometimes an investigator from another culture may come across a form which appears to have two distinct meanings, suggesting that homonyms are involved. However, further investigation often shows that one has in fact a single lexeme with a range of meaning (just the extreme points of the range may have been evident at first). Consider the Jarawara verb *hasi-na-*. This is used to describe a person having a rest in their hammock. Or to describe an animal that survives an attack (it has been shot at but the bullet or arrow misses). A third sense—linking these two and demonstrating that a single lexeme is involved—is ‘breathe’; this appears to be the prototypical sense. When one rests one simply breathes (doing nothing else), and when an animal survives an attack it is still breathing.

Every language includes a certain amount of onomatopoeia and sound symbolism (often, more than is acknowledged). A number of verbs in Jarawara are clearly onomatopoeic, the most obvious being:

haa.haa -na-	int	laugh	(cf. English imitative ha-ha)
hatisa -na-	int	sneeze	(cf. English imitative atishoo)
toho -na-	int	cough	

and perhaps also:

ohi -na-	S = A	cry, sob, weep (for)
barawa -na-	int	burp
hoo -na-	int	(person) snores, (dog) growls

As in very many other languages, verbs referring to blowing involve a bilabial fricative. We get (bearing in mind that in the Jarawara orthography *f* represents a voiceless bilabial fricative):

afo -na-	S = A	blow
foo -na-	S = A	blow into, blow out (e.g. candle)
fora -na-	S = O	blow out (e.g. dart from blowgun, which is shot at a target)

and also perhaps:

firo -na-	S = O	spit out/onto/at
-----------	-------	------------------

Recall, however, from §§2.1–2, that the back vowel /o/ and the labial-velar semi-vowel /w/ involve no lip rounding. The verb ‘whistle’ (of a person or an animal) is *kowa-na-*; the lips are quite flat throughout the pronunciation of this word. The way of describing someone rounding their lips to whistle is by [*fofowi boni/bono*]_S *ati-na-*. Here the S argument for the verb *ati-na-* ‘say, make noise’ includes the PN *boni/bono* ‘upper lip, beak’ added to *fofowi*, which is not attested outside this idiom. Although *fofowi* is used to describe rounding the lips, it is pronounced with the lips entirely flat. It appears that *kowa* and *fofowi* do not involve sound symbolism.

As mentioned in §4.1, certain verb roots appear always to require a particular affix, so that the root-(plus-auxiliary)-plus-affix combination should perhaps be regarded as a lexical entry. For example, *tara -na-* ‘trip, stumble’ appears to require applicative prefix *ka-*, so that it is *tara ka-na-*. There is a verbal root *-kome-* which is only attested either with applicative prefix *ka-*, giving intransitive *ka-kome-* ‘be scared, afraid’, or with causative prefix *na-*, giving transitive *na-kome-* ‘be scared of, fear’. However, there are verbs which always occur with one of a set of suffixes in texts but can be elicited alone; for example *-foto-* ‘come out, emerge’ generally takes a miscellaneous suffix from slot F1c (*-kI* ‘coming’, *-ma* ‘back’, *-makI* ‘following’, or *-witI* ‘from a place’), although—when I explicitly enquired—a sentence such as *Okomobi foto-ka* ‘Okomobi came out’, without any miscellaneous suffix, was easily accepted.

(Four verbs which must take negative suffix *-ra* were mentioned in §7.3.)

26.2.1 Suppletive verb forms

Jarawara has almost twenty verbs with suppletive forms depending on the number reference of a core argument. As is virtually always the case (see Durie 1986, Dixon 1994: 55), the relevant argument is S for an intransitive and O for a transitive verb. It is convenient to discuss these suppletive verbs in batches, according to their semantic nature.

There are three intransitive verbs of lying depending on whether the referent of the S argument is lying (i) on the ground; (ii) on a raised surface—for instance, on a log, on a table, on the floor of a house, on a bed, or clothes on a line; or (iii) in the water. The forms are:

(26.1)	SG S	DU S	PL S
lie on ground	-homa-	} mata -na-	soo (to-)na(-sa)
lie on raised surface	-forI-		
lie in water	hofa- ~ -fowa-}		

The sg form for ‘lie in water’ itself has suppletive forms: *hofa-* is used when there is no prefix and *-fowa-* when there is a prefix. For du and pl S the same form is used for all three kinds of lying, *mata -na-* and *soo -na-* respectively. However, the type of lying is still distinguished, in du and pl—miscellaneous suffix *-rI* is included for ‘raised surface’ and *-ⁱfI* for ‘water’. For lying on the ground, nothing is added to *mata -na-*. The verb *soo (to-)na(-sa)* must take prefix *to-* and suffix *-sa* when there is no suffix *-rI* or *-ⁱfI* (and no causative prefix *niha-*). Paradigms illustrating this are at (5.27–9), as part of the discussion of miscellaneous suffixes *-rI* and *-ⁱfI*.

Note that the sg form *-forI-* appears to include the raised surface suffix *-rI*; however, the form *-fo-* is not attested outside *-forI-*. The *-fa-* in *-hofa-* appears to be etymologically related to *faha* ‘water’.

Corresponding to these three intransitive verbs of lying are two transitive verbs of putting—one verb covers both ‘ground’ and ‘raised surface’ while the other relates to ‘water’:

(26.2)	SG O	DU O	PL O
put on ground/put on raised surface	-iba-	} mata -niha-	soo (to-)niha-
put in water	-ibofa-}		

The miscellaneous suffix *-rI* ‘raised surface’ can be added to *mata -niha-*, *soo -niha-*, and also to *-iba-*, to describe putting something on a raised surface; and *-ⁱfI* can be added to the du and pl

verbs for putting more than one thing in water. The lack of one of these suffixes with *-iba*, with *mata-niha-*, and with *soo (to-)niha-* indicates putting something on the ground.

Note that the du and pl forms here are simply causative versions of the nsg intransitive lying verbs *mata-na-* and *soo-na-*; they include the causative prefix *niha-*, after which auxiliary *-na-* drops. Note that once again the sg verb to do with water, *-ibofa-*, includes *-fa-*, presumably etymologically related to *faha* ‘water’.

The intransitive/transitive pair ‘be inside’/‘put inside’ has interesting forms:

(26.3)	SG S/O	DU S/O	PL S/O
be inside (int)	-foja- }	tee -na-	{ -kibI-
put inside (tr)	-ibI- }		{ -na-kibI- or tee -na-

Note that the transitive pl can either be *-na-kibI-*, the causative form of intransitive pl *-kibI-*, or *tee -na-*. The verb *tee -na-* is unusual in that we find a single form functioning as du intransitive, du transitive, and pl transitive. However, for the duals younger speakers gave, in place of *tee -na-*, *mata-na-* corresponding to *-foja-* and *mata-niha-* corresponding to *-ibI-*; that is, they gave the intransitive and transitive duals from (26.1–2).

Let us now examine the suppletive forms for verbs ‘sit’ and ‘stand’ (note that the stance verb ‘sit’ can also have a more general sense ‘stay’, and that ‘stand’ (sg S) has form *-wa-* if it bears a prefix or ‘raised surface’ miscellaneous suffix *-rI*, and *-waa-* in all other circumstances—see §4.5.2):

(26.4)	SG S	DU S	PL S
sit, stay	-ita- }	joro -na- ~ teme -na-	[animate S: -naho-
stand	-wa(a)- }		[inanimate S: sii -na-

For du S there are two forms, *joro -na-* and *teme -na-*, which appear to be in free variation. Speakers assert that one could always be substituted for the other. (It is possible that detailed examination of their occurrence in a large body of texts would reveal some preferences for occurrence with different kinds of S argument.)

For pl S the same form is again used for both ‘sit, stay’ and ‘stand’ but a different verb is used depending on whether the S argument is animate (*-naho-*) or inanimate (*sii -na-*). Transitive forms ‘put sitting’ and ‘put standing’ are formed from the corresponding intransitive by adding causative prefix *na-/niha-*.

There is one other stance verb, which also has distinct number forms:

(26.5)	SG S	DU S	PL S
be hanging from a hook, lie in a hammock	-wina-	-wata-	-wina-

This verb describes anything (e.g. a hat or coat) hanging from a hook, but not anything hanging on the back of a chair, over the edge of a table, or on a washing line (these would be described by ‘lie on a raised surface’ verbs, from (26.1)). Prototypically, it describes a hammock hanging from two hooks and, by extension, a person lying in a hammock. Since lying in a hammock is the prototypical activity one does at home, a further extension of meaning of this verb is ‘live (at a place)’. Interestingly, the same form, *-wina-* is used for both sg and pl S and a different form, *-wata-*, for du S. This may relate to the fact that two people lying together in a hammock (husband and wife, or two children, or any two people) is a rather particular type of activity. The du form, *-wata-*, is used for any type of S—including, for instance, two hats hanging on a peg. Transitive correspondents ‘put hanging on a peg, put lying in a hammock’ involve the addition of causative prefix *na-*: sg and pl *na-wina-* and du *na-wata-*.

The remaining verbs with suppletive roots have distinct sg and pl forms, but no separate du. First there are two intransitive verbs:

(26.6)		SG S	PL S
	be big, be much	-nafi(ha)-	-fota-
	fall to the ground	-sona-	foro -na-

The verb *-nafi(ha)-* has a cognate PN, *nafi/nafi* ‘all’ (PB1 in the appendix to chapter 11). As noted under (II*d*) in §4.5.2, the verb *-sona-* reduces to *-sa-* with a pronominal prefix (*o-sa* ‘I fall’, *ti-sa* ‘you fall’) unless the miscellaneous suffix *-rI* ‘raised surface’ is also included; and it reduces to *-so-* after applicative prefix *ka-* or causative prefix *na-*.

There are five transitive verbs with suppletive sg/pl forms depending on the number of the O argument:

(26.7)		SG O	PL O
	take out	-iti-	-jaba-
	pierce	-ita-	saka -na-
	kill	-na(a)boha-	waka -na-
	throw	koro -na-	were -na-
	hold in the hand	tama -na-	bokori -na-

Note that there is an alternative verb for ‘kill’, *-na(a)habi-*, which can be used whatever the number of the O (see class 7 under (I) in §4.5.2).

Finally, there are two S = O ambitransitives with suppletive sg/pl forms depending on the number of the S or O argument:

(26.8)		SG S OR O	PL S OR O
	roast, fry	-ibana-	-joka-
	tie onto hook (e.g. hammock)	-kaho-	sere -na-

Speakers explain that the pl for ‘tie hammock’, *sere -na-*, could be used when a man ties up the hammocks for each member of his family, on arriving at a new place.

For a du S or O of the verbs in (26.6–8), the miscellaneous suffix ⁱ*kima* ‘two (S or O)’ can be added to either the sg or the pl form. For example, alongside the sg O clause in (26.9*a*) and the pl O clause in (26.9*b*), we can have either (26.10*a*) or (26.10*b*) for indicating a du O argument.

(26.9*a*) Soki_A aba_O ibana-ka
 name(m) fish(m) roast(sg O)-DECM
 Soki is roasting a fish

(26.9*b*) Soki_A aba_O mera joka-ka
 name(m) fish(m) 3nsgO roast(pl O)-DECM
 Soki is roasting several fish

(26.10*a*) Soki_A aba_O mera ibani-kima-ka
 name(m) fish(m) 3nsgO roast-TWO-DECM
 Soki is roasting two fish

(26.10*b*) Soki_A aba_O mera joki-kima-ka
 name(m) fish(m) 3nsgO roast-TWO-DECM
 Soki is roasting two fish

There is a difference of usage between the stance verbs in (26.1–5) and the remainder in (26.6–8). For the stance verbs, which generally have three separate number forms, a

distinction is made by all speakers between sg, du, or pl S or O. But with the verbs in (26.6–8), which only have sg and pl forms, some of the pl forms appear to be falling into disuse. Younger speakers, in particular, will sometimes use the sg form for any number of referents, for example, *-kaho-* in place of *sere -na-* for tying up several hammocks.

26.2.2 Inflecting and non-inflecting subclasses

On formal grounds, verbs divide into two subclasses—inflecting, verbs which themselves accept prefixes and suffixes, and non-inflecting, verbs which take no affixes (excepting the inner suffix distributive *-ri*, see §4.5.3) but take a *-na-* or *-ha-* auxiliary to which affixes are attached.

In the corpus of about 700 verbs, just on one-third are inflecting. Of the non-inflecting forms, only about a dozen take auxiliary *-ha-*, the remainder being followed by *-na-*. There is, in the corpus, just a little overlap between subclasses (a lengthier study would be likely to uncover further overlaps). Since there are so few verbs taking *-ha-*, it will be useful to list them all, together with attested examples of overlap.

(i) Seven verbs have been noted which are always non-inflecting, with auxiliary *-ha-*; all are intransitive.

hawa -ha-	be accomplished; what was set out to be done has been done
kita -ha-	be tall
maa -ha-	be tired
tafo -ha-	be soft
tai -ha-	be in front, be ahead
tanako -ha-	be sweaty, perspire (note PN tanakone/tanakone, sweat, PE ₃)
tetesene -ha-	go with someone (note PN tase/tesene, companion of, PH ₂)

(ii) Three lexemes occur both as an inflecting verb, and as a non-inflecting verb with *-ha-*; all are intransitive.

-atabo-, atabo -ha-	be muddy
-bisa-, bisa -ha-	be dirty, be cloudy
-siri-, siri -ha-	be cold

I was told that both *-siri-* and *siri -ha-* can be used of, say, water that is cold and also of a person who is cold. But, in the case of a person, *-siri-* is employed when somebody suddenly feels cold after having been hot, and *siri -ha-* when someone is really cold, shivering all over. (No meaning differences between *-atabo-* and *atabo -ha-*, or between *-bisa-* and *bisa -ha-*, have been discovered, as yet.)

(iii) One verb can be intransitive and inflecting, or transitive and non-inflecting with *-ha-*.

-manako-, int	be the exchange (for something), be the price
manako -ha-, tr	exchange, or pay back (including: fighting, sending a return message)

And note the cognate PN *manakone/manakone* (< **manako-ni/manako-ne*) ‘exchange, recompense, price’ (PH₈).

(iv) One verb is attested with both *-ha-* and *-na-*, the difference in auxiliary carrying a difference in transitivity.

afi -ha-, int	be wet
afi -na-, S = O and S = A	bathe

- (v) The verb *-bija-* ‘be angry, upset’ is quite unusual. It occurs in no less than four guises:
- as a non-inflecting verb with auxiliary *-na-*, *bija -na-*, but then must take both applicative prefix *ka-* and causative prefix *niha-*, giving transitive *bija ka-niha-* ‘be angry with (someone)’;
 - as a non-inflecting verb with auxiliary *-ha-*, but then always takes applicative prefix *ka-*, giving intransitive *bija to-ka-ha-* ‘get angry’;
 - as an inflecting verb with initial CV. reduplication, *bi.bija -na-* ‘get a bit angry’, also intransitive;
 - as an inflecting verb with suffix *-misa* ‘up’, giving *-bija-misa-*, also intransitive and meaning ‘get very upset, have a temper tantrum (as a child does)’.

Note that in none of these can verb root *bija* be used as is, only with some affix or reduplication.

As pointed out before, there are many homonyms in Jarawara, often from the same word class. For example, the transitive verbs *maa -na-* ‘stop’ and *tai -na-* ‘press down with foot’ are not related to intransitives *maa -ha-* ‘be tired’ and *tai -ha-* ‘be in front, be ahead’ from (i) above. Nor could one suggest any connection between *-tama-* ‘be many’ and *tama -na-* ‘hold in the hand’, among many other examples. There are, however, a few pairs which show similar meanings and do appear to be related. For example:

- | | | | |
|-----|------------------|-------|--------------------------------------|
| (a) | <i>-jana-</i> | int | be born, grow |
| | <i>jana -na-</i> | int | begin, start, set out, leave, get up |
| (b) | <i>-hiwa-</i> | int | be hot |
| | <i>hiwa -na-</i> | tr | heat something |
| (c) | <i>-ati-</i> | int | make noise (e.g. thunder) |
| | <i>ati -na-</i> | S = A | speak, say |

It appears that all Arawá languages share a distinction between inflecting and non-inflecting verbs. The only language for which a full grammar and dictionary have been produced is Paumari. In this language, a number of lexemes are reported to occur both as an inflecting verb and as a non-inflecting verb (taking auxiliary *-ni-*, which is certainly cognate with Jarawara *-na-*). In their grammar, Chapman and Derbyshire (1991: 336) quote:

INFLECTING VERB		NON-INFLECTING VERB	
<i>-bada-</i>	work quickly (to finish job)	<i>bada -ni-</i>	work
<i>-khara-</i>	have a hole through it	<i>khara -ni-</i>	be hollow
<i>-mitha-</i>	hear	<i>mitha -ni-</i>	listen to
<i>-pavakari-</i>	buy	<i>pavakari -na-</i>	sell

Chapman has stated (p.c.) that there are in fact many more such pairs and, indeed, further examples may easily be found in the Paumari dictionary (Chapman and Salzer 1998).

More comparative data is needed from other Arawá languages, but it can be tentatively suggested that in proto-Arawá many verbs may have occurred in both inflecting and non-inflecting form, with a principled difference in meaning. During the development to Jarawara, the subclasses polarized and today the great majority of verbs are either just inflecting or just non-inflecting.

The subclass of inflecting verbs (numbering about 230 in the corpus) appears to be closed; no loans are added to it. All verb loans are non-inflecting, of the *-na-* variety.

Inflecting verbs make up about 33 per cent of all verbs on a dictionary count, but 56 per cent over a series of text counts. The full text figures are:

inflecting non-copula verbs—56%, made up of:

-*ka-* ‘be in motion’ 17%
others 39%

non-inflecting verbs—41%, made up of:

ati -na- ‘say’ 4%
others 37%

copula verbs—3%

It will be seen that, even when the two most common verbs (*-ka-* and *ati -na-*) are excluded, inflecting verbs still just outnumber their non-inflecting counterparts in texts (by 39 per cent to 37 per cent).

A few general points can be made concerning which verbs belong to which subclass:

- (1) Almost without exception, stative verbs (corresponding to adjectives in other languages) are inflecting, for example *-kita-* ‘be strong’, *-jawa-* ‘be angry’. This also covers non-loan verbs relating to number and quantity, including *-tama-* ‘be many’ *-nafí(ha)-/-fota-* ‘be much, large’, *-ohari-* ‘be one, be alone, be the only (one/thing)’, and *-fama-* ‘be two, be a pair, be a couple’ (see (c) in §26.2.5). Higher numbers are loans from Portuguese and are all non-inflecting, for example *siko -na-* ‘be five’ (from *cinco*).
- (2) For the verbs with suppletive forms for number marking, listed in §26.2.1, seventeen of the nineteen sg forms are inflecting, while twelve of the eighteen nsg forms are non-inflecting.
- (3) The most frequent verb of motion is inflecting, *-ka-* ‘be in motion’, as are just a few others, e.g. *-kisa-* ‘descend, travel downstream’ and *-joto-* ‘follow’.
- (4) Verbs *-fimi-* ‘be hungry’ and *-hano-* ‘be drunk, be high’ are inflecting, as are the most general verbs for eating, intransitive *-tafa-* and S=O ambitransitive *-kaba-*. Other, more specialized, eating verbs are non-inflecting (see §26.2.4).
- (5) The general verbs *-awa-* ‘see, feel (internally)’ and *-mita-* ‘sense by hearing, taste, smell, or touch’ are inflecting, as are *-ka-katoma-* ‘stare at’, *-wasi-* ‘find’, and *-namo-* ‘show by holding up’. Other verbs from this semantic type are non-inflecting, e.g. *kii -na-* ‘look at, read’, *siba -na-* ‘look for’, *jofi -na-* ‘show by pointing out’, and *hisi -na-* ‘sniff’.
- (6) Most verbs referring to types of cooking are inflecting, e.g. *-rawa-* ‘toast’, *-warI-* ‘cook by boiling’; see also (b) in §26.2.6.
- (7) The two common verbs referring to mental states are both inflecting: *-wato-* ‘know, understand, learn, remember, be familiar with’ and *-nofa-* ‘want, desire, like, love, be pleased with, be friends with, have good feelings towards’. The verb ‘have’, *-kiha-*, is also inflecting.

There are a few other inflecting verbs scattered through the remaining semantic fields; these include *-ita-* ‘sting, pierce’, *-kamo-* ‘bury’, *-taba-* ‘mix’.

In summary, the inflecting subclass includes stative and mental attitude verbs and also many verbs with a superordinate meaning. It includes those with direct, pragmatic reference, e.g. ‘fall’ and ‘see’ (but not ‘look at’), ‘find’ (but not ‘look for’). And it tends to include verbs relating to a sg, but not those relating to a nsg, S or O argument. The semantic basis for a division between inflecting and non-inflecting verbs is not entirely clear, but there is something there. It is likely that it was clearer in proto-Arawá but has become blurred through changes of various sorts (these are a subject for future investigation). Although today the class of

inflecting verbs makes up only one-third of verbs, it includes the most important verbs, with the most general meanings, which predominate in texts.

26.2.3 Transitivity

In many languages about 35–40 per cent of verb roots are intransitive with the remainder being transitive. Languages with a higher proportion of transitive verbs typically have a number of derivations which derive an intransitive stem from a transitive root. Jarawara is of the opposite type, with a fairly high proportion of intransitive verbs; it has two derivations which derive a transitive stem from an intransitive root—applicative and causative, marked by prefixes *ka-* and *na-* ~ *naha-* respectively (see chapter 8)—but no derivational processes in the opposite direction.

A count of verbs in the dictionary reveals the following rough breakdown:

strictly intransitive	52%
S = A type ambitransitive	3%
S = O type ambitransitive	28%
strictly transitive	17%

When we compare the inflecting/non-inflecting and transitivity parameters, there is seen to be a strong correlation between strictly intransitive and inflecting:

- of inflecting verbs, 64% are strictly intransitive
- of non-inflecting verbs, 44% are strictly intransitive

Averaging over a number of samples of consecutive clauses in texts, we find that 59 per cent are intransitive, 38 per cent transitive, and 3 per cent copula clauses. (The intransitive clauses include strictly intransitive verbs, and also both varieties of ambitransitives used in an intransitive sense; similarly, the transitive clauses include strictly transitive verbs and also both varieties of ambitransitives used in a transitive sense.)

The great majority of S = O ambitransitives are basically transitive, with the intransitive being a secondary sense. Many of these were first recorded as transitive, and it was only by later investigation that I discovered they are in fact of the S = O type (examples include *baro-na-* ‘hit hard to flatten’ and *hori-na-* ‘blow a (bamboo) trumpet’). Indeed, it is possible that some of the verbs currently noted as being transitive may actually be of the S = O ambitransitive type.

The set of S = O ambitransitives includes verbs of physical effect, which cover: hitting, shooting, killing, cutting, scraping, covering, burying, painting, heating, cooking (by various means), breaking, twisting, tying up, pulling, pushing, dragging, squeezing, and rubbing. It also covers verbs of ingestion—various modes of eating, plus gnawing, biting, drinking—and verbs such as ‘work at’, ‘make’, ‘put down’, ‘put in water’, ‘find’, ‘hear/listen’, and ‘give’.

Ambitransitives of type S = A are represented much more sparsely in the corpus (just a couple of dozen are attested). Some of these appear to be basically intransitive, with transitive as a secondary sense (for example, *ohi-na-* ‘cry, weep’), while others appear to be basically transitive, with intransitive as a secondary sense (for example, *kii-na-* ‘look at’). The S = A set includes verbs of communication (such as ‘call (to)’, ‘yell (at)’), verbs of attention (‘see’, ‘look at, read’), verbs of bodily excretion (‘defecate’, ‘urinate’, ‘vomit’), and verbs of blowing, as well as ‘pass’, ‘wait for’, and ‘paddle’.

As mentioned in §3.3.3, just two verbs in the corpus appear to function as both S = A and S = O ambitransitive, under certain conditions. The verb *-awa-* ‘see’ is basically transitive but can be used intransitively, with O becoming S (then meaning ‘be visible’). It may also be used intransitively with the A becoming S (meaning ‘look’) but the S NP must then include the PN *noki/noko* ‘eye’. The verb *afi -na-* is basically intransitive with meaning ‘bathe, take a bath’. It has a transitive sense with S becoming O (then meaning ‘give a bath to’). And it can also be used transitively with S becoming A (then meaning ‘jump into water’); for this sense the O NP must be *faha* ‘water’. See (3.12a–c) and the discussion in §3.3.3.

As mentioned at the beginning of §26.2, it can be difficult—in a language like Jarawara with many homonyms—to tell whether two instances of a verbal form constitute different lexemes, or two senses of one lexeme. Intelligent consultants are able to appreciate these questions and to provide judgements. Such judgements are remarkably consistent between speakers, and tend to be borne out by further data collection and linguistic analysis. Examples are provided in the next subsection.

26.2.4 Semantic roles and syntactic functions

In each clause a number of semantic roles are mapped onto a number of semantic functions. For a verb of Speaking, the roles are Speaker, Addressee, and Message. In English, for the general verb *tell* the Speaker must be in A function but the role in O function can be either Addressee (as in *John told Mary the news*) or Message (as in *John told the news to Mary*). However, verbs with a more specific meaning, such as *report* and *inform*, allow no fluidity in role-function correspondence. Typical examples of use are:

(26.11) I reported the accident to the police

(26.12) I informed the police of/about the accident

For *report* the Message must be O, with the Addressee being in peripheral function (marked here by preposition *to*), whereas for *inform* the Addressee is O with the Message being in peripheral function (marked by *of* or *about*). Alternative role-function assignments are not allowed; that is **I reported the police of/about the accident* and **I informed the accident to the police* are unacceptable.

Jarawara has two ambitransitive verbs of telling, *-hijara-* and *-kamina-*. The first examples I recorded with *-hijara-* had the Addressee in O function, like *inform* in English:

(26.13) Ijo_O mee o-hijara-hara o-ke
 Indian 3nsgO 1sgA-talk.to-IPef 1sg-DECf
 I talked to the Indians

And the first examples recorded with *-kamina-* had the Message in O function, like *report* in English:

(26.14) okobi_O o-komina-mati-be
 1sgPOSS+father(m) 1sgA-tell.about-SHORT.TIME-IMMEDf
 I’ll tell a story about my father (the opening of a story)

However, further study showed that either Addressee or Message can be in O function for each verb. This is in keeping with the high degree of fluidity for role-function correspondences in Jarawara, in comparison with the rather low degree of fluidity in English.

In fact, *-hijara-* is an ambitransitive of type S = A. It can be used intransitively with the meaning ‘talk, speak’, as in:

- (26.15) o-hijara-mati-be
 1sgS-talk-SHORT.TIME-IMMEDf
 I’ll talk now for a bit (another story opening)

When used transitively, the Addressee role is most often in O function, as in (26.13). It is, however, possible to get the Message in O function, as in:

- (26.16) [Sesowi mee ati]_O otaa hijara-bone otaa-ke
 name(m) AUG word 1sgA-talk talk.about-INTf Iexc-DECf
 we’ll talk about the words of Jesus and his companions

The verb *-kamina-* is generally used transitively, with the Message in O function, meaning ‘narrate, tell a story about’, as in (26.14). However, the Addressee can be in O function, as in ‘I’ll tell a story to the tape recorder’s microphone’, or

- (26.17) era kamina-tee ama-ka
 1incO tell.stories-HABIT EXTENT-DECm
 he would tell us stories

This verb has also been heard used intransitively, with an S = O sense:

- (26.18) [jama_S kamina-ba]_{REL.S} wata-ma-ka-re
 thing(f) be.told.about-FUTf exist-BACK-DEC-NEGF
 there’s no more to be told (lit. things which are to be told don’t exist)

The basic difference between these verbs is in the type of action they refer to. Whereas *-hijara-* describes a casual act of speaking, *-kamina-* describes something more deliberate, an act of storytelling. With *-kamina-* the focus is likely to be on what is being talked about (so that the Message is most frequently O), and with *-hijara-* the focus is more likely to be on who is being addressed than on what is being said (so the Addressee is most often O). These most frequent role-function correspondences follow from the meanings of the verbs—the type of speaking that is being described—rather than being a defining characteristic of the verbs.

Note also the different syntactic orientations of these two verbs: *-hijara-* is an ambitransitive of type S = A while *-kamina-* is of type S = O. These verbs are most frequently used in transitive clauses, but each can also be used intransitively. With *-kamina-* it is the O argument which becomes S; this is the argument that typically codes the Message role. With *-hijara-* it is the A argument which becomes S; this codes the Speaker role. All of this relates to the meanings of the verbs: *-hijara-* basically focuses on the act of speaking whereas *-kamina-* describes a deliberate act of storytelling, with focus on the story.

For many transitive verbs in Jarawara, a certain semantic role must be in A syntactic function, but any other role may be placed in O function, according to what is being focused on in that instance of use of the verb. This can be illustrated with the verb *tisa -na-*, which is used transitively to describe using an arrow (or slingshot) to hit something; it is most frequently used for shooting fish in the water. The A argument will be the hunter, but the O argument can be any of the other semantic roles involved in the activity. It is most frequently the animal or fish that is shot at:

- (26.19) aba_O mee otaa tisa na otaa-ke
 fish(m) 3nsgO 1excA shoot AUX 1exc-DECf
 we shot lots of fish

Alternatively, the arrow that is used in the action can be placed in O function:

- (26.20) faja wati_O mee tisa ne-mete-mone-ke fahi
 THEN arrow(m) 3nsgA shoot AUX-FPnf-REPF-DECf THERE.NON.VISIBLE
 they are then said to have shot off arrows there

There is also an example where the O argument is ‘water’:

- (26.21) faha_O ee tisa ne-ne
 water(f) 1incA shoot AUX-IRRF
 we could shoot into the water (to try to catch fish)

In summary, *tisa -na-* simply describes a type of action, shooting an arrow with a bow or setting in motion a projectile with a slingshot (this is never done randomly, only to hit some target). It may bring into focus, in O function, any role other than that in A function—the target (the fish), as in (26.19), the arrow, as in (26.20), or the water that the fish is in, as in (26.21).

This kind of semantics can be illustrated further with the verb *ori -na-*, which is generally used to describe paddling a canoe. It is an ambitransitive of type S = A. An intransitive example is:

- (26.22) faja Motobi_S ori na-re-ka fahi
 THEN name(m) paddle AUX-IPem-DECM THERE.NON.VISIBLE
 then Motobi paddled there

When used transitively, there is variation in which semantic role is mapped onto O syntactic function. It can be the boat that is paddled:

- (26.23) kanawaa_O ori o-ne o-ke
 canoe(f) paddle 1sgA-CONTf 1sg-DECf
 I am paddling the canoe

or it can be the river or lake that is paddled on:

- (26.24) faha_O otaa ori na otaa-ke
 water(f) 1excA paddle AUXf 1exc-DECf
 we paddled in the water

That is, *ori -na-* simply describes the action of moving a piece of wood (or anything similar) through some liquid. It is generally used to describe paddling a canoe and then the role in O function can be the canoe, as in (26.23), or the river or lake that is paddled on, as in (26.24). (This verb can also be used to describe using a spoon to mix something into a liquid.) As with *-hijara-*, *-kamina-*, and *-tisa -na-*, any role other than that in A function can be the O argument.

The choice of which semantic role is identified as O argument is semantically/pragmatically determined, and it is syntactically significant. A semantic role in O function can function as syntactic pivot for discourse organization, whereas one in peripheral function cannot.

In fact, the role-function fluidity which characterizes Jarawara is a consequence of its position on a fundamental typological parameter:

- (26.25) A prototypical verb describes an action that involves a number of participants. Languages differ as to whether:
- (a) verbs are taken to describe a kind of action per se; or
 - (b) verbs are taken to describe a kind of action with respect to the (articulation of) types of participants that are involved.

This can be illustrated by verbs of eating in Jarawara, a language of type (a), and in Dyirbal, an Australian language which is of type (b). The Girramay dialect of Dyirbal has three rather specific verbs of eating (all transitive), depending on the nature of the foodstuff that is being consumed (the foodstuff is the O argument):

rubima- eat fish
 burnyja- eat meat
 nanba- eat vegetables

Jarawara also has a number of transitive verbs of eating, but these describe the nature of the action, not the type of object involved. We find:

-kaba- eat where a lot of chewing is involved (this would be used of meat, fish, sweet corn, yams, manioc, biscuits, etc.)
 jome -na- eat where little or no chewing is needed, e.g. eating an orange or banana (also used for swallowing a pill)
 komo -na- eating which involves spitting out seeds (e.g. *jifo*, the fruit of the murity palm, *Mauritia vinifera*)
 bako -na- eating by sucking (e.g. watermelon, cashew fruit)

For some foods there is a choice of verbs available, e.g. eating a pineapple could be described by *jome -na-* or by *bako -na-*.

The action orientation of verbs in Jarawara is also evident from the verbs discussed above. Each of *-hijara-*, *-kamina-*, *tisa -na-*, and *ori -na-* describes a type of action and can relate to any of a wide range of participants.

Characterizations (a) and (b) are not polar alternatives but rather the ends of a continuum. Dyirbal is close to one extreme and Jarawara at the other; English lies somewhere between them.

A number of other typological properties correlate with this continuum:

(I) A language of type (b), with nature-of-argument orientation of its verbs, is likely to have a strict specification of transitivity. In Dyirbal, for instance, every verb—with a single exception—is either strictly transitive (demanding A and O arguments) or strictly intransitive (just an S core argument).

A language of type (a), with nature-of-action orientation of its verbs, is likely to have a more fluid transitivity. Since it is the type of action that is being focused on, less attention is paid to specifying a set number of grammatical arguments. As in Jarawara, many verbs are ambitransitive; there are always some of type S = A and some of type S = O.

(II) Argument-oriented languages, of type (b), tend to have a fairly fixed assignment of syntactic functions to semantic roles. In a Dyirbal sentence translated as 'I speared the fish with a multi-prong spear in the river', 'I' must be in A function, 'the fish' in O function, 'a multi-pronged spear' in a peripheral function marked by instrumental case, and 'the river' in a peripheral function marked by locative case. No variation is permitted on these role-function correspondences.

In contrast, action-oriented languages, of type (a), show a much more fluid correspondence between semantic roles and syntactic functions. Illustration of this commenced with the verbs already discussed and further examples can now be offered (many more could be added to this list).

(1) There are three verbs which describe the expelling of material from the body: *soo -na-* ‘pee’, *mii -na-* ‘shit’, and *saa -na-* ‘vomit’. Each is of type S = A. They can be used intransitively, to describe the activity; for example:

- (26.26) *mii o-mati-be*
 shit 1sgS-SHORT.TIME-IMMEDf
 I’ll just have a shit (lit. I’ll now shit for a short time)

They can also be used transitively, either with what is expelled from the body as O argument:

- (26.27) *inamatewe_A ama_O mii na-ka*
 child blood(f) shit AUX-DECM
 the boy child is shitting blood

or with what it is expelled onto as O:

- (26.28) *inamatewe_A [mesa mese]_O mii na-ka*
 child table(f) top.of shit AUX-DECM
 the boy child is shitting on the table

The verb *mii -na-* describes the action of expelling something through the anus. The O argument can be whatever semantic role (other than that which is mapped onto A function) is focused on—either what comes out or what it comes out onto.

(2) The basic meaning of the transitive verb *rara -na-* is ‘push with the foot’. It is used nowadays to describe working an old-fashioned sewing machine by pushing the treadle with one’s foot:

- (26.29) *Hinabori_A makina_O rara ni-ne-ke*
 name(f) machine(f) press.with.foot AUX-CONTF-DECF
 Hinabori is sewing with the machine (lit. pressing the machine with her foot)

Here *makina* ‘(sewing) machine’ is the O argument. But the O argument could equally well refer to whatever is being sewn, e.g. *makari* ‘clothing’ in:

- (26.30) *Hinabori_A makari_O rara ni-ne-ke*
 name(f) clothing(f) press.with.foot AUX-CONTF-DECF
 Hinabori is sewing a garment

It will be seen that *rara -na-* describes a type of action; either of the objects involved in the action—the machine itself, or the garment that is sewn using the machine—can be in O function.

(3) The verb *fata -na-* can be used intransitively, meaning ‘(a flower) opens out into blossom’, ‘explode (e.g. a fruit when placed in the fire)’, or ‘(the inside of a peach palm fruit) opens out (displaying its seeds)’. It can also be used transitively with the meaning ‘push away with force’; e.g. if attacked by a jaguar one would push it off with maximum aggression. The transitive sense was used in one text to describe a woman pushing a man from on top of her, with force, after he had failed to satisfy her sexually.

Our consultants stated that there is a single verb involved (rather than homonyms), presumably of type S = O. The meaning of *fata -na-* thus relates to an action ‘(make) move suddenly, with distinctive effect (to a different place, or into a different state)’. As seen, it can relate to a variety of types of participant.

(4) The transitive verb *taro -na-* is used to describe waving one's hand back and forth in front of one's face to clear away biting insects (of which there are many in Jarawara territory). The same verb is also used to describe kicking a football. It appears that *taro -na-* simply characterizes a type of activity—the action of making something move as quickly as possible away from one. The 'something' can be a horde of insects or a football.

(5) The verb *wete -na-* is of S = O type. Used intransitively it refers to a person returning to a place. Used transitively it is used to describe wrapping cord round and round an object, preparatory to tying it. The string is moved away from the speaker, then back towards them, then away, then back, and so on. This verb simply describes a type of motion, something which has gone away then comes back. The S/O argument can be a person or a piece of string.

