

A Grammar of Warrongo

Mouton Grammar Library

53

Editors

Georg Bossong

Bernard Comrie

Matthew Dryer

De Gruyter Mouton

A Grammar of Warrongo

by

Tasaku Tsunoda

De Gruyter Mouton

ISBN 978-3-11-023876-1

e-ISBN 978-3-11-023877-8

ISSN 0933-7636

Library of Congress Cataloging-in-Publication Data

Tsunoda, Tasaku.

A grammar of Warrongo / by Tasaku Tsunoda.

p. cm. – (Mouton grammar library; 53)

Includes bibliographical references and index.

ISBN 978-3-11-023876-1 (alk. paper)

1. Warungu language – Grammar. 2. Aboriginal Australians – Australia, Northern – Languages. 3. Australia – Languages.

I. Title.

PL7101.W386T78 2011

499'.15–dc23

2011038671

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>.

© 2011 Walter de Gruyter GmbH & Co. KG, Berlin/Boston

Typesetting: Frank Benno Junghanns, Berlin

Printing: Hubert & Co. GmbH & Co. KG, Göttingen

∞ Printed on acid-free paper

Printed in Germany

www.degruyter.com

Preface

What follows is a description of the Warrongo language, once spoken in the upper Herbert River area of north Queensland, Australia. I conducted fieldwork on several languages in north Queensland from 1971 to 1974. They were all endangered at that time. I worked mainly on Warrongo, recording it from perhaps about ten people. But almost all the data on it were provided by the late Mr. Alf Palmer (Warrongo name: Jinbilnggay), the last fluent speaker of the language. A very small amount of information — nonetheless invaluable — was recorded from the late Mr. Alec Collins (Warrongo name: Wolngarra) by Peter Sutton and by me.

Alf Palmer passed away in 1981. But towards the end of the 20th century, a movement to revive the ancestral languages of the area (including Warrongo) started, and I have been conducting Warrongo language lessons in Townsville since 2002 (Tsunoda (2002, 2004, 2005: 212-213) and Tsunoda and Tsunoda (2006, 2007, 2008, 2010)).

The first outcome of the fieldwork in the early 1970s was my M.A. thesis (Tsunoda 1974a), submitted to Monash University. Subsequently I wrote about various aspects of Warrongo: Tsunoda (1976a, 1976b, 1984, 1987, 1988a, 1988b, 1990, 1992, 1995, 1997, 1998, 1999, 2006, 2007, 2008), among others. The main points of these papers are incorporated into the present work. With permission from Mrs. Rachel Cummins (née Rachel Wilson), who is Mr. Alf Palmer's daughter's daughter, I conducted a course on the Warrongo language at the University of Tokyo in the academic years 2003, 2005, 2007 and 2009. The present work is almost entirely based on the lecture notes for that course. Some of the comments from the students are incorporated into the present work.

The present grammar is not a revision of Tsunoda (1974a). It is an entirely new work. It contains the following parts: Chapter 1 The language and its speakers, Chapter 2 Phonology, Chapter 3 Word classes and morphology, Chapter 4 Syntax, and Texts. This format is based on the guideline *Handbook of Australian Languages* prepared by R. M. W. Dixon and Barry J. Blake. Inevitably there are overlaps among the chapters. For example, Chapter 3 contains a large amount of syntactic information. There is no separate chapter for semantics, discourse, or comparative-historical linguistics. Nonetheless some information on semantics is included in Chapters 1, 3, and 4; some information on discourse in Chapter 4; and some information on comparative-historical linguistics in Chapters 1 to 4.

The present work is a description of a language that was already endangered when the fieldwork was conducted. In view of this, in each chapter, I make an effort to provide as detailed a description as possible, accompanied by as many examples as possible. I even report a phenomenon that may not have existed when the language was thriving; see 2.11. This is because, when working on an endangered language, we can never tell what may turn out to be important for

the linguistic academia and/or the community concerned. It is important to bear in mind that ‘the data one will be collecting may well be all that there will be of documentation of the language’ (Grinevald 2007: 43), and that ‘any record made is likely to be used for other purposes later on’ (Mithun 2001: 34).

Furthermore, in works on endangered languages, the ‘reliability of the data needs to be assessed, and care must be taken in order to provide a reliable documentation’ (Tsunoda 2005: 244). In view of this, for each sentential example, I indicate whether it was given by Alf Palmer (‘AP’) or by Alec Collins (‘AC’). For many (though not all) of the examples given by Alf Palmer, I indicate whether it is cited from a text, it was uttered spontaneously during a conversation between Alf Palmer and me, or it is a Warrongo translation of an English sentence. For many (though not all) of the examples cited from a text or our conversation, the context in which that sentence was uttered, is presented.

The examples that were composed by me too late to be checked by Alf Palmer are marked with ‘(TT)’. The vast majority of the examples marked by ‘(AP)’ were uttered by Alf Palmer either in a text or during our conversation. However, they (marked with ‘(AP)’) include a very small number of examples that were composed by me and approved by Alf Palmer; the abbreviation ‘(TT, AP)’ is used when it is deemed useful to emphasize that the example in question is such an example. In addition it is important to mention that maximum caution is exercised in presenting Table 3-14 Verbal paradigm (1).

As can be seen, the present work is an example of what can be done, and what cannot be done, when only the last single speaker is available.

In addition to north Queensland (where I conducted field work from 1971 to 1974), I have been carrying out fieldwork in Kimberley, Western Australia since 1975, working on Djaru, Wanyjirra and a few other languages; one of the outcomes is Tsunoda (1981a) on Djaru. A similarity or a difference between Warrongo and Djaru/Wanyjirra will be sometimes be pointed out, for this may be useful to a reader who is not familiar with Australian languages.

August 2011

Tasaku Tsunoda

National Institute for
Japanese Language and Linguistics
Tachikawa City, Tokyo, Japan

Acknowledgements

The present work is dedicated to the memory of the late Mr. Alf Palmer, to whom my most sincere words of gratitude are due. He was an extremely intelligent and helpful consultant. Also he was entertaining and humorous, as can be seen in a fair number of sentential examples given below. He was deeply concerned about the fate of his language, and was eager to have his language recorded for posterity. He used to say to me, 'I'm the last one to speak Warrongo. When I die, this language will die. I'll teach you everything I know, so put it down properly' (Tsunoda 2005: vii). Indeed, he made admirable efforts to teach me everything he knew (Tsunoda 2004: 273-274). In retrospect, it was Alf Palmer who taught me the importance of documenting endangered languages. It is truly unfortunate that I was not competent enough to fully document his knowledge. It is also unfortunate that there was no opportunity to visit the Warrongo country with him to check placenames, etc., or just to see the country where he was born and grew up. (See 1.8.4.1 for his biography and an account of his linguistic knowledge.)

Alf Palmer named me after his uncle – no doubt, mother's brother (MB), and not father's brother (FB) (see 1.5.4.2-[2]). This has an important implication. According to Berndt and Berndt (1965: 87-88), in the traditional Aboriginal societies, MB and father's sister (FZ) played pivotal and crucial roles, involving 'special obligations and responsibilities'. In view of this, it is an honour and privilege to be named after Alf Palmer's uncle (no doubt MB). At the same time, his intention may have been to assign me an obligation and responsibility to document his language to pass it on to posterity. In Rachel Cummins' words, he entrusted the Warrongo language to me.

The Warrongo language revival movement is making a slow but steady progress (see Tsunoda and Tsunoda (2010), among others). Alf Palmer's dedicated efforts to have his language documented have proved to be truly worthwhile. What he sowed four decades ago is now beginning to be harvested by his descendants.

Also in the 1970s, the following people each provided a limited amount of – nonetheless invaluable – data on Warrongo: Alec Collins (1.8.4.2.), and also Harry Bunn, Vera Smallwood, Mr. Williamson, Mrs. Morgenstern, Denny Hoolihan, Mrs. Cassidy, Tommy Murray, Tommy Springcart, and Ado Cashmere (1.8.4.3).

The then Australian Institute of Aboriginal Studies (now Australian Institute of Aboriginal and Torres Strait Islander Studies) and Monash University financed my research into the Warrongo language in the 1970s.

Barry J. Blake supervised my M.A. study (and also Ph.D. study) at Monash University, and he has been continuing to give me advice.

Peter Sutton made available all his unpublished data on Warrongo recorded from Alec Collins, and also his unpublished data on Gugu-Badhun and Gugal. I recorded a very small amount of data from Alec Collins (see 1.8.4.2), but all the

examples provided by Alec Collins that are given below were recorded by Peter Sutton.

Gavan Breen made available his data on Gujal recorded from George Reid.

R. M. W. Dixon made available his unpublished data on Warrongo recorded from Alf Palmer, and also provided a photocopy of a word list of the Ngayungunu language (1.4.1): 'Tribes of Aboriginal met with around Atherton' by Department of Commissioner of Police, Brisbane, dated 4 November 1898.

In the 2000s, during my participation in the Warrongo language movement, Rachel Cummins (Alf Palmer's daughter's daughter) provided a large amount of information, in particular, on the biography of Alf Palmer (1.8.4.1). She also issued permission to conduct the class on Warrongo at the University of Tokyo, and to publish the present volume.

Willy Santo (Gujal group) and Shirley Johnson (Wulgurugaba group), both interviewed in 2001, supplied information on the mythology of the region. (See 1.5.3.)

Leigh Pentecost and Rod Nielson provided information on aspects of the geography and history of the region. (See 1.7.)

The students of the class on Warrongo that I conducted at the University of Tokyo supplied helpful comments.

The comments on my previous works on Warrongo were gratefully acknowledged therein.

Tatsuyuki Mimura and Kan Sasaki each read a draft of Chapter 2 and furnished comments and references. Kan Sasaki detected a fair number of typos in 4.11.

Meaghan Cummins (Rachel Cummins' daughter), Kazuhiro Imanishi, Yasuhiro Kojima, Yusuke Nakamura, Ken Shibushita, Mie Tsunoda, and John B. Whitman each provided comments on, or gave advice relevant to, portions of the drafts of the present work.

Yasunari Imamura checked the numbering of examples. Minoru Yamaizumi examined the contents and pagination. Hatsue Ishii prepared the basis of Maps 1, 3 and 4.

The National Institute for Japanese Language and Linguistics (Tachikawa City, Tokyo, Japan), where I serve as the Director of the Department of Crosslinguistic Studies, has supported my research, including the preparation and the publication of the present work. Parts of the present work are an outcome of the research I carried out for the collaborative research project that I am conducting, as the project leader, at the Institute: 'Modal and speech-act constraints on clause-linkage'

The anonymous reviewer of the manuscript and Bernard Comrie, one of the editors of Mouton Grammar Library, furnished very detailed and helpful comments.

The late Ursula Kleinhenz, Julie Miess and Kirstin Børgen at De Gruyter Mouton supplied much-needed editorial assistance and advice.

My wife, Mie Tsunoda, and her mother, Suzu Mori, provided full support during the preparation of the present work, as always.

Contents

Preface	v
Acknowledgements.	vii
List of tables and figures	xix
List of maps and photos	xxi
List of abbreviations and symbols	xxii
Chapter 1: The language and its speakers .	1
1.1. Linguistic type .	1
1.2. Names of the language and people	2
1.3. Dialects.	3
1.4. Territory and neighbouring languages	4
1.4.1. Territory	4
1.4.2. Neighbouring languages and their classification	6
1.4.2.1. Proposed classifications.	6
1.4.2.2. Studies on the neighbouring languages.	6
1.4.2.3. Warrongo, Gugu-Badhun and Gujal as a linguistic unity.	8
1.4.2.4. Problems with the proposed classifications.	10
1.5. Environmental and socio-cultural background .	14
1.5.1. Environmental setting	14
1.5.2. Archaeological and anthropological accounts.	15
1.5.3. Mythology	15
1.5.4. Names of groups, individuals, and places .	19
1.5.4.1. Names of groups	19
1.5.4.2. Names of individuals .	21
1.5.4.3. Names of places	22
1.5.5. Sections and totems .	25
1.5.6. Marriage rules	27
1.5.7. Kinship system .	28
1.5.8. Other topics	32
1.6. Special styles of speech and songs.	33
1.6.1. Jalngoy: the avoidance style of speech	33
1.6.2. Songs	34
1.6.3. Curses and expressions for abuse	37
1.7. Post-contact history	38
1.8. Studies on the Warrongo language	40
1.8.1. Introductory notes	40
1.8.2. Early studies on Warrongo.	40
1.8.3. Modern studies on Warrongo	41

1.8.4.	Speakers interviewed for the present study.	43
1.8.4.1.	Alf Palmer (Warrongo name: Jinbilnggay).	43
1.8.4.2.	Alec Collins (Warrongo name: Wolngarra)	47
1.8.4.3.	Other speakers.	48
1.9.	Present-day situation.	51
Chapter 2: Phonology.		53
2.1.	Phonemes and their realizations	53
2.1.1.	Phoneme inventory	53
2.1.2.	Minimal pairs/sets.	55
2.1.3.	Allophones of consonants and semivowels.	59
2.1.3.1.	Nasals, rhotics, lateral, and semivowels	59
2.1.3.2.	Stops.	60
2.1.3.2.1.	Stop voicing (1): in terms of places of articulation.	60
2.1.3.2.2.	Stop voicing (2): in the word-initial position.	61
2.1.3.2.3.	Stop voicing (3): in the second syllable.	65
2.1.3.2.4.	Stop voicing (4): effect of C2 nasal on C1 stop.	67
2.1.3.2.5.	Stop voicing (5): effect of V1 on C1 stop, and of V2 on C2 stop	68
2.1.3.2.6.	Stop voicing (6): in consonant clusters	71
2.1.3.2.7.	Stop voicing (7): concluding remarks	74
2.1.4.	Allophones of vowels.	75
2.1.4.1.	/a/	75
2.1.4.2.	/u/	76
2.1.4.3.	/i/	76
2.1.4.4.	/i/ and /u/	80
2.1.5.	Problems with /j/ and /w/	84
2.1.5.1.	/j/	84
2.1.5.1.1.	Introductory notes	84
2.1.5.1.2.	Allophones of /ji/	84
2.1.5.1.3.	Allophones of /j/ that is not followed by a vowel	88
2.1.5.2.	/w/.	92
2.2.	Phonotactics.	94
2.2.1.	Structure of words.	94
2.2.2.	Characterization of enclitics	95
2.2.3.	Syllable structure of roots, suffixes, enclitics, and words	97
2.2.3.1.	Syllable structure of roots	97
2.2.3.2.	Syllable structure of suffixes and enclitics.	99
2.2.3.3.	Syllable structure of words	100
2.2.4.	Syllable types in roots, suffixes, enclitics, and words	101
2.2.5.	Distribution of consonants and semivowels	105
2.2.5.1.	Consonants and semivowels in roots.	105
2.2.5.2.	Consonants and semivowels in suffixes	107
2.2.5.3.	Consonants and semivowels in enclitics.	108

2.2.5.4.	Consonants and semivowels in words .	108
2.2.6.	Consonant clusters.	108
2.2.6.1.	Intra-root consonant clusters .	108
2.2.6.2.	Inter-morphemic consonant clusters .	112
2.2.6.3.	Comparison and analysis of intra-root and inter-morphemic consonant clusters	114
2.2.7.	Syllables: onset and coda.	119
2.3.	Statistics.	121
2.3.1.	Statistics (1): dictionary count.	121
2.3.2.	Statistics (2): text count .	123
2.4.	Alternation between phonemes .	124
2.5.	Natural classes .	128
2.6.	'Phonological processes'	130
2.7.	Stress	133
2.8.	Pitch .	141
2.9.	Connected speech	142
2.9.1.	Intonation.	142
2.9.2.	Other phenomena.	145
2.10.	Careful speech .	147
2.10.1.	Deletion of a phoneme .	147
2.10.2.	Isolation of suffixes .	149
2.11.	Women's pronunciation (?)	150
2.12.	Ideophones .	151
2.13.	Adaptation of foreign words	152
2.13.1.	Words from other Australian languages .	152
2.13.2.	Words from English.	152
2.14.	Practical orthography	155
Chapter 3:	Word classes and morphology	156
3.1.	Word classes	156
3.1.1.	Outline of word classes	156
3.1.2.	Additional comments on individual word classes.	157
3.2.	Noun morphology (1): case inflection.	164
3.2.1.	Case inflection of nouns and three demonstrative words .	164
3.2.1.1.	Regular nouns	165
3.2.1.2.	Vowel-final proper and kin nouns .	169
3.2.1.3.	Irregular nouns	171
3.2.1.4.	<i>Ngani</i> 'what', <i>yarro</i> 'this, here', <i>ngona</i> 'that, there', and <i>ngoni</i> 'there, that'	173
3.3.	Pronoun morphology	174
3.4.	Adverb morphology (1): case inflection .	176
3.4.1.	Types of adverbs	176
3.4.2.	<i>Wanyja</i> 'where'	177

3.4.3.	Comparison of adverbs and nouns: case inflection	178
3.5.	Notes on case inflection	183
3.5.1.	Silverstein's NP hierarchy	183
3.5.2.	Genitive, comitative and ablative cases.	184
3.5.3.	Nouns with no case inflection (?)	184
3.6.	Meanings and functions of cases.	185
3.6.1.	Nominative case.	185
3.6.2.	Ergative and accusative cases	187
3.6.3.	Locative case	190
3.6.4.	Dative case.	195
3.6.5.	Genitive case	201
3.6.6.	Ablative-2 case.	205
3.6.7.	Ablative-1 case.	205
3.6.8.	Comitative case	210
3.7.	Noun morphology (2): derivation	222
3.7.1.	Noun-stem-forming suffixes .	222
3.7.2.	Reduplication.	238
3.7.3.	Compounding	241
3.8.	Adverb morphology (2): derivation.	245
3.8.1.	Adverb-stem-forming suffixes	245
3.8.2.	Reduplication.	251
3.8.3.	Compounding	252
3.9.	Verb morphology (1): introduction and inflection	253
3.9.1.	Verb roots and transitivity	253
3.9.2.	Verbalization, interrogative verbs, and demonstrative verbs	254
3.9.3.	Conjugational classes.	255
3.9.4.	Verbal paradigms.	259
3.9.4.1.	Verbal paradigm (1): L-class, Y-class and ZERO-class	259
3.9.4.2.	Verbal paradigm (2): derived stems	264
3.10.	Meanings and functions of conjugational categories	266
3.10.1.	Past.	266
3.10.2.	Nonfuture-1	267
3.10.3.	Nonfuture-2	271
3.10.4.	Nonfuture-3	274
3.10.5.	Future.	276
3.10.6.	Comparative notes on tenses: past, present and future .	277
3.10.7.	Stative	277
3.10.8.	General imperatives.	278
3.10.9.	Affirmative imperative	284
3.10.10.	Negative imperative.	285
3.10.11.	Apprehensional	286
3.10.12.	Four purposives	288
3.10.13.	Purposive-1 and purposive-2.	291

3.10.14.	Purposive-3	296
3.10.15.	Purposive-4	296
3.11.	Verb morphology (2): derivation.	298
3.11.1.	Verb-stem-forming suffixes	298
3.11.1.1.	<i>-rra-(y)-mbi-L</i> ‘(song style ?)’	298
3.11.1.2.	<i>-nda-Y</i> ‘repeatedly’, ‘plural actors’	300
3.11.1.3.	<i>-ya-L</i> ‘all’, ‘all the time’	301
3.11.1.4.	<i>-rV-L</i> ‘plural’ (‘all’, ‘many’).	301
3.11.1.5.	<i>-yi-?</i> ‘future’	303
3.11.1.6.	<i>-l</i> and <i>-i</i> .	304
3.11.1.7.	<i>-rr</i> and <i>-i</i> .	311
3.11.2.	Reduplication of verb roots .	315
3.11.3.	Compounding	316
Chapter 4: Syntax.		318
4.1.	Introductory notes	318
4.2.	Types of sentences.	318
4.2.1.	Sentence types (1): declarative, imperative, interrogative, and exclamatory sentences.	318
4.2.1.1.	Imperative sentences .	318
4.2.1.2.	Interrogative sentences	320
4.2.1.3.	Exclamatory and declarative sentences.	324
4.2.2.	Sentence types (2): affirmative and negative sentences .	324
4.2.3.	Sentence types (3): simple and complex sentences.	324
4.3.	Types of clauses.	325
4.3.1.	Clause types (1): intransitive and transitive clauses .	325
4.3.2.	Clause types (2): basic and derived clauses	326
4.3.3.	Clause types (3): in terms of valency	326
4.3.3.1.	Introductory notes .	326
4.3.3.2.	Three-place clauses	327
4.3.3.3.	Two-place clauses	336
4.3.3.4.	One-place clauses	337
4.4.	Constituents of clauses	338
4.5.	Types of phrases	340
4.5.1.	Introductory notes	340
4.5.2.	Noun phrases .	341
4.5.2.1.	Non-configurational NPs	342
4.5.2.1.1.	Constituents of non-configurational NPs	342
4.5.2.1.2.	Types of non-configurational NPs	342
4.5.2.1.3.	Order of the constituents of non-configurational NPs	347
4.5.2.1.4.	Additional remarks on non-configurational NPs	351
4.5.2.2.	Configurational NPs	352
4.5.2.2.1.	Genitive in NPs	353

4.5.2.2.2.	'One's camp' (1).	354
4.5.2.2.3.	'One's camp' (2).	355
4.5.2.2.4.	'One's own camp'	358
4.5.2.2.5.	'One's/this camp'	361
4.5.2.2.6.	'His/her father'	361
4.5.2.2.7.	Additional examples	363
4.5.2.2.8.	Discussion and summary of configurational NPs.	364
4.5.3.	Adverb phrases	365
4.5.4.	Verb phrases	366
4.5.4.1.	Verb phrases consisting of two verbs	367
4.5.4.2.	Verb phrases consisting of a verb and a noun or adverb.	370
4.6.	Order of constituents .	372
4.6.1.	Constituent order in words	372
4.6.2.	Constituent order in phrases	374
4.6.3.	Constituent order in clauses	374
4.6.3.1.	Introductory notes	374
4.6.3.2.	Constituent order in those independent clauses and main clauses which are used as affirmative declarative sentences	375
4.6.3.3.	Constituent order in those independent clauses and main clauses which are used as imperative sentences	380
4.6.4.	Constituent order in sentences.	382
4.7.	Verb formation: <i>-bi-L</i> 'INTR', <i>-nga-L</i> 'TR', and <i>-(m)ba-L</i> 'TR'	383
4.7.1.	Intransitive-stem-forming suffix <i>-bi-L</i> 'be, become' (state, change/inchoation)	384
4.7.2.	Transitive-stem-forming suffix <i>-nga-L</i> 'make', etc. (causation, creation, etc.).	391
4.7.3.	Transitive-stem-forming suffix <i>-(m)ba-L</i>	408
4.8.	Complex sentences involving purposive subordination	412
4.8.1.	Introductory notes	412
4.8.2.	Combination of clauses	413
4.8.3.	Coreference and syntactic ergativity	414
4.8.4.	Coreferential deletion in purposive subordination	415
4.8.5.	More on purposive subordination	422
4.9.	Antipassive construction.	427
4.9.1.	Case frames and verbal morphology	427
4.9.2.	Transitivity.	430
4.9.3.	Coreference: antipassives and syntactic ergativity	431
4.9.4.	Purposive subordination	432
4.9.4.1.	Purposive subordination without an antipassive.	432
4.9.4.2.	Purposive subordination with an antipassive	433
4.9.5.	Coordination and sentence-sequence	438
4.9.6.	Summary of coreference .	443

4.9.6.1.	Comparison of purposive subordination, coordination, and sentence-sequence.	443
4.9.6.2.	Crosslinguistic comparison of syntactic ergativity.	445
4.9.7.	More on antipassives in purposive subordination.	445
4.9.8.	Behaviour of pronouns	452
4.9.8.1.	Voice distinction	452
4.9.8.2.	Coreferential deletion and retention	453
4.9.8.2.1.	Performance errors	453
4.9.8.2.2.	Deletion and retention	455
4.9.9.	Case frames and semantics	459
4.9.9.1.	Semantic types of antipassive verbs	459
4.9.9.2.	Case of the undergoer NP	464
4.9.9.2.1.	Introductory notes .	464
4.9.9.2.2.	Animacy of the undergoer in terms of Silverstein's NP hierarchy	464
4.9.9.2.3.	Affectedness of the undergoer in terms of verb semantics.	467
4.9.9.2.4.	Affectedness of the undergoer of action antipassives in terms of the conjugational category	469
4.9.9.3.	Perception and knowledge antipassives	476
4.9.9.3.1.	Semantics and case of the undergoer NP	476
4.9.9.3.2.	<i>Nyaga-L</i> and <i>nyaga-gali-ZERO</i> 'see, look at, etc.'	478
4.9.9.3.3.	<i>Nyaga-nyaga-L</i> 'look at, look after, mind, watch out' and <i>nyaga-nyaga-gali-ZERO</i> 'look at, watch out'	479
4.9.9.3.4.	<i>Jaymba-L</i> 'find' and <i>jaymba-gali-ZERO</i> 'find, search for'	480
4.9.9.3.5.	<i>Ngawa-L</i> and <i>ngawa-gali-ZERO</i> 'hear, listen to' and 'understand'	481
4.9.9.3.6.	Additional observations on perception and knowledge antipassives	483
4.9.9.4.	NOM-GEN and NOM-ACC for antipassives	483
4.9.9.5.	Case frames of three-place antipassives	485
4.9.9.6.	Case of NPs for instrument, location, and destination	491
4.9.9.6.1.	Case of NPs for instrument .	491
4.9.9.6.2.	Case of NPs for location	496
4.9.9.6.3.	Case of NPs for destination .	497
4.9.9.6.4.	Case of NPs: discussion.	497
4.9.10.	Aspectual and modal meanings	498
4.9.11.	Pragmatics and discourse	502
4.9.11.1.	Introductory notes .	502
4.9.11.2.	Continuous mentions of referents	502
4.9.11.3.	Focus	505
4.10.	Subordination with the enclitic = <i>ngomay</i> 'after, if, because'	506
4.10.1.	Introductory notes	506
4.10.2.	Involving an intransitive verb or an adjective-like noun	507
4.10.3.	Involving an antipassive verb	509
4.10.4.	Involving a transitive verb.	512
4.10.5.	Discussion	513

4.11.	Reflexive and middle constructions	515
4.11.1.	Introductory notes	515
4.11.2.	Vt- <i>gali</i> -ZERO 'reflexive' (AP)	516
4.11.2.1.	Vt- <i>gali</i> -ZERO 'true reflexive' (A&O d-S) (AP)	516
4.11.2.2.	Vt- <i>gali</i> -ZERO 'anticausative' (O d-S) (AP)	523
4.11.3.	Vt- <i>li</i> -ZERO 'reflexive' (AP, AC).	524
4.11.3.1.	Vt- <i>li</i> -ZERO 'true reflexive' (A&O d-S) (AP, AC)	525
4.11.3.2.	Vt- <i>li</i> -ZERO 'anticausative' (O d-S) (AP, AC)	530
4.11.4.	Vi- <i>gali</i> -ZERO and Noun- <i>gali</i> -ZERO 'middle' (AP).	533
4.11.5.	Vi- <i>li</i> -ZERO, Vi- <i>l</i> -Vi- <i>li</i> -ZERO, Noun- <i>li</i> -ZERO and Adverb- <i>li</i> -ZERO 'middle' (AP).	535
4.12.	Reciprocal construction.	537
4.12.1.	Introductory notes.	537
4.12.2.	Reciprocal verbs	538
4.12.3.	Syntax	540
4.12.4.	Semantics.	546
4.12.4.1.	Completely coreferential and partly coreferential.	547
4.12.4.2.	Simultaneous and alternate	548
4.12.5.	Lexicalization	550
4.12.5.1.	Reciprocals with a singular d-S.	550
4.12.5.2.	Higher frequency of reciprocal verbs	554
4.12.5.3.	Idiom-like expressions.	554
4.12.6.	Non-reciprocal uses.	555
4.12.6.1.	Sociative 'together'	555
4.12.6.2.	Participating in a group action	556
4.12.6.3.	Reflexive	557
4.12.6.4.	Anticausative.	558
4.12.7.	Expressions of the d-S and the S.	559
4.12.8.	More on the semantics of reciprocals	559
4.12.9.	More on the formation of reciprocal verbs	560
4.12.9.1.	Morphological restrictions.	560
4.12.9.2.	Reciprocal verb based on a noun.	561
4.12.9.3.	Etymology	561
4.13.	Iterative construction.	562
4.13.1.	Iterative verbs	562
4.13.2.	Syntax	566
4.13.2.1.	Intransitive- <i>garra</i> - <i>Y</i>	566
4.13.2.2.	Transitive- <i>garra</i> - <i>Y</i>	567
4.13.3.	Semantics.	570
4.13.3.1.	Aspectual meanings: the imperfective	570
4.13.3.2.	Obligatory vs. non-obligatory use of - <i>garra</i> - <i>Y</i>	573
4.13.4.	More on the formation of iterative verbs.	575
4.13.4.1.	Iterative verbs based on an adverb and a noun	575

4.13.4.2.	<i>-n-garra-n</i>	575
4.14.	Applicative construction	576
4.14.1.	Introductory notes	576
4.14.2.	Verbal locative construction: <i>Vi-ri-L</i>	576
4.14.2.1.	Locative verbs	576
4.14.2.2.	Case frames	578
4.14.2.3.	Transitivity	581
4.14.2.4.	Use	581
4.14.2.4.1.	Frequency.	581
4.14.2.4.2.	Use in purposive subordination: syntactic ergativity	581
4.14.2.4.3.	Lexicalized locative verbs .	583
4.14.2.4.4.	'ADJECTIVE to VERB' construction	584
4.14.2.4.5.	Word order: topic (?)	584
4.14.2.5.	Locative verbs with the causative meaning.	585
4.14.3.	Verbal instrumental construction: <i>Vt-ri-L</i>	586
4.14.3.1.	Instrumental verbs.	586
4.14.3.2.	Case frames and valency	588
4.14.3.3.	Use	590
4.14.3.3.1.	Syntactic possibilities	590
4.14.3.3.2.	Use in purposive subordination: syntactic ergativity	595
4.14.3.3.3.	Lexicalized instrumental verbs .	597
4.14.3.3.4.	'X is for VERBing with' construction.	597
4.14.3.4.	More on the morphology	598
4.14.3.5.	Restrictions (?) on the use of instrumental verbs	598
4.14.3.5.1.	Inflectional suffixes.	598
4.14.3.5.2.	Pronouns for the DAT	600
4.14.4.	Restrictions on the use of applicative verbs	600
4.14.4.1.	Derivational suffixes .	600
4.14.4.2.	Animacy of the A NP	601
4.14.4.3.	Meaning of the 'basic' NP	601
4.15.	Participial subordination	602
4.15.1.	Participle-1 <i>-nyo</i> .	602
4.15.1.1.	Introductory notes	602
4.15.1.2.	Participle-1 used in a subordinate clause.	604
4.15.1.3.	Participle-1 used in a simple sentence .	607
4.15.2.	Participle-2 <i>-nji</i>	608
4.15.2.1.	Introductory notes	608
4.15.2.2.	Participle-2 used in a subordinate clause.	609
4.15.2.3.	Participle-2 used in a simple sentence .	611
4.15.2.4.	Participle-2 used in songs	611
4.15.3.	Participle-3 <i>-njirra</i> .	612
4.16.	Relative clause	613
4.17.	Apprehensional construction 'lest ... should'	614

4.17.1.	Introductory notes	614
4.17.2.	Comparison of apprehensional construction and purposive subordination.	617
4.18.	Subordination without any morphosyntactic marker	618
4.18.1.	Emotion (1): 'X is afraid that ...'	619
4.18.2.	Emotion (2): 'X is glad that	621
4.18.3.	Knowledge: 'X knows that ...	622
4.18.4.	Perception: 'X sees/hears Y doing	622
4.18.5.	Speech activity: 'X tells/asks ...'	623
4.18.6.	Condition 'if' and future time 'when, while'	629
4.18.6.1.	With a subordinate clause containing a verb.	629
4.18.6.2.	With a subordinate clause containing no verb	633
4.19.	'And', 'but' and 'for'	634
4.20.	Expression of possession and existence	636
4.20.1.	Introductory notes	636
4.20.2.	Possession cline	636
4.20.3.	Genitive case	637
4.20.4.	Dative, ablative-1, and comitative cases	642
4.20.5.	Apposition of possessor/whole and possessee/part.	644
4.20.5.1.	Introductory notes	644
4.20.5.2.	Apposition (1): accusative, ergative, dative, locative, and ablative-1 cases	645
4.20.5.3.	Apposition (2): nominative	650
4.20.5.4.	Apposition (3): discussion.	657
4.20.6.	X Y <i>nyawa</i> 'NEG': 'X has no Y', 'There is no Y in X'	658
4.20.7.	Subordination involving a body part noun	661
4.20.8.	Transitive verb <i>ganyji-L</i> 'carry'	664
4.21.	<i>Ngani</i> 'Whatsisname'	665
4.22.	Sentence-topic word	669
4.23.	<i>Yamanyon</i> 'similar, like': word and enclitic (?).	671
4.24.	Adverbs of modality and the like	673
4.25.	Enclitics	682
4.26.	Interjections.	698
Texts.		700
Text 1.	An excerpt from Tape 72/26.	700
Text 2:	An excerpt from Tape 72/28.	713
Text 3:	An excerpt from Tape 72/23.	719
References.		723
Index of subjects.		736
Index of languages		746
Index of names		748

List of tables and figures

Table 1-1.	Wurm and Hattori's (1981) classification	7
Table 1-2.	Dixon's (2002) classification	7
Table 1-3.	Lexical sharing among Warrongo, Gugu-Badhun and Gujal	8
Table 1-4.	Oppositions in laminal consonants	9
Table 1-5.	Selected pronouns of Warrongo and Jirrbal.	11
Table 1-6.	Phonological correspondences.	12
Table 1-7.	Warrongo section terms (1) (Alf Palmer's Warrongo).	25
Table 1-8.	Warrongo section terms (2) (Alf Palmer's Warrongo).	26
Table 1-9.	Totems	27
Table 1-10.	Marriage rules	28
Table 2-1.	Consonant and semivowel phonemes	53
Table 2-2.	Vowel phonemes.	53
Table 2-3.	Voicing tendency of stops	61
Table 2-4.	Voicing of stops in word-initial positions (C1)	62
Table 2-5.	Voicing of stops in the second syllables intervocalically (C2)	65
Table 2-6.	Effect of C2 nasal on C1 stop.	67
Table 2-7.	Effect of V1 on C1	68
Table 2-8.	Effect of V2 on C2	70
Table 2-9.	Stop voicing in liquid-plus-stop clusters (1)	72
Table 2-10.	Stop voicing in liquid-plus-stop clusters (2)	73
Table 2-11.	Lowering effect of /r/	78
Table 2-12.	/i/ and /u/	80
Table 2-13.	Allophones of /ji/	85
Table 2-14.	Allophones of /j/	89
Table 2-15.	Evidence for word-final /j/	90
Table 2-16.	Syllable structure of words, roots, enclitics, and suffixes.	105
Table 2-17.	Phonemes in structural positions.	106
Table 2-18.	Intra-root consonant clusters	109
Table 2-19.	Inter-morphemic consonant clusters	113
Table 2-20.	Phoneme frequency (1): dictionary count	121
Table 2-21.	Frequency of vowels.	122
Table 2-22.	Phoneme frequency (2): text count	123
Table 3-1.	Case labels: ergative, nominative, and accusative.	158
Table 3-2.	Regular nouns.	166
Table 3-3.	Vowel-final human proper nouns and kin nouns.	169
Table 3-4.	Irregular nouns.	172
Table 3-5.	<i>Ngani</i> 'what', <i>yarro</i> 'this, here', <i>ngona</i> 'that, there', and <i>ngoni</i> 'there, that'	173
Table 3-6.	Pronouns, including 'who'	174

Table 3-7.	<i>Wanyja</i> 'where'	177
Table 3-8.	Comparison of adverbs and nouns.	179
Table 3-9.	Silverstein's NP hierarchy	183
Table 3-10.	<i>-ngomay</i> 'ablative-1' plus another case	205
Table 3-11.	Comitative plus another case.	210
Table 3-12.	Meanings of nouns when used in compounds.	242
Table 3-13.	Conjugational classes and transitivity	256
Table 3-14.	Verbal paradigm (1): L-class, Y-class and ZERO-class	260
Table 3-15.	Verbal paradigm (2): reciprocal verbs; iterative verbs; and antipassive verbs and reflexive/middle verbs	265
Table 3-16.	Past, present and future	277
Table 3-17.	General imperatives and purposives	280
Table 4-1.	Case frames of <i>goyba-L</i> 'give'	327
Table 4-2.	Case frames of <i>ngonbaynga-L</i> 'show, teach'	330
Table 4-3.	Case frames of <i>mayga-L</i> 'tell'	332
Table 4-4.	Case frames of <i>ganyji-L</i> 'carry, take, bring'	335
Table 4-5.	Locative and dative of genitive singular pronouns	354
Table 4-6.	Locative and dative of 'pronoun-LINK'	356
Table 4-7.	Cases of 'one's camp'	357
Table 4-8.	Cases of 'one's own camp'	359
Table 4-9.	Cases of 'his/her father'	362
Table 4-10.	Head and dependent.	373
Table 4-11.	Repetition of Vi in intransitive sentences	380
Table 4-12.	Combination of clauses involving purposive subordination.	413
Table 4-13.	Ideal coreferential deletion patterns involving purposive subordination	418
Table 4-14.	Basic transitive clauses and antipassive clauses	427
Table 4-15.	Purposive subordination without an antipassive.	432
Table 4-16.	Purposive subordination with an antipassive.	434
Table 4-17.	Summary of coreference	443
Table 4-18.	Coreferential deletion and retention in purposive subordination	455
Table 4-19.	Hierarchy of two-place predicates.	459
Table 4-20.	Transitive verbs and voice expressions	460
Table 4-21.	Case of undergoer NP (1): animacy hierarchy.	464
Table 4-22.	Case of undergoer NP (2): verb semantics.	467
Table 4-23.	Case of undergoer NP (3): conjugational category of action antipassives.	469
Table 4-24.	Perception antipassives	477
Table 4-25.	'See, look at', 'find', and 'search for'	480
Table 4-26.	<i>Goyba-L</i> 'give' and 'throw' transitive and antipassive.	486
Table 4-27.	<i>Mayga-L</i> 'tell': transitive and antipassive	489
Table 4-28.	<i>Ganyji-L</i> 'carry, bring, take': transitive and antipassive	490
Table 4-29.	<i>Birra-L</i> 'tell, talk': transitive and antipassive	491

Table 4-30. Case of NPs for instrument	492
Table 4-31. Case of NPs for location.	496
Table 4-32. Continuous mentions of referents	505
Table 4-33. Transitive and reflexive clauses (1): instrument ERG.	518
Table 4-34. Transitive and reflexive clauses (2): body part noun.	519
Table 4-35. Transitive and anticausative clauses	523
Table 4-36. Two-place transitive and corresponding reciprocal clauses	540
Table 4-37. <i>Goli waga-L</i> 'get angry' and <i>goli waga-wa-Y</i> 'get angry-RECP'	540
Table 4-38. <i>Goyba-L</i> 'give' and <i>goyba-wa-Y</i> 'give-RECP'	541
Table 4-39. <i>Mayga-L</i> 'tell' and <i>mayga-wa-Y</i> 'tell-RECP'	541
Table 4-40. <i>Birra-L</i> 'tell' and <i>birra-wa-Y</i> 'tell-RECP'	542
Table 4-41. Transitive and reciprocal clauses involving a body part noun.	545
Table 4-42. Verbal locative construction and basic clauses	578
Table 4-43. Verbal instrumental construction and basic clauses	589
Table 4-44. Various types of the verbal instrumental construction .	590
Table 4-45. Possession cline	638
Table 4-46. Words combined with the enclitic = <i>wa</i> 'focus'	694
Figure 1-1. Pedigree (1): a male EGO.	29
Figure 1-2. Pedigree (2): a female EGO	30
Figure 4-1. Ergativity and accusativity	414
Figure 4-2. Intra-linguistic distribution of syntactic ergativity	445

List of maps and photos

Map 1	Australia .	xxv
Map 2	Herbert-Burdekin area (1): placenames	xxvi
Map 3	Warrongo territory	xxvii
Map 4	Mari subgroup.	xxviii
Map 5	Herbert-Burdekin area (2): languages	xxix
Photo 1	Alf Palmer (July 1972)	xxx
Photo 2	Alf Palmer and Tasaku Tsunoda (September 1974).	xxx

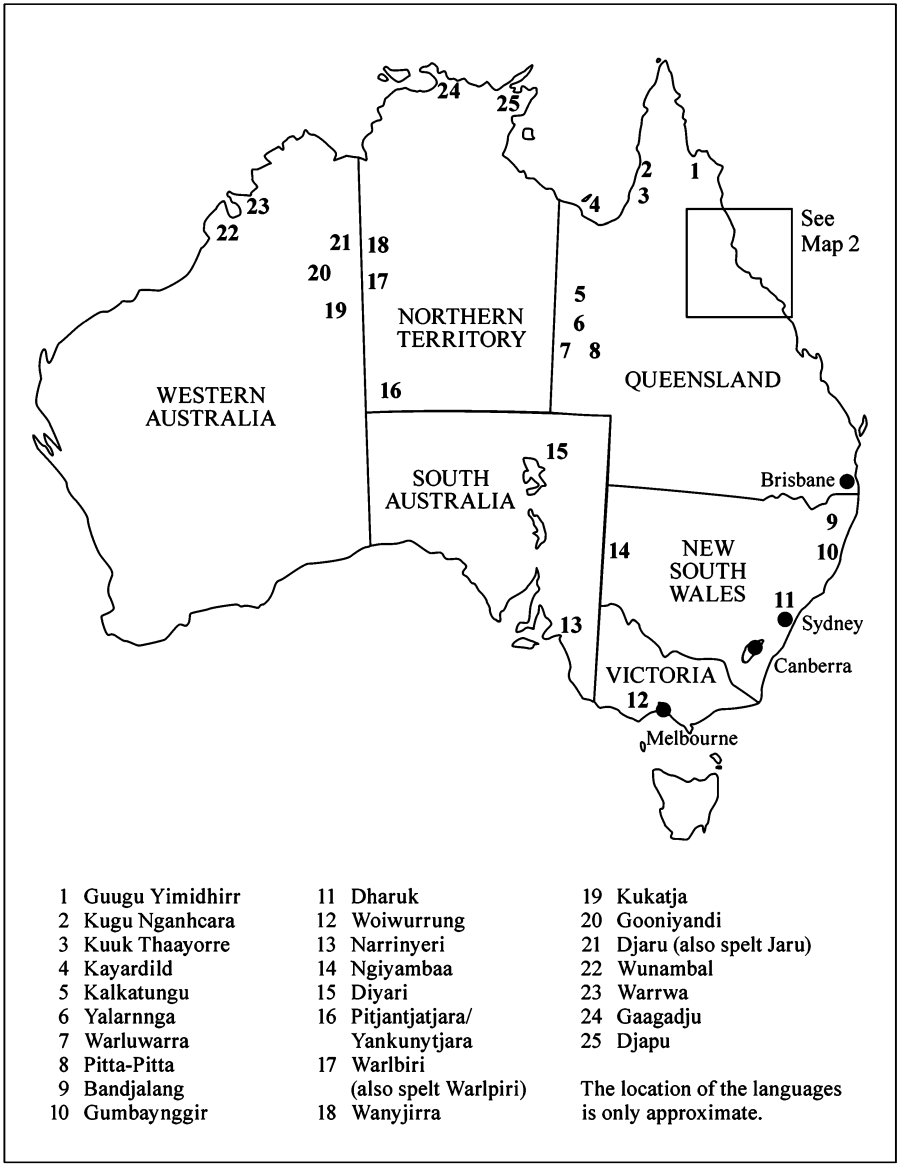
List of abbreviations and symbols

The following abbreviations follow ‘The Leipzig Glossing Rules’ (www.eva.mpg.de/lingua/pdf/LGR09_02_23.pdf; accessed on the 21 February 2011) wherever possible.