(6) For some time I thought that there were in Jarawara three distinct verbs with the form *-wasi(ha)-*:

(α) An intransitive verb *-wasi(ha)-* 'be caught', typically used of fish. With the causative prefix *-na-* we get *-na-wasi(ha)-* 'catch (e.g. fish)'. These uses are illustrated in nearby sentences from a text:

(26.31) awita_S wasi-bote ne-mari ama-ka
 piau(m) be.caught-SOON AUX-FP_{em} EXTENT-DECF
 the piau (fish) soon got caught (i.e. it took the bait)

(26.32) awita_O mee ee na-wasi-haba ee-ke
 piau(m) 3_{nsgO} 1_{incA} CAUS-be.caught-FUT f 1_{inc-DECf}
 we'll catch piau (fish)

(β) An S = O ambitransitive verb *-wasi(ha)-* 'find'. Here the S/O argument can be a path, a river, a game animal, some footprints, a person, etc., while the A argument may be a hunter or his dogs. For example:

(26.33) kobaja_O jomee_A mee mee wasi-hara-ke
 peccary(m) dog(m) 3_{nsgO} 3_{nsgA} find-IP_{ef-DECf}
 the [hunting] dogs found the peccaries

(γ) A transitive verb *-wasi(ha)-* 'cook, prepare (food)'. Note that there are specific verbs for different modes of cooking—roasting, toasting, boiling, etc. (see (b) in §26.2.6). In contrast to these, *-wasi(ha)-* is a general verb which can apply to any kind of cooking. And whereas the specific cooking verbs can have as O argument the name of whatever foodstuff is being prepared, the O for *-wasi(ha)-* can only be the generic free noun *yamata* 'food' or the PN *tafe/tefe* 'food' (which must take a pronominal prefix, e.g. *o-tefe* 'my food').

Speakers of Jarawara consistently affirm that (α – γ) are all one verb. There is a single meaning involved. This appears to be something like 'be in/get into a desired state'. Sense (γ) refers to bringing food into a state where it can be eaten. Sense (β) is used for meeting up with something that is sought, such as a game animal or a friend (and it is extended to also cover an unexpected meeting). Sense (α) is intransitive and is used to describe fish, or some other animal, being caught. There is a causative derivation from sense (α) to describe a causer (A) making the fish (O) be caught.

It is relevant to ask why a hunter meeting up with some game animal is described using the transitive sense of *-wasi(ha)-* while a fisherman catching fish is described using the causativization of the intransitive sense, i.e. *-na-wasi(ha)-*. The answer appears to be that these are different kinds of activity. A fisherman sees fish swimming around in the river, puts some bait

on his line and knows that he is pretty certain to catch enough for the evening meal; the fish are, effectively, there to be caught. But a hunter may track through the forest for hours without coming across the tracks of a tapir, a deer, or a peccary, and even if he does he is by no means certain to catch it. The transitive sense of *-wasi(ha)-* is considered appropriate to describe a hunter encountering his prey.

(7) The S=O ambitransitive verb *behe -na-* means ‘turn the opposite way from normal orientation’. It can be used to describe a plate or a book placed face down, a shirt that is inside out, or a canoe that is overturned. Here we can get different roles in A function. In one story a canoe simply overturned together with the people in it; the canoe is the A argument of *behe -na-* and the people the O argument. In another story a legendary hero turned into an alligator and placed himself under a canoe containing his brothers and tipped it over; here the alligator is the A argument of *behe -na-*, with the people in the canoe again being the O argument.

(8) There are a few other examples of variation involving A (rather than just O). For example, when the S=O ambitransitive verb *bobi -na-*, ‘make a long shallow cut (in something) by sliding the blade of the knife towards one’ is used transitively, the A normally refers to the person wielding the knife. However, if I am holding a knife and it should slip and cut me accidentally, then it would be appropriate to say (26.34), with the knife in A function:

(26.34) jimawa_A o-jee_O bobi to-sa-ke
 knife(f) 1SGPOSS+hand cut AWAY-ONCE-DECf
 the knife cut my hand

(9) The examples thus far have all involved ambitransitive or transitive verbs. We can now look at a number of intransitives. First, *moo -ka-na-* ‘be full’. The S argument here can be the container that is full, or the thing that fills it. Thus:

(26.35) faha_S moo ka-na-hara-ke waha (wije jaa)
 water(f) be.full INSIDE-AUX-IPef-DECf NOW container PERI
 the water was now full (in the container)

(26.36) wije_S moo ka-na-hara-ke waha (faha jaa)
 container(f) be.full INSIDE-AUX-IPef-DECf NOW water PERI
 the container was now full (with water)

Note that the role which is not coded as S argument can optionally be included as a peripheral argument, marked by the postposition *jaa*—the container in (26.35) and the contents (here, water) in (26.36).

(10) The intransitive verb *bete -na-* means ‘break, snap off’. If a pig is tied up and tugs at the rope so that it snaps then *bete -na-* can be used to describe this. The interesting feature is that the S argument can either be the rope, or the pig.

(11) Now consider the S=A ambitransitive verb *bere -na-* used intransitively; this has the meaning ‘be across something’. It can describe the positioning of the cross-piece (on which the people sit) in a canoe, or a road meeting another road and continuing on the far side of it, or a flood lying across the land, or a log lying across a stream (as a bridge), as in:

(26.37) awa_S bere ni-ne-ke [faha tori neme jaa]
 wood(f) be.across AUX-CONTf-DECf water(f) inside+f above PERI
 a log is lying across a stream (lit. in the space above the inside part of the water)

The fluidity of role-function correspondence is demonstrated by (26.38), where the S argument refers to a person walking on a log that is across a muddy patch:

- (26.38) bere o-na-ma-bone
 be.across 1sgS-AUX-BACK-INTF
 I intended to walk (on a log) across (the mud)

The next sentence from this text also features *bere -na-*, but in a quite different sense. The narrator has slipped off the log and fallen astride it, one leg in the mud on either side:

- (26.39) o-wisi_S bere ka-nisa
 1sgPOSS-lower.leg be.across APPLIC-DOWNf
 my legs were astride (the log) down (on either side of it)

This demonstrates that *bere -na-* simply indicates a position—something across something else. The verb holds no expectations whatsoever as to what reference its core (and peripheral) arguments should have.

(12) The last verb to be discussed here is the intransitive *-wana-* ‘be in contact with’. This can describe a wide range of situations—a mosquito sitting on someone’s arm, an ant on a leaf, a fruit skin adhering to someone’s foot, a microphone clipped to a person’s shirt, a vine growing around a tree, thatching placed on a house, people on a trail, boards joined together in carpentry, two pieces of paper stuck together with glue, a hoe stuck in a hole, boats linked by a tow-rope, and people holding hands in a dance. The causative form of this verb, with prefix *na-*, is used to describe a shaman putting someone’s soul back in their body (after rescuing it from evil spirits who had taken it away). All that this verb describes is contact—between anything and anything; the identity of the participants is irrelevant.

The wide possibilities for mapping semantic roles onto syntactic functions, illustrated by these verbs, provide ample characterization of Jarawara as a language the meaning of whose verbs relates to kinds of action, rather than to the types and natures of participants that are involved, in (26.25).

The role/function correspondences in a particular use of a verb are decided by its place in discourse and by pragmatic considerations within the situation in which it is used. For instance the O argument of *tisa -na-* ‘set in motion in a trajectory, towards a target’ is *aba* ‘fish’ in (26.19), *wati* ‘arrow’ in (26.20), and *faha* ‘water’ in (26.21). In each instance, a listener will know, from their knowledge of the world, that *aba* is the Target, *wati* the Instrument, and *faha* the Locus of the activity. And the semantic role which is mapped onto the O argument may be in pivot function (within an Oc).

26.2.5 Semantic characteristics

In this subsection, a few of the special semantic features of Jarawara verbs are summarized.

(a) Mental processes, desire, and value

All languages have verbs covering the concepts ‘carry’, ‘give’, ‘hit’, ‘speak’, and the like. But there is considerable variation concerning verbs that relate to human mental processes—such as ‘know’, ‘believe’, ‘understand’, ‘think’, ‘remember’—and concerning verbs that relate to value judgements and to desires—such as ‘want’, ‘wish’, ‘hope’, ‘like’, ‘love’, ‘hate’, ‘regret’. Some languages have rich sets of such verbs, others have very few.

In Jarawara we find two transitive verbs, each widely used and with a considerable semantic range:

- wato*- ‘know, understand, learn, remember, be familiar with’; with negative affix *-ra* it can mean ‘be unable to’
- nofa*- ‘want, desire, like, love, be pleased with, be friends with, have good feelings towards’

There is also a verb *wati-na-waha*- ‘(suddenly) remember, think of fondly’, as in (T2.120). The idea of thinking is generally expressed through *ati-na*- ‘speak’, as in:

- (26.40) [o-wati boti]_A ati na-ro o-ke
 1sgPOSS-language inner.part speak AUX-RPef 1sgA-DECf
 I thought (lit. my language’s inner part spoke) (this was preceded by direct speech, which is the O argument for verb *ati-na*-)

There are intransitive verbs of value such as *-amosa*- ‘be good’, and also *-eheto*- ‘be suitable (for)’. The S argument of *-eheto*- can be food, drink, snuff, or a spouse, as in (12.45) ‘Jobeto’s wife is suitable for him’. With negative suffix *-ra*, *-eheto*- can take on a more general sense, as in:

- (26.41) bakasi_S eheto-ka-re
 thirst(f) be.suitable-DEC-NEGF
 it’s not good to be thirsty (lit. thirst is not suitable (for people))

There is another intransitive verb, *forima-na*-, with a fascinating meaning ‘do something well’, often used in the sense ‘do something better the second time that was not done so well before’. Its S argument is a complement clause referring to the action, as in (14.9) and:

- (26.42) [Bitiro_O a.’ate ni]_S forima o-ne
 name(m) ask AUX+COMP do.better 1sgA(of COMP)-AUXM
 I ask Bitiro (more politely) a second time (to lend me a paddle, which he had refused to do when I asked him, rather brusquely, the first time)

Note that the complement clause in S function in (26.42) is an O-construction, the auxiliary in the main clause agreeing in gender with the O argument of the complement clause, *Bitiro*. There is normal raising of the A pronoun from the complement clause, 1sg *o-*, into the main clause (see §17.6).

(b) Temporal verbs

Jarawara has no indigenous time adverbs or nouns such as ‘yesterday’, ‘today’, ‘tomorrow’, ‘earlier’, ‘now’, ‘later’, ‘morning’, ‘afternoon’, ‘evening’, ‘night’, ‘day’. As described in §6.4, there are aspect/time lexemes *hibati* ‘completed, no longer continuing, (do) right away, will soon be completed’ and *hibajata* ‘later today, just now’; these are normally accompanied by the general postposition *jaa*. And there is a recent loan *owisi* ‘today’ (from Portuguese *hoje*), which appears always to be followed by *jaa*.

Within the grammar, there are tense-modal suffixes referring to three degrees of past time as well as future, intention, etc. (chapter 6); and there is a miscellaneous suffix *-mina* ‘morning, tomorrow’ (see (2) in §5.5). When the miscellaneous suffix *-mata* ‘short time’ is combined with negator *-ra*, the combination means ‘not yet’ (literally ‘not for a short while’); see (5.322–3) in §5.9.

Reference to time of day is generally through intransitive verbs which take as S argument either *bahi* ‘sun’ or the general noun *jama* ‘thing, time’. They include:

(jama) -waha-	become dawn (lit. thing shining)
(bahi) -noko-risa-	be midday
(bahi) weo -na-	be mid-afternoon
(jama) -joma-	be dusk, getting dark (lit. thing is getting dark)
(bahi) to-ka-	sunset (lit. sun is going away)
(jama) -soki-	be night (lit. thing is black)
(jama) -siri-make-	be period just before dawn (the coldest part of day) (lit. thing is cold following)

(e) Numbers and quantification

It is likely that before contact with Branco culture, the Jarawara did not indulge in counting and did not use lexical numbers. A modern-day conversation such as ‘How many fish did you catch?’ ‘Two (or three or seven or eleven)’ simply did not occur.

The language did have the following intransitive verbs:

(i) *-ohari(ha)*- ‘be alone’, ‘be the only (one/thing)’; for example:

(26.43) o-wahari-habone o-ke
 1sgS-be.alone-INTf 1sg-DECf
 I’m (going) alone

(26.44) abas mee oharie-hemete-mone
 fish(m) 3nsgS be.only-FPnf-REPF
 there were said to be only fish (there) (implying that there were many fish there)

(ii) *-fama*- ‘be a pair, be a couple (with)’. See the examples at (20.13–16) and:

(26.45) [otaa fami] -bana-ke
 1excS be.a.pair+NOM -FUT-DECf
 we’ll get married (lit. our being a pair will be)

(26.46) [fara mee ini]_s ka-fami-ne-ke
 VERY.ONEf AUG name+f APPLIC-be.a.pair-CONT-DECf
 these (two men) have the same name (lit. their names are a pair)

We also find causative *na-fama*- ‘bend over’ (lit. make be a pair) and reduplicated *fa.fama-waha -na-* ‘(a pair of people) help one another’.

However, on exposure to counting in Branco culture, the Jarawara began to count in their own language. Quite naturally, the meaning of *-ohari(ha)*- has been extended to also serve as a number ‘be one’, and *-fama*- has taken on the additional sense ‘be two’. Other numbers (all of them non-inflecting verbs) are loans from Portuguese, for example, *terei -na-* (or *trei -na-*) ‘be three’, *kowato -na-* ‘be four’, *siko -na-* ‘be five’, *tee -na-* ‘be ten’ (from *três*, *quatro*, *cinco*, and *dez* respectively).

At the pre-counting stage, there was no interrogative ‘how many/much’. After counting was introduced, the general interrogative verb *ee -na-* ‘what about’ had its range of meaning extended to cover ‘how many/much’—see (15.62–5) in §15.3.4.

An example which nicely illustrates *-fama*- being used in its new sense ‘be two’ with *-ohari(ha)*- in its original sense ‘be only’ is:

(26.47) famis ohari-abana-ke
 be.two+COMP be.only-FUTf-DECf
 (I) only (want) two (batteries) (lit. (they) being two will be only)

There are two intransitive verbs referring to a large quantity: *-tama-* ‘be many’ is used only of countables, and *-nafi(ha)-* (sg S)/-*fota-* (pl S) ‘be much, be large’ of non-countables. Compare:

- (26.48) atabo_S tama-ke
 mud(f) be.many-DECL
 there are lots of patches of mud (along the path)
- (26.49) atabo_S nafi-ke
 mud(f) be.much-DECL
 there’s a lot of mud (in a single patch)

Another verb referring to quantity is the transitive *mahika -na-* ‘do a lot to’. This can have as its O argument only food, drink, snuff, or a person. What is actually done is inferred from the nature of the O—if it is a foodstuff it is eaten a lot, if a liquid it is drunk a lot, if snuff it is sniffed a lot, and if a person they are swived (copulated with) a lot. In one text a woman commands her lover:

- (26.50) owa mahika ti-na-hi!
 1sgO do.a.lot.to 2sgA-AUX-ImmPosIMPF
 you swive me a lot!

In another story there are many mosquitoes on a river bank and the narrator says:

- (26.51) bita_A otara mee mahika na-ba
 mosquito(m) 1excO 3nsgA do.a.lot.to AUX-ALL.NIGHTF
 the mosquitoes bit us a lot all night (lit. the mosquitoes drank our (blood) a lot all night)

Speakers said that if there were only one mosquito the verb *-fawa-* ‘drink’ (used to describe a mosquito sucking someone’s blood) should be employed. The use of *mahika -na-* ‘do a lot’ implies that there were many mosquitoes and the explicit verb for what was happening (*-fawa-* ‘drink’) is omitted. The nature of the action is inferred from the identity of the predicate arguments—there is only one thing that mosquitoes do (a lot) to people, drink their blood.

There are also intransitive verbs *-komeha-* ‘be a lot (said of noise, and of bleeding)’, and *-kasiro-* ‘do a lot’ which is typically used with a complement clause as S argument.

The qualification ‘all’ is achieved in Jarawara through the adjective *hinama* ‘all and only (that is, all this and nothing/no one else)’—see §11.2.1—and the PN *nafi/nafi* ‘all (of a certain group)’, as in ‘they are all naked’ (this is PBI in the appendix to chapter 11).

(d) Lack of lexemes ‘fast’ and ‘slow’

Jarawara lacks any lexemes with the general meaning ‘fast’ (or ‘quick’ or ‘rapid’) and ‘slow’. There is an intransitive verb *kana -na-* ‘move fast’, which can cover a person running, a fish or a canoe moving fast through the water, or an audio cassette revolving fast. But there is no adverb or verb with the general meaning ‘fast’, as in ‘work fast’, ‘eat fast’, ‘paddle fast’, ‘talk fast’. Each of these is described through the intransitive verb *-kita-* ‘be strong, be hard, do strongly’.

The prototypical meaning of *-kita-* is ‘be hard’, as applied to timber or an erect penis, or ‘be strong’, as applied to a stick, a house, a person (in both the sense ‘be healthy’ and the sense ‘be physically powerful’), the wind, heat, or a smell. It can apply to a colour, indicating that it is ‘deep (e.g. red)’. And it can be used to describe something that is done fast, literally ‘done strongly’. The activity that is done is described in a complement clause which is the

S argument for *-kita-*; for example:

(26.52) [Ara_A jama_O ahi ni]_S kita-ka
 name(m) thing(f) work.at AUX+COMP be.strong-DECM
 Alan is working fast (lit. Alan's working at things is strong)

(26.53) [tee ori ni]_S kita-hi!
 2nsgS paddle AUX+COMP be.strong-ImmPosIMPf
 you paddle fast! (lit. let your paddling be strong!)

The verb *kana -na-* 'move fast' can be in a complement clause that is in S function for *-kita-*:

(26.54) [Eti_S kana ni]_S kita-ka
 name(m) move.fast AUX+COMP be.strong-DECM
 Eti is running very fast (lit. Eti's moving fast is strong)

There is also the verb *kerewe -na-*, which is only attested with negative suffix *-ra*, the combination then meaning 'don't take a long time', as in

(26.55) [ee ka-ka-mi]_S kerewe ra-ba
 1incS APPLIC-in.motion-BACK+COMP take.long.time NEG-FUTf
 we'll be back quickly (lit. our returning will not take long)

(e) Taste terms

There are four basic taste sensations—sweet, sour, salty, and bitter. Jarawara only has lexemes for two of them, the intransitive verbs *-bita-* 'be bitter' (the formal similarity is coincidental) and *-sitaka-* 'be sour, acidic'. There are no terms specifically meaning 'be salty' or 'be sweet'.

There are, however, two further intransitive verbs, *-biko-* 'be tasteless, flat' (e.g. coffee with no sugar) and *-sina-* 'have a strong taste'. I have heard *-sina-* used to describe something that is very sweet (e.g. cashew fruit, tinned peaches) or very sour or very bitter or very salty; the unmarked sense appears to be 'be very salty'.

(f) Colour terms

There are four basic colour terms, all verbs:

- soki- (or soki -na-) 'be black or dark-coloured'
- sawi- 'be white or light-coloured'
- mawa -na- 'be red'
- tefo -na- 'be blue or green'

Mawa -na- was identified as red-purple, towards the extreme right of the fifth row down in the colour chart included with Berlin and Kay (1969). *Tefo -na-* was identified primarily as blue, extending to green (from about the twenty-eighth column to the eighteenth column from the left, middle row, on the Berlin and Kay chart).

As described in §9.3.1, these colour terms typically occur with initial CV. reduplication. The way of referring to 'night' or 'darkness' is through a nominalization of *-soki-*, with *jama* 'thing' as its S argument—*jama soki jaa*, literally 'when the thing is black/dark'. (There are many instances of this throughout the grammar, including T1.1.)

26.2.6 Examples of semantic sets

Every lexicon has its areas of semantic complexity. The profusion of verbs for kinds of eating were mentioned in §26.5.4, and the verbs for kinds of lying were set out in §26.5.1. Three more

sets of verbs will now be briefly described, as an exemplification of the kind of semantic specification and contrast that a full thesaurus of Jarawara would reveal.

(a) Verbs of tying, wrapping, and coiling. The main verbs here are all S = O ambitransitive. They include:

- (1) *-kaho-* (sg O), *sere -na-* (pl O), tie onto hook (e.g. hammock, fish net); tie arrow head onto shaft.
- (2) *sako -na-*, tie knot in one end of a rope; tie up something with a knot in one end of a rope.
- (3) *-mato-*, tie up something (e.g. pig, canoe); put string on bow.
- (4) *-tifo-*, tie together (e.g. pieces of string, corn cobs).
- (5) *soki -na-*, tie forcibly together the two ends of a string/rope, e.g. tie up canoe in this way, tie shoelaces (this sense always requires suffix *-kI-* ‘coming’ since one ties shoelaces towards oneself).
- (6) *jati -na-*, fasten by tying (e.g. tie hammock to tree).
- (7) *wete -na-*, wrap cord around something several times, preparatory to tying; including: attaching arrow head to arrow shaft; spirits wrapping a vine around a person before tying them up (as an intransitive verb this simply means ‘return’, see (5) in §26.2.4).
- (8) *kini -na-*, wrap/wind/coil something pliable around something solid, e.g. wrap fishing line around piece of wood; fish net gets wrapped around a person; anaconda (snake) coils itself around a tree; a vine is coiled around a tree.
- (9) *tabo -na-*, bunch up (e.g. fishing line) in an up-and-down fashion (concertina-style); person pulls up knees in sleeping posture; crush fruit under water with the hands.
- (10) *kamo -na-*, fold/bend over (a piece of wire, or a long pirarucu fish).

(b) Verbs of cooking. As mentioned under (6) in §26.2.4, there is a general verb *-wasi(ha)-* ‘cook, prepare food’. The set of more specific verbs, for different modes of cooking, has both transitives and intransitives; it includes:

- (1) *wiro -na-*, int, just coming to the boil.
- (2) *-sabo-*, int, boiling vigorously.
- (3) *-warI-*, S = O, cook by boiling.
- (4) *-haro-*, int, been cooked by boiling.
- (5) *-ibana-* (sg O), *-joka-* (pl O), tr, roast in coals on top of fire, fry, bake.
- (6) *-kaha-*, int, be roasted, baked (often used in nominalized form, *-kahi-*).
- (7) *tabasi -na-*, S = O, grill over fire on a grill made of sticks.
- (8) *-rawa-*, S = O and *-sira-*, S = O, toast in pan over fire (these two verbs are said to be synonyms).
- (9) *-toka-*, S = O, singe fur off animal over fire, smoke over fire.
- (10) *hee -na-*, tr, warm over fire (e.g. meat, milk, one’s hands).

(c) Verbs of stopping/finishing. The main verbs here are all intransitive:

(1) *-fijo-*, int, come to a natural end, be all used up; e.g. come to the end of a beach; the supply of water (or the pile of fish-hooks) is all used up. See also (11.33) ‘it made itself come to an end’, a reflexive causative clause with *-fijo-*, describing a Disprin tablet dissolving in water.

(2) *bara -na-*, int, come to a gradual stop; e.g. rain tails off as a storm passes away; the flow of sap from a tree diminishes; a boat comes almost to a halt because it is overloaded or because the paddlers are not bothering to paddle. Note that this verb cannot be used with the causative prefix, for semantic reasons—it refers to something happening naturally (not anything that is controlled).

(3) *maa -na-*, int, stop motion, come to an end (often abruptly), e.g. a canoe or car is stopped at a place; the track ends (it has not been cleared any further). This verb is often used with the causative prefix, e.g. I stopped the canoe, I held the pig (so that it did not run off).

(4) *-ahaba-*, int, be finished, all gone, nothing left. This is typically used for ‘die’ (and the causative form is used for ‘kill’). Other senses are: the cold weather has gone; the talking is finished; the cake-eating is finished (all of the cake is eaten up); pulling the nets into the boat is finished (all the nets are in). The S argument can be an NP or a complement clause.

(5) *hawa -ha-*, int, be accomplished, what was set out to be done has been done. This occasionally has an NP as S argument—e.g. the house is finishing (meaning that the building of it is completed)—but generally takes a complement clause, e.g. our eating/buying goods/sniffing snuff/bailing water from the canoe/bathing/digging a hole/skinning a pig/sleeping is accomplished (there are many examples throughout chapter 17).

There is an adjective with related meaning:

(6) *faja*, enough, sufficient (see §11.2.1). This modifies a noun or functions as copula complement before *ama* ‘be’ or *(to-)ha-* ‘become’. It can be used for: slept enough; talked enough; bought enough; eaten enough (for the time being); dug a hole deep enough (to bury a corpse). It is typically used to signal the end of a story: *faja ama* ‘that’s enough’.

26.2.7 Verbal idioms

There are a number of types of verbal idiom. Just the main types will be illustrated.

(i) A transitive verb where the O NP must include a specific PN.

- (a) [X ini/ino]_O hiri -na-, tr ask for X (by saying name of X)
 from PN ini/ino name
 and tr verb hiri -na- make
- (b) [X ati/ati]_O -mita-, tr hear X
 from PN ati/ati voice, language
 and tr verb -mita- sense by hearing, taste, smell, or touch
- (c) [X narabi/narabo]_O nima -na-, tr want to talk to, ask to do, as in T1.33
 from PN narabi/narabo ear
 (the verb nima -na- appears to occur only in idioms)

(ii) A transitive verb whose O argument must be expressed by a certain noun; only the A argument is available for assignment, the O being fixed.

- (a) [faha]_O kii -na-, tr go fishing, as in T1.44
 from faha (f) water
 and tr verb kii -na- look at
- (b) [katoma] hiri -na-, tr act violently
 from katoma (f) temper, anger
 and S = O verb hiri -na- make

(iii) An intransitive verb whose S NP must include a specific PN

- (a) [X ati/ati]_S -forI-, int speak firmly
 from PN ati/ati voice, language
 and int verb -forI- lie on raised surface
- (b) [X ati/ati]_S -hijawa-, int get an idea, suddenly think of/recall something
 from PN ati/ati voice, language
 (the verb -hijawa- is not attested outside this idiom)

There is a similar example where the PN must include the relational noun *ihī/ehene* 'due to':

[X ihī/ehene]_S, iti-, int a killing was due to X

(It appears that the verb *-iti-* does not occur outside this compound; see §22.5.)

26.3 FORMULAIC EXPRESSIONS

A number of formulas for greeting and social interaction have already been mentioned; they can usefully be recapitulated here, together with additional examples.

(a) As mentioned in §12.2.1, a common greeting is:

- (12.34') ifa_{CC} ama-ti?
 SPECIFf be-2sgCS
 is it you? (lit. are you the specified one?)

This means 'is it your spirit in your body?' (and not absent, which happens during a period of trance). A typical response is:

- (12.35) (ee), ifa_{CC} ama o-ke
 YES SPECIFf be 1sgCS-DECf
 (yes,) it is me (lit. I am the specified one)

(b) If a person wants to enter your house, they are likely to stand outside and attract your attention (generally, by calling your name). You then invite them in by saying:

- (26.56) ti-ki-joma-hi!
 2sgS-in.motion-THROUGH.GAP-ImmPosIMPF
 you come in! (lit. you move through the doorway!)

(c) As mentioned in §15.1, anyone who wishes to leave your house will declare their intention by saying:

- (26.57) o-ko-ma-bone o-ke
 1sgS-in.motion-BACK-INTf 1sg-DECf
 I intend to go

Before they can leave, you must respond with the imperative:

- (26.58) ti-ka-ma-hi!
 2sgS-in.motion-BACK-ImmPosIMPF
 you (sg) go!

If more than one person were involved, then the appropriate nsg pronouns would be used in (25.57–8).

(d) When someone arrives in a place, they may announce:

- (26.59) o-ke-hara o-ke
 1sgS-COMING-IPef 1sg-DECf
 I've come

And a person from that place could respond:

- (26.60) ti-ki-nihi?
 2sgS-COMING-PINTf
 have you come?

Alternatively, the verb *kobo -na-* 'arrive' can be employed, with *kobo o-na-hara o-ke* 'I've arrived' used in place of (26.59) and *kobo ti-ni?* 'have you arrived?' in place of (26.60).

When fieldwork for this grammar commenced, in 1991, most arrivals were marked by traditional speech formulas. By the time of the final field trip before publication, in 2003, the formulas under (a-c) were still maintained but—in a situation where acculturation is steadily occurring—standard Portuguese greetings are increasingly used. People greet each other with *bom dia* 'good day', *boa tarde* 'good afternoon', or just *boa* 'hello'.

Prehistory

This chapter recapitulates some of the unusual and apparently irregular features of Jarawara grammar, and suggests a diachronic scenario which accounts for and explains a number of them. The discussion builds on earlier remarks—in §4.5.2 on the original *-ha/-hi* ending on verbs; in §§6.1–2 on reconstruction of the original forms for tense-modal suffixes; in §16.4.5 on the biclausal origin for secondary verb constructions; and in §16.5 on occurrence of Oc's in proto-Arawá and developments in Jarawara. §27.1 states the main facts to be explained, and then §27.2 sets out a putative series of historical changes. Some other points in need of explanation are summarized in §27.3.

The following mnemonic abbreviations are employed in this chapter:

Rm	inflecting verb or auxiliary of non-inflecting verb, plus optional miscellaneous suffix(es) (plus any prefixes)
Neg	negative suffix, <i>-ra</i>
TM	tense-modal element(s)
M	mood element
Dec	declarative mood <i>-ke/-ka</i>
Sec	secondary verb
pron.pr	pronominal prefix (1sg <i>o-</i> , 2sg, <i>ti-</i> , or Oc <i>hi-</i>)
3pp	third pronominal position
1/2sg	1sg or 2sg pronoun
1/2nsg	1inc or 1exc or 2nsg pronoun
1/2	any 1st or 2nd person pronoun
all.pns	all pronouns
s, a, o, cs	gender agreement with S, A, O, CS argument
p	gender agreement with pivot argument
x	gender agreement with variable argument (set out in (4) of §27.1)

27.1 FEATURES TO BE EXPLAINED

(1) *The third pronominal position*

As shown in tables 16.2–7, there are the following possibilities for filling the 3pp, and for gender agreement on items which precede and follow 3pp in the predicate.

— Scheme (i). Mood suffix but no tense-modal suffix and no secondary verb (see tables 16.2–4).

Rm 3pp: pron.pn (S/A if 1/2sg)–M_p

Just a pronominal prefix (1sg *o-* or 2sg *ti-* in S or A function, or *hi-*, marking an Oc which has both A and O as 3rd person) is repeated in 3pp. Note that Rm does not show gender marking.

— Scheme (ii). Tense-modal and mood but no secondary verb (also see tables 16.2–4).

Rm – TM_x 3pp: pivot if 1/2 – M_p

Here the 3pp repeats a 1/2 pivot pronoun from pre-head position—S for an intransitive clause, A for an Ac, and O for an Oc; the 3nsg pronoun *mee* is not repeated in 3pp. The mood suffix agrees in gender with the pivot. However, the tense-modal suffix shows variable agreement, indicated here by _x; this will be set out in (4) below.

— Scheme (iii). Secondary verb and mood, with or without a tense-modal suffix (see tables 16.5–7).

$\left\{ \begin{array}{l} \text{Rm}_x \\ \text{Rm} - \text{TM}_x \end{array} \right\}$ 3pp: pivot (all.pns) Sec_p–M_p

The pivot pronoun (including 3nsg) is repeated in 3pp. The secondary verb and mood suffixes agree in gender with the pivot, but the element preceding 3pp again shows variable gender agreement, indicated here by _x and explained in (4) below.

There are three other circumstances in which the 3pp can be filled. As described in §17.6, if the A argument in an Ac or Oc complement clause (the complement clause being in S function in the main clause) is any pronoun (including 3nsg), then the pronoun can be ‘raised’ into the S slot of the main clause. If it is, it will be repeated into the 3pp if there is no tense-modal suffix or secondary verb in the clause.

When there has been no raising, then the subject pronoun of a complement clause may be copied into 3pp of the main clause, only if the main clause includes a tense-modal suffix or a secondary verb. Just a 1st or 2nd person pronoun may be copied if there is tense-modal but no secondary verb, but any pronoun (including 3nsg) may be copied if a secondary verb is present.

As described in §4.4.6, if all core arguments in a clause are 3rd person, and if one of them has a pronominal possessor (either alienable or inalienable), then this pronoun may optionally be repeated in 3pp so long as the clause includes tense-modal specification or a secondary verb. As before, just a 1st or 2nd person pronoun may be copied if there is tense-modal but no secondary verb, but any pronoun (including 3nsg) with a secondary verb.

(2) Secondary verbs

The fact that a secondary verb (which is a separate word) can intrude into the predicate, between tense-modal and mood suffixes, is an unusual feature. So is the fact that, as just discussed, the 3nsg pronoun can occur in 3pp only when there is a secondary verb (and it is then obligatory). Another special feature of secondary verbs is that they may not take any prefix. A non-prefix pronoun in 3pp precedes the secondary verb, but a prefixal pronoun hops over the secondary verb and attaches to mood. Thus:

... otaa	ama-ke	but ...	ama	o-ke
Iexc(3pp)	EXTENT-DECf		EXTENT	Isg(3pp)-DECf

(3) Immediate past eyewitness specification (Ipe)

This is unusual in two respects. First, the initial syllable of the Ipe suffix *-hara/-hare* is *-ha/-ha-* whereas for all other tense-modal suffixes it is (or can be reconstructed back to) *-ha/-hi-*.

Secondly, Ipe is realized by suffix *-hara/-hare* only if the pivot is 1/2sg or 3sg/nsg. As described in §§4.4.1–2, if the pivot is 1/2nsg it is realized just through the pivot pronoun being repeated in 3pp. The marking of Ipe is shown by scheme (iv) in the middle column of

TABLE 27.1 Filling the third pronominal position when there is no secondary verb

	S/A	O	ANY TM EXCEPT IPe	TM is IPe	NO TM
intr	1/2sg	(any)	Rm-TM _x 3pp:pivot-M _p	Rm-TM _x 3pp:pivot-M _p	Rm 3pp:S/A-M _p
and Ac	1/2nsg	(any)		Rm _x 3pp:pivot-M _p	Rm-M _p
Oc	1/2sg	3sg	Rm-TM _x -M _p	Rm-TM _x -M _p	Rm 3pp:S/A-M _p
	1/2nsg	3nsg			Rm-M _p
	3	1/2sg	Rm-TM _x 3pp:pivot-M _p	Rm-TM _x 3pp:pivot-M _p	<no construction>
		1/2nsg		Rm _x 3pp:pivot-M _p	
			scheme (ii) in (1)	scheme (iv)	scheme (i) in (1)

table 27.1. For comparison, this is flanked by schema (ii) and (i) from (1) above (with the addition of a row for when the pivot is 3sg/nsg).

Under (1) we saw that if there is a tense-modal suffix then any 1/2 pivot pronoun is repeated in 3pp—scheme (ii) of table 27.1. But if there is no tense-modal suffix, then just a pronominal prefix may occur in 3pp; this covers 1sg *o-* and 2sg *ti-* but not the nsg pronouns (since these are not prefixes)—scheme (i). Schemes (i–ii) for filling 3pp leave one gap—there is no 1/2nsg in 3pp when the predicate does not include a tense-modal suffix. The gap is filled by column (iv); the occurrence of a 1/2nsg pivot pronoun in 3pp signals the IPe tense/evidentiality value (in place of suffix *-hara/-hare*, used when the pivot is 1/2sg or 3sg/nsg).

Note that secondary verbs do not co-occur with the IPe specification.

(4) *O-constructions*

As described in chapter 16, an Oc is only available in the following circumstances:

- when the O argument is 3rd person; or
- when the A argument is 3rd person and O is 1/2, only if
 - there is a tense-modal suffix (table 16.4); or
 - there is a secondary verb (with or without a tense-modal) (table 16.7).

This is a complex and unusual specification, in need of explanation.

The gender agreement shown by _x in schemes (ii–iv) can now be specified.

Gender agreement on:

- the tense-modal element if there is tense-modal but no secondary verb, under (ii) in (1),
- Rm before a 1/2nsg pronoun which marks IPe, under (iv) in table 27.1.
- Rm (if no tense-modal) or tense-modal (if this is present) in the presence of a secondary verb, under (iii) in (1),

is:

- always with S/A (which is the pivot) in an intransitive clause or in a transitive Ac;
- with O (which is the pivot) in an Oc where O is 3rd person;
- with A (which is not the pivot) in an Oc where A is 3rd person and O is 1/2 (this applies to the top right box in table 16.4, where there is a tense-modal element but no secondary verb, and to the top row of boxes in table 16.7, with a secondary verb, whether or not a tense-modal element is included).

(5) *Placement of the negative suffix*

It is odd that the negative suffix, *-ra*, has two distinct positions within the predicate. As stated in §7.3:

- when there is a tense-modal suffix, or when there is a secondary verb, or when there is neither of these and also no mood suffix, then negator *-ra* comes at the end of Rm (and, when word-final, has gender forms *-ra/-re*);
- when there is a declarative mood suffix but neither tense-modal nor a secondary verb, then negator *-ra* follows the declarative suffix (and has gender forms *-re/-ra*).

This is in need of explanation.

(6) *The form of tense-modal suffixes*

Each tense-modal suffix has two forms, one with an initial *-hV-* syllable and one without. The form with *-hV-* is used when directly following Rm. The form without *-hV-* is used in all other circumstances: following another tense-modal suffix, following a mood suffix, after an NP, and after a nominalized clause. This conditioning was discussed in §6.1, and will be further considered in §27.2

(7) *The 3rd person non-singular pronoun*

§10.5.5 summarized the special properties of the 3nsg pronoun *mee* and suggested that it evolved as a grammaticalization of the noun **madi* ‘man, person’, which is found in other Madi dialects. This explains most of the properties listed in §10.5.5:

- (i) Whereas other nsg pronouns take accusative *-ra* in O function in all transitive clause types (slot A of predicate structure, in table 4.1), *mee* only takes *-ra* (and then only optionally) just in an Ac, and then only when the A argument is also 3rd person. This relates to the fact that in an earlier stage of the language (and in modern Jamamadí) *-ra* may go onto an NP only when A is also 3rd person, within an Ac. The restriction applied to **madi* as a pre-predicate NP and now applies to *mee* as a pronoun within the predicate.
- (ii) *Mee* only occurs in the third pronominal slot when there is a secondary verb in the clause. All other pronouns may occur in third pronominal position whether or not a secondary verb is present. This is dealt with in §27.2.
- (iii) Of the pronouns, only *mee* can be alienable possessee within an NP; see §10.1.6. This is continuation of an earlier stage in which noun **madi* could be head of an NP and thus alienable possessee.
- (iv) Of the pronouns, only *mee* has a homonym as augment modifier (marking nsg number within an NP). It is likely that **madi* could also function as modifier within an NP (similar to *fana* ‘female’ and *maki* ‘male’) with plural meaning. From this function it has been grammaticalized to become augment modifier *mee* within an NP.
- (v) Only *mee* occurs as first element in three plural nouns. These probably go back to compounds the first member of which was **madi*.
- (vi) Only *mee* has a distinct clause-final allomorph (*mati*). This is a relic of the original form, **madi*; recall from §2.2.1 that **d* and **t* have fallen together, as *t*, in Jarawara. The proposed sequence of changes **madi* > *mati* > *mai* > *mee* is supported by the retention of *mati* as clause-final allomorph and by the occurrence of form *mai* in Jarawara songs (an archaic style) and in the Jamamadí dialect, as in (27.1).
- (vii) As pointed out in §11.1.1, PNs following *mee* within an NP must be in f form (whereas those following 1/2nsg must be in m form and for 1/2sg the first following PN is m with

later PNs being f). This may be an indication that the original noun **madi* had f gender (an inference which requires confirmation).

(8) *Declarative mood suffix*

Declarative suffix *-ke/-ka* is a very common suffix in Jarawara. It has a number of special properties:

- As mentioned under (5), the negative suffix *-ra* will follow declarative, if the predicate does not include a tense-modal suffix or a secondary verb.
- Although tense-modal suffixes generally precede mood, §6.3 described how the declarative suffix may be followed by IPn (probably a neutralization of the six past tense/evidentiality choices), or by intention, irrealis, or reported. There is a meaning difference between tense-modal suffixes occurring before and after declarative.
- A pronominal prefix can be directly attached to a declarative suffix (and also to a number of other mood suffixes, including interrogative but not including imperative).

27.2 TENTATIVE HISTORICAL SCENARIO

The following assumptions are made concerning an earlier stage of Jarawara.

(a) *There was no third pronominal position (3pp)*. A 3pp is not reported for any other Arawá language. The partial information available on the Jamamadí and Banawá dialects shows that there is here a 3pp, but with very limited occurrence, different in each dialect. In Jamamadí the 3pp is only attested (and only by 1sg *o-* in the data available) with secondary verb *ama* plus backgrounding mood suffix *-ni*, i.e. *ama o-ni*. It appears that Banawá has no 3pp with *ama* or with a tense-modal suffix; 3pp appears to be obligatory after f continuous suffix *-ⁱne*—see (27.10) below—and optional when there is neither tense-modal nor a secondary verb (e.g. *o-wato o-ke* ‘I know’).

(b) *There was no secondary verb*. Secondary verbs are also not attested for any other Arawá language. There appears to be very limited use of secondary verbs in the Banawá dialect; see (3) in §27.3. The Jamamadí dialect uses *ama* in a way that is superficially similar to secondary verb *ama* in Jarawara, but it is perhaps actually within a biclausal construction; see Step B below. Secondary verbs may have started to evolve at the time of proto-Madi, but only properly developed in Jarawara after this dialect separated off.

(c) *There was no immediate past eyewitness (IPE) tense/evidentiality specification*. This is not found in Jamamadí or Banawá (or in any other Arawá language) and is certainly a development within Jarawara.

(d) *The tense-modal element was not a suffix*. It was probably a clitic, which typically attached to the end of Rm.

(e) *There was an O-construction just when O was 3rd person*. This is what is found in Paumarí, and what was reconstructed in §16.5 for proto-Arawá. Jarawara has now extended Oc to be used when A is 3rd person provided there is a tense-modal specification or a secondary verb. (Full information is not available on the occurrence of Oc’s in Jamamadí and Banawá.)

(f) *There was no 3nsg pronoun*. It appears that no other Arawá language includes a 3nsg pronoun, whereas all three Madi dialects have this. It is shown below that the development of

3nsg *mee* is likely to have followed other Jarawara-particular diachronic shifts, suggesting that the 3nsg pronoun developed in the three dialects after the proto-Madi stage (note that the dialects have been continuously in contact).

(g) *The negative suffix only occurred immediately following Rm.* (More precisely, as the penultimate miscellaneous suffix.) This is how it occurs in Jamamadí and in Banawá.

(h) *The mood suffix -ke/-ka had a much more limited distribution* than it does in modern Jarawara. (It is more restricted in occurrence in Jamamadí and Banawá.)

It is now time to expound, one step at a time, the putative historical developments which have given rise to the features described in §27.1.

STEP A. Extension of use of suffix *-ke/-ka*.

A cognate suffix is not reported for any other Arawá language. The forms *-ke/-ka* are used very sparingly indeed in Banawá (including to host a 3pp pronominal prefix, illustrated in (a) above). Indeed, most indicative clauses in Banawá show no mood suffix; when Banawá speakers imitate the Jarawara, they tend to add a final *-ke/-ka* to each main clause, and exaggerate the sentence-final nasalization employed in Jarawara.

In Jamamadí, an indicative clause is most often marked by mood suffix *-ra/-ra* or *-(^l)ni/-ne* (these also occur in Jarawara, but are considerably less frequent, see §7.2.1). The suffix *-ke/-ka* is used in Jamamadí, but much more sparingly than in Jarawara. B. Campbell (1986: 172) states, ‘a full gloss of *ke* is “this is a major event which took place in chronological sequence after the previously mentioned event”’, and Campbell and Campbell (1993: 3) gloss *-ke/-ka* as ‘event line information’. In this dialect, *-ke/-ka* appears to mark some particularly significant activity. From my observations, it is typically included on a verb of speaking: ‘<direct speech> X said-*ke/-ka*’, indicating that the act of speaking is a critical activity.

I suggest that at an earlier stage, the Dec[larative] marker *-ke/-ka* was a clitic rather than a suffix (and is then better written =*ke/*=*ka*).

When the predicate included a tense-modal clitic, Dec attached to this, the two clitics making up one phonological word:

(α) Rm(-Neg) TM=Dec

When there was no tense-modal element, there were a number of ways in which Dec could become part of a phonological word (which must have two moras).

First, if there was a Neg[ative] suffix, this was attached after Dec:

(β) Rm Dec=Neg

If there was a pronominal prefix to RM, this was repeated as a prefix to Dec:

(γ) pron.pr-Rm pron.pr=Dec

When there was both Neg and a pronominal prefix, both were attached to Dec:

(δ) pron.pr-Rm pron.pr=Dec=Neg

If the predicate included none of tense-modal marker, negative suffix, or pronominal prefix, then Dec became an enclitic to RM:

(ε) Rm=Dec

In modern Jarawara, both TM and Dec have adopted suffix status. Grammatical arrangements (α–ε) still prevail, but we now have the elements in (α) and (β) joined up: Rm(-Neg)-TM-Dec and Rm-Dec-Neg. However, in (γ) and (δ), pron.pr-Dec and pron.pr-Dec-Neg are

maintained as separate words. (That is, a pronominal prefix does not get reinterpreted as a suffix.)

These changes were part of the expansion of *-ke/-ka* in Jarawara, as compared to Jamamadí and Banawá where it has a restricted role. It is plain that there was a change in the meaning of *-ke/-ka*. It may originally have had a contrastive sense, as in modern Jamamadí, drawing attention to some particularly significant activity; it is now simply the default marking for an indicative clause.

Step A thus led, first, to the placement of Neg after Dec when there is no tense-modal; this is not attested for Jamamadí or Banawá. And it led to the initial establishment of 3pp. Arrangements (γ) and (δ) produced an earlier version of scheme (i) from (1) in §27.1:

Rm 3pp:pron.pn (S/A if 1/2sg) = M_p

As seen in tables 16.2–4, if a clause lacks a tense-modal element (and lacks a secondary verb) but has a pronominal prefix, then this is repeated in 3pp as a prefix to mood. The repetition applies to 1sg *o-*, 2sg *ti-* (as S in an intransitive clause, and as A in a transitive Ac or Oc), and also to prefix *hi-*, which marks an Oc for which both A and O are 3rd person.

There have been other developments. The repetition of a pronominal prefix in 3pp has been extended to some other moods (see §7.2 and §§15.3–4). And, as an alternative to (pron.pr-)Rm(-Neg)-TM (pron.pr-)Dec, we can have, with a meaning difference (§6.3), (pron.pr-)Rm (pron.pr-)Dec(-Neg)-TM. (This placement of TM after Dec has not been extended to other mood suffixes.)

STEP B. Development of secondary verb.

It appears that the construction in Jamamadí which corresponds to the secondary verb construction with *ama* in Jarawara has the meaning ‘X is the one’, where X is pivot argument. A definitive analysis could only be constructed in the context of a full grammar of Jamamadí. I here present a tentative analysis, in terms of a sentence consisting of a verbal main clause followed by copula clause (with copula verb *ama*), the two clauses having coreferential pivots; this appears to be a device for identificational topicalization. Angle brackets <...> are used to enclose a clause. A typical Jamamadí sentence is (Campbell and Campbell 1993: 1):

(27.1) <Jara_O mai na.narifa o-ha-maró > <ama o-ni >
 Branco(m) 3nsgO REDUP.work.for 1sgA-AUX-FPef be 1sgCS-BKGF
 I am the one who used to work for the Brancos (lit. I used to work for the Brancos,
 I am)

Here the main clause has transitive verb *-narifa-* ‘work for’ with iterative reduplication involving auxiliary *-ha-* (see §9.3.2). The A argument is 1sg, identical to CS of the copula clause. (It appears that Jamamadí has not developed beyond this stage.)

I suggest that a present-day predicate in Jarawara which includes secondary verb *ama* (that cannot be analysed as biclausal, in the way that (27.1) can be) evolved from a construction type like this, a verbal clause followed by a copula clause.

There are three possibilities for argument coreferentiality in the original biclausal construction: CS of the second clause could relate to S, A, or O of the first clause.

(a) S identical with CS

*<(NP_S) (pronouns) Rm_S(=TM_S)> <(NP_{CS}) (pronoun_{CS}) ama=Dec_{CS}>
 became <(NP_S) (pronouns) Rm_S(=TM_S) (pronouns) ama=Dec_S>

There could have been a Dec suffix on each clause in the original biclausal construction, but in the uniclausal construction Dec can only be included once, at the end. (The same comment should be repeated for the further biclausal constructions presented below.)

Illustrating first for a sentence in which the predicate does not include any pronouns, the original biclausal construction could have been:

- (27.2) *<Jara_S jawa-hi =ri> <(Jara)_{CS} ama-ka>
 Branco(m) get.angry-m =RPem Branco(m) be-DECM
 it was the Branco who got angry (lit. the Branco got angry, he was)

The clauses here have a common pivot, *Jara* 'Branco' (S in the first clause, CS in the second). I postulate that this has developed into a monoclausal secondary verb construction in modern Jarawara:

- (27.2') <Jara_S jawe-hiri ama-ka>
 Branco(m) get.angry-RPem EXTENT-DECM
 the Branco was angry for a while

The meaning has shifted from 'identificational' in (27.2) to 'extended in time' in (27.2').

If the pivot argument is shown by a pronoun, then it will appear in both clauses of the biclausal construction and be retained at two places in the uniclausal development. With *texc otaa* and *1sg o-* replacing *Jara* in (27.2) we would get (pronouns select the f forms of RPe, *-(ha)ro*, and of Dec, *-ke*):

- (27.3) *<otaa jawa-ha =ro> <otaa ama-ke>
1excS get.angry-f =RPef *1excCS* be-DECF
 we were the ones who got angry

becoming:

- (27.3') <otaa jawa-haro otaa ama-ke>
1excS get.angry-RPef *1exc* EXTENT-DECF
 we were angry for a while

and:

- (27.4) *<o-jawa-ha =ro> <ama o-ke>
1sgS-get.angry-f =RPef be *1sgCS*-DECF
 I was the one who got angry

becoming:

- (27.4') <o-jawa-ro ama o-ke>
1sgS-get.angry-RPef EXTENT *1sg*-DECF
 I was angry for a while

What was subject pronoun in the copula clause now becomes 3pp with a secondary verb, scheme (iii) from (I) in §27.1.

(b) *A identical with CS*

Here the first clause is transitive and, since A is the pivot (being identical with CS in the second clause), an Ac must be chosen.

*<(NP_A) (NP_O) (pronoun_O) (pronoun_A) Rm_a (=TM_a)><(NP_{CS}) (pronoun_{CS}) ama=Dec_{cs}>
 became

<(NP_A) (NP_O) (pronoun_O) (pronoun_A) Rm_a (=TM_a) (pronoun_A) ama=Dec_a>

This can be exemplified with A = CS being *inc* pronoun *ee*:

(27.5) *<jomee_O ee fawa to-ka-na =ba> <ee ama-ke>
 jaguar(m) *inc*A disappear AWAY-APPLIC-AUX =FUTf *inc*CS be-DECf
 we are the ones who will get rid of (lit. make disappear) the jaguar

became

(27.5') <jomee_O ee fawa to-ka-na-ba ee ama-ke>
 jaguar(m) *inc*A disappear AWAY-APPLIC-AUX-FUTf *inc* EXTENT-DECf
 we'll be getting rid of (lit. making disappear) the jaguar

Further examples, where the pivot is 3sg and shown only by an NP—as in (27.2)—and where the pivot is a 1/2sg pronoun and shown by a prefix—as in (27.4)—could be provided.

These developments, with S = CS and A = CS, have been straightforward: Rm, TM, and Dec agree in gender with S in an intransitive clause and with A in a transitive Ac. The situation with O = CS is more complex.

(c) *O identical with CS*

I am postulating that the development of secondary verbs took place at a time when Oc's were only available for a 3rd person O (indeed, it will be suggested that the extension of Oc's came about through the introduction of a secondary verb construction).

There are three distinct situations here.

(ci) O is 3rd person. This presents no difficulties. The first clause is an Oc and we get:

*<(NP_O) (NP_A) (pronoun_O) (pronoun_A) Rm_o (=TM_o)> <(NP_{CS}) (pronoun_{CS})
 ama=Dec_{cs}>

became

<(NP_O) (NP_A) (pronoun_O) (pronoun_A) Rm_o (=TM_o) (pronoun_O) ama=Dec_o>

This is exactly the structure of an Oc with a secondary verb, when O is 3rd person, as set out in the lower two-thirds of table 16.7—all of Rm, TM, and Dec agree in gender with the O argument. For example:

(27.6) *<kasasa_O Okomobi_A hi-fa-ha =ro> <(kasasa_{CS}) ama-ke>
 cane.whisky(f) name(m) Oc-drink-f =RPef cane.whisky(f) be-DECf
 cane whisky (cachaça) is what Okomobi drank

became

(27.6') <kasasa_O Okomobi_A hi-fa-haro ama-ke>
 cane.whisky(f) name(m) Oc-drink-RPef EXTENT-DECf
 Okomobi was drinking cane whisky (cachaça)

(cii) O is 1/2, A is also 1/2. There is no present-day secondary verb construction corresponding to an original biclausal construction of this type, where O is identical to CS.

(ciii) O is 1/2, A is 3rd person. There is here evidence for a critical new development. Now the first clause in the original biclausal construction could not be an Oc, since O is not 3rd person; thus, it must be an Ac. We get:

*<(NP_A) (NP_O) (pronoun_A) (pronoun_O) Rm_a (=TM_a)> <(NP_{CS}) (pronoun_{CS})
 ama=Dec_{cs}>

became

<(NP_O) (NP_A) (pronoun_A) (pronoun_O) Rm_a (=TM_a) (pronoun_O) ama=Dec_o>

This unusual feature of this construction is that Rm and TM agree in gender with the A argument, whereas Dec agrees in gender with O. This is what identifies it as an Oc with O being 1/2 and A being 3rd person, in the top portion of table 16.7. It is a hybrid kind of Oc, with the first part reflecting the original transitive Ac, but with O agreement on Dec, showing that it is a type of Oc. Its status as an Oc is confirmed by the fact that it is the O pronoun which is repeated after *ama*. For example (this is (16.36)):

(27.7) *<inohowe_A owa fito ka-na-hi =na> <ama o-ke>
 alligator(m) IsgO grab APPLIC-AUX-m =IRRM be IsgCS-DECf
 I was the one who the alligator might have grabbed (if it had been alive)

became

(27.7') <inohowe_A owa fito ka-ne-hina ama o-ke>
 alligator(m) IsgO grab APPLIC-AUX-IRRM EXTENT Isg-DECf
 the alligator might have grabbed me (if it had been alive)

The pivot is in O function and is realized as IsgO *owa* before the predicate, but it is repeated in 3pp as prefix form *o-* (continuing the CS form *o-*).

This historical scenario explains:

- How the copula verb *ama* was grammaticalized to become a secondary verb within the predicate.
- How a pronoun in CS function for copula verb *ama* innovated scheme (iii) for 3pp with a secondary verb.
- How a new type of Oc developed, where A is 3 and O is 1/2, when there was a secondary verb in the clause, as in the top third of table 16.7.
- The peculiar gender agreement in this new type of Oc, where Rm(-TM) agrees with A, while Dec agrees with O (and 3pp repeats the O pronoun).

There are in fact two secondary verbs, *ama* ‘extended in time’ (which developed from copula *ama* ‘be’) and *awine/awa* ‘it seems, I think’, which appears to be a development from ambitransitive verb *-awa-* ‘see, feel (internally)’—used intransitively (or perhaps reflexively)—plus miscellaneous suffix *-ⁱne/o* ‘continuous’. The syntactic development for *awine/awa* is exactly as for *ama*. A difference is that *awine/awa* is gender-sensitive. It agrees in gender with the pivot argument; see (16.38) and (7.20–6). An example of the development of a clause with secondary verb *awine/awa* is:

(27.8) *<jomee_O otaa kobo ra =ba> <otaa awi-ne-ke>
 jaguar(m) IexcA meet NEG =FUT IexcS see-CONTF-DECf
 it seems that we won’t meet a jaguar (lit. we will not see a jaguar, we are seen/felt)

became

(27.8') <jomee_O otaa kobo ra-ba otaa awine-ke>
 jaguar(m) IexcA meet NEG-FUT Iexc SEEMS-DECf
 I don’t think that we will meet a jaguar

The meaning shift here is from ‘S is seen/felt’ in the second clause of the original biclausal construction to ‘it seems/appears’ or ‘I think, in my opinion’ for the secondary verb *awine/awa* in the monoclausal construction.

As described in chapter 13, the copula verb *ama* takes no prefixes; this carries over to the secondary verb *ama*. Verb *-awa-* ‘see, feel (internally)’, which I suggest is the origin for secondary verb *awine/awa*, behaves like other inflecting verbs and does accept prefixes. However, the secondary verb *awine/awa* is like *ama* in taking no prefixes. It appears that the prohibition

against accepting prefixes has been analogized across from *ama* (which may have been the first secondary verb to evolve) to the other secondary verb *awine/awa*.

In §7.1, it was mentioned that *awine/awa* behaves differently from *ama* with respect to a 1/2sg pivot. The last part of the predicate involving each of the two secondary verbs plus declarative mood suffix is, for the various pronominal pivots:

	SECONDARY VERB <i>awine/awa</i>		SECONDARY VERB <i>ama</i>	
1sg	<i>owa</i>	<i>awine o-ke</i>		<i>ama o-ke</i>
2sg	<i>tiwa</i>	<i>awine ti-ke</i>		<i>ama ti-ke</i>
1inc	<i>ee</i>	<i>awine-ke</i>	<i>ee</i>	<i>ama-ke</i>
1exc	<i>otaa</i>	<i>awine-ke</i>	<i>otaa</i>	<i>ama-ke</i>
2nsg	<i>tee</i>	<i>awine-ke</i>	<i>tee</i>	<i>ama-ke</i>
3nsg	<i>mee</i>	<i>awine-ke</i>	<i>mee</i>	<i>ama-ke</i>

That is, with *awine/awa* and a 1/2sg pivot, the pronominal prefix is, as expected, added to Dec but in addition *owa* or *tiwa* is included before the secondary verb. In §7.1, it was suggested that this *owa/tiwa* may be a relic of the original O argument of verb *-awa-* ‘see, feel (internally)’. It is possible that a clause with secondary verb *awine/awa* goes back to an original biclausal construction in which the second clause included *-awa-* used reflexively (for example, *owa o-wa o-ke* ‘I see/feel myself’). More work is needed on this.

The next two steps, which could have been more or less simultaneous, were for the 3pp and the new type of Oc to be analogized across from a clause with a secondary verb to one with no secondary verb but including a tense-modal element.

STEP C. Extension of 3pp, where there is no secondary verb.

Step B established an earlier version of scheme (iii) of 3pp, from (1) of §27.1 (with x coding the gender agreement specified at (4) in §27.1):

(iii) $Rm_x (=TM_x)$ 3pp:pivot Sec_p Dec_p

The 3pp in (iii) is now analogized to also occur in an earlier version of stage (ii):

(ii) $Rm_x =TM_x$ 3pp:pivot Dec_p

Why should a 3pp only be included in a clause with no secondary verb if there is a tense-modal element? Well, under (i) we already have a different type of 3pp (just the pronominal prefixes) for when there is no tense-modal element and no secondary verb.

The ways which have been developed for filling 3pp can now be summarized, in table 27.2. Note that this is before the development of the 3nsg pronoun, at a time when the only non-zero pronouns were 1st and 2nd person.

STEP D. Extension of Oc, where there is no secondary verb.

I posited that in proto-Arawá an Oc was only permitted when O was 3rd person. Step B innovated an extension to when A is 3rd person and O is 1/2, provided there is a secondary verb. The predicate for this is:

$Rm_a (=TM_a)$ 3pp:O pronoun Sec_o M_o

Just as, in Step C, the 3pp is analogized from a clause with a secondary verb to one with a tense-modal element but no secondary verb, so was Oc analogized in a similar way, giving:

TABLE 27.2 Filling the third pronominal position after Step C

PREDICATE INCLUDES		3 pronominal position	SCHEME IN (I) OF §27.1
+ Sec, +/- TM	pivot is any 1/2 pronoun	filled by pivot	(iii)
no Sec, + TM			(ii)
no Sec, no TM	S/A is 1/2sg	filled by S/A pronominal prefix*	(i)
	S/A is not 1/2sg	empty	—

* A pronominal prefix is repeated in 3pp. This is 1sg *o-* or 2sg *ti-* in S and A function, or prefix *hi-* which marks an Oc where both A and O are 3rd person. Note that **bi-* (>*hi-*) can be reconstructed for proto-Arawá.

$Rm_a = TM_a$ 3pp:O pronoun M_o

This is the top right box in table 16.4. It was noted in §16.4.3 that there is no Oc if A is 3, O is 1/2, and there is neither a secondary verb nor a tense-modal element. Why is this? Well, in Step C the 3pp was analogized from a clause with a secondary verb to one with a tense-modal element; it could not apply to a clause with neither secondary verb nor tense-modal element since this type of 3pp had been partly covered by Step A. It seems that the restriction ‘only if there is a tense-modal element’, for extension of 3pp from a clause with a secondary verb to one without, also applied to the extension of Oc.

STEP E. Tense-modal elements become suffixes.

I have been assuming that tense-modal elements were originally clitics within the predicate, generally attaching to the Rm. The Rm would have added a final *-ha* for f and *-hi* for m gender agreement. Tense-modal elements then became suffixes and—when directly following a Rm—the erstwhile Rm-final *-ha/-hi* became incorporated as the first syllable of the tense-modal suffix. Illustrating with intransitive inflecting verb *-tafa-* ‘eat’ and the IPn tense-modal element:

f tafa-ha =ni > tafa-hani ‘eat-IPnf’
 m tafa-hi =no > tafa-hino ‘eat-IPnm’

There was then assimilation; for example *tafa-hino* > *tafe-hino*, *tafa-hamete* > *tafe-hemete* ‘eat-IPnf’.

Justification for the analysis of a present-day form such as *tafahani* as *tafa-hani* rather than as *tafaha-ni* was presented in §6.1.1, in terms of a form like *hi-wasiha-hamaro*, where *-ha-* occurs both at the end of the verb root and as the initial syllable of the tense-modal suffix, under appropriate conditions of underlying stress.

When a tense-modal suffix occurs in any position other than immediately following Rm, it does not include the initial *-hV-* syllable; this applies when it follows another tense-modal suffix, when it follows declarative mood, and when it is added to an NP or to a nominalized clause. This is because it was only when following Rm that there was a preceding *-ha/-hi* syllable which could be reinterpreted as a part of the tense-modal element when it became a suffix.

There is further evidence, of an unusual kind, for the presumption that tense-modal elements were originally clitics rather than suffixes. In §2.7 it was noted that when Okomobi was helping to transcribe texts, he would often say a long word slowly, breaking it up into disyllabic units. There was, however, a variant on this practice. He would sometimes make a break at the beginning of a tense-modal suffix (even if this did not come at the end of an even

number of syllables); for example:

amóna, máro, amáke	for	amo	na-maró	ama-ke
		sleep	AUX-FPef	EXTENT-DECf
		she	was	sleeping

This may be a relic from an earlier stage of the language, when tense-modal elements were separate grammatical words (but phonologically clitics). However, in the present-day language all tense-modal elements are bona fide suffixes, on all criteria (for example, the application of phonological rules).

The statement of each of Steps B–D has included specifications of the form ‘R_m=TM_x’, where the gender agreement on R_m was shown by final *-ha/-hi*. After the tense-modal element became a suffix, ‘R_m=TM_x’ became ‘R_m-TM_x’. R_m no longer marks gender, but TM shows it twice—in the initial *-hV-* syllable, and (except for future, see §6.1) in the final part of the suffix.

STEP F. Introduction of immediate past eyewitness (Ipe).

In (6.25) of §6.2.2, it was suggested that at an earlier stage the non-far past tenses were:

(6.25) EYEWITNESS		NON-EYEWITNESS
	current RPe form <i>-(ha)ro/- (hi)ri</i>	IPn <i>-(ha)ni/- (hi)no</i>
		RPn <i>-(he)te/- (hi)ta</i>

There then developed a new tense-modal marker for Ipe, parallel to IPn, with *-(ha)ro/- (hi)ri* contracting to just refer to RPe. The Ipe specification is only found in Jarawara (not in Jamamadí and Banawá).

The realization of the Ipe specification is ingenious. It can be seen in table 27.2 that there was a gap in the filling of 3pp. If there was no secondary verb or tense-modal element, and if S or A was 1/2nsg, then 3pp was left empty. The gap was now exploited. Realization of Ipe became:

- If pivot is 1/2nsg—simply repeat pivot pronoun in 3pp—scheme (iv) from (3) in §27.1; nothing goes into TM slot.
- If pivot is 1/2sg—place suffix *-(ha)ra/- (ha)re* in TM slot (3pp filled by pivot pronoun, as with all other TM suffixes).
- If pivot is 3sg/nsg—place suffix *-(ha)ra/- (ha)re* in TM slot (nothing in 3pp, as with all other TM suffixes).

No specification of Ipe is permitted in conjunction with the use of a secondary verb.

Attention was drawn to the empty space for 3pp in table 27.2 when there is no tense-modal element or secondary verb and *the S/A argument is 1/2nsg*, but then it was specified that a *1/2nsg pivot pronoun* is repeated in 3pp for Ipe. For an intransitive clause or a transitive Ac, the pivot is S or A. There is an Oc with 1/2nsg as pivot only if A is 3rd person. There is thus no possibility of conflict between 1/2sg A pronominal prefix filling 3pp, under scheme (i), and 1/2nsg pivot pronoun (O in an Oc) filling 3pp, under scheme (iv), simply because there is no Oc with 1/2sg as A and 1/2nsg as O (and pivot). (For example, a sentence such as ‘I (1sg A) saw you all (2nsg O)’ cannot be expressed by an Oc, only by an Ac.)

As discussed in §§6.1–2, the initial syllable of the Ipe suffix is unusual. All other TM suffixes have initial *-ha-* for f (which can become *-he-* through assimilation to an *e* in the next syllable) and *-hi-* for m. Here we have *-ha-* for f and m. This is what suggests that the development of Ipe (Step F) followed the suffixation of TM elements, in which they took over the final

-ha/-hi of the preceding Rm (Step E). In §6.2.2 it was suggested that IPe was assigned allomorphs with an initial *-hV-* syllable since all other tense-modal suffixes have this, and that *-ha-* was adopted for both genders possibly because *-ha-* is the unmarked form in other contexts (for example, as the ending onto verb roots ending in *o*, *i*, or *e* in word-medial position).

In §3.1, attention was drawn to the homonymy between negative suffix *-ra* and IPef *-(ha)ra*. Both occur in:

- (3.2a) *faha*_S *kowi-ra-ra-ke*
 water(f) be.deep-NEG-IPef-DECLF
 the water was not deep

The question was then put: if there is only one *-ra*, how to tell whether it is negative or IPef? The answer is that there could not be only one *-ra*. The underlying form of the verb in (3.2a) is *kowi-ra-hara-ke*, with the *-ha-* of IPe *-hara* dropping since it is the fourth mora of a phonological word. If there were no negative suffix *-ra*, the verb would be *kowi-hara-ke* and the *-ha-* would be in the third mora from which it would not drop (we'd get *faha kowi-hara-ke* 'the water was deep'). And if there were a negative suffix but no tense-modal element, then—according to the special rules for placement of the negator in Jarawara—this would follow the declarative mood suffix, giving *faha kowi-ka-re* 'the water is not deep'.

The point to note is that IPef *-(ha)ra* could develop in Step F, without fear of confusion with negative suffix *-ra*, by virtue of the rule that if there is no tense-modal suffix then the negator will attach after declarative mood, as established in Step A.

STEP G. Emergence of the 3nsg pronoun.

I posit that the development from noun **madi* 'person, man' to 3nsg pronoun *mee* ~ *mati* (and to augment modifier within an NP *mee* ~ *mati*) took place next.

We have to explain the occurrence of 3nsg *mee* as 3pp. In the modern language there are the following possibilities, relating to the rows in table 27.2:

SCHEME	PREDICATE INCLUDES	3pp CAN BE
(iii)	+ Sec, +/- TM	any I/2 or 3nsg
(ii)	no Sec, + TM	any I/2
(i)	no Sec, no TM	I/2sg

How did this difference between (iii) and (ii) evolve? I suggest the following scenario:

- Step B applied as set out above—any I/2 pronoun into 3pp with a secondary verb;
- Step C applied as set out above—any I/2 pronoun as 3pp extended to a clause with a tense-modal element but no secondary verb;
- Step E applied—3nsg pronoun evolved;
- Step B applied again, adding 3nsg to possibilities at 3pp with a secondary verb.

But—and this is the crucial part—the analogical extension of 3pp from a clause with a secondary verb to one with just a tense-modal element, in Step C, did not apply again, to include 3nsg. This accounts for 3nsg being found in 3pp for scheme (iii) but not for scheme (ii).

An alternative scenario would be to have the 3nsg pronoun develop before Step B, so that when the secondary verb construction first developed, 3pp could be filled by any I/2 pronoun or by 3nsg. We would then have to say that when this was analogized across to a clause with a tense-modal element but no secondary verb, in Step C, only the I/2 pronoun, not 3nsg, could

go into 3pp in scheme (ii). Such an instance of unmotivated partial analogical extension seems less likely than the set of changes just suggested.

The development of the 3nsg pronoun has been placed after the development of the IPe tense/evidentiality choice, since IPe is marked by placing a 1/2nsg pronoun, but not the 3nsg pronoun, in 3pp. If there were a 3nsg pronoun at the time IPe was introduced, then we would expect 3nsg to be treated like 1/2nsg.

STEP H. Third pronominal position optionally filled by complement clause subject or by possessor in NP.

The filling of 3pp was then extended in two ways, described at the end of (1) in §27.1. If a pronoun is in S or A function in a complement clause, which is itself in S function within the main clause (and if the pronoun is not raised to fill S slot in the main clause predicate), then the pronoun may optionally be repeated in 3pp of the main clause. And if a pronoun is inalienable or alienable possessor within a core NP, in a clause where all core NPs are 3rd person, then the pronoun may optionally be repeated in 3pp. In each instance, the optional filling of 3pp may only take place if the clause includes a secondary verb or a tense-modal element.

I suggest that these extensions took place after Step G, the development of the 3nsg pronoun, and after the second application of Step B, which added 3nsg to the list of pronouns which can fill 3pp with a secondary verb (but not with just a tense-modal element). The optional filling of 3pp by a complement clause subject pronoun or by a possessor pronoun applies for all pronouns (including 3nsg) with a secondary verb, but just for 1/2 pronouns (not for 3nsg) if there is just tense-modal but no secondary verb. It appears that the rules for filling 3pp, which applied after the second application of Step B, were analogically extended in these two ways.

In summary, the following steps in diachronic development have been suggested, with their relative orderings shown by downward loops at the left:

STEP

A {pr.prefix repeated on Dec, when no TM—3pp scheme (i)
 { Neg attached after Dec, when no TM

B development of secondary verb construction, with
 3pp scheme (iii)
 extension of Oc for A = 3, O = 1/2, with Sec

C extension of 3pp when there is TM but no Sec—3pp scheme (ii)

D extension of Oc for A = 3, O = 1/2, when there is TM but no Sec

E TM elements become suffixes, taking on initial *-ha-/-hi-* when following Rm

F innovation of IPe marking, including 3pp—scheme (iv)

G emergence of 3nsg pronoun *mee* (~ *mati*)

B repetition of Step B, with 3nsg being added to possibilities for 3pp in scheme (iii)

H complement clause subject or NP possessor optionally repeated in 3pp

Necessary orderings are as follows. Step A and the first application of Step B must precede Steps C and D, which must in turn precede Step F. Step E must precede Step F, which must precede Step G, which must precede the second application of Step B, which must precede Step H.

27.3 OTHER POINTS IN NEED OF EXPLANATION

Much further work is needed on the historical development of Jarawara, in concert with detailed comparison with the Jamamadí and Banawá dialects and with other Arawá languages, within the terms of a reconstruction of the grammar, phonology, and lexicon of proto-Arawá and investigation of the changes which have taken place between the proto-language and each of the modern languages and dialects. A sample of the points still to be accounted for will be briefly given.

(1) First person non-singular exclusive (1exc) pronoun *otaa*.

Other Arawá languages have free and bound pronouns cognate with 1sg, 2sg, 1inc, and 2nsg in Jarawara and other Madi dialects (see Dixon 1999a: 303), but no 1exc form corresponding to *otaa* in Jarawara (the form is *odaa* in Jamamadí and Banawá, dialects which maintain the *d/t* distinction). This must have evolved at the proto-Madi stage, but where it came from is unclear (the first part may relate to 1sg *o-* but, as stated at (E) in §2.8, the *-taa* element is obscure). Since *otaa* behaves in every way like the other 1/2nsg pronouns, it is likely to have evolved before Step B in §27.2.

(2) Gender agreement on PNs after a pronoun head in an NP.

This complex and unusual pattern of gender agreement is set out in table 11.2 of §11.1.1—all f after 3nsg, all m after 1/2nsg, and the first PN m but later ones f after 1/2sg. I suggested that the f forms after 3nsg *mee* may reflect the original noun **madi* having had f gender, but this is speculative. There is currently no explanation for the forms of PNs after 1/2nsg and after 1/2sg.

(3) The origin of miscellaneous suffix *-ⁱne/ø* ‘continuous’.

As already mentioned, data on the Jamamadí and Banawá dialects is limited. It appears that Jamamadí only permits 3pp in scheme (iii), with a secondary verb; it is indeed likely that a biclausal analysis is appropriate for a Jamamadí sentence like (27.1), in which case this dialect does not have a third pronominal position.

In my limited data on Banawá, there appears to be an optional 3pp in scheme (i), with neither tense-modal element nor secondary verb, and no 3pp at all in schemes (ii) and (iii). That is, Banawá has acquired a secondary verb construction but without the concomitant 3pp (it is possible that the secondary verb construction was borrowed from Jarawara, in simplified form). For example, a speaker of Banawá gave *awi_O tao o-ko-na-marō ama-ke* (tapir(m) shoot 1sgA-APPLIC-AUX-FPef EXTENT-DECf) for ‘I was shooting a tapir’. In Jarawara it would be necessary to repeat the 1sg pronominal prefix, *o-*, in third pronominal position; the sentence would be *awi_O tao o-ka-na-marō ama o-ke*, ending in *ama o-ke* in Jarawara in place of *ama-ke* in Banawá.