A	(a) male member of a section, (b) so-called transitive subject
a	female member of a section
ABL	ablative
AC	Alec Collins
ACC	accusative
Adj	adjective
Adv	adverb
ADNOM	adnominal
AFFIMP	affirmative imperative
anim	animate
ANTIP	antipassive
AP	(a) Alf Palmer (b) word, sentence, etc. that was: (b-i) given by Alf Palmer spontaneously (in a text, during elicitation, or during our conversation), or given by him as a Warrongo translation of an English sentence, or, (b-ii) suggested by Tasaku Tsunoda and approved by Alf Palmer
APPL	applicative
APPR	apprehensional
B	male member of a section
B&G	Bidyara and Gungabula
BI	Bidyara
b	female member of a section
B.T.L.	Blue Tongue Lizard
C	(a) male member of a section, (b) consonant
c	female member of a section
CAUS	causative
CAUSE	cause
CF	counter-factual
COM	comitative
D	(a) daughter, (b) male member of a section
d	female member of a section
DAT	dative
DD	daughter’s daughter
DH	daughter’s husband
DNK	‘I do not know’ (gloss for the enclitic = <i>bajon</i> (4.25-[2]))
DS	daughter’s son

DU	dual
d-S	derived S
EB	elder brother
ERG	ergative
EZ	elder sister
F	father
FB	father's brother
FEM	feminine
FF	father's father
FM	father's mother
FOC	focus
FUT	future
FZ	father's sister
GEN	genitive
GNG	Gungabula
GNV	Gunya
H	(a) husband, (b) high pitch
HB	Harry Bunn
hum	human
IMP	imperative
inan	inanimate
INS	instrumental
INTR	intransitive-stem-forming suffix
ITER	iterative
L	low pitch
LINK	linking interfix
Lit.	literal translation
LOC	locative
M	(a) mother, (b) middle-level pitch, (c) man
MA	Margany
MB	mother's brother
MF	mother's father
MID	middle
MM	mother's mother
MZ	mother's sister
N	nasal
NEG	negation
NEGIMP	negative imperative
NF	nonfuture
NOM	nominative
NONINT	non-interference
O	so-called transitive object
PTCP	participle
p.c.	personal communication

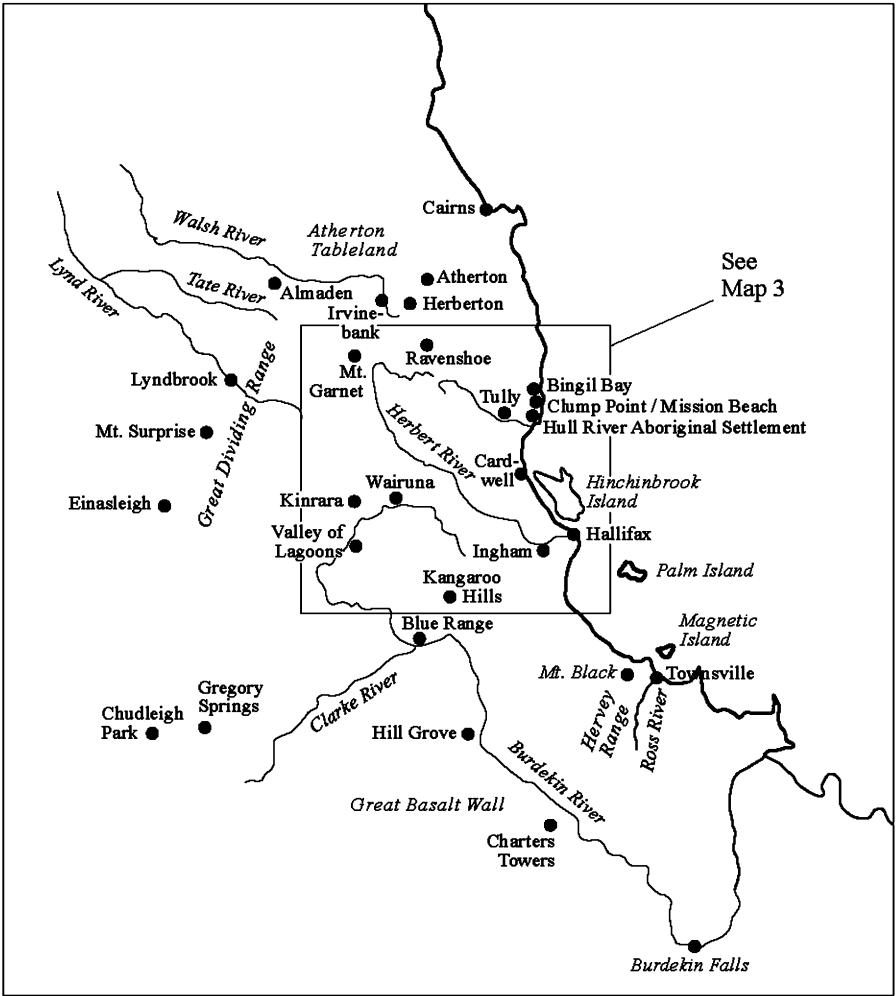
PL	plural
PROH	prohibition
PST	past
pron	pronoun
PURP	purposive
Q	question
RECP	reciprocal
REFL	reflexive
S	(a) son, (b) so-called intransitive subject, (c) stop
SD	son's daughter
SG	singular
SS	son's son
sp.	species
STAT	stative
SW	son's wife
TAGQ	tag question
TR	transitive-stem-forming suffix
TT	This indicates (a) words, sentences, etc. that were made up by Tasaku Tsunoda or (b) information, words, etc. supplied by Tasaku Tsunoda.
TT, AP	This emphasizes that the item in question was suggested by Tasaku Tsunoda and approved by Alf Palmer.
V	vowel
Vi	intransitive verb
Vt	transitive verb
W	(a) wife, (b) woman
W-GB-G	Warrongo, Gugu-Badhun and Gujal
WM	wife's mother
YB	younger brother
YZ	younger sister
1	first person
2	second person
3	third person
[]	This indicates (a) words that were supplied by Tasaku Tsunoda or (b) so-called deletion.
[TT]	This indicates words that were supplied by Tasaku Tsunoda.
=	This precedes an enclitic. This precedes a suffix or indicates a morpheme boundary within a word.
?	A question mark following a verb indicates that the conjugational class membership of this verb is not known. This indicates that one or more words have been deleted by Tasaku Tsunoda from the original sentence, for the purpose of exposition. e.g. 'S O' indicates that 'the S corresponds to the O'
~	This indicates (a) reduplication or (b) alternation.



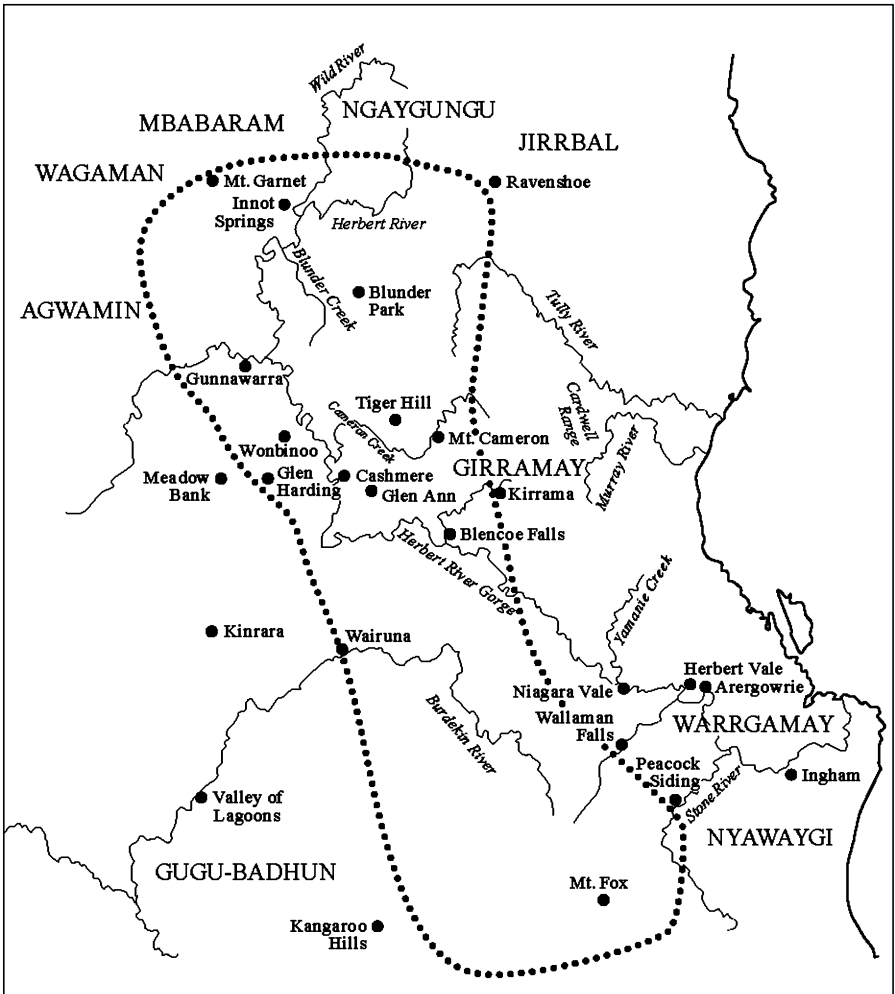
- | | | |
|-------------------|------------------------------------|----------------------------|
| 1 Guugu Yimidhirr | 11 Dharuk | 19 Kukatja |
| 2 Kugu Nganhcara | 12 Woiwurrung | 20 Gooniyandi |
| 3 Kuuk Thaayorre | 13 Narrinyeri | 21 Djaru (also spelt Jaru) |
| 4 Kayardild | 14 Ngiyambaa | 22 Wunambal |
| 5 Kalkatungu | 15 Diyari | 23 Warrwa |
| 6 Yalarnnga | 16 Pitjantjatjara/
Yankunytjara | 24 Gaagadju |
| 7 Warluwarra | 17 Warlbiri | 25 Djapu |
| 8 Pitta-Pitta | (also spelt Warlpiri) | |
| 9 Bandjalang | 18 Wanyjirra | |
| 10 Gumbaynggir | | |

The location of the languages is only approximate.

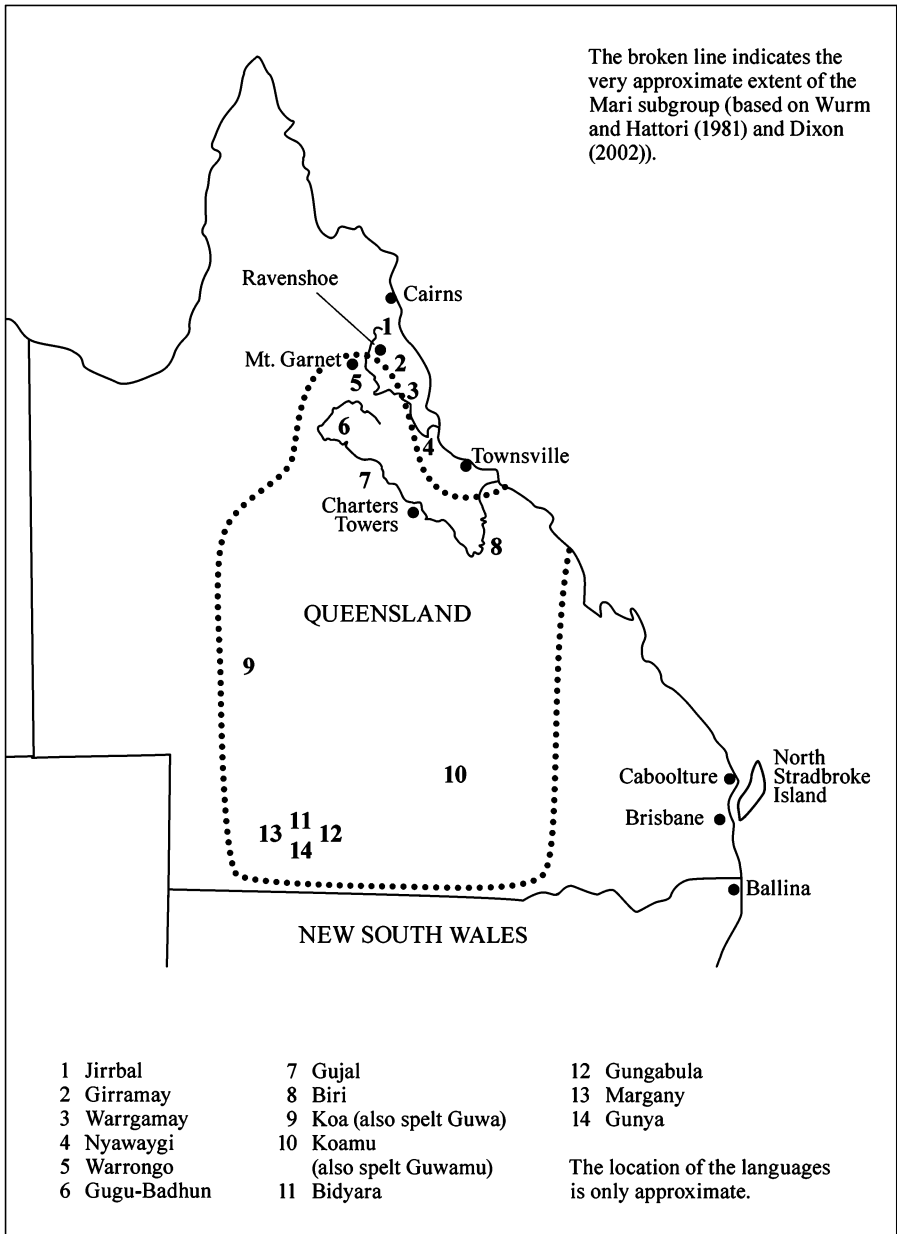
Map 1. Australia



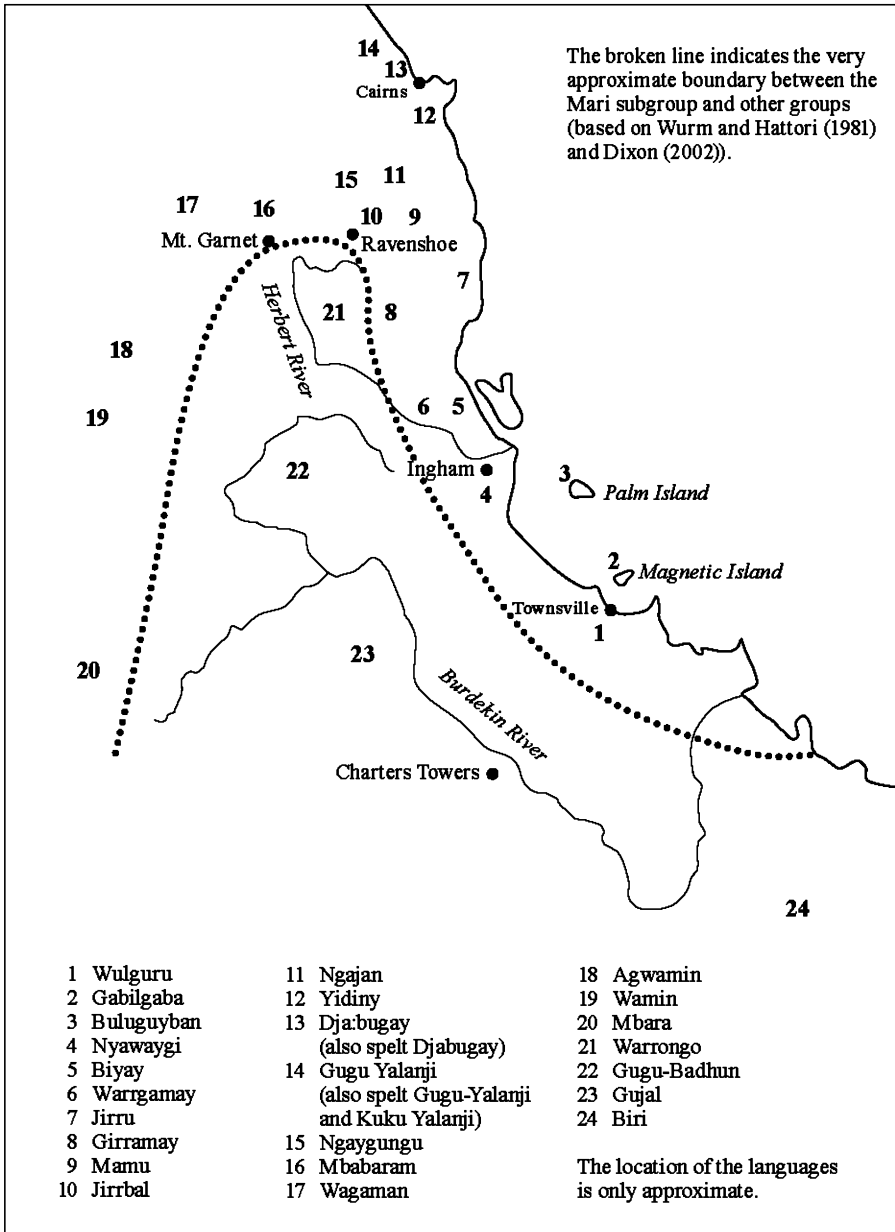
Map 2. Herbert-Burdekin area (1): placenames



Map 3. Warrongo territory



Map 4. Mari subgroup



Map 5. Herbert-Burdekin area (2): languages



Photo 1. Alf Palmer (July 1972, Palm Island, Queensland, Australia)



Photo 2. Alf Palmer (r.) and Tasaku Tsunoda (l.) (September 1974, Palm Island, Queensland, Australia)

Chapter 1

The language and its speakers

1.1. Linguistic type

Warrongo is a fairly typical Australian language except for the existence of syntactic ergativity, a phenomenon that is unique not only among Australian languages, but also among the world's languages, being mainly found in less than ten languages of a small area in northeast Australia.

The following phonemes can be set up for Warrongo: /b, d, ʒ, g, m, n, ɲ, ŋ, r, ɾ, l, j, w, a, i, u, aa/, i.e. four stops (labial, apical, laminal, dorsal; voicing is not distinctive), four nasals each corresponding to a stop, two rhotics, one lateral, two semivowels, three short vowels, and one long vowel. Stress and pitch are not distinctive.

The practical orthography employed for the present work is as follows: *b, d, j, g, m, n, ny, ng, rr, r, l, y, w, a, i, o, aa*. The rhotic /r/, written with *rr*, is generally an alveolar tap, while the other rhotic /ɾ/, written with *r*, is generally a retroflex approximant. Note that the stop /ʒ/ is written with *j*, and the semivowel /j/ with *y*. This practical orthography is identical with many other practical orthographies used for Australian languages except that /u/ is written with *o*, and not *u*. But the letter *u*, and not *o*, will be used when citing from other sources.

Warrongo is almost entirely suffixing, although there are elements which may be considered interfixes (not as suffixes): linking interfixes (cf. comments on, e.g., Tables 3-3, 3-5 to 3-7) and epenthetic phonemes (2.6-[2]). Warrongo is agglutinative, except that the singular pronouns of the first person and the second person exhibit fusion.

Five word classes can be set up: (personal) pronoun, noun (including 'adjective-like' noun), adverb, verb, and interjection. As a rule each stem belongs to only one word class, although there are a very small number of stems that may possibly have dual class membership of noun and verb. There are two productive processes for deriving verbs from nouns, etc., but there is no productive process for deriving nouns from verbs. In addition to words, there are a fair number of enclitics, whose function is largely modal.

Pronouns have three numbers (singular, dual, plural) and three persons (first, second, third), without an inclusive/exclusive distinction. Nouns in the main lack a number distinction. Nouns and pronouns have eight cases, while some of adverbs have a limited set of cases. Roughly speaking, nouns have the A≠S=O pattern (the ergative-absolutive pattern), and pronouns the A=S≠O pattern (the nominative-accusative pattern).

Verbs have three conjugational classes. One (L-class) is predominantly transitive, while the other two (Y-class and ZERO-class) are entirely intransitive. Verbal inflectional suffixes have a temporal, aspectual, and/or modal meaning. Subordination is productively formed by the pan-Australian purposive and also by a few other conjugational categories.

There are four voice-related constructions: antipassive, reflexive/middle, reciprocal, applicative, and one construction that is dominantly aspectual: iterative. Syntactic ergativity is attained predominantly by means of the antipassive construction.

Modal qualification of sentences can be achieved by enclitics and/or adverbs of modality. Polar questions can be formed by the use of the question marker *wayi* or simply just a rising intonation.

Word order is fairly free, but there are a small number of restrictions or tendencies. For example, interrogative words and the question marker *wayi* tend to occur sentence-initially. Also, word order is fixed in a few types of noun phrases and probably in a few types of verb phrases, and Warrongo is configurational regarding these phrases, although it is in the main non-configurational. Warrongo discourse is often highly elliptical.

1.2. Names of the language and people

In Aboriginal Australia the name of a language is often used to refer to the people in question as well (cf. Dixon 1980: 41).

The name of the language under study is [waroŋo] /waruŋu/. The rhotic is an alveolar tap, and not an approximant. This name has been spelt in various ways, e.g. 'War-oong-oo' (William Craig's letter dated 24th July 1898; see 1.8.2-[2]), 'Warungu' (Oates and Oates 1970, Tindale 1940, 1974, Tsunoda 1974b), 'Waruŋu' (Dixon 1970, 1972, Tsunoda 1974a), 'Waruŋu' (Tindale 1940, 1974) (the apostrophe indicates stress (Tindale 1974: 2)), and 'Warrungu' (Tsunoda 1988b). The present work employs 'Warrongo' (the reason for this choice is given in 2.14).

The meaning of the word *warrongo* is not known. Tindale (1974: 188) states that [waruŋu] means 'woman'. However, in this language, the word for woman is [warŋo] /warŋu/, and not [waroŋo] /waruŋu/. Girramay, immediately east of Warrongo (see Map 5), has the noun *warrungu* 'evening star' (Dixon 1982: 1). Yidiny, about 80 km northeast of Warrongo, has the compound verb *warrungu-gilju-L* 'dream about'; the verb *gilju-L* means 'bite' (Dixon 1991a: 286, 299). But the meaning of *warrungu* is not given. It would be expected to mean 'dream' (a noun). It is not known if these two words (*warrungu*) are related to the name Warrongo.

Names other than [waroŋo] and its various spellings have been given. Oates and Oates (1970: 175) list *Bara* as an alternative to *Warungu*. According to Sutton (1973: 9), there was a language called Mbara, southwest of Gugu-Badhun and west

of Gujal, around Gregory Springs and Chudleigh Park Stations (see Map 2). *Bara* is possibly a mishearing for *Mbara*. The initial /m/ of *Mbara* would have been difficult to detect; see 1.4.2.2.

Tindale (1974: 188) lists *Warungu*, *Waruŋu*, and *Warrialgona*. But he comments: 'The suggested Warrialgona equation is doubtful'. The meaning of *Warrialgona* is not known – if such a word exists at all. See 1.8.2-[1] for more on the word *Warrialgona*.

Alec Collins (cf. 1.8.4.2) referred to his language as *Warrongo* and also as *Gobobarra*. The noun *gobo* means 'leaf', and the suffix *-barra* 'denizen of, belonging to, associated with' (cf. 3.7.1-[1]). Therefore, literally *gobobarra* means 'person(s) of a place with [lots of] leaves'. Tommy Murray, a Jirrbal speaker (cf. 1.8.4.3-[7]), independently stated that there were a group of people and a language called *Gobobarra* around Mount Garnet (see Map 3). But Alec Collins seems to have come from Herbert Gorge area (cf. 1.8.4.2), and not from Mt. Garnet. It is possible that *Gobobarra* refers to the Warrongo language and people of an area that includes Mt. Garnet and Herbert Gorge. However, the vegetation of Mt. Garnet is an open forest, while that of Herbert Gorge is a dense rainforest (cf. 1.5.1). In view of this, the name *Gobobarra* seems appropriate for the language and the people of Herbert Gorge, rather than of Mt. Garnet.

Alf Palmer (cf. 1.8.4.1) referred to Warrongo people as *Warrongo* and also as *Gonarribarra* 'basalt person(s)' (*gonarri* 'basalt'). In addition, Alf Palmer gave the following words: (i) *barribiri* 'lava', 'lava country', 'Valley of Lagoons' (see Maps 2 and 3), 'person of/from lava country', e.g. a Warrongo person, a Gugu-Badhun person; and (ii) *barribiribarra* 'person of/from Valley of Lagoons'. There was volcanic activity in the region, which produced much lava and basalt (cf. 1.5.1).

1.3. Dialects

Warrongo probably had dialects. However, they were impossible to investigate already in the early 1970s, when I conducted fieldwork on the language. There appear to have been at least two dialects. One is presented by the data obtained from Alf Palmer, a central dialect (?) (1.8.4.1), and the other by the data obtained from Alec Collins, an eastern dialect (?) (1.8.4.2).

The data from Alf Palmer are extensive, but the data from Alec Collins are severely limited. Nonetheless, it is clear that these two dialects were mutually intelligible perfectly. They are identical regarding their phoneme inventory, and presumably phonotactics as well. Morphologically Alec Collins' Warrongo in the main does not differ from Alf Palmer's, although it exhibits a small number of differences (see 3.2.1.1 and 4.9.1). Regarding syntax, again Alec Collins' Warrongo does not seem to differ from Alf Palmer's. As for basic vocabulary, the two dialects share 90%. (This figure is in terms of K. L. Hale's core vocabulary for Australian languages, cited in Sutton and Walsh (1979: 38), which comprises 99 items. Since

Alec Collins' data are limited, only 80 items were available for comparison.) The shared vocabulary consists of cognates – both identical and non-identical ones. For example, for 'mother's brother', Alf Palmer used /galŋana/ (and /galŋa/) only, but Alec Collins used /galŋina/ (the second vowel is /i/) (see 1.8.4.2), in addition to /galŋana/ (and /galŋa/) (see 3.2.1.2 and (4-257)). (The suffix *-na* is used with vowel-final kin nouns. See 3.7.1-[16].)

1.4. Territory and neighbouring languages

1.4.1. Territory

The exact extent of Warrongo territory is not known. Tindale (1940: 174) gives the following as Warrongo territory: 'Head-waters of Burdekin River, south probably to about Clarke River; west to Dividing Range; east to inland foot of Coast Range' (See Maps 2 and 3.) Tindale (1974: 188) gives 'Headwaters of Burdekin River, southeast to near Charters Towers and southwest along the Clarke River; west to the Dividing Range; east to the inland foot of the Coastal Range and to the big southern loop of the Burdekin'. Oates and Oates (1970: 175) give 'Headwaters of Burdekin River, south to Clarke River, to Dividing Range, to foot of Coastal Range'

Dixon (1970: 662) states:- 'Waruŋu was spoken over a long tract on top of the range, in contiguity with Wargamay, Giramay and Dyirbal and also, to a lesser extent, with Nyawigi [sic], Mbabaram and probably Wagaman' (cf. also Dixon 1972: 26), and Warrongo territory extends to 'just north of Mount Garnet' (Dixon 1991b: 350).

Sutton (1973: 14) states that Warrongo territory includes an area from Mount Garnet southeast along the Herbert River and it has its border with Gugu-Badhun at Meadowbank, Glenharding and Wairuna Stations.

R. S. Atkinson – a member of the Atkinson family who own many cattle stations in the region – stated in his letter to me dated 12th September 1974 that there was a man called Wambino who was, according to R. S. Atkinson, the king of the tribe. They used to travel as far as Wairuna, Abergowrie, Tully River and Ravenshoe. Perhaps that was, R. S. Atkinson suggested, the rough outline of the tribal territory. (Wambino is Alec Collins' father; cf. 1.8.4.2. The etymology of the name *Wambino* is given in 1.5.4.2-[1] and 3.7.1-[12].)

The language northeast of Warrongo is Jirrbal. According to Dixon (1970: 658), the latter's territory includes Ravenshoe.

South of Jirrbal and east of Warrongo is Girramay. There was a cattle station called Kirrama Station. According to Peter Sutton (p.c.), that station was named after Girramay. (Like most of the Australian languages (cf. 1.1), Girramay has no phonemic contrast between /g/ and /k/ and, and no doubt the initial consonant of

this word was perceived as [k] by the person who named that station.) According to Dixon ([1983] 1989a: 78), Kirrama Station is in the Girramay country. In March 2001, Leigh Pentecost (p.c.), an archaeologist, stated that Kirrama Station is on the border among Jirrbal, Girramay and Warrongo. This view is shared by Rachel Cummins, Alf Palmer's daughter's daughter (e-mail message of 25 July 2006). (Jirrbal, Girramay, Mamu, etc., are collectively called Dyirbal by Dixon (1972).)

South of Girramay and east of Warrongo is Warrgamay. According to Dixon (1981: 0, 2), its territory extends from just west of Ingham up along the Herbert River, past Abergowrie, and beyond Niagara Vale and Yamanie Creek, and it includes Wallman Falls and Peacock Siding. However, according to Alf Palmer, Warrongo territory extends close to Abergowrie.

South of Warrgamay and east of Warrongo is Nyawaygi. According to Dixon (1983: 432), the Stone River is in Warrongo territory.

West of Nyawaygi and south of Warrongo is Gugu-Badhun. According to Sutton (1973: 14), Gugu-Badhun territory reaches as far as Meadowbank, Glenharding and Wairuna Stations in the north (as noted above), and Clarke River in the south, about where it joins the Burdekin River.

South of Gugu-Badhun is Gujal (also spelt Gudjal; also known as Gujala and Gurjal). According to Sutton (1973: 14), its approximate southern boundary is Charters Towers.

According to Sutton (1973: 9), west of Jirrbal and northwest of Warrongo is Mbabaram. South of Mbabaram and west of Warrongo is Agwamin. South of Agwamin and west of Gugu-Badhun is Wamin. Mbara (mentioned in 1.2) is south of Wamin and west of Gujal.

According to Dixon (1991b: 348, 350), west of Jirrbal and north of Warrongo is Ngayungu, its territory including Atherton but excluding Mount Garnet. West of Ngayungu and north of Warrongo is Mbabaram, its territory including Irvinebank. West of Mbabaram and northwest of Warrongo is Wagaman, its territory including Almaden and upper reaches of Tate River. South of Wagaman and west of Warrongo is Agwamin, its territory including Lynnbrook [sic], Mount Surprise, and Einasleigh. (The road maps I have show the place name 'Lyndbrook', not 'Lynnbrook'.)

Rachel Cummins stated (e-mail message of 3 April 2007) that it was agreed upon by Warrongo people and Mbabaram people that the border between their territories is south of Mount Garnet.

Taking all this into account, the approximate border of Warrongo territory seems to be (i) Mount Garnet, Innot Hot Springs, and close to – but excluding – Ravenshoe on the north, (ii) close to Kirrama Homestead, down the Herbert River Gorge close to Abergowrie, and the Stone River on the east, (iii) Wairuna, Glenharding, and Meadowbank Stations on the south, and (iv) the Great Dividing Range on the west. Warrongo territory seems to have an oblong shape; see Map 3. The information available does not say whether Warrongo territory includes Kangaroo Hills.

In view of the above, the location of Warrongo in Oates and Oates (1970: 180), Tindale's (1974) map, and Map 23 of Wurm and Hattori (1981) appears to be incorrect. Warrongo is located in Gugu-Badhun territory (and Gugu-Badhun in Warrongo territory).

As mentioned at the beginning of 1.4.1, the exact extent of Warrongo territory is not known. The preceding account of Warrongo territory is highly tentative, and it is by no means definitive.

1.4.2. Neighbouring languages and their classification

1.4.2.1. *Proposed classifications*

As examples of classification of the languages mentioned above and those mentioned below, two of the more recent classifications are cited: Wurm and Hattori (1981) in Table 1-1, and Dixon (2002: xxxii–xxxiii) in Table 1-2. (The languages that are not mentioned in the present work are not listed in these tables. The spellings of the language names are left intact.)

The label 'Paman' is taken from the word *pama* 'man, person'. (This word is written *bama* in the practical orthography employed in the present work; recall the absence of voicing opposition (1.1).) This word is common in the languages to the north of Warrongo, e.g. Yidiny (Dixon 1977b: 547), Kuku Yalanji (Oates and Oates 1964: 81), Kuuk Thaayorre (or Thaayorre) (Map 1) (Foote and Hall 1992: 101). It also occurs in Warrgamay (Dixon 1981: 124), east of Warrongo. Similarly, the label 'Maric' is based on the word *mari* 'man'. This word (or its cognate) is common in the languages to the south of Warrongo, e.g. Biri (my data), Bidyara and Gungabula (Breen 1973: 206) and Margany and Gunya (Breen 1981: 362) (Map 4.)

1.4.2.2. *Studies on the neighbouring languages*

Available descriptions of the neighbouring languages were mentioned in 1.4.1. For Gujal, south of Gugu-Badhun, Sutton's unpublished data (see 1.8.4.3-[9]) are available. For the lexical comparison given in the second paragraph below, my Jirrbal data recorded from Tommy Springcart and Tommy Murray in 1974 (see 1.8.4.3-[7]) are included.

Ngaygugu (north of Warrongo) and the languages to the northwest and west of Warrongo – i.e. Wagaman, Agwamin, Wamin, and Mbara – are poorly documented. Except for Ngaygugu, they and Mbabaram underwent a series of drastic phonological changes (Dixon 1991b, Sutton 1973: 60–67). One of the results is the existence of word-initial consonant clusters, e.g. the names of the languages: Mbabaram and Mbara. Such clusters are unusual among the languages of the region. (Alf Palmer knew the name Mbabaram, but he pronounced it [ba:baɾam]. He dropped the initial nasal /m/ and replaced the short vowel [ba] with the long

vowel [ba:]. This vowel lengthening is an instance of compensatory lengthening; see 2.6-[4].) As mentioned in 1.2, the putative language name 'Bara' may be a mis-hearing for 'Mbara'. For Wamin, I recorded twelve words from Freddy Fulford in 1974, but I am unable to analyze the data. In his pronunciation, the name of his language is [wamen]. (Alf Palmer knew this name, and he, too, pronounced it [wamen]. This word occurs in the example (4-348).) Almost certainly these languages are mutually unintelligible with Warrongo.

Table 1-1. Wurm and Hattori's (1981) classification

Pama-Nyungan family:

- Yalandyic group: Kuku Yalanji
- Yidinyic group: Yidiny
- Paman group:
 - Western Pama subgroup: Thaayorre
 - Southern Pama subgroup: Agwamin, Mbabaram, Ngayungu, Wamin, Mbara
- Dyirbalic group:
 - Dyirbal: Dyirbal, Girramay
 - Warrgamay
- Nyawaygic group: Nyawaygi, Wulguru
- Maric group:
 - Mari subgroup: Warungu, Gugu Badhun, Gudjala, Biri, Bidyara, Gungabula, Marganya, Gunya

Table 1-2. Dixon's (2002) classification

- E Western Cape York Peninsular areal group: Kuuk Thaayorre
- F Kuku-Yalanji: Kuku-Yalanji, (Kuku-)Wakaman
- G Cairns subgroup: Yidiny
- H Herbert River Group:
 - H1 Dyirbal: Jirbal, Girramay
 - H2 Warrgamay
 - H3 Nyawaygi
 - H4 Manbarra: Buluguyban, Wulgurukaba
- J Greater Maric Group:
 - Ja Maric Proper subgroup:
 - Ja1 Bidjara [i.e. Bidyara – TT], Gungabula, Marganj [i.e. Margany – TT], Gunja [i.e. Gunya – TT]
 - Ja2 Biri
 - Ja3 Warungu, Gugu-Badhun, Gudjal(a)
 - Ja4 Ngayungu
 - Jb Mbabaram/Agwamin group:
 - Jb1 Mbabaram
 - Jb2 Agwamin (or Wamin)

The languages of Dixon's Herbert River Group are fairly different from Warrongo. For example, in terms of K. L. Hale's 99-item core vocabulary for Australian languages (cf. 1.3), Warrongo shares 46% with Jirrbal, 39% with Girramay, 42% with Warrgamay, and 27% with Nyawaygi. (In contrast, it shares around 90% with Gugu-Badhun and Gujal; see Table 1-3.)

No doubt Warrongo and the languages of Herbert River Group are mutually unintelligible. Alf Palmer stated that Jirrbal is 'hard'. Reciprocally, Dixon (1970: 662; cf. also Dixon 1972: 26) states: 'speakers of Dyirbal [i.e. Jirrbal, Girramay, etc. – TT] always refer to Waruŋu as a very "difficult" language, far harder for them to speak and understand than Wargamay...'

Despite this, among the speakers interviewed for Warrongo, bilingualism involving Warrongo and one language (or two) of Herbert River Group (e.g. Jirrbal) was common. See 1.8.4.1 to 1.8.4.3.

1.4.2.3. *Warrongo, Gugu-Badhun and Gujal as a linguistic unity*

Hereafter the names of these three languages will be often abbreviated as 'W-GB-G' (They are referred to as 'Herbert-Burdekin Languages' in Tsunoda (1984).) The classifications cited in Tables 1-1 and 1-2 – and virtually all other classifications, e.g. O'Grady, Voegelin and Voegelin (1966: 51–52), Oates and Oates (1970: 169–177), Wurm (1972: 141) – consider W-GB-G as the most northerly members of a large group of closely related languages that 'stretched from the southern edge of the Cairns rain forest region, north Queensland, to the border of New South Wales' (Sutton 1973: 4, cf. also Breen 1981: 275), whose most southerly members are Margany, Gunya, Bidyara and Gungabula. (See Map 4.) They are Wurm and Hattori's Mari subgroup, and Dixon's Maric proper subgroup. Hereafter, this group will be referred to as Mari subgroup.

In contrast with Warrongo, the data on Gugu-Badhun are limited, and even more so on Gujal. Nonetheless, it is clear that these three languages are very similar to each other, and no doubt they are mutually intelligible.

Table 1-3. Lexical sharing among Warrongo, Gugu-Badhun and Gujal

Warrongo		
90	Gugu-Badhun	
94	88	Gujal

Lexically, W-GB-G share around 90% of basic vocabulary (in terms of K. L. Hale's 99-item vocabulary); see Table 1-3. (For Warrongo, both the data recorded by me from Alf Palmer, and those recorded by Peter Sutton from Alec Collins are used.)

Morphologically, too, they are very similar. The syntactic information on Gugu-Badhun and that on Gujal are limited, and it is difficult to make any significant comparison.

In phonology, W-GB-G show a small difference. Gujal has the laminal contrast in each of stops and nasals (i.e. /d/ versus /ɟ/, /n/ versus /ɲ/) (Sutton 1973: 34). Warrongo has no laminal contrast, either in stops or nasals. Gugu-Badhun, which is geographically between Gujal and Warrongo, has the laminal contrast in stops only, and lacks it in nasals (Sutton 1973: 34). See Table 1-4. See (i-i) and (i-ii) of Table 1-6 for examples. (Dixon (1980: 141) shows the distribution of the laminal contrasts on the continent. The border between the languages with laminal contrast(s) and those without runs between Gugu-Badhun and Warrongo.)

Table 1-4. Oppositions in laminal consonants

	stops	nasals
Warrongo	/ɟ/	/ɲ/
Gugu-Badhun	/d/ /ɟ/	/n/
Gujal	/d/ /ɟ/	/n/ /ɲ/

W-GB-G are very similar to each other, so that they can be regarded as ‘dialects’ of the same ‘language’. Their similarities were noticed not only by their speakers but also by speakers of other languages, for example, by Tommy Murray (a Jirrbal speaker; see 1.8.4.3-[7]).

Sutton (1973: 14) notes that the peoples of W-GB-G ‘formed something of a unity’, and he cites Eric Gertz, a Gugu-Badhun speaker (cf. 1.8.4.3-[8]), who said: ‘Our mob used to run all the way from the [Atherton – TT] Tableland to Charters Towers’. The southern end of Atherton Tableland is around Mt. Garnet (<http://www.athertontableland.com/>, accessed on 30 March 2007). Therefore, the area mentioned by Eric Gertz (i.e. from Mt. Garnet to Charters Towers) coincides with the territories of W-GB-G.

W-GB-G seem to have been sometimes collectively referred to by one single label, as follows.

(i) In 1971, when Alf Palmer started working with me, he called his language [koɟɪfɪl] (Gurijal), but in 1972 and 1974 he called it Warrongo (cf. 1.8.4.1).

(ii) Harry Bunn called his language Gujal (in 1974), despite the fact that his language appears to be Warrongo (see 1.8.4.3-[1]). He stated that the outline of Gujal territory is Mt. Garnet, Cashmere Station, Herbert Gorge (excluding Glen Ann and Kirrama Stations), Wairuna, Mt. Fox, Blue Range and Hill Grove Stations (excluding Charters Towers) and Mount Surprise. He did not know if Innot Hot Springs was included in the territory. (See Maps 2 and 3.) This area roughly coincides with the W-GB-G territories.

(iii) Pompy Clumppoint (a Jirru speaker from the coast) stated (in 1974) that Gurjal was spoken from Mt. Garnet to Charters Towers. This area coincides with the W-GB-G territories.

The remarks cited above suggest that W-GB-G were collectively referred to by one single label – Gurijal or something similar.

1.4.2.4. *Problems with the proposed classifications*

As noted above, Wurm and Hattori (1981), Dixon (2002), and also virtually all other classifications assign W-GB-G to the Mari subgroup. However, this classification is not free from problems. The problems are discussed in Tsunoda (1984), and the main points are summarized below. We shall look at the following groups of languages.