However, it appears that Banawá must include 3pp after the miscellaneous suffix *-ⁱne/ø* ‘continuous’. Corresponding to the Jarawara sentence in (27.9), a speaker of Banawá gave (27.10).

(27.9) *sabato_O soki o-ka-na-ki-ne o-ke*
 shoe tie 1sgA-APPLIC-AUX-COMING-CONTf 1sg-DECf
 I tie (my) shoe (laces)

(27.10) *sabato_O sako o-ki-ne o-ke*
 shoe tie 1sgA-APPLIC-CONTf 1sg-DECf
 I tie (my) shoe (laces)

Note the different lexical verb in Banawá, and the fact that the Banawá speaker did not use the ‘coming’ suffix *-kI*. (In Banawá, as in Jarawara, auxiliary *-na-* drops when immediately followed by continuous suffix *-ⁱne* if there is also a prefix, so that underlying *o-ka-na-ⁱne* becomes *okine*.)

Now, as noted under (7) in §5.9, the continuous suffix *-ⁱne/ø* has a number of rather special properties:

- It appears not to occur with any tense-modal suffix and could be treated as a member of the tense-modal system. I prefer to classify it as a miscellaneous suffix since (a) it engenders the change *a* → *i* on a preceding vowel, like some other miscellaneous suffixes but like no tense-modal suffixes (these may engender a change *a* → *e*); (b) all tense-modal suffixes have an initial syllable *-ha-*, *-he-*, or *-hi-*, which is missing from *-ⁱne*; and (c) the Oc prefix *hi-* may occur in 3pp after *-ⁱne/ø*, but *hi-* is not permitted after a tense-modal suffix (see table 16.4 in §16.4.3).
- It is the only miscellaneous suffix to follow negator *-ra* (it is in fact the last in sequence of the miscellaneous suffixes).
- Its m form has zero realization.
- Although it has a similar meaning to secondary verb *ama* ‘extended in time’, they do not co-occur in the same predicate.

Add to these the fact that in Banawá one of the few places where 3pp is used is after *-ⁱne*, and 3pp appears then to be obligatory. And that *-ⁱne/ø* was involved in the development of secondary verb *awine/awa* (<*-awa*+*-ⁱne/ø*) in Jarawara.

At this stage of enquiry I simply list these properties of the *-ⁱne/ø* suffix. They should provide clues for later work on its origin and development.

A number of other features of Jarawara grammar are in need of historical explanation. For example, when a pronoun is raised from A function within a complement clause (which clause is in S function within the main clause) into the S slot in the main clause predicate, it can be copied into third pronominal position only if the main clause does not include a tense-modal suffix or secondary verb. (See §17.6.)

The evolution of the unusual suffixes described in chapter 5—auxiliary-bound, auxiliary-taking (both the prefix-retaining and prefix-poaching varieties), and the two extra-echelon suffixes—is also in need of explanation. Each Arawá language has a fair-sized set of verbal suffixes but (unlike in other parts of the grammar) there are very few cognates between languages. It might be considered likely that comparison should uncover cognates between a verb in one language and a verbal suffix in another, on the principle that some of the suffixes may well have developed out of lexical verbs. However, a thorough search of the materials has not discovered any cognates of this nature.

Texts

Most of the texts recorded and analysed are fairly long; these include origin legends and reports of recent and far past historical events. Three of the shorter texts have been chosen for inclusion here, each from a different speaker, to provide as broad a picture as possible. Texts 1 and 2 were recorded by me, while text 3 was recorded by Alan Vogel; all three were transcribed, glossed, and explicated by me.

Text 3 describes how bark canoes used to be made, in the days before the advent of steel tools led to these being replaced by dug-out canoes. Text 1 describes how the funeral of a shaman is organized today, accommodating traditional practice to the exigencies of modern village life relating to the missionary airstrip. Text 2 provides a window into relations between Indians and Brancos (non-Indian Brazilians), who live along the major rivers.

Where two vowels come together in an underlying form and one is deleted from surface form, this is shown in square brackets; for example 1sg prefix *o-* plus verb *-awa-* ‘see’ becomes *owa-*, shown as *o-[a]wa-*; verb *-wina-* ‘lie in hammock’ plus suffix *-ⁱnofa* ‘happened continuously over recent time’ becomes *-wininofa*, shown as *-win[a]-inofa*.

The applicative verb prefix *-ka-* has a number of senses—see §8.2. Where possible they are indicated by including, in parentheses after the gloss ‘-APPLIC’, one of ‘(tr)’ for transitivity, ‘(in)’ for inside, ‘(du)’ for dual, ‘(sg)’ for singular, and ‘(ma)’ for marked argument. In the texts, *ahi* is glossed as HERE, *fahi* generally as THERE; see §12.1.2 for a full account of their meanings and discourse functions.

O-constructions in which both A and O are 3rd person are marked by the Oc prefix *hi-*; other O-constructions (in which either A or O is non-3rd person) are indicated by ‘(Oc)’ after the translation of that clause. All transitive clauses not involving *hi-* and not indicated by ‘(Oc)’ are either A-constructions or else clauses which cannot be morphologically distinguished between being A-constructions and being O-constructions—see §16.4.

TEXT 1: THE STORY OF SIKO’S BURIAL

Siko, an elderly shaman living in Casa Nova, had recorded a number of stories, including text 3, below. He died of tuberculosis on 3 March 1994. On 2 August 1994, Manowaree recorded this account of Siko’s death and (later the same day) his burial. The text lasts for 7 minutes 50 seconds. The event being described took place five months before the recording; note that here Manowaree uses recent past eyewitness in association with immediate past non-eyewitness; see the discussion of this in §6.2.2. (Recent past non-eyewitness is used only in lines T1.3–5 and T1.87.)

T1.1 [Siko ati]_s sai na-be;
 name(m) sound be.audible AUX-ALL.NIGHTM
 [[jama_s soki] jaa] ati_s sai, moni_s kise
 thing(f) be.dark+NOM PERI sound be.audible noise get.down+m
 the sound of Siko’s [deep breathing] can be heard all night; in the night (lit. when the
 thing is dark) the sound [of his breathing] is audible, and [there is] the noise of his
 getting down [from his hammock]

T1.2 to-ke, mii ne-bona, ati ne-no-ho
 AWAY-in.motion+m shit AUX-INTM say AUX-IPNm-DEP
 he goes out, he wanted to shit, he said

T1.3 to-ke-hita-ka [[jama_s soki] jaa]
 AWAY-in.motion-RPnm-DECM thing(f) be.dark+NOM PERI
 he went out in the night

- T1.4 otaa awa-re-ta-ka
 1excA see-NEG-RPnm-DECM
 we didn't see him (Oc)
- T1.5 otaa amo ne-te otaa-ke
 1excS sleep AUX-RPnf 1exc-DECf
 we were sleeping
- T1.6 arakawa_S haa ne-ri ama-ka, arakawa_S haa ne
 chicken(m) call AUX-RPem EXTENT-DECM chicken(m) CALL AUXm
 the rooster crowed, the rooster crows
- T1.7 [jama wehe]_S ka-maki-haro ama-ke,
 thing(f) brightness+f in.motion-FOLLOWING-RPef EXTENT-DECf
 [jama wehe]_S ka-maki-ha
 thing(f) brightness+f in.motion-FOLLOWING-f
 dawn came (lit. brightness followed on), dawn comes
- T1.8 [[[jama wehe]_S ka.ka-maki-raba ni] jaa]
 thing(f) brightness+f REDUP.in.motion-FOLLOWING-A.BIT AUX+NOM PERI
 Siko_S ahabe-no
 name(m) die-IPnm
 just when dawn was coming (lit. when brightness followed on a bit), Siko died
- T1.9 Kamina_A Webijo_O haa ne-ri ama-ka
 name(m) name(m) call.to AUX-RPem EXTENT-DECM
 Kamina called out to Webijo

Manowaree here (and below) refers to Kamina (Carmina), his wife, with m gender, as a mark of respect.

- T1.10 'Wero! Wero, okobise_O ti-[a]wa-ma-mata-hi'
 name(m) name(m) 1sgPOSS+uncle(m) 2sgA-see-BACK-SHORT.TIME-ImmPOSIMPf
 Kamina_A ati ne-ri-ka
 name(m) say AUX-RPem-DECM
 'Wero (another name for Webijo)! Wero, take a quick look at my uncle!' Kamina said
- T1.11 Wero_S kisa-me-no, ka-me-hiri-ka;
 name(m) get.down-BACK-IPnm in.motion-BACK-RPem-DECM
 Wero_S ka-me
 name(m) in.motion-BACKm
 Wero got down [from his hammock], and went out; Wero goes out
- T1.12 batise_O wasi-me-no, mera haa ne-ri-ka
 3sgPOSS+uncle(m) find-BACK-IPnm 3nsgO call.to AUX-RPem-DECM
 he found his (dead) uncle, called out to everyone
- T1.13 'okobise_O jama_A katoma-ke-ni
 1sgPOSS+uncle(m) thing(f) kill-DECf-IPnf
 'something [illness] has just killed my uncle

The verb *-katoma-* can refer to insects bothering someone, someone knocking someone over, someone fighting with someone, or, as here, illness killing someone.

- T1.14 'okobise_S win[a]-inofe, ahaba na-noho'
 1sgPOSS+uncle(m) lie.in.hammock-RECENTm die LIST.AUX-CONTRASTm
 'recently, my uncle has been [sick and] lying in his hammock, now he's dead'
- T1.15 Wero_A ati ne-ri-ka
 name(m) say AUX-RPem-DECM
 Wero said

The verb *ati-na-* is here used transitively, with *Wero* as A argument and the direct speech in T1.14 as O argument. There are similar uses of *ati-na-*, with direct speech as the O argument, throughout the texts.

T1.16 otaa kisa-haro otaa-ke fahi, otaa kisa;
 1excS get.down-RPef 1exc-DECf THERE 1excS get.down+f
 otaa to-ko-make
 1excS AWAY-in.motion-FOLLOWING
 we got down (from our hammocks) there, we get down; we go out following [where
 Wero is calling from]

T1.17 Kamo_A owa haa ne
 name(m) 1sgO call AUXm
 Kamo calls out to me

T1.18 [okiti ati]_S fawa-ka-no'
 1sgPOSS+grandfather(m) voice disappear-DECM-IPNm
 'my grandfather's voice has gone'

This is a euphemistic way of referring to death.

T1.19 Kamo_A ati ne-ri ama-ka
 name(m) say AUX-RPem EXTENT-DECM
 Kamo said

T1.20 otaa naho-riha, otaa kakatome
 1excS stand/sit(an, pl)-RAISED.SURFACEf 1excA stare.at+m
 we stand, in the house (lit. on a raised surface), and we stare at [the dead man] (Oc)

T1.21 Wero_A hi-[i]ba-ri-waha-me
 name(m) Oc-put-RAISED.SURFACE-NEXT.THING-BACKm
 then Wero puts the dead man in the house (lit. puts on a raised surface)

T1.22 mee sota hi-ne, [makari jaa] mee aka.ka
 3nsgA remove.clothes Oc-AUXm clothes(f) PERI 3nsgA dress.REDUP
 hi-nihe
 Oc-CAUSm
 they take off his clothes, and dress him in (clean) clothes

The verb *-aka-* 'dress' (A, person dressing; O, clothes) is here used in causative form *akaka-niha-* (see §8.1.2) to refer to someone dressing someone else; the person putting on the clothes is A, the corpse being dressed is O, and the clothes are marked by peripheral postposition *jaa*.

T1.23 makari_O ake
 clothes(f) dress+m
 he is dressed in (clean) clothes

T1.24 mee horo hi-waha-me,
 3nsgA drag Oc-NEXT.THING-BACKm
 mee hi-[i]ba-ri-waha-me
 3nsgA Oc-put-RAISED.SURFACE-NEXT.THING-BACKm
 then they drag [the corpse across the floor], and now put him back (where he had
 been in line T1.21)

T1.25 fore-hiri-ka fahi, fore,
 lie.on.raised.surface-RPem-DECM THERE lie.on.raised.surface
 otaa kakatome
 3nsgA stare.at+m
 he lay there, he lies, and we stare at him (Oc)

T1.26 'o-k[a]-iba ahi
 1sgS-in.motion-DO-FIRSTf HERE
 'I'm going off first

- T1.27 'habai_O o-wa-wite-mat[a]-ibe,'
 friend 1sgA-see-FROM.PLACE-SHORT.TIME-IMMEDf
 Kamo_A ati ne-ri ama-ka
 name(m) say AUX-RPem EXTENT-DECM
 'I'll just go and see (my) friend (Alan Vogel),' Kamo said
- T1.28 Kamo_S ka-ke; habai_O naa-ki-no,
 name(m) in.motion-COMING friend CAUS+in.motion-COMING-IPnm
 ka-me
 in.motion-BACKM
 he (Kamo) comes; he went to fetch (our) friend), and returns

Underlying causative prefix *na-* plus verb *-ka-* becomes *na-wa-* before *k* and then *naa-*; see phonological rules P1b and P2b in §2.9.1.

- T1.29 jama_S wa-haro ama-ke fahi, jama_S waha-risa
 thing(f) be.dawn-RPef EXTENT-DECf THERE thing(f) be.dawn-MARGINALf
 it was dawn, it is just dawn
- T1.30 Tafi_S mee jana to-ka-na
 name(m) 3nsgS set.out AWAY-APPLIC(du)-AUXf
 Tafi and one other set out
- T1.31 'Kowi_O ee to-[i]ti-make-haba ee-ke'
 name(m) 1incA AWAY-get-FOLLOWING-FUTf 1inc-DECf
 'we're going off to get Kowi'

Kowi is a relative of Siko who lives in the village of Jemete, about an hour's walk away.

- T1.32 'Kowi_O tee to-[i]ti-maki-ja'
 name(m) 2nsgA AWAY-get-FOLLOWING-DisPosIMPF
 'you (two) go and get Kowi!'

The distant positive imperative suffix *-jahi* is here shortened to *-ja*, with the vowel being lengthened, [-ʃa:].

- T1.33 [mee narabi]_O otaa nima na;
 3nsg ear+f 1incA (ask) AUXf
 mee to-wa-ka-maki-haro mee ama-ke;
 3nsgS AWAY-APPLIC(du)-in.motion-FOLLOWING-RPef 3nsg EXTENT-DECf
 Kowi_O mee to-na-ka-maki-ha mati
 name(m) 3nsgA AWAY-CAUS-in.motion-FOLLOWING-f 3nsgDEP
 Kowi_O mee to-na-ka-maki-ha mee
 name(m) 3nsgA AWAY-CAUS-in.motion-FOLLOWING-f 3nsgDEP
 we ask them (Tafi and a companion) [to go]; the two of them went; they go and get
 Kowi, they go and get Kowi

[—*narabi/narabo*]_O *nima* (where *narabi/narabo* is the possessed noun 'ear') is an idiomatic expression 'want to talk to, ask to do'; see §26.2.7.

- T1.34 [[bahi jabo-maki] jaa], mee kobo ka-na-ma
 sun(m) be.far-FOLLOWING+NOM PERI 3nsgS arrive APPLIC(du)-AUX-BACKf
 mee, otaa naho-ri-ha
 3nsgDEP 1excS stand/sit(an, pl)-RAISED.SURFACE-f
 in mid-morning (lit. when the sun is following far off), they (Tafi and companion)
 arrive back, we are sitting in the house (waiting for them)
- T1.35 [Amoro_S ohi ni]_S sai-hiri ama-ka, ohi na-ari
 name(m) cry AUX+COMP be.audible-RPem EXTENT-DECM cry AUX-DEPM
 Amoro could be heard crying (lit. Amoro crying was audible), she cries

Amoro, Siko's widow, is here accorded m gender, as a mark of respect.

TI.36 Amoro_S ohi ne
name(m) cry AUXm
Amoro cries

TI.37 [sina_O hisi ni]_S otaa naho-riha
snuff(f) sniff AUX+COMP IexcA(of COMP) sit/stand(an, pl)-RAISED.SURFACEf
we sit in the house sniffing snuff (lit. our sniffing snuff sits in the house)

The complement clause *sina* (O) *otaa* (A) *hisi ni* is in S function for the main verb *naho-risa*; the A pronoun, *otaa*, from the complement clause is then raised into the main clause; see §17.6.

TI.38 o-ka-habone
1sgS-in.motion-INTf
I am planning to go out

TI.39 [Wero tese-ne]_S wata-ra-re-ka
name(m) companion-m exist-NEG-IPem-DECM
(but) Wero had no one to stay with him (lit. Wero's companion did not exist)

TI.40 [Wero tese-ne]_{CC} o-ha-habone o-ke mata
name(m) companion-m 1sgCS-become-INTf 1sg-DECf SHORT.TIME
I'll stay with Wero for a while (lit. I'll be Wero's companion for a while)

TI.41 okobise_O otaa to-wa-ka-ba otaa-ke
1sgPOSS+uncle(m) IexcA AWAY-APPLIC(tr)-in.motion-FUTf Iexc-DECf
we'll take off my uncle (to bury him)

TI.42 otaa ati na, otaa naho-haa
IexcS say AUXf IexcS stand/sit(an, pl)-DEFf
we speak, as we stand outside

TI.43 'faha_O kii o-na-habana o-ke'
water(f) look.at 1sgA-AUX-FUTf 1sg-DECf
'I'll go fishing' (Haimoto said)

[faha]_O *kii na* (lit. 'look at water') is an idiom 'to fish'.

TI.44 Haimoto_A faha_O kii ne-bona;
name(m) water(f) look.at AUX-INTm
to-ke-hiri ama, [Bakoki jaa] fama-hi
AWAY-in.motion-RPem EXTENT name(m) PERI be.two-m
Haimoto intended to go fishing; he went, together with Bakoki (lit. with Bakoki he was two)

Despite the death in the village, someone has to go fishing, or there will be no food for the evening meal.

TI.45 otaa naho-ha, otaa naho na-ti-ha
IexcS sit/stand(an, pl)-f IexcS sit/stand(an, pl) AUX-ALL.DAY-f
we stand around outside, we stand around outside a good deal of the day

TI.46 Kowi_S foto-me
name(m) emerge-BACKm
Kowi arrives (lit. emerges from the jungle into the village)

TI.47 hinakiti_S ahaba-ka-no
3sgPOSS+grandfather(m) die-DECM-IPnm
his grandfather had just died

TI.48 hibaka ee to-ka-haba ee ama-ri?
WHEREf IincS AWAY-in.motion-FUTf Iinc EXTENT-CINTf
where shall we go?

T1.49 ee awa-ka-re?
 iincS see-DEC-NEGF
 who knows?

This is an idiomatic expression (lit ‘we (inclusive) don’t see’), meaning ‘who knows?’

They are discussing where to bury Siko. The normal practice is to bury a shaman in the village in which he dies, with the people then establishing a new village some kilometres away (to avoid the spirit of the dead man). However, Alan Vogel has built an airstrip at Casa Nova, and there is reluctance to move away from this. The discussion comes up with a compromise. Siko’s corpse is taken off and buried at an old village site, where his friend Boniwa is already buried. (And the village site is moved, but only to the other side of the missionary airstrip.)

T1.50 ee to-ka-haba ee-ke ahi
 iincS AWAY-in.motion-FUTF iinc-DECF HERE
 we’ll go here

T1.51 [[[fare owa teme-ne]_S ite] jaa], Boniwa;
 VERY.ONEM another+m grave-m sit+m PERI name(m)
 [[[Boniwa teme-ne]_S ite] jaa],
 name(m) grave-m sit+m PERI
 ee to-wa-ke-bana-ka
 iincA AWAY-APPLIC(tr)-in.motion-FUTM-DECM

where his friend’s (lit. the very one another’s, or another of the same kind’s) grave is,
 Boniwa; we’ll take [the corpse] (Oc) to where Boniwa’s grave is

T1.52 ee to-ko-make-haba ee-ke fahi
 iincS AWAY-in.motion-FOLLOWING-FUTF iinc-DECF THERE
 we’ll go following (the path) there

T1.53 otaa ati na
 iexcS speak AUXF
 we are talking

T1.54 ‘tee tiwa ka-ne-hibana-ka’
 2nsgA carry.on.shoulder APPLIC(du)-AUX-FUTM-DECM
 ‘you two will carry (the corpse) on your shoulders (Oc)’

T1.55 bahi_S noko.rise-hiri ama-ka
 sun(m) be.midday-RPem EXTENT-DECM
 it was noon (lit. the sun was at midday)

noko.risa- is a semi-idiomatic form ‘be midday’ made up of verb *-noko-* ‘turn’ and suffix *-risa* ‘down’, lit. ‘(the sun) turns down’.

T1.56 [[bahi_S noko.rise] jaa], otaa jana to-na
 sun(m) be.midday+m PERI iexcS start.out AWAY-AUXF
 at noon (lit. when it is noon), we set out

T1.57 isata_O otaa ka-jaba, otaa tiwa-ri ka-na;
 hoe(f) iexcA APPLIC-take+f iexcA carry.on.shoulder-DISTRIB APPLIC-AUXF
 otaa to-ka
 iexcS AWAY-in.motion+f
 we take hoes, and carry them one each on the shoulder; we go

T1.58 Bibiri_A hinakiti_O mee tiwa ka-na-haro
 name(m) 3sgPOSS+grandfather(m) 3nsgA carry.on.shoulder APPLIC(du)-AUX-RPef
 mee ama-ke, Jasito_S fama-haari
 3nsg EXTENT-DECF name(m) be.two-DEPM
 Bibiri and one other carried his grandfather on their shoulders, Jasito was the other
 (lit. Jasito making two)

- T1.59 otaa to-ko-make
 1excS AWAY-in.motion-FOLLOWING
 we go following
- T1.60 otaa to-ko-make, otaa waha to-witiha
 1excS AWAY-in.motion-FOLLOWING 1excS turn.off.path AWAY-FROM.PLACEf
 we go following, we turn off the main path (into a side track)
- T1.61 jama-maroc_S ama-ke haaro, jama_{C_S} to-ha
 thing(f)-FPef be-DECf THIS.ONE.VISIBLEf thing(f) AWAY-become+f
 awine-ke ahi
 SEEMSf-DECf HERE
 this is the olden-times place, it seems to be here
- T1.62 otaa to-ka, otaa to-ka
 1excS AWAY-in.motion+f 1excS AWAY-in.motion+f
 we go on, we go on
- T1.63 [fatara botee]_O otaa fija to-witiha
 garden(f) old 1excA pass.by.without.stopping AWAY-FROM.PLACEf
 we pass (through the middle of) an old garden, without stopping
- T1.64 otaa to-ka-tasa
 1excS AWAY-in.motion-AGAINf
 we go on again
- T1.65 [fatara botee one]_O otaa to-wasi-witiha
 garden(f) old another+f 1excA AWAY-find-FROM.PLACEf
 we come upon another old garden
- T1.66 afa_{C_S} jama-maroc_C ama-ke haaro,
 SPECIFf thing(f)-FPef be-DECf THIS.ONE.VISIBLEf
 kona_S wata-ka haari
 tingui(m) be.located-DECM THIS.ONE.VISIBLEM
 this is the olden-times place, this tingui (fish poison) plant is growing (here)
- T1.67 ee naho-haba ee-ke ahi
 1incS sit/stand(an, pl)-FUTf 1inc-DECf HERE
 we'll stay here (the place for the burial)
- T1.68 faja otaa naho-ha, jama_O otaa tii na,
 THEN 1excS sit/stand(an, pl)-f thing(f) 1excA cut AUXf
 otaa tii na, hoti_O otaa kanawana, hoti_O otaa wii na,
 1excA cut AUXf hole(f) 1excA begin+f hole(f) 1excA dig AUXf
 otaa naho-ha, hoti_O otaa wii na,
 1excS sit/stand(an, pl)-f hole(f) 1excA dig AUXf
 hoti_O otaa hawa to-niha
 hole(f) 1excA be.accomplished AWAY-CAUSf
 then we stand, we cut brush (clearing ground for the grave), we cut, we start on the hole,
 we dig the hole, we stand, we dig the hole, we finish the hole (lit. we make-accomplished
 the hole)
- T1.69 faja-ba_{C_S} ama-ke, hoti_S kowi-ke
 enough-FUT be-DECf hole(f) be.deep-DECf
 that'll be enough, the hole is deep
- T1.70 hoti_O otaa na-[a]mosa, ifi_O otaa na-[a]mosa
 hole(f) 1excA CAUS-be.good+f edge+f 1excA CAUS-be.good+f
 we make the hole well, we make the edges well

- T1.71 awa_O otaa tii na,
stick(f) iexcA cut AUXf
awa_O otaa ka-k-iba-re
stick(f) iexcA APPLIC-LINK-put.on.ground-RAISED.SURFACE
we cut some sticks, and put the sticks down (to line the bottom and sides of the hole)
- T1.72 bahi_S weo to-ne-hiri ama-ka,
sun(m) be.late.afternoon AWAY-AUX-RPem EXTENT-DECM
bahi_S weo to-ne
sun(m) be.late.afternoon AWAY-AUXm
the sun showed late afternoon (around four o'clock), the sun shows late afternoon
- T1.73 okobise_O otaa ka-kibi-risa,
iSGPOSS+uncle(m) iexcA APPLIC-put.inside-DOWNf
[hoti jaa] otaa ka-kibi-hi
hole(f) PERI iexcA APPLIC-put.inside-m
we put our uncle down, we put him into the hole (grave) (Oc)
- T1.74 otaa kamo, otaa kamo, otaa hawa to-ha
iexcA bury iexcA bury iexcS be.accomplished AWAY-AUXf
we bury (him), we bury (him), we finish
- T1.75 Wero_A fera_O sari ne,
name(m) candle(f) burn AUXm
[feras hiri ni]_O sii
candle(f) catch.fire AUX+COMP stand/sit(inan, pl)
ka-niha-re-hiri ama-ka
APPLIC(sg)-CAUS-RAISED.SURFACE-RPem EXTENT-DECM
Wero lights some candles, he set the lighted candles on sticks (around the grave)
- T1.76 'hima! ee to-ko-ma-ba ee-ke'
COME.ON iincS AWAY-in.motion-BACK-FUTf iinc-DECf
'come on! let's go back'
- T1.77 otaa ka-ma
iexcS in.motion-BACKf
we go back
- T1.78 o-joto-haro o-ni [mee ihi]
iSG-be.behind-RPef iSG-BKGF 3nsg DUE.TOF
I stayed behind, because of the others (that is, the others were afraid, so I went last)
- T1.79 otaa ka-ma, otaa kobo na-ma
iexcS in.motion-BACKf iexcS arrive AUX-BACKf
we go back, we arrive back
- T1.80 'ee afi na-mata, atabo_O ee kiha-ke'
iincS bathe AUX-SHORT.TIMEf mud(f) iincA have-DECf
'let's have a quick bathe, we've got mud (all over us)'
- T1.81 otaa afi na
iexcS bathe AUXf
we bathe
- T1.82 bahi_S to-ke-hiri ama-ka
sun(m) AWAY-in.motion-RPem EXTENT-DECM
the sun was setting (lit. going away)
- T1.83 otaa afi na, otaa tafa
iexcS bathe AUXf iexcS eat+f
we bathe, we eat

- T1.84 'tee kakome-rima na
2nsgS be.scared-ImmNegIMPF AUXf
'don't you all be afraid (of the dead man's spirit)
- T1.85 '[[ee kakome-tee-ri] -mone]CS ama-ke'
1incS be.afraid-HABIT-NEG+NOM -REF be-DECf
'we are said to be never afraid (lit. our being not habitually afraid is reported to be)'
- T1.86 otaa kakome-ra-ro otaa-ke
1excS be.afraid-NEG-RPef 1exc-DECf
we weren't afraid
- T1.87 otaa amo ne-te otaa-ke, otaa amo na,
1excS sleep AUX-RPnf 1exc-DECf 1excS sleep AUXf
otaa ka-waha-mina
1excS APPLIC(ma)-be.dawn-MORNINGf
we slept; we sleep, morning dawns (lit. we are with dawn in the morning)
- T1.88 otaa naho-mina-wa-haro otaa-ke fahi
1excS sit/stand(an, pl)-MORNING-NEXT.THING-RPef 1exc-DECf THERE
we stood around there outside in the morning
- T1.89 Kowi_S to-ko-me-ri ama-ka,
name(m) AWAY-in.motion-BACK-RPem EXTENT-m
[[bahi_S to-ke] jaa]
sun(m) AWAY-in.motion+m PERI
Kowi went back (home), late in the day (lit. when the sun goes away)
- T1.90 faja-mata_{CC} ama
enough-SHORT.TIME be
(that's) enough for now

TEXT 2: THE BRANCO WHO GOT AN ANT IN HIS PANTS

This is a personal reminiscence of an adventure which took place some years earlier, recorded at Casa Nova by Okomobi on 16 August 1994. It is told in far past tense, and lasts for 9 minutes 30 seconds.

- T2.1 Jobeto, narabi_S hawi-bote ama?
name(m) ear+f function-IMMEDIATELY EXTENT
Jobeto (addressing me), is the microphone on? (lit. is the ear [of the tape recorder] functioning now?)
- T2.2 o-hijara-mat[a]-ibe
1sgS-talk-SHORT.TIME-IMMEDf
I'll talk now for a short while
- T2.3 Jara_O o-komina-mat[a]-ibe,
Branco(m) 1sgA-tell.about-SHORT.TIME-IMMEDf
[otaa tabi] -maro-ho
1excS be.together+NOM -FPef-DEP
I'll tell right now, for a short time, about a Branco (non-Indian Brazilian), who I was with (lit. our being together) a long time ago
- T2.4 otaa to-ka-tima-wite, [Marene jaa],
1excS AWAY-in.motion-UPSTREAM-FROM.PLACE name(f) PERI
otaa to-ka-tima-wite,
1excS AWAY-in.motion-UPSTREAM-FROM.PLACE
otaa kobo ka-na, otaa to-ko-misa-wite,
1excS arrive APPLIC(du)-AUXf 1excS AWAY-in.motion-UP-FROM.PLACE
we go away upstream, on the Marene (River), we go away upstream, we two arrive,
we go away up (onto land)

T2.5 [Jara ati]_S hijawe, [Saokato ati]_S hijawe
 Branco(m) voice get.idea+m name(m) voice get.idea+m
 the Branco gets an idea, Salgado (the Branco's name) gets an idea

[— *ati/ati*] *-hijawa-* 'get an idea, suddenly think of something' is an idiom consisting of possessed noun *ati/ati* 'voice, language, sound' and the verb *-hijawa-*, which is unattested outside the idiom.

T2.6 'ee naho-mata-haba ee-ke
 IincS sit/stand(an, pl)-SHORT.TIME-FUTf Iinc-DECf
 'let's stay here for a while

T2.7 'jama_O tee jete na-mata,
 forest(f) 2nsgA hunt AUX-SHORT.TIMEf,
 jama_O tee to-[a]wa-wite-mata
 forest(f) 2nsgA AWAY-see-FROM.PLACE-SHORT.TIMEf
 [bani mee tabijo]
 animal(m) AUG LACK.OF
 'you (nsg) hunt in the forest for a while, you look in the forest, for game (lit. for the lack of game)'

T2.8 Saokato_A ati ne
 name(m) say AUXm
 Salgado says

Manuel Salgado (referred to as Saokato or Maneo in Jarawara) has decided he won't himself go on this hunting expedition and sends one of his people, José Tome, along with Okomobi. The 2nsg pronoun *tee* 'you' in T2.7 addresses Okomobi and José Tome.

T2.9 [ati ehene] otaa jana to-na
 language DUE.TOM IexcS set.out AWAY-AUXf
 following on from what he said, we set off

T2.10 'ee fama-haba ee-ke, [haa.'owa taa],
 IincS be.two-FUTf Iinc-DECf EMPH.1sg CONTR
 jomee_O mee o-kiha owa'
 dog(m) 3nsgO 1sgA-have+f 1sgDEP
 'there'll be two of us (lit. we will be two), (it'll be) me (not Manuel Salgado, with you), (because) I have dogs'

T2.11 [oko kobati]_A ati ne
 1sgPOSS friend(m) say AUXm
 my friend (José Tome) said

T2.12 'ee, ee fama-haba ee-ke'
 yes IincS be.two-FUTf Iinc-DECf
 'yes, there'll be just two of us'

T2.13 faja otaa jana to-ka-na,
 THEN IincS set.out AWAY-APPLIC(du)-AUXf
 otaa to-wa-ka
 IexcS AWAY-APPLIC(du)-in.motion+f
 then the two of us set out, the two of us go off

T2.14 kobaja_O jomee_A mee mee wasi-ha,
 collared.peccary(m) dog(m) 3nsgO 3nsgA find-f
 kobaja_O mee mee kijo-ha
 collared.peccary(m) 3nsgO 3nsgA run.after-f
 the dogs find some collared peccaries, they run after the peccaries

- T2.15 *kobaja_S mee to-wa-ki-jome-mete mee*
 peccary(m) 3nsgS AWAY-APPLIC(du)-in.motion-THROUGH.GAP-FPnf 3nsg
ama-ke [hoti jaa]
 EXTENT-DECLF hole PERI
 two peccaries went into a hole (in the ground)
- T2.16 *faja mee to-wa-ki-joma-ni mee*
 THEN 3nsgS AWAY-APPLIC(du)-in.motion-THROUGH.GAP-IPnf 3nsgDEP
 then they two (the peccaries) went into the hole
- T2.17 *jomee_S habo ne*
 dog(m) bark AUXm
 a dog barks
- T2.18 [*habo ni*]_O *otaa to-na-ka-makihi*
 bark AUX+COMP 1excA AWAY-CAUS-in.motion-FOLLOWINGm
 we go following the (noise of the dog) barking (Oc)
- T2.19 *kobaja_O otaa naaboha,*
 peccary(m) 1excA kill+f
 [*kobaja owa*]_O *otaa naaboha-make*
 peccary(m) another+m 1excA kill-FOLLOWING
 we kill a peccary, we follow up by killing another peccary
- T2.20 *faja otaa ka-ka-ma, otaa ka-kajoma-ma*
 THEN 1excS APPLIC(du)-in.motion-BACKf 1excS APPLIC(ma)-get.dark-BACKf
 then we two go back, it gets dark on us two
- T2.21 [*kobaja ataro*]_O *otaa ite-ha,*
 peccary(m) skin+m 1excA skin-f
 [[*kobaja ataro*]_S *iti*]_S *hawa to-he*
 peccary(m) skin+m skin+COMP be.accomplished AWAY-AUXm
 we skin the peccary, the peccary is fully skinned (lit. the peccary being skinned is accomplished)
- T2.22 [*Jara fana*]_A [*kobaja wahati*]_O *ka-rawa kaa,*
 Branco woman(f) peccary(m) liver APPLIC-toast+f PERI
 [[*kobaja wahati*]_S *ka-rawi*]_O *otaa kaba-habone*
 peccary(m) liver APPLIC-toast+COMP 1incA eat-INTf
 a Branco woman toasts the peccary livers, so that we should eat the toasted peccary livers
- T2.23 [*kobati Maneo*]_A *owa haa ne*
 friend name(m) 1sgO call.to AUXm
 my pal Manuel calls me (to eat)
- They have now returned to Manuel Salgado's house; it is Salgado's daughter-in-law who toasts the peccary livers.
- T2.24 *faja o-ko-make, otaa tafa, otaa joro na*
 THEN 1sgS-in.motion-FOLLOWING 1excS eat+f 1excS sit/stand(du) AUXf
 then I follow (him to the table), we eat, the two of us sit (and chat)
- T2.25 'ee to-ka-mina-haba ee-ke,'
 1incS AWAY-in.motion-MORNING-FUTf 1inc-DECLF
 Maneo_A *ati ne-mari ama-ka*
 name(m) say AUX-FPem EXTENT-DECLm
 'let's go out tomorrow morning,' Maneo said
- T2.26 'ee to-ka-haba ee-ke mina,
 1incS AWAY-in.motion-FUTf 1inc-DECLF MORNING
 ee jana to-na-mina-haba ee-ke'
 1incS set.off AWAY-AUX-MORNING-FUTf 1inc-DECLF
 z 'we'll go out tomorrow morning, we'll set out in the morning'

- T2.27 faja [otaa tafi]_S hawa to-ha,
 THEN *ixcS* eat+COMP be.accomplished AWAY-AUXf
 [[Maneo_S hijare] jaa] tafe,
 name(m) talk+m PERI eat+m
 [otaa tafi]_S hawa to-ha,
ixcS eat+COMP be.accomplished AWAY-AUXf
 then we finish eating (lit. our eating is accomplished), Maneo eats while talking, we finish eating
- T2.28 faya otaa amo na-bone, jifo_O otaa sere na,
 THEN *ixcS* sleep AUX-INTf hammock(m) *ixcA* hang.up(pl O) AUXf
 jifo_O otaa sere na,
 hammock(m) *ixcA* hang.up(pl O) AUXf
 [jifo_O otaa sere ni]_S hawa to-ha,
 hammock(m) *ixcA* hang.up(pl O) AUXf be.accomplished AWAY-AUXf
 otaa wina
ixcS lie.in.hammock+f
 then we want to sleep, we hang up our hammocks, we hang up our hammocks, we finish hanging up our hammocks (lit. our hanging up hammocks is accomplished), we lie in the hammocks
- T2.29 otaa amo na-ni,
ixcS sleep AUX-IPnf(DEP)
 otaa ka-waha-mina, otaa ka-waha-mina,
ixcS APPLIC(ma)-be.dawn-MORNINGf *ixcS* APPLIC(ma)-be.dawn-MORNINGf
 otaa bosa na-maro otaa-ke,
ixcS get.up.early AUX-FPef *ixc*-DECf
 otaa bosa na
ixcS get.up.early AUXf
 (after) we slept, morning dawns on us (lit. we are with dawn in the morning), morning dawns on us, we got up early, we get up early
- T2.30 ‘ee bosa na-ba ee-ke, jama_S jabo-ha awine-ke,
iincS get.up.early AUX-FUTf *iinc*-DECf thing(f) be.far-f SEEMSF-DECf
 [ee wini] -bone kaaro’
iincS lie.in.hammock+NOM -INTf PERIF
 ‘we need to get up early, I think the place we’re planning to stay at is far off’
- T2.31 Saokato_A ati ne
 name(m) say AUXm
 Salgado says
- T2.32 faja otaa bosa na, otaa to-ka-hamaro otaa-ke
 THEN *ixcS* get.up.early AUXf *ixcS* AWAY-in.motion-FPef *ixc*-DECf
 [hawi jaa], otaa to-ka
 path(f) PERI *ixcS* AWAY-in.motion+f
 then we get up early, we went off along the path, we go off
- T2.33 [otaa kaa jifo]_O otaa weje-ri ka-na
ixc POSS hammock(m) *ixcA* carry.on.shoulder-DISTRIB APPLIC(du)-AUXf
 [rata, sofa_S si.siri] -bone-he
 can(f) sorva(f) REDUP.cut -INTf-DEP
 we two each carry our hammock on our shoulder, (and) cans, (to put) extracted (lit. cut out) sorva latex (into)

The sorva tree produces a latex similar to rubber; the verb *siri -na-* is used to describe cutting grooves in a tree to obtain latex from it. Unusually for Okomobi as storyteller, the last part of T2.33 seems not to be fully grammatically integrated.