- (a) Dixon's Herbert River Group:
Jirrbal, Girramay, Warrgamay, and Nyawaygi.
- (b) Mari subgroup:
 - (b-1) Most northerly members:
Warrongo, Gugu-Badhun, and Gujal.
 - (b-2) Biri.
 - (b-3) Most southerly members:
Bidyara and Gungabula; and Gunya and Margany.

The sources of information are as follows. (i) Jirrbal: Dixon (1972), and my data recorded from Tommy Springcart and Tommy Murray, (ii) Girramay: Dixon (1972), (iii) Warrgamay: Dixon (1981), (iv) Nyawaygi: Dixon (1983), (v) Warrongo: my data recorded from Alf Palmer, (vi) Gugu-Badhun: Sutton (1973), (vii) Gujal: Peter Sutton's data recorded from Freddy Toomba and Ranji Pope, (viii) Biri: my data recorded from Harry Johnson, Eddy Barker, and Reggie Dodd, (ix) Bidyara and Gungabula: Breen (1973); and (x) Gunya and Margany: Breen (1981). For Warrongo, only the data from Alf Palmer (and not from Alec Collins) are cited. See 1.8.4.1-[1] for the reason.

The languages of (a) are W-GB-G's northern and eastern neighbours. (As noted in 1.4.2.2, the languages to the northwest and the west of Warrongo are poorly documented, and consequently difficult to assess.) The languages of (b-3) are more than 1,000 km away from Warrongo. The languages between (b-1) and (b-3) are poorly documented, and there is no published grammar available, except for Terrill (1998) on (b-2) Biri. (Terrill (1998) incorporates my data on Biri.)

A comparison of these languages shows that there are contradicting pieces of evidence regarding the genetic classification of W-GB-G.

There are three pieces of evidence that support the classification of W-GB-G as Mari languages, and not as those of Herbert River Group.

Evidence 1: Pronouns

The pronouns of (b) differ from those of (a). The differences are most clear in '1SG', '2SG', '2DU', and '2PL'. Their NOM/ERG forms are cited in Table 1-5, with the Warrongo forms as the representative of (b), and the Jirrbal forms as the representative of (a). There are slight variations among the languages of each of (a) and (b).

In Table 1-5, the two items in each pair are cognates. Note the three correspondences: (i) the palatal stop /j/ and the semivowel /j/ in '1SG', (ii) the velar nasal /ŋ/ and the semivowel /j/ in '2SG', and (iii) the nasal /ɲ/ and the semivowel /j/ in '2DU' and '2PL'. (The Jirrbal forms are conservative, and the Warrongo forms are innovative.)

Table 1-5. Selected pronouns of Warrongo and Jirrbal

	Jirrbal	Warrongo
'1SG'	<i>ngaja</i> (/ŋaja/)	<i>ngaya</i> (/ŋaja/)
'2SG'	<i>nginda</i> (/ŋinda/)	<i>yinda</i> (/jinda/)
'2DU'	<i>nyubalaji</i> (/ɲubalaʒi/)	<i>yobala</i> (/jubala/)
'2PL'	<i>nyurraji</i> (/ɲuraji/)	<i>yorra</i> (/jura/)

Evidence 2: Verb roots

In terms of the 22 verbs from K. L. Hale's 99-item list, W-GB-G share a higher percentage with (b-2) Biri and (b-3) than with (a). This is despite the fact that (a) is immediately contiguous with (b-1), in contrast with Biri, which is about 500 km away from (b-1), and with (b-3), which is about 1,000 km away from (b-1). Thus, Warrongo shares:

- (a) 36% with Jirrbal, 38% with Girramay, 41% with Warrgamay, 52% with Nyawaygi;
- (b-1) 95% with Gugu-Badhun, 94% with Gujal;
- (b-2) 52% with Biri;
- (b-3) 55% with Bidyara and Gungabula, 55% with Gunya, and 45% with Margany.

For examples, see the verb roots in Table 1-6: 'to bite', 'to cook', 'to see', and 'to enter'

Evidence 3: Regular phonological correspondences

See Table 1-6. (The abbreviations of the names of the languages are as follows: BI – Bidyara, GI – Girramay, GNG – Gungabula, GNY – Gunya, JI – Jirrbal, MA – Margany, NY – Nyawaygi.)

(b-1) shares at least three sets of regular phonological correspondences with (b-3). The three sets involve (i) a laminal, (ii) a retroflex, and (iii) a stop-plus-stop sequence.

(b-1) shares at least one set of regular phonological correspondence with (b-2) Biri. This involves (i) a laminal. (The words with an asterisk – /juɪ/* 'meat' and /barbira/* 'echidna' – are identical to those of Warrongo. The word with two asterisks – /badbira/** 'echidna' – is an exception to the correspondence in question.)

For each set, selected examples are given.

(b-1) does share correspondences with (a) (see (vi) below, Table 1.5, 2.4-[2] to -[6], and 3.11.1.3), but these correspondences are neither so systematic nor so regular as those between (b-1) and (b-2)-plus-(b-3).

Table 1-6. Phonological correspondences

	(a)	(b-1) Warrongo	Gugu-Badhun	Gujal	(b-2) Biri
(i) laminal					
(i-i) /ɟ/~d/					
‘head’		/gaɟa/	/gaɟa/	/gaɟa/	/gaɟa/
‘to bite’	/baɟa/	/baɟa/	/baɟa/	/baɟa/	/baɟa/
	(JI)				
‘to cook’		/waɟu/	/waɟu/	/waɟu/	/waɟu/
(i-ii) /ŋ/~/ɲ/					
‘to see’	/ɲa/ (NY)	/ɲaga/	/ɲaga/	/ɲaga/	/ɲaga/
(ii) retroflex					
/ɬ/~d/					
‘kangaroo’	/juɬ/	/juɬ/	/juɬ/	/juɬ/	/juɬ/*
	(JI, GI)			‘meat’	‘meat’
(iii) rhotic+stop ~ stop+stop					
‘echidna’		/barbira/	/barbira/	/barbira/	/barbira/*, /badbira/**
‘to enter’		/ɟarga/	/ɟarga/		
(b-3)					
(i) laminal					
(i-i) /ɟ/~d/					
‘head’	/gaɟa/ (MA)				
‘to bite’	/baɟa/				
	(BI, GNG, GNY, MA)				
‘to cook’	/waɟu/				
	(BI, GNG, GNY, MA)				
(i-ii) /ŋ/~/ɲ/					
‘to see’	/ɲaga/ (GNY)				
(ii) retroflex					
/ɬ/~d/					
‘kangaroo’	/juɬ/				
	‘meat, animal’				
	(BI, GNG, GNY, MA)				
(iii) rhotic+stop ~ stop+stop					
‘echidna’	/badbiɟa/				
	(BI, GNG, GNY, MA)				
‘to enter’	/ɟadga/ (GNY, MA)				

The correspondences in (i) involve a laminal consonant. In (i-i), /d/ of (b-2) and (b-3) corresponds to /d/ of Gujal and Gugu-Badhun, and to /j/ of Warrongo. In (i-ii), /ŋ/ of (b-2) and (b-3) corresponds to /ŋ/ of Gujal, and to /ɲ/ of Gugu-Badhun and Warrongo. In (ii), the retroflex stop of (b-3) corresponds to the retroflex approximant of (b-1). (Here, (b-2) Biri shares /juɹi/ ‘kangaroo’/‘meat’ with (b-1), and not with (b-3). That is, in this respect, (b-1) and (b-2) should be grouped together.) In (iii) a stop-plus-stop sequence of (b-3) corresponds to a rhotic-plus-stop sequence of (b-1). (Here again, (b-2) Biri shares /barbiɹa/ ‘echidna’ with (b-1), and not with (b-3). In this respect, too, (b-1) and (b-2) should be grouped together. The form /badbiɹa/ is an exception to this correspondence.)

(b-1) and (b-3) share these regular phonological correspondences, although they are about 1,000 km away from each other. (b-1) and (b-2) exhibit regular phonological correspondences in terms of (i). They share /juɹi/ ‘kangaroo’/‘meat’ and /barbiɹa/ ‘echidna’. In contrast, as shown in Table 1-6, (a) often lacks a corresponding cognate where (b-1) and (b-3) – and also (b-2) in terms of (i) – exhibit a correspondence. This is despite the fact that (a) is contiguous with (b-1).

Thus far, we have seen three pieces of evidence that indicate that (b-1) (W-GB-G) should be grouped with (b-2) (Biri) and (b-3) (southern Mari languages).

Now, there is one piece of evidence that suggests that (b-1) should be assigned to (a) (Herbert River Group), and not to Mari subgroup.

Evidence 4: Verbal inflectional morphology

(b-1) shares at least six verbal inflectional suffixes with (a), to the exclusion of (b-2) and (b-3). They are listed below. In contrast, (b-1) shares no such suffix with (b-2) and/or (b-3), to the exclusion of (a). This strongly indicates that (b-1) (W-GB-G) should be assigned to (a) (Herbert River Group), and not to (b) (Mari subgroup).

- (i) (a) *-ya* ‘imperative’ in Warrgamay. (b-1) *-ya* ‘imperative’ in W-GB-G.
- (ii) (a) *-y* ‘unmarked aspect’ in Warrgamay. (b-1) *-y* ‘past/present’ in Warrongo, *-y* ‘present/future’ in Gugu-Badhun, *-y* ‘past/present (?)’ in Gujal.
- (iii) (a) *-n* ‘past/present’ in Jirrbal and Girramay. (b-1) *-n* ‘past/present’ in Warrongo, *-n* ‘past’ in Gugu-Badhun and Gujal.
- (iv) (a) *-nyu* ‘past/present’ in Jirrbal and Girramay, *-nyu* ‘perfect’ and ‘subordinate’ in Warrgamay, *-nya* ‘unmarked’ of Nyawaygi. (Dixon (1983: 476) suggests that the Nyawaygi *-nya* derives from *-nyu*.) (b-1) *-nyu* (also written *-nyo*) ‘subordinate’ in Warrongo and Gujal.
- (v) (a) *-ngu* ‘subordinate’ in Jirrbal and Girramay. (b-1) *-ngu* (also written *-ngo*) ‘subordinate’ in Warrongo and Gujal.
- (vi) (a) *-l-jay* and *-n-jay* ‘future’ in Girramay. (b-1) *-yay* ‘future’ in Warrongo and Gugu-Badhun. (Note that these suffixes exhibit an alternation (*j ~ y*) that parallels the alternation between *ngaja* ‘1SG’ of (a) and *ngaya* ‘1SG’ of (b); see Table 1-5.)

To sum up, the evidence regarding pronouns, verb roots and regular phonological correspondences supports the classification of W-GB-G as Mari languages. However, the evidence regarding the verbal inflectional morphology indicates that they should be assigned to Herbert River Group.

One possible scenario to account for this puzzle is as follows. W-GB-G were (and still are?) Mari languages, but they heavily borrowed verbal inflectional suffixes from Herbert River Group. (This is despite the claim that verbal inflectional morphology is very resistant to borrowing; cf. Sapir [1921] 1949: 201–206, Weinreich [1953] 1974: 32, Bynon 1977: 189, 253, Heath 1978: 68–71.) That is, (all?) Warrongo verbs have retained the Mari root but use a Herbert-River-Group inflectional suffix rather like the Copper Island dialect of Aleut (Comrie 1981b: 253), which has retained native verb roots but uses Russian inflectional suffixes.

One possible cause for this massive borrowing may be the fact that Warrongo, Jirrbal and Girramay groups had frequent contacts with each other in the pre-contact times (see 1.7) and that they lived together at Kirrama Station in the post-contact times (see 1.7, 1.8.4.1-[1] and 1.8.4.2).

It is relevant to note in this connection that the word for ‘man’ in W-GB-G is *bama*, and not *mari*. This is despite the fact that they are generally classified as Mari languages. That is, the distribution of the word *mari* ‘man’ and the territory of Mari languages do not coextend. (I owe this observation to the anonymous reviewer.) At least Alf Palmer, and almost certainly all the other W-GB-G speakers, knew the word *mari*. As noted in 1.4.2.1, the word *bama* ‘man’ is common in the languages to the north of Warrongo.

1.5. Environmental and socio-cultural background

1.5.1. Environmental setting

It seems that Warrongo territory can be roughly divided into two areas. (i) The eastern area: ‘The precipitous eastern [area is TT] characterized by waterfalls, deep gorges and valleys, the most notable of which is the Herbert Gorge’ (Brayshaw 1990: 2), and it is covered by a dense rainforest. (ii) The western area is flatter, and it is drier, consisting of open forests.

There was volcanic activity in the region, and its remnants still remain, such as lava, basalt (e.g. Great Basalt Wall), volcanic craters (e.g. Herberton Crater), and hot springs (e.g. Innot Hot Springs). (See Maps 2 and 3.) There are Dream Time stories associated with the volcanic activity; see 1.5.3. Also there are words based on the word for lava or basalt that refers to Warrongo and Gugu-Badhun people (1.2).

1.5.2. Archaeological and anthropological accounts

Archaeological evidence indicates that humans [reached this continent more than 53,000 years ago (Flood [1983] 1995: 32). They may have arrived at Atherton Tableland about 38,000 years ago (Flood 1995: 95).

There appears to be no archaeological or anthropological work that exclusively deals with Warrongo people. But there are works that refer to them. For example, Brayshaw (1990: 38), in a detailed survey of archaeological and anthropological works of the Herbert-Burdekin River area, refers to Warrongo people: ‘Warungu of the Herbert River had much in common culturally with the rainforest peoples [e.g. Girramay and Warrgamay – TT], although linguistically they had more in common with the Burdekin group of languages [i.e. Gugu-Badhun and Gujal – TT].

In 1.5.3 and the subsequent sections, we shall look at some selected topics regarding the socio-cultural background of these peoples.

1.5.3. Mythology

The mythology explains the origin and formation of the universe that surrounds the people. Thus, a story narrated (in English, in 1974) by Reggie Palm Island, a speaker of Buluguyban of Palm Island (Map 3), tells that the islands off the eastern coast were once connected to the mainland. This story, repeated from Tsunoda (1996), is roughly as follows. (See Map 2.)

Long ago this area was dry. From somewhere north, a carpet snake came, through Hinchinbrook Channel [between Hinchinbrook Island and the main land – TT], to Palm Island and arrived at what is now called Cannon Bay. It went up the hill and came to Bamboo Creek. There was a big pool, where some children were swimming. The carpet snake swallowed up one of them. It travelled over the hills, came down to near Butler Bay (?), and then went over to Magnetic Island. When the child’s parents came back from hunting, they learned what had happened. They walked over to Magnetic Island, found the carpet snake, and cut it open. There inside the snake they found their child [alive? – TT].

The word for ‘carpet snake’ is *gabul* in the languages of the region, including Warrongo. Phonetically it is [gabul] in Reggie Palm Island’s pronunciation. (It is [kabol] in Alf Palmer’s. It is spelt *gabul* in the orthography employed in the present work.) According to Rachel Cummins (e-mail message of 6 February 2009), the child in question is a young girl.

The pool at Bamboo Creek existed in 1974, when Reggie Palm Island narrated this story. However, in 1976 or 1977 (Rachel Cummins, e-mail of 6 February 2009), the Queensland Government built a dam there, and completely destroyed this extremely important site – despite the local Aboriginal people’s vehement protest. (Unfortunately, this is not an isolated incident. It is just one of numerous destructions of Aboriginal sites.)

In the story narrated by Reggie Palm Island, Carpet Snake's travel ends on Magnetic Island. However, in the myth of people south of Palm Island, Carpet Snake continues its travel beyond Magnetic Island. Thus, (in March 2001) Shirley Johnson, of the Wulgurugaba group of the Townsville-Magnetic Island area, narrated roughly as follows.

The track of Carpet Snake goes from the bottom [i.e. mouth? – TT] of Herbert River to Hinchinbrook [Channel – TT], past Palm Island, past Magnetic Island, up Ross River, up Hervey Range, where it rests. There is a rock painting of [gabol] [on Hervey Range? –TT].

(In Shirley Johnson's pronunciation the word for 'carpet snake' is [gabol].) See Map 2 for Ross River and Hervey Range.

There is a word based on *gabul* (or *gabol*) 'carpet snake': *gabulbarra* 'carpet snake person(s), person(s) associated with carpet snake' (For the suffix *-barra* 'denizen of, associated with' (mentioned in 1.2), see 3.7.1-[1]. The rhotic is a tap, and not an approximant.) This word seems to refer to the (original) people of Townsville-Magnetic Island area. The Aboriginal reference group of which Shirley Johnson is a member, has the name 'Gubalbarra Reference Group'. No doubt, 'Gubalbarra' refers to *gabulbarra* 'carpet snake person(s)'

In the myth of people west of Townsville, Carpet Snake seems to travel farther west. (In March 2001) Willy Santo, a Gujaj person, narrated a story about how the Great Basalt Wall, west of Charters Towers, was formed. It is summarized as follows.

Fire Serpent and Water Serpent fought at Echo Hole. Water Serpent killed Fire Serpent. Then, at the Burdekin Falls, Water Serpent fought Rainbow Serpent, which came from Palm Island.

Echo Hole appears to be at the foot of the Great Basalt Wall. (For the locations of these places, see <http://www.pacificislandtravel.com/australia/queensland/charteredtowers.asp>; accessed on 4 May 2011.) Presumably the Great Basalt Wall was formed during the first battle. Willy Santo stated that the name of Rainbow Serpent is [gabobaɣa]. He said that [gabo] means 'snake' (note that the lateral [l] is missing) and that [baɣa] means 'people'. (In his pronunciation, the rhotic is not a tap, but an approximant – an interference from English.) No doubt, this word corresponds to [gabolbarra] *gabul-barra* 'carpet snake-denizen'. Since Rainbow Serpent came from Palm Island, almost certainly it corresponds to Carpet Snake of Reggie Palm Island's and Shirley Johnson's stories. That is, in Willy Santo's story, this snake travels farther west than Townsville.

A dam was built over the Burdekin Falls in 1987 and the falls no longer exist (Rachel Cummins, e-mail of 6 February 2009; also http://en.wikipedia.org/wiki/Burdekin_Dam; accessed on 9 February 2009). This is another instance of the destruction of an Aboriginal site.

The word *gabul* 'carpet snake' is found as far south as southern Queensland and northern New South Wales – more than 1,000 km away from Warrongo, e.g. Bidiyara and Gungabula (Breen 1973: 199) and Margany and Gunya (Breen 1981: 366). Also, Watkin and Hamilton (1887: 224) list *kabool* for 'Carpet snake' in the languages of Stradbroke and Moreton Islands, immediately east of Brisbane. (See Map 4.) E. Ross (1887: 290) lists *coble* for 'Snake (carpet)' in the language of Ballina (New South Wales). About 50km north of Brisbane, there is a shire whose name is 'Caboolture'. It is pronounced [kabúiltʃə], with stress on [bu:], and not on [ka] (again an interference from English). According to a tourist brochure (*Bribie Island & Caboolture Shire Tourist Map & Information Guide*), this name means 'the place of the carpet snake'. Obviously *cabool* means 'carpet snake'. The meaning of *-ture* [tʃə] is not known. It may possibly be the comitative suffix ('with, having'). (For the comitative or the like, Warrongo has *C-ji/V-yi* (cf. 3.6.8), and Djaru of Western Australia has *C-jaru/V-yaru* (Tsunoda 1981a: 227). Similar comitative suffixes occur in many other languages (Dixon 2002: 170).) If this is the case, 'Caboolture' means '[a place] with [many?] carpet snakes'. The occurrence of the word *gabul* 'carpet snake' in these southern languages suggests that there may be versions of the story in which Carpet Snake traveled farther south than the Burdekin Falls.

As mentioned in 1.5.1, there was volcanic activity in the W-GB-G and nearby regions, and there are many stories that concern it and its results, e.g. lava, basalt, volcanic craters, and hot springs.

Vera Smallwood (1.8.4.3-[2]) narrated a story (in 1974, in English) that describes the origin of the Herberton Crater (Map 2), roughly as follows.

Once upon a time there lived a greedy snake. It collected all the scrub turkey eggs. The scrub turkeys got angry, and chased the snake. The earth, too, got angry and fire came out of the ground, which created a big crater there. The snake, which had been chased, fled into the crater and was trapped in it. Nowadays there is a creek running into the crater. This is the route by which the snake fled into the crater.

Going down south, there is a story that describes the origin of Innot Hot Springs (Map 3). Alf Palmer narrated two versions of this story (in English). The story line is as follows.

One night, three men went to spear the gigantic eel Yamani, with torches in their hands. They came to Nettle Creek, at Innot Hot Springs. They found the eel and one of them speared it. He then grabbed the spear and tried to pull it out, but the spear did not come out. The eel began to drag the man, and he dropped the torch from his hand. Suddenly the area became hot, and hot water came out of the ground. This is what is now Innot Hot Springs. The eel dragged the man into a cave. The other two men tried to chase the eel and the man, but they couldn't, for the area around the cave was too hot. So they just waited for him outside the cave. They waited and waited, but the man never returned. They went back to their camp and told other people what had happened. They searched for the man again. A few days

later, they came to Blunder Swamp and found the eel dead and lying/resting on a log. They cut the eel open, but they did not find the man inside it. One of the men present was so overwhelmed by this incident that he decided to name his children after it. One boy was named Wambino, for the eel was found lying/resting on a log. [There is an intransitive verb *wambi-L* ‘rest (on something)’ – TT.] Another boy was named Babino, for the eel was cut open. [There is a transitive verb *babi-L* ‘cut’ – TT.] A third boy was named Bayombirri, for an eel waves its tail. [There is a transitive verb *bayombi-L* ‘[fish] wave [its tail].’) A fourth boy was named Wagaygorro after *wagay* ‘wishbone’ of the eel. One girl was named Jilanggo after the fig trees (*jilanggo*) that were found in the swamp. Another girl was named Jalbino after the water lilies (*jalbino*) in the swamp.

Nettle Creek flows southwards by the township of Innot Hot Springs (the map in Glenville Pike [1976] 1990: 217). No doubt, ‘Blunder Swamp’ refers to the swamp south of Blunder Park Station (see Map 3). The noun *jilanggo* exhibits interesting morphological behaviour. See 3.2.1.2. Also, the name Bayombirri will be discussed in 3.2.1.2.

According to Tommy Murray, a Jirrbal speaker (1.2, 1.8.4.3-[7]), in the story about Innot Hot Springs, a snake (not an eel) swallowed up humans.

Going further south, there is a Gujal story that concerns the formation of the Great Basalt Wall, west of Charters Towers; it was cited above.

Thus far, we have looked at stories that in the main describe the formation of geological features. In addition, the mythology explains the origin of fire, of water, etc. Thus, a story about *banggarra* ‘blue tongue lizard’ concerns the origin of water. The version narrated by Alf Palmer tells how Blue Tongue Lizard used to hide water at Cameron Creek (almost certainly in Warrongo territory; see Map 3), but two mice rolled *Banggarra* over, so that the water flowed again. This story is in Text 1 in this volume, repeated from Tsunoda (1988b). (Another version of this story, narrated by Chloe Grant, who is a speaker of Jirrbal and Girramay, is in Dixon (1989a: 32).) Also, Alf Palmer narrated a story about *bajinyjila* (bird sp.) regarding the origin of fire. (A Jirrbal version narrated by Chloe Grant is in Dixon (1989a: 32–33), and a Girramay version narrated by George Watson is in Dixon (1989a: 187–188). Dixon’s gloss for *bajinyjila* is ‘spangled drongo’.)

Dixon (1972: 29, 1989a: 153–154, 295) suggests, regarding the myths he recorded, that some of them possibly describe events that actually took place. The same may apply to some of the stories cited above. For example, the story about the Herberton Crater may be a description of a volcanic eruption. The Carpet Snake Story may concern the ice age when the sea level was low and it was possible to walk to Magnetic and Palm Islands.

The volcanic craters may have been formed about 10,000 years ago (cf. Dixon 1989a: 154). Similarly, the last ice age ended 10,000 years ago (Flood 1995: 313). In view of the above, these stories may possibly have been handed down for about 10,000 years (Dixon 1989a: 155).

1.5.4. Names of groups, individuals, and places

Some names have a known etymology, while others do not. Many of the known etymologies have a mythological origin, but others may not. In terms of structure, names can be roughly classified as follows.

- (a) One word: (a-1) one root, (a-2) two roots (i.e. compounding), (a-3) one root and one suffix (i.e. suffixation).
- (b) One noun phrase.
- (c) One sentence.

1.5.4.1. Names of groups

Most of the names of groups, e.g. Warrongo, seem to consist of just one root. There are two suffixes used in the names of groups: *-barra* and *-gaba*.

[1] *-barra* ‘denizen of, associated with’ (3.7.1-[1])

This suffix is added to place names, nouns describing characteristics of places (e.g. plants), and adverbs indicating cardinal directions, among others. The resultant stems refer to person(s) who belong(s) to, or, who is/(are) associated with, or who come(s) from, the place or the like. They often refer to a group of people, but they can also refer to its individual members. They refer to humans, and there is no example that refers to animals or plants. This suffix is very common in languages of Queensland (Tindale 1974: 143, Dixon 1980: 325), including Warrongo. Examples include (i) *gobo-barra* ‘person(s) of a leafy country’ (*gobo* ‘leaf’) (this probably refers to a group within the Warrongo group; see 1.2), (ii) *gonarri-barra* ‘basalt person(s)’, i.e. ‘Warrongo person(s)’ (*gonarri* ‘basalt’) (1.2); and (iii) *gabool-barra* ‘Carpet Snake person(s)’, i.e. ‘person(s) of the Townsville-Magnetic Island area’ (1.5.3).

[2] *-gaba*

This suffix appears to mean ‘people’ (Sutton 1973:103) or ‘denizen of’, and to denote ‘an intrinsic relationship, one of belonging or identity’ (Peter Sutton, e-mail message of 26 May 2003). It appears to be non-productive, being attested in the following names only.

(a) Gabilgaba ‘Townsville’

Alec White Sr. stated in 1972 that his language is [kabilgəɾa] Gabilgara (with *-gara*, and not *-gaba*) and that it was spoken in Townsville and on Magnetic Island. In 1974 he stated that the name of Townsville is [kabilgaba] Gabilgaba (with *-gaba*, not *-gara*). (See Tsunoda 1996.) In Alf Palmer’s Warrongo, too, Townsville is called Gabilgaba. It seems almost certain that *gabil* is related to *gabul* ‘carpet

snake' (the vowel changed from *u* to *i*). If this is the case, *gabil-gaba* means 'person(s) of Carpet Snake' (The meaning of *-gara* in Gabilgara is not known.)

(b) *Wulgurugaba* 'person(s) of many canoes' (?)

According to Tindale (1940: 175; 1974: 190), Oates and Oates (1970: 180, 182), and Sutton (1973: 9, 44), there was a language called *Wulguru* or *Wulgurugaba* (also spelt *Wulgurukaba*) in the Townsville area. (This language may be the same as Alec White Sr.'s *Gabilgara*.) The rhotic is an approximant, and not a tap (Sutton, e-mail message of 26th May 2003). Tindale states that *wulguru* means 'man'. However, Shirley Johnson, who is a descendant of the group in question, said in March 2001 that the word *Wulgurugaba* or *Wulgurukaba* means 'canoe people'. (According to Donahue (2007: 48), Tindale recorded the word *wulgurru* (the rhotic is a trill, not an approximant) with the meaning 'canoe' (not 'man').) The word *wolgo* or *wulgu* occurs in Warrongo (meaning 'boat'), Nyawaygi (meaning 'boat'; Dixon 1983: 511), and Warrgamay (meaning 'bark canoe'; Dixon 1981: 120). Warrongo has the suffix *-rV* 'many', whose vowel copies that of the preceding syllable (see 3.7.1-[16] and 3.13.1.4). (Again, the rhotic is an approximant, and not a tap.) The names *Wulguru* and *Wulgurugaba* may contain *-rV*. If this is the case, *wulgu-ru* means 'many canoes' and *wulgu-ru-gaba* means 'person(s) of many canoes'. The latter word is used in the name of an Aboriginal organization on Magnetic Island, off Townsville: *Wulgurukaba Aboriginal Corporation*. (There is a suburb called *Wulguru* in Townsville. No doubt it was named after the language *Wulguru*. Judging by the phonetics of the languages of this region, the name of the language was most probably pronounced [ólkoɔɔ] (with stress on the initial syllable). However, according to Rachel Cummins, the name of the suburb *Wulguru* is pronounced [walgaúɾ]. This pronunciation is a spelling pronunciation and also it is heavily anglicized.)

(c) *Nhawalgaba*

According to Sutton (1995, and e-mail message of 16 June 2003), in 1970 and 1973 Reggie Palm Island referred to the Townsville people as *Nhawalgaba*. The meaning of *nhawal* is not known. The letters *nh* represents an interdental nasal (Peter Sutton, p.c.).

(d) *Birigaba*

The language of the Bowen area is *Biri* (Maps 4 and 5). It is also called *Birigaba*. The meaning of *biri* is not known.

1.5.4.2. Names of individuals

Selected examples are given below.

[1] Some of the individuals' names have a mythological origin. As seen in 1.5.3, the story about Yamani, the gigantic eel, yielded six personal names: Wambino (cf. *wambi-L* Vi 'rest'), Babino (cf. *babi-L* Vt 'cut'), Bayombirri (cf. *bayombi-L* Vt '[fish] wave [its tail]'), Wagaygorro (*wagay* 'wishbone'), Jilanggo (*jilanggo* 'fig tree'), and Jalbino (*jalbino* 'water lily'). The first two names are based on verbs and contain the suffix *-no*. (See 3.7.1-[12] for *-no*. It is probably accidental that the name Jalbino contains *no*; this name is not based on a verb.) The name Bayombirri contains the (non-productive) suffix *-rri*, and the name Wagaygorro contains the (non-productive) suffix *-gorro*. The suffixes *-rri* and *-gorro* are not attested elsewhere in Warrongo. But see 3.11.1.7 regarding *-rri*.

There was at least one Warrongo person whose name is taken from the Yamani story, and it was Wambino (mentioned in 1.4.1), who is the father of Alec Collins (mentioned in 1.2 and 1.3). Further information on them is in 1.8.4.2. There is a cattle station called 'Wombinoo Station' in Warrongo territory (Map 3). No doubt it was named after Wambino.

There are two other names that do not seem to be related to this myth, but have the suffix *-no*. See 3.7.1-[12].

According to Atkinson (1979: 36), Wambino had a brother whose name is 'Warkagaroo'. Possibly this is the name Wagaygorro ([wákaigoro]).

[2] There was a man with the name Gonira ([góniɾa]). He is Alf Palmer's uncle (also mentioned in 1.5.5 and Table 3-3). This name is based on the verb *goni-L* Vt 'fight' (cf. (4-546), (4-547)), and it means 'fighter'. The suffix *-ra* means 'someone who does ' (3.7.1-[11]), like the English suffix *-er*, cf. *fight-er*. (As noted in Acknowledgements, Alf Palmer named me Gonira. See also 1.8.4.1-[3].)

[3] There are names whose etymology is not known, but for which a tentative suggestion may be made. Examples include the following, which are all Alf Palmer's children's names: (i) Jinabarro 'Maurice Palmer' (cf. *jina* 'foot', *barro* 'bent, crooked'), (ii) Nganyiri 'Edith Lenoy' (cf. *nganyi* 'face'), and (iii) Gayangara 'Alf Palmer, Jr.' (cf. *gaya* 'father', *ngara* 'it is not easy to do' (4.24-[10])). If the name Jinabarro consists of *jina* 'foot' and *barro* 'bent, crooked', it means 'crooked/bent foot', and it is an instance of compounding.

[4] There are names for which no suggestion may be made, e.g. Dolobo 'Joyce Palmer', Wilbanyo 'Norris Palmer' (both Alf Palmer's children), and Wolngarra 'Alec Collins' (data from Peter Sutton).

1.5.4.3. *Names of places*

Most of the placenames consist of one word. But some of the placenames have the form of a sentence. (Sentential place names appear to be common in some other parts of Australia as well; see Baker (2002: 113–118).) There is at least one placename that has the form of a noun phrase.

[1] In the myth that concerns the origin of water (cf. 1.5.3, given in Text 1), two mice (*galo* ‘mouse’) rolled over a blue tongue lizard (*banggarra*), which had been lying on top of a spring (?) and hiding water from other animals. Alf Palmer said that this place (Cameron Creek) has three names: (i) *Banggarra* (‘blue tongue lizard), e.g. (4-65-b), Text 1, Line 28, (ii) *Galo* (‘mouse’), and (iii):

- (1-1) *galo-nggo balba-n banggarra-Ø*.
 mouse-ERG roll-NF B.T.L.-ACC
 ‘Mice rolled Blue Tongue Lizard.’

The placename (1-1) has the form of a sentence. The placenames *Banggarra* and *Galo* are instances of those consisting of one word.

[2] In the myth that describes the origin of Innot Hot Springs, a burning torch hit the ground, upon which hot water gushed out of the ground (1.5.3). Alf Palmer gave the name of Innot Hot Springs as follows.

- (1-2) *nyalbay-Ø jido-Ø galngga-n*.
 story-NOM torch-NOM fall-NF
 Tentative translation: ‘[In] a story a torch fell down.’

This name, too, has the form of a sentence. But it is not known how to analyze the syntactic status of the first word.

[3] A Gugu-Badhun story, narrated by Richard Hoolihan and recorded by Peter Sutton (in the early 1970s), describes the formation of a turtle-shaped lava. Alf Palmer (a Warrongo speaker) said that there is a place that he called ‘Turtle Jump’ in English. For its Warrongo name, he gave three alternative forms. They all have the form of a sentence.

- (1-3) *banggorro-Ø jolba-n*.
 turtle-NOM jump-NF
 ‘Turtle jumped.’
- (1-4) *banggorro-Ø jolba-l*.
 turtle-NOM jump-NF
 ‘(As above.)’

- (1-5) *banggorro-Ø jolba-y.*
 turtle-NOM jump-NF
 ‘(As above.)’

Alf Palmer said that this place is in Wairuna area (that is, around the border between the Warrongo and Gugu-Badhun territories; cf. 1.4.1), through which the Burdekin River flows. This placename probably refers to the event depicted in the Gugu-Badhun story mentioned above. (The verb *jolba-* seems to belong to L-class in (1-4), but to Y-class in (1-5). See 3.9.3 for the significance of this dual membership of conjugation.) The version (1-5) occurs in Text 1, Line 17.

The locative form of the version (1-5) is attested: *banggorro jolba-ja* ‘turtle jump-LOC’; see (2-63). Note that the final *y* is deleted. (See 3.2.1.1 for the locative forms.)

In passing, there is something like a sentential place name that is followed by the ablative-1 suffix (*-ngomay*): *garri-Ø galngga-n-ngomay-Ø* ‘sun-NOM fall-NF-ABL-NOM’, i.e. ‘[a person who comes] from [the place where] the sun sets’.

These are the only two instances in which a sentential place name or the like is followed by a case suffix.

[4] Another Gugu-Badhun story, narrated by Harry Gertz and recorded by Peter Sutton in 1974, tells how a woomera (*wumbun*) slipped down in the river. (See Goetz and Sutton (1986) for details. The narrator’s surname is spelt in two different ways: Gertz and Geetz.) This place, whose exact location is not known, is called Wumbunbarra in Gugu-Badhun. (The use of the suffix *-barra* for a place name is unusual. It is generally used for names of groups/persons (1.5.4.1-[1] and 3.7.1-[1]).) Alf Palmer stated that there is a place that has the following name (another sentential place name):

- (1-6) *wombon-Ø joyora-n.*
 woomera-NOM slip-NF
 ‘A woomera slipped.’

Alf Palmer stated that this place is two miles down the Burdekin River from Valley of Lagoons. Therefore, it must be in Gugu-Badhun territory. Then the Gugu-Badhun name Wumbunbarra and the Warrongo name Wombon Joyoran appear to refer to the same place. (Recall that the practical orthography employed for the present work uses *o* in place of *u*.)

[5] There is another sentential placename:

- (1-7) *warrngo-Ø jana-n.*
 woman-NOM stand-NF
 ‘A woman stood.’

Alf Palmer gave a place name that appears to be in the Warrgamay language. Consulting Dixon (1981), it is tentatively analyzed as follows (employing the practical orthography adopted for the present work).

- (1-8) *ngolmboro jowarra-ngorra*
 woman stand-?
 Tentative translation: 'A woman stood.'

The meaning of *-ngorra* is not known. Alf Palmer said that the place is on Herbert River, below Abergowrie. This place is in Warrgamay territory (1.4.1). It is possible that (1-7) is the Warrongo name of this place.

[6] The place name *jolay nyon.gol* 'tree one' has the form of a noun phrase. Alf Palmer said that its English name is 'One Tree Plain' and that it is on Herbert River. It is possible, though by no means certain, that this name is a Warrongo translation of the English placename 'One Tree Plain'.

We have seen place names that have the form of a sentence or a noun phrase. In terms of stress, they do not seem to constitute one single unit. Thus, where the name consists of two words, e.g. (1-3) to (1-7) and *jolay nyon.gol* ('tree one'), the primary stress seems to fall on the first syllable of the second word, with the secondary stress on the first syllable of the first word. If they constituted one single unit, the primary stress would fall on the first syllable of the first word. See 2.7 for stress.

[7] There are placenames which appear to involve a suffix but whose etymology is not known. For example, the placename Jalnyjanbara 'Cashmere Station' (where Alf Palmer grew up; cf. 1.8.4.1) appears to contain the suffix *-bara* (not *-barra*; cf. 1.5.4.1-[1]). The suffix *-bara* is attested in many words; see 3.7.1-[8]. The meaning of *jalnyjan* is not known.

[8] There is possibly one placename that consists of a noun and an enclitic. As mentioned in 1.5.3, in the story given by Tommy Murray, a Jirrbal speaker, a snake (not an eel) swallowed up humans at Innot Hot Springs. According to him, the name of Innot Hot Springs is *jambalgoli*. This may be a Warrongo placename. First, Tommy Murray stated that it is a Warrongo name. Second, Innot Hot Springs appears to be in Warrongo territory (1.4.1). Third, the word for 'snake' is *wadam* in Jirrbal (Dixon 1972: 407), but it is *jambal* in Warrongo. If this is a Warrongo name, it may be analyzed as follows. It will consist of the noun *jambal-Ø* and the enclitic *=goli* 'only'

- (1-9) *jambal-Ø=goli*
 snake-NOM/ACC=only
 Tentative translation: 'only the snake'

[9] There are many placenames that appear to be based on the geography, flora, fauna, etc. that characterize the place, e.g. (i) *gaba* 'white clay' and 'place on Stone

River', (ii) *dogal* 'fern sp., whose root is edible' and 'place on Herbert River (a swampy area where many *dogal*-ferns grow)', and (iii) *bigal* 'death adder (snake sp.)' and 'Henrietta Creek (near Abergowrie)'.

[10] There are also many placenames whose etymology is not known. One example is *bajobala* ([batʃobala]) 'Kirrama Station'. This station appears to be on the border among Warrongo, Jirrbal and Girramay territories (1.4.1), but the name is known to, and used by, many other groups. Kirrama Station has played an important role in the post-contact history of the region; see 1.7, 1.8.4.1, and 1.8.4.2.

1.5.5. Sections and totems

In the Warrongo group, as in the neighbouring groups of the region, its members are divided into four sections. (The sections were sometimes called 'skin' in the English of Aboriginal people; cf. Sharp 1939: 442.) The information on the Warrongo section terms is incomplete, but complete information is available for Gugu-Badhun (Sutton 1973: 106) and Warrgamay (Dixon 1981: 5). These three groups appear to have an identical section system, and virtually identical section terms – apart from a few differences in the two rhotics, i.e. an alveolar tap (written with *rr*) versus a retroflex approximant (written with *r*); see below.

The section terms of Alf Palmer's Warrongo are shown in Table 1-7. Those terms marked with '[TT]' have been reconstructed on the basis of (i) the other terms in Warrongo and (ii) the equivalent terms in Gugu-Badhun and Warrgamay. The terms of female members contain the feminine suffix *-gan* (3.7.1-[17]). In addition, they all involve the insertion of *y* and *ng* (2.6-[2]-(c-3), -(d)). Three of them involve the change of the root-final vowel *o* to *a*, and one of them (*won.go-rra-y-ng-gan*) involves the insertion of *-rra*.

Table 1-7. Warrongo section terms (I) (Alf Palmer's Warrongo)

male members	female members
<i>gorgorro</i>	<i>gorgorra-y-ng-gan</i>
<i>gorrgila</i>	<i>gorrgila-y-ng-gan</i> [TT]
<i>won.go</i>	<i>won.go-rra-y-ng-gan</i> [TT]
<i>wojorro</i>	<i>wojorra-y-ng-gan</i> [TT]

Harry Bunn (a Warrongo speaker (?); cf. 1.4.2.3 and 1.8.4.3-[1]) gave the following terms: *gorrgila*, *gorrgoro*, *wojorro*, and *won.go*. No term for female members was given.

In my data and the sources consulted, there is an alternation between an alveolar tap (written with *rr*) and a retroflex approximant (written with *r*) in the following terms (see 2.1.3.1 for these phonemes). (In each of these languages, the two rhotics are in opposition.)

- (a) (i) *gurrigila* or *gorrigila* in Warrgamay, Alf Palmer's Warrongo (and also Alec Collins' Warrongo, Harry Bunn's Warrongo (?), Girramay, Jirrbal (Dixon 1972: 31), Nyawaygi (Dixon 1983: 433)), and (ii) *gurgila* in Gugu-Badhun.
- (b) (i) *gurruguru* in Gugu-Badhun (and also Harry Bunn's Warrongo (?), Nyawaygi (Dixon 1983: 433)), (ii) *gorgorro* in Alf Palmer's Warrongo (and also Girramay and Jirrbal (Dixon 1972: 31)), and (iii) *gurguru* in Warrgamay.

Note that the correspondences between *rr* and *r* are irregular. (Only the term *wojorro* or *wujurru* contains a tap consistently, in my data and all the sources cited above.) This fluctuation between the two rhotics is possibly due to language obsolescence. (See 1.8.4.1 to 1.8.4.3 for a discussion of the nature of the data obtained for the present study.) Some of the speakers may have found the rhotic contrast difficult to retain since English lacks this opposition (see Schmidt 1985: 192–193). Alternatively, this fluctuation may be due to errors on the part of the linguist(s) concerned. Finally, the forms cited above may be traditional ('correct') words, and this fluctuation may reflect the situation of the pre-contact times.