T2.34 faja otaa to-ka, Saokato_O o-ketebehe-mari ama-ka,
 THEN 1exCS AWAY-in.motion+f name(m) 1sgA-follow-FPem EXTENT-DECM
 Saokato_O o-ketebehe
 name(m) 1sgA-follow+m
 then we go off, I followed Salgado (Oc), I follow Salgado (Oc)

T2.35 owa haa na-mate-mari ama-ka
 1sgO call.to AUX-SHORT.TIME-FPem EXTENT-DECM
 he calls out to me urgently

T2.36 'kobati Komobi!'; 'haa'_O o-na;
 friend name(m) huh 1sgA-AUXf
 'kobati Komobi! [jomee ehene]_O ti-[a]wa haa'
 friend name(m) jaguar(m) DUE.TOM 2sgA-look(+IMP) THIS.ONE.VISIBLE
 'friend Okomobi!'; 'huh,' I say; 'friend Okomobi!, look at this here which is due to a jaguar!'

Salgado has noticed scratch marks of a jaguar on a tree. He now teases Okomobi about what he might do were he to encounter a jaguar.

T2.37 'jomee_O ti-nakomeha-ra ama-ti?'
 jaguar(m) 2sgA-be.scared.of-NEGF EXTENT-2sg
 'wouldn't you be scared of a jaguar?'

T2.38 ati ne-mari-ka
 say AUX-FPem-DECM
 he asked

T2.39 'jomee_O o-nakomeha-tee-re ama-ka;
 jaguar(m) 1sgA-be.scared.of-HABIT-NEGM EXTENT-DECM
 [[jomee_O o-[a]wi] jaa],
 jaguar(m) 1sgA-see+NOM PERI
 jomee_O tao o-ka-na owa awine o-ke
 jaguar(m) shoot 1sgA-APPLIC(sg)-AUXf 1sg SEEMSF 1sg-DECf
 [[jama_s jabo] jaa']
 thing(f) be.far+NOM PERI
 'I'm not afraid of jaguars (Oc); if I should see a jaguar, I think I'd shoot it, from a long way off'

T2.40 o-na-hamaro o-ke, owa haa.haa ka-ne-hiba-no-ho
 1sgA-AUX-FPef 1sg-DECf 1sgO laugh APPLIC(tr)-AUX-FUTM-IPnm-DEP
 I said (this), for him to laugh at me

The underlying verb in the first clause of T2.40 is *ati -na-*; as discussed in §4.5.1, the *ati* is omitted when the *-na-* takes prefix *o-*, *ti-*, or *hi-*. This also occurs in lines T2.36, 53, 57, and 94.

T2.41 owa haa.haa ka-ne-himari-ka
 1sgO laugh APPLIC(tr)-AUX-FPem-DECM
 he laughed at me

T2.42 faja otaa to-wa-ka-maki-waha,
 THEN 1exCS AWAY-APPLIC(du)-in.motion-FOLLOWING-NEXT.THINGf
 otaa to-wa-ka-maki-ha
 1exCS AWAY-APPLIC(du)-in.motion-FOLLOWING-f
 then we two go following on, we two go following on

Others had gone on ahead, and Salgado and Okomobi were following them. Hence the frequent use of suffix *-makI* 'FOLLOWING'.

- T2.43 *jaka ne-mari-ka, [o-nokosi jaa],*
 walk AUX-FP_{em}-DEC_f 1sgPOSS-in.front.of PERI
tai to-ha-make-haari, jaka ne
 go.ahead AWAY-AUX-FOLLOWING-DEP_m walk AUX_m
 he walked, in front of me, he is in the lead, he walks
- T2.44 *otaa to-wa-ka-riwa-make,*
 1excS AWAY-APPLIC(du)-in.motion-ACROSS-FOLLOWING
 we two go across following
- T2.45 *faha_O otaa ka-ka-riwaha,*
 water(f) 1excA APPLIC(tr)-in.motion-ACROSS_f
otaa to-wa-ka-maki-ha
 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-f
 we cross over a stream, we two go following on
- T2.46 *'jomee_A awa_O bisi hi-na-hani,*
 jaguar(m) tree(f) scratch Oc-AUX-IP_{nf}(DEP)
[awa_S bisi ni]_S waa-haa'
 tree(f) scratch AUX+COMP stand(sg)-DEF_f
 'a jaguar has scratched a tree, the scratched tree which is standing (here)'
- T2.47 *hora ka-ne-himari-ka*
 call.loudly.to APPLIC-AUX-FP_{em}-DEC_m
 he called this out loudly (to me)
- T2.48 *'kobati! kobati Komobi! [jomee ehene]_O ti-[a]wa haa'*
 friend friend name(m) jaguar(m) DUE.TOM 2sgA-see+f THIS.ONE.VISIBLE
 'friend! friend Okomobi! look at the signs of a jaguar here!'
- T2.49 *ati ne-mari-ka*
 say AUX-FP_{em}-DEC_m
 he said
- T2.50 *'jomee_A awa_O bisi ne, waa-hii, [[ti-wasi-ki] jaa],*
 jaguar(m) tree(f) scratch AUX_m stand-DEP_m 2sgA-find-COMING+NOM PERI
[himata_S ni] -ma ti-ri-ne-ja'
 what exist+NOM -like 2sgS-NEG-CONT_f-IMMED
 'if a jaguar was scratching on a tree, standing (there), and if you came and found it,
 what would you do?' (lit. what would you not be like?)
- T2.51 *ati ne-mari-ka*
 say AUX-FP_{em}-DEC_m
 he asked
- T2.52 *'ee awa-ka-re, kobati;*
 1excS know-DEC-NEG_f friend
[jomee_A awa_O bisi ni]_S waa-hii,
 jaguar(m) tree(f) scratch AUX+COMP stand-DEP_m
[[o-wasi-ki] jaa],
 1sgA-find-COMING+NOM PERI
jomee_O tao o-ka-ne-ne ama o-ke'
 jaguar(m) shoot 1sgA-APPLIC(sg)-AUX-IRR_f EXTENT 1sg-DEC_f
 'I don't know, friend; if I came and found a jaguar scratching on a tree, I would shoot
 the jaguar'
- T2.53 *o-na-hamaro o-ke*
 1sgA-AUX-FP_{ef} 1sg-DEC_f
 I said

T2.54 [haa ihi]_{CS} to-he-himari-ka,
 laugh DUE.TOF AWAY-become-FP_{em}-DEC_m
 owati_O haa.haa ka-na-haari
 1sgPOSS+language laugh APPLIC(tr)-AUX-DEP_m
 he laughed a lot, he laughs at what I say

See the commentary on T2.54 in §22.5.

T2.55 'kobati Komobi! jomee_O ti-nakomeha-ra ama-ti?'
 friend name(m) jaguar(m) 2sgA-be.afraid.of-NEGF EXTENT-2sg
 'friend Okomobi! aren't you afraid of jaguars?'

T2.56 'jomee_O o-nakomeha-tee-ra ama o-ke'
 jaguar(m) 2sgA-be.afraid.of-HABIT-NEGF EXTENT 1sg-DEC_f
 'I'm never afraid of jaguars'

T2.57 o-na-hamaro o-ke
 1sgA-AUX-FP_{ef} 1sg-DEC_f
 I said

T2.58 faja owa hijara to-na-make-hite,
 THEN 1sgO talk.to AWAY-AUX-FOLLOWING-ALONG.WAY
 otaa to-wa-ka-maki-ha
 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-f
 then he talks to me all along the way, as we two go following on

T2.59 faha_O otaa ka-ka-riwaha,
 water(f) 1excA APPLIC(tr)-in.motion-ACROSS_f,
 otaa to-wa-ka-maki-waha-maros otaa-ke,
 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-NEXT.THING-FP_{ef} 1exc-DEC_f
 faha_O otaa fawa-haa
 water(f) 1excA drink-DEP_f
 we cross a stream, then we two went following on, we drink some water

T2.60 otaa to-wa-ka-maki-waha,
 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-NEXT.THING_f
 otaa to-wa-ka-maki-waha-maros otaa-ke
 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-NEXT.THING-FP_{ef} 1exc-DEC_f
 then we two go following on, then we two went following on

T2.61 [[jama_S amosa-kosi] jaa],
 thing(f) be.good-MIDDLE+NOM PERI
 awa_S homa-kosa-hamaro ama-ke,
 tree(f) lie.on.ground(sg)-MIDDLE-FP_{ef} EXTENT-DEC_f
 awa_S homa-kosa
 tree(f) lie.on.ground(sg)-MIDDLE_f
 in a clearing (lit. in a place that is good in the middle of the forest), a tree was lying
 in the middle (of the clearing), a tree is lying in the middle

T2.62 Saokato_S ka-riwe-himari ama-ka, ka-riwe
 name(m) in.motion-ACROSS-FP_{em} EXTENT-DEC_m in.motion-ACROSS_m
 [wajo afe]_O weje to-kase-no
 foliage(f) leaf+f brush.with.shoulder AWAY-ALL.AT.ONCE-IP_{nm}(DEP)
 Salgado crossed (under the fallen tree), he crosses, he brushed his shoulder on the
 leaves of some foliage

The most usual meaning of the verb *weje -na-* is 'person (A) carries something (O) on the shoulder'. Here it is used for 'person (A) brushes their shoulder against something (O)'.

T2.63 [[jimos_S wana] -no kaa [wajo afe]]_O
 tocandira.ant(m) be.attached.to -IPnm(DEP) POSS foliage(f) leaf+f
 weje to-kase, ka-riwe-himari-ka,
 brush.with.shoulder AWAY-ALL.AT.ONCEM in.motion-ACROSS-FPem-DECM
 mowi n[a]-[r]isa-haari, makoni
 bend.over AUX-DOWN-DEPM UNUSUAL
 a tocandira ant was attached to a leaf on the foliage which he brushed with his shoulder,
 he went across (under the fallen tree), bending down in an unusual way

T2.64 jimos_S sone-himata awa-ka, [[Saokato kaa makari tosi] jaa]
 ant(m) fall-FPnm SEEMSM-DECM name(m) POSS clothes(m) lower.bac PERI
 it seems that the ant fell down the back of Salgado's trousers

T2.65 [[Saokato_S habi to-sa-maki] kaa],
 name(m) pass.under AWAY-ONCE-FOLLOWING+NOM PERI
 [mowi na-me kaa],
 bend.over AUX-BACKM PERI
 [[[makari tosi]_S aw[a]-ihina-kosa-wa-ma]_{REL} jaa]
 clothes(f) lower.back see-CAN-MIDDLE-NEXT.THING-BACKM PERI
 jimos_S sone-hino
 ant(m) fall-IPnm(DEP)
 because Salgado passed under (the fallen tree), because he bent over, the middle of
 the back of the top of his trousers was open (lit. could be seen), and the ant fell in

Salgado is a huge man. He was wearing trousers but no shirt. As he bent down, a gap opened at the back of his trousers and the ant fell into it.

T2.66 jotohoti_O jimo_A boo hi-ka-ne-mari-ka,
 anus ant(m) sting Oc-APPLIC-AUX-FPem-DECM
 jimo_A boo hi-ka-ne
 ant(m) sting Oc-APPLIC-AUXM
 the ant repeatedly stung his bum, the ant stings repeatedly

T2.67 fito to-kase-mari-ka,
 run.up.and.down AWAY-ALL.AT.ONCE-FPem-DECM
 fito to-kase
 run.up.and down AWAY-ALL.AT.ONCEM
 he frantically ran up and down, he runs up and down

T2.68 jotohoti_O tao ka-ne-himari-ka, tao ka-ne,
 anus slap APPLIC(sg)-AUX-FPem-DECM slap APPLIC(sg)-AUXM
 jotohoti_O wiji.wiji ne, to-wa-make
 anus REDUP.shake AUXM AWAY-stand-FOLLOWING
 he slapped at his bottom, he slaps, he shakes his bottom wildly, as he stands (there)

T2.69 jimos_S kise-himata awa-ka,
 ant(m) go.down-FPnm SEEMSM-DECM
 [[hinaka makari bofe] kaa jaa]
 3sg+POSS clothes(f) lower.part PERI PERI
 the ant seemed to go down lower in his trousers

T2.70 faja tenehe_O jimo_A hi-[i]ta-tase-himari-ka,
 THEN scrotum+m ant(f) Oc-pierce-AGAIN-FPem-DECM
 tenehe_O jimo_A hi-[i]te
 scrotum+m ant(f) Oc-pierce+m
 then the ant stung him again, on the balls, stings his balls

- T2.71 tenehe_O kisa ka-ne-himari-ka [kasiro jaa],
 scrotum+m shake APPLIC-AUX-FP_{em}-DECM a.lot PERI
 [[jimo_S sone-hibona] jaa]
 ant(m) fall-INTM PERI
 then he shook his scrotum a lot, so that the ant would fall to the ground
- T2.72 fanako_O jimo_A hi-[i]ta-tase-himari-ka
 thigh+m ant(m) Oc-pierce-AGAIN-FP_{em}-DECM
 the ant stung him again, this time on the thigh
- T2.73 hiwa sota na-wahe-ba-no-ho, hiwa sota ne,
 JUSTM take.off AUX-NEXT.THING-FUT-IP_{nm}-DEP JUSTM take.off AUXM
 makari_O tani n[a]-[r]ise, makari_S sona-hamaro-ke
 clothes(f) slide.down AUX-DOWNM clothes(f) fall-FP_{ef}-DECf
 then he took off (his clothes), he takes them off, he slides his trousers down, his
 trousers fall off
- T2.74 jimo_S wee-himari-ka, jaka na-wahare haari
 ant(m) stand-FP_{em}-DECM move AUX-MULTIPLE THIS.ONE.VISIBLEM
 the ant was on the ground, rushing in every direction
- T2.75 [Jara_O haa ni] -mari_{CS} ama-ne,
 Branco(m) laugh AUX+NOM -FP_{em} be-BKGM
 jimo_A saka hi-na-haari
 ant(m) pierce.repeatedly Oc-AUX-DEPM
 the Branco was so laughable, because the ant stung him so many times
- T2.76 [hinaka jimo]_O o-nabohe-himari-ka
 3sg+POSS ant(m) 1sgA-kill-FP_{em}-DECM
 I killed his ant (Oc)
- T2.77 tenehe_O kijo ka-ne-himari-ka, [tenehe komene ehene]
 scrotum+m rub APPLIC(du)-AUX-FP_{em}-DECM scrotum+m pain+m DUE.TO+m
 he rubbed his balls with both hands, because of the pain in his balls
- T2.78 faja o-ko-make, [jimo_O naabohi]_S hawa
 THEN 1sgS-in.motion-FOLLOWING ant(m) kill+COMP be.accomplished
 o-ha
 1sgA(of COMP)-AUXf
 then I went on, having finished killing the ant (lit. my killing the ant was accomplished)

The 1sg pronoun *o-* is in A function for the complement clause [*o-*] *jimo na-abohi*; it is raised into the S slot of the auxiliary of the main verb *hawa -ha-*; see §17.6.

- T2.79 otaa to-wa-ka-maki-waha-maroro otaa-ke,
 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-NEXT.THING-FP_{ef} 1exc-DECf
 then we two went following on
- T2.80 'kobati Komobi! o-tenehe_S koma-ke, jaka hina o-ke-re',
 friend name(m) 1sg-scrotum+m hurt-DECf walk CAN 1sgS-DECf-NEGF
 ati ne-mari-ka
 speak AUX-FP_{em}-DECM
 'friend Okomobi! my balls hurt, I can't walk,' he said

There is dialect variation concerning the f form of -DEC-NEG. Okomobi, and some other people in the village of Casa Nova, generally say *-ka-re*, whereas people from other villages prefer *-ke-re*. Okomobi here uses *-ke-re*, but in helping to transcribe the text he mentioned that he could have said *-kare* (the form he uses in lines T2.52 and T2.96).

- T2.81 'kobati! hemejo_O ti-watoha ama-ti?, hemejo mato kaaro'
 friend medicine(f) 2sgA-know EXTENT-2sg medicine(f) forest(f) PERIF
 ati ne-mari-ka
 speak AUX-FP_{em}-DEC_m
 'friend!, do you know of any medicine?, any medicine from the forest' he asked
- T2.82 'hemejo_O o-wato-ha owa awine o-ke,
 medicine(f) 1sgA-know-f 1sg SEEMSF 1sgf-DECf
 hemejo_S naa awine-ke ahi'
 medicine(f) exist+f SEEMSF-DECf HERE
 'I think I know a medicine, I think there's a medicine (lit. a medicine exists) around here'
- T2.83 otaa to-wa-ka-maki-ha,
 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-f
 then we two go following on
- T2.84 [jama afe]_S ka-wana,
 thing(f) leaf+f APPLIC-be.attached+f
 afe_O hisiri o-ka-na-re
 leaf+f pull.off 1sgA-APPLIC-AUX-RAISED.SURFACE
 leaves (on a vine) were attached to (a tree), I pulled some leaves off
- T2.85 'kobati, [jimo tehe-ne]_{CS} ama-ka haari?'
 friend ant(m) medicine-m EXTENT-DEC_m THIS.ONE.VISIBLE_m
 'friend, is this a medicine for ant bites?'
- T2.86 '[jimo tehe-ne]_O tee-ka-maki-hi,
 ant(m) medicine-m 2sgA+APPLIC-in.motion-FOLLOWING-ImmPosIMPf
 o-tenehe_S koma-ke'
 1sgPOSS-scrotum(m) hurt-DECf
 'you bring the ant medicine, my balls hurt'

Underlying 2sg *ti-* plus applicative *-ka-* become *ti-wa-* (before *k*) and then *tee-*; see phonological rules P1a and P2a in §2.9.1.

- T2.87 ati ne-mari-ka
 say AUX-FP_{em}-DEC_m
 he said
- T2.88 [jimo tehene] -bona_O [wajo afe]_O hisiri o-ka-na-ke,
 ant(m) medicine+m -INT_m foliage(f) leaf+f pull.off 1sgA-APPLIC-AUX-DECf
 tama o-ka-na
 hold.in.hand 1sgA-APPLIC-AUXf
 I pull off the leaves intended for ant bite medicine (Oc), and hold them in my hand
- T2.89 baro o-ka-n[a]-[r]isa-hamaro-ke, baro o-ka-n[a]-[r]isa
 beat 1sgA-APPLIC-AUX-DOWN-FP_{ef}-DECf beat 1sgA-APPLIC-AUX-DOWNf
 I beat the leaves into a pulp (with a stick) (Oc), I beat them into a pulp
- T2.90 'kobati! [[[ti-[i]nohoti fehe] jaa] [[jama_O afi
 friend! 2sgPOSS-mouth liquid+f PERI thing(f) be.wet
 ti-nihi] jaa]], tiwa ti-ke-te ti-na'
 2sgA-CAUS+NOM PERI 2sgO 2sgA-APPLIC-apply 2sg-LISTf
 'friend! after moistening (lit. making wet) the thing (medicinal leaves) with your saliva (lit. mouth liquid), you rub it on yourself' (Okomobi said)
- T2.91 o-wa-kawe, o-wa-kawe, o-wa-kawe-hibona
 1sgA-APPLIC-give+m 1sgA-APPLIC-give+m 1sgA-APPLIC-give-INT_m
 I give it to him (Oc), I give it to him (Oc), I am going to give it to him (Oc)

- T2.92 kijo o-ne-hibona, ati ne-mari-ka, kijo o-ne-hibona, ati ne
 rub 1sgA-AUX-INTM say AUX-FPem-DECM rub 1sgA-AUX-INTM say AUXM
 he wants me to rub (it on him) (Oc), he said, he wants me to rub (it on him) (Oc), he says
- T2.93 'kobati! o-tenehe_O kijo ti-na-habana ti-ke,'
 friend 1sgPOSS-scrotum+m rub 2sgA-AUX-FUT 2sg-DECf
 ati ne-mari-ka
 say AUX-FPem-DECM
 'friend! you rub (it) on my balls,' he asked
- T2.94 'kobati! ti-tenehe_O kijo o-ne-hene,
 friend 2sgPOSS-scrotum+m rub 1sgA-AUX-IRRF
 [ti-tenehe mahi]_S kita-ha awine-ke,'
 2sgPOSS-scrotum+m smell+f be.strong-f SEEMSF-DECf
 o-na-hamaro o-ke
 1sgA-AUX-FPef 1sg-DECf
 'friend! I could (but won't) rub your balls, they seem to have a strong smell (lit. their
 smell seems strong),' I said
- T2.95 owa haa.haa ka-ne-hiba-no-ho
 1sgO laugh APPLIC(tr)-AUX-INTM-IPnm-DEP
 making him want to laugh at me
- T2.96 'kobati! [tiwa ke-tehi]_O o-nofa o-ka-re
 friend 2sgO APPLIC-apply+COMP 1sgA-want 1sg-DEC-NEGF
 'friend!, I don't want to rub you(r balls)
- T2.97 'fara_O tiwa ti-ke-te-hi!'
 VERY.ONEF 2sgO 2sgA-APPLIC-apply-ImmPosIMPf
 'you rub yourself!'
- T2.98 o-na-hamaro o-ke
 1sgA-AUX-FPef 1sg-DECf
 I said
- T2.99 faja, jama_O o-wa-kawe
 THEN thing(f) 1sgA-APPLIC-give+m
 then, I give the thing (leaves) to him (Oc)
- T2.100 hiwa kijo na-wahe-mari-ka waha, hiwa kijo ne
 JUSTM rub AUX-NEXT.THING-FPem-DECM NEXT.THING JUSTM rub AUXM
 then he rubbed (it on) himself, he rubs (it on) himself
- T2.101 otaa to-wa-ka-maki-waha
 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-NEXT.THINGf
 then we two go on, following
- T2.102 makari_O wata-me
 clothes(f) put.clothes.on.over.feet-BACKM
 he put his trousers back on
- T2.103 otaa to-wa-ka-maki-waha
 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-NEXT.THINGf
 then we two go on, following
- T2.104 [[[otaa jaka ka-ni]_S jabo] jaa],
 1excS walk APPLIC(du)-AUX+COMP be.far PERI
 faja [tenehe kome-ne]_S fawa ne-mata-ka fahi
 THEN scrotum+m pain-m disappear AUX-FPnm-DECM CLIMAX
 when we had walked a long way (lit. when our walking was far), then the pain in
 his balls went away

- T2.105 [tenehe kome-ne]_S fawa ne-no,
 scrotum+m pain-m disappear AUX-IPnm(DEP)
 ati_S jana ne-mari-ka
 voice begin AUX-FPm-DECM
 when the pain in his balls had abated, he began to speak
- T2.106 ‘kobati! [o-tenehe kome]_S fawa-ke, [hemejo ihil’
 friend 1sgPOSS-scrotum+m pain+f disappear-DECF medicine(f) DUE.TOF
 ‘friend! the pain in my balls has gone away, thanks to the medicine’

The last three sentences provide paradigm examples of gender agreement on PNs, for NPs with different kinds of heads (see §11.1.1). With an m free noun as (implicit) head, both ‘scrotum’ and ‘pain’ are in m form, in T2.104–5; with 1sg *o-* as head, in T2.106, ‘scrotum’ is in m and ‘pain’ is in f form. (There is another example of this, with 2sg *ti-* as NP head, at T2.94.)

- T2.107 ati ne-mari-ka
 say AUX-FPm-DECM
 he said
- T2.108 ‘owati_O ti-ka-sawari-hara ti-ke,
 1sgPOSS+words 2sgA-APPLIC-get.lost-IPef 2sg-DECF
 “hemejo_S amosa awine-ke”, o-na-hara o-ke’
 medicine(f) be.good SEEMSF-DECF 1sgA-AUX-IPef 1sg-DECF
 “you didn’t believe what I said (lit. you were frustrated by my words), (but) I thought
 the medicine was good”, I said’
- T2.109 o-na-hamaro o-ke
 1sgA-AUX-FPef 1sg-DECF
 I said

Note here the quotes within quotes: “‘X’, I said (immediate past)” I said (far past). That is the FP clause in T2.109 is part of the narrative, and in the FP tense of the narrative, whereas the IP clause at the end of T2.108 is quoting what Okomobi said to Salgado in the story.

- T2.110 “[jimo tehe-ne]_O o-wato-tee ama o-ni”,
 ant(m) medicine-m 1sgA-know-HABIT EXTENT 1sg-BKGF
 o-na-hara o-ke’
 1sgS-AUX-IPef 1sg-DECF
 “I know a medicine against ant bite”, I said’
- T2.111 faja otaa to-wa-ka-maki-ha
 THEN 1excS AWAY-APPLIC(du)-in.motion-FOLLOWING-f
 then we two go following on
- T2.112 [[bahi_S to-ke] jaa], otaa kobo to-witihā-hamaro
 sun(m) AWAY-in.motion+m PERI 1excS arrive AWAY-FROM.PLACE-FPef
 otaa-ke, [[[otaa taboro] -bonehe] jaa]
 1exc-DECF 1excPOSS dwelling.place+m -INTf PERI
 as the sun was setting, we arrived at the place where we were to stay
- T2.113 faja pasioba_O mee tii na-bone,
 THEN paxiúba.palm(f) 3nsgA cut AUX-INTf
 mee to-ka-rawa-hamaro mee ama fahi,
 3nsgS AWAY-in.motion-F.NSGf-FPef 3nsg EXTENT THERE
 pasioba_O mee tii na-marō-ke fahi
 paxiúba.palm(f) 3nsgA cut AUX-FPef-DECF THERE,
 pasioba_O mee tii na-rawa
 paxiúba.palm(f) 3nsgA cut AUX-F.NSGf
 then they (some men) intended to cut paxiúba timber, they went out for (paxiúba trees)
 there, they cut paxiúba timber there, they cut many paxiúba trees

The sixth echelon suffix *-rawa* (§5.9) indicates that one argument of the clause relates to a feminine noun and has nsg number. In the final clause of T2.113 it is the O argument ‘paxiúba palm tree’ which is nsg. The second clause of T2.113 is intransitive and has 3nsg pronoun *mee* (here referring to men) as its S argument; in this instance *-rawa* refers to an otherwise unstated peripheral argument—they went out ‘for more than one paxiúba tree (f)’.

The loan word *pasioba*, from Portuguese *paxiúba* [pasjúba] is here only partly assimilated in pronunciation to Jarawara, since the initial [p] is retained.

- T2.114 [jobe ewe-ne]_O otaa hiri na-maró otaa-ke, [haa.‘otaa],
 house(m) timber-m IexcA make AUX-FPef Iexc-DECf EMPH.Iexc
 Haimoto otaa fama otaa,
 name(m) IexcS be.two+f IexcDEP
 [jobe ewe-ne]_O otaa sii to-niha-bisa;
 house(m) timber-m IexcA stand/sit(inan, pl) AWAY-CAUS-ALSO
 [[jobe ewe-ne]_S sii to-ni]_S
 house(m) timber-m stand/sit(inan, pl) AWAY-AUX+COMP
 hawa to-he
 be.accomplished AWAY-AUXm
 we made a house frame, we ourselves, Haimoto and I (lit. with Haimoto we are two),
 we erect (lit. make stand) the house frame; the house frame is fully erected (lit. the house
 frame’s being standing is accomplished)

In helping to transcribe this text, Okomobi explained that the use of *-bisa* (lit. ‘also’) here indicates that ‘they’ (*mee* in T2.113) did one thing—gathered the timber—and ‘we’ (*otaa* in T2.114) did another thing—erected the frame. An underlying *jaa* has been omitted from following Haimoto in the second clause; see §20.1.

- T2.115 ‘ee afi na-ba ee-ke, bahi_S fawa n[a]-[r]isa-ka’
 IincS bathe AUX-FUTf Iinc-DECf sun(m) disappear AUX-DOWN-DECM
 ‘let’s bathe, the sun is going down (lit. disappearing down)’

- T2.116 [[bahi_S fawa n[a]-[r]ise] jaa], otaa afi na
 sun(m) disappear AUX-DOWNm PERI IexcS bathe AUXf
 as the sun was setting (lit. disappearing down), we bathed

- T2.117 otaa k[a]-imisa-ma otaa, makari_O otaa aka-wa
 IexcS in.motion-up-backf IexcDEP clothes(f) IexcA wear.clothes-NEXT.THINGf
 having come back up (the bank, out of the water), we put on (new) clothes

- T2.118 faja otaa na.naho-ri ka-waha
 THEN IexcS REDUP.sit/stand(an, pl)-RAISED.SURFACE APPLIC(du)-NOWf
 then we sat around in the house

- T2.119 Jara_S mee hijara, [mee hijari]_O
 Branco(m) 3nsgS talk+f 3nsgS talk+COMP
 otaa ka-mita-maró otaa-ke
 IexcA APPLIC-hear-FPef Iexc-DECf
 the Brancos talk, we heard the Brancos talking

- T2.120 Saokato_A hiwa wati na-wahe-mari ama-ne,
 name(m) JUSTm remember AUX-NEXT.THING-FPem EXTENT-BKGM
 jimo_A saka hi-na-haari
 ant(m) pierce.repeatedly Oc-AUX-DEPm
 Salgado was recalling the ant biting him repeatedly

The verb *wati -na-* takes on the meaning ‘remember’ when used with suffix *-waha*.

- T2.121 ati_O mee haa.haa hi-ka-ne-mari ama, biti;
 words 3nsgA laugh Oc-APPLIC(tr)-AUX-FPem EXTENT 3sgPOSS+son
 Korikao_A [bati ati]_O haa.haa ka-ne-himari ama-ka
 name(m) 3sgPOSS+father words laugh APPLIC(tr)-AUX-FPem EXTENT-DECM
 they laughed to his words, including his son; Korikao (Coringão, his son) was laughing
 at his father’s words

T2.122 faja otaa amo na-waha otaa-ke waha,
 THEN 1excS sleep AUX-NEXT.THINGf 1exc-DECf NEXT.THING
 otaa amo na-waha
 1excS sleep AUX-NEXT.THINGf
 then, the next thing, we slept, we sleep

T2.123 faja_{CC} ama-ke, jabo-ra-bone-ke
 enough be-DECf be.long-NEG-INTf-DECf
 that's enough, it isn't intended to be (any) long(er)

TEXT 3: HOW TO MAKE A BARK CANOE

This was recorded by Siko at Casa Nova in June 1993; it lasts 8 minutes 45 seconds. Siko remembers back to his youth, describing how to make an olden-times canoe from the bark of a tree. Siko's narrative style is more informal and elliptical (and, as a consequence, slightly less coherent) than those in texts 1 and 2. The text has been lightly edited, omitting some false starts and correcting errors, on the advice of Okomobi, when he was helping transcribe the story.

This text has a particularly high proportion of O-constructions. It deals with constructing a canoe and, as a result, the canoe and its parts are in focus, rather than the people involved.

The first word of the text was missed from the recording. It is the name of the tree from which bark is taken for the canoe.

T3.1 [okobi jaa] mee fama, mee kaa hi-ne,
 1sgPOSS+father(m) PERI 3nsgS be.two+f 3nsgA chop Oc-AUXm
 to-ke
 AWAY-in.motion+m
 my father and one other (lit. they are two with my father), they chop (the tree) and it
 falls (lit. moves away)

T3.2 mee kaa hi-ka-ne-mari ama-ka ahi,
 3nsgA chop Oc-APPLIC-AUX-FPem EXTENT-DECm HERE
 [bari kaa jaa] mee kaa hi-ka-ne
 outer.surface ALONG PERI 3nsgA cut Oc-APPLIC-AUXm
 they were chopping it here, they cut along the outer surface (cutting around the outline
 of bark for the canoe)

See the comment in §3.4 on parsing the second clause of T3.2.

T3.3 mato, mato_S koto na-waha
 vine(f) vine(f) tie.around AUX-NEXT.THINGf
 a vine, a vine is tied around (the tree)

T3.4 mato_S [baikani jaa] wina-ha, haa wina-ha, [awa jaa]
 vine(f) middle PERI be.situated-f THIS be.situated-f tree(f) PERI
 the vine is round the middle (of the tree), (another vine) is situated on (the other side of)
 the tree

T3.5 [awa jaa] mee saka hi-ka-ne
 tree(f) PERI 3nsgA chisel.off Oc-APPLIC-AUXm
 they separated (the bark) from the tree (trunk, with a wooden chisel)

T3.6 [sf, sf, sf, sf, sf-sf, sf-sf]
 <imitation of sound of bark separating from trunk>

T3.7 sona-rise-himata-mona-ka, fahi, sona-rise
 fall-MARGINAL-FPnm-REPM-DECm THERE fall-MARGINALm
 (the bark) is said to have almost fallen down (off the tree) there, it almost falls down

- T3.8 faja okobi_A mee horo hi-na-kihi
 THEN 1sgPOSS+father(m) 3nsgA pull Oc-AUX-COMINGm
 then my father and others pull it off (lit. pull coming)
- T3.9 [[haa jaa], [haa jaa] toki]_S wata] -ba ahi
 THIS PERI THIS PERI singe+COMP exist -FUTf HERE
 at this corner, and at this corner, it is to be singed (over a fire) here (lit. its singeing is to exist)
- T3.10 ‘jama_S amos[a]-ine-ke haaro’
 thing(f) be.good-CONTf-DECf THIS.ONE.VISIBLEf
 ‘this thing is getting to be good’
- T3.11 okobise_A ati ne-mari-ka
 1sgPOSS+uncle(m) say AUX-FPem-DECm
 my uncle said
- T3.12 faja mee horo hi-witihi, faja mee horo hi-witihi
 THEN 3nsgA pull Oc-FROM.PLACEm THEN 3nsgA pull Oc-FROM.PLACEm
 mee
 3nsgDEP
 then they pull away (the bark), then they pull away (the bark)
- T3.13 ‘jifo_O afo ti-ka-na!’
 fire(f) light.fire 2sgA-APPLIC-AUXf(-ImmPosIMPf)
 ‘you light fires!’
- T3.14 [jifo one]_S ka-w-ita,
 fire(f) another+f APPLIC-LINK-be.located
 [jifo one]_S ka-w-ita, naa ahi
 fire(f) another+f APPLIC-LINK-be.located LISTf HERE
 one fire is located here, and another fire is located here (two fires in all)
- T3.15 jifo_O okobi_A afo ka-ne,
 fire(f) 1sgPOSS+father(m) light.fire APPLIC-AUXm
 okobi_A jifo_O afo ka-n[a]-ikime-himari-ka
 1sgPOSS+father(m) fire(f) light.fire APPLIC-AUX-TWO-FPem-DECm
 my father lights the fires, my father lit two fires

Note that the O and ANPs occur in the order OA in the first clause of T3.15 and in the order AO in the second clause, confirming that—although there are preferences for the orders of core constituents in both A-constructions and O-constructions—there are no absolute rules for phrase ordering, and the syntactic functions of NPs cannot be inferred from the order in which they occur. Both clauses are A-constructions.

- T3.16 [kanawaa tati]_O [[jimawa bite] jaa], okobise_A siri
 canoe(m) prow knife(f) small+f PERI 1sgPOSS+uncle(m) scrape
 hi-ne, [jimawa jaa] tati_O siri hi-ne, tati_O siri
 Oc-AUXm knife(f) PERI prow scrape Oc-AUXm prow scrape
 hi-n[a]-ikime
 Oc-AUX-TWOM
 my uncle scrapes (timber for) the prow of the canoe with a small knife, he scrapes
 the prow with a knife, he scrapes both (sides of the) prow

The inclusion of a peripheral NP (here *jimawa bite jaa*) between core constituents is unusual and a mark of the extreme informality of Siko’s style in this narrative; it also occurs in line T3.4. Note that there is a ‘comma intonation break’ after *jimawa bite jaa* (but no break after *baikani jaa* in T3.4).

The possessed noun *tati/tati* ‘head’ is here used in a secondary sense for ‘prow of a canoe’.

T3.17 fara [[kanawaa tati]_S ni] -ma
 VERY.ONEf canoe(f) prow exist+NOM -SIMILAR
 it becomes like a (modern-day) canoe prow (after he scraped and prepared the piece of timber)

The (loan) noun *kanawaa* is used both for an olden-days bark canoe and the tree from which it is made (which have m gender) and for a modern-day dug-out canoe (which has f gender). The inclusion of *fara*, in f form, indicates that the narrator is saying that the prow which was made is like the prow of a modern-day canoe.

T3.18 faja siri hi-ne, faja siri hi-ne-himata-mona-ka fahi
 THEN scrape Oc-AUXm THEN scrape Oc-AUX-FPnm-REPM-DECM THERE
 then he scrapes it, then he is said to have scraped it there

T3.19 naa hi-he-himari ama
 AUX Oc-AUX-FPem EXTENT
 he (father) was talking (to us)

The derivation of *na hi-he-himari* is interesting (see §4.5.1). The verb is *ati -na-* ‘speak, talk’, which must omit the non-inflecting verb root, *ati*, when its auxiliary, *-na-*, takes prefix *o-*, *ti-*, or (as here) *hi-*; underlying *ati hi-ne-himari* would thus become simply *hi-ne-himari*. But the verb here undergoes past iterative reduplication (§9.3.2) which brings with it the auxiliary *-ha-*. Prefix *hi-* and FPem suffix *-himari* then transfer from the verbal auxiliary *-na-* to the reduplication auxiliary *-ha-*; this gives *a'ati na hi-he-himari*. The reduplicated lexical verb *a'ati* then drops, leaving just *naa ni-he-himari*. (Note that *-himari* raises an immediately preceding *a* to *e*, and the auxiliary *na* lengthens its vowel to become a bimoraic form, *naa*, when it takes neither prefix nor suffix, and there is no preceding word to which it can cliticize.)

T3.20 siri hi-ne
 scrape Oc-AUXm
 he scrapes it

T3.21 'hima!, hawa to-ha-ka
 COME.ON be.accomplished AWAY-AUX-DECM
 ee to-wa-kisa-m[a]-ibeja'
 IincA AWAY-APPLIC(tr)-go.down-BACK-IMMEDf
 ‘come on! it’s finished, let’s take it back down (to the river)’

T3.22 faja mee behe hi-wahe, [[tati bako] kaa jaa]
 THEN 3nsgA turn.over Oc-NEXT.THINGm prow underside+m ALONG PERI
 jifos ka-w-ita,
 fire(f) APPLIC-LINK-be.located+f
 jifos hime to-na haa
 fire(f) burn.for.a.long.time AWAY-AUXf THIS.ONE.VISIBLE
 then they turn over (the canoe), so that along from the prow to the underside is over a fire,
 burning here for a long time (lit. along from the prow to the underside, fires are situated
 and burn for a long time)

In helping to transcribe this text, Okomobi opined that *tati bako kaa jaa jifo kawita* is really too elliptical. He would prefer *tati jaa jifo kawita, bako jaa jifo kawita* ‘a fire is situated at the prow, a(nother) fire is situated at the underside’.

T3.23 faja haro-rise, faja haro-rise, tati_S
 THEN become.soft-MARGINALm THEN become.soft-MARGINALm prow
 then it becomes a bit soft (from being warmed by the fire), then it becomes a bit soft, the prow

T3.24 [tati ewe-ne] -bona bere ahi, awas bere
 prow timber-m -INTm be.across HERE timber(f) be.across
 what is intended as a piece of timber to be across the prow (lit. intended prow timber is
 across) here, the timber is across

T3.25 'awas ha.hawa to-ha-r[a]-ini mata?'
 timber(f) REDUP.be.accomplished AWAY-AUX-NEG-PINTf SHORT.TIME
 ‘is the timber not nearly ready?’

- T3.26 awa_O bere hi-niha-risa, tati_O wara hi-ne-himari ahi
 timber(f) be.across Oc-CAUS-DOWNf prow hold Oc-AUX-FPem HERE
 he puts the timber down across, he held the prow here
- T3.27 okobise_A tati_O wara hi-ne, [mato jaa]
 1sgPOSS+uncle(m) prow hold Oc-AUXm vine(f) PERI
 my uncle holds the prow, with a vine
- T3.28 'ti-[a]wa-tee awa? sai, sai'
 2sgA-see-HABIT SEEMsm vine.species(m) vine.species(m)
 'do you know it? (Oc), (it is) sai, sai (a type of vine, called cipó-rei in Portuguese)'

Line T3.28 was an aside to Alan Vogel, who recorded the text.

- T3.29 [sai jaa], okiti_A soki hi-na-kihi,
 vine.sp(m) PERI 1sgPOSS+grandfather(m) tie.tightly Oc-AUX-COMINGm
 okobise, okobise_A soki hi-na-kihi
 1sgPOSS+uncle(m) 1sgPOSS+uncle(m) tie.tightly Oc-AUX-COMINGm
 my grandfather ties it tightly with sai vine (the narrator has made an error and now corrects himself), my uncle, my uncle ties it tightly (lit. tie coming)
- T3.30 'fara [[kanawaa tati boni]_s ni] -ma
 VERY.ONEf canoe(f) prow point+f exist+NOM -SIMILAR
 [tati boni]_O ti-[a]w[a]-ibeja'
 prow beak+f 2sgA-see-IMMEDf
 'it now looks like the point of the prow of a (modern-day) canoe, you take a look at the point of the prow'
- T3.31 faja [mete_s kahi]_s hawa
 THEN end(m) be.warmed+COMP be.accomplished
 then the warming of the end (of the canoe) is finished
- T3.32 faja [[tati_O hee hi-ka-tase] jaa]
 THEN prow(m) heat Oc-APPLIC-AGAINm PERI
 [[tati_O hee hi-ka-ne] jaa]
 prow(m) heat Oc-APPLIC-AUXm PERI
 [tati ewe-ne] -bona_O hi-wata-re
 prow(m) timber-m -INTm Oc-put.in-RAISED.SURFACE
 ewe-ne_O hi-wata-rise
 timber-m Oc-put.in-DOWNm
 [bono ewe-ne]_s wata-re
 point+m timber-m be.located-RAISED.SURFACE
 then when he again heats the prow (over fire, to straighten it), when he heats the prow, he puts in the piece of timber intended for the prow, he puts down the timber, the timber at the point (of the prow) is in position
- T3.33 wati hi-ka-ne-mari fahi, wati hi-ka-ne
 start Oc-APPLIC-AUX-FPem THERE start Oc-APPLIC-AUXm
 then he (uncle) started on it (the main part of the canoe) there, he starts on it
- T3.34 tee na.naho karahama na-hi fahi
 2nsgS REDUP.sit/stand(an, pl) CONTINUE AUX-ImmPosIMPf THERE
 jifos ka-w-it[a]-ine faaro
 fire(f) APPLIC-LINK-be.located-CONTF THAT.ONE.NON.VISIBLEf
 you stay just sitting over there! (on the bank; that is, don't sit in the canoe yet), there are still fires there

- T3.35 faja okobi_A otara hora ne,
 THEN 1sgPOSS+father(m) 1excO speak.sternly.to AUXM
 otaa naho-riha,
 1excS sit/stand(an, pl)-RAISED.SURFACEf
 otaa naho-riha otaa
 1excS sit/stand(an, pl)-RAISED.SURFACEf 1excDEP
 otaa naho-riha otaa
 1excS sit/stand(an, pl)-RAISED.SURFACEf 1excDEP
 then my father speaks sternly to us, we are sitting (on a log), as we are sitting, as we are sitting
- T3.36 okobi
 1sgPOSS+father(m)
 my father (said)
- T3.37 'ti-ka-make, ti-ka-make!
 2sgS-in.motion-FOLLOWING 2sgS-in.motion-FOLLOWING
 'you follow, you follow!'
- T3.38 o-ka-jawa-re, to-ka
 1sgA-APPLIC-be.upset-NEGM AWAY-in.motion-CONTM
 I don't get upset about it (Oc), and he is going off
- The final *a* of *to-ka* being retained, and not raised to *e* for *m* agreement, indicates the presence here of the *m* allomorph of the *CONT* suffix, which has zero form; see (7) in §5.9.
- T3.39 faja tati_O okobi_A tama hi-ne-himari ahi
 THEN prow(m) 1sgPOSS+father(m) hold.in.hand Oc-AUX-FPem HERE
 then my father got hold of the prow here
- T3.40 mete, mete_O okobi_A tama hi-ne
 end(m) end(m) 1sgPOSS+father(m) hold.in.hand Oc-AUXM
 my father gets hold of the end (of the canoe)
- T3.41 okobise_A soki hi-na-kihi
 1sgPOSS+uncle(m) tie.tightly Oc-AUX-COMINGM
 my uncle ties it tightly
- T3.42 [[so.soki na-ke-raba kabote hi-ne] jaa],
 REDUP.tie.tightly AUX-COMING-A.BIT IMMEDIATELY Oc-AUXM PERI
 [[soki n[a]-[r]isa, soki n[a]-[r]isa hi-ne] jaa],
 tie.tightly AUX-DOWN tie.tightly AUX-DOWN Oc-LISTM PERI
 amose-mari ama-ka
 be.good-FPem EXTENT-DECM
 when it is immediately tied a bit, tied down, when it is tied down, it became good
- T3.43 okobi_A kewe hi-ka-ne
 1sgPOSS+father(m) open.out Oc-APPLIC-AUXM
 my father opens out (the bark of the canoe)
- T3.44 faja awa_O mee tii na,
 THEN timber(f) 3nsgA cut AUXf
 awa_O mee soo to-niha mee
 timber(f) 3nsgA put(pl O) AWAY-CAUSf 3nsgDEP
 then they cut (pieces of) timber, putting the (pieces) of timber (in the canoe, as cross-pieces
 to sit on)
- T3.45 [awa jaa] otaa naho-riha
 timber(f) PERI 1excS sit/stand(an, pl)-RAISED.SURFACEf
 we sit on the timber (the cross-pieces)

- T3.46 hima! ee ori na mata
 COME.ON 1incS paddle AUXf SHORT.TIME
 come on! let's have a paddle (in it, trying it out)
- T3.47 kanawaa_S amosa-bisa ama-ke,
 canoe(f) be.good-ALSOf EXTENT-DECf
 [awa atari], [awa atari]_S amosa ama-ni bisa
 tree(f) bark+f tree(f) bark+f be.good+f EXTENT-BKGF ALSO
 the canoe is also good, the bark, the bark is also good
- T3.48 faja otaa kibe, otaa kibe,
 THEN 1excS be.inside(pl S) 1excS be.inside(pl)
 faja okobi_A otara ori ka-ne
 THEN 1sgPOSS+father 1excO paddle APPLIC(tr)-AUXm
 then we are inside (the canoe), we are inside, then my father paddles us
- T3.49 otaa to-wa-ka-fara-ma,
 1excS AWAY-APPLIC(in)-in.motion-CLEAR.SPACE-BACKf
 [[Fahabiri tori] jaa], otaa to-wa-ki-marō
 name(f) inside+f PERI 1excS AWAY-in.motion-COMING-FPef
 ama-ke ahi [Bosao kaa jaa]
 EXTENT-DECf HERE name(f) ALONG PERI
 we go away into a clear space, in the middle of the Fahabiri River, we moved away
 towards Bosao (an old village on the Fahabiri River)
- T3.50 faja otaa to-wa-kisa-ma,
 THEN 1excS AWAY-APPLIC(in)-go.down-BACKf
 otaa kobo to-ka-n[a]-[r]isa-ma
 1excS arrive AWAY-APPLIC(in)-AUX-DOWN-BACKf
 then we go back down (in the canoe) we arrive (at a place) back down (stream)
- T3.51 kanawaa_O mee awa-habone, kanawaa_O mee na-ka-ma
 canoe(f) 3nsgA see-INTf canoe(f) 3nsgA CAUS-in.motion-BACKf
 mee
 3nsgDEP
 for them (people downstream) to see the canoe, they took it (for a ride)
- T3.52 wa.wasi_O mee kowa-hani mati, wa.wasi_O mee kowa-hani,
 basket(f) 3nsgA weave-IPnf 3nsgDEP basket(f) 3nsgA weave-IPnf
 aba_O mee mee na-wasiha-habone mati
 fish(m) 3nsgO 3nsgA CAUS-find-INTf 3nsgDEP
 they (the people who are to be shown the canoe) are weaving (fish-catching) baskets,
 they are weaving baskets, for them to catch fish
- The verb *-wasiha-* is an S = O ambitransitive 'find, encounter'. The causative form *-na-wasiha-* (presumably based on the intransitive 'be found') means 'catch' (lit. 'make be found').
- T3.53 aba_O mee mee na-wasiha-habone,
 fish(m) 3nsgO 3nsgA CAUS-find-INTf
 wa.wasi_O mee kowa-hani mee,
 basket(f) 3nsgA weave-IPnf 3nsgDEP
 wa.wasi_S o.'ohari to-ha-ra-marō ama-ke
 basket(f) REDUP.be.one AWAY-AUX-NEG-FPef EXTENT-DECf
 for them to catch fish (in), they are weaving baskets, there were many baskets (lit.
 baskets were not one)
- T3.54 [korobo mee taa]_O mee mee na-wasi
 jeju(m) AUG CONTR 3nsgO 3nsgA CAUS-find
 they catch many jeju fish

T3.55 sakofana, [sakofana taa]_S ka-wina, korobos ka-wina
 lungfish(f) lungfish(f) CONTR APPLIC(in)-live jeju(m) APPLIC(in)-live
 lungfish are here, jeju are here

It appears that T3.55 constitutes a list (see chapter 23), although the list verb *na* is not provided. Note that, as is normal in a list, there is no gender agreement in the included clauses (outside a list, we would get *korobo ka-wine*, with the final *e* showing *m* gender agreement with *korobo*).

T3.56 wasabi, wasabi mati, [[wasabi mee taa]_O mee mee
 catfish(m) catfish(m) 3nsgDEP catfish(m) AUG CONTR 3nsgO 3nsgA
 na.na-wasi to-hi] -maro_{CS} ama-ke ahi
 REDUP.CAUS-find AWAY-AUX+NOM -FPef be-DECLF HERE
 catfish, lots of catfish, they would always be catching lots of catfish (with a basket) there

T3.57 oma, oma mati,
 piranha(m) piranha(m) 3nsgDEP
 [oma_O mee mee ka.kaba to-hi] -maro_{CS} ama-ke,
 piranha(m) 3nsgO 3ngA REDUP.eat AWAY-AUX+NOM -FPef be-DECLF
 oma_O mee mee na-wasiha mati
 piranha(m) 3nsgO 3ngA CAUS-find 3nsgDEP
 piranha, lots of piranha, they would always be eating lots of piranha, piranha which
 they had caught

T3.58 otaa ka-kisa-ma, otaa to-ko-misa-ma
 IexcS APPLIC(in)-go.down-BACKf IexcS AWAY-in.motion-UP-BACKf
 we go back down, we go back up (onto the shore)

T3.59 oma_O mee mee na-wasiha-habone,
 piranha(m) 3nsgO 3ngA CAUS-find-INTf
 mee to-wa-ka mee,
 3nsgS AWAY-APPLIC(in)-in.motion+f 3nsgDEP
 mee ka-ma, mee amo na-ma mee
 3nsgS in.motion-BACKf 3nsgS sleep AUX-BACK 3nsgDEP
 they (some others) went out to catch piranhas, they go on, they come back, they sleep

T3.60 aba_O mee mee bosa ka-na,
 fish(m) 3nsgO 3nsgA get.up.early APPLIC(tr)-AUXf
 mee to-ka mee,
 3nsgS AWAY-in.motion+f 3nsgDEP
 mee to-ka mee,
 3nsgS AWAY-in.motion+f 3nsgDEP
 mee to-ko-ma mee
 3nsgS AWAY-in.motion-BACKf 3nsgDEP
 they get up early with the fish, they come back, they come back, they come back

T3.61 aba_O mee mee jaba-hani, mee ka-ma mee,
 fish(m) 3nsgO 3nsgA take.out-IPnf+DEP 3nsgS in.motion-BACKf 3nsgDEP
 faja mee mee kobo ka-na-ma mee
 THEN 3nsgO 3nsA arrive APPLIC-AUX-BACKf 3nsgDEP
 they take out fish (from the basket trap), having gone back, arriving with them
 (the fish)

T3.62 mee mee kobo hi-ka-na-ma mee,
 3nsgO 3nsgA arrive Oc-APPLIC-AUX-BACKf 3nsgDEP
 [mee otaa kabi] -maro_{CS} ama-ke fahi
 3nsgO IexcS eat+NOM -FPef be-DECLF THERE
 having arrived with them (fish), we ate them there

Note that the last clause of T3.61 and the immediately following first clause of T3.62 are identical, save that the first is an A-construction and the second an O-construction. Within T3.61, the pivot linking the two clauses together is 3nsg *mee* (referring to the people), which is in A function in each clause, and requires an A-construction in each instance. Within T3.62, the pivot linking the two clauses together is 3nsg *mee* (referring to the fish) which is in O function in the first clause, requiring an O-construction. (It is in O function within the nominalized clause which functions as copula subject in the second part of T3.62.)

T3.63 wasabi mati, oma mati, sakofana rawa-haa
 catfish(m) AUG piranha(m) AUG lungfish(f) AUGF-DEPF
 many catfish, many piranha, many lungfish

T3.64 [[farina_S wata-ri] jaa], [ijawa jaa],
 flour(f) exist-NEG+NOM PERI manioc.meal(f) PERI
 mee otaa ka.kaba to-ha-hamaro mee ama-ni
 3nsgO 1excA REDUP.eat AWAY-AUX-FPef 3nsg EXTENT-BKGF
 because (at this time in the past) there is no flour, we would eat them (the fish) with
 manioc meal (Oc)

T3.65 [oko kanawaa]_O tee ita-rijahi, [jimawa jaa]
 1sgPOSS canoe(f) 2nsgA pierce-DisNegIMPF knife(f) PERI
 kanawaa_O tee ita-rijahi!
 canoe(f) 2nsgA pierce-DisNegIMPF
 don't you make a hole in my canoe with a knife, don't you make a hole in the canoe!

T3.66 kanawaa_S naa
 canoe(f) exist
 the canoe exists (that is, there is now a canoe)

References

- ADAMS LICLAN, P., and MARLETT, S. 1990. 'Madija noun morphology'. *International Journal of American Linguistics*, 56: 102–20.
- 1991. 'Antipasivo en mádiya (culina)'. *Revista Latinoamericana de Estudios Etnolingüísticos*, 6: 37–48.
- AIKHENVALD, A. Y. 1993. 'Syntactic pivots in Paumari'. MS. Universidade Federal de Santa Catarina.
- 1996. 'Words, phrases, pauses and boundaries: evidence from South American languages'. *Studies in Language*, 20: 487–517.
- 2000. *Classifiers: a typology of noun categorization devices*. Oxford: Oxford University Press.
- 2001. 'Areal diffusion, genetic inheritance, and problems of subgrouping: a North Arawak case study', pp. 167–94 of *Areal diffusion and genetic inheritance: problems in comparative linguistics*, ed. A. Y. Aikhenvald and R. M. W. Dixon. Oxford: Oxford University Press.
- BERLIN, B., and KAY, P. 1969. *Basic color terms, their universality and evolution*. Berkeley and Los Angeles: University of California Press.
- BRINTON, D. G. 1891. *The American race*. New York: N. D. C. Hodges.
- BULLER, B., BULLER, E., and EVERETT, D. 1993. 'Stress placement, syllable structure and minimality in Banawá'. *International Journal of American Linguistics*, 59: 280–93.
- BULLER, E., and BULLER, B. 1992. 'Banawa/English, English/Banawa dictionary'. Porto Velho: SIL.
- CAMPBELL, B. 1985. 'Jamamadí noun phrases', pp. 130–65 of *Porto Velho workpapers*, ed. D. L. Fortune. Brasília: SIL.
- 1986. 'Repetition in Jamamadí discourse', pp. 171–85 of *Sentence initial devices*, ed. J. E. Grimes. Dallas: SIL and University of Texas at Arlington. [Portuguese translation 'Repetição no discurso Jamamadí'. *Série Lingüística*, 9(1): 129–56.]
- CAMPBELL, R. 1977. 'Marcadores de fonte de informação na língua Jamamadí'. *Série Lingüística*, 7: 117–25.
- 1988. 'Avaliação dentro das citações na língua Jamamadí'. *Série Lingüística*, 9(2): 9–30.
- and CAMPBELL, B. 1992. 'Jamamadi dictionary'. Porto Velho: SIL.
- 1993. 'Verbs in Jamamadí'. MS. Porto Velho: SIL.
- CHANDLESS, W. 1869. 'Notes on a journey up the River Juruá'. *Journal of the Royal Geographical Society*, 39: 296–311.
- CHAPMAN, S., and DERBYSHIRE, D. C. 1991. 'Paumari', pp. 161–352 of *Handbook of Amazonian languages*, vol. iii, ed. D. C. Derbyshire and G. K. Pullum. Berlin: Mouton de Gruyter.
- and SALZER, M. 1998. *Dicionário bilingue nas línguas paumari e portuguesa*. Porto Velho, Brazil: Sociedade Internacional de Lingüística.
- DELANCEY, SCOTT. 1997. 'Mirativity: the grammatical marking of unexpected information'. *Linguistic Typology*, 1: 33–52.
- DERBYSHIRE, D. C., and PULLUM, G. K. (eds.). 1986. *Handbook of Amazonian languages*, vol. i. Berlin: Mouton de Gruyter.
- DIXON, R. M. W. 1977. *A grammar of Yidj*. Cambridge: Cambridge University Press.
- 1981. 'Wargamay', pp. 1–144 of *Handbook of Australian languages*, vol. ii, ed. R. M. W. Dixon and Barry J. Blake. Canberra: Australian National University Press.
- 1988a. *A grammar of Boumaa Fijian*. Chicago: University of Chicago Press.
- 1988b. "'Words" in Fijian', pp. 65–71 of *Lexicographical and linguistic studies: essays in honour of G. W. Turner*, ed. T. L. Burton and J. Burton. Cambridge: D. S. Brewer.
- 1991. *A new approach to English grammar, on semantic principles*. Oxford: Clarendon Press. [Revised edition in preparation.]
- 1994. *Ergativity*. Cambridge: Cambridge University Press.

- 1995. 'Fusional development of gender marking in Jarawara possessed nouns'. *International Journal of American Linguistics*, 61: 263–94.
- 1999a. 'Arawá', pp. 293–306 of Dixon and Aikhenvald 1999.
- 1999b. 'Semantic roles and syntactic typology: the semantic basis for a typology'. *Proceedings of the Chicago Linguistic Society's Annual Meeting*, 35(2): 323–41.
- 2000a. 'A typology of causatives: form, syntax and meaning', pp. 30–83 of Dixon and Aikhenvald 2000b.
- 2000b. 'Categories of the noun phrase in Jarawara'. *Journal of Linguistics*, 36: 487–510.
- 2000c. 'A-construction and O-constructions in Jarawara', *International Journal of American Linguistics*, 66: 22–56.
- 2001. 'Internal reconstruction of tense-modal suffixes in Jarawara'. *Diachronica*, 18: 3–30.
- 2002. 'The eclectic morphology of Jarawara and the status of word', pp. 125–52 of *Word: a cross-linguistic typology*, ed. R. M. W. Dixon and Alexandra Y. Aikhenvald. Cambridge: Cambridge University Press.
- 2003a. 'Evidentiality in Jarawara', pp. 165–87 of *Studies in evidentiality*, ed. Alexandra Y. Aikhenvald and R. M. W. Dixon. Amsterdam: John Benjamins.
- 2003b. 'Demonstratives: a cross-linguistic typology'. *Studies in Language*, 17: 61–112.
- Forthcoming a. *Basic linguistic theory*.
- Forthcoming b. 'Proto-Arawá phonology'. To appear in *Anthropological Linguistics*.
- and AIKHENVALD, A. Y. 1997. 'A typology of argument-determined constructions', pp. 71–113 of *Essays on language function and language type, dedicated to T. Givón*, ed. J. Bybee, J. Haiman, and S. Thompson. Amsterdam: John Benjamins.
- 1999. (eds.). *The Amazonian languages*. Cambridge: Cambridge University Press.
- 2000a. 'Introduction', pp. 1–29 of Dixon and Aikhenvald 2000b.
- 2000b. (eds.). *Changing valency: case studies in transitivity*. Cambridge: Cambridge University Press.
- and VOGEL, A. R. 1995. 'Reduplication in Jarawara'. *Languages of the World*, 10: 24–31.
- DURIE, M. 1986. 'The grammaticalisation of number as a verbal category'. *Proceedings of the Annual Meeting of the Berkeley Linguistics Society*, 12: 355–70.
- EHRENREICH, P. 1897. 'Materialen zur Spracherkunde Brasiliens: Vokabuläre von Purus-Stämmen'. *Zeitschrift für Ethnologie*, 24: 59–71.
- ENGLAND, N. 1983. *A grammar of Mam, a Mayan language*. Austin: University of Texas Press.
- EVERETT, D. 1995. 'Sistemas prosódicos da família Arawá', pp. 297–339 of *Estudos fonológicos das línguas indígenas Brasileiras*, ed. Leo Wetzels. Rio de Janeiro: Editora UFRJ.
- FACUNDES, SIDNEY DA SILVA. 2000. 'The language of the Apurinã people of Brazil (Maipure/Arawak)'. Ph.D. dissertation. State University of New York, Buffalo.
- FARABEE, W. C. MSS notebooks from 1913–16 field trip to Brazil. University of Pennsylvania Museum Archives.
- HEMMING, J. 1978. *Red gold: the conquest of the Brazilian Indians*. London: Macmillan.
- KEENAN, E. L. 1985. 'Passive in the world's languages', pp. 243–81 of *Language typology and syntactic description, 1: Clause structure*, ed. T. Shopen. Cambridge: Cambridge University Press.
- KOOP, G. 1977. 'Processes and roles in Dení clause structure'. Typescript. Porto Velho: SIL.
- and KOOP, L. 1985. *Dicionário Dení-Português*. Porto Velho: SIL. [Experimental edition of 10 copies.]
- and LINGENFELTER, S. G. 1980. *The Dení of western Brazil: a study of sociopolitical organization and community development*. Dallas: SIL Museum of Anthropology. [Published simultaneously in Portuguese as *Os Dení do Brasil ocidental: um estudo des organização socio-política e desenvolvimento comunitário*.]
- KROEMER, G. 1985. *Cuxiuara: o Purus dos indígenas, ensaio etno-histórico e etnográfico sobre os Índios do médio Purus*. São Paulo: Edições Loyola.
- LADEFOGED, P., LADEFOGED, J., and EVERETT, D. 1997. 'Phonetic structures of Banawá, an endangered language'. *Phonetica*, 54: 94–111.

- LEVIN, B. 1993. *English verb classes and alternations: a preliminary investigation*. Chicago: University of Chicago Press.
- LONGACRE, R. E. 1983. *The grammar of discourse*. New York: Plenum Press.
- LOUKOTKA, C. 1968. *Classification of South American languages*. Los Angeles: Latin American Center, UCLA.
- MATISOFF, J. A. 1975. 'Rhinoglottophilia: the mysterious connection between nasality and glottality', pp. 265–87 of *Nasálfest: papers from a symposium on nasals and nasalization*, ed. C. A. Ferguson, L. M. Hyman, and J. J. Ohala. Stanford, Calif.: Language Universals Project, Stanford University.
- MATOS, J. H. de. 1979. 'Relatório do estado de decadência em que se acha o Alto Amazônias'. *Revista do Instituto Histórico e Geográfico Brasileiro*, 325: 143–80.
- MATTESON, E. 1972. 'Proto-Arawakan', pp. 160–242 of *Comparative studies in Amerindian languages*, ed. E. Matteson. The Hague: Mouton.
- MERLAN, F. 1983. *Ngalakan grammar, texts and vocabulary*. Canberra: Pacific Linguistics.
- MILLER, J. 1995. 'Does spoken language have sentences?', pp. 136–47 of *Grammar and meaning: essays in honour of Sir John Lyons*, ed. F. R. Palmer. Cambridge: Cambridge University Press.
- MONSERRAT, R. M. F., and DA SILVA, E. P. 1991. 'Vocabulário e frases Jamamadi-Português'. Rio de Janeiro: Seminário Permanente de Educação e Estudos Indígenas. Faculdade de Letras de Universidade Federal do Rio de Janeiro.
- and SILVA, A. O. 1986. *Gramática da língua Kulina*. Acre: Conselho Indigenista Missionário.
- NOBLE, G. K. 1965. *Proto-Arawakan and its descendants*, Publication 38 of Indiana University Research Center in Anthropology, Folklore and Linguistics. (*International Journal of American Linguistics*, 31(3), Part II.)
- PAYNE, D. L. 1991. 'A classification of Maipuran (Arawakan) languages based on shared lexical retentions', pp. 355–499 of *Handbook of Amazonian Languages*, vol. iii, ed. D. C. Derbyshire and G. K. Pullum. Berlin: Mouton de Gruyter.
- PINKER, S. 1989. *Learnability and cognition: the acquisition of argument structure*. Cambridge, Mass.: MIT Press.
- RIVET, P., and TASTEVIN, C. 1938–9. 'Les langages Arawak du Purús et du Juruá (Groupe Aruá)'. *Journal de la Société des Américanistes de Paris*, 30: 71–114, 235–88; 31: 223–48.
- RODRIGUES, A. D. 1986. *Línguas brasileiras: para o conhecimento das línguas indígenas*. São Paulo: Edições Loyola.
- SAPIR, E. 1917. Review of C. C. Uhlenbeck, *Het identificeerend Karakter . . .*, in *International Journal of American Linguistics*, 1: 86–90 (reprinted as pp. 75–80 of Sapir's *Collected Works*, vol. v. 1990. Berlin: Mouton de Gruyter).
- SILVA, A. O., and MONSERRAT, R. M. F. 1984. *Dicionário Kulina–Português e Português–Kulina*. Acre: Conselho Indigenista Missionário.
- SPRUCE, R. 1864. 'On the river Purús, a tributary of the Amazon' [includes translation of the 1852 report of Serafim da Silva Salgado's expedition], pp. 339–51 of C. R. Markham, 1864, *The travels of Pedro de Cieza de Leon, A.D. 1532–50, contained in the first part of his Chronicle of Peru*. London: Hakluyt Society.
- STEEER, J. B. 1903. 'Narrative of a visit to Indian tribes of the Purus River, Brazil'. *Annual Report of the United States National Museum*, 1901: 363–93.
- TAMURA, S. 2000. *The Ainu language*. Tokyo: Sanseido.
- THOMPSON, S. A., and LONGACRE, R. E. 1985. 'Adverbial clauses', pp. 171–234 of *Language typology and syntactic description*, ii: *Complex constructions*, ed. T. Shopen. Cambridge: Cambridge University Press.
- VOGEL, A. R. 1989. 'Gender and gender marking in Jaruá (Arauan)'. MA thesis, The University of Texas at Arlington.
- 2003. 'Jarawara verb classes'. Ph.D. dissertation, University of Pittsburgh.
- WALLACE, A. R. 1853. *Travels on the Amazon and Rio Negro*. London. [Quotation from 1911 reprint, *Travels on the Amazon*. London: Ward Lock.]

Vocabulary

Only lexical words occurring in the examples, texts, and discussion are included here, together with grammatical words. Personal and place names are not included, neither are interjections and sound-symbolic expressions (see §14.2.1). Just a short gloss has been provided for each, rather than a full dictionary-type definition. For items with special properties, a reference is given to the section in which they are discussed. For loans from Portuguese the source lexeme is given.

As mentioned under (D) in §2.9.6, a medial *h* may optionally be omitted from many lexemes with, for instance, *ahi* becoming *ai*, and *-ahaba-* becoming *-aaba-*. The *h*-less forms are not included in the vocabulary.

Word class membership is indicated as follows:

VERBS

- Inflecting verbs are shown with a hyphen at each end; for example, *-abijo-*.
Non-inflecting verbs are followed by auxiliary *-na-* or *-ha-*.
- Transitivity is shown as

tr	intransitive	int	intransitive
O	S=O type ambitransitive	A	S=A type ambitransitive

Note that all verb roots ending in *e*, *i*, or *o* generally take a following *-ha*; this has been omitted here.

FREE NOUNS: gender is shown by a following

f feminine m masculine

POSSESSED NOUNS are given as feminine/masculine//free form. Each is followed by an index number (for example PCb9), showing their place in the appendix to chapter 11.