It seems that, in the traditional society, although each person had his/her name (e.g. Jinbilnggay for Alf Palmer), people often called someone by his/her section name. This practice among Warrgamay people is described by Lumholtz ([1889] 1980: 218, 303), the Norwegian zoologist who lived among Warrgamay people from August 1882 to July 1883 (see 1.5.8-[3] and 1.7). An analogous practice is still now observed in Kimberley (Tsunoda 1981a: 8). No doubt it was common among Warrongo people as well. Thus, someone would call out to a *gorgorro* man, 'Gorgorro!'

Table 1-8. Warrongo section terms (2) (Alf Palmer's Warrongo)

Set A	Set B
<i>gorgorro</i>	<i>goynba</i>
<i>gorrigila</i>	<i>woragaja</i>
<i>won.go</i>	<i>wolmirri</i>
<i>wojorro</i>	<i>yawonya</i>

Alf Palmer gave two sets of equivalent terms. See Table 1-8. Note that the corresponding terms from the two sets are not just phonological variations. Dixon (1989b: 265) reports regarding Jirrbal, Girramay and Mamu that 'each section has associated with it "polite" terms for referring to male and female members respectively. These are used for address and seem to be in the nature of terms of endearment' The 'polite' terms for referring to male members are *wurany*, *wulmirri*, *yawunya* and *guymba*. They are identical to the Warrongo terms except for *wurany* (its Warrongo equivalent will be *woragaja*) and except that Dixon lists *guymba* (the nasal is bilabial) where I list *goynba* (the nasal is alveolar). In view of this, Set B of Warrongo seems to be a set of 'polite' terms for referring to male members.

Alf Palmer said that Gonira, his uncle (1.5.4.2-[2]), was a *wolmirri* (a term from Set B). It seems that Alec Collins, too, had these two sets. Thus, he said he was a *goynba* (Set B), although the term *gorrgila* (Set A) occurs elsewhere in his data. Ranji Pope, a Gujal speaker (1.8.4.3-[9]), said he was a *won.go* (Set A). It is not known if he had the two sets. Alf Palmer's use of the term *wolmirri* (Set B) to refer to his mother's brother fits in Dixon's characterization of 'polite' terms. But Alec Collins' use of *goynba* (Set B) to refer to himself does not seem to.

Each section has totem(s). Attested totems are given in Table 1-9. Harry Bunn said his totem was *garrgay* 'sparrowhawk'. Therefore, his section would be *gorrgoro*.

Table 1-9. Totems

	section	totem
Alf Palmer	<i>gorrgoro</i>	'carpet snake' (probably <i>gabol</i> – TT)
	<i>gorrgila</i>	<i>wajagan</i> 'crow'
	<i>won.go</i>	'echidna' (probably <i>barrbira</i> – TT)
	<i>wojorro</i>	'eaglehawk' (probably <i>gorrijala</i> – TT)
		'carpet snake' (probably <i>gabol</i> – TT)
Harry Bunn	<i>gorrgoro</i>	<i>garrgay</i> 'sparrowhawk'
	<i>gorrgila</i>	<i>gorrijala</i> 'eaglehawk'
	<i>won.go</i>	<i>gorraga</i> 'dove' (HB not certain)
	<i>wojorro</i>	<i>gondolo</i> 'emu' (HB not certain)

Sharp (1939: 450) gives the following words as section names for Gugu-Badhun and several other languages: *Kuparu*, *Kurkila*, *Wunggu*, *Banbari*. Sutton's (1973: 106) list of Gugu-Badhun section terms contains *gurgila* (Sharp's *Kurkila*) and *wun.gu* (Sharp's *Wunggu*), but it does not contain any term like *Kuparu* or *Banbari*. My data on Alf Palmer's Warrongo contain another section term, namely, *bambari*, and its totem seems to be possum (*gajarra*). This suggests that Alf Palmer knew at least one more section term and its totem. (The bilabial nasal may be due to my mishearing, and the correct form may be *banbari*. Cf. Sharp's *Banbari*. The rhotic in *bambari* is an approximant, and not a tap.)

1.5.6. Marriage rules

Many aspects of the social life were conducted according to the section system. One example is marriage arrangement. Ideally, a person must choose his/her spouse from the right section; he/she cannot marry just anyone. Their child's section membership is determined automatically. Unfortunately, I failed to obtain information on marriage rules of Warrongo. However, as seen in 1.5.5, Warrongo shares with Gugu-Badhun and Warrgamay an identical section system and virtually identical section terms. Fortunately, complete information on marriage rules is available for Gugu-Badhun (Sutton 1973: 106–107) and Warrgamay (Dixon 1981: 5).

It is almost certain that Warrongo had the same marriage rules. They would be as shown in Table 1-10. In accordance with Radcliffe-Brown's (1930: 38) convention, the labels 'A, B, C, D' are used for male members, and 'a, b, c, d' for the corresponding female members.

Table 1-10. Marriage rules

A man who is:	must marry a woman who is:	and their child is:	
		son:	daughter:
<i>gorgorro</i> (A)	<i>won.gorraynggan</i> (b)	<i>wojorro</i> (D)	<i>wojorraynggan</i> (d)
<i>won.go</i> (B)	<i>gorgorraynggan</i> (a)	<i>gorggila</i> (C)	<i>gorggilaynggan</i> (c)
<i>gorggila</i> (C)	<i>wojorraynggan</i> (d)	<i>won.go</i> (B)	<i>won.gorraynggan</i> (b)
<i>wojorro</i> (D)	<i>gorggilaynggan</i> (c)	<i>gorgorro</i> (A)	<i>gorgorraynggan</i> (a)

Table 1-10 exhibits interesting regularities. For example, regarding male members, A's son is D, D's son is A, A's son is D, D's son is A, and so on. That is, we have an alternation between A and D (hence, 'A ~ D'). This will continue indefinitely (if the marriages conform with these rules). Similarly, B's son is C, C's son is B, B's son is C, C's son is B, and so on (i.e. B ~ C). Concerning female members, b's daughter is d, d's daughter is b, b's daughter is d, d's daughter is b, and so on (i.e. b ~ d). Finally, a's daughter is c, c's daughter is a, a's daughter is c, c's daughter is a, and so on (i.e. a ~ c).

As alluded to above, this system of marriage rules presents the 'ideal' arrangements. In real life, however, there were probably marriages that deviated from them, as was the case, for instance, in Kimberley, Western Australia (Tsunoda 1981a: 10-11).

1.5.7. Kinship system

The kinship system in Alf Palmer's Warrongo seems to be as follows, although there are points that are not certain. (Those kin terms that are relatively more certain, include those that concern parents, uncles, aunts, grandparents, grandchildren, and spouses.)

Figure 1-1 concerns a male EGO. The letter 'D' has two uses. 'D' below a kin term, e.g. *galbin*, refers to (a male member of) a section, while 'D' above a kin term, e.g. *galbin*, means 'daughter'. Vowel-final kin terms generally have two forms: one with the suffix *-na* (3.7.1-[18]) and the other without. *ngaji-na* was not

attested, but almost certainly it is a bona fide Warrongo word. (*'ngaji(na)'** indicates that *'ngaji'* is attested, but that *'ngajina'* is not.) In the following discussion, the forms without *-na* will be used.

For a male EGO, his father (FG) is *gaya*, and his mother (M) *yanga*. Among his grandparents, his father's father (FF) is *bolo*, father's mother (FM) *gami*, mother's father (MF) *ngaji*, and mother's mother (MM) *babi*. His wife (W) is *birgo*. His son (S) and daughter (D) are *galbin*, that is, 'child'. Among his grandchildren, his son's son (SS) and son's daughter (SD) are *bolo*, while his daughter's son (DS) and daughter's daughter (DD) are *ngaji*. (As seen above, *galbin* may mean 'man's son' and 'man's daughter' In (4-551), *galbin* was translated 'niece' by Alf Palmer. In view of the kin term system observed in Kimberley, Western Australia (Tsunoda 1981a: 11-13), probably *galbin* can also mean 'man's brother's son' (i.e. 'nephew') and 'man's brother's daughter' (i.e. 'niece').)

We shall look at Figure 1-1 in connection with the marriage rules (cf. Table 1-10). Take FF of Figure 1-1, for instance. For the purpose of exposition, the section A is arbitrarily assigned to him. His son (F) is D, whose son (EGO) is A, whose son (S) is D, whose son (SS) is A. That is, we have an alternation between A and D, exactly as stated regarding Table 1-10.

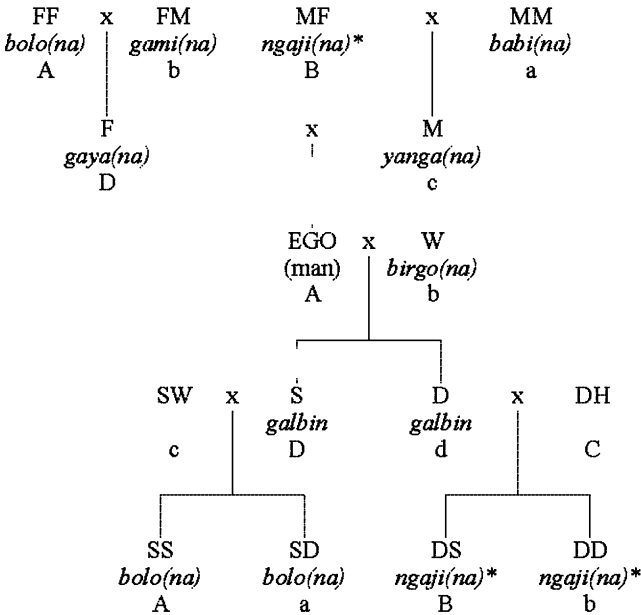


Figure 1-1. Pedigree (1): a male EGO

Figure 1-2 concerns a female EGO. For the purpose of exposition, in Figure 1-1, a male EGO was assigned to A, and his wife is to b. Likewise, in Figure 1-2, a

female EGO is assigned to b, and her husband to A. (In fact, the statements about the kin relationship are applicable irrespective of an EGO's section membership.)

For her parents and grandparents, a female EGO uses the same terms as those used by a male EGO. But the terms for her spouse, children and grandchildren differ from those used by a male EGO. Her spouse, i.e. husband (H), is *gornggal*. Her son (S; a 'D' man) is *jowana*. (The form *jowa*, without *-na*, is hardly ever used. See 3.7.1-[18]. For *jowana*, Alf Palmer gave the gloss 'nephew' as well. Probably *jowana* can mean 'woman son' and 'woman's sister's son' (i.e. 'nephew').) A female EGO's daughter (D; a 'd' woman) may be *yindala*, but this is not certain. Alf Palmer gave *yindala*, indicating that it meant (i) 'female EGO's daughter (D)', i.e. 'woman's daughter', and (ii) 'niece' (probably 'woman's sister's daughter' and 'man's sister's daughter'). But later he denied the meaning (i). (Alf Palmer's gloss for *yindala* is, in effect, 'niece from sister's side') Therefore, it is not certain if there is a word for 'female EGO's daughter'. If *yindala* really means 'female EGO's daughter', there are separate words for 'son' and 'daughter' for a mother (though not for a father; see Figure 1-1). (Mamu, north of Jirrbal (Maps 4 and 5), has the kin term *yindala*. Its referents seem to include 'female EGO's son and daughter' (Dixon 1980: 109).)

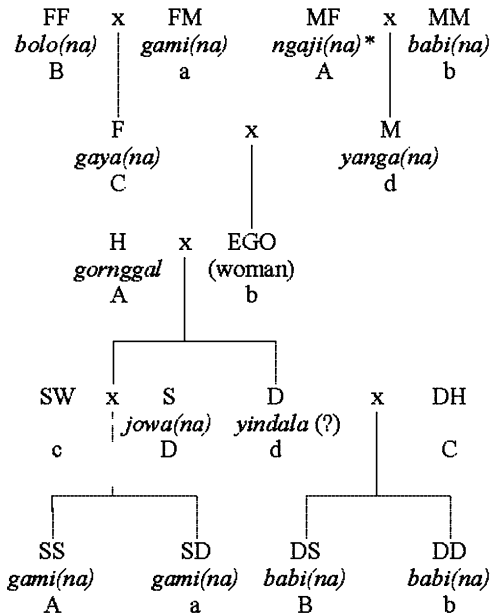


Figure 1-2. Pedigree (2): a female EGO

Regarding Figure 1-1, we saw an instance of the alternation between two sections, involving men. Alternations occur concerning women as well. Take MM, for

example. She is b. Her daughter (M) is d, whose daughter (EGO) is b, whose daughter (D) is d, whose daughter (DD) is b. That is, we have an alternation of 'b ~ d'.

The terms for the grandparents' generation and the grandchildren's mean 'X and reciprocal' (cf. Dixon 1972: 399). For instance, *bolo* may mean 'male EGO's FF' (Figure 1-1), and also 'female EGO's FF' (Figure 1-2). In addition, it means 'male EGO's SS and SD' (Figure 1-1). That is, 'FF and reciprocal'. Similarly, *ngaji* may mean 'male EGO's MF' (Figure 1-1) and also 'female EGO's MF' (Figure 1-2). In addition, it means 'male EGO's DS and DD' (Figure 1-2). That is, 'MF and reciprocal'. The same applies to *gami* 'FM and reciprocal', and to *babi* 'MM and reciprocal'.

The use of some of the kin terms is remembered still now. For example, in March 2002, Rachel Cummins (Alf Palmer's DD) stated that Alf Palmer used to refer to Raymond Palmer and Roderick Palmer (they are his SS) as *bolo*. (Reciprocally, the latter would refer to Alf Palmer (their FF) as *bolo*.) She also stated that Alf Palmer (her MF) used to call her (his DD) *ngaji*. (Reciprocally, she would call him *ngaji*.)

Other attested kin terms include the following. A few of the terms listed above are repeated for convenience.

(a) For both a male EGO and a female EGO: (i) F and FB: *gaya(na)*, (ii) FZ: *bimo(na)*, (iii) M and MZ: *yanga(na)*, (iv) MB: *galnga(na)*.

Note that *gaya* refers to F and also FB. Similarly, *yanga* refers to M and also MZ. There is no single term for 'uncle'. It has to be either *gaya* 'FB' or *galnga* 'MB'. Similarly, there is no single term for 'aunt'. It has to be either *bimo* 'FZ' or *yanga* 'MZ'. (As noted in 1.3, for MB, Alec Collins used *galngina* in addition to *galngana*.)

For a male EGO, *bimo* can mean WM, in addition to FZ. Then, *galnga* will be expected to mean WF, in addition to MB. But it is not known if *galnga* can mean WF.

(b) For a male EGO: (i) EB: *mogina* (*mogi* not attested), (ii) EZ: *bolgo* (*bolgona* not attested), (iii) YB: *yabojana* (*yaboja* not attested), (iv) YZ: *barrina*, *bolgo* (*barri* not attested. Cf. *barri* 'stone'.)

Bolgo seems to mean both EZ and YZ. If this is the case, the opposition between 'elder' and 'younger' is neutralized in the case of *bolgo* for a male EGO (i.e. the opposite sex to EZ and YZ). It will be interesting to see if this neutralization occurs between EB and YB for a female EGO. Unfortunately no relevant data are available.

(c) Alf Palmer gave the following kin nouns and glossed them as shown: (i) *jorgana* 'elder sister' (*jorga* not attested), (ii) *woribo* 'son-in-law' (*woribo-na* not attested), (iii) *marga* 'brother-in-law', and (iv) *marga-yan* 'daughter-in-law' (*-yan* may be a feminine suffix. There is a more productive feminine suffix: *-gan* (3.7.1-[17].) Also he gave (v) *joway* 'brother-in-law' (probably WB, and not HB), (vi) *jowaynggorro* 'term by which brothers-in-law call (address? refer to?) each other' (later, Alf

Palmer cancelled this meaning and gave the gloss ‘big mob of *joway*’), (vi) *mogoyo* ‘sister-in-law’ (probably HZ, and not WZ), and (vii) *mogoynggon* ‘term by which to refer to one’s deceased wife in avoidance of her name’ A song by Alf Palmer (see (1-10)) yielded *gorramara* ‘YB, YZ’. See 3.8.1-[7] for its possible etymology.

1.5.8. Other topics

We shall look at some other topics regarding the socio-cultural background – mainly those topics which are relevant to the language itself, those which are expressed in the language or those which occur in the examples cited.

[1] A person’s language seems to have been a marker for self-identification at an inter-tribal encounter (cf. Clarke 2003: 39). See Text 1, Line 7.

[2] The ear is regarded as the seat of intelligence and memory (cf. Dixon 1972: 30, Tsunoda 1981a: 7). There are a noun *borrmo* ‘deaf’, and two verbs derived from it: *borrmo-bi-L* Vi ‘become deaf’ and also ‘forget’ (4.7.1-[1]-(a)), e.g. (3-88), (4-243), (4-276), and *borrmo-nga-L* Vt ‘make [someone] forget’ (4.7.2-[1]-(a)).

[3] Message sticks were used for conveying a message. According to Leigh Pentecost (e-mail message of 26 March 2009), a message ‘stick was their “passport” that would allow them to enter others’ territory without being killed’. Carl Lumholtz ([1889] 1980: 327–328) (mentioned in 1.5.5; cf. also 1.7) describes message sticks used by Warrgamay people. In Warrongo, figures on message sticks are called *jin.gorr*, and message sticks are known as *jin.gorr-ji* ‘message figure-COM’, i.e. ‘[wood] with/having message figure’. See 3.6.8 for the comitative *-ji*.

[4] There are a noun *jigobina* ‘shooting star’, and an intransitive verb derived from it: *jigobina-bi-L* (4.7.1-[1]-(a)). This verb literally means ‘be/become a shooting star’, but Alf Palmer used it to describe a young man who was getting married soon. The same noun and the intransitive verb derived from it occur in Jirrbal (Henry 1967: 55, Dixon 1972: 401, 1997: 23), but no connection with a man’s marriage is known.

[5] As elsewhere in Australia, there was a taboo on the use of the name of a deceased person (Berndt and Berndt [1964] 1968: 112, 297, 389, Clarke 2003: 49, Dixon 1980: 28–29, Tsunoda 1981a: 7).

[6] A deceased relation’s skull was carried for safety; it would warn its carrier of an approaching danger. See (4-764).

[7] Cannibalism was practiced in this region (Lumholtz 1980: 294, Dixon 1972: 28). Dixon states: ‘Anyone who has persistently broken the social code may be killed by some of the senior men of the tribe, his flesh eaten and his blood offered to younger men to drink.’ Dixon continues: ‘Some men attain the status of *gubi* (“wise man” or “doctor”). They generally have a thorough knowledge of their en-

vironment and of the customs and beliefs of the tribe. A necessary prerequisite for being a *gubi* is that one has drunk the cannibalistic victim. The word *gubi* occurs in Warrongo, too; see (4-698), and Text 3, Line 30. Alf Palmer seemed to believe that a *gubi* ate human flesh (*jalgor*). See (4-6). He dreaded a *gubi*.

[8] People believed in the existence of two types of imaginary hairy human-like beings, who live in lava scrub: (i) *gandaro*, smaller type, and (ii) *gangaligan*, larger type. At least *gandaro* – possibly *gangaligan* as well – was feared by Alf Palmer and presumably by other people, too. The word *gandaro* occurs in (3-68). See also (4-401).

[9] Alf Palmer described a technique for possum hunting as follows. When a possum climbs a tree (e.g. a bloodwood tree), it scratches its bark. The hunter blows on its trunk. If the trunk has a fresh track left by a possum, then barks chips, dust, etc. caused by the possum, come off the trunk, indicating that the possum is likely to be still on that tree. (See also Clarke 2003: 130.) (4-165) contains the verb *boya-L* Vt. ‘blow with mouth’ and describes this technique. There are two words derived from *boya-L*: (i) the noun *boyal~boyal* ‘bark chips that come off a trunk caused by a possum’s scratches (for instance, on a bloodwood tree)’, and (ii) the verb *boyal~boyal-bi-L* Vi ‘be/become [such] bark chips’ (3.11.1.6-[5], -[6]).

[10] The noun *mandija* means (i) ‘grub in its early stage of growth’ and (ii) ‘tooth ache’. Possibly tooth ache was believed to be caused by this grub.

[11] A type of vine poison (*marra*) and a type of fruit poison (*mangga*) were used for fishing, to intoxicate fish. See Text 2, Lines 5, 6.

[12] The noun *dombil* means ‘knot of a forest ti-tree’. The knot contains water, which was used as drinking water by Aboriginal people. There are a verb *dombil-bi-L* Vi ‘have a knot (which contains water)’ (4.7.1-[1]-(a)), e.g. (4-900) (second B), and a place name *dombil-bolo* (3.7.1-[5]).

[13] There are at least three terms for seasons: *birrgil*, *birrgi-bara* (the latter without *i*; see 2.6-[3]) ‘cold weather, winter’, *woyolo* ‘summer, beginning of summer’, and *garrimal* ‘summer’.

Alf Palmer produced running texts of about six hours. They contain valuable information on the traditional ways of life and beliefs. They need to be analyzed. Three excerpts are included in the present volume.

1.6. Special styles of speech and songs

1.6.1. Jalngoy: the avoidance style of speech

Like many other Australian languages (cf. Dixon 1980: 58–65, Tsunoda 1981a: 14–15, 215–220), Warrongo had a special style of speech that was used between

taboo kin. Its name is Jalngoy, which Alf Palmer referred to as ‘big word’ in English. There appears to be no special term for the ordinary style of speech, and probably it was simply called *gogo* ‘speech, language’

Information on Jalngoy is scanty. Alf Palmer had an excellent knowledge of the ordinary style, but he admitted that he could not speak Jalngoy. (In a language death situation, a special style of speech seems to be among the first to cease to be transmitted, and it is lost earlier than the ordinary style; see Tsunoda 2005: 97–98, 107–108.) Nonetheless, Dyirbal, too, had an avoidance style of speech (with the same label ‘Jalnguy’), and detailed information is available on it (Dixon 1972: 32–34, 292–327).

In Dyirbal, for a male EGO, one of the primary taboo relatives is his wife’s mother (WM). For example, he had to use Jalnguy whenever his WM was within earshot. Probably the same applied to Warrongo as well.

Warrongo has two intransitive verbs that mean ‘speak in Jalngoy’: (i) *jalngoy-bi-L* (*Jalngoy*-INTR) literally ‘be Jalngoy’ (4.7.1-[1]-(a)), e.g. (3-139), and (ii) *jalngony-ji-bi-L* (*Jalngoy*-COM-INTR) literally ‘be with/having Jalngoy’ See 3.6.8-[3] for the comitative case. Note the alternation between *y* and *ny* (3.2.1.1-[4]). In Warrongo, the word for WM is *bimo* (1.5.7). Alf Palmer gave a Warrongo sentence that means ‘When you are at your *bimo*’s house, you must speak in Jalngoy’: (3-139). See also (4-544).

In Dyirbal, Jalnguy and the ordinary style (called Guwal) are identical in phonology, and almost the same in grammar, but entirely different in vocabulary (Dixon 1972: 32). Presumably the same was true of Warrongo. Alec Collins (Sutton’s data) and Alf Palmer independently gave many nouns and verbs as Jalngoy words. Unfortunately these words were not crosschecked. Nonetheless, there are two words that coincide: *wombal* ‘dog’ (the ordinary style equivalent is *gando*) and the transitive verb *ngarrambi-L* ‘hear’ (the ordinary style equivalent is *ngawa-L*, e.g. (3-305)). It seems certain that these two words are Jalngoy words. For *ngarrambi-L* ‘hear’, see (1-10-d, -e) and 3.11.1.1.

Dixon (1970: 667, 1972: 320) suggests that Jalnguy of a given language was built up by borrowing words from the ordinary style of nearby languages. Indeed, this may apply to some of the words given by Alf Palmer and/or Alec Collins as Jalngoy. Thus, the noun *wombal* ‘dog, dingo’ occurs in (the ordinary style, no doubt) of Buluguyban of Palm Island (Tsunoda 1996: 82). The verb *ngambi-Vt* ‘hear’ occurs in (the ordinary style, no doubt) of Freddy Toomba’s Gujal (Peter Sutton’s data). It may be related to the Warrongo *ngarrambi-L* ‘hear’ (For Freddy Toomba, see 1.8.4.3-[9].)

1.6.2. Songs

A number of songs by Alf Palmer were recorded. They concern *garrgay* ‘sparrow hawk’, a funeral, a sick person, e.g. (4-70), love, e.g. (1-10), and sexual relationship,

e.g. (1-11), etc. The ex. (1-10) is cited from the end of Tape 72/25. In this story, after living on Palm Island for many years, Alf Palmer returned to Cashmere Station (where he grew up; see 1.8.4.1-[1]), and sang this song: the lines c to f. The song is presented by IPA symbols and the practical orthography adopted for the present work. I am unable to indicate melody, rhythm, voice quality, etc.

- (1-10) a. *ngaya borrgoman-da nyina=ngomay-Ø*
 1SG.NOM(S) Palm.Island-LOC stay=after-NOM
ngaya ngoni-ngomay-Ø yarro-wo golmi yani-Ø yamba-wo
 1SG.NOM(S) there-ABL-NOM here-DAT back come-NF camp-DAT
ngaygo wara-yi wara-yi-d-go.
 1SG.GEN (error) one's.own-COM-LINK-DAT
 'After I had stayed on Palm Island, I came back here.' (S=S)
- b. *ngona-ngomay ngaya yarro-n-da nyila=gol jangala-Ø*
 that-after 1SG.ERG here-LINK-LOC today=only Jangala-ACC
ngaya baya-lgo.
 1SG.ERG sing-PURP
 'Then I will sing Jangala here, soon [or, for the first time].'
- c. [kaorai ɲaja ʔai:olɲɔ:
gaworra-yi-Ø ngaya rayiwolnyjo-wo
 love-COM-NOM 1SG.NOM very.good.looking.girl-DAT
maborao goramaɲao ɲaja
maborra-wo gorramara-wo ngaya
 good.looking.girl-DAT last.one-DAT 1SG.NOM
 'I [am] in love with a very good-looking girl, a good-looking girl[, and] the last one.'
- d. [ɲawai: ɲawala ɲaɲa ɲaɲarambelao]
nga-wayi ngawa-la nganya nga-ngarrambi-la-wo /
nga-Q hear-PST 1SG.ACC nga-hear-PST-wo
 'Did you hear me [singing (??)]?'
- e. [wai: ɲawala ɲaɲa ɲaɲarambela]
wayi ngawa-la nganya nga-ngarrambi-la
 Q hear-PST 1SG.ACC nga-hear-PST
 'Did you hear me [singing (??)]?'
- f. [ʔai:olɲɔ:
rayiwolnyjo-wo maborao goramaɲao
 very.good.looking.girl-DAT *maborra-wo* good.looking.girl-DAT *gorramara-wo* last.one-DAT
 ɲaja midʒirainɲo]
ngaya mijirray-nggo /
 1SG.NOM promised.one-DAT
 'I [am in love] with a very good-looking girl, a good-looking girl, the last one[, and] the promised one.'

- g. *jalnyjanbara-ngga ngaya wa wara-yi-da*
 Cashmere.Station-LOC 1SG.NOM(S) (error) one's.own-COM-LOC
baya-gali-Ø
 sing-ANTIP-NF
yinda nganya ngawa-yal nyila=gol
 2SG.ERG(A) 1SG.ACC(O) hear-PURP today=only
 [*ngaya* TT] *golmi yani-ngo-Ø*. (AP)
 [1SG.NOM(S)] back come-ADNOM-NOM(S)
 'At Cashmere Station, my own [country], I sang [Jangala] so that you would
 hear me [sing], who had just come back today.'

The song is from the lines c to f. Alf Palmer said that this song is *jangala*. (*Jangala* means 'a singing style' in Jirrbal and Girramay (Dixon 1972: 401), and 'obscene song style' in Warrgamay (Dixon 1981: 114).) In the lines c to f, a slash indicates a pause. There is no pause between the lines c and d, and between e and f. In the line c, the last vowel of each word is somewhat longer than usual, but this is not shown in the above presentation.

Etymologically, *rayiwolnyjo* contains the noun *rayi* 'young girl' (used in the ordinary style), but *rayiwolnyjo* seems to be used in songs only. The meaning of *-wolnyjo* is not known. The meaning of *gorramara* is not clear. Alf Palmer's gloss for it is 'last one' In this context, this may mean 'least or less good-looking girl'. He also said it meant 'younger brother, younger sister' (1.5.7). (See 3.8.1-[7] for a possible etymology of *gorramara*.) *Mijirray* means 'fiancée promised by a prospective father-in-law or mother-in-law'

This portion of the text cited in (1-10) contains useful examples for the discussion of Warrongo morphology and syntax. They will be referred to in relevant sections.

A song about sexual relationship:

(1-11) (A man was having sex with a woman.)

- a. *wajila-nggo galoworo-nggo gombo-Ø jingga-la*.
 testicles-ERG testicles-ERG buttocks-ACC hit-PST
 'The [man's] testicles hit the [woman's] buttocks.'
- b. *gombo-Ø ngarba-la ngarba-la*. (AP)
 buttocks-NOM jump-PST jump-PST
 '[Her] buttocks jumped with a fright.'

Songs exhibit a few differences from the ordinary speech, as follows.

The suffix *-la* 'past' (3.10.1) is quite common in songs, e.g. (1-10-d, -e) and (1-11), but it rarely occurs in the ordinary style of speech, e.g. (3-192). According to Alf Palmer, *ngawa-la* is a song word. In contrast, the nonfuture form *ngawa-n* 'hear-NF', i.e. 'hear, heard', occurs in the ordinary style.

Songs contain a number of words that Alf Palmer considered as Jalngoy. They also contain words that occur in songs only. For example, (1-10-d, -e) contains

ngarrambi-L Vt ‘hear’ (this may be a Jalngoy word; cf. 1.6.1) – in addition to *ngawa-L* Vt ‘hear’ of the ordinary style. (1-11) contains *wajila* ‘testicles’ (which Alf Palmer regarded as Jalngoy) and *galoworo* ‘testicles’ (which occurs in songs only). (The ordinary-style word for ‘testicles’ is *galon*, e.g. (4-904).)

The syllable [ŋa] *nga* is added to the beginning of *wayi* and *ngarrambi-la* in (1-10-d). Consequently, all the resultant ‘words’ begin with *nga*. (This is an instance of alliteration.) Also, in (1-10-e), *nga* is added to the beginning of *ngarrambi-la*. Furthermore, in (1-10-d), the syllable [o] *wo* is added to the end of *ngarrambi-la*. The addition of such syllables may be for the purpose of rhyming or adjusting the number of syllables (or morae). Such elements, used in songs without any clear meaning, are called vocables by Hinton (1994: 145). (Similar phenomena occur in some of the songs of Djaru and Wanyjirra of the northwest Australia.)

See 3.11.1.1 for a comparative account of *ngarrambi-* Vt ‘hear’ (a verb that Alf Palmer and Alec Collins considered as Jalngoy) and two verbs that occur in songs only.

1.6.3. Curses and expressions for abuse

Alf Palmer gave four expressions that appear to be curses or expressions for abuse. One of them appears to be a Warrgamay sentence. (Alf Palmer knew Warrgamay; see 1.8.4.1-[1]. He worked as a consultant for Dixon’s study of Warrgamay (Dixon 1981: 13).) Its phonetic presentation and its tentative phonemicization are given. Also, tentative morpheme-by-morpheme glosses and translation, based on Dixon (1981), are added.

- (1-12) [wíki ŋinba óŋanbolo]
 /wigi ŋinba wuŋan-bulu/
 no.good 2SG.NOM lustful-very
 ‘You are no good. You are very lustful.’

The other three are as follows.

- (1-13) [mákoŋgo ŋani gaŋdʒindá:lɛna]
 (1-14) [waŋdʒandá:lɛŋgo ŋani mákoŋgo gaŋdʒindá:lɛna]
 (1-15) [ɽáimondo ɽá:dʒan gowatʃi]

It is not known what these expressions mean. (1-13) and (1-14) are probably variants of the same expression. Phonetically and phonologically, these expressions do not deviate from the usual pattern of Warrongo (see Chapter 2). Indeed, there are Warrongo words that resemble (part of) them: *ngani* ‘what’, *ganyji-n* carry-NF’, and *wanyja* ‘where’. Nonetheless, they do not seem to be Warrongo. Indeed, for a reason that is not understood, (1-15) sounds a little exotic, i.e. non-Warrongo, to my ears.

It is interesting to note that these expressions are either not Warrongo or do not seem to be Warrongo. Possibly people thought that cursing/abuse was more effective when uttered in a foreign language.

Other styles of speech, e.g. initiation style and secret style, and also sign language (cf. Kendon 1988, Tsunoda 1981a: 15) may have existed, but no information on any of them was obtained.

1.7. Post-contact history

Allingham (1993), Bolton ([1963] 1975), Jones ([1961] 1970) and Glenville Pike ([1976] 1990), among others, provide accounts of the post-contact history of a region that includes Warrongo territory. The post-contact history of Warrongo people's neighbours is described by Dixon (1991b: 350) on Mbabaram, Dixon (1972: 34–37) on Dyirbal (i.e. Jirrbal, Girramay, etc.), Dixon (1981: 6–9) on Warrgamay, Dixon (1983: 434) on Nyawaygi, and Sutton (1973: 20–21) on Gugu-Badhun.

Cattle and gold – preceded by explorers – decimated the original inhabitants and destroyed their traditional life, as was the case in Kimberley, Western Australia (Tsunoda 1981a: 16).

The first Europeans who entered Warrongo territory appear to be the Prussian explorer, Ludwig Leichhardt, and his party, who in 1845 followed Burdekin River, crossed the Great Dividing Range, and went on to Lynd River (Leichhardt [1847] 1996). They seem to have passed around the western border of Warrongo territory. Leichhardt details his encounters with the local Aboriginal people. Some of them may have been Warrongo.

In 1848, Edmund Kennedy's expedition left Cardwell and headed northwest. Jones (1970: 50) suggests that the party travelled near Ravenshoe. Judging by the map in Carron ([1849] 1996), they passed somewhere near Innot Hot Springs and Mount Garnet. Mount Garnet appears to be around the northern border of Warrongo territory (1.4.1). So they may have entered Warrongo territory.

The following expeditions did not enter, or do not seem to have entered, Warrongo territory: Augustus and Francis Gregory's expedition in 1856 (Gregory and Gregory [1844] 1968: 180–184), George Dalrymple's in 1859 (Farnfield 1968: 17), and Frank and Alexander Jardine's in 1864 (Hiddins 1998).

Leichhardt and the Gregorys reported on the promising potential of this region for pastoral industry, and this attracted the attention of pastoralists and people with similar interests. Soon afterwards, pastoral industry was introduced into this region. In probably 1860 the Valley of Lagoons, which is no doubt the most attractive tract of land for pastoral industry, was taken up by Dalrymple and his partners (Jones 1970: 65). This was followed by the establishment of other cattle stations.

'Between 1873 and 1877 Cashmere and Gunnawarra stations were carved from the outlying blocks of the Valley of Lagoons' (Bolton 1975: 92). In 1872–73 John Atherton established Cashmere Station (Jones 1970: 149). Cashmere and

Gunnawarra are in Warrongo territory. Kirrama Station was taken up by Edgar Collins in the 1880s (Atkinson 1979: 31).

Carl Lumholtz (1.5.5 and 1.5.8-[3]), a Norwegian ethnographer, lived among Warrgamay people from 1882 to 1883 (Lumholtz 1980). He was based at Herbert Vale, but in February 1883 he visited the Valley of Lagoons Station. Jones (1970: 241) suggests that he visited Cashmere Station. No doubt he travelled through Warrongo territory.

Gold rushes broke out in the 1860s and 1870s, and one of the largest gold rushes occurred at Charters Towers in 1872 (Bolton 1975: 44–49, 52, Jones 1970: 136). The gold rushes occurred outside Warrongo territory, and no gold seems to have been found inside it.

Gold was not the only metal that affected the life of the Aboriginal people. In or near Warrongo territory, tin was found in 1880 at Wild River (Map 3), a tributary of Herbert River (Bolton 1975: 116, Glenville Pike 1990: 68). Silver was found in 1881 at Silver Valley, on Dry River (a branch of Wild River) (Bolton 1975: 117–118, Glenville Pike 1990: 134–135). Copper was found at Mount Garnet in 1883 (?) (Bolton 1975: 118). On the basis of Glenville Pike's (1990: 217) map and Dixon's (1991b: 348) map, Wild River may be in Ngayungu territory or in Warrongo territory, and Silver Valley, southeast of Irvinebank, appears to be in Ngayungu territory.

The influx of miners and fossickers, together with the establishment of cattle stations and the introduction of cattle, destroyed the traditional pattern of life. Then followed the railway, which extended from Cairns and reached Mt. Garnet in 1902 (Glenville Pike 1990: 84).

The clashes between the original inhabitants and the intruders led to many massacres, which were carried out by local property owners and the police from Cardwell and Herberton all around the district (Allingham 1993; Bolton 1975; Dixon 1972: 34–35; Jones 1970). As an example, in March 2000, Rachel Cummins told me that, at Blencoe Falls in the Herbert River Gorge (in Warrongo territory), a group of Aboriginal people were pushed over and fell into the gorge. One of the people killed was Lucy, Alf Palmer's mother, i.e. Rachel Cummins' great-grandmother (see 1.8.4.1-[1]). Alf Palmer gave two sentences that describe his mother's drowning: (3-31) and (3-291). Local Aboriginal people say that still now the place is haunted. (This massacre occurred probably around 1900.)

Poisoning of Aboriginal people by white settlers was common (Allingham 1993: 125, Dixon 1972: 34). Thus, according to Rachel Cummins, Alf Palmer became ill from eating poison flour supplied by a white man.

As seen above, the life of the original inhabitants of this region was drastically affected. Nonetheless, according to Bolton (1975: 95) 'until 1914 some of the Aborigines between the Herbert and the Atherton Tableland maintained their traditional way of life in a form at least comparable with their ancestors' It seems that a fair number of people from different tribes, including Warrongo, lived at Kirrama Station, which is on the border among Jirrbal, Girramay and Warrongo (cf. 1.4.1). This probably explains why people like Alf Palmer and Alec Collins knew both Warrongo and Jirrbal, among other languages. See also 1.8.4.1 to 1.8.4.3.

No doubt these groups had frequent contacts with each other in pre-contact times as well. (This explains, at least partially, the massive borrowing from the Herbert River Group into Warrongo, Gugu-Badhun and Gugal (1.4.2.4).) Thus, according to Leigh Pentecost (e-mail messages of 26 March 2009 and 6 April 2009), prior to European settlement, Girramay, Jirrbal and Warrongo shared the initiation site and the ceremonial ground.

There was more to befall the Aboriginal people and destroy their life. In 1914 the Hull River Aboriginal Settlement, southeast of Tully, started and it 'finally broke up the tribes' (Jones 1970: 304). Aboriginal people from different tribes were collected and sent there. Some of them were 'handcuffed and chained to be driven to the [settlement – TT] which seems to have been a penal settlement' (Jones 1970: 305). Mixing of people with different language had a deteriorating effect on the maintenance of the traditional languages (see Tsunoda 2005: 58–59). In March 1918 the Hull River Aboriginal Settlement was destroyed by 'the worst cyclone in living memory to strike the coast' (Jones 1970: 308). 'Houses, personnel and aborigines were removed to Palm Island' (Jones 1970: 310). Nowadays Palm Island, too, is known as a penal settlement. Rosser (1978) gives an account of the situation on Palm Island, from an Aboriginal perspective.

1.8. Studies on the Warrongo language

1.8.1. Introductory notes

Studies on the Warrongo language can be divided into two groups: early studies (1.8.2) and modern studies (1.8.3).

Ludwig Leichhardt's (1996) journal (cf. 1.7) does not contain any information on any language of the region. Sharp (1939: 256–257, 439–441) mentions the names of 'tribes' of northeast Australia, but he does not mention Warrongo. Also, the location of some of the tribes does not match that shown in 1.4.2.2.

1.8.2. Early studies on Warrongo

Early works on Warrongo were by people who were not trained in linguistics. They used spellings that were based on the English orthography. Some of the words are recognizable, but others are not.

[1] E. M. Curr 'circulated among squatters, policemen and magistrates across the continent a list of 125 English words, for which he requested the local Aboriginal equivalents; he published the resulting 300 vocabularies as a four-volume work' (Dixon 1980: 13). The book is Curr (1886). Unfortunately, it does not contain any word list that was collected in Warrongo territory. The word lists that were collected nearby include the following. The pages are as in Vol. 2 of Curr (1886). (i) No. 112. 'The Lynd River', by W. O. K. Hill (pp. 400–401). (ii) No. 114. 'Near the head of the

Walsh River', by John Atherton (pp. 408–411). (iii) No. 117. 'Head of Gilbert River', by Edward Curr (pp. 416–417). (iv) No. 119. 'Herbert River', by William S. Stephen (pp. 422–423). (v) No. 122. 'Clarke River', by Gresley Lukin (pp. 436–437). (vi) No. 123. 'Top of the range near Dalrymple', by W. E. Armit (pp. 440–442).

Dixon (1970: 676) briefly assesses ten word lists, and Sutton (1973: 16–20) provides a detailed assessment of nineteen word lists. There is not much more to add, except to note the following two points.

First, Dixon (1970: 676) suggested that Nos. 114, 117 and 122 might be in Warrongo, and that No. 123 was either in Warrongo or some other closely related dialect. However, subsequent research by Sutton (1973: 16–20) and myself indicate that they are not Warrongo.

Second, in No. 112, Hill states that the tribe in question was surrounded by three tribes, one of them being Warrialgona. As mentioned in 1.2, Tindale (1974: 188) gives Warrialgona as an alternative name of 'Warungu', but he doubts if Warrialgona is really 'Warungu'. Indeed, the language recorded by Hill is clearly not Warrongo, and consequently Warrialgona does not seem to be an alternative name of Warrongo.

[2] As mentioned in 1.2, William Craig's letter dated 24th July 1898 to A. W. Howitt (cited by Dixon 1981: 11) lists the names of the five tribes of the region, one of which is "War-oong-oo" This may be the first written record of the name of the language and people under study. The letter contains eight Warrongo words, seven of which are recognizable. My comments, preceded by 'TT', are added.

Yuln-gun 'Sun' (TT: This is not recognizable. The Warrongo word for 'sun' is /gari/. Warrgamay has /jugan/ 'rain' (Dixon 1981: 121).)
 Ballanoo 'Moon' (TT: This is Warrongo: /balanu/ *balano* 'moon')
 Boor-ee 'Fire' (TT: This is Warrongo: /buri/ *bori* 'fire')
 Com-oo 'Water' (TT: This is Warrongo: /gamu/ *gamo* 'water')
 Nowa 'No' (TT: This is Warrongo: /ɲawa/ *nyawa* 'no')
 Yae-oo 'Yes' (TT: This is Warrongo: /juwu/ *yowo* 'yes')
 Wan-ja 'Where' (TT: This is Warrongo: /wapɲa/ *wanyja* 'where')
 yan-ulgoo 'go'

Yan-ulgoo is not attested in modern Warrongo. It will be discussed in 3.9.4.1.

1.8.3. Modern studies on Warrongo

Modern studies on Warrongo have been carried out by trained anthropologists or linguists (Peter Sutton and Tasaku Tsunoda were postgraduate students in the early 1970s), with the exception of Jack Doolan.

[1] La Mont West and E. F. Aguas worked on Warrongo briefly (cf. Oates and Oates (1970: 175–176)).

[2] Jack Doolan is a white man who worked on Palm Island reserve in the 1960s as 'a clerk in the settlement office' (Dixon 1989a: 116). He recorded Warrongo from Alf Palmer. Peter Sutton kindly made his transcripts of Doolan's tapes available to me.

[3] 'Norman B. Tindale [...] An obituary' by Philip G. Jones (<http://www.anu.edu.au/linguistics/nash/aust/nbt/obituary.html>, accessed on 19 April 2007) states as follows: 'During an eighteen month period through 1938–39, Tindale led a data-gathering expedition'. In 1938 on Palm Island, Tindale recorded Alf Palmer's genealogy, and photographed him. Tindale's 'Wordlists in North Queensland languages' (1938, unpublished) (whose photocopies were made available to me by Peter Sutton) contain about 100 words for 'Waruṅu'. Less than half of them are recognizable. Furthermore, they appear to include a fair number of words that are not Warrongo, e.g. *jara* (in Tindale's spelling) 'man', i.e. *yara* (in the orthography adopted for the present work). For 'man', Warrongo has *bama*, while Jirrbal, Girramay and Mamu have *yara* (Dixon 1972: 408). Tindale (1974: 45–46) lists five words from 'Waruṅu'. Most of these words are fairly accurately transcribed and glossed. However, it seems that Tindale did not distinguish the two rhotics: an alveolar tap and a retroflex approximant.

[4] Since 1963, R. M. W. Dixon has been working on many languages of North Queensland; see 1.4.1 for his works. He obtained some data on Warrongo from Alf Palmer and Alec Collins. (Dixon 1989a describes his fieldwork in North Queensland, and contains accounts of Alf Palmer and Alec Collins. There is a photo of Alf Palmer, taken in 1964 on Palm Island, on p. 112. See p. 78 for Alec Collins.) R. M. W. Dixon kindly made his data from Alf Palmer available to me. As for the data from Alec Collins, Dixon (p.c.) stated that there is nothing in them that is not in Sutton's Warrongo data from Alec Collins ([5] below). The ex. (3-232) describes linguistic work by Alf Palmer and R. M. W. Dixon.

[5] Peter Sutton conducted a survey of a vast area in North Queensland in 1970, salvaging what was left of a large number of languages, such as Gugu-Badhun, Warrongo, Gujal, Wamin/Agwamin, Mbara, Buluguyban, and Biri. He worked on Gugu-Badhun twice in 1970 and again in 1974; one of the outcomes is his M.A. thesis (Sutton 1973). In 1970 Peter Sutton interviewed Alec Collins and obtained some materials on Warrongo. He generously made all his Warrongo data and also his unpublished data on Gugu-Badhun and Gujal – available to me.

[6] I carried out fieldwork mainly on Palm Island and also in the adjacent areas on the mainland, three times in all, in 1971, 1972 and 1974. My main focus was on Warrongo, but I also obtained a small amount of data on Biri, Gujal, Gabilgaba, Buluguyban, Nyawaygi, Wagaman, and Wamin, among others. The outcome of the work on Buluguyban and Gabilgaba is Tsunoda (1996). Sutton's and my data on Biri are incorporated into Terrill (1998). My previous works on Warrongo are my M.A. thesis (Tsunoda 1974a) and a number of papers that deal with aspects of

the language (mentioned in the Preface); they are all incorporated into the present work.

[7] According to Dixon (1991b: 353), in 1977 ‘a man who called himself Alec Chalk (or Col Stephens) and who purported to speak Mbabaram’, was recorded at the then Australian Institute of Aboriginal Studies; the materials were transcribed by Michael Walsh. ‘Of the 200 words or so words he gave, about 20 are recognisable as Mbabaram ...; the remainder are largely Warungu, ’ I have no expertise to comment on Mbabaram, but at least I recognize a number of words that are identical with the corresponding words recorded from Alf Palmer, e.g. *wangal* ‘boomerang’, *mongan* ‘mountain’ (in the orthography adopted for the present work)

1.8.4. Speakers interviewed for the present study

Already in the early 1970s Warrongo was on the verge of extinction, and there were only two fluent speakers left: Alf Palmer and Alec Collins. Dorian (1973: 437) notes: ‘the last speakers of a dying language can be a very misleading source of information about the language’ In view of this, it is vital to describe the nature of the data obtained, regarding factors such as the speaker’s proficiency, his/her biography, and the conditions of the work (Tsunoda 2005: 234). Comments on the speakers interviewed for the Warrongo language are provided in the following.

1.8.4.1. *Alf Palmer (Warrongo name: Jinbilnggay)*

[1] Biography

Alf Palmer’s Aboriginal name is /jinbilŋgaj/ Jinbilnggay. (According to Dixon (1981: 13, 115), his name is /jimbiŋaj/.)

The evidence provided by Rachel Cummins (Alf Palmer’s daughter’s daughter) suggests that Alf Palmer was born around 1880. Also he told me that he remembered the Boer War (1899–1902). This indicates that by 1899–1902 he was old enough to know about a war that had broken out overseas.

Rachel Cummins stated that Alf Palmer told her that he was born at a cattle station called Silver Valley, south of Mount Garnet. (I have been unable to find the location of this station.)

According to the information obtained by Norman B. Tindale in 1938 on Palm island (cf. 1.8.3-[3]), Alf Palmer’s mother is a ‘Djiru’ person from ‘Clump Pt’, her English name is Lucy, and his father is an Englishman whose name is Palmer. Indeed, Alf Palmer told me that his father was an Englishman. (Rachel Cummins, too, stated that Alf Palmer’s mother’s name is Lucy.) ‘Djiru’, i.e. Jirru, is the language of Clump Point, north of Tully; see Dixon (1972: 25, 1989a: 110). (Photocopies of Tindale’s records are lodged at Aitkenvale Library in Townsville.)

According to 'Identification Cards', Alf Palmer was born in 1891 (not around 1880) at Herberton (not at Silver Valley). His father is Tom Palmer and his mother Kitty Palmer (not Lucy). (The printouts of the computer-typed version of 'Identification Cards' I obtained at Aitkenvale Library have the following title: 'Card Index held by the Community and Personal History Section of the Department of Aboriginal and Torres Strait Islander Policy in Brisbane'.) According to Rachel Cummins, Kitty was a Warrongo woman, who looked after Alf Palmer at Gunnawarra Station, after his mother (Lucy) had been killed in a massacre at Blencoe Falls (cf. 1.7).

Alf Palmer told me that he grew up at Cashmere Station (Warrongo name: Jalnyjanbara). (See (1-10-g).) According to Rachel Cummins, he worked around Gunnawarra Station and Cashmere Station (in Warrongo territory – TT), and also in various places such Valley of Lagoons Station (in Gugu-Badhun territory – TT). In my view, the fact that he mainly worked around Gunnawarra and Cashmere strongly suggests that the language he acquired first is Warrongo, rather than any other Aboriginal language. And that he spoke a central dialect of Warrongo.

Alf Palmer married a Jirrbal woman whose English name is Elizabeth and who was born at Kirrama Station (on the border among Jirrbal, Girramay and Warrongo; see 1.4.1 and 1.7). Elizabeth worked at Kirrama Station while Alf was working around the area. But they were moved to Hull River Mission, and when the mission was destroyed by the 1918 cyclone, they were moved to the Palm Island settlement (cf. 1.7). Alf Palmer lived on Palm Island all the while until his death in 1981. (The information provided in this paragraph is largely from Rachel Cummins.)

[2] Linguistic knowledge

As noted above, Alf Palmer's first language was probably Warrongo. In addition, he knew many other Aboriginal languages, and English. (Alf Palmer himself said that he knew many languages. This is also seen in Text 1, Lines 2 to 6.) Dixon (1989a: 112) states: 'Besides Warungu, Alf also knew Jirrbal and Girramay, and Warrgamay' According to Rachel Cummins, Alf Palmer told her that he spoke to Elizabeth in Jirrbal. Also, he acted as a consultant for Dixon's study of Warrgamay (Dixon 1981: 13–14).

Alf Palmer was interviewed by R. M. W. Dixon on Palm Island in 1964, and produced some Warrongo materials (Dixon 1989a: 112–113).

Alf Palmer was interviewed by me during three spells of fieldwork in 1971–72, 1972 and 1974 on Palm Island. (The examples (4-234) to (4-236) and (4-681) describe our linguistic work.) In 1971, he was about 90 years old. But he was strong and active. (I sometimes saw him rowing a dinghy and going out to the sea for fishing, to supply fish to his family and friends. The exx. (3-146), (4-318), and (4-319) and (4-765) describe how he maintained his fishing net or made a new one.) He was alert, and he retained a very good memory. He produced extensive data, including about six hours of running texts, about 1,500 words, and details on mor-

phology and syntax. This is comparable to the kind of data that I obtained on a living Aboriginal language, i.e. Djaru of Kimberley, Western Australia (Tsunoda 1981a). This is truly remarkable at least for two reasons. First, already in the early 1970s most of the languages in this area were extinct or facing extinction. Alf Palmer's linguistic knowledge was exceptional. Second, according to Alf Palmer, he had not spoken Warrongo for 50 years (apart from linguistic interviews), i.e. approximately since he came to Palm Island.

In my experience of fieldwork in North Queensland and also Kimberley, people who have a good knowledge of their language, generally speak the kind of English very different from that of white people. Alf Palmer was exceptional in another respect: he had a very good knowledge of Warrongo, and at the same time he spoke a variety of English very close to that of white people. This indicates that he had a talent for language.

Despite his excellent knowledge of (the ordinary style of) Warrongo, Alf Palmer admitted that he could not speak Jalngoy, the avoidance style. (See 1.6.1.) This suggests that, when he was acquiring the ordinary style, probably before 1900, Jalngoy was no longer used actively.

When Alf Palmer started working with me in 1971, he called his language [koŋiʃal] (Gurijal), but in 1972 and 1974 he called it Warrongo. See 1.4.2.3 for a possible implication of this.

As mentioned above, Alf Palmer knew many other languages than Warrongo – to varying degrees, including Jirrbal and Warrgamay. The data obtained in 1971 and 1972 contained many non-Warrongo elements largely lexical but they were checked with him in 1974.

It is interesting to see how Alf Palmer pronounced the names of other languages. Examples follow. (i) Gugu-Badhun was pronounced [kokobaɖɔn]. Clearly Alf Palmer lacked the laminal contrast of /d/ versus /ʒ/ (cf. Table 1-4.). (ii) For Yidiny (Dixon 1977b), Alf Palmer gave [itip]. He correctly recognized the word-final lamino-palatal nasal. (iii) Alf Palmer knew the name of the Wamin language (west of Gugu-Badhun) and pronounced it [wamen] (1.4.2.2). (iv) As seen in 1.4.2.2, for Mbabaram, Alf Palmer gave [ba:baɾam]. He dropped the initial nasal /m/ and replaced the short vowel [ba] with the long vowel [ba:]. In Warrongo, no consonant cluster is allowed word-initially. (This vowel lengthening is an instance of compensatory lengthening; see 2.6-[4].) (v) An interesting case concerns the language whose name is written by Dixon (1983) as Nyawaygi. This name appears to contain the comitative suffix *-gi* 'with' (Dixon 1983: 433, 458). North of Nyawaygi and east of Warrgamay is Biyay, which is, together with Warrgamay, described by Dixon (1981). According to Dixon (1981: 3), the people 'could refer to themselves as Biyaygiri, involving the productive derivational suffix *-giri* "with"'. The word *biyay* means 'no', and Biyaygiri literally means '[person] with the word *biyay* "no"'. Now, for Nyawaygi, Alf Palmer gave [ɲawagjuɟi]. This may be tentatively written 'Nyawagiri'. It is possible that Alf Palmer was confused between the Nyawaygi suffix *-gi* and the Biyaygiri suffix *-giri* and that he used the Biyaygiri

-*giri* for the name of Nyawaygi. However, it is also possible that the suffix -*giri* once existed in Nyawaygi as well and that it survived in the name 'Nyawagiri' See also 3.7.1-[22] for -*giri*.

The reliability of the Warrongo data I recorded from Alf Palmer has been the target of some criticism, e.g. Dixon (1981: 13, 1994: 180). However, this criticism is misguided.

Regarding morphology, Alf Palmer's data are reliable, for he remembered details in morphology, and he even remembered irregularities in it. See, for example, (i) the ergative suffix -*lo* (3.2.1.2), (ii) the comitative case (Table 3-11), and (iii) the suffix -*nyjarr* 'kinship' (3.7.1-[19]). (Language obsolescence often causes leveling of paradigms, and therefore, if there is any irregularity in a given paradigm, and if it occurs consistently, then it is likely to constitute reliable data; cf. Tsunoda 2005: 242–243.)

As for vocabulary, Alf Palmer's data initially contained intrusions from other language(s). However, when confronted with the data, he was careful to correct any mistake he might have made. For an example, see Text 2, Line 6.

Furthermore, Alf Palmer's vocabulary exhibits regular phonological correspondences with those of southern Mari languages, which are more than 1,000 km away (1.4.2.4). This indicates that Alf Palmer's vocabulary is reliable. (It is in order to show this point that, for Warrongo of Table 1-6, only the words from Alf Palmer (and not from Alec Collins) were given.)

Dixon (1994: 180) states that many of the Warrongo texts that I recorded from Alf Palmer 'are conversations in Warrungu between him and Tsunoda'. This is not correct. The six hours of running texts are entirely monologues by Alf Palmer. Excerpts of the texts are given in Tsunoda (1974a: 610–651, 1988: 643–645), and also in the present volume. All my field tapes (or their copies) are lodged with the Australian Institute of Aboriginal and Torres Strait Islander Studies in Canberra.

Dixon (1981: 13) adds: 'Although Palmer's parents were Warrungu, he has lived most of his life in Wargamay- and Dyirbal-speaking territories' Again, this is not correct; see Alf Palmer's biography given above.

There are reported instances in which a language with no written tradition has been influenced by one with that tradition. For example, Mithun (1988: 351) reports many instances of borrowing of conjunctions, in a contact situation, from a language with that tradition to one without. (See Olson and Astington (1990: 706–708) on the impact of writing on language change.) However, it seems certain that Alf Palmer's Warrongo was not influenced by a language with that tradition – English, in this case – except for about one dozen nouns (2.13.2) and possibly the tag question marker /aj/ [ai] (2.2.3.1). This is because Warrongo has not had a written tradition. Alf Palmer neither read nor wrote English. The same is almost certainly true of the people from whom Alf Palmer learned Warrongo (probably before 1900).

[3] Letter from Alf Palmer written by Rachel Wilson

Probably in 1972 (or 1974?), Rachel Wilson (who is Alf Palmer's DD, about sixteen or seventeen years old at that time, and who was to become Mrs. Rachel

Cummins) wrote a letter to me on behalf of Alf Palmer. It was a reply to my letter. It starts as follows.

(1-16) Dear Gunira,

Nyah yaroo younangoo coco birin. I hope you understand my spelling of the language. I am Alf Palmers granddaughter and he has asked me to write this letter to you.

The first word, Gunira, is the name that Alf Palmer gave me (1.5.4.2-[2]). At that time, I used the letter ‘u’ for the phoneme /u/ (cf. 1.1, and also 2.14). Clearly Rachel Wilson adopted my spelling. The other words are analyzed as follows.

(1-17) [ɲaja jaro inongo koko birin]
 ngaya yarro-∅ yinon-n-go gogo-∅ birri-n
 1SG.ERG this-ACC 2SG-LINK-DAT word-ACC send-NF
 ‘I am sending this word to you.’

This letter also contains the word ‘Djinbilnggay’, i.e. Alf Palmer’s name. Again, Rachel Wilson adopted my spelling of that time. This letter contains two more Warrongo words. In the letter, Alf Palmer says that they are the names of his grandchildren. One is “Japanoo” This is no doubt Jabino and the name of Roderick Palmer (Alf Palmer’s SS; see 1.5.4.2-[1]). The other is “Indinoo” It is not recognizable. According to the practical orthography adopted for the present work (1.1, 2.14), it may be written as Yindino. Rachel Cummins believes that it is the Warrongo name of Raymond Palmer, who is Roderick’s EB.

This letter, written by Rachel Wilson, is probably the very first written record of the language ever made by a Warrongo person.

1.8.4.2. Alec Collins (Warrongo name: Wolngarra)

Atkinson (1979: 31) states: ‘In the 1920’s there was still a small tribe of blacks living in their wild state in the Herbert River Gorge. The head of this tribe was Wambino. He had seven sons and a daughter’, including Patrick Hooligan and Alec Collins. (Atkinson uses the spelling ‘Alick’, and not ‘Alec’). This suggests that Alec Collins grew up in the Herbert River Gorge. (See 1.5.4.2-[1] and 3.7.1-[12] for the name Wambino.) Alec Collins’ Warrongo name is Wolngarra (data from Peter Sutton). Atkinson (1979) contains accounts of Wambino and his family, and a photo of Wambino on p.32. The photo on p.40 shows some of Wambino’s sons, including Alec. Both photos were taken in 1925 at Kirrama Station. At that time, they were living at Kirrama Station (in Girramay territory?; cf. 1.4.1).

Since Alec Collins appears to have grown up in the Herbert River Gorge, probably he spoke an eastern dialect of Warrongo. (How Alf Palmer and Alec Collins referred to their language was discussed in 1.2.)

Alec Collins was interviewed by R. M. W. Dixon in 1963 (?) at Kirrama Station. He was also interviewed by Peter Sutton at Kirrama Station in 1970, and produced some material, including some words and sentences that he said were Jalngoy ('avoidance style'). Subsequently, however, his whereabouts were not known. After a long search, in September 1974 I found Alec Collins – alas! – lying in bed at Herberton Hospital. He was already too weak to do any linguistic work. Nonetheless, I talked to him in the Warrongo language that I had learned from Alf Palmer. It seems certain that he understood my Warrongo perfectly. Also, I asked him a fair number of questions in Warrongo, which he answered in Warrongo. For example, I asked him about Alf Palmer as follows.

(1-18) *ngani-Ø nyongo gogo-Ø?* (TT)
 what-NOM 3SG.GEN language-NOM
 'What is his language?'

Alec Collins replied, saying '[waronjo]' Furthermore, I narrated a hunting story in Warrongo (the kind of story Alf Palmer had narrated to me many times). Alec Collins enjoyed it very much. There were no signs of incomprehension on his part. This suggests that the Warrongo language as recorded from Alf Palmer is reliable, being perfectly interpretable by another speaker of the language. (My interview of Alec Collins is reported in Tsunoda 2005: 242.) Alec Collins was probably almost as proficient as Alf Palmer was. He passed away in 1975, before adequate data were recorded from him.

Alec Collins said that Alf Palmer was his [kalɲina] /galɲina/ 'MB'. It is not known if he meant 'actual MB', or 'classificatory MB'. (For 'MB', Alf Palmer used /galɲana/ and /galɲa/, the second vowel is /a/, and not /i/. This is one of the small lexical differences between their idiolects (1.3).)

1.8.4.3. *Other speakers*

[1] Harry Bunn was interviewed by me in Townsville in September 1974. He was born at Innot Hot Springs (on the northern border of Warrongo territory) to a mother from Valley of Lagoons (a Gugu-Badhun person?) and a father from Stanley Hill, Irvinebank (a Mbabaram person?). Ranji Pope, a Gugal speaker (see below), is his half-brother and Richard Hoolihan, a Gugu-Badhun speaker (see [8] below), is his uncle (presumably MB, not FB; in Aboriginal people's English, the word 'uncle' often means 'MB'). He called his language Gugal, but it was probably Warrongo, for, like Warrongo but unlike Gugu-Badhun and Gugal, it lacked a laminal opposition (Table 1-4). He was able to produce only limited data, mainly lexical. The section terms and totems given by him are cited in Table 1-9.

[2] Vera Smallwood was interviewed by me in Ingham in September 1974. She told me that she was born in 1922 at Mount Garnet to a Russian father. (Mt. Garnet

is on the northern border of Warrongo territory.) According to Govor (2001: 141, 221, 343, 383), Vera Smallwood was born on the 31st March 1922 in Spring Gully (Queensland), her father is a Russian and his name is Leandr Illin, her maiden name is Vera Araluen Illin, and her mother's maiden name is Kitty Clarke, who is a Ngajan person (spelt 'Ngadjon' by Govor). (See Map 5 for Ngajan.) In addition to the story about the Herberton Crater (cited in 1.5.3), she gave 21 words. She was unable to identify the language, but most of the words she gave coincide with Alf Palmer's Warrongo.

[3] Mr. Williamson was interviewed by me in Ingham in September 1974. He gave six words. He, too, was unable to identify his language, but five words agree with Alf Palmer's Warrongo. Mr. Williamson himself suggested the words he gave were from a language close to Warrongo.

[4] Mrs. Morgenstern was interviewed by me in Ingham in September 1974. She gave one word: /wagal/ 'eel'. This coincides with Alf Palmer's Warrongo. (My fieldnotes show the name 'Morgenstern', but this may be my error, and the name may possibly be 'Morgensen'. Atkinson (1979: 37) describes a white man whose name is Billy Morgensen. It is possible that some Aboriginal people adopted this white man's name. As of the early 2000s, there are Warrongo people whose family name is 'Morganson'. This name may derive from 'Morgensen' (Leigh Pentecost, e-mail message of 26 March 2009).)

[5] Denny Hoolihan was interviewed by me in September 1974, probably in Mt. Garnet. He told me that his father is Patrick Hooligan. (The latter is Wambino's son and Alec Collins' brother; see 1.8.4.2.) He gave about six phrases or short sentences. Since his father is Wambino's son, the materials he gave would be expected to be Warrongo. However, while some portions appear to be Warrongo, others do not seem to be. He himself said that he knew Jirrbal, but hardly knew Warrongo. (This suggests that Jirrbal was more dominant than Warrongo in the early 1970s in Mt. Garnet.)

[6] Mrs. Cassidy was interviewed by me in Ingham in September 1974. She told me that she was born at Gunnawarra Station. She gave five words. Since Gunnawarra is in Warrongo territory, the words she would be expected to be Warrongo, but they do not seem to be.

The materials given by Vera Smallwood, Mr. Williamson, Mrs. Morgenstern, Denny Hooligan, and Mrs. Cassidy are reproduced in their entirety and assessed in Tsunoda and Tsunoda (2007).

[7] In addition, the following three people were interviewed by me. They are second-language speakers (or maybe third-language speakers) of Warrongo. Tommy Murray (mentioned in 1.2, 1.5.3 and 1.5.4.3-[8]), a Jirrbal speaker, was interviewed in Mount Garnet in September 1974. Tommy Springcart (mentioned

in 1.4.2.2), who was a consultant for Dixon's study of Jirrbal (Dixon 1972: 28, 1989a: 119–120), was interviewed (by me) in August and September 1974 on Palm Island. Ado Cashmere, a Warrgamay speaker, was interviewed in Mount Garnet in September 1974. (His wife Cheepa is a daughter of Patrick Hooligan, who is Wambino's son.) The data from Tommy Murray and from Ado Cashmere in the main agree with Alf Palmer's Warrongo. The data from Tommy Springcart seem to be a mixture of Warrongo and Jirrbal.

The consultants for languages other than Warrongo are listed below.

[8] For Gugu-Badhun (Sutton 1973), the following people were interviewed by Peter Sutton: (i) Richard Hoolihan in 1970, and some of his children (Margaret Gertz, Janet Eaton, Dennis Hoolihan, Bully Hoolihan), and (ii) Harry Gertz in 1970 and 1974, and some of his children (Henry Gertz, Eddy Gertz, Eric Gertz, Mollie Gertz). Atkinson (1979) contains accounts of Harry Gertz, and a photo of him on p.116. Peter Sutton kindly made his unpublished Gugu-Badhun available to me, and a story narrated by Richard Hoolihan and one by Harry Gertz are cited in 1.5.4.3-[3], and -[4], respectively.

[9] For Gujal, Freddy Toomba (who called his language Gujal) was interviewed by Peter Sutton in August 1974 on Palm Island. Ranji Pope (who called his language Gurjal) was interviewed by Sutton in August 1970 in Charters Towers. He was born in Wondecla, near Herberton (which appears to be in Ngaygungu territory, according to Dixon 1991b: 348), and was a half-brother to Harry Bunn. I contacted him in March 1972 in Charters Towers, but I was able to record very little. (Sutton kindly made the data from Freddy Toomba and from Ranji Pope available to me.) George Reid (who called his language Gujal) was interviewed by Gavan Breen in Charters Towers in August 1970 (Breen, p.c.) and by me on Palm Island in September 1974. (Gavan Breen kindly made the data from George Reid available to me.)

[10] Reggie Palm Island, whose language is Buluguyban of Palm Island, was interviewed by me on Palm Island in September 1974. His Carpet Snake story is cited in 1.5.3. Rosser (1978: 47–48) gives an account of Reggie Palm Island.

[11] Alec White Sr. was interviewed by me on Palm Island in 1972 and 1974. He was born in Townsville, and he called his language is Gabilgara and also Gabilgaba. See 1.5.4.1-[2]-(a) for its etymology.

All the information recorded from Reggie Palm Island and Alec White Sr., together with George Reid's story about a canoe-shaped stone on Palm Island, are in Tsunoda (1996).

[12] In the 2000s, during my participation in the language revival movement (cf. Preface), I have obtained data from the following people. (i) Rachel Cummins (née

Wilson), Alf Palmer's DD, who has been interviewed since 2000 and who is often cited in Chapter 1. (ii) Shirley Johnson, a Wulgurugaba person of the Townsville-Magnetic Island area, was interviewed in March 2001 and her Carpet Snake story is cited in 1.5.3. (iii) Willy Santo, a Gujal person, was interviewed in March 2001 and his Water Serpent story is cited in 1.5.3.

All the interviews by me mentioned in 1.8.4.1 to 1.8.4.3 were conducted in English.

Regarding the Warrongo data, more than 95% was obtained from Alf Palmer. His data are extensive and include running texts of about six hours, about 1,500 words, and details on morphology and syntax. In contrast, the data obtained from Alec Collins are severely limited. They contain about 250 words, a very small amount on morphology, and very little on syntax. The Warrongo data obtained from the other people are even more severely limited and largely lexical. In view of the above, the description of Warrongo that follows concerns Alf Palmer's idiolect, although, where appropriate, reference will be made to Alec Collins'.

As noted in the Preface, what follows is an example of what can be done, and what cannot be done, when only the last single speaker is available. (My suggestions for fieldwork on endangered languages are in Tsunoda 2005: 216–247.)

1.9. Present-day situation

It is difficult to estimate the number of people who identify themselves as Warrongo. They are scattered, living in Mount Garnet (in Warrongo territory?), and in places outside Warrongo territory, such as Palm Island, Townsville, Ingham, Cardwell, and Cairns.

No Warrongo person speaks the language fluently. But many people, including children, know a number of Aboriginal words, although they are unable to distinguish Warrongo words from those of other languages. The extent of the linguistic knowledge that has been retained is discussed in Tsunoda and Tsunoda (2007).

There are instances of semantic change. For example, the word *gambi* has undergone the following change:

(1-19) *gambi*

(i) 'possum cloak' → (ii) 'clothes' → (iii) '(ladies') underwear'

(i) The word list 'No. 133 Mt. Black', by The Government of Queensland (Curr 1886, Vol. 2: 486), lists 'kumbi' (i.e. /gambi/) 'possum cloak'. Mt. Black is west of Townsville. See Map 2. (ii) In 1971–1974 Alf Palmer gave *gambi* 'clothes' (generally referring to European cloths), e.g. (4-18-a/-b). (iii) In 2006 Rachel Cummins and her daughters said that *gambi* means '(mainly ladies') underwear.' Another example of semantic change is:

(1-20) *bori*

(i) 'fire' (Alf Palmer, 1971–1974) → (ii) 'light' (in the 2000s)

Most of the present placenames are English. But a very small number of them are taken from Aboriginal languages. One example is the name of a suburb in Townsville: *Wulguru*, named after the language of Townsville (1.5.4.1-[2]-(b)). A childcare centre in Townsville is aptly named *Galbiri*. The word *galbiri* 'children' occurs in Warrongo (3.7.1-[16]). But it is not attested, say, in Gugu-Badhun (see Sutton 1973: 213), in my data of the language of Townsville (Tsunoda 1996) or in Donahue's (2007) study of the languages of Townsville, Magnetic Island and Palm Island. It seems that the person who named this childcare centre knew this Warrongo word.

In 1972 (?) I translated a hymn into Warrongo at the request of people of Palm Island and in consultation with Alf Palmer, but this did not develop into a language revival movement. Recently the Warrongo language revival movement started (cf. Preface and Acknowledgements). Its central figure is Rachel Cummins. Upon request, I started Warrongo lessons in March 2002 in Townsville, and as of 2010 the lessons have been conducted five times, about four or five days each time. The Warrongo language revival activities are reported by Tsunoda (2002, 2004, 2005: 212–213) and Tsunoda and Tsunoda (2006, 2007, 2008, 2010).

Chapter 2

Phonology

2.1. Phonemes and their realizations

2.1.1. Phoneme inventory

The Warrongo phoneme inventory comprises eleven consonants, two semivowels and four vowels. It is one of the smallest phoneme inventories among Australian languages (cf. Dixon 1980: 140, 143). See Tables 2-1 and 2-2. The phonemes are written with IPA symbols. The symbols used in the practical orthography employed in the present work are shown in pointed brackets (see 2.14). (The use of pointed brackets for letters used in a practical orthography is adopted from Harvey 2002: 17.)

Table 2-1. Consonant and semivowel phonemes

	bilabial	apico-alveolar	retroflex	lamino-palatal	dorso-velar
stop	b 	d <d>		ʃ <j>	g <g>
nasal	m <m>	n <n>		ɲ <ny>	ŋ <ng>
rhotic		r <r>	ɻ <r̥>		
lateral		l <l>			
semivowel				j <y>	w <w>

There are a stop phoneme and a nasal phoneme for each of the following places of articulation: bilabial, apico-alveolar, lamino-palatal, and dorso-velar. For stops, voicing is not distinctive, and both voiced and voiceless allophones occur. There are two rhotics (i.e. *r*-sounds): /r/ (an alveolar tap [ɾ]) and /ɻ/ (generally a retroflex approximant [ɻ]), and infrequently a retroflex tap [ɻ̥]; one lateral; and two semivowels. The vowel system basically comprises three members, and length is significant for the pair /a/ and /a:/ only and to a very limited degree (2.1.2).

Table 2-2. Vowel phonemes

	front	back
close	i <i>	u <o>
open	a, a: <a, aa>	

The practical orthography employs <y> for the semivowel /j/, and <j> for the lamino-palatal stop /ʃ/. Compare:

(2-1)	[jamba]	[dʒambal]
	/jamba/	/ʃambal/
	<yamba>	<jambal>
	'camp'	'snake'

The phoneme /u/ is written with <o>, and not <u>, e.g. (2-2). This is partly because phonetically /u/ is almost always [o], and not [u] (see 2.1.4.2 and 2.14).

(2-2)	[waroŋo]	[goman]
	/waruŋu/	/guman/
	<warrongo>	<goman>
	'the name of a language'	'other'

The name of this language is written 'Warrongo' in this practical orthography.

A dot is used to distinguish a sequence of /n/-plus-/g/ from the single phoneme /ŋ/, e.g.:

(2-3)	[bangal]	[jaŋa]	[bongo]	[boŋgo]
	/bangal/	/jaŋa/	/bunu/	/buŋgu/
	<ban.gal>	<yanga>	<bon.go>	<bonggo>
	'little girl'	'mother'	'maggot'	'knee'

The IPA symbols are used in the remainder of Chapter 2, but from Chapter 3 onwards, the practical orthography will be used.

As is generally the case in Australian languages, there is no fricative phoneme. There are two interjections that start with the fricative [h]: [haha] or [ha:ha:] 'exclamation of surprise, etc.' and [hai] 'Hi!' But these expressions are marginal, and the phoneme /h/ is not set up for Warrongo.

Also, there is no affricate phoneme. It is a common practice in Australian linguistics to refer to the lamino-palatal obstruent phoneme (e.g. /ʃ/ of Warrongo) as a stop (cf. Dixon 1980: 135). However, in Warrongo, Djaru (Tsunoda 1981a: 25) and all other Australian languages I have listened to, phonetically this phoneme is not a stop ([ʃ] or [c]). Rather, it is an affricate ([tʃ] or [dʒ]); see (2-1). (Blake (1979: 16) on Kalkatungu and Patz (2002: 19) on Kuku Yalanji note that the phoneme in question has an affricate characteristic.) Nonetheless, in accordance with the usual practice, the present work considers it a stop phoneme; recognition of an additional 'manner of articulation' (i.e. affricate) has been avoided.

/b/, /g/, /m/, and /ŋ/ are labeled 'peripheral' (cf. Dixon 1980: 139). In terms of articulation, they involve 'articulation at the extreme back or front of the mouth' (Dixon 1980: 139). Acoustically, the peripheral phonemes share the property of

'grave', as against 'acute', of Jakobson, Fant and Halle (1967: 30). The feature of 'peripheral' plays an important role in setting up natural classes of phonemes; see 2.2.6.3-[2] and 2.5.

2.1.2. Minimal pairs/sets

Minimal or near-minimal pairs/sets for consonants and semivowels are given.

[1] Intervocalically (1) – in terms of manner

(a) stops /b, d, ʃ, g/

[baba]	[bata]	[baɖʒa]	[baga]
/baba/	/bada/	/baʒa/	/baga/
'spear (IMP)	'downstream'	'bite (IMP)	'dig (IMP)'

(b) nasals /m, n, ɲ, ŋ/

[gama]	[kana]	[gana]	[kaŋaleŋa]
/gama/	/gana/	/gana/	/kaŋaligaŋ/
'dance type'	'below'	'hut'	'hairy being' (1.5.8-[8])

See 2.13.1 for the etymology of /gana/ 'hut'. The difference between /ni/ and /ɲi/ is difficult to detect, but it is shown by the following pair:

[ɲani]	[ɲaɲi]
/ɲani/	/ɲaɲi/
'what'	'face'

(c) liquids /r, ɹ, l/

[mara]	[maɹa]	[malan]
/mara/	/maɹa/	/malan/
'vine poison'	'hand'	'creek'

(d) semi-vowels /w, j/

[kawa]	[gaja]
/gawa/	/gaja/
'stuff vomited'	'father'

[2] Intervocalically (2) – in terms of place

(a) bilabials /b, m/

[baba]	[bama]
/baba/	/bama/
'spear (IMP)'	'man'

(b) apico-alveolars /d, n, r, l/

[bata]	[banan]	[mara]	[malan]
/bada/	/banan/	/mara/	/malan/
'downstream'	'break (NF)'	'vine poison'	'creek'

(c) lamino-palatals /ʃ, ɲ, j/

[katʃa]	[gɲa]	[gaja]
/gɲa/	/gɲa/	/gaja/
'head'	'hut'	'father'

(d) dorso-velars /g, ŋ, w/

[mogan]	[moŋan]	[mowaŋɟina]
/mugan/	/muŋan/	/muwaŋɟina/
'get (NF)'	'hill'	'white chalk'

[3] Word-initially (1) – in terms of manner

(a) stops /b, d, ʃ, g/

[baba]	[daba]	[dʒabale]	[kaban]
/baba/	/daba/	/ʃabali/	/gaban/
'spear (IMP)'	'black palm'	'whip tail kangaroo'	'grub sp.'

(b) nasals /m, n, ɲ, ŋ/

[malba]	[nalɲin]	[nalmo]	[nalɲa]
/malba/	/nalɲin/	/nalmo/	/nalɲa/
'dance type'	'shake (NF)'	'fighting stick'	'PROH'

As another set of examples:

[miɲa]	[newan]	[ɲinan]	[ɲiɲɲ]
/miɲa/	/niwan/	/ɲinan/	/ɲiɲɲ/
'meat'	'louse egg'	'sit (NF)'	'little finger'

Compare [ne] /ni/ in [newan] and [ɲi] /ɲi/ in [ɲinan]. (They are in the word-initial position.) In these words, /i/ is [e] when preceded by /n/ ([newan]), while it is [i] when preceded by /ɲ/ ([ɲinan]). (This phonetic difference in /i/ provides a clue for distinguishing /ni/ and /ɲi/.) However, as seen in [1]-(b), in [ɲani] /ɲani/ 'what' and [ɲani] /ɲani/ 'face', /i/ is invariably [i]: [ni] and [ɲi]. (They are in a word-medial position). This phonetic difference regarding /i/ may possibly due to the difference in the position in which it occurs, i.e. word-initial as against word-medial.

(c) liquids /r, ɾ, l/

An example of /ɾ/ is [ɟera] /ɟira/ 'tooth'. /r/ and /l/ do not occur word-initially (see 2.2.5.4).

(d) semivowels /w, j/

[watʃa]	[jatʃa]
/waʃa/	/jaʃa/
'crow'	'later on'

[4] Word-initially (2) – in terms of place

(a) bilabials /b, m/

[bagan] [makan]

/bagan/ /magan/

‘dig (NF)’ ‘false’

(b) apico-alveolars /d, n, r, l/

[dodam] [nopa]

/dudam/ /nuba/

‘wild peanut’ ‘bark water-carrier’

/r/ and /l/ do not occur word-initially.

(c) lamino-palatals /ʃ, ɲ, j/

[dʒawa] [ɲawa] [jawa]

/ʃawa/ /ɲawa/ /jawa/

‘mouth’ ‘NEG’ ‘(placename)’

(d) dorso-velars /g, ŋ, w/

[gama] [ŋama] [wama]

/gama/ /ŋama/ /wama/

‘dance type’ ‘handle of shield’ ‘mad’

[5] Word-finally (1) – in terms of manner

(a) stops /b, d, ʃ, g/

Stops do not occur word-finally (2.2.5.4).

(b) nasals /m, n, ɲ, ŋ/

[dʒalamdʒalam] [dʒalan] [dʒalaŋ]

/ʃalamʃalam/ /ʃalan/ /ʃalaŋ/

‘big waves’ ‘greedy’ ‘tongue’

/ŋ/ does not occur word-finally.

(c) liquids /r, ɹ, l/

[bakor] [bakoɹ] [makol]

/bagur/ /baguɹ/ /magul/

‘short’ ‘fighting stick’ ‘work (noun)’

(d) semivowels /w, j/

An example of /j/ is [baŋgai] /baŋgaj/ ‘spear’ /w/ does not occur word-finally (2.2.5.4).

[6] Word-finally (2) – in terms of place

(a) bilabials /b, m/

An example of /m/ is [dodam] /dudam/ ‘wild peanut’. Stops (e.g. /b/) do not occur word-finally.

(b) apico-alveolars /d, n, r, l/

[madʒon]	[bakor]	[makol]
/majun/	/bagur/	/magul/
‘quiet’	‘short’	‘work (noun)’

Stops (e.g. /d/) do not occur word-finally.

(c) lamino-palatals /ʃ, ɲ, j/

[dʒalaɲ]	[baŋgai]
/ʃalaɲ/	/baŋgaj/
‘tongue’	‘spear (noun)’

Stops (e.g. /ʃ/) do not occur word-finally.

(d) dorso-velars /g, ŋ, w/

Stops (e.g. /g/), /ŋ/ and /w/ do not occur word-finally.

Minimal (or semi-minimal) sets of vowel phonemes (/i, a, u/) are given below. The long vowel /a:/ will be treated separately.

(a) Word-medially

[gima]	[gama]	[goman]
/gima/	/gama/	/guman/
‘grub’	‘dance type’	‘another’

(To be more precise, *gima* refers to the stage of the growth of a grub in which the grub is in a cocoon.)

(b) Word-initially

As a rule, vowels do not occur word-initially (2.2.3.3).

(c) Word-finally

[gami]	[gama]	[gamo]
/gami/	/gama/	/gamu/
‘father’s mother’	‘dance type’	‘water’

The long vowel phoneme /a:/ ([a:]) is attested in six words only: (i) /a:/ ([a:]) ‘exclamation of admiration, surprise, etc.’ (4.26), (ii) /ja:/ ([ja:]) ‘exclamation of displeasure, surprise, etc.’ (4.26), (iii) /bam/ ([bam]) ‘whip’ (a noun), (iv) /ŋa:ɾa/ ([ŋa:ɾa]) ‘a bushy country on Herbert River’, (v) /ŋa:ŋa:/ ([ŋa:ŋa:]) an onomatopoeic expression to describe the way a baby cries, and (vi) a loan from English: /ja:ɾ/ ([ja:ɾ]) ‘yard’. There is one minimal pair: /ŋa:ɾa/ ‘(placename)’ and /ŋa:ɾa/ ([ŋa:ɾa]) ‘it is not easy to do’ (adverb) (see 4.24-[10]). There is one near-minimal pair: /bam/ ‘whip’ and /banan/ ([banan]) ‘break (NF)’.

Phonetically, [i:] occurs, but it is interpreted not as /ii/, but as /iji/ or as /ji/. See 2.1.5.1.2. Similarly, [o:] occurs, but it is interpreted as /uwu/, and not as /uu/. See 2.1.5.2.

The status of /a:/ as a separate phoneme is weak, for four reasons. (i) It is attested in six words only. (ii) /ŋaŋa:/ is onomatopoeic. /baŋ/ ‘whip’, too, may be onomatopoeic: the cracking sound of a whip. Onomatopoeia is marginal in the phonology of a given language, and it may be justifiably excluded from its phoneme inventory. (iii) Warrgamay, east of Warrongo, shows contrastive vowel length (Dixon 1981: 16–17): /i, i:, a, a:, u, u:/. The location of the place /ŋa:ia/ is not known. But, since it is on Herbert River, it may be in Warrgamay territory, and if that is the case, the name /ŋa:ia/ may be a Warrgamay word, and not a Warrongo word. (This placename is not listed in Dixon’s (1981) Warrgamay vocabulary.) (iv) /ja:ŋ/ ([ja:ŋ]) ‘yard’ is a loan from English, and loan words are not central in the phonology of a given language. (See 2.13.2 for loans from English.)

2.1.3. Allophones of consonants and semivowels

Presentation of examples employs the practical orthography in Chapters 1, 3 and 4, and phonetic and phonemic notations (both using IPA symbols) in Chapter 2. For readers, particularly for those people who participate in the Warrongo language revival movement (see 1.9), it is important to be able to know the phonetic value of a given Warrongo form. However, it is very difficult to accurately describe the distribution of allophones of phonemes, and it will often be virtually impossible for these people to know the phonetic value of a given form. In view of this, the following discussion of the allophones of phonemes will be as detailed as possible – to the extent that my knowledge of the Warrongo phonology permits.