Other word classes are shown as:

adj adjective dem demonstrative
pron pronoun

a./aba, m, thrush (mouth infection)

a./amo, f, place to sleep

a./ate -na-, tr, ask

aba, m, fish (generic), *matrinxão*

-aba-, int, be buggy (infested with bugs),
full of lice

aba jokana, m, *matrinxão*

aba./ati, f, fish sp.

abariko, m, moon

abate/ebete, PCb9, tongue, cheek

abe/ebene, PH1, animal or person inhabiting;
often used for 'insect'

abee, collective/reciprocal; see §11.1.6

abi, m, father

abi -na-, tr, call (someone) father

abija, m, bee (loan from *abelha*)

-abijo-, tr, want the presence of

abise, m, father's brother

abohi, int, be dead (typically used of animals),
rotten

aboni/abono//abono, PB11, main part of,
real thing

abono, m, spirit

afa/efe, specifier; see §12.2.1

afe/efe, PD8, leaf, feather

afi -ha-, int, be wet

afi -na-, O and A, bathe; see §3.3.3

afiao, m, aeroplane (loan from *avião*)

afiao.ba.baka, f, plane fare

afo, f, heart of palm

afo -na-, A, blow, light fire; make into
shaman

afone/afone//afo, PB12, soft part in middle of
something; heart

-ahaba-, int, be finished, all gone, nothing left;
be dead

ahi, dem, here (visible); lead-up in story; see

§12.1.2

ahi -na-, tr, work at, build, do, swive

(copulate with)

ahosi, f, rice (loan from arroz)

aja, dem, here/there; see §12.1.2

ajaka, f, song, song style, assembly, festa

-ajaka-, int, sing, dance

ajata, f, near

ajawa, m, cashew

ajo(ri), m, elder brother

-aka-, tr, put on, wear

akabori/akabori, PD8*b*, in afe/efe

akabori/akabori, young leaf

-akara-, int, be satisfied after eating, eat one's fill

aki, f, grandmother, female ancestor

akira, f, ginger

akori/akori, PD14, cotton

ama, copula, be; see chapter 13

ama, secondary verb, 'extended in time';

see §7.1, §15.4.4

ama, f, blood

ame/emene//ama, PC*a6*, blood, menstruation;

sap of some trees

ami, f, mother

amise, f, mother's sister

amo -na-, int, sleep

-amosa-, int, be good

amowa, m, star

anafi, m, egret; heron sp.

anate/enete, PC*b10*, chin

anoti, m, his/her elder brother

-arabo-, int, to blossom, bloom

arabone/arabone, PD17, young fruit on tree

arakawa, m, chicken

asima, f, younger sister

aso, f, father's sister

asota -na-, tr, help (loan from *ajudar*)

atabo, f, mud, clay

-atabo-, int, be/get muddy

atabo -ha-, int, be muddy

atabori/atabori//atabo, PM6, white clay of

atahone/atahone, PC*a8*, pus, sap, resin, latex

atami, f, hill, incline

atari/ataro, PC*a3*, skin; scales (on fish);

bark (on tree)

ataro, see atari

ate/ete, PA16, trunk, stalk, edge

ate/ete, PC*b2*, forehead

atehe, f, annatto (urucu; fruit has red dye)

atena, f, antenna (loan from *antena*)

ati, f, elder sister

ati, f, voice, speech, story, language, talking,
noise, sound

-ati-, int, make noise (e.g. thunder)

ati/ati//ata, PF1, voice, speech, story, language,
talking, noise, sound

ati/ati -forI-, int, speak firmly

ati/ati -hijawa-, int, get an idea, suddenly

think of/recall something

ati -na-, A, speak, say, make noise; see §4.5.1

ati.fa.fawa, f, on/off button (on radio, etc.)

atina-, int, be thorny, have spines

atine/atine//atiwa(m), PD7, thorn, sliver, spine

(can be used of electric eel)

atiwa, see atine

-ato-, int, be decorated

atori/atori, PJ4, ornament, decoration

awa, f, tree, wood/timber, log, stick, beam,

handle, post; see awe/ewene

-awa-, A and O, see, look at, look for; feel

(internally), know; be visible; see §3.3.3

awa -na(-rI)-, int, yawn

awa.ka.kaa, m, beetle that gnaws on wood

awani, m, wasp

awani.biri, m, small wasp sp.

awani.noko.jifori, m, tail-face wasp sp.

awani.so.soki.biri, m, small black wasp sp.

awani.totoro, m, short wasp sp.

awe/ewene//awa, PD1, tree, wood/timber, log,

stick, beam, handle, post

awi, m, tapir

awine/awa, secondary verb, 'seems, appears,

I think'; see §7.1, §15.4.3

awita, m, piau (fish)

-ba-, see -iba-

baa -na-, tr, hit, hammer

ba.baka, f, preliminary trail made by breaking

small branches to mark the route

babeo, f, paper, book, magazine (loan from *papel*)

babeo.na.na-hato, f, highlighter,

magic marker

babeo.na.na.hoti, f, paper punch

baha, clause-final element, do first

bahi, m, sun; thunder

baikani/baikani, PA12, middle

baje, m, ubim-baye palm

-baji-, int, be deep, thick

baka -na-, O, break (e.g. branch)

baka -na-, tr, pay (loan from *pagar*)

bakari/bakari, PD8*a*, in afe/efe bakari/bakari,

new leaf

bakasi, f, thirst

- baki/bako, PA5, underside, inside surface, chest, side, width (of cloth)
 bako, see baki
 bako -na-, tr, eat by sucking
 -bakomisa-, int, lie chest up
 balito, f, toothpick, match (loan from palito)
 -bana-, tr, throw at
 bani, m, non-aquatic (non-domestic) edible animals
 bani.kasako, m, wild dog sp.
 bao, f, wood, timber (loan from pau)
 bao, m, bread (loan from pão)
 bao -na-, tr, hurry (someone) up
 bara -na-, int, come to a gradual stop
 bara/bare, a different one; someone from another tribe; stranger; see §12.3
 barafoso, f, screw (loan from parafuso)
 baraja, f, beach (loan from praia)
 barakija, m, branquinha fish (loan from that word)
 Barako, m, non-Indian person (loan from Branco)
 barato, f, plate (loan from prato)
 barawa -na-, int, burp
 bare, see bara
 bari, f, axe
 -barI-, int, lie on belly
 bari/bari, PA8, outer surface, outer part; back, behind
 bari -na-, O, cover up hole, put up wall (of house)
 baro, f, apuña wood
 baro -na-, O, hit hard to flatten, beat
 basora, f, broom (loan from vassoura)
 -bata-, int, be rotten
 bata -na-, O, grab, pluck
 bataro, m, patrão (local boss) (loan from that word)
 batasi/batasi, PCe9, middle of back
 bate/bete, PE5, rotten, spoiled
 bati, adj, big
 bati, m, his/her father
 bati -na-, tr, carry under arm
 bati -na-, tr, hold by pinching
 batirii, m, priest (loan from padre)
 batise, m, his/her father's brother
 bato, f, downstream
 bato, m, deer
 batori/batori, PB10, joint of two bones, juncture of rivers
 behe/behe, PCc6, crotch, new leaves on palm which cover fruit
 behe -na-, O, turn the opposite way from normal orientation, turn over
 beheri/beheri, PA14, side, beside
 bere -na-, A, be across something
 bereko, f, nail (loan from prego)
 berikisa or berekisa, see birikisa
 bese, son!
 bete, see bate
 bete -na-, int, break, snap off
 bi.bija -na-, int, get a bit angry
 biha, f, cará (type of yam)
 bihi, f, palm sp.; fan made from it
 bija, f, battery (loan from pilha)
 bija ka-niha-, tr, be angry with
 bija to-ka-ha-, int, get angry
 -bija-misa-, int, get very upset, have temper tantrum
 bijo, m, spider monkey
 biko, f, point (loan from bico)
 -biko-, int, be tasteless, flat
 biri, adj, small type
 birifata, f, toilet (loan from privada)
 birikisa or berikisa or berekisa, PN or adj, lazy (loan from preguça); see §11.1
 birote, f or m, pilot (loan from piloto)
 bisa, clause-final element, also
 -bisa-, int, be dirty, cloudy
 bisa -ha-, int, be dirty, cloudy
 bisí -na-, O, pierce with knife point or fingernails, scratch, claw
 bisikowito, m, biscuit (loan from biscoito)
 bista, f, airstrip (loan from pista)
 bita, m, big mosquito, carapanã
 -bita-, int, be bitter
 bitari/bitari, PE10, bitterness
 bite, adj (f), small, little
 bite, f, his/her daughter, child
 biti, adj (m), small, little
 biti, m, his/her son
 bitimi, f or m, sister's child (for a man); brother's child (for a woman)
 bobi -na-, O, make a long shallow cut in
 bobo, m, sweets, candy (loan from bombom)
 bo.bojo -na-, tr, feel (someone) to see if they have a fever
 bofe, f, ground
 bofe/bofe//bofe, PA7, bottom/lower part, below
 bohasa, m, rubber (loan from borracha)
 bojo -na-, O, reach, touch (when you can't see)
 boka, m, tento tree
 -boka-, int, fall in water, sink in mud or water
 boko, m, imbãuba tree
 bokori -na-, tr, hold in the hand (pl O)
 bokosenero, m, black vulture

- boni, f, wind
 boni/bono, PB2, whole thing, fruit
 boni/bono, PCb7, upper lip, beak, snout
 bono, see boni
 -bono-, int, (tree) produces fruit
 boo -na-, tr, hit with a blow and not penetrate surface, sting a bit
 bora, m, ball (loan from bola)
 bore -na-, O, pull up (e.g. manioc), make garden
 bori/borone//boro, PJ1, insect nest, animal house, container, pen, etc.
 bori -na-, tr, touch with implement in water
 boro, m, cake (loan from bolo)
 boroko, m, pig (loan from porco)
 borokoo, m, pirarucu fish (loan from this word)
 bosá -na-, int, get up early
 bosaro, f, a sore
 bosaro -na-, int, have sores
 bosí, f, pus (loan from pus)
 bosí -na-, int, squirt
 bosiri/bosiri, PCi5, scent gland of peccary
 bosó, f, pocket (loan from bolso)
 botée, adj, old
 boteri/boteri, PE13, oldness, ancestor
 boti/boti, PA9, inside, deep part
 boti/botone, PM2, place where there is a lot of something, group of
 boto, f, clearing
 -boto-, int, be old, rot
 boto -na-, O, bend over (e.g. sticks or thatch), weave roof
 botofi/botofi, PD3, heartwood (hardest part of a tree, in the centre)
 botokesi, f, Portuguese (loan from português)
 botokori/botokori, PD16, poor quality corn cob
 botone, see boti
 bowa, interjection, good-day (loan from boa)
 bowa -na-, tr, say 'bowa' to
 bowanoiti, interjection, good night (loan from boa noite)
 bowawa -na-, tr, blow bubbles underwater (O: water)
 bowawari/bowawari, PE15, blowing bubbles (e.g. an alligator)
 bowi, f, head of cattle (loan from boi)
 Brako, m, non-Indian person (loan from Branco)
 brato, f, plate (loan from prato)
 breko, f, nail (loan from prego)
- ebe, see himata ebe -na-
 ebe, spouse!
 ebe -na-, O, divide up
- ebene, see abe
 ebete, see abete
 ee, pron, iinc
 ee.ati.mi.mita, f, microphone
 ee.ma.maa.to-na, place to stop
 ee -na-, int, cry out, yell
 ee -na-, int, what about, be where, be how many/much, be like this; see §§15.3.4-5
 eenoki/eenoki, PA13, middle, waist
 ee.tati.fo.fore, f, pillow (lit. place where we lay our heads)
 efe, see afa, afe
 ehebotee, adj, big, large
 ehene, see ihi
 -eheto-, int, be suitable (for); see §26.2.5
 ejeheri/ejeheri, PH3, object used to attract an animal, companion of an animal
 emene, see ame
 enekeri/enekeri, PCb11, jaw(bone), gill
 enete, see anate
 era, pron, iinc O
 estrato, f, deodorant (loan from extrato)
 ete, see ate
 ewene, see awe
- fa-, see -fa(wa)-
 faa, dem, this/that one (non-visible); see §12.1.1
 faaro/faari, dem, this/that one (non-visible); see §12.1.1
 fa.fanawi -na-, int, be like a woman
 faha, f, water; and see fehe/fehene
 faha kii -na-, tr, go fishing (lit. look at water)
 faha.fowe, f, wet season, year
 faha.kabi.ne, f, port (where one scoops up water)
 faha.wa.wari.ka-waha, f, tap, faucet
 fahi, dem, here/there (non-visible); climax of story; see §12.1.2
 fai(hi)nama, adj, same size
 faja, adj, enough, sufficient, finished
 faja, clause-initial element, then; see §14.2.2
 fajari, uncertain of location; see §14.2.2
 -fama-, int, be two, be a pair, be a couple
 fana, f, female (animate); see §10.5.4
 -fana-, int, get married
 fanaki/fanako, PCe1, thigh
 fanako, see fanaki
 fanawi, f, woman; see §10.5.4
 fanawiri/fanawiri, PE17, female; see §10.5.4
 fara/fare, the very one; see §12.3
 fare, f, assai palm
 farina, f, manioc flour, manioc meal (loan from farinha)

- farina.ra.rawa, f, shelter in which one toasts
 manioc meal
 faroboti/faroboti, PCd2, armpit
 fata -na-, O, (make) move suddenly, with
 distinctive effect
 fatara, f, garden
 fati, f, his wife
 -fa(wa)-, O, drink, suck; see §4.5.2
 fawa -na-, int, disappear, vanish, get lost
 fee, 3sg non-pivot anaphoric element; see §12.2.2
 fehe/fehene//faha, PK1, liquid, juice, sap, water,
 stream, rain
 fera, f, candle (loan from vela)
 ferekesi, m, customer, worker (loan from freguês)
 fesao, f, feijão (cooked beans) (loan from this
 word)
 fete -na-, int, flap wings (of bird)
 fija -na-, A, go past without stopping
 -fijo-, int, come to a natural end, be all used up
 -fimi-, int, be hungry
 firo -na-, O, spit out/onto/at
 fita, f, cassette tape (loan from fita)
 fito -na-, O, come/run up to, run up and down,
 chase, catch, grab
 fo.fore, f, bed
 fofowi, rounded lips (§26.2)
 -foja-, int, be inside (sg S)
 fono, f, oven, roasting pan (loan from forno)
 foo -na-, A, blow into, blow out
 fora -na-, O, blow out (e.g. dart from blowgun)
 -forI-, int, lie on raised surface (sg S)
 forima -na-, int, do something well
 -foro-, int, thunder growling
 foro -na-, int, fall to the ground (pl S)
 -fota-, int, be big, be much (pl S)
 -foto-, int, come out, emerge
 fowa, m, manioc; bitter manioc
 fowa, m, mortar
 -fowa-, int, lie in water (sg S); see §4.5.2
 -fowa-, int, water floods
 fowa.kabe, m, sweet manioc
 fowa.kamijaka, m, manioc sp.
 fowe, m, suruculina (a foodstuff)
 frekesi, m, customer, worker
 (loan from freguês)

 -ha-, copula, become, see chapter 13; and
 auxiliary, see §4.5.1, §26.2.2 (both take
 to- unless there is a pronominal prefix)
 haa, emphatic marker used before cardinal
 pronouns; see §10.3
 haa, dem, this/that; this one (visible); see §12.1.1

 haa -na-, A, call (to)
 haaha/haahi, dem, this/that; see §12.1.1
 haa.haa -na-, int, laugh
 haaro/haari, dem, this one (visible); see §12.1.1
 habai, f or m, friend
 habi/habo, PCa4, aerial root of tree, tendon;
 courage
 habi -na-, int, pass under
 habise, m, grasshopper, cricket
 habo, see habi
 habo -na-, int, bark
 hajo, f, radio (loan from rádio)
 hama, f, hooked stick
 hani/hano, PG1, design, decoration, picture
 hano, see hani
 -hano-, int, be drunk, be high
 -hano-, int, be striped
 harara -na-, O, heat water without letting boil
 -haro-, int, been cooked by boiling
 -haro-risa-, int, become soft
 hasabono, m, star nut palm
 hasabori/hasabori, PCh4, lungs; inside of fruit
 hasabote, f, dead leaves
 hasai, f, assai palm (loan from açai)
 hasakari/hasakari, PD12, seedless fruit
 hasawari/hasawari, PK7, smoke
 hasi -na-, int, breathe; rest; survive attack
 hasoka, f, sugar (loan from açúcar)
 hasoso -na-, int, be a breeze
 hasosori/hasosori, PA5a, in baki/bako
 hasosori/hasosori, burp
 -hata-, int, be ripe, mature (of fruit)
 -hati-, int, be burnt
 -hati-, see -kahati-
 hatisa -na-, int, sneeze
 -hato-, int, be striped, be pretty (generally with
 causative na-)
 hato -na-, O, cut up
 hawa, f, pataua palm
 hawa -ha-, int, be accomplished; what was set out
 to be done has been done
 -hawi-, int, function (e.g. microphone, motor,
 throat)
 hawi/hawine//hawi, PM3, path, trail
 hee, 3sg non-pivot anaphoric element; see §12.2.2
 hee -na-, tr, warm/heat over fire
 hemejo, f, medicine (loan from remédio)
 heroso, m, clock or watch (loan from relógio)
 heta -na-, tr, lease from (loan from renda)
 hetarato, hetrato, f, photograph (loan from
 retrato)
 hete -na-, int, get stuck, be tight

- hiba, clause-initial element, wait a bit, just begun;
see §14.2.2
- hibajata, time word, later today, just now; see §6.4
- hibaka, who (f), see §15.3.2
- hibaka, hika, where; see §15.3.3, §15.3.5
- hibake, hibeke, hike, who (m); see §15.3.2
- hibati, time word, completed, no longer continuing, (do) right away, will soon be completed; see §6.4
- hifa-, int, brood (of bird)
- hife/hifene, PC11, egg of bird, fish
- hi.hija -na-, int, get hurt
- hi.hinita -na-, int, (water) be empty of fish
- hii -na-, int, call 'hii-hii-hii-hii' (as unacculturated Indians are said to do)
- hija(-ra)-, int, be bad, damaged, ruined, broken
- hijama, m, white-lipped peccary
- hijara, f, story, conversation
- hijara-, A, speak, talk, tell
- hiji, m, beetle sp.
- hika, see hibaka
- hike, f, far
- hike, see hibake
- hima, clause-initial element, come on, let's go;
see §14.2.2
- hima -na-, tr, say 'hima' to
- himata, f, what; see §15.3.1, §15.3.5
- himata-ba, why, see §15.3.1
- himata(ta)bijo, why, see §15.3.1
- himata ebe -na-, int, having what purpose,
intending what, why; see §15.3.1
- hime -na-, int, burn for a long time
- hinaka, pron, 3sg possessor; see §10.4
- hinakaki, f, his/her grandmother
- hinakasima, f, his/her elder sister
- hinakaso, f, his/her father's sister
- hinakati, f, his/her elder sister
- hinakiti, m, his/her grandfather
- hinama, adj, all and only
- hinamati, see inamati
- hine/hiwa, just, reflexive; see §11.1.5
- hinita, adj, empty, alone
- hiri -na-, O, illuminate, set fire to, be on fire,
catch fire
- hiri -na-, O, make, build, speak to, tell (lie)
- hisi -na-, tr, sniff, smell
- hisiri -na-, tr, pull off
- hiti, f or m, owner of, person who raises (animals);
see §10.4.1
- hiti -na-, O, rub against, scrape, hug
- hiwa, see hine
- hiwa-, int, be hot
- hiwa -na-, tr, heat something
- hiwe/hiwene, PE7, heat
- hobokori/hobokori, PK9, ashes, dust
- hofa-, int, lie in water (sg S); see §4.5.2
- ho.hori, f, trumpet
- ho.horo -na-, tr, rake
- hoka -na-, tr, pull on, pull out
- hoko-, int, be dry
- homa-, int, lie on ground (sg S)
- homokori/homokori, PK6, ashes, dust
- hona -na-, int, have something in hand,
(water/jungle) has (animals)
- hone/honene, PH5, possession
- hoo -na-, int, (person) snores, (dog) growls
- hora -na-, A, call out loudly (to), bawl out;
speak sternly to
- hori -na-, O, blow a (bamboo) trumpet
- horo -na-, tr, pull, drag
- hose -na-, tr, pull away from, take out
- hosi, m, sweet potato
- hote/hotene, PK6, smoke, cloudiness
- hoti-, int, have holes
- hoti/hotone//hoti, PB13, hole, opening
- hoto -na-, tr, muddy up (e.g. person muddies
up water)
- hotokori/hotokori, PCc1a, in namiti/namiti
hotokori/hotokori, throat
- hotone, see hoti
- howari, int, grow, intensify
- howe, adj, large type
- howe -na-, O, clean out
- iba-, tr, put on ground or on raised surface (sg O)
- ibana-, O, roast, fry (sg S/O)
- ibe/ibe, PB4, piece of, half of
- ibee, collective/reciprocal; see §11.1.6
- ibi-, tr, put inside (sg O)
- ibisiri/ibisiri, PB5, small piece
- ibofa-, tr, put/immerse in water (sg O)
- ibotori/ibotori, PA11, side of
- ifa-, int, to choke
- ifa/ife, specifier; see §12.2
- ifi/ifo, PCb8, lower lip, edge, side, hem
- ifo, see ifi
- iha, m, arrow poison
- iha-, O, put, get, lay egg, be placed, be born,
happen, appear
- ihi/ehene, relational noun, due to, because of; see
chapter 22
- ihi/ehene -iti-, int, a killing was due to
- i.ibe -na-, int, be reduced to a piece
- ijawa, f, grated manioc meal

- ijawa.tabe, f, manioc cake made by pressing down
 ijawa in a ceramic pot and then roasting it
 ijo, see joti
 Ijo, f or m, Indian (loan from Índio)
 ijori/ijori, PCd1, shoulder
 ikeresa, f, church (loan from igreja)
 -ima-, int, be fat, be muddy
 ime/ime, PL2, meat, soft thing (e.g. soft outer part
 of a tree, dough)
 inamatewe, f or m, child (sg)
 inamati, m, spirit
 ini/ino, PCb5, tooth, blade of a tool, point
 ini/ino, PD4, branch
 ini/ino, PF3, name
 ini/ino hiri -na-, tr, ask for (by saying name of)
 ino, see ini
 -ino-, int, be sharp
 inohoti/inohoti, PCb6, mouth
 inohowe, m, alligator
 inokowisi, m, toothache
 irara, m, weasel
 irimao, f, lemon (loan from limão)
 iro, m, tree sp.
 isata, f, hoe (loan from enxada)
 -ise-, tr, take and leave
 iseni, daughter!
 isi, m, armadillo
 isi/iso, PCe2, lower leg, stalk, handle
 isina -na-, tr, teach (loan from ensinar)
 isiri, f, basket
 iso, see isi
 -iso-, int, be slippery
 iso -na-, tr, carry in hand, against chest
 -ita-, int, sit, stay, be located (sg S)
 -ita-, tr, pierce, sting (sg O)
 itero, PN or adj, whole, entire (loan from inteiro);
 see §11.1
 iti, m, grandfather, male ancestor
 -iti-, see ihi/ehene -iti-, a killing was due to
 -iti-, tr, take out, pick, take off (table, hook),
 get, marry (sg O)
 -itI-, O, to skin
 ito, f, bad cold

 jaa, general postposition; see chapter 20
 -jaba-, tr, take out, pick, take away, give name to
 (pl O)
 -jabo-, int, be far, long
 jafa -na-, tr, lie on top of
 jafi, m, marupá wood
 jaha, see jehe
 jai -na-, int, be straight

 jajafa, m, traditional woman's loincloth
 jajai(ri) -na-, int, be happy
 jaka -na-, A, move (on land, in water, in air),
 walk; visit
 jaki, m, toucan
 jama, f, thing; forest, game, fishes, spirits; season,
 time
 jama.hani, f, writing
 jama.hiwe, f, hot weather, summer
 jama.hobokori.ke.kero.ka-na, f, dustpan
 jama.ho.howe.ka-na, f, rake
 jama.jo.jowi, f, broom
 jama.kabani, f, forest
 jamanakora, f, sacred stone
 jama.noko, f, vagina
 jama.soki, f, night (lit. thing which is black)
 jamata, f, food, crops
 jamata.wa.wasi, f or m, a cook
 -jana-, int, be born, grow
 jana -na-, int, begin, start, set out/off, leave, get up
 jani, f, paxiúba palm
 jao, m, sloth sp.
 Jara, f or m, Branco
 jara -na-, O, split, crack open
 jaro -na-, O, start up (e.g. machine), flush out
 (animal from forest), cause small tree to fall by
 felling a large tree across it
 jati, adj, new, young
 jati, f, stone
 jati -na-, int, be alive; be raw (not sufficiently
 cooked)
 jati -na-, O, fasten by tying
 jatika, f, harpoon
 -jawa-, int, be angry, be upset, be jealous over,
 grieve
 jawari/jawari, PE14, being upset, angry
 jawita, m, peach palm
 je/je, PCd5, hand
 jee -na-, int, yell (and peccary making sound)
 jehe/jehe, PCd5, hand
 jehe/jehene//jaha, PCa7, fat on animal, lard, oil
 jete -na-, tr, hunt (game)
 jete.ne, m, teenage boy (just old enough to hunt)
 jia, f, day (loan from dia)
 jibotee, f or m, spouse
 jifari, f, banana/plantain
 jifi/jifone//jifo, PK5, fire, firewood
 jifo, m, buriti palm
 jifo, m, hammock
 jifone, see jifi
 jifori/jifori, PCi2, tail (of animal, snake, bird)
 -jijifi-ra-, int, be great (of courage)

- jiko, m, howler monkey
 jimawa, f, knife
 jimo, m, tocandira ant sp.
 jinero, tinero, m, money (loan from dinheiro)
 jiro, m, house foundation post
 jiwaha, f, ceramic pot, cooking pot; lid
 jiwaha.tabe, f, ceramic pot used for making
 manioc cake
 jobati/jobati, PCe2a, in isi/iso jobati/jobati, knee
 jobe, m, house, thatch
 jobi -na-, int, pass back and forth
 jofi -na-, tr, show by pointing out
 jofori/jofori, PCi2, tail (of animal, snake,
 bird)
 johari/johari, PCc2, breast
 -joka-, O, roast, fry (pl S/O)
 jokana, adj, real, prototypical
 jokari/jokari//joka, PCg2, urine, pee
 joki, f, rheumatism
 joko -na-, O, push with a steady motion, shove,
 push
 jokohori/jokohori, PCd4, elbow; stinger on wasp
 -joma-, int, be dusk, get dark; and
 see -kajoma-
 jomati, m, electric eel
 jome -na-, tr, eat where little or no chewing is
 needed
 jome/jomene, PG2, indistinct figure
 jomee, m, jaguar; dog
 jomee.kabe, place where a jaguar ate
 joo -na-, int, wade
 jora -na-, int, jump
 jori -na-, tr, swive, copulate with
 joriri -na-, int, slide down
 joro -na-, int, sit, stand (du S)
 joroma, f, pumpkin (loan from jerimum)
 -josI-, tr, order, invite
 joti/joto//ijo, PCg1, faeces, excrement, shit
 joto, see joti
 -joto-, int, follow, go/be behind
 joto -na-, O, cover, bury, block trail
 jotofi/jotofi, PCd5b, in jehe/jehe jotofi/jotofi, base
 of palm of hand, and in tame/teme jotofi/jotofi,
 heel
 jotohoti/jotohoti, PCc7, anus, bum, rear end
 jotomiri/jotomiri(ne), PCc8, small intestine
 jototi/jototi, PCc7, anus, bum, rear end
 -jowa-, int, reach/come up to the brim of
 -jowaba-, int, walk in single file
 jowahari/jowahari, PCB3b, in noki/noko
 jowahari/jowahari kone/kone, eyebrow
 jowakari/jowakari, PD10, ear of corn
 jowi -na-, tr, sweep
 jowi, m, brown capuchin monkey
 jowiri -na-, int, sing (in women's style)
- ka-, int, be in motion; see §4.5.2
 kaa, possessive marker; see §10.4
 kaa -na-, O, chop, cut with axe
 kaa(ro/ri), peripheral marker, along, through,
 because, etc.; see §21.1
 -kaba-, O, eat (where a lot of chewing is involved);
 be edible
 kabi -na-, tr, scoop up (water), (stump in water)
 snags (a boat)
 kabi.kana, f, fish-hook
 kafe, f, coffee (loan from café)
 -kaha-, int, be roasted, baked, warmed (often used
 in nominalized form, -kahi-); see §4.5.2
 -kahabana-, tr, command (e.g. spirits or dog) to
 kill (someone)
 kahana, f, cane whisky
 -kahati-, tr, (cast a spell) to kill fish
 -kahi-, see -kaha-
 -kahiwa-, int, have children; swive (copulate)
 kaho, m, car (loan from carro)
 -kaho-, O, tie onto hook (e.g. hammock)
 (sg S/O)
 kaja -na-, O, be located (in a place), put in place
 -kajoma-, int, be dusk, get dark; see also -joma-
 ka.kahana -na-, int, be dizzy
 ka.karoro.ka-na, f, drive belt (on tape recorder)
 (lit. thing that spins around)
 -ka.katoma-, tr, stare at, watch
 -ka-kawa-, see -kawa-
 kakitiri/kakitiri, PE1, itch
 -kako-, tr, be angry with/at
 -ka-kome-, int, be scared, afraid
 -ka-meje-, int, not be afraid, have courage
 -kamina-, O, narrate, tell a story about
 kamisa, f, shirt (loan from camisa)
 -kamo-, O, bury
 kamo -na-, O, fold/bend over
 kamoni -na-, int, be empty
 kamoniri/kamoniri//kamoni, PE16, loneliness,
 homesickness
 kana, f, (sugar) cane (loan from cana)
 -kana-, tr, leave behind, take off course
 kana -na-, int, move fast (e.g. person, fish,
 cassette when rewinding), run
 kanafato, f, traditional man's loincloth/penis
 sheath
 -kanaha-, int, be heavy
 kanahari/kanahari, PE12, heaviness

- kanamori/kanamori, PG3, shadow, reflection, photograph of, spirit
- kanawaa, f, canoe (loan from canoa)
- kanawaa.si.sii.to-na, f, place where canoes stay
- kanawana-, O, begin, learn, teach
- kanero, m, mutton (loan from carneiro)
- kaneta, f, pen (loan from caneta)
- ka-nika-, O, buy (from); ask father for girl in marriage
- kaosao, f, trousers, trunks, shorts (loan from calção)
- kara -na-, O, move up and down; tap out (e.g. snuff, gunpowder)
- karaboha, f, blowgun
- karaboha-, tr, shoot with blowgun
- karafa -na-, tr, record (loan from gravar)
- karafato, f, tape recorder (loan from gravador)
- karawato-, tr, wait for
- Karijo, f or m, non-Indian person
- karoro -na-, int, spin round, rotate
- kasaro, f, bracelet
- kasasa, f, cane whisky (loan from cachaça)
- ka-sawari-, tr, frustrate (lit. APPLIC-get.lost; see -sawari-)
- kasi, m, gourd, calabash
- kasiro-, int, do a lot, vigorously
- kasorina, f, petrol (loan from gasolina)
- kate, m, macaw sp.
- katí -na-, int, move back and forth, swing/rock in hammock
- kato, f, house cat (loan from gato)
- katoma, f, anger, temper
- katoma-, tr, bother, fight against, kill
- katoma hiri -na-, tr, act violently against, fight with, knock over, (insects) bother, (illness) kills
- katoso, f, cartridges (loan from cartucho)
- kawa-, tr, give to, hand to (recipient is usually O); always includes applicative prefix ka-, i.e. -ka-kawa-
- kawa -na-, O, thrust, poke (with stick)
- kehamo-, tr, hide, conceal
- keho -na-, int, be crooked, twisted
- keje, f, a lie
- keje-, tr, trick, fool, tell a lie to
- ke-mese-, int, lie on top of
- kereti, f or m, crente (strict evangelical Christian) (loan from that word)
- kerewe, f, sloth sp.
- kerewe -ra-, int, not take a long time
- kero -na-, tr, scoop up
- ketebe-, A, follow
- ke-teha-, see -teha-
- kewe -na-, tr, open out (e.g. bark for canoe)
- kibi-, int, be inside (pl S)
- kiha-, tr, have; see §10.4
- kii -na-, A, look at, search for, read
- kijo-, tr, run after, chase, corner
- kijo -na-, tr, mix, sift, rub between hands, paint
- ki.kisa-ma, f, ladder
- kimi, m, maize, sweet corn
- kimi.hanori, m, yellow and white striped maize sp.
- kimi.mawara, m, red maize sp.
- kimi.sawa, m, white maize sp.
- kina-, O, fall on
- kine, adj, small, immature (fruit) which has not yet reached its full size
- kini -na-, O, wrap/wind/coil something pliable around something solid; roll up sleeve
- kiro, f, kilo (loan from quilo)
- kisa-, int, be in motion downwards, travel downstream, descend from hammock
- kisa -na-, tr, shake
- kiso, f, white-fronted capuchin monkey
- kita-, int, be strong, hard
- kita -ha-, int, be tall
- koba, m, sap of copaiba tree (loan from this word)
- kobabari/kobabari, PB9, joint of bone or bamboo, knot on tree
- kobaja, m, white-collared peccary (wild pig)
- kobati, m, friend (loan from compadre)
- kobato, PN or adj, busy (loan from ocupado); see §11.1
- kobo -na-, A, arrive, meet, bounce off
- kojari, m, paddle
- koka, m, woodpecker
- koko(ri), m, mother's brother, father-in-law
- ko.kosi, f, whip
- kokowi, m, hawk sp.
- kokowiri/kokowiri, PC13, fatty lump at back of neck on some animals
- koma, f or m, child-in-law
- koma-, int, be sore, (be) hurt, be hurtful (poison, boil); be strong (cane whisky, spicy pepper)
- kome-, int, be a lot
- kome-, see ka-kome-, na-kome
- kome/komene, PE2, pain, sickness, fever
- komo -na-, tr, eat, involving spitting out seed
- kona, m, tinguí vine (for fish poisoning)
- kone/kone//kona, PC11, hair (unmarked reference is body hair)
- korasao, f, heart (loan from coração)
- kore, m, maharaja palm
- kori/korone, PE6, nakedness, bareness, lack of cover

- korimari.korimari, PG4, spirit, soul
 koro -na-, tr, throw (sg O)
 korobo, m, jeju (fish sp.)
 Koromi, f or m, Indian
 koro -na-, int, be audible
 korone, see kori
 kosi, m, urucuri palm and fruit
 kosi -na-, O, whip, spank, flog, hit with sticks
 kosiba, f, babaçu palm
 kote/kote, PB3, piece of, section of, part of
 kote -na-, tr, throw forcibly; divide up
 koto -na-, O, tie around
 kitora, f, thread (loan from costura)
 -kowa-, tr, weave
 kowa -na-, A, whistle (to)
 kowa -na-, O, dent, be dented
 kowani/kowani, PA15, other side, far side
 kowato -na-, int, be four (loan from quatro)
 koweka, f, men's underpants (loan from cuecas)
 kowewe -na-, int, have diarrhoea
 -kowi-, int, be deep
 -kowisa-, int, be hurt (e.g. throat)
 kowisari/kowisari, PCa5, muscle
- maa, f, sea (loan from mar)
 maa -ha-, int, be tired
 maa -na-, int, stop motion, come to an end (often abruptly)
 mafo, m, ant sp. (lives in trees)
 mahawa, m, a fruit tree
 mahi/maho, PE4, smell
 mahika -na-, tr, do a lot to
 maho, see mahi
 majatera, f, gill-net (loan from malhadeira)
 majawari, m, dusky titi monkey
 maka, f, snake
 maka, m, monster
 maka.jokana, f, jararaca (fer-de-lance) snake
 makari, f, clothing, garment
 makari.ba.bati.ka-na, f, clothes peg
 makawari/makawari, PC_{h2}, heart
 maki, m, male (animate); see §10.5.4
 makina, f, machine (loan from máquina)
 makiti, m, man; see §10.5.4
 makitiri/makitiri, PE18, male; see §10.5.4
 makoni, clause-final element, unusual, take no responsibility for
 ma.makiti -na-, int, be like a man
 -manako-, int, be the exchange for
 manako -ha-, tr, exchange, or pay back
 manakobisa, clause-initial element, later on; see §14.2.2
- manakobote, clause-initial element, later on; see §14.2.2
 manakone(manaki)/manokone, PH8, exchange, recompense, price
 mani/mano, PC_{d3}, arm, front paw; shirt sleeve
 maone, m, tapir (word in Sorowahá, quoted in a Jarawara story)
 marakosa, m, passion fruit (loan from maracujá)
 mareta, f, box (loan from maleta)
 mari -na-, O, feast on
 mari.na, f, feast
 mase, m, mutum bird
 masiri/masiri, PC_{b3a}, in noki/noko masiri/masiri
 kone/kone, eyelash
 mata, clause-final element, short time
 mata -na-, tr, lie (du S)
 mata -na-, tr, send (loan from mandar)
 mata -niha-, tr, put (du O)
 mate/mete, PB8, back end of, buttock, stump, log
 matehe, f, children
 matero, f, hammer (loan from martelo)
 mati, pron, 3nsg
 mati, augment modifier; see §10.5
 mati, f, his/her mother
 mati/matone//mato, PD2, vine, inner bark, cord, rope, string
 matise, f, his/her mother's sister
 mato, f, forest (loan from mato)
 mato, f, vine, cord
 mato, m, piquiá (a foodstuff)
 -mato-, O, tie up something; put string on bow
 matone, see mati
 mawa -na-, int, be red
 mawa, f, a fruit
 mawara -na-, int, be red
 mee, pron, 3nsg
 mee, augment modifier; see §10.5
 mee.fanawi(ri), f, women; see §10.5.4
 mee.(h)inamati, f, spirits
 mee.makiti, f, men; see §10.5.4
 melasia, f, water melon (loan from melancia)
 mera, pron, 3nsg O
 mesa, f, table (loan from mesa)
 -mese-, int, lie on top of
 mese/mese, PA4, top surface of
 mete, see mate
 meteri/meteri, PC_{i4}, breast feathers on a bird
 mii -na-, A, defecate, shit
 mina, clause-final element, in the morning, tomorrow
 -mita-, O, sense by hearing, taste, smell, or touch; hear, listen to

mohari/mohari, PD15, cotton
 mohi/mohone, PD5, sucker, sprout
 mohoni, see mohi
 mokowi, m, chigger (biting insect) (loan from mucuim)
 moni/moni//moni, PF2, noise, sound
 moni -na-, int, make a noise
 mono -na-, tr, fight with, attack, be upset at
 moo -na-, int, be full
 -mosa-, see -amosa-
 moto, m, motor, motor boat (loan from motor)
 moto -na-, int, be/go in a circle or loop
 mototo, m, termite
 -mowa-, int, to blossom, flower
 mowa -na-, tr, fight against, chase, wake up
 mowe, m, brazil nut
 mowe/mowe, PD6, flower, blossom
 mowe.'ete, m, pirarara (fish sp.)
 mowi -na-, int, be bent, be bent over, bend over

 -na-, auxiliary; see §4.5.1
 -na(a)-, int, exist; see §4.5.2, §13.6
 -na(a)-, list verb; see chapter 23
 -na(a)boha-, tr, kill (sg O); see §4.5.2
 -na(a)habi-, tr, kill, make finished
 (irregular causative of -ahaba-); see §4.5.2
 nabati/nabati, PCc4, belly, stomach
 -nafi-, int, be big, much (sg S)
 nafi/nafi, PB1, all
 naha, -ka-na-, tr, open, undo
 -na-hato-, tr, paint
 -naho-, int, sit, stand (pl an S)
 -naho-ra-, int, not quite touch (e.g. head on branch), almost be in contact with
 nakani, f, upstream
 naki(ri), f, female cross-cousin
 -na-kibI, tr, put inside (pl O)
 -na-kome, tr, be scared of, fear
 nakosiri/nakosiri, PK8, ashes
 namiti/namiti, PCc1, neck, throat
 -namo-, tr, show by holding up
 namoni, postposition, taking news of; see §21.3
 nano, f, manioc squeezer
 nano -na-, O, squeeze manioc in nano squeezer
 narabi/narabo, also warabo/warabi, PCb12, ear
 narabi/narabo nima, tr, want to talk to, ask to do
 neme, f, sky
 -neme-, int, be high, tall
 neme/neme//neme, PA6, top/upper part of, above
 ni-jaa, postposition (after NPs with human reference); see chapter 20

-nika-, O, buy; often with applicative ka- indicating sg O, as -ka-nika-
 niki -na-, tr, squeeze
 niki.niki, m, pump torch
 ni-ma, be similar to, be the same as; see §21.4
 niso(ri), m, younger brother
 nobe -na-, int, be tilted, tipped
 -nofa-, tr, want, desire, like, love, be pleased with, be friends with, have good feelings towards
 noho -na-, int, be hurt, injured
 noke -na-, int, sit to one side, upset balance
 noki/noko, PCb3, eye, face; end of long object, seed
 noki/noko bori/borone, eyelid, lid (of anything)
 noki -na-, A, wait (for)
 noko, see noki
 -noko-, int, be awake; turn
 -noko.risa-, int, be midday
 nokobiri/nokobiri//nokobi, PH9, door, doorway, window
 nokobirine/nokobirine//nokobiri, PH9, door, doorway, window
 nokobisa, f, sleepiness
 nokosi/nokosi, PA1, before (in space or time), in front of
 nore/norene, PD11, dried sap
 noti, f or m, grandchild
 nowati/nowati, PA2, after, behind
 nowi -na-, A, drip (on)

 -ohari-, int, be one, be alone, be the only (one/thing)
 ohi -na-, A, cry, sob, weep (for)
 -oja-, int, give off light
 oje/ojene, PK10, light source, light emitted, burning thing
 ojo, f, oil (loan from óleo)
 okaki, f, my grandmother
 okakoko, okokoko, m, my mother's brother
 okaniso, m, my younger brother
 okasima, f, my younger sister
 okatao, m, my son
 okati, f, my elder sister
 okiti, m, my grandfather
 oko, pron, 1sg possessor
 okobi, m, my father
 okobise, m, my father's brother
 okojo, m, my elder brother
 okokoko, see okakoko
 okomi, f, my mother
 okomise, f, my mother's sister
 okoso, f, my father's sister