2.1.3.1. Nasals, rhotics, lateral, and semivowels

The nasal (/m, n, ŋ, ŋ/), rhotic (/r, ɾ/), lateral (/l/), and semivowel (/j, w/) phonemes are always voiced. Examples were given in 2.1.2.

/r/ is an alveolar tap, e.g. [baro] /baru/ ‘bent, crooked’, and [bakor] /bagur/ ‘short’. Unlike /r/ of Djaru (Tsunoda 1981a: 25), it is not accompanied by a fricative-like sound.

/ɾ/ has two allophones: a retroflex approximant ([ɽ]) and a retroflex tap ([ɽ]). [ɽ] is the predominant allophone. /ɾ/ is always [ɽ] word-initially, e.g. [ɽaba] /ɽaba/ ‘fork’, and inter-vocalically, e.g. [baɽo] /ba:ru/ ‘lower part of the back’. Word-finally, and as the first member of an (inter-vocalic) consonant cluster, it is [ɽ] (generally) or [ɽ] (infrequently), e.g. (i) [baɽŋan] [baɽŋan] /ba:ŋan/ ‘water rat’, (ii) [baɽɽ] [baɽɽ] /bawu:/ ‘rock wallaby’, (iii) [biɽŋga] [biɽŋga] /bi:ŋga/ ‘grey hair’, (iv) [wiŋgaɽ] [wiŋgaɽ] /wiŋga:/ ‘fish’. (Alternatively, it may be possible to say that /ɾ/ is always

[ɹ] syllable-initially, and that it is it is [ɹ] (generally) or [r] (infrequently) syllable-finally.) However, [r] does not always occur in these environments. Thus, /biɹgu/ ‘wife’ was always (?) pronounced [biɹgo], and not [birgo]. It is possible that a realization of /ɹ/ as [r] is ‘lexeme-specific’ (Lass [1984] 1991: 310).

There is a word that contains both /ɹ/ and /r/: [ɹera] /ɹira/ ‘tooth’.

The lateral (/l/) is alveolar. It is always a ‘clear l’, and never a ‘dark l’ – in contrast with English.

2.1.3.2. *Stops*

Voicing is not distinctive for stops, and both voiced and voiceless allophones occur, as in many other Australian languages. It is one of the basic assumptions in phonology that the distribution of allophones of a given phoneme is predictable. Indeed, many grammars of Australian languages provide rather simple rules for stop voicing. See, e.g., Peter Austin (1981: 16), Blake (1979: 15), Breen (1981: 24), Dixon (1977b: 32), Donaldson (1980: 21), Evans (1995: 52), and Patz (2002: 20). However, as is the case with Djaru (Tsunoda 1981a: 24) and Gooniyandi (McGregor 1990: 49), it has proved extremely difficult to describe precisely the conditioning factors of stop voicing in Warrongo. Possibly they are ‘at least partly lexeme-specific’ (Lass 1991: 310). (Dixon (1991b: 356) on Mbabaram makes a similar observation regarding stop voicing under certain conditions.) What follows is merely a statement of the general tendencies that I have noticed.

Regarding phonetic realizations of stops, there is one word that needs a special mention; it is the noun that means ‘shingle back lizard’ and that may be tentatively phonemicized as /bujɲɹul/. The stop /ɹ/ is realized as in [boiɲgɹol], i.e. [g] with an [i]-like off-glide. Unlike the other allophones of /ɹ/ (affricate [dʒ] or [tʃ]), it sounds a little like the stop [j].

2.1.3.2.1. *Stop voicing (1): in terms of places of articulation*

[1] General tendency

As a general tendency, the more front a stop is, the more likely it is to be voiced, and the more back a stop is, the more likely it is to be voiceless; see (2-4). (This tendency seems to have to do with the space above the glottis during the articulation of the stops; see Ladefoged (1975: 127). That is, the more front the stop is, i.e. the larger the space above the glottis is, the more likely it is to be voiced. And the more back the stop is, i.e. the smaller this space is, the more likely the stop is to be voiceless. Dixon (1991b: 355) notes for Mbabaram: /b/ is more likely to be voiced than /g./)

(2-4)	/b/	/d/	/ɟ/	/g/
	←—————→			
	more likely voiced		more likely voiceless	

[2] Position within a word

Word-initially, /b/ is almost always voiced (e.g. 2.1.2-[1]-(a)), but there are at least two exceptions, in which it is voiceless: (i) [pirgil] /birgil/ and [pirgibaɟa] /birgibara/ both ‘cold weather’, and (ii) the loan [pigipigi] /bigibigi/ ‘pig’. /d/, too, is always voiced, except for [tokal] /dugal/ ‘fern sp.’; see (d-5) of Table 2-4. /ɟ/ and /g/ each have voiced and voiceless allophones.

Inter-vocally (i.e. word-medially), all the stop phonemes have voiced and voiceless allophones, and both are fairly frequent. See Table 2-3. (In Table 2-3, a parenthesis means ‘not common’.)

(Word-finally, stop phonemes appear to be prohibited. See 2.2.5.4.)

Table 2-3. Voicing tendency of stops

	/b/	/d/	/ɟ/	/g/
word-initially				
voiced	+	+	+	+
voiceless	(+)	(+)	+	+
inter-vocally				
voiced	+	+	+	+
voiceless	+	+	+	+

2.1.3.2.2. Stop voicing (2): in the word-initial position

In 2.1.3.2.1, we looked at the word-initial position very briefly. Now we shall examine this position in more detail. See Table 2-4. It is impossible to provide minimal sets, and the table contains near-minimal and not-so-minimal sets. Also, the table is incomplete. In particular, /d/ is infrequent (2.3.1, 2.3.2), and relevant examples involving it are very difficult to find. Almost the same applies to Table 2-5 through Table 2-10. In the following discussion of stop voicing, the relevant allophone of a stop is shown in bold face. (*# indicates a word boundary (Lass 1991: 33).)

Table 2-4. Voicing of stops in word-initial positions (C1)

	#/b/-	#/d/-	#/ʒ/-	#/g/-
C2 is a nasal.				
(a-1)	[bimona] /bimuna/ 'FZ'	[dimaniŋ] /dimaniŋ/ 'flea'	[ɖʒiman] /ʒiman/ 'firestick'	[gima] /gima/ 'grub'
(a-2)	[bama] /bama/ 'man'		[ɖʒamaŋ] /ʒamaŋ/ 'web'	[gama] /gama/ 'dance type'
C2C3 is a nasal-plus-stop cluster.				
(a-3)	[bongo] /bungu/ 'maggot'	[dongon] /dungun / 'ripe'	[ɖʒongoi] /ʒunguj/ 'tendon'	[gonga] /gunga/ 'raw'
(a-4)	[bomba] /bumba/ 'dust'	[domban] /dumban/ '(placename)'	[ɖʒomban] /ʒumban/ 'touch (NF)'	[kombala] /gumbala/ 'grub'
(a-5)	[bamba] /bamba/ 'guts'		[ɖʒambal] /ʒambal/ 'snake'	[kamba] /gamba/ 'cover (IMP)'
(a-6)	[boŋgo] /buŋgu/ 'knee'		[ɖʒoŋgora] /ʒuŋgura/ 'fish sp.'	[koŋgari] /guŋgari/ 'north'
(b): C2 is a semivowel.				
(b-1)	[bajan] /bajan/ 'sing (NF)'		[ɖʒajaiŋ] /ʒajari/ 'horse'	[gajana] /gajana/ 'father'
(b-2)			[ɖʒawa] /ʒawa / 'mouth'	[kawa] /gawa/ 'matter vomited'
(c): C2 is a liquid.				
(c-1)	[bari] /bari/ 'stone'	[darabila] /darabila/ 'neck'	[ɖʒaribaʒa] /ʒaribara/ 'good'	[kari] /gari/ 'sun'
(c-2)	[baʒin] /barin/ 'twist (NF)'		[ɖʒaʒin] /ʒaʒin/ 'woomera'	[kaʒil] /gaʒil/ 'type of boomerang'
(c-3)	[bolo] /bulu/ 'belly'	[dolobo] /dulubu/ 'Joyce Palmer'	[ɖʒolo] /ʒulu/ 'hip'	[kolobo] /gulubu/ 'wind'

(d): C2 is a stop.

C2 is /b/.

(d-1)	[baba] /baba/ 'stab (IMP)'	[daba] /daba/ 'black palm'	[ɖʒabale] /ʒabali/ 'kangaroo sp.'	[kaban] /gaban/ 'grub sp.'
(d-2)	[babina] /babina/ 'MM'		[ɖʒabino] /ʒabini/ 'Roderick Palmer'	[kabilgaba] /gabilgaba/ 'Townsville'

C2 is /d/.

(d-3)		[dodam] /dudam / 'wild peanut'	[ɖʒota] /ʒuda/ 'dilly bag'	[kota] /guda/ 'later'
-------	--	--------------------------------------	----------------------------------	-----------------------------

C2 is /g/.

(d-4)	[bigop] /bigup/ 'nail'	[degon] /digun/ 'dig (NF)'	[ɖʒigobina] /ʒigubina/ 'shooting star'	[gekobal] /gigubal/ 'Rosevale'
(d-5)	[bogan] /bugan/ 'bushfire'	[tokal] /dugal / 'fern sp.'	[tʃoka] /ʒuga/ 'smoke'	[koka] /guga/ 'skin'
(d-6)	[bagan] /bagan/ 'dig (NF)'		[tʃakai] /ʒagaj/ 'sand goanna'	[kakai] /gagal/ 'big'

(It might look as if [degon] /digu-n/ 'dig-NF' in (d-4) is a loan from English. However, probably this is not the case. There is no other instance of an English verb root combined with a Warrongo inflectional suffix. See 2.13.2 for loans from English.)

The syllable structure of these words may be shown as 'C1V1C2V2... or 'C1V1C2C3V...' 'C1' indicates the consonant of the first syllable, and 'V1' the vowel of the first syllable. And so on.

In (a-4), (c-1), (c-3) and (d-1), among the C1 stops, only /g/ is voiceless, and all the others are voiced. That is, there is a cut-off point between /ʃ/ and /g/. Probably the same applies to (a-5), (a-6), (b-2), (c-2), (d-2) and (d-3), although these sets are incomplete.

In (d-5), among the C1 stops, only /b/ is voiced, and all the others are voiceless. That is, there is a cut-off point between /b/ and /d/.

In (d-6), among the C1 stops, /b/ is voiced, while /ʃ/ and /g/ are voiceless. There is no suitable example involving /d/ as C1. The cut-off point may be either between /b/ and /d/, or between /ʃ/ and /g/.

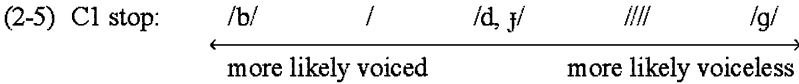
That is, there are at least four sets that have a cut-off point between /j/ and /g/. (This is shown by four slashes in (2-5).) There is at least one set that has a cut-off point between /b/ and /d/. (This is shown by one slash in (2-5).)

There is no evidence to set up a cut-off point between /d/ and /j/.

In (a-1), (a-2), (a-3), (b-1) and (d-4), all the C1 stops are voiced, and there is no cut-off point. (But (a-2) and (b-2) are incomplete.)

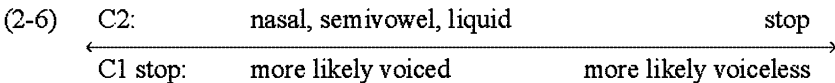
Note that, while no cut-off point can be set up for (a-3), there is a cut-off point in (a-4) (between /j/ and /g/) despite the similarity between the two sets in terms of the phonemic environments. The reason for this difference is not known.

These facts can be summarized as in (2-5).



Consider Table 2-4 again. In (a) (which involves a C2 nasal or a C2C3 nasal-plus-stop cluster), in (b) (where C2 is a semivowel), and in (c) (where C2 is a liquid, i.e. a rhotic or a lateral), if there is a cut-off point, it lies between /j/ and /g/. In contrast, in (d) (where C2 is a stop), if there is a cut-off point, it lies between /j/ and /g/ (e.g. (d-1) and possibly (d-2) and (d-3)) or between /b/ and /d/ (i.e. (d-5) and possibly (d-6)). That is, when C2 is a nasal, semivowel or liquid, it is only /g/ that may be voiceless. In contrast, when C2 is a stop, the cut-off point moves towards the front and, at least in (d-5), /d/ and /j/ as well as /g/ are voiceless.

The above may be restated as follows: C1 stop is more likely to be voiced when C2 is a nasal, semivowel or liquid than when C2 is a stop, and inversely, C1 is more likely to be voiceless when C2 is a stop than when C2 is a nasal, semivowel or a liquid.



2.1.3.2.3. Stop voicing (3): in the second syllable

We now turn to stops used intervocalically as C2, in the second syllable. See Table 2-5. The situation is not so neat as that in Table 2-4, which concerns C1 stops.

Table 2-5. Voicing of stops in the second syllables intervocalically (C2)

	-/b/-	-/d/-	-/ʃ/-	-/g/-
(a): C1 is a nasal.				
(a-1)	[maba] /maba/ 'milky pine'		[maɖʒan] /maʒan/ 'corky apple tree'	[makan] /magan/ 'false'
(b): C1 is a semivowel.				
(b-1)	[waban] /waban/ 'look for (NF)'	[wadalen] /wadalin/ 'run (NF)'	[waʃa] /waʒa/ 'crow'	[wagan] /wagan/ 'rise (NF)'
(b-2)	[jabala] /jabala/ 'fat (not thin)'	[jaɖaɪ] (?) /jaɖaɪ/ 'stingray'	[jaʃa] /jaʒa/ 'later'	[jakai] /jagaj/ 'Ouch!'
(c): C1 is a stop.				
C1 is /b/				
(c-1)	[baba] /baba/ 'stab (IMP)'	[bata] /bada/ 'downstream'	[baɖʒa] /baʒa/ 'bite (IMP)'	[baga] /baga/ 'dig (IMP)'
(c-2)	[babina] /babina/ 'MM'	[batigaran] /batigaran/ 'cry (ITER-NF)'	[baɖʒiɖʒila] /baʒiɖʒila/ 'bird sp.'	
C1 is /g/.				
(c-3)	[kaban] /gaban/ 'grub'	[kadala] /gadala/ 'dry'	[kaʃan] /gaʒan/ 'big grass'	[kakaɪ] /gagal/ 'big'
(c-4)	[kaba] /gaba/ 'white paint'	[kata] /gata/ 'possibly'	[kaʃa] /gaʒa/ 'head'	
(c-5)	[kobaɪ] /gubaɪ/ '(placename)'	[kota] /guda/ 'later'	[koʃa] /guʒa/ 'nose'	[koka] /guga/ 'skin'
(c-6)	[kopo] /gubu/ 'leaf'			[koko] /gugu/ 'language'
(c-7)	[geba] /giba/ 'scratch (IMP)'	[geto] /gidu/ 'cold'	[keɖʒoroɪ] /giʒuruɟ/ 'centipede'	[gekobaɪ] /gigubaɪ/ 'Rosevale'

(It is not definitely certain that the stop in /jada:/ 'stingray' in (b-2) was voiced ([d]).) Cut-off points can be recognized as follows.

- (a) Between /d/ and /ʃ/ in (b-2) (not definitely), and (c-3).
 (b) Between /b/ and /d/ in (c-5) and probably in (c-4) (but (c-4) is incomplete).

There is no evidence to set up a cut-off point between /ʃ/ (and other stops) and /g/. It may look as if (a-1) provides evidence for this differentiation, but this is not conclusive. (We shall return to this shortly.)

These facts show a tendency shown in (2-7). Note that (2-7) (which is based on Table 2-5 and concerns C2 stops) differs from (2-5) (which is based on Table 2-4 and concerns C1 stops) in that, while /ʃ/ is grouped together /d/ in (2-5), it is grouped together with /g/ in (2-7).

(2-7) (b-2) (?), (c-3), (c-4) (?), (c-5):

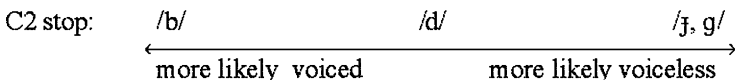
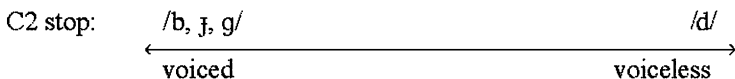


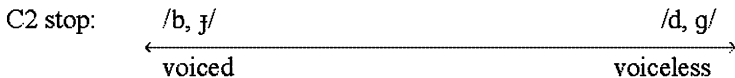
Table 2-5 differs from Table 2-4 in two important respects: the placement of /d/ and that of /ʃ/.

First, in (c-1) of Table 2-5, among the C2 stops, only /d/ is voiceless. This suggests the relative position of the stops as shown in (2-8). In (c-7) of Table 2-5, among the C2 stops, /g/ as well as /d/ are voiceless, and the others are voiced. This suggests (2-9).

(2-8) (c-1):



(2-9) (c-7):

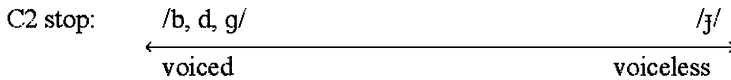


It is not known if (c-2) behaves like (c-1) or (c-7). As noted above, it may look as if (a-1) provides evidence for the cut-off point between /ʃ/ (and other stops) and /g/. However, it is possible that (a-1) behaves like (c-7), and in that case (a-1) does not supply this evidence.

Other examples in which a C2 /d/ is voiceless, include (i) [dotegaran] /dudigaran/ 'swing (ITER-NF)', (ii) [dʒito] /ʃidu/ 'torch', (iii) [kota] /guda/ 'later', (iv) [gote] /gudi/ 'back (Adv)', and (v) [jutin] /judin/ 'swim (NF)'

Second, in (b-1), among the C2 stops, only /ʃ/ is voiceless. This suggests (2-10).

(2-10) (b-1):



The placement of /d/ in (2-8) and (2-9) and that of /ʃ/ in (2-10), regarding voicing, deviate from the general tendency shown in (2-4). The reason for this deviation is not known. (But see (2-11).)

2.1.3.2.4. Stop voicing (4): effect of C2 nasal on C1 stop

As seen in (2-6), when C2 is a nasal, a semivowel or a liquid, the C1 stop is more likely to be voiced than when the C2 is a stop. Indeed, when C2 is a nasal, the C1 stop is voiced in perhaps the vast majority of cases. See (a) of Table 2-6, and also 2.1.2-[1]-(b). There are, however, exceptions, in which the C1 stop is voiceless. They are of two types.

- (a) The C2 nasal is /ŋ/. There is just one example: [kaŋalegan] /gaŋaligan/ ‘hairy being’ (cf. 1.5.8-[8]). See (b) of Table 2-6.
- (b) The C2 nasal is /n/. There are a fair number of examples, e.g. [kana] /gana/ ‘below’, and [kani] /gani/ ‘far’ See (b) and (c) of Table 2-6.

Table 2-6. Effect of C2 nasal on C1 stop

	-/m/-	-/n/-	-/ɲ/-	-/ŋ/-
(a)	[goman] /guman/ ‘other’	[gona] /guna/ ‘faeces’	[goɲaga] /gɲaga/ ‘bird sp. (?)’	
(b)	[gama] /gama/ ‘dance’	[kana] /gana/ ‘below’	[gaɲa] /gaɲa/ ‘hut’	[kaŋalegan] /gaŋaligan/ ‘hairy being’
(c)	[gami] /gami/ ‘FM’	[kani] /gani/ ‘far’	[kɕapin] /ɕapin/ ‘wake up (NF)’	

The reason for the voicelessness of the C1 stop /g/ of [kaŋalegan] /gaŋaligan/ is not known – except to note that /g/ is more likely voiceless than the other stops. See (2-4), among others.

In the examples of (b), it looks as if the C2 nasal /n/ has a ‘de-voicing’ effect on the C1 stop /g/ – an effect that may be termed ‘anticipatory de-voicing’. However, to complicate the matter, in this environment, /g/ is not necessarily voiceless, e.g. [gona] /guna/ ‘faeces’. The conditioning factor is not known.

Additional examples are given. (Note that the C1 stop /g/ may be voiceless when it is followed by not just /n/ (C2), but also a /n/-plus-stop cluster (C2C3).) (i) The C1 /g/ is voiceless: [kanibara] /ganibara/ 'dingo', [kanamale] /ganamali/ 'underneath', [kandaɽo] /ganda.ru/ 'hairy being' (1.5.8-[8]), [kangabo] /gangabu/ 'trident spear' (ii) The C1 /g/ is voiced: [ganimaɽa] /ganimara/ 'very far', [ganbamaɽa] /ganbama.ra/ 'long ago', [gando] /gandu/ 'dog'.

As seen above, in the only relevant example in which the C2 nasal is /ŋ/, the C1 /g/ is voiceless (i.e. [kaŋalegan]). When the C2 nasal is /n/, the C1 /g/ is voiceless in some words, and voiced in others. Also as stated above, when the C2 nasal is /m/ or /ɲ/, the C1 /g/ is always voiced. These facts suggest (2-11).

(2-11) C2 nasal:	/m, ɲ/	/n/	/ŋ/
C1 /g/:	← always voiced	voiced or voiceless	→ always (?) voiceless

To sum up, when C2 is a nasal, the C1 stop is voiced in perhaps the vast majority of cases. However, in a fair number of examples with the C2 /n/ for C2, the C1 stop /g/ is voiceless.

Now, compare (2-11) with (2-8) and (2-9). (2-8) and (2-9) jointly show that, when used as a C2 stop, the apico-alveolar /d/ is more likely to be voiceless than the bilabial /b/ and the lamino-palatal /ʃ/. (2-11) shows that, when used as C2, the apico-alveolar /n/ is more likely to 'devoice' the C1 stop /g/ than are the bilabial /m/ and the lamino-palatal /ɲ/. It may not be accidental that both /d/ and /n/ are apico-alveolar. It is possible, though by no means certain, that apico-alveolar-ness facilitates 'stop de-voicing'.

2.1.3.2.5. *Stop voicing (5): effect of V1 on C1 stop, and of V2 on C2 stop*

The quality of the V1 seems to have an effect on the voicing of C1 stops. Consider Table 2-7. Since /b/ used as C1 is almost always voiced (2.1.3.2.2), it is not included in Table 2-7.

Table 2-7. Effect of V1 on C1

	-i/-	-a/-	-u/-
(a) C1 is /d/.			
C2 is a stop.			
(a-1)	[degon] /digun/ 'dig (NF)'	[daba] /daba/ 'black palm'	[tokal] /dugal/ 'fern sp.'

(b) C1 is /j/.

C2 is a nasal.

(b-1)	[dʒiman] /jiman/ 'firestick'	[dʒamaŋ] /jamaŋ/ 'web'	[dʒomoboŋo] /jumuburu/ 'bullock'
(b-2)	[dʒina] /jina/ 'foot'	[dʒana] /jana/ '3PL.NOM/ERG'	[dʒono] /junu/ 'lust'

C2 is a liquid-plus-stop.

(b-3)	[dʒilbai] /jilbai/ 'knowing'	[dʒalɔŋ] /jalɔŋ/ 'meat'	[ʃolki] /julgi/ 'scrub'
-------	------------------------------------	-------------------------------	-------------------------------

C2 is a stop.

(b-4)	[dʒigobina] /jigubina/ 'shooting star'	[ʃakai] /ʃagaj/ 'sand goanna'	[ʃoka] /juŋa/ 'smoke'
-------	--	-------------------------------------	-----------------------------

(c) C1 is /g/.

C2 is a nasal.

(c-1)	[gima] /gima/ 'grub'	[gama] /gama/ 'dance type'	[goman] /guman/ 'other'
(c-2)	[gimbin] /gimbin/ 'blow (NF)'	[gambi] /gambi/ 'clothes'	[kombo] /gumbu/ 'buttocks'

C2 is a semivowel.

(c-3)	[gija] /gija/ 'hook'	[gaja] /gaja/ 'father'	[kojo] /guju/ 'bean'
-------	----------------------------	------------------------------	----------------------------

C2 is a stop.

(c-4)	[giban] /giban/ 'scratch (NF)'	[kaban] /gaban/ 'grub sp.'	[kobadʒi] /gubaj/ 'crocodile'
(c-5)	[geto] /gidu/ 'cold'	[kata] /gada/ 'possibly'	[kota] /guda/ 'later'
(c-6)	[keɟoroi] /giɟuroj/ 'centipede'	[kaɟa] /gaɟa/ 'head'	[kotʃa] /guɟa/ 'nose'

Cut-off points can be set up as follows.

- (a) Between /i/ and /a/ in (b-4), (c-4), (c-5).
 (b) Between /a/ and /u/ in (a-1), (b-3), (c-2), (c-3).

The C1 stop is invariably voiced in (b-1), (b-2), (c-1), and invariably voiceless in (c-6), and no cut-off point can be set up in them. These facts can be shown as in (2-12).

(2-12) V1:	/i/	/a/	/u/
C1 stop:	←—————→		
	more likely voiced		more likely voiceless

Probably this tendency has to do with the space above the glottis during the articulation of these vowels (2.1.3.2.1). That is, the more front the V1 is, i.e. the larger the space above the glottis is, the more likely the C1 stop is voiced. And the more back the V1 is, i.e. the smaller this space is, the more likely the C1 stop is voiceless.

Table 2-8. Effect of V2 on C2

	-/i/-	-/a/-	-/u/-
(a) C2 is /b/.			
(a-1)	[kabilgaba] /gabilgaba/ 'Townsville'	[kaban] /gaban/ 'grub sp.'	[kabol] /gabul/ 'carpet snake'
(a-2)	[kobi] /gubi/ 'native doctor'	[kobaɕi] /gubaji/ 'crocodile'	[kopo] /gubu/ 'leaf'
(b) C2 is /ʃ/.			
(b-1)	[kaɕi] /gaji/ 'maybe'	[kaʃa] /gaʃa/ 'head'	[kaʃo] /gaʃu/ 'white tree ant'
(b-2)	[waʃila] /waʃila/ 'testicles'	[waʃagan] /waʃagan/ 'crow'	[waɕon] /waʃun/ 'cook (NF)'
(c) C2 is /g/.			
(c-1)	[bigin] /bigin/ 'shield'	[bigal] /bigal/ 'death adder'	[bigop] /bagup/ 'nail'
(c-2)	[mogena] /mugina/ 'EB'	[mogan] /mugan/ 'get (NF)'	[moko] /mugu/ 'shin'

It should be noted in passing that Table 2-7 conforms to (2-6) in that, in the main, when C2 is a nasal (i.e. (b-1), (b-2), (c-1), (c-2)) or a semivowel (i.e. (c-3)) or a liquid (i.e. (b-3)), the C1 stop is more likely voiced than when C2 is a stop (i.e. (a-1), ((b-4), (c-4), (c-5), (c-6)).

Just as the V1 may influence the voicing of the C1 stop, the V2, too, seems to influence the voicing of the C2 stop. See Table 2-8. The tendency seems to be in accordance with (2-12). (But there is at least one set of exceptions. See below.) A cut-off point can be set up as follows.

- (a) Between /i/ and /a/ in (b-1).
- (b) Between /a/ and /u/ in (a-2) and (c-2).

The stop in question is voiceless when it is to the right of the cut-off point (as in Table 2-7). C2 is invariably voiced in (a-1) and (c-1), and no cut-off point can be set up.

The set of exceptions occurs in (b-2), where the C2 to the right of the cut-off point is voiced, and the C2 to its left is voiceless. The reason for the existence of this exceptional set is not known.

2.1.3.2.6. Stop voicing (6): in consonant clusters

Consonant clusters (2.2.6) can be classified as follows. (They occur word-medially, and not word-initially or word-finally.)

- [1] Nasal-plus-stop: (a-1) homorganic, and (a-2) heterorganic.
- [2] /j/-plus-stop (/b/, /ʃ/ or /g/).
- [3] Liquid (/r/, /l/ or /l/) plus-stop.
- [4] Liquid (/r/, /l/, /l/) or /j/-plus-nasal-plus-stop (the nasal and the stop are homorganic).
- [5] /dg/.

Each type will be discussed in the following.

[1] Nasal-plus-stop clusters

The stop is always voiced. There is no exception in my data. Nasals are always voiced (2.1.3.1), and the voicing of the nasal continues throughout the stop. This applies irrespective of whether the cluster is homorganic, e.g. (2-13), or heterorganic, e.g. (2-14).

(2-13)	[jamba]	[bandan]	[wandaŋa]	[mangga]
	/jamba/	/bandan/	/waŋja/	/mangga/
	'camp'	'emerge (NF)'	'where'	'flower'

(2-14)	[gonban]	[gonga]	[ɲongol]
	/gunban/	/gunga/	/ɲongol/
	'cut (NF)'	'raw'	'one'

[2] /j/-plus-stop (/b/, /ʒ/ or /g/) clusters

Here, too, the stop is always voiced. There is no exception in my data. Semivowels (e.g. /j/) are always voiced (2.1.3.1), and the voicing of the semivowel continues throughout the stop. (There is no example of /jd/.)

(2-15)	[boibon]	[koidʒari]	[baigaɟi]
	/bujbun/	/gujɟari/	/bajgaj/
	'spring water'	'scrub turkey'	'fig sp.'

Table 2-9. Stop voicing in liquid-plus-stop clusters (1)

	liquid-/b/	liquid-/d/	liquid-/ʒ/	liquid-/g/
stop				
voiced	+		+	+
voiceless	(+)		?	+

[3] Liquid (/r/, /l/ or /ʎ/) plus-stop clusters

Stop voicing in liquid-plus-stop clusters exhibits the tendency shown in Table 2-9. See Table 2-10 for examples. This tendency in the main conforms to that shown in (2-4). Note in particular that, in Table 2-10, /b/ is almost always voiced. But there is one exception: [ɲarpan] /ɲarban/ 'fast'. It occurs in (2-100). (In Tables 2-9 and 2-10 there is no example involving /d/. There is no cluster of liquid-plus-/d/ within a root (Table 2-18). There is one across a morpheme boundary (Table 2-19): /diŋgil~diŋgil/ 'bell'. But it is onomatopoeic, and it is not useful for the present purpose.)

[4] Liquid (/r/, /l/, /ʎ/) or /j/-plus-nasal-plus-stop

The nasal and the stop are homorganic. Here, too, the stop is always voiced (there is no exception). The liquids and semivowels (e.g. /j/) are always voiced (2.1.3.1), and their voicing continues throughout the stop.

(2-16)	[bormbon]	[kaɲdʒa]	[kalɲgan]	[dʒaimban]
	/burmbun/	/gaɲɲa/	/galɲgan/	/ɟajmban/
	'breathe upon [someone] (NF)'	'spit (noun)'	'fall (NF)'	'find (NF)'

Table 2-10. Stop voicing in liquid-plus-stop clusters (2)

	liquid-/b/	liquid-/d/	liquid-/ʒ/	liquid-/g/
(a) Liquid-stop-/a/.				
(a-1) The liquid is /r/.				
	[gorbaʒa]		[warɖʒan]	[karkai]
	/gurbara/		/warʒan/	/gargaʒ/
	‘three’		‘raft’	‘sparrow hawk’
	[ɽarpan]			
	/ɽarban/			
	‘fast’			
(a-2) The liquid is /ɹ/.				
	[ɖʒaɹban]			[ɖʒaɹgan]
	/ʒaɹban/			/ʒaɹgan/
	‘fish sp.’			‘enter (NF)’
				[ɖʒiɹka]
				/ʒiɹka/
				‘semen’
(a-3) The liquid is /l/.				
	[balban]			[balgan]
	/balban/			/balgan/
	‘bone’			‘hit (NF)’
	[kalbin]			[jalga]
	/galbin/			/jalga/
	‘child’			‘road’
(b) Liquid-stop-/i/.				
(b-1) The liquid is /r/.				
	[barbiɹa]		[balɖʒi]	[pirgil]
	/barbira/		/balʒi/	/birgil/
	‘echidna’		‘empty’	‘cold weather’
(c) Liquid-stop-/u/.				
(c-1) The liquid is /l/.				
	[ɖʒolbon]			[ɖʒalgoɹ]
	/ʒulbum/			/ʒalguɹ/
	‘spouse’			‘meat’
	[ʃolki]			
	/ʃulgi/			
	‘scrub’			

[5] /dg/

There is only one instance of a stop-plus-stop cluster: /dg/ (Table 2-19). This occurs in one of the three forms of the dative of the word /waɾaji/ 'one's own'. The stops are always voiceless, and never voiced.

- (2-17) [waɾaetko]
 /waɾaji-d-gu/
 'one's.own-LINK-DAT'

/d/ is a linking interfix. Etymologically, /waɾaji/ 'one's own' seems to contain the comitative case suffix, whose allomorphs are as follows.

- /ji/ [dʒi] following a consonant
 /ji/ [i] following a vowel

It is in view of this that [e] in [waɾaetko] is analyzed as /ji/. See 2.1.5.1.2-[3]-(b-2) and 3.6.8.

2.1.3.2.7. *Stop voicing (7): concluding remarks*

From 2.1.3.2.1 to 2.1.3.2.6, we have looked at a fair number of tendencies regarding stop voicing (a few of which are exceptionless). They work well in some instances. For example, as seen repeatedly, among the stops, /g/ is the most likely to be voiceless. Also, as seen in Tables 2-7 and 2-8, and (2-12), among the vowels, /u/ is the most likely to make the preceding stop voiceless. On the basis of these, /gugu/ 'language', for example, will be expected to involve the voiceless allophone: [k]. Indeed, Alf Palmer pronounced it as [koko]. Also, it was perceived by Rachel Wilson as involving the voiceless allophone, and was written down by her as 'coco'. See (1-16) and (1-17). Another example is /gubu/ [kopo] 'leaf'; even /b/ is voiceless.

However, despite all this, the account given above is far from complete, and it is still impossible to predict voicing (or de-voicing) of all instances of stops. For example:

- (2-18) [báɖʒan] [bátʃabátʃanjan] [bátʃobala]
 /baʒan/ /baʒabaʒanjan/ /baʒubala/
 'bite (NF)' 'finish up (NF)' 'Kirrama Station'

- (2-19) [gándo] [kandáɽo]
 /gandu/ /ganda.nu/
 'dog' 'imaginary hairy being (1.5.8-[8])'

Factors such as the following may be involved: (i) the length of the word, (ii) the number of the syllables that follow the stop in question, and (iii) the location of stress or pitch.

Degree of voicing varies among Australian languages. For example, Biri (recorded from, e.g., Harry Johnson and Eddy Barker in the early 1970s) and Buluguyban (recorded from Reggie Palm Island in the early 1970s) are more heavily voiced than Warrongo (at least, in Alf Palmer's pronunciation). For instance, as noted in 1.5.3, /gabul/ 'carpet snake' was pronounced [kabol] by Alf Palmer, and [ɟabol] by Reggie Palm Island. In contrast, Djaru (Tsunoda 1981a: 24–25) appears to be voiced roughly to the same extent as Warrongo. Thus, Warrongo has [makan] /magan/ 'false' and Djaru has [makan] /magan/ 'morning'.

2.1.4. Allophones of vowels

Vowels have 'clear' and 'pure' articulation, and they are never diphthongized (cf. Patz 2002: 21). Nor are they pronounced as a schwa, in contrast with certain vowels of English.

Conditioning factors regarding the allophones of vowels seem less complicated than those for stop voicing, and they have been worked out more clearly than those for stop voicing.

Vowel allophones will be generally written in a broad notation, except for the allophones of /a/ (2.1.4.1). Also, the vowel in question will be shown in bold face where deemed useful.

2.1.4.1. /a/

/a/ is generally an unrounded open vowel. It is somewhere between an unrounded front open vowel [a] and an unrounded back open vowel [ɑ]. (These two allophones are written in a narrow notation.) But there appears to be no suitable IPA symbol for this vowel, and the IPA symbol for an unrounded front open vowel, i.e. [a], is used in the present work. (This is a broad notation.) See 2.1.1 and 2.1.2 for examples. This vowel seems virtually identical to the major allophone of the vowel phoneme /a/ of Tokyo Japanese, and it is very similar to, but probably slightly more front than, the vowel of the Australian English *but*, *cut*, etc. (i.e. [ʌ] in a narrow notation).

When /a/ is preceded by a palatal consonant or semivowel (ʃ, ɲ, j/), it is an unrounded front (not back) open vowel [a] (in a narrow notation) e.g.:

(2-20)	[ɟʒami]	[ɟʒawa]	[ɲando]	[ɲawa]	[jaŋa]	[jaro]
	/jami/	/jawa/	/nandu/	/nawa/	/jaŋa/	/jaro/
	'fat (noun)'	'mouth'	'ignorant'	'NEG'	'mother'	'here'

2.1.4.2. /u/

/u/ has two allophones: a close-mid [o] and a close [u]. (They do not involve a significant lip rounding.) Its phonetic value varies depending on the preceding consonant:

[o] or [u]: /bu/, /mu/, /ju/.

[o] only: /du/, /ɟu/, /gu/, /nu/, /ɲu/, /ɽu/, /ru/, /ɬu/, /wu/.

That is, /u/ is almost always [o], and it is [u] only in exceptional cases. See 2.1.1 and 2.1.2 for examples of [o]. As noted in 2.1.3.2.7, the word /gugu/ (phonetically [koko]) ‘language’ was perceived by Rachel Wilson as involving [o], and was written ‘coco’. The exceptional cases will be discussed in 2.1.4.4. (/wu/ is [o], and it does not contain [w]. See 2.1.5.2.)

Grammars of Australian languages generally do not mention the existence of the allophone [o] of the vowel phoneme /u/. However, in Warrongo, [o] is clearly the predominant allophone, as in Djaru (Tsunoda 1981a: 26).

2.1.4.3. /i/

/i/ has two major allophones: a close [i] and a close-mid [e]. But /i/ is often realized somewhere between [i] and [e], and it is not easy (and possibly not significant) to distinguish between them.

A close [i] is more frequent than a close-mid [e]. Recall that /u/ is almost always a close-mid [o], and not a close [u]. That is, the phonetic realizations of /u/ and /i/ are not parallel in terms of height.

The phonetic value of /i/ varies depending on the preceding consonant.

[1] [i] only, and never [e]: /ji/, /ɲi/, /ŋi/, /wi/.

[2] [i] or [e]: /bi/, /di/, /gi/, /mi/, /ni/, /ri/, /ɽi/, /li/.

[3] /ji/: see [1] below and 2.1.5.1.2.

We shall look at [1] and [2] in the following, and [3] separately, in 2.1.5.1.2.

[1] /ji/, /ɲi/, /ŋi/, and /wi/

Here, /i/ is always [i], and never [e]. There is no instance of [dʒe] (or [tʃe]), [ɲe], [ŋe] or [we] in my data. Examples:

- (2-21) /ji/: [dʒiba] /jiba/ ‘liver’, [watʃila] /waʃila/ ‘testicles’
 /ɲi/: [ɲinan] /ɲinan/ ‘sit (NF)’
 /ŋi/: [ŋiɽɲ] /ŋiɽɲ/ ‘little finger’
 /wi/: [wingaɽ] /wingaɽ/ ‘fish’

/ji/ (i.e. the semivowel plus the vowel) is [i], [e] or [iɪ]. See 2.1.5.1.2. But it is never [je]. In this respect, it resembles /ɟi/, /ɲi/, /ŋi/, and /wi/.

/j/, /ɲ/ and /j/ are lamino-palatal, and /ŋ/ and /w/ are dorso-velar. They do not allow the following /i/ to be [e]. /g/ is an exception here. It is dorso-velar, but there are [ge] as well as [gi]. See [2]-(e) below.

[2] /bi/, /di/, /gi/, /mi/, /ni/, /ri/, /si/, /li/
 [2]-(a) /li/ and /il/

/l/ has what may be termed 'lowering effect' on /i/ that follows (i.e. /li/) or that precedes (i.e. /il/). This effect is fairly pervasive. We shall look at /li/ and /il/.

First, /li/. It is almost always [le], rather than [li]. The lowering effect of /l/ is clearly seen in the following minimal pairs:

(2-22)	[ŋaɖʒi]	[ŋale]
	/ŋaʒi/	/ŋali/
	'mother's father'	'1DU.NOM/ERG'

(2-23)	[kobi]	[gole]
	/gubi/	/guli/
	'native doctor' (1.5.8-[7])	'angry'

But there are a few exceptions that occur under a definable condition; see 2.1.4.4-[2], -[3].

Second, /il/. It is almost always [el], rather than [il].

(2-24)	[baɲin]	[baɲelen]
	/baɲi-n/	/baɲi-li-n/
	'twist-NF'	'twist-REFL-NF'

(The morpheme boundaries are included in the phonemic presentations in (2-24). This is in order to facilitate the comparison.) Note that, as expected, /baɲilin/ has [el], and not [il].

There are at least three exceptions. (i) The noun [diŋgildiŋgɪl] /diŋgɪl-diŋgɪl/ 'bell'. It is an ideophone, and ideophones may possibly be exempt from this lowering effect; see 2.12. (ii) The noun [bilɔŋgɪr] /bilɔŋgɪr/ 'blanket'. It is a loan from English, and it has not been completely adapted to the Warrongo phonology (2.13.2-[1]-(a)). (iii) No explanation is forthcoming for the third exception: the placename [waŋgondila] /waŋgundila/. It is possible, though by no means certain, that this placename is non-Warrongo (see 2.2.6.1), and that consequently it is exempt from the lowering rule.

As mentioned in 2.1.4.2, /u/ is almost always [o]. Therefore, the issue of the lowering effect of /l/ is irrelevant.

Furthermore, /l/ seems to have a 'long distance' effect in certain instances. Thus, compare:

(2-25)	[kobi]	[kobembolo]
	/gubi/	/gubimbulu/
	'native doctor'	'native doctor'

[kobembolo] has [be], and not [bi]. The lowering effect of /l/ seems to have reached the V2 /i/, extending over the intervening /mbu/. (The lowering effect of /l/ on the /i/ that follows, is observed in Djaru as well, e.g. [kale] /gali/ '(man's) sister's child'.)

[2]-(b) /ri/ and /ir/

/r/, too, has a lowering effect. But there are exceptions to it; see (2-31) and (2-32). Its effect does not seem so forceful as that of /l/. We shall look at /ri/ and /ir/.

First, /ir/. This effect is clearly seen in the near-minimal pairs (shown in columns) listed in Table 2-11. The C2 of the words in (b-1) and (b-2) is /r/, i.e. /i/ that precedes /r/, is 'lowered', i.e. [e], and not [i].

Second, /ri/. The lowering effect of /r/ seems to be even weaker than is the case with /ir/. Indeed, there are a small number of examples of /ri/ in which /i/ is 'lowered' to [e], e.g. [kaʃoren] /gaʃorin/ Vi 'go past'. However, there are a larger number of examples in which /i/ is not lowered, e.g.:

(2-26)	[bari]	[dʒaribaʒa]	[dʒori]	[kari]	[koŋgari]
	/bari/	/ʒaribara/	/ʒuri/	/gari/	/guŋgari/
	'stone'	'good'	'alongside'	'sun'	'north'

Table 2-11. Lowering effect of /r/

(a-1)	[bigon]	[bimona]	[dimaniŋ]	[gima]
	/biguŋ/	/bimuna/	/dimaniŋ/	/gima/
	'nail'	'father's sister'	'flea'	'grub'
(b-1)	[berogai]	[berawan]	[derabigal]	[geramai]
	/birugaj/	/birawan/	/dirabigal/	/giramaŋ/
	'womb'	'talk-RECP-NF'	'(placename)'	'Girramay'
(a-2)	[ʃiban]			
	/riban/			
	'heated stone'			
(b-2)	[ʃera]			
	/iira/			
	'tooth'			

The 'lowering effect' of consonants (not necessarily liquids) has been reported for Kuku Yalanji (Patz 2002: 21–22) and Kayardild (Evans 1995: 58–59). According to Tatsuyuki Mimura (p.c.), *r*-sounds in Danish and Norwegian have the effect of vowel lowering.

[2]-(c) /i/ and /ɪ/

First, /ɪ/. /i/ appears to be always [i], and /ɪ/ does not seem to have a lowering effect.

(2-27)	[bi.ɔ]	[bi.ɔgo]
	/bi.ɪ/	/bi.ɪgu/
	'gully'	'wife'

Second, /i/. In most of the instances, /i/ is [i], and /ɪ/ does not have a lowering effect. See (c-2) of Table 2-4 for examples. However, there are at least two instances in which /i/ is [e], and /ɪ/ has a lowering effect; see (2-28). The conditioning factor is not known. It may, or may not, be relevant that these two examples involve the applicative suffix /i/. (See 4.14 for the applicative construction.)

(2-28)	[ɲina.ɟen]	[ɲani.ɟen]
	/ɲina-ɪ-n/	/ɲani-ɪ-n/
	'sit-APPL-NF'	'go-APPL-NF'

Needless to say, /i/ is [e] when it is within the scope of a lowering effect. For example, (i) lowering effect of /l/: [ba.ɟelen] 'twist-REFL-NF' in (2-24), and (ii) lowering effect of /r/: [ɟera] 'tooth' in (b-2) of Table 2-11.

[2]-(d) /ni/

Here, /i/ is almost always [i], e.g. (i) [kani] /gani/ 'far', (ii) [ɲani] /ɲani/ 'ground', (iii) 'what' [ɲani] /ɲani/ 'what'. However, /i/ is [e] when it is within the scope of a lowering effect. There is at least one instance:

(2-29)	[ɲoni]	[ɲonero]
	/ɲuni/	/ɲuni=ru/
	'there'	'there=again'

Furthermore, there is at least one instance of [e] that is not within the scope of a lowering effect (the reason for this is not known); compare [newan] /niwan/ 'louse egg' and [ɲinan] /ɲinan/ 'sit (NF)' (2.1.2-[3]-(b)).

[2]-(e) /bi/, /di/, /gi/ and /mi/

Here, even where /i/ is not in the scope of any lowering effect, [e] as well as [i] are observed. It is difficult to discern any tendency. Examples are in Table 2-4: (a-1) and (d-4), among others. Recall ([1] above) that /gi/ is exceptional in that, despite its dorso-velar-ness, [e] as well as [i] are observed. Impressionistically, [e] appears to be more frequent than [i] for /gi/, e.g.:

- (a) [e] for /gi/: (i) [geba] /giba/ 'liver', (ii) [mogena] /mugina/ 'elder brother', (iii) four examples in (c-7) of Table 2-5.
 (b) [i] for /gi/: (i) [gɪma] /gɪma/ 'grub', (ii) [gɪja] /gɪja/ 'hook'.

[2]-(f) Summary of lowering effect

As seen above, the lowering effect is very strong with /l/ (a liquid), less so with /r/ (another liquid), very weak with the third liquid /ɹ/, and apparently non-existent with the other consonants (i.e. stops and nasals) and the semivowels. That is:

(2-30) Lowering effect:

/l/ > /r/ > /ɹ/ > stops, nasals, semivowels

2.1.4.4. /i/ and /u/

It is useful to discuss /i/ and /u/ jointly. See Table 2-12. The asterisk means ‘not attested’. ‘C’ stands for a consonant or a semivowel. To be precise, in Table 2-12, C may be a cluster: CC or CCC. Comments on Table 2-12 follow.

Table 2-12. /i/ and /u/

	/CiCi/	/CuCu/	/CiCu/	/CuCi/
(a)	[CiCi] [bigin] /bigin/ ‘shield’	*[CuCu]	[CiCu] [budʒinburam] /buʒinburam/ ‘cockroach’	[CuCi] [buʒi] /buri/ ‘fire’
(b)	[CiCe] [imerin] /jimirin/ ‘be glad (NF)’	*[CuCo]	[CiCo] [bigop] /bigup/ ‘nail’	[CuCe] [bajumberi] /bajumbiri/ ‘(name)’
(c)	[CeCi] [bajumberi] /bajumbiri/ ‘(name)’	*[CoCu]	*[CeCu]	[CoCi] [kolbila] /gulbila/ ‘south’
(d)	[CeCe] [baʒelen] /bairi-li-n/ ‘twist-REFL-NF’	[CoCo] [kopo] /gubu/ ‘leaf’	[CeCo] [kedʒoroi] /gijuruj/ ‘centipede’	[CoCe] [mogena] /mugina/ ‘elder brother’

[1] /CuCu/

/CuCu/ is always [CoCo], e.g. [kopo] /gubu/ ‘leaf’ in (d). (In Warrongo, /u/ is almost always [o] (2.1.4.2).) The height of the vowel is constant and it is close-mid. It is never [CuCu] (cf. (a)), [CuCo] (cf. (b)), or [CoCu] (cf. (c)). There are many other examples: (i) [bolo] /bulu/ ‘belly’, (ii) [boŋgo] /buŋgu/ ‘knee’, (iii) [dolobo] /dulubu/ ‘Joyce Palmer’, (iv) [koko] /gugu/ ‘language’, (v) [moko] /gugu/ ‘shin’. As repeatedly noted, /gugu/ ‘language’ was perceived as [koko] and written ‘coco’ by Rachel Wilson.

[2] /CiCi/

Likewise, /CiCi/ is predominantly [CiCi], e.g. [bigin] /bigin/ in (a), and the height of the vowel is constant and it is close. There are many other examples: (i) [bibi] /bibi/ 'clitoris', (ii) [biɟi] /biri/ 'the Biri language', (iii) [gimbin] /gimbin/ 'wind blow (NF)'

Another example of [CiCi] is [ɖɟidɟi] /ɟiɟi/ 'a sore'. It is possible to say that /ɟiɟi/ is [ɖɟidɟi] because /ɟi/ is never [ɖɟe] (2.4.1.3-[1]).

Also consider:

(2-31) [ɖɟili] [bilidɟi]
 /ɟili/ /biliɟi/
 'eye' 'dawn'

Note that, in (2-31), all the occurrences of /i/ that precedes or follows /l/ are [i], and not [e]. This suggests that the tendency for /CiCi/ to be [CiCi] outranks the lowering effect of /l/. These are exceptions to the lowering effect of /l/ mentioned in 2.1.4.3-[2]-(a).

There are, however, complications. Consider:

(2-32) [pirgil] [biri] [birin] [ɖɟigirdɟigir]
 /birgil/ /biri/ /birin/ /ɟigir~ɟigir/
 'cold weather' 'near' 'send (NF)' 'willy wagtail (bird sp.)'

(2-33) [biɟɟilbiɟɟilen]
 /biɟɟil~biɟɟili-n/
 'feel good (NF)'

(2-34) [imerin] [imerimeren] [meridɟin]
 /jimiri-n/ /jimir~jimiri-n/ /miriɟi-n/
 'be glad (NF)' 'be glad (NF)' 'feel itchy (NF)'

(2-35) [bajumberi] [olmeri]
 /bajumbiri/ /wulmiri/
 '(name) (1.5.4.2-[1])' '(one of the sections)' (Table 1-8)

(See 3.11.1.6-[7] and 3.11.1.7-[3], -[7] for the formation of the words in (2-32) and (2-33), respectively, except for /miriɟi-n/ Vi 'feel itchy' (L-class).) In (2-31), /i/ is consistently [i]. Here the tendency for /CiCi/ to be [CiCi] outranks the lowering effect of /l/ or that of /r/ (2.1.4.3-[2]-(b)), and these words are exceptions to these lowering effects. In contrast, the examples in (2-32) to (2-35) do not consistently follow this tendency (/CiCi/ [CiCi]). Nor does the lowering effect of /l/ or /r/ seem to operate consistently. These words appear to be exceptions to these lowering effects. No factor is known that may condition the occurrence of [e] and [i] in them.

The word [birin] /birin/ 'send (NF)' was perceived by Rachel Wilson as involving [i], and was written as 'birin'. See (1-16) and (1-17).

We have said that /CiCi/ is predominantly [CiCi]. Elsewhere, i.e. [CiCe], [CeCi], and [CeCe], one of the vowels or both vowels are lowered.

/CiCi/ is [CiCe] when the second /i/ is lowered. In [imerin] /jimirin/ ‘be glad and smiling (NF)’ of (b) of Table 2-12, /i/ of /mi/ is lowered by /r/.

/CiCi/ is [CeCi] when the first /i/ is lowered. In [imerin] /jimirin/ of (c), /i/ of /mi/ is lowered by /r/. (But it is not known why /i/ of /ri/ is not lowered.)

/CiCi/ is [CeCe] when the two occurrences of /i/ are lowered. In [baɣelen] /bari-li-n/ ‘twist-REFL-NF’ of (d) (of Table 2-12), they are lowered by /l/. Here, the height of the vowel is constant and it is close-mid.

Note that /CuCu/ is always [CoCo], whereas /CiCi/ is predominantly, but not always, [CiCi]. That is, phonetically they are not parallel in terms of vowel height.

[3] /CiCu/

This is generally either [CiCo] (see (b)) or [CeCo] (see (d)). That is, /Cu/ is generally [Co]. (Recall that, in Warrongo, /u/ is almost always [o].)

Examples of [CiCo] include [biɣo] /biɣu/ ‘gully’, (ii) [ɖʒito] /ʒidu/ ‘torch’, (iii) [ɖʒigobina] /ʒigubina/ ‘shooting star’

There are many examples of [CeCo], and most of them involve [ge] /gi/. As mentioned in 2.1.4.3-[2]-(e), for /gi/, [e] appears to be more frequent than [i]. Examples: (i) [kedʒoroi] /giɣuruj/ ‘centipede’ in (d), (ii) [berogai] /birugaj/ ‘womb’, (iii) [geto] /gidu/ ‘cold’, (iv) [gekobal] /gigubal/ ‘Rosevale’, (v) [geɣogeɣo] /giuguru/ ‘large intestines (?)’

There is no example of [CeCu] (see (c)).

There are at least four examples of [CiCu] (see (a)). They are [budʒinburam] /buɣinburam/ ‘cockroach’ in (a) and:

(2-36) [budʒibudʒibin]
/buɣi~buɣi~bi-n/
‘fart~fart-INTR-NF’

(2-37) [budʒilbudʒil] [budʒilbudʒilen]
/buɣil~buɣil/ /buɣil~buɣili-n/
‘taking no notice’ ‘do not care (NF)’

(/ɣi/ of these words is [ɖʒi] and not [ɖʒe]. That is, the following /l/ does not lower the preceding /i/. Recall that /ɣi/ is never [ɖʒe]. See 2.1.4.3-[1]. This is an exception to the lowering effect of /l/ mentioned in 2.1.4.3-[2]-(a). See 3.11.1.6-[5], -[7] for the formation of the words in (2-36) and (2-37).)

[4] /CuCi/

[CuCi] is not common. Examples include [buɣi] /buri/ ‘fire’ in (a), and:

(2-38) [muɣi] [bundip] [budʒinburam] [juɣin]
/muri/ /bundip/ /buɣinburam/ /judi-n/
‘greedy’ ‘grasshopper’ ‘cockroach’ ‘swim-NF’

(2-39) [ju:ji] [ju:ji:]
 /ju:ji/ /ju:ji-ji/
 'kangaroo' 'kangaroo-COM'

(2-40) [budʒi] [budʒi:] [budʒibudʒibin]
 /buʒi/ /buʒi-ji/ /buʒi~buʒi-bi-n/
 'fart' 'fart-COM' 'fart~fart-INTR-NF'

(2-41) [budʒilbudʒil] [budʒilbudʒilen] [budʒilmban]
 /buʒil~buʒil/ /buʒil~buʒili-n/ /buʒil-mba-n/
 'taking no notice' 'do not care (NF)' 'take no notice of (NF)'

(See 3.11.1.6-[2], [5], -[7] for the formation of the words in (2-40) and (2-41).)

[CuCe] is not common. There is only one example, i.e. [bajumberi] /bajumbiri/ 'name' in (b).

[CoCi] is common. There are many examples (recall that /u/ is almost always [o]), including [kolbila] /gulbila/ 'south' in (c), and:

(2-42) [bobin] [dʒombi] [dʒori]
 /bubin/ /ʒumbi/ /ʒuri/
 'pluck (NF)' 'penis' 'alongside'

(2-43) [kobi] [kodʒilamila] [koi:]
 /gubi/ /guʒilamila/ /guʒi/
 'native doctor' '(placename)' 'hungry'

([dʒori] /ʒuri/ is an exception to the lowering effect of /r/.)

[CoCe], too, is common. There are many examples, including [møgena] /mugina/ 'elder brother' in (d), and:

(2-44) [bogeba] [kobembolo] [gole] [katforen]
 /bugiba/ /gubimbulo/ /guli/ /gaʒorin/
 'old woman' 'native doctor' 'angry' 'go past (NF)'

([gole] is an example of the lowering effect of /l/; see (2-23). [katforen] is an example of the lowering effect of /r/.)

As noted above, in Warrongo, /u/ is almost always [o], and not [u]. All the attested examples of /u/ [u] are listed in (a) to (c) of Table 2-12, and in (2-36) through (2-41). The conditioning factor for the occurrence of [u] is not known. At least, the following can be stated regarding the words that contain /u/ [u].

- (a) Most of them consist of, or contain, a root that contains /CuCi/. (/C/ may be a cluster.)
- (b) The first C is either a labial consonant (/b/ or /m/) or the palatal /j/. It is not alveolar or velar.

Except for [bajumberi] /bajumbiri/ '(name)' (in which /i/ is lowered by the following /r/ and which has [CuCe]):

- (c) the second C is /d/, /ʒ/, /ɹ/ or /nd/, i.e. it is not peripheral, and;
- (d) the phonetic value of /Ci/ is [Ci], i.e. /CuCi/ is [CuCi].

2.1.5. Problems with /j/ and /w/

The analysis of the semivowel phonemes /j/ and /w/ is problematic. In particular, the analysis of /j/ adopted below is inconsistent, and its phonetic value in a given phonemicization will be sometimes very difficult to know.

2.1.5.1. /j/

2.1.5.1.1. *Introductory notes*

/ja/ and /ju/ are straightforward. /ja/ is [ja], and /ju/ is [jo] or [ju].

(2-45)	[jamba]	[jomal]	[jutin]
	/jamba/	/jumal/	/judin/
	'camp'	'body'	'swim (NF)'

Problematic are the following two cases. According to the analysis adopted, they have the following allophones.

- (a) /ji/: [i] (frequent), [e] (infrequent), [i:] (infrequent).
- (b) /jC, /j/#: [i] (frequent), [e] (infrequent).

In (b), /j/ is followed by a consonant (/jC/) or by a word boundary (/j/#) (i.e. /j/ in a word-final position). As noted in 2.1.4.3-[1], /ji/ is never [je]. Nor is it [e:]. Phonetically, there is no [e:] in Warrongo. [e:] occurs in two loan words, and it is tentatively analyzed as /iji/: (i) [ʔobɛɹ] /rubijir/ 'Rosevale', and (ii) [bɛɹta] /bijid-a/ 'bed-LOC' (see 2.13.2-[2]-(d), -(f)).

2.1.5.1.2. *Allophones of /ji/*

The distribution of the allophones of /ji/ (except for [e:]), with examples, is shown in Table 2-13. An asterisk means 'not attested'.

[1] Word-initial position

For a word-initial position, many grammars of Australian languages report the existence of [ji], in addition to [i]. However, in Warrongo, Djaru (Tsunoda 1981a: 33),

and all other Australian languages I have listened to, in this position phonetically [ji] does not occur (and not in any position of a word, for that matter), and only [i] is observed. In the present work, a word-initial [i] is analyzed as /ji/, i.e. CV, rather than as /i/, i.e. /V/, see (a) of Table 2-13. This is in order for this sound to conform to the general phonotactic patterns of Warrongo, as shown below. Thus, consider:

- (2-46) [inda] ‘2SG.NOM/ERG’
 /jinda/ (adopted) /inda/ (not adopted)
 CVC_CV VC_CV
- (2-47) [igara] ‘freshwater lobster’
 /jigara/ (adopted) /igara/ (not adopted)
 CV_CV_CV V_CV_CV

(Syllable boundaries are indicated by an underbar.) An analysis that adopted /inda/ and /igarara/ would have to recognize a vowel phoneme in the word-initial position. It would also set up the syllable patterns ‘VC’ and ‘V’. The syllables ‘VC’ and syllable ‘V’ do occur, but they are extremely uncommon (2.2.3.1-[1]). It is in view of these facts that a word-initial [i] is analyzed as /ji/, and not /i/. For the ‘C’, the homorganic semivowel /j/ has been selected. (Crosslinguistically, syllables starting with a vowel seem less common than those starting with a consonant; see Jakobson 1971: 526.)

Table 2-13. Allophones of /ji/

	word-initially	word-medially	word-finally
(a)	#[i]- [inda] /jinda/ ‘2SG.NOM/ERG’	-[i]- [maɲɖgaita] /maɲja-ji-da/ ‘food-COM-LOC’	-[i]# [maɲɖgai] /maɲja-ji/ ‘food-COM’ [buɖʒi] /buɲji-ji/ ‘fart-COM’
(b)	*#[e]	-[e]- [waɲaetko] /waɲaji-d-gu/ ‘one’s.own-LINK-DAT’	*-[e]#
(c)	*#[i:]-	-[i:]- [mai:gan] /majigan/ ‘cut (NF)’	-[i:]# [wai:] /waji/ ‘(question marker)’

[2] Word-final position

Here, /ji/ has two allophones: [i] and [i:].

(a) The allophone [i]

The comitative case suffix (3.6.8) has the following allomorphs.

[ɖʒi] /ji/ following a consonant.

[i] /ji/ following a vowel.

- (2-48) [morandʒi] [maŋgai]
 /muran-ji/ /maŋga-ji/
 'illness-COM' 'flower-COM'

The allophone [i] /ji/ occurs in the allomorph that follows a vowel. Here, analysis of [i] as /ji/, and not /i/, sets up a neat morphophonemic alternation between /ji/ and /jɪ/, both have the 'CV' pattern. In contrast, recognition of /i/, rather than /ji/, would make the alternation asymmetrical; one allomorph would have 'CV', and the other would have 'V'. The comitative [i] /ji/ often occurs in a word-final position.

Now, consider:

- (2-49) [budʒi:] [ɖʒami:] [juɹi:]
 /buji-ji/ /ʒami-ji/ /juɹi-ji/
 'fart-COM' 'fat-COM' 'kangaroo-COM'

Here, [Ci:] is analyzed as /Ci-ji/. These are additional examples of the comitative [i] /ji/ in a word-final position.

(b) The allophone [i:]

A word-final [i:] that follows a vowel is analyzed as /ji/. (The examples in (2-49) involve a word-final [i:] that follows a consonant, and not a vowel.) There are at least five examples. See (2-50) and (2-65). The ex. (2-51) may be considered another instance. (In (2-50) and (2-65), stress is indicated. A phonetically long vowel is often (though not always) stressed. See 2.7-[7].)

- (2-50) [koí:] [ŋáí:] [wáí:] [ái:]
 /guji/ /ŋaji/ /waji/ /aji/
 'hungry' 'Really?' '(question marker)' 'Yes!', 'Well'

- (2-51) [i:]
 /jji/
 'Yes!'

[3] Word-medial position

Here, /ji/ has three allophones: [i], [e] and [i:].

(a) The allophone [i]

(a-1) The allophone [i] (Part 1). The comitative allomorph [i] /ji/ (following a vowel) may occur word-medially, followed by another case suffix. See (a) of Table 2-13.

(a-2) The allophone [i] (Part 2). Consider (2-52) and (2-53). [oi] is analyzed as /uji/.

(2-52) [boin] 'eyelash'
 /bujin/ (adopted) /bujn/ (not adopted)
 CV_CVC CVCC

(2-53) [moin] 'stone tomahawk'
 /mujin/ (adopted) /mujn/ (not adopted)
 CV_CVC CVCC

An alternative analysis is to set up a consonant cluster in a word-final position, as shown above, e.g. /bujn/ CVCC. However, elsewhere in the language, consonant clusters are absent word-finally (2.2.6), and this analysis has been avoided.

(a-3) The allophone [i] (Part 3). [i:] plus the preceding consonant, i.e. [Ci:], is analyzed as /Ciji/. The only example is:

(2-54) [dʒalŋi:ji]
 /jalŋijiji/ 'Cameron Hill' (i.e. Mt. Cameron?) (Map 3)

(a-4) The allophone [i] (Part 4). Consider:

(2-55) a. [imerin]
 /jimiri-n/
 b. [imer-imeren] [imerimeren]
 /jimir~jimiri-n/ /jimir~jimiri-n/

Both words mean 'be glad and smiling (NF)'. The reduplicated form was pronounced as [imer-imeren] at least on one occasion; [r] and [i] were pronounced separately. However, almost always it is pronounced as [imerimeren]; it contains [ri] at the morpheme boundary. The segments at the morpheme boundary are analyzed as /r-ji/ (not /ri/). See 3.11.1.7-[4], -[5], -[6] for more examples of reduplication involving /r-ji/.

(b) The allophone [e]

(b-1) The allophone [e] (Part 1). Consider:

(2-56)	[baɹɪn] /baɹi-n/ 'twist, turn-NF'	[baɹɛlbaɹɛl] /baɹɪl~baɹɪl/ 'difficult' [e.g. language]	[baɹɛlen] /baɹi-li-n/ 'turn-REFL-NF'
	[bain] /baɹi-n/ 'twist-NF'	[baɛlbaɛl] /baɹɪl~baɹɪl/ 'cunning'	[baɛlen] /baɹi-li-n/ 'turn-REFL-NF'

In /baɹi-n/, /jɪ/ is [i]. In /baɹɪl-baɹɪl/ and /baɹi-li-n/, /jɪ/ is [e] (cf. the lowering effect of /l/ (2.1.4.3-[2]-(a)). Nonetheless, it is convenient to set up /jɪ/ here. This will recognize an alternation between /ɹi/ and /jɪ/. See 3.11.1.6 for /l/ and /li/.

(b-2) The allophone [e] (Part 2). This occurs when the (adjective-like) noun /waɹaɹɪ/ 'one's own' (mentioned in 2.1.3.2.6-[5]) is followed by a (non-zero) case suffix. Compare:

(2-57)	[waɹaɪ] /waɹaɹɪ/ 'one's own'	[waɹaɛta] /waɹaɹɪ-da/ 'one's own-LOC'	[waɹaɛtko] /waɹaɹɪ-d-gu/ 'one's.own-LINK-DAT'
--------	------------------------------------	---	---

Note that, when it is not followed by a (non-zero) case suffix, /waɹaɹɪ/ ends in [i], and not [e]. Etymologically, this word seems to contain the comitative suffix /jɪ/ (3.6.8), and it is in view of this that this [e] is analyzed as /jɪ/.

Compare [waɹaɛta] /waɹaɹɪ-da/ 'one's own-LOC' with [maɹɪɟaɪta] /maɹɪɟaɪ-ja-da/ 'food-COM-LOC' in (a) of Table 2-13, where the vowel in question is [i], and not [e]. Apparently it is only the putative /jɪ/ of /waɹaɹɪ/ that is [e], and not [i], when followed by a (non-zero) case suffix.

(c) The allophone [i:]

There is only one example:

(2-58)	[maɪɹaŋ] /majɹaŋ/ 'cut (NF)'
--------	------------------------------------

Note that, in (2-57), [i:] follows a vowel, i.e. [Vi:] (analyzed as V/jɪ/), while in (2-53) it follows a consonant, i.e. [Ci:] (analyzed as C/jɪ/).

2.1.5.1.3. Allophones of /j/ that is not followed by a vowel

We now turn to the allophones of /j/ that is not followed by a vowel, i.e. followed by a consonant (/j/C) or by a word boundary (/j/#) (i.e. /j/ in a word-final position). See (a-1) to (c-1) of Table 2-14. For comparison, the allophones of /j/ that is followed by a vowel are included. See (a-2) to (c-2).

Comments on, and discussion of, Table 2-14 follow.

Table 2-14. Allophones of /j/

	word-medially	word-finally
(a-1)	-C/aj/C- [maigan] /majgan/ 'tell (NF)'	-C/aj/# [baŋgai] /baŋgai/ 'spear'
	[baegon] /bajgun/ 'bash (NF)'	[dʒolbai] /ʃulba-j/ 'jump-NF'
(b-1)	-C/uj/C- [goiban] /gujan/ 'give (NF)'	-C/uj/# [makoi] /maguj/ 'bigger type of carpet snake'
(c-1)	*-C/ij/C-	*-C/ij/#
(a-2)	-C/aj/V- [baja] /baja/ 'sing (IMP)'	
(b-2)	-C/uj/V- [boja] /buja/ 'blow [breath, nose], smoke [tobacco] (IMP)'	
(c-2)	-C/ij/V- [gija] /gija/ 'hook'	

[1] [Vi] and [Ve] as V/j/

In (a-1) and (b-1), [Vi] and [Ve] are analyzed as V/j/, that is, /aj/ or /uj/. [baegon] /bajgun/ 'bash (NF)' is one of the two examples available that has [e] for /j/. (The other example is [koenba] /gujan/ (a section term) (Table 1-8).)

There is a minimal pair of /j/ and /ji/ word-medially:

(2-59) [maigan] [ma:igan]
/majgan/ /majigan/
'tell (NF)' 'cut (NF)'

Here, [ai], which involves a short [i], is analyzed as /aj/ (i.e. V/j/), and [ai:], which involves a long [i:], is analyzed as /aji/ (i.e. V/ji/); cf. (2-58).

Furthermore, there is a minimal pair that shows this opposition word-medially and word-finally:

(2-60)	[kóikói]	[kóikói:]
	/guj~guj/	/guji~guji/
	'mosquito'	'wrinkle'

[2] Word-final /j/ in (a-1) and (a-2)

There are many instances of this – in particular, of -C/aj/#. This /j/ is phonetically [i]. However, there are two pieces of strong evidence to analyze it as /j/, rather than /i/ or /ji/. They concern the choice of the allomorphs of case suffixes (cf. Table 3-2). We shall use [baŋgai] /baŋgai/ 'spear (noun)' as an example.

(a) The dative suffix

The dative suffix for vowel-final stems is [o] /wu/, and that for consonant-final stems is [go] /gu/. (See 2.1.5.2 for the analysis of /wu/ for [o].) For the dative, [baŋgai] takes [go] /gu/, and not [o] /wu/.

(2-61)	[moŋango]	[baŋgaigo]	[bamao]
	/muŋan-gu/	/baŋgaj-gu/	/bama-wu/
	'hill-DAT'	'spear-DAT'	'man-DAT'

(b) The ergative, locative and comitative suffixes

For the vowel-final stems, the allomorphs of the ergative, the locative and the comitative case suffixes are /ŋgu/ [ŋgo], /ŋga/ [ŋga], and /ji/ [i], respectively. See (a) of Table 2-15. For the /ŋ/-final nouns the relevant allomorphs are /ju/ [ɟso], /ja/ [ɟsa], and /ji/[ɟsi], respectively. See (b) of Table 2-15. For [baŋgai], when followed by the ergative, locative or comitative suffix, the final vowel [i] is replaced by [ŋ] and the relevant allomorphs are the same as those for /ŋ/-final nouns. See (c) of Table 2-15.

Table 2-15. Evidence for word-final /j/

	NOM/ACC	ERG	LOC	COM
(a) 'man'	[bama] /bama/	[bamaŋgo] /bama-ŋgu/	[bamaŋga] /bama-ŋga/	[bamai] /bama-ji/
(b) 'mussel shell'	[gejaŋ] /gijaŋ/	[gejaŋɟo] /gijaŋ-ju/	[gejaŋɟa] /gijaŋ-ja/	[gejaŋɟi] /gijaŋ-ji/
(c) 'spear'	[baŋgai] /baŋgaj/	[baŋgaŋɟo] /baŋgaŋ-ju/	[baŋgaŋɟa] /baŋgaŋ-ja/	[baŋgaŋɟi] /baŋgaŋ-ji/

The facts presented in (a) and (b) indicate that phonologically the vowel [i] of [baŋgai] does not function as a vowel. Consequently it is analyzed as /j/.

As another example of word-final of /aj/, consider the following placename: (2-62) (same as (1-5)). As mentioned in 1.5.4.3-[3], its locative form is attested: (2-63).

(2-62) [baŋgoro dʒolbai]
 /baŋguru julba-j/
 turtle-NOM jump-NF
 'Turtle jumped.'

(2-63) [baŋgoro dʒolbadʒa]
 /baŋguru julba-ʒa/
 'turtle jump-LOC'

In (2-63), the locative allomorph is [dʒa] /ʒa/, as is the case with /gijap-ʒa/ 'mussel shell-LOC' and /baŋap-ʒa/ 'spear-LOC' (The root-final /j/ is deleted.) This indicates that [dʒolbai] should not be analyzed as ending in /j/.

Now, compare:

(2-64) [baŋgai] [dʒolbai] [maŋgai]
 /baŋgaj/ /julba-j/ /maŋga-ji/
 'spear' 'jump-NF' 'flower-COM'

All of these words involve a word-final [ai]. Its [i] is analyzed as /j/ in the first two words, while it is analyzed /ji/ in the third word. Note also that [ai] for /aj/ may cross a morpheme boundary; see [dʒolbai] /julba-j/.

[3] [ai] as /aj/ or /aji/

In [2] above, [ai] is analyzed as /aj/. There is at least one case where [ai] is analyzed as /aji/, and not as /aj/. Consider:

(2-65) [ʒai:] [ʒai:olɲdʒo]
 /ʒaji/ /ʒaji-wulɲʒo/
 'young girl' 'good-looking girl'

(2-66) [ʒáili] [ʒáimba]
 /ʒajili/ /ʒajimba/
 'many young girls' 'many young girls'

(/ʒaji-wulɲʒo/ occurs in (1-10-c, -f). See 3.7.1-[15] for the suffixes /li/ and /nba/ 'many'.) It is possible to analyze [ʒaili] as /ʒajli/, and [ʒainba] as /ʒajnba/. However, as is the case in [2], a morphophonological consideration favours /ʒajili/ and /ʒajimba/, and [ai] is analyzed as /aj/. (Note that /i/ in /ʒajili/ is not lowered despite the presence of /l/. That is, the tendency for /CiCi/ to be [CiCi] outranks the lowering effect of /l/ (2.1.4.3-[2]-(a)).)

In the phonological analysis of [maŋgai] (cf. (2-48)), [waʒaetko] (cf. (2-56)), [dʒolbai], and also [ʒaili] and [ʒainba], information from grammar (and additionally from the etymology in the case of [waʒaetko]) was employed. This indicates that phonological analysis cannot be separated from grammar. See K. L. Pike (1973: 115) and Lass (1991: 25, 29, 32).

[4] -/uj/C- and -/uj/# [oi] or [oe]

Phonetically, -/uj/C- and -/uj/# are almost always [oi]; see (b-1) of Table 2-14. (/u/ is predominantly [o], rather than [u] (2.1.4.2).) There are many other examples, e.g.:

(2-67)	[boibano]	[dʒoimagan]	[koidʒari]	[koingan]
	/bujbano/	/ʒujma-gara-n/	/gujjari/	/gujŋgan/
	'(Alf Palmer's MZ's (?) name)'	'crawl-ITER-NF'	'scrub turkey'	'female ghost'
(2-68)	[bologoiban]	[joroimbi]	[kedʒoro]	
	/bulugujban/	/juruimbi/	/giʒuruj/	
	'language of Palm Island'	'Yamanie Creek'	'centipede'	

There is, however, at least one exception. The section term /gujnba/ (Table 1-8) is [koenba], involving [oe]. (This word is one of the two examples that contains [e] for /j/, see [1] above.) There is no example of [ui] for /uj/.

[5] -C/aj/-, -C/uj/- and -C/ij/-

They occur when they are followed by a vowel; see (a-2) to (c-2) of Table 2-14. When not followed by a vowel, i.e. (i) when followed by a consonant word-medially, or (ii) when occurring word-finally, -C/aj/- and -C/uj/- occur; see (a-1) and (b-1). However, according to the analysis adopted, -C/ij/- does not occur in either of these two positions; see (c-1). This can be summarized as follows. (An asterisk indicates 'does not occur'.)

- (i) When followed by a vowel: -C/aj/-, -C/uj/-, -C/ij/-
- (ii) When not followed by a vowel: -C/aj/-, -C/uj/-, *-C/ij/-

That is, /ij/ does not occur except before a vowel. In this respect, -C/ij/- is exceptional, as is the case in Dyrbal (Dixon 1970: 665) and Warrgamay (Dixon 1981: 21).

2.1.5.2. /w/

The analysis of /w/ is much easier than that of /j/. /wa/ and /wi/ are straightforward. /wa/ is [wa], and /wi/ is [wi] (never [we]); see 2.1.4.3-[1].

(2-69)	[wama]	[wingaɹ]
	/wama/	/wingaɹ/
	'mad'	'fish'

/wu/ is invariably [o] (never [u]), unlike /ji/ (which has three allophones: [i], [e], [ii]; see 2.1.5.1.1). All the instances of [o] that are not preceded by a consonant

are analyzed as /wu/. This is in keeping with the general phonotactic patterns of Warrongo, and it, for instance, avoids a word-initial vowel (as is the case with /ji/, see 2.1.5.1.2-[1]). For the 'C', the (near-(?)) homorganic semivowel /w/ has been chosen. Just as [ji] and [je] do not occur, [wu] and [wo] do not occur. Examples of [o] /wu/ follow.

(2-70) Word-initially:

[oka]	[oma]	[o:ɔn]
/wuga/	/wuma/	/wu:un/
'asleep'	'shade'	'beef wood'

(2-71) Word-medially:

[baoɔ]	[kaora]
/bawu/	/gawura/
'rock wallaby'	'love' (noun)

(2-72) Word-finally:

[baraɔ]
/barawu/
'bark water container'

There is a word-final [o] /wu/ that involves the dative case suffix, e.g. [bamaɔ] /bama-wu/ 'man-DAT' in (2-61). Here, [o] is analyzed as /wu/, in parallel with the alternation of the comitative suffix /ji/ ~ /ji/, see (2-448).

The sequence of 'C[o:]' (i.e. a long [o:] following a consonant) or a word-initial [o:] occurs in at least three roots. It is analyzed as 'C/wu/':

(2-73) [bó:i]	[kó:i]	[ó:i]
/buwuj/	/guwuj/	/wuwuj/
'OK'	'male ghost'	'Hi!'

A parallel [i:] /iji/, following a consonant, is observed, in just one word: [ɖʒalŋgi:i] /ʒalŋgi:i/ 'Cameron Hill'; see (2-54). That is, phonetically both /wu/ and /iji/ present a long vowel. (However, there is one exception; see (2-77).)

Such a long vowel – [o:] /wu/ or [i:] /iji/ – may occur across a morpheme boundary:

(2-74) [gamo:]	[ɖʒami:]
/gamu-wu/	/ʒami-ji/
'water-DAT'	'fat-COM'

Also, compare the following near-minimal pair:

(2-75) [kó:i] (stress on [o:])	[ko:i] (stress on [i:])
/guwuj/	/guji/
'male ghost'	'hungry'

The first word contains 'C[oi:]' analyzed as C/uwu/.

In passing, consider the following pair of words:

- (2-76) [ko:i] [ko:ŋgan]
 /guwuj/ /guj-ŋ-gan/
 'male ghost' 'ghost-LINK-FEM'

Etymologically [ko:ŋgan] no doubt contains [ko:i] /guwuj/. However, synchronically it does not contain the long vowel [oi:]. Consequently it is best analyzed as /guj-ŋ-gan/, as shown above, rather than as /guwuj-ŋ-gan/. (See 3.7.1-[17] for the feminine suffix /gan/.)

The only exception to the generalization that phonetically both /uwu/ and /iji/ present a long vowel, is the following word.

- (2-77) [kokoŋj]
 /guguwuŋj/
 'bird sp.'

This word is an ideophone; see 2.12. In Alf Palmer's pronunciation, [kooŋj] contains a sequence of two [o], (although there is no pause between them), and not a long [ko:].

For /j/, the present work recognizes (a) and (b). See (a-1) and (b-2) of Table 2-14. In contrast, for /w/, it sets up neither (c) nor (d) (indicated by an asterisk).

- (a) Word-medial -CVj/C-, i.e. -C/aj/C- and -C/uj/C- (not *-C/ij/C-).
 (b) Word-final -CVj/#, i.e. -C/aj/# and -C/uj/# (not *-C/ij/#).
 (c) Word-medial *-CVw/C-.
 (d) Word-final *-CVw/#.

I have found no evidence to set up (c) or (d). In this respect, /j/ and /w/ are not parallel.

It is interesting to note that *-C/ij/- (i.e. *-C/ij/C- and *-C/ij/#) behaves:

- (i) like *-CVw/ (i.e. *-CVw/C- and *-CVw/#), but,
 (ii) unlike -C/aj/- (i.e. -C/aj/C- and -C/aj/#) and -C/uj/ (-C/uj/C- and -C/uj/#)

in that it does not occur either word-medially or word-finally.

2.2. Phonotactics

2.2.1. Structure of words

Roughly speaking, the structure of Warrongo words is as shown in (2-78). (Enclitics are preceded by an equation symbol ('='), while other morpheme boundaries are indicated by a hyphen.)

(2-78) stem (-inflectional suffix) (=enclitic)

That is, a word must contain a stem. A stem may be followed by an inflectional suffix, and a stem or an inflectional suffix may be followed by an enclitic. Examples:

(2-79)	[jálkangagol]	[ŋániobadzɔn]
	/jalga-ŋga=gul/	/ŋani-wu=baʃun/
	road-LOC=only	what-DAT=DNK'
	'only on the road'	'I do not know what for.'

To be precise, there are cases that the template in (2-77) does not accommodate: (i) fusion, as against suffixation, in certain forms of pronouns (Table 3-6), and (ii) placenames that have a sentential form (1.5.4.3).

Stems are of five types.

- (a) A root only, e.g. /bama/ 'man', /gamu/ 'water'
- (b) A root plus a stem-forming suffix, e.g. /guni-ɪa/ 'kill-agent' (1.5.4.2-[2]), /balga-wa/ 'hit-RECP' (see 4.12 for the reciprocal construction).
- (c) A root plus some other root (i.e. compounding), e.g. /ʃulaj-ʃungul/ 'tree-one' (a placename; see 1.5.4.3-[6]).
- (d) A repetition of a root (i.e. reduplication), e.g. /miŋan-miŋan/ 'hill-hill', i.e. 'many hills, a hilly area'.
- (e) A fused form of a pronoun and its case suffix; see 3.3.

Formation of stems of (b), (c) and (d) is discussed in 3.7, 3.8, 3.11.1, and 4.7. As for inflectional suffixes, they indicate case for nouns, pronouns, and some of the adverbs (Tables 3-2 to 3-7). For verbs, they show tense or mood, or they may mark subordination (Table 3-14). Suffixes for voice (e.g. antipassive, reciprocal) and for aspect (i.e. iterative) are considered as stem-forming suffixes (e.g. Table 3-15). Enclitics are characterized in 2.2.2 and listed in 4.25.

There are a very large number of roots, but suffixes are not numerous, and enclitics are even less so – less than a dozen.

2.2.2. Characterization of enclitics

According to a widely accepted view, clitics are intermediate between affixes (which are bound forms) and words (which are free forms) (see Zwicky 1994). The present work sets up the category of clitics for Warrongo, to be precise, enclitics. They are characterized as follows.

(a) In terms of phonology

- (a-1) Enclitics are like suffixes in that there is no pause preceding them. See (2-79).
- (a-2) Enclitics are like suffixes (and unlike words) in that they do not bear stress (cf. Zwicky 1994: 572) or pitch. At least, there is no example of an enclitic with prominent stress or pitch. Again, see (2-79).
- (a-3) The shape of some of the suffixes varies depending on the last phoneme of the stem to which they are added (cf. Zwicky 1994: 572, 574); see, for instance, Table 3-2 (cases of nouns). In contrast, the phonological shape of enclitics is invariable. At least there is no putative enclitic whose shape varies depending on the last phoneme of the stem to which it is added.
- (a-4) Enclitics are intermediate between words/roots and suffixes in terms of syllable structure and syllable types. See Table 2-16.

(b) In terms of distribution

- (b-1) Enclitics follow an inflectional suffix if there is one, i.e. they occur word-finally (cf. Zwicky 1994: 576). Examples include (2-79).
- (b-2) Enclitics may appear to be attached to the last word of a phrase, but they can be considered as attached to the whole phrase, as in English *the king of England's crown* (cf. Zwicky 1994: 574).
- (b-3) Enclitics may appear to be attached to the first word of a phrase, but they can be considered as attached to the whole phrase (cf. Zwicky 1994: 574).
- (b-4) Enclitics may appear to be attached to the last word of a clause, but they can be considered as attached to the whole clause.

In the present work, any element that has any one property of (b-1) to (b-2) is regarded as an enclitic. However, this distinction is not clear-cut, and no doubt enclitics and suffixes form a continuum. For example, the putative dative case suffix is considered a suffix when it is attached to a noun, a pronoun, or an adverb (Tables 3-2 to 3-7), e.g. (2-61), (2-74), (2-79). But there are instances where it has the property of (b-2) (see (4-119)) or that of (b-3) (see (4-120) and (4-121) to (4-123)), in which case it is regarded as an enclitic. Similarly, /ɾjumaj/ 'from, after' is analyzed as a suffix (the ablative case suffix) when it is attached to a noun, a pronoun, or an adverb (Tables 3-2 to 3-7). But it is considered as an enclitic when it has the property of (b-4); see 4.10.1. (In most of the examples discussed in 4.10, /ɾjumaj/ is used as a conjunction, and it may be termed 'an enclitic conjunction'.)