- okoto, f, my daughter
 oma, m, piranha
 omi, f, ice cream bean tree
 one, f, another; brother's wife; and adj; see §10.5
 oo, pron, 1sg
 ori -na-, A, paddle, row, mix
 oro, f, gold (loan from ouro)
 otaa, pron, 1exc
 otara, pron, 1exc O
 owa, pron, 1sg
 owa, m, another; sister's husband; and adj; see §10.5
 -owi-, int, go out (of fire or flame), be disconnected (of a light)
 owisi, time word, today (loan from hoje)
- pasioba, f, paxiúba tree (partly assimilated loan, from this word)
- rabi/rabo, PCe3a, in tame/teme rabi/rabo noki/noko, ankle
 rabiao, f, lamp (loan from lampião)
 rabo, see rabi
 rafi, m, hawk
 rako, f, lake (loan from lago)
 rama, clause-final element, unusual, unexpected
 rapí, f, pencil (loan from lápis)
 rara -na-, tr, push with the foot
 raraja, f, orange (loan from laranja)
 ra.rawa, f, hair-cutter
 rata, f, can (loan from lata)
 ratena, f, flashlight, torch, lantern (loan from lanterna)
 -rawa-, O, cut (hair)
 -rawa-, O, toast in pan over fire
 rawi -na-, tr, write, draw, clean with a stick
 retarora, retrora, f, victrola, record player (loan from vitrola)
 -rewete-, int, turn over
 rike/rikene, PK2, wave
 rima, f, file (loan from lima)
 rima.tere.rato, f, triangular file (loan from lima três lado)
 rona, f, canvas, plastic (loan from lona)
- sa-, short form of -sona-, fall
 saa -na-, A, vomit
 saa -na-, O, let go, stop fighting; be freed
 saa -na-, tr, shoot with arrow, put fish poison in water
 sabata, f, shoe (loan from sapato)
 sabato, f, Saturday (loan from sábado)
- sabeo, f, hat (loan from chapéu)
 sabi/sabone, PK3, foam
 sabo, f, rose apple (loan from jambo)
 -sabo-, int, boiling vigorously
 sabo -na-, tr, to soap, lather (someone)
 sabone, see sabi
 safi, f, key (loan from chave)
 saha, f, salt (loan from sal)
 sahari, f, broth
 saharine/saharine//sahari, PL3, broth, mush
 sai, m, vine sp. (cipó-rei)
 -sai-, int, be audible
 saka -na-, tr, chisel off, throw stick at
 saka -na-, tr, pierce (pl O)
 sako, f, sack, bag (loan from saco)
 sako, f, lungfish sp.
 sako -na-, O, tie knot in one end of a rope; tie up something with a knot in one end of a rope
 sakofana, f, lungfish sp.
 sami, f, pineapple
 sami.akina, f, pineapple sp.
 sami.jao, f, pineapple sp.
 sami.jokana, f, pineapple sp.
 sami.kamijaka, f, pineapple sp.
 sami.majawari, f, pineapple sp.
 sami.noki.howe, f, pineapple sp.
 sami.takawi, f, pineapple sp.
 sami.tati.jabo, f, pineapple sp.
 sami.tati.jori, f, pineapple sp.
 saokato, salted (loan from salgado); see §11.1
 saoma, f, springtime (time when fish lay their eggs)
 saoti, health (loan from saúde); see §11.1
 sarabo, f, measles (loan from sarampo)
 sararine/sararine//sara, PK4, seasonally flooded area
 sarehe, f, blowgun dart
 sari -na-, O, burn (O/S can be person, wood, grass, garden)
 sasaha, f, hoatzin bird
 sateko, f, long-bladed hoe (loan from enxadeco)
 -sawa-, int, be white
 -sawari-, int, get lost; and see -ka-sawari-, tr, frustrate
 -sawi-, int, be white or light-coloured
 -sawi-, int, become an integral part of
 -se-, see -ise-
 selo, f, ice (loan from gelo)
 sere -na-, O, tie onto hook (e.g. hammock), hang up (pl S/O)
 serikaa, also sirikaa, m, rubber, rubber tree (loan from seringueira)
 seseja, f, beer (loan from cerveja)

- seti -na-, int, be seven (loan from sete)
- siba -na-, tr, look for, search for
- siba-ra-, int, be all right, be acceptable
- sibi -na-, O, tear a lot, split
- sii -na-, int, sit, stand; be on ground (pl inan S)
- sika -na-, O, pour on, squirt on
- siki, f, sand
- sikirine/sikirine//siki, PM5, white sand
- siko -na-, int, be five (loan from cinco)
- sikora, f, school (loan from escola)
- sina, f, tobacco, snuff
- sina-, int, have strong taste
- sinama, m, large agouti
- sinari/sinari, PE9, sweetness
- sira-, O, toast in pan over fire
- siraba, f, cangati (fish)
- sire, f, coldness, a cold spell
- sire, f, river turtle
- siri-, int, be cold
- siri -ha-, int, be cold
- siri -na-, O, scrape, grate, plane, cut/tap rubber tree, gnaw
- sirikaa, see serikaa
- siririne/siririne, PE8, coldness
- siro, f, uxi tree
- siro.noki/siro.noki, PCh5, kidney
- sisi, f, chalk (loan from giz)
- sitaka-, int, be sour, acidic
- sitakari/sitakari, PCh3, gall bladder
- sitati, f, city (loan from cidade)
- sitoba, f, stopping (to fill cracks) (loan from estopa)
- siwa -na-, int, be playful, act in joking fashion
- so-, short form of -sona-, fall
- soba -na-, O, take out, pull off
- sobi -na-, tr, suck
- sobori/sobori, PCc5, navel
- sofa, f, sorva (loan from that word)
- soke/sokene, PB7, residue
- soki-, int, be black or dark-coloured
- soki -na-, int, be black or dark-coloured
- soki -na-, O, tie forcibly/tightly together the two ends of a string/rope
- sokirine/sokirine, PE11, blackness
- soko -na-, tr, wash (clothes, hands, poison off arrow)
- sokobono, m, jointfir sp.
- somi, m, earthworm
- sona-, int, fall to the ground, come down from a height, die, plane lands (sg S); see §4.5.2
- sonari/sonari, PD13, unripe fruit
- soo (to-)na(-sa), int, lie (pl S)
- soo -na-, A, urinate, pee
- soo (to-)niha-, tr, put (pl O)
- sore -na-, O, tear a little, pull fruit off tree
- soro -na-, int, swirl, go round (e.g. water at rapids)
- sota -na-, O, take off (e.g. clothing, load from back)
- sowiri/sowiri, PCf1, penis
- ta(a)-, int, be overgrown; see §4.5.2
- taa, contrastive marker at end of NP; see §10.1.2
- taa -na-, O, give (gift is generally O), sell
- taba-, int, be/go together, mix
- taba -na-, O, plant, stick (e.g. post) into ground
- tabaja -na, tr, press down
- tabari/tabari, PCb6, spleen
- tabasi -na-, O, grill over fire on a grill made of sticks
- tabi/taboo, PH6, cluster, bunch
- tabijo, postposition, due to the absence/lack of; see §21.2
- tabo, f, steel drum (loan from tambor)
- tabo, see tabi
- tabo -na-, O, curl up, crush, fold up a fishing line in concertina fashion
- tabori/taboro//tabora, PM1, village, villagers, place of, home, dwelling place
- tafa-, int, eat
- tafe/tefe, PL1, food
- tafi-, int, wake
- tafi/tafone, PJ3, having nothing inside
- tafo -ha-, int, be soft
- tafo -na-, int, float on surface of water
- tafone, see tafi
- tafowe/tafowe, PH7, bundle of something wrapped up, package
- tahari/tahari, PCc3, rib
- tahi/tahi, PB6, sliver (of wood), splinter; song
- tahi/tahi, PJ6, hunter's weapon; hunter
- tai -ha-, int, go in front, be ahead
- tai -na-, tr, press down with foot
- tama-, int, be many (of countables)
- tama -na-, tr, hold in the hand, grab (sg O)
- tame/teme, PCe3, foot, back paw of animal, foot of bird, footprint
- tame/temene/tama, PM4, grave for, hole for
- tamijara, m, matamatá tree
- tamina-, int, be in good health, be well
- tamine/tamine, PF4, news about
- tanako -ha-, int, be sweaty, perspire
- tanakone/tanakone, PE3, sweat
- tanarine/tanarine//tana, PJ5, grill made of sticks for roasting fish or meat

- tanehe/tenehe, *PCf2*, scrotum
tani/tani, *PJ6*, hunter's weapon; hunter
tani -na-, O, pull on, slide down
tao -na-, O, shoot, play shuttlecock, slap
tao.kana, f, gun
taokoro, m, bico-de-brasa (a nunbird)
tara, m, pestle
tara ka-na-, O, trip, stumble, shoot arrow
so that it misses target
tari -na-, tr, strike match
taro -na-, tr, make something move quickly
away; kick
tasa, clause-final element, do again
tase/tesene, *PH2*, companion of
tasi -na-, O, come out, go through hole/doorway,
sew (by hand)
ta.tafa, f, place where one eats, kitchen
ta.tao, m, shuttlecock
tati, adj, (fruit) full-sized but not yet ripe and
ready to eat
tati/tati//tata, *PCb1*, head, upper end; top; roof of
house, prow of canoe; etc.; see §11.1
tee, pron, 2nsg
tee -na-, O, be inside (du S); put inside (nsg O)
tee -na-, int, be ten (loan from dez)
tefe, see tafe
tefe -na-, tr, owe to (loan from dever)
-tefo -na-, int, be blue or green
-teha-, tr, apply (e.g. cream to ear); often -ke-
te(ha)-, O, oil, lubricate, apply, rub, paint, mix
tehafimi, f, ground that does not flood (loan from
terra firme)
tehe/tehe, *PH4*, something mixed with;
medicine for, poison, etc.
tehekani/tehekani, *PCd3a*, in mani/mano
tehekani/tehekani, inside of elbow
teme, temene, see tame
teme -na-, int, sit, stand (du S)
teoso, m, god (loan from deus)
tera, pron, 2nsg O
terei -na-, int, be three (loan from trêš)
tesene, see tase
te.tesene -ha-, int, go with someone
-tifo-, O, tie together
tii, pron, 2sg
tii -na-, tr, cut right through with one stroke, slice
tika, pron, 2sg possessor
tikatao, m, your(sg) son
tiki -na-, O, tickle, crush lice between nails
tikoto, f, your (sg) daughter
ti-ma, be similar to, be the same as; see §21.4
tinero, see jinero, money
tira -na-, tr, take (loan from tirar)
-tisa-, tr, untie, unwrap, dismantle (e.g. house)
tisa -na-, O, set in motion in a trajectory towards a
target; shoot with arrow
tiserá, f, cup used to collect rubber latex (loan
from tigela)
tisiko, tisko, f, record (loan from disco)
ti.tisa, f, bow
tiwa -na-, tr, carry on top of shoulder or on head
tiwa, pron, 2sg
tobe/tobene, *PJ7*, sling to carry baby in
tobero, m, night hawk
tofa -na-, O, fill in hole, plug, put lid on
toho -na-, int, cough
-toka-, O, singe fur off animal over fire, smoke
over fire
toma -na-, tr, (shaman) cures (by sucking stone
from sick person)
tomari/tomari, *PD9*, section of bamboo
tome/tomene, *PB14*, size; measuring thing, piece
tomi ka-na-, tr, measure, be equal in measure to
tomi -na-, O, be equal in measure to, measure,
weigh
tone/tone//tona, *PCa2*, bone
tone.tone -na-, int, be skin-and-bones
toni, m, spirit (controlled by a shaman)
tonokori/tonokori, *PCd5a*, in jehe/jehe
tonokori/tonokori, knuckle
tori -na-, O, break wood along grain
tori/toro, *PA10*, inside; abdomen
tose, f, cane whisky (loan from doce)
tosi/tosi, *PA3*, behind part, waist; belt
tosi -na-, int, break in the middle, fart
to.tomi -na-, tr, try
to.toro -na-, int, be short in length
towe, adj, bad
towisawa, m, chief (loan from tuxaua)
trei -na-, int, be three (loan from trêš)
-wa(a)-, int, stand (sg S), live, stay; see §4.5.2
wabise, f, spear
wabo(ri), m, male cross-cousin, brother-in-law
wafa, m, woolly monkey
wafe, f, cotton, plant which bears it
waha, clause-final element, now, the next thing,
then
-waha-, int, become/be dawn, shine; see §4.5.2
waha -na-, int, turn off path (onto side path, or
into forest)
-wahari-, see -ohari-
wahati/wahati, *PCh1*, liver
wahatirine/wahatirine, *PCh1*, liver

- wai -na-, O, bite, chew
wajo, f, foliage
waka -na-, int, be broken, be flat (of football)
waka -na-, tr, kill (pl O)
wakowa, m, paca
wami, f, ground
wami, f, tree sp.; torch made from its resin
wami.wi.wii, f, post-hole digger
-wana-, int, be in contact with, be joined up, be attached to
wanako, f, butterfly
wara -na-, tr, grab, hold, take from someone
warabi/warabo, see narabi/narabo
waranaa, f, guaraná (a soft drink) (loan from this word)
-warI-, O, cook by boiling
wari/wari, PC*c1b*, in namiti/namiti wari/wari, nape
wari -na-, O, twist, spin
wasabi, m, catfish
-wasi(ha)-, O, be in/get into a desired state; find; be caught (of fish); prepare (food); see §26.2.4
wasi/wasone, PC*i6*, scale on fish, pattern on surface of football
wata, f, dream
-wata-, int, be hanging from a hook, lie in a hammock (du S)
-wata-, int, exist, be located, be born; see §13.6
-wata-, tr, catch in the hands, grab
-wata-, tr, put clothes on over feet, pull armband over hand, put piece inside canoe
-watami-, int, dream
watari/watari(ne)//wata, PG5, dream
wati, m, arrow
-wati-, see ati
wati -ka-na-, tr, start to do, plan to do
wati na-waha-, tr, (suddenly) remember, think of fondly
-wato-, tr, know, understand, learn, remember, be familiar with
wa.wasi, f, fish trap/basket
wehe/wehene, PK*i11*, brightness of
wehebotee, adj, big, large
weje -na-, tr, carry on back with straps over both shoulders, wear on head, brush with shoulder
weo -na-, int, be late afternoon
were -na-, tr, throw (pl O)
wete -na-, O, wrap cord around something several times, preparatory to tying; return
wii -na-, O, dig
wije, f, container
wije/wijene, PJ2, container, vessel (e.g. for liquid)
wiji -na-, O, shake (e.g. tree), shiver with cold
-wina-, int, be hanging from a hook, lie in a hammock, live (at a place), stay, be located, be situated (sg, pl S)
winika, f, cajú tree
wiro -na-, int, just coming to the boil
wisa -na-, tr, bail out water (from canoe)
-wita-, see -ita-
witi/witi, PC*b4*, nose; edge of stream or forest; button on machine

List of Affixes

For each affix, the section or chapter of its major discussion is given.

PREFIXES—§4.1

hi-, marker of O-construction; §4.3 and chapter 16

ka-, applicative; §8.2

na-, causative; §8.1

niha-, causative; §8.1

o-, 1sg pronoun; §3.3.1, §4.3

ti-, 2sg pronoun; §3.3.1, §4.3

to- ‘away’; §4.3

SUFFIXES, given as f/m where there are gender-differentiated forms

-aro/-ari, see -(ha)aro/-(ha)ari

-ba, see -(ha)ba

-ba -na- ‘hasn’t been done but should be done, or should be done more; do what you don’t want to do’; §5.7

-baa -na- ‘do at/from a distance’; §5.7

ⁱba(ha) ‘do first’; §5.5

-ba(ja), see ⁱbe(ja)/-ba(ja)

-ba(na), see -(ha)ba(na)/-(hi)ba(na)

ⁱbana/-bana, polar future interrogative; §15.4.2

-basa ‘to/on the edge’; §5.4

ⁱbe(ja)/-ba(ja), immediate; §7.2.3

-bisa ‘also’; §5.9

-biti -ra- ‘not even a little bit, not even one’; §5.7

-bone/-bona, see -(ha)bone/-(hi)bona

ⁱbote -na- ‘soon, immediately’; §5.6

ⁱfako ‘do a lot’; §5.9

-fara ‘clear space’; §5.4

ⁱfi ‘relating to water’; §5.4

-haa/-hii, preposed dependent clause marking; chapter 18

-(ha)aro/-(ha)ari, postposed dependent clause marking; chapter 18

-(ha)ba ‘do/happen all night, or for a good portion of the night’; §5.8

-(ha)ba(na)/-(hi)ba(na), future; chapter 6

-(ha)bone/-(hi)bona, intention; chapter 6

-hama -na- ‘pretending, unexpected result or unfulfilled expectation’; §5.7

-(ha)maro/-(hi)mari, far past eyewitness; chapter 6

-(ha)mone(he)/-(hi)mona(ha), reported; chapter 6

-(ha)ni/-(hi)no, immediate past non-eyewitness; chapter 6

-(ha)ra/-(ha)re, immediate past eyewitness; chapter 6

-(ha)ro/-(hi)ri, recent past eyewitness; chapter 6

-(ha)ti ‘do/happen all day, or for a good portion of the day’; §5.8

-(he)mene/-(hi)mana, hypothetical; chapter 6

-(he)mete/-(hi)mata, far past non-eyewitness; chapter 6

-(he)ne/-(hi)na, irrealis; chapter 6

-(he)te/-(hi)ta, recent past non-eyewitness; chapter 6

-hi/-ho, immediate positive imperative; §15.2

-(hi)ba(na), see -(ha)ba(na)/-(hi)ba(na)

- (hi)bona, see -(ha)bone/-(hi)bona
- hii, see -haa/-hii
- (hi)mana, see -(he)mene/-(hi)mana
- (hi)mari, see -(ha)maro/-(hi)mari
- (hi)mata, see -(he)mete/-(hi)mata
- (hi)mona(ha), see -(ha)mone(he)/-(hi)mona(ha)
- ^hhina -na- ‘can do, it is possible to do’; §5.7
- (hi)na, see -(he)ne/-(hi)na
- (hi)no, see -(ha)ni/-(hi)no
- (hi)ri, see -(ha)ro/-(hi)ri
- (hi)ta, see -(he)te/-(hi)ta
- ((h)i)tI ‘all along the way’; §5.8
- ^hhiti -ha- ‘do quickly’; §5.7
- ho, see -hi/-ho
- hV, postposed dependent clause marking; see chapter 18
- isa, see -(r)isa
- iti, see -((h)i)tI
- ^hja-hi/-ja-ho, distant positive imperative; §15.2
- ^hjoma ‘through gap’; §5.4
- ka, see -ke/-ka
- kaba -na- ‘do without stopping’; §5.7
- kabote -na- ‘soon, immediately’; §5.7
- ^hkani/-kani, counterfactual; §7.2.2
- kanikima -na- ‘scattered, spread out in lots of different places’; §5.7
- karahama -na- ‘continue doing, do without stopping, only do’; §5.7
- kasa ‘a lot at once’; §5.4
- kawa(ha) ‘do for a while’; §5.8
- ke/-ka, declarative; §7.2.1
- kI ‘coming’; §5.4
- kii -na- ‘be just [one or two]’; §5.7
- ^hkima ‘two participants, a pair’; §5.5
- kosa₁ ‘between two extremes’; §5.4
- kosa₂ ~ -sa ‘do once, do a bit, something happens cleanly and clearly’; §5.4
- ma ‘back, return’; §5.4
- ma, similar; §21.4
- makI ‘following’; §5.4
- ^hmakoni/-mako, unusual, take no responsibility for; §7.2.4
- mana, see -(he)mene/-(hi)mana
- maro/-mari, see -(ha)maro/-(hi)mari
- mata ‘short time’; §5.9
- mata, see -(he)mete/-(hi)mata
- mene/-mana, see -(he)mene/-(hi)mana
- mete/-mata, see -(he)mete/-(hi)mata
- mii -na- ‘walking around’; §5.7
- mina ‘in the morning, tomorrow’; §5.5
- ⁽ⁱ⁾misa ‘up (other than upstream)’; §5.4
- mone(ha)/-mona(ha), see -(ha)mone(he)/-(hi)mona(ha)
- na, see -(he)ne/-(hi)na
- nama -na- ‘a lot, the most’; §5.7
- nati -ha- ‘be the only person doing something’; §5.7
- ne, see -^hni/-ne
- ^hne/∅ ‘continuous’; §5.9

- ne/-na, see -(he)ne/-(hi)na
- ni/-no, see -(ha)ni/-(hi)no
- ⁱni/-ne, backgrounding; §7.2.1
- ⁱnihī/-noho, climax; §7.2.2
- ⁱni(hi)/<nothing>, polar interrogative; §15.4
- ⁱnima -na- ‘want to, need to, about to’; §5.7
- no, see -(ha)ni/-(hi)no
- ⁱnofa ‘happened continuously over recent time’; §5.8
- noho, see -ⁱnihī/-noho, climax; §7.2.2
- ra, negator; §7.3
- ra, accusative; §10.1
- ra, where (on NP); §15.3.6
- ra/-^era, indicative mood marker; §7.2.1
- ra/-re, see -(ha)ra/-(ha)re
- raba -na- ‘do a bit’; §5.7
- ra(ha), see -ri(ha)/-ra(ha)
- ra-ja-ho, see -ri-ja-hi/-ra-ja-ho
- rama -na- ‘unusual, unexpected’; §5.7
- rama -na-ho, see -rima -na-hi/-rama -na-ho
- rawa, at least one (usually core) argument is f nsg; §5.9
- re, see -(ha)ra/-(ha)re
- ri, distributive; §4.5.3
- ri, suffix on kin terms; §6.4.1
- ri, see -(ha)ro/-(hi)ri
- rī ‘raised surface (i.e. off ground), edge’; §5.4
- ri(ha)/-ra(ha), content interrogative; §15.3
- rihi/-rihi, contrastive negator; §7.2.5
- ri-ja-hi/-ra-ja-ho, distant negative imperative; §15.2
- rima -na- ‘intermittently, at intervals’; §5.7
- rima -na-hi/-rama -na-ho, immediate negative imperative; §15.2
- (r)isa ‘down; done anyhow, etc.’; §5.4
- riwa(ha) ‘across’; §5.4
- ro/-ri, see -(ha)ro/-(hi)ri
- sa, see -kosa₂
- saa -na- ‘still’; §5.6
- se, parent’s same-sex sibling; §10.4.1
- sii -na- ‘going along a path’; §5.7
- ta, see -(he)te/-(hi)ta
- tasa ‘again’; §5.9
- te/-ta, see -(he)te/-(hi)ta
- tee ‘habitual, customary’; ‘remembering something from the past’; §5.10
- tee, reported past non-eyewitness; §6.1
- ti, see -(h)i)tī
- tī, see -(ha)tī
- tima ‘upstream’; §5.4
- wa(ha) ‘now, the next thing, then’; §5.10
- waha -na- ‘second time’; §5.10
- wahaI (or -wahare for younger speakers) ‘do many times, in many places’; §5.8
- wi -na- ‘continuously’; §5.7
- witī ‘from a place, outward from centre’; §5.4

Index

- Ac, *see* A-constructions
accusative suffix 34, 282–3
A-constructions 87–8, 106–7, 417–45
Adams Liclan, P. 22, 421–2
adjectives 335–43
adverbial demonstratives 361–2, 366–9
Agnew, A. 422
Aikhenvald, A. Y. 12–13, 18, 255, 266,
421–2, 443, 531
Ainu language 377
alienable possession 295–301
ambitransitive verbs 82–3, 549–50
analogical extension 65–6
anaphoric elements 371–3
see possessed nouns
animacy 74–5, 289–90
'another' 303–4, 336, 341
antipassive analysis, inappropriateness of 421–3
applicative prefix 254–68
Apurinã language 4, 11–12
loans from 12–13
Arawá family 11–13
Arawá language 11–12
Arawak family 12, 531
loans from 12–13
Arawakan, *see* Arawak family
area influence 12
aspect/time lexemes 223–5
assimilation rules 43–50, 64–5
augment modifier *mee* 301–6
auxiliaries 81–2, 97, 114–18, 128–32, 272–4
auxiliary-bound suffixes 127, 131–4, 173–80, 193
auxiliary-taking suffixes 127, 131–3, 155–75,
190–1, 398

backgrounding mood suffix 233–5
Banawá dialect 8, 11–14
grammar 35, 47, 124, 181, 209, 306, 385, 405,
442, 570–82
lexemes 12–13, 34, 71, 120, 335, 343
phonology 16–24, 28–30, 55
possessed nouns 318–23, 332, 348–51, 356–7, 509–10
Bare language 13
basic syntactic functions 70
Berlin, B. 561
Boley, F. 422
Boley, P. 422
Branços (non-Indian Brazilians) 3–4
Brinton, D. G. 11
Buller, B. 11, 14, 16, 22, 28, 30
Buller, E. 11, 14, 16, 22, 28, 30, 181

Campbell, B. 10–11, 14, 18–19, 42, 236, 282,
296, 328, 421, 442, 571–2
Campbell, R. 10–11, 14, 18–19, 42, 236, 282, 442, 571–2
causative prefix 248–54
Chandless, W. 10, 12
Chapman, S. 4, 24, 35, 219, 266, 282, 422, 443, 547
Chimariko language 295
clause structure 84–7, 387–95
see A-constructions, O-constructions, complement
clauses, dependent clauses, nominalized
clauses, relative clauses, list constructions
clause-final elements 84–5, 393
clause-initial elements 388–93
climax suffix 238–9
collective/reciprocal constructions 332–5
colour terms 561
commands 396–402
complement clause constructions 91–3, 111–12,
446–61, 530
pronominal raising rule 456–60
complex noun phrases 292–3
compound names 540–1
conjunction by juxtaposition 528–9
consonants 17–20
constituent order 86, 387–8
content questions 402–10
contrastive marker *taa* 283–4
contrastive negator 243–5
copula clauses 337–40, 377–86
core arguments 84–6, 377–8
counterfactual suffix 236–8

da Silva, E. P. 10
declarative mood suffix 220–2, 233–5, 570–2
Delancey, S. 206
demonstratives 361–9, 531
Dení dialect, *see* Kulina-Dení
dependent clauses 93–4, 462–81, 530–1
Derbyshire, D. C. v, 4, 24, 35, 266, 282,
422, 443, 547
derivation of
adjectives 337, 538
free nouns 533–5
possessed nouns 532–3
verbs 536–8
direct speech 393–5
discourse role of syntactic pivot 423–33
discourse-time markers 389–93
distributive suffix *-ri* 124–6
Durie, M. 543
Dyirbal language 71, 417

- echelons of miscellaneous suffixes 128, 134–89
 criteria for recognizing 137–8
 Ehrenreich, P. 9–10
 England, N. 510
 English 417–18, 446
 Everett, D. 11, 14, 16, 22, 28, 30
 evidentiality 203–7
 extra-echelon suffixes 189–94
 eyewitness, *see* evidentiality
- Facundes, S. da Silva 12
 far past tense, *see* past tense suffixes
 Farabee, W. C. 9–10
 feminine as unmarked gender 80–1
 Fijian language 29, 67
 first prefix slot 96, 102–5
 foodstuffs 5
 formulaic expressions 564–5
 FUNAI (Fundação Nacional do Índio) 6
 future interrogative 413–14
 future modality 211–14, 306–9
- gender 79–81, 89, 100–2, 284–7, 399–400, 521–6
 in A-constructions and O-constructions 417–45
 markedness 286–7
 on adjectives 235–6, 340–1
 on demonstratives and related forms 361–75
 on possessed nouns 314–28
 on ‘who’ 405–7
 generic nouns 539–40
 genetic affiliation 7–12
 glottal stop 67–8
 grammatical word 28–32
 greetings 564–5
- Haida language 295
 haplology 66
 head of noun phrase 280–1, 290–2
 head-tail linkage, absence of 195
 Hemming, J. 2
 historical development
 of grammar 442–5, 566–82
 of phonology 16–23
 homonyms 71–3
 hypothetical modality 215–17, 306
- idioms 515–16, 563–4
 immediate past eyewitness suffix 106, 108, 208–10, 435–7
 development of 567–8, 578–90
 immediate past tense, *see* past tense suffixes
 immediate suffix 239–40
 imperatives 396–402
 inalienable possession, *see* possessed nouns
 indicative mood suffixes 233–6
 indirect speech 395
- Indo-European family 18
 inflecting and non-inflecting verbs 81–2, 546–9
 inner suffix *-ri* 124–6
 intention modality 211–14, 220–1, 306–8
 interjections 388–9
 internal reconstruction of tense-modal
 suffixes 198–202
 interrogatives 402–16
 intonation 28, 398, 410–11, 530
 intransitive, *see* transitivity
 irrealis modality 215–17, 221–2, 306
 irregular inflecting verbs 121–3
 iterative reduplicative derivation 278–9
- Jamamadí dialect 8–14
 grammar 34–5, 42, 47, 78, 209, 234–6, 282, 296, 306, 371, 385, 392, 405, 421, 442, 569–72, 578, 581
 lexemes 12–13, 71, 336
 phonology 16–20, 28, 55–6
 possessed nouns 65, 318–32, 348–58, 509–10
- Kay, P. 561
 Keenan, E. L. 422
 Kerr, J. 11
 kinship 7
 kinship possession 298–301
 Koop, G. 4, 10, 118, 300, 315
 Koop, L. 10, 300, 315
 Kroemer, G. 18
 Kulina-Dení language 4, 10–12
 grammar 266, 385, 421–2, 443–4, 506, 531
 lexemes 12–13, 34, 48, 118, 300, 315, 337
 phonology 23, 33, 67
 possessed nouns 319, 323, 525
- Ladefoged, J. 16
 Ladefoged, P. 16
 lenition rules 36
 Levin, B. 14
 Lingenfelter, S. G. 4
 Língua Geral, loans from 6
 list constructions 517–24, 530
 loans
 from Arawak languages 12–13
 from Língua Geral 6
 from Portuguese 6, 8, 24–7, 35–6
 locational nouns 375–6
 long vowels 32–8
 Longacre, R. E. 195
 Loukotka, C. 8, 12
- Macusi language 13
 Madiha, *see* Kulina-Dení
 Maipurán, *see* Arawak family
 Marlett, S. 22, 421–2

- marriage 7
 Martius, K. F. P. von 13
 masculine, *see* gender
 Matisoff, J. A. 18
 Matos, J. H. de 8
 Matteson, E. 11
 Mayan family 510
mee, 3rd person non-singular pronoun and augment
 modifier 27–8, 87, 301–6, 569–70, 579–80
see secondary verbs
 mental process verbs 557–8
 Merlan, F. 287
 Miller, J. 530
 mirative 206–7
 miscellaneous suffixes 97, 127–94
 missionaries 8, 11, 14
 modal suffixes 195–202, 211–22
 monosyllabic words 29–36, 121–3
 Monserrat, R. M. F. 10, 315, 506
 mood suffixes 98–9, 233–45
 moras 16–17, 27–31
 morphophoneme *I* 40–3
- nasalization of vowels 18, 28, 530
 negation 73, 254–7, 569, 571–2
see contrastive negation
 neutralization of past tense/evidentiality system 196,
 212–14, 222, 403, 468–71
 Ngalakan language 287–8
 Niger-Congo linguistic area 18
 Noble, G. K. 13
 nominal demonstratives 361–6
 nominalized clauses 341–3, 483–9, 494–7, 500–8, 530
 non-core arguments, *see* peripheral constituents
 non-eyewitness, *see* evidentiality
 non-inflecting verbs 81–2, 546–9
 non-singular forms of nouns 304–5
 normal suffixes 127, 132–3
 noun phrase
 as dependent clause 480–1
 as main clause 307
 head of 280–1, 290–2
 structure 90–1, 280–309
 nouns 78–81
 as modifiers 281–2
 non-singular forms 304–5
 semantics 79, 539–41
 NP, *see* noun phrase
 number, grammatical 74–8, 152–3, 183–5, 261–4,
 289–91, 545–6
 numbers and quantification 559–60
- o* and *w* 20–3
 Oc, *see* O-constructions
 O-constructions 87–8, 107–9, 417–45
 and complement clauses 452–4
 development of 568, 574–9
- omission of *-h(V)-* 50–8
 ordering of phonological rules 58–63
 orthography 18–19
- passive analysis, inappropriateness of 421–3
 past tense suffixes 195–210, 306–8, 531
 Paumari language 4, 8–11
 grammar 35, 266, 282, 385, 422, 443–4, 547
 lexemes 12–13, 34, 48, 219, 505
 phonology 16, 20–4, 33, 67
 possessed nouns 319, 325
 Payne, D. 13
 peripheral constituents 86–7, 488–508, 511–13
 peripheral markers 488–508, 531
 person 76–8, 287–8
 in imperatives 399–400
 Philippine languages 422
 phonological rules 36–67
 ordering of 58–63
 summary of 68–9
 phonological word 28–32
 phonology 16–69
 phonotactics 23–5
 Pickering, W. 12
 Pinker, S. 14
 pivot, syntactic 417–33, 472–5
 PN, *see* possessed nouns
 polar questions 410–16
 Portuguese 4
 loans from 6, 8, 24–7, 35–6
 possessed nouns 79–81, 93, 310–35, 509–16, 581
 derivation of 532–3
 list of 343–60
 origin of 316–25
 possession 90–1, 280–1, 295–301
 possessive marker *ka(a)* 47–8, 295–300
 possessor filling third pronominal position 112–14
 post-mood suffixes 89, 99, 220–2, 245–7
 postposed dependent clauses 462–6
 postpositions 35, 488–505
 post-predicate noun phrases 84–5, 293–5,
 361–6, 387
 predicate structure 88–90, 95–9
 predicate suffixes onto noun phrases 281, 306–9
 prefixes 96, 102–5
 prefix-poaching auxiliary-taking suffixes 133,
 157–75, 398
 prefix-retaining auxiliary-taking suffixes 133,
 155–7, 190–1
 prehistory of grammar 566–82
 preposed dependent clauses 462–3, 466–8
 pronominal positions 88–9, 95–8
see third pronominal position
 pronominal prefixes 96, 102, 133–4, 270
 pronominal raising in complement clause
 construction 456–60
 pronouns 34–5, 76–8, 95–6, 294, 301–6, 581

- proto-Arawá
 grammar 115, 282, 444, 506, 547–8, 570–81
 lexemes 22, 34, 48, 118, 121, 138, 284, 300, 306, 540
 phonology 16–23
 possessed nouns 310–60, 509–10, 532–6
 Pullum, G. K. v
- questions 402–16
- raising rule, *see* complement clause constructions
 recent past tense, *see* past tenses
 reciprocal constructions 332–5, 476
 reconstruction, internal, of tense-modal
 suffixes 198–202
 redundancy, relative lack of 71–4
 reduplication
 derivational 533–6
 iterative 278–9
 verbal 99–100, 130–2, 251–2, 268–79
 reflexive constructions 328–32, 476
 relational noun *ihí/ehene* 509–16, 530
 relative clauses 525–8, 530
 religion 6
 reported modality 217–20, 222, 308–9
 Rivet, P. 9–10
-ro/-ri ending 531
 Rodrigues, A. D. 2, 8, 12
 rule ordering, phonological 58–63
- Salgado, S. da Silva 9
 Salzer, M. 219, 547
 Sapir, E. 295
 secondary verbs 98, 109–10, 226–32, 410,
 414–16, 440–2, 563
 development of 442, 572–80
 semantic roles and syntactic functions 550–7
 semantic sets of verbs 543–4, 553, 557–63
 Semitic branch of Afroasiatic family 18
 shared argument
 in complement clause construction 460–1
 in dependent clause construction 472–7
 shortening 66–7
 Silva, A. O. 315, 506
 Siouan languages 295
 Sorowahá language 11
 grammar 282, 385, 531
 lexemes 13, 48, 71
 phonology 16, 20
 sound-symbolic expressions 389
 Southern Paiute language 295
 specifiers 369–71
 Spruce, R. 9
 Steere, J. B. 9–10
- stress 27–8, 33, 55–6
 underlying 28, 40–3, 49–58
 suffixes, *see* auxiliary-bound, auxiliary-taking, normal
 suppletive verb forms 543–6
 syllable structure 20
 syntactic functions, basic 70
 syntactic pivot 417–33, 472–5
- Tai family 18
 Takelma language 295
 Tamura, S. 377
 taste terms 561
 Tastevin, C. 9–10
 temporal verbs 558–9
 tense-modal suffixes 97–8, 195–225, 569, 577–8
 following mood 220–2
 in dependent clauses 468–72
 see past tense suffixes
 texts 583–611
 third person non-singular pronoun *mee* 77–8, 87,
 569–70, 579–80
 third pronominal position 89, 98, 105–14
 development of 566–82
 Thompson, S. A. 195
 Tibeto-Burman family 18
 time lexemes 223–5
 time reference in polar interrogatives 415
to- prefix ‘away, from a state’ 102–5
 Tongan language 418
 transitivity 82–3, 549–50
- ‘unusual’ suffix 241–3
 Urbana da Encarnação, M. 9
- verbs 81–3
 forms 119–26
 semantics 81–3, 541–64
 Vogel, A. R. v, 11, 14, 421
 vowel alternations to mark gender 100–1
 vowel-initial inflecting verbs 119–21
 vowels 16–17, 32–6
- w* and *o* 20–3
 Wallace, A. R. 9
 Wapishana language 13
 Warekena language 18
 word classes 75–83
 word order, *see* constituent order
 words, grammatical and phonological 28–32
- Yana language 295
 Yidiñ language 67