We shall now examine the Warrongo phonotactics in terms of the syllable structure of roots, enclitics, and suffixes (2.2.3), the types of syllables that occur in roots, enclitics, and suffixes (2.2.4), and the distribution of phonemes in structural positions in roots, enclitics, and suffixes (2.2.5).

2.2.3. Syllable structure of roots, suffixes, enclitics, and words

We shall look at the structure of roots, suffixes, enclitics, and words in terms of mainly the number – and also the types – of syllables that occur in them.

The present work posits the long vowel /a:/ (2.1.1). Languages such as Djaru (Tsunoda 1981a: 34, 44) yield evidence that /a:/ is phonologically disyllabic. However, in Warrongo there is no evidence to decide whether this long vowel is phonologically disyllabic or monosyllabic. As noted in 2.1.2, the status of /a:/ as a separate phoneme is weak. In view of this, it is tentatively considered monosyllabic phonologically.

2.2.3.1. Syllable structure of roots

Attested patterns of roots in terms of syllables are the following. For the purpose of presenting syllables, ‘C’ refers to semivowels as well as consonants.

[1] Monosyllabic roots

There are five patterns. Very few examples are attested for each of them.

- CVC /guj~guj/ [koikoi] ‘mosquito’ (and also possibly /ŋun~ŋun/ [ŋonŋon] ‘milk’
Alf Palmer suggested that /ŋun~ŋun/ is not Warrongo.)
- CV: /ŋa:~ŋa:/ [ŋá:ŋá:] (an ideophone to describe babies’ cries)
/ja:/ (interjection) ‘(exclamation of displeasure, surprise)’
- CV:C /ba:m/ ‘whip’ (cf. (4-895)), /ja:r/ ([ja:r]) ‘yard’ (cf. (4-735))
- VC /aj/ [ai] ‘(tag question marker)’
- V: /a:/ (interjection) ‘(exclamation of admiration, surprise)’

Tentatively, /guj~guj/, /ŋa:~ŋa:/, and /ŋun~ŋun/ are considered as reduplicated forms of a monosyllabic root (/guj/, /ŋun/, /ŋa:/), respectively. They exist only in the forms in which the root is reduplicated (3.7.2-[6]). (The words are disyllabic.) /ba:m/ (mentioned in 2.1.2) may be an ideophone (2.12), describing the cracking sound of a whip. The variety of English spoken in Queensland has tag questions that end in something like [ai], and possibly the Warrongo tag question marker /aj/ is a loan from English. /ja:r/ ([ja:r]) ‘yard’ (mentioned in 2.1.2), too, is a loan from English (2.13.1-[2]-(d)). Ideophones, interjections and loan words are marginal in the phonology of a given language. That is, most of the monosyllabic patterns are marginal in the Warrongo phonology.

[2] Disyllabic roots

The following patterns are attested. There are many examples of them, except for the last two patterns.

CVCV	e.g. /babi/ 'mother's mother'
CVCVC	e.g. /bagui/ 'fighting stick'
CVCCV	e.g. /bambu/ 'egg'
CVCCVC	e.g. /balban/ 'bone'
CVCCCV	e.g. /balmbu/ 'bundle'
CVCCVCV	e.g. /guŋgal/ 'husband'
CV:CV	/ŋa:ra/ 'a bushy country on Herbert River'
VCV	/aji/ 'Yes' (possibly the only example)

[3] Trisyllabic roots

The following patterns are attested. There are fairly many examples, except for the last pattern.

CVCVCV	e.g. /badala/ '(placename)'
CVCVCVC	e.g. /burubaj/ 'boil [on skin]'
CVCVCCV	e.g. /baʃunda/ 'to go past'
CVCVCCVC	e.g. /ŋuiŋjil/ '(placename)'
CVCCVCV	e.g. /baŋgara/ 'blue tongue lizard'
CVCCVCVC	e.g. /biŋgara/ 'flat'
CVCCVCCV	e.g. /burbanba/ 'lizard sp.'
CVCCVCVC	e.g. /balŋgara/ 'Stony Hill'
VCVCCVC	/abirbil/ 'Herbert Vale' (a loan from English) (2.13.2-[2]-(c))
CV:CVVCVC	/ba:ba:ram/ '(name of a language)' (1.8.4.1-[2])

The vast majority of verb roots are disyllabic, e.g. /baba/ 'spear', /baja/ 'bite', /balga/ 'hit', /bajgu/ 'bash', /galŋga/ 'fall', and /majga/ 'tell'. But there are at least three (and possibly more; cf. 3.9.1) verb roots that are trisyllabic: /majiga/ Vt 'cut' (see (2-58)), /bajumbi/ Vt '[fish] wave [its tail]' (1.5.4.2-[1]), and /miriji/ Vi 'feel itchy'.

As for nouns, there are many disyllabic roots as well as trisyllabic ones, as shown above.

[4] Quadrisyllabic roots

The following patterns are attested, with fairly many examples.

CVCVCVCV	e.g. /baʃubala/ 'Kirrama Station'
CVCVCVCVC	e.g. /dirabigal/ '(placename)'
CVCVCCVCV	e.g. /baʃiŋjila/ 'satin bird'
CVCVCVCCVC	e.g. /bigaraŋgal/ '(placename)'
CVCCVCVCV	e.g. /balbaba:ra/ 'bundle of spears'
CVCCVCVCVC	e.g. /balbirigan/ 'shark'
CVCCVCCVCV	e.g. /bundilbuna/ 'place near Kirrama'
CVCCVCVCVCV	e.g. /ʃalŋgijiri/ 'Cameron Hill'

[5] Pentasyllabic roots

Two patterns are attested. Only one example is attested for each pattern.

CVCVCVCVCV /guʃilamila/ ‘(placename)’

CVCVCVCCVCV /jiriʃinduu/ ‘butcher bird’

It is possible that etymologically some of what appear to be trisyllabic or longer roots do not really consist of just one single root. Thus, /bundilbuna/ ‘place near Kirrama’ may contain a putative root /buna/; there is a noun /bunabuna/ ‘couch grass’. As another example, /balbabaɾa/ ‘bundle of spears’ may contain the suffix /baɾa/ (3.7.1-[8]). Also /guʃilamila/ ‘(placename)’ may contain the root /guʃila/ ‘large type of bandicoot’. Furthermore, /guj~guj/ ‘mosquito’ may be a reduplication of the putative root /guj/ (as tentatively decided in [1]), and /gujiguji/ ‘wrinkle’ may be a reduplication of the putative root /guji/ (i.e. /guji~guji/).

Roots longer than quadrisyllabic roots are extremely uncommon, but two instances of pentasyllabic root are attested; see [5]. (But /guʃilamila/ ‘(placename)’ may contain the root /guʃila/ ‘large type of bandicoot’).

Note the existence of bi-consonantal and tri-consonantal clusters. Bi-consonantal clusters are attested in [2] disyllabic roots, e.g. /bambu/ ‘egg’, [3] trisyllabic roots, e.g. /baʃunda/ ‘go past’, [4] quadrisyllabic roots, e.g. /baʃiɲɪla/ ‘satin bird’, and [5] pentasyllabic root, i.e. /jiriʃinduu/ ‘butcher bird’. In contrast, tri-consonantal clusters are not attested in quadri- or penta-syllabic roots. They are attested only in [2] disyllabic roots, e.g. /balmbu/ ‘bundle’, and [3] trisyllabic roots, e.g. /balɲɟaɾa/ ‘Stony Hill’. This difference may possibly have to do with phonological heaviness. That is, quadri- and penta-syllabic roots are already heavy, and the increase of their heaviness by the presence of a tri-consonantal cluster is avoided. (Consonant clusters in roots will be further discussed in 2.2.6.1.)

2.2.3.2. Syllable structure of suffixes and enclitics

[1] Suffixes

Nine patterns are attested.

V	e.g. /u/ ‘ergative’, /a/ ‘locative’ (Table 3-4)
C	e.g. /n/ ‘nonfuture’, /l/ ‘nonfuture’ (Table 3-14)
CV	e.g. /ɲu/ ‘genitive’ (Table 3-2)
CVC	e.g. /ɲa/ ‘towards’ (3.8.1-[2])
CVCV	e.g. /mali/ ‘to/on the side of’ (3.8.1-[3])
CVCVC	e.g. /guwaj/ ‘all my (of kin)’ (3.7.1-[20])
CCV	e.g. /ɲgu/ ‘ergative’, /ɲga/ ‘locative’ (Table 3-2)
CCVC	one example attested: /ɲɟaɾ/ ‘kin’ (3.7.1-[19])
CCVCV	one example attested: /ɲbunu/ (/buɲɟulɲunu/ ‘on knees’ (3.8.1-[10]). Cf. /buɲɟu/ ‘knee’)

[2] Enclitics

Only four patterns are attested.

CV	e.g. /ru/ 'too' (4.25-[5])
CVC	e.g. /gul/ 'only' (4.25-[4]), e.g. (2-79)
CVCV	e.g. /guli/ 'only' (4.25-[3])
CVCVC	e.g. /baʃun/ 'I do not know' (4.25-[2]), e.g. (2-79)

In terms of syllable structure, roots have the widest range of possibilities (28 patterns attested, excluding onomatopoeic roots, interjections and loans from English), followed by suffixes (nine patterns), which are in turn followed by enclitics (four patterns). This parallels the numbers of attested roots, suffixes, and enclitics. As noted in 2.2.1, there are many roots, but suffixes are far smaller in number, and enclitics are less than a dozen.

In terms of syllable structure, enclitics are in the main different from roots, and similar to suffixes. They exhibit four patterns: CV, CVC, CVCV and CVCVC. Among them, CVCV and CVCVC are attested in roots (2.2.3.1-[2]) and suffixes as well ([2] above). CV and CVC are attested in suffixes as well, but not in roots.

However, enclitics differ from roots and suffixes in that there is no vowel-initial enclitic. They all start with CV. Also, like roots and unlike suffixes, there is no enclitic which starts with a consonant cluster.

Suffixes differ from roots and enclitics as follows.

- (a) They may consist of one vowel only (see 'V' above).
- (b) They may consist of one consonant only (see 'C' above).
- (c) They may start with a consonant cluster (see 'CCV', 'CCVC' and 'CCVCV'). There is even one (and only one) example of tri-consonantal cluster: /lnbuw/ (3.8.1-[10]).

(Most of the facts sated in the preceding two paragraphs are shown in Table 2-16.)

2.2.3.3. *Syllable structure of words*

The structure of words is shown in (2-78). The syllable structure of words is essentially the same as that of roots (2.2.3.1), except that words are often longer than roots. It does not seem worthwhile to list all the attested patterns.

Pentasyllabic and hexasyllabic words are not uncommon in texts; see Texts 1 and 2. The longest word attested in my Warrongo data is /ga.ɹmbujmu~ga.ɹmbujmu~ga.ɹmbujmu/ 'grandfather's grandfather's grandfather's grandfather' (Alf Palmer's gloss), which has nine syllables. (Alf Palmer's gloss for this word contains four occurrences of the word 'grandfather' See 3.7.2 and 3.8.1-[4] for the formation and the meaning of this word.)

The following types of words (and roots) are marginal in the Warrongo phonology.

- (a) Words consisting of any one of the roots listed in 2.2.3.1-[1]. They are monosyllabic.
- (b) Vowel-initial words (2.2.3.1)
- (c) Words containing a long vowel /a:/. This long vowel itself is marginal (2.1.2).

Excluding these marginal words (and roots), the syllable structure of Warrongo words can be shown as follows (cf. Dixon 2002: 554):

(2-80) Syllable structure of words:

$C_1V_1C_2(C_3(C_4))V_2(C_5)$ where $C_2(C_3(C_4))V_2$ can be repeated.

That is, words (and roots) (i) begin with a consonant or semivowel, (ii) are disyllabic or longer, (iii) may contain bi-consonantal or tri-consonantal clusters, and (iv) end in a vowel or a consonant (or a semivowel). This schema covers all the attested patterns. However, it also generates many patterns that are not attested. Furthermore, there are restrictions on the occurrence of certain phonemes in certain structural positions. See 2.2.5.

The words (and roots) referred to in (a) above are monosyllabic, and therefore they are exceptions to the generalization that words (and roots) are disyllabic or longer. Note, however, that they each contain a long vowel, and that consequently they consist of two morae. They will be no longer exceptions if the generalization is stated in terms of mora, and not in terms of syllable.

(2-81) Words (and roots) are bimoraic or longer (excluding marginal words and roots).

That is, there are monosyllabic words, but there appears to be no monomoraic word (as is the case with Djaru (Tsunoda 1981a: 46)).

It is a common practice in Australian linguistics to describe phonotactics in terms of syllable. However, the above shows that the concept of mora may be sometimes more useful than that of syllable.

2.2.4. Syllable types in roots, suffixes, enclitics, and words

We have looked at roots (2.2.3.1), suffixes and enclitics (2.2.3.2) and words (2.2.3.3) in terms of their syllable structure. We shall now examine the types of syllables that occur in them.

[1] Syllable types in roots

The following syllable types are attested.

CV	e.g. /ba_bi/ ‘mother’s mother’
CVC	e.g. /ba_guu/ ‘fighting stick’
CV:	e.g. /ŋa:_ia/ ‘(placename)’
CV:C	/bam/ ‘whip’ (one example only)

CV and CVC are common, but CV: and CV:C are extremely uncommon.

There are at least three roots that phonetically begin with [a]. (They were mentioned in 2.2.3.1.) Their syllable structure is analyzed as follows.

(2-82)	[ai:]	[aberbəl]	[a:]
	/aji/	/a_bir_bil/	/a:/
	V_CV	V_CVC_CVC	V:
	‘Yes’	‘Herbert Vale’	‘(exclamation of surprise)’

Unlike /ji/ (2.1.5.1.2) and /wu/ (2.1.5.2), there is no suitable semivowel to set up before [a] (or [a:]). That is, we will have to recognize syllables that consists of a vowel only: ‘V’ and ‘V:’. However, syllables consisting of a vowel only are marginal in the Warrongo phonology. /abirbil/ ‘Herbert Vale’ is a loan from English, and the other two words are interjections.

[2] Problem in syllabification

There are tri-consonantal clusters (they are listed in Tables 2-18 and 2-19). They present a problem for syllabification. (This is due to the principle that ‘No syllabification should yield syllables that are not canonical monosyllables in the language in question’ (Lass 1991: 265). This problem has been noted by Dixon (1972: 274) for Dyirbal and by Dixon (2002: 556) for Australian languages in general.)

Warrongo examples of tri-consonantal cluster include /balmbu/ ‘bundle’, /guŋgal/ ‘husband’, and /baŋga:ia/ ‘Stony Hill’. For example, /balmbu/ may be segmented as /bal_mbu/ or /balm_bu/. The first analysis yields CCV, a syllable type not attested elsewhere in the language. The second produces CVCC, again a syllable type not attested elsewhere in the language. (CVCC does not occur in Warrongo unless [boin] ‘eyelash’, for example, is analyzed as /bujn/ CVCC; see (2-52).)

As Dixon (2002: 656) admits: ‘it can be difficult (or impossible) to segment such words into syllables on a principled basis’. One alternative is to recognize ‘that there are segments that do not belong unambiguously to either of their flanking syllables’ (Lass 1991: 265), i.e. that they are ambisyllabic; see Spencer (1996: 97–98). According to this view, /m/ in /balmbu/ is ambisyllabic.

[3] Syllable types in suffixes

The following syllable types are attested.

V	e.g. /u/ 'ergative', /a/ 'locative'
C	e.g. /n/ 'nonfuture'
CV	e.g. /ŋu/ 'genitive'
CVC	e.g. /ŋal/ 'towards'
CCV	e.g. /ŋgu/ 'ergative', /ŋga/ 'locative'
CCVC	one example attested: /ŋjar/ 'kin'
CCCV	one example attested: /lnburu/ (/buŋgulnburu/ 'on knees'. Cf. (/buŋgu/ 'knee')

Suffixes may start with a consonant, like roots and enclitics. However, as noted in 2.2.3.2, unlike roots and enclitics, they may

- (a) start with a consonant cluster;
- (b) consist of just one single vowel, or;
- (c) consist of just one consonant.

Consequently, they may deviate from roots and enclitics in terms of syllabification. (Most of the consonant clusters in suffixes are bi-consonantal, but there is one tri-consonantal cluster: /lnburu/.)

(a) Where a suffix starts with a consonant cluster, the preceding root is always vowel-final (in the examples available), and the first consonant of the cluster is assigned to the preceding syllable. Examples follow. (Suffixes are preceded by a hyphen, while an underbar indicates syllable boundaries.)

(2-83)	/ŋgu/ (CCV) 'ERG'	/ŋjar/ (CCVC) 'KIN'
	/bama-ŋgu/	/babi-ŋjar/
	'man-ERG'	'MM-KIN'
	/ba_maŋ_gu/	/ba_bjŋ_ŋar/
	CV_CVC_CV	CV_CVC_CVC

(b) Where a suffix consists of a vowel only, the preceding root is always consonant-final (in the examples available), and the vowel constitutes a syllable together with the preceding consonant. Examples:

(2-84)	/u/ 'ERG'	/a/ 'LOC'
	/babi-ŋjar-u/	/babi-ŋjar-a/
	'MM-KIN-ERG'	'MM-KIN-LOC'
	/ba_bjŋ_ŋa_ru/	/ba_bjŋ_ŋa_ra/
	CV_CVC_CV_CV	CV_CVC_CV_CV

(c) Where a suffix consists of a consonant only, the preceding root is always vowel-final (in the examples available), and the consonant forms a syllable together with the preceding vowel. Examples:

(2-85)	/n/ 'nonfuture'	/l/ 'nonfuture'
	/balga-n/	/balga-l/
	'hit-NF'	'hit-NF'
	/bal_gan/	/bal_gal/
	CVC_CVC	CVC_CVC

As (2-83) to (2-85) show, syllable boundaries do not always coincide with a morpheme boundary.

There is a suffix that begins with a tri-consonantal cluster, i.e. /Inburu/ in /bungulnburu/ 'on knees' (/bunɡu/ 'knee') (2.2.3.2-[1]). /l/ will be assigned to the preceding syllable, while /b/ will be part of the following syllable. Here again, we are left with /n/. It is difficult to decide to which syllable to allocate it. This /n/ may be considered ambisyllabic.

Needless to say, there are suffixes that maintain their syllable status intact, that is, no phoneme is separated from the rest of the suffix in question for the purpose of syllabification. (Here syllable boundaries coincide with a morpheme boundary.) Examples:

(2-86)	/ŋal/ 'towards'	/mali/ 'on/to the side of'
	/bada-ŋal/	/ŋara-mali/
	'downstream-to'	'above-side'
	/ba_da_ŋal/	/ŋa_ra_ma_li/
	CV_CV_CVC	CV_CV_CV_CV

[4] Syllable types in enclitics

Only two types are attested.

CV e.g. /ru/ 'too'

CVC e.g. /ba_ʃun/ (CV_CVC) 'I do not know'

These types are attested in roots and suffixes, and they do not deviate from either of them.

Like roots but unlike suffixes, enclitics maintain the syllable status, e.g. /gul/ CVC 'only' and /ba_ʃun/ CV_CVC 'I do not know' in (2-79).

[5] Syllable types in words

They are the same as those attested in roots.

[6] Comparison of words, roots, enclitics, and suffixes

As seen in 2.2.3.1 to 2.2.3.3 and in [3] above, enclitics and suffixes may consist of CV only, or CVC only, but words and roots do not (except for the marginal ones). Suffixes may consist of one vowel only, or one consonant only, but words, roots and enclitics do not. Suffixes may start with a consonant cluster, but words, roots and enclitics do not. Suffixes may lose one of their phonemes for the purpose of syllabification, but words, roots and enclitics maintain their syllable status. These facts are shown in Table 2-16. This clearly shows that, in terms of phonotactics, enclitics are intermediate between words/roots and suffixes.

Table 2-16. Syllable structure of words, roots, enclitics, and suffixes

	word, root	enclitic	suffix
CV, CVC only	–	+	+
one vowel only	–	–	+
one consonant only	–	–	+
initial cluster	–	–	+
syllable status maintained	always	always	not always

[7] Vocables

In songs a syllable with no clear meaning, i.e. ‘vocal’, is sometimes added to a word. See 1.6.2.

2.2.5. Distribution of consonants and semivowels

We shall look at the phonotactic possibilities of consonants and semivowels, in roots (2.2.5.1), suffixes (2.2.5.2), enclitics (2.2.5.3), and words (2.2.5.4). The result is shown in Table 2-17. Marginal or exceptional phonemes in a given position or in Warrongo at large are shown in a parenthesis. Some aspects of the phonotactics of the semivowels were discussed in 2.1.5.1 to 2.1.5.2, and those of the vowels in 2.1.5.1 to 2.1.5.2, and in 2.2.3.1 to 2.2.4.

2.2.5.1. Consonants and semivowels in roots

We shall consider three structural positions: root-initial, intervocalic (and root-medial), and root-final. Examples were given in 2.1.2.

[1] Root-initially, all of the consonants and semivowels are attested – except for the (apico-)alveolar liquids: /r/ and /l/. Probably, /r/ and /l/ are prohibited root-initially, as in many other Australian languages; see Dixon (1980: 159–167). A root-initial

[i] is analyzed as /ji/ (2.1.5.1.2), and a root-initial [o] as /wu/ (2.1.5.2). A root-initial [a] (or [ai]) is analyzed as /a/ (or /a:/). It is marginal (2.2.3.1-[1], -[2], 2.2.4-[1]). Root-initially consonant clusters are prohibited. Recall that the language name 'Mbabaram' was pronounced [ba:baɻam] by Alf Palmer (1.4.2.2 and 1.8.4.1-[1]).

[2] Intervocally, all of the consonants and semivowels are attested. There are many consonant clusters (some involving a semivowel). They will be discussed in 2.2.6.1 and 2.2.6.2.

[3] Root-finally, the following phonemes are attested: /(*d*), m, n, ɲ, r, ɾ, l, j, a, i, u/. The following phonemes are not attested, and probably they are prohibited: (i) stops (/d/ has two exceptions), and (ii) the velar sonorants: the nasal /ŋ/, and the semivowel /w/ (see 2.1.5.2).

The two exceptions involving a root-final /d/ are loan words from English: /ɲubijid/ 'Rosevale' and /bijid/ 'bed' (both mentioned in 2.1.5.1.1).

Table 2-17. Phonemes in structural positions

	initial	intervocalic	final
words	b, d, ʒ, g, m, n, ɲ, ɾ, ɿ, j, w, (a, ai)	all consonants and semivowels; many consonant clusters	m, n, ɲ, r, ɿ, l, j, a, i, u
roots	b, d, ʒ, g, m, n, ɲ, ɾ, ɿ, j, w, (a, ai)	all consonants and semivowels; many consonant clusters	(d), m, n, ɲ, r, ɿ, l, j, a, i, u
suffixes	all consonants, semi- vowels and vowels; mb, nd, ɲʃ, ŋg, nʃ, lnb	b, r, ɿ, l, j, w; no consonant cluster	n, r, l, j, a, i, u
enclitics	b, ʒ, g, m, n, ɲ, r, w	ɿ, m, l, w; no consonant cluster	n, l, a, i, u

Compare (i) [ɻobɛɾ] /ɻubijir/ 'Rosevale (NOM/ACC)', (ii) [ɻobɛɾgo] /ɻubijir-gu/ 'Rosevale-DAT', and (iii) [ɻobɛɾŋomai] /ɻubijid-ŋumaj/ 'Rosevale-ABL' (cf. Table 3-4). We can set up the roots /ɻubijid/ as well as /ɻubijir/. Here, /d/ occurs root-finally. (But it does not occur word-finally.) (The Aboriginal name of this place is /gigubal/. See (d-4) of Table 2-4.)

The root /bijid/ 'bed' occurs in [bɛta] /bijid-a/ 'bed-LOC' (But [bɛɾ] /bijid/ 'bed-NOM/ACC' is not attested.) Again, /d/ occurs root-finally. (But it does not occur word-finally.)

Since these roots are loans from English, the root-final /d/ is marginal in the Warrongo phonology. Also, since /d/ is not attested in the final position of these words (or any other word), the restriction on the final stop is stronger word-finally than root-finally.

2.2.5.2. Consonants and semivowels in suffixes

[1] Suffix-initial position

The following phonemes are attested.

- (a) /a, i, u, b, d, ʃ, g, m, n, ŋ, r, ɾ, l, j, w/
- (b) /mb, nd, ŋʃ, ŋg, nʃ, lnb/

The set (a) consists of all the phonemes except for /aɪ/, while (b) comprises all the homorganic nasal-plus-stop clusters, /nʃ/ and /lnb/. Suffixes may consist of a vowel only, e.g. (2-84), or a consonant only, e.g. (2-85). In such a case, the suffix-initial phoneme is also the suffix-final phoneme.

Suffixes differ from words, roots and enclitics in that they may start with:

- (a) a vowel, e.g. (2-84);
- (b) /l/, e.g. /gaja-na-lu/ 'father-KIN-ERG' (Table 3-3) and /waju-lu/ 'who-ERG' (Table 3-6), or;
- (c) a consonant cluster, e.g. (2-83).

As noted in 2.2.5.1, root-initially (and also word-initially and possibly enclitic-initially too), /l/ does not – and probably cannot – occur.

Unlike words and roots, but like enclitics, suffixes may start with /r/, e.g. /wajɾa-ru/ 'where-to' (see 3.8.1-[1] for /ru/).

[2] Intervocalic position

/b, r, ɾ, l, j, w, nd/ are attested. They are much fewer than, and included in, the possibilities for words and roots. They are slightly more numerous than those for enclitics. But unlike enclitics, /m/ is not attested intervocalically in suffixes. There is no example of an intervocalic consonant cluster. (Most of the suffixes are monosyllabic (2.2.3.2-[1]) and consequently unable to contain an intervocalic consonant cluster.)

[3] Suffix-final position

/n, r, l, j, a, i, u/ are attested. (This may be accidental, but the consonants /n, r, l/ are apico-alveolar sonorants.) They are far fewer than, and are included in, the possibilities for words, roots and suffixes. (Recall that in the case of suffixes that consist of a vowel only or a consonant only, the suffix-initial phoneme is also the suffix-final phoneme.) Unlike enclitics, /r/ is attested suffix-finally, e.g. /ɲɾar/ 'kin' in (2-83).

2.2.5.3. *Consonants and semivowels in enclitics*

There are only about ten enclitics (4.25).

[1] Enclitic-initially, /b, ʃ, g, m, n, ŋ, r, w/ are attested. That is, unlike words and roots but like suffixes, there is at least one enclitic that starts with /r/: /ru/ 'again, too'. Like words and roots and unlike suffixes, enclitics do not start with a consonant cluster.

[2] Inter-vocalically, /ʃ, m, l, w/ are attested, and the patterns of enclitics are included in those of words and roots. There is no example of an intervocalic consonant cluster. (Most of the enclitics are monosyllabic (2.2.3.2-[2]) and consequently unable to contain an intervocalic consonant cluster.)

[3] Enclitic-finally, /n, l, a, i, u/ are attested. In this respect, the patterns of enclitics are included in those of words, roots and suffixes.

2.2.5.4. *Consonants and semivowels in words*

Word-initially and word-medially, the possibilities are the same as those for the root-initial and root-medial positions, respectively. As noted in 2.2.5.1-[3], /d/ occurs root-finally, but not word-finally. In this respect, word-final possibilities are different from (and narrower than) the root-final possibilities. (This indicates that words and roots need to be distinguished.)

2.2.6. Consonant clusters

Here, 'consonants' include semivowels. Consonant clusters are not attested word-initially, word-finally, root-initially, root-finally, enclitic-initially, enclitic-finally or suffix-finally. But suffix-initially there are two consonant clusters (2.2.3.2-[1]). There are many consonant clusters in intra-root positions (2.2.6.1) and inter-morphemic positions (2.2.6.2).

2.2.6.1. *Intra-root consonant clusters*

Most of the intra-root consonant clusters are bi-consonantal, but others are tri-consonantal. See Table 2-18.

Intra-root consonant clusters can be classified as shown in Table 2-18. For each group in Table 2-18, a generalization about its membership is given, together with a list of unattested combination(s), where relevant.

Table 2-18. Intra-root consonant clusters

Last member of the cluster is:	bilabial	apico-alveolar	lamino-palatal	dorso-velar
bi-consonantal				
(a)	mb	nd	ɲʃ	ŋg
(b)	rb		ɾʃ	rg
	lb		lʃ	lg
	nb		ɲʃ	ng
(c)	rm			ɾŋ
	lm		lɲ	lŋ
(d)	rw			
	lw			
(e)	nm			ɲŋ
(f)	ɾb		ɾʃ	rg
	jb		ʃʃ	ʃg
(g)	ɾm			ɾŋ
	jm		ʃɲ	ʃŋ
tri-consonantal				
(h)	rmb		ɾɲʃ	ɾŋg
	ɾmb		ɲɲʃ	ɲŋg
	lmb		lɲʃ	lŋg
	jmb		ʃɲʃ	ʃŋg
(i)	rmb			
	lmb			
	jmb			

We shall look at bi-consonantal clusters first.

(a) Homorganic nasal-plus-stop clusters: /mb/, /nd/, /ɲʃ/, /ŋg/

All possibilities are attested, e.g. /bambara/ 'white', /banda/ 'to come out', /wanʃa/ 'where', /balanŋgal/ 'dugong'.

(b) Apico-alveolar sonorant (/r/, /l/ or /n/) plus non-apico-alveolar stop (/b/, /ʃ/ or /g/)

All possibilities are attested, e.g. /barbira/ 'echidna', /warʃan/ 'raft', /birgil/ 'cold weather', /balba/ 'to roll', /balʃi/ 'empty', /balga/ 'to hit', /banba/ 'fig sp.', /wanʃa/ 'hole', /wanŋal/ 'little girl'.

(c) Apico-alveolar liquid (/r/ or /l/) plus non-apico-alveolar nasal (/m/, /ɲ/ or /ŋ/)

/ɾɲ/ is not attested. Examples: /burmu/ 'deaf', /barŋa/ 'light (not dark)', /gulmi/ 'back (Adv)', /ŋalɲi/ 'kind (not unkind)', /galŋa/ 'MB'

(d) Apico-alveolar liquid (/r/ or /l/) plus semivowel (/j/ or /w/)

/ɾj/ and /lj/ are not attested. Examples: /ʃirwi/ 'namesake', /walwa/ 'bad'. Dixon (1972: 287) states that in Dyirbal the clusters /lj/ and /ɲj/ are prohibited. In

Warrongo, it is possible to set up /rj/ across a morpheme boundary; see 2.2.6.2-(d). But within a root, /rj/ and /lj/ appear to be prohibited.

(e) Apico-alveolar nasal (/n/) plus peripheral nasal (/m/ or /ŋ/)

Both possibilities are attested, e.g. /gunma/ 'to break'. There is only one example of /mŋ/: /wanŋaja/ 'bony bream'

(f) Retroflex approximant (/ɻ/) or palatal semivowel (/j/) plus non-apico-alveolar stop (/b/, /ʒ/ or /g/)

All possibilities are attested, e.g. /baɻbaj/ 'ice', /guɻja/ 'native bee', /baɻgil/ 'bush rat', /bujbun/ 'spring water', /guɻjari/ 'scrub turkey', /bajgari/ 'fig sp.'

(g) Retroflex approximant (/ɻ/) or palatal semivowel /j/ plus non-apico-alveolar nasal (/m/, /ŋ/ or /ŋ/)

/jŋ/ is not attested. Examples: /gaɻman/ '(place on Herbert River, near Cashmere, towards Cameron Creek)', /baɻŋan/ 'kangaroo rat', /ɻujma/ 'to crawl', /majnal/ 'dirty thing (e.g. penis)'. There is not a good example of /jŋ/. One possible example is /gaɻujŋa/ 'to hide'. Etymologically it may contain the transitive-stem-forming suffix /ŋa/ (4.7.2), but there is no evidence for this etymology, and tentatively /gaɻujŋa/ is treated as a root.

We shall now look at tri-consonantal clusters.

(h) Liquid (/r/, /ɻ/ or /l/) or palatal semivowel /j/ plus a non-apico-alveolar nasal-plus-stop homorganic cluster (/mb, ɲʒ, ŋg/)

All possibilities are attested, e.g. /burmbu/ 'to breath upon', /maɻɲja/ 'sore (noun)', /wirŋga/ 'tail of fish', /gaɻmbujmu/ 'grandfather's grandfather', /buɻɲju/ 'elbow', /biɻŋga/ 'grey hair', /balmbi/ 'to smell', /balɲja/ 'to come out', /balŋgara/ 'Stony Creek', /ɻajmbaj/ 'hither', /bujɲjal/ 'fish smell', /bajŋgira/ 'sweat'.

(i) /r/, /l/ or /j/ plus /mb/

It is difficult to generalize about these three clusters. Examples: /muɻarnbara/ 'many', /bilmbian/ 'crimson rosella (?)', /gujnbun/ 'sorry'. Etymologically, /muɻarnbara/ 'many' may contain the suffix /bara/ (3.7.1-[8]). If this is the case, it is not a root. (As noted below, it is not certain if there is a contrast between /nb/ and /mb/ in tri-consonantal clusters.)

Roots generally do not contain more than one consonant cluster. However, there is at least one root that contains two consonant clusters: /wanɻundila/ 'a place on Herbert River, where there is a big cliff'. This may be irrelevant, but both clusters are homorganic nasal-plus-stop ('N-plus-S') clusters. Since the place is on Herbert River, it may be in Warrongo territory or in Warrgamay territory. Warrgamay has *wangu* 'small goanna' (Dixon 1981: 125). It is possible that /wanɻundila/ contains two roots, including /wanɻu/. A root with three clusters is not attested.

When I first heard the word /wəŋɡundila/ in a text (see Text 1, Line 19), on the 24th August 1972, after having worked on Warrongo with Alf Palmer for about six months, this word sounded very ‘foreign’, i.e. ‘non-Warrongo’, to my ears. The cause for this is not known. At least, it seems certain that the cause is not the presence of two (not just one) N-plus-S clusters. This is because many Warrongo words (though not roots) contain two N-plus-S clusters, e.g. /ɡunda-ŋga/ ‘night-LOC’ and /jamba-ŋga/ ‘camp-LOC’. The cause may possibly be the location of stress in this word; stress falls on the third syllable, i.e. [wəŋɡondila], despite the general tendency in Warrongo for stress to fall on the word-initial syllable (see 2.7-[2]). (In passing, I note that /wəŋɡundila/ [wəŋɡondila] is an exception to the lowering effect of /l/ (2.1.4.3-[2]-(a)).)

[ɲɔŋ] /ɲɪ/ and [ndʒ] /nɪ/ seem to contrast. Thus, Alf Palmer said, ‘When you are lying on top of a woman at night, and if you can’t find it, you say’:

(2-87) [wəɲɔŋɔ wəndʒɔ] [AP]
 /wəɲɪɔ wənɪɔ/
 where hole
 ‘Where is the hole [i.e. vagina]?’

Alf Palmer stated to the effect that these two words are distinct. My observation of his pronunciation (in particular, the position of his tongue) supported his statement. Another minimal pair is [mənɔŋɔ] /mənɪɔ/ ‘vegetable food’ and [mənɔŋɔ] /mənɪɔ/ ‘to send (IMP)’.

Also, /ŋg/ and /ŋɲg/ are in opposition, e.g. (i) [bɔŋgɔ] /bɔŋɡu/ ‘maggot’ and [bɔŋɲgɔ] /bɔŋɡu/ ‘knee’ (cf. (2-3)), and (ii) [gɔŋgɔ] /ɡuŋɡa/ ‘raw’ and [kɔŋɲgari] /ɡuŋɡari/ ‘north’.

It is possible that certain nasals in tri-consonantal clusters are neutralized and do not contrast. (i) In Table 2-18, /lmb/ (e.g. /balmɔbi-n/ ‘smell-NF’) and /lnb/ (e.g. /bilmbɔiɔn/ ‘crimson rosella (?)’) are listed separately. This is based on my observation of Alf Palmer’s pronunciation: the closure/non-closure of his lips. However, it is not certain if phonologically /lmb/ and /lnb/ contrast. (ii) Also /jmb/ and /jnb/ may not contrast. (In my observation of Alf Palmer’s pronunciation, the name of one of the sections (Table 1-8) is [kɔenɔbɔ] /ɡuɲɲɔbɔ/, and not [kɔemɔbɔ] /ɡuɲɲɔbɔ/.)

These generalizations about the consonant clusters are based on the attested patterns. There are many gaps in Table 2-18. Some of the unattested patterns may be genuinely prohibited, while some others may simply accidental ‘gaps’ in the language or they may be due to the incompleteness of the data. The same applies to the generalizations about inter-morphemic clusters (2.2.6.2) and the comparison of bi-consonantal and tri-consonantal clusters (2.2.6.3).

2.2.6.2. *Inter-morphemic consonant clusters*

Attested inter-morphemic clusters are listed in Table 2-19. To facilitate comparison, they are classified roughly in the same way as in Table 2-18. For each group in Table 2-19, a generalization about its membership is given, together with a list of unattested combinations, where relevant.

We shall look at bi-consonantal clusters first.

(a) Homorganic stop-plus-nasal clusters

Examples: /ʃuʃam-bu/ 'locust-ERG', /galbin-du/ 'child-ERG', /gijaŋ-ʃu/ 'mussel shell-ERG' /ŋ-g/ is not attested. (/ŋ/ does not occur morpheme-finally (Table 2-17), and probably /ŋ-g/ is prohibited. Hence the four dots in Table 2-19)

(b) Apico-alveolar sonorant (/n, r, l/) plus stop (/b, d, ʒ, g/)

Examples: /gumun-bi/ 'quiet-INTR', /bigin-ʒi/ 'shield-COM', /muŋan-gu/ 'hill-DAT', /ʃamur-bi/ 'hurry-INTR', /bagur-ʒi/ 'short-COM', /gajaŋ-gajaŋ/ Adv 'going past', /gagal-bi/ 'big-INTR', /diŋgiŋ~diŋgiŋ/ 'bell' (the only example of /l-d/), /gagal-ʒi/ 'big-COM', /waŋal-gu/ 'boomerang-DAT' The inter-morphemic /n-ʒ/, e.g. /bigin-ʒi/ 'shield-COM', presumably involves [ndʒ], not [ɲdʒ], phonetically, although this is not certain. /rd/ is not attested. /nd/ is already listed as a homorganic nasal-plus-stop cluster, and therefore it is parenthesized in (b) of Table 2-19.

(c) Apico-alveolar liquid (/r, l/) plus peripheral nasal (/m, ŋ/)

All possibilities are attested, e.g. /gulmbur-ma/ 'to set up', /biʒir-ŋa/ 'wide-TR', /baba-l-mu/ 'stab-NEGIMP', /ʃungul-ŋa/ 'one-TR'.

(d) Apico-alveolar liquid (/r, l/) plus semivowel (/j, w/)

Examples of /r/ plus /j/: /ʃamur-ʃamuri-n/ [ʃamorʃamoren] Vi 'hurry', and /ʒimir-ʒimiri-n/ [imerimeren] Vi 'be glad' (see (2-34)). (In /ʒimir-ʒimiri-n/, /j/ is phonetically almost always zero (2.1.5.1.2-[3]-(a-4)). /r-ʒi/ is pronounced as one syllable: [ri]. See 3.11.1.7-[6] for the formation of these verbs.) The other three possibilities (/r-w/, /l-j/, /l-w/) are not attested.

(e) Apico-alveolar nasal (/n/) plus a nasal (/m, n, ŋ/, /ɲ/ is not attested.)

Examples: /miŋan-miŋan/ 'hill-hill', /waga-n=na/ 'rise-NF=really' (/na/ 'really' is an enclitic; see (4-1018)), /magan-ŋa/ 'false-TR'.

(f) Retroflex approximant (/ɻ/) or palatal semivowel (/j/) plus non-apico-alveolar stop (/b, ʒ, g/)

All possibilities are attested. Examples: /muŋʃu-bi/ 'painful-INTR', /wiŋaɻ-ʒi/ 'fish-COM', /wiŋaɻ-gu/ 'fish-DAT', /wamaɻ-bi/ 'good-INTR', /ʃawuɻ-ʃu/ 'hot-ERG', /baŋgaɻ-gu/ 'spear-DAT'

Table 2-19. Inter-morphemic consonant clusters

The last member of the cluster is:	bilabial	apico-alveolar	lamino-palatal	dorso-velar
bi-consonantal				
(a)	mb	nd	ɲʃ	
(b)	nb	(nd)	ɲʃ	ŋg
	rb		ɾʃ	ɾg
	lb	ld	lʃ	lg
(c)	rm			ɾŋ
	lm			lŋ
(d)			ɾj	
(e)	nm	nn		ŋŋ
(f)	rb		ɾʃ	ɾg
	jb		jʃ	jg
(g)				ɲŋ
	jm		jp	jŋ
others			mʃ	mg
				mŋ
	ɲb			ɲŋ
				dg
	nw		dŋ	
			jj	
tri-consonantal				
(h)	rmb			
	ymb			
	lmb			
	lmb*			
	jmb			jŋg
(i)	ɲnb			

(g) Retroflex approximant (/ɻ/) or palatal semivowel /j/ plus non-apico-alveolar nasal (/m, n, ŋ/)

Examples: /biŋgiɻ-ŋa/ 'hot-TR', /gujaɲ-mali/ 'across-side', /ʃulaɲ-ɲungul/ 'tree-one' (a placename; cf. 1.5.4.3-[6]), /gujaɲ-ŋa/ 'across-TR'. /ɲm/ and /ɲp/ are not attested.

'Others'

It is difficult to generalize about these clusters. Examples: (i) /ʃalam-ʃalam/ 'wave~wave', (ii) /guɻim-guɻim/ 'busy and not looking', (iii) /ʃalam-ʃalam-ŋa/ 'wave~wave-TR', (iv) /buwɻɲ-buwɻɲ/ (Jalngoy?) 'butcher bird', (v) /ʃulbiɻɲ-ŋa/

'skinless-TR', (vi) /wajaji-**d-gu**/ 'one's own-LINK-DAT' (cf. (2-57)), (vii) /nubijid-**ŋumaj**/ 'Rosevale-ABL' (cf. 2.2.5.1-[3]), (viii) /juajj~juajj/ 'quiet~quiet'

We now turn to tri-consonantal clusters.

(h) Liquid (/r/, /ɹ/ or /l/) or palatal semivowel /j/ plus nasal plus stop

Examples: (i) /gulmbur-**m-ba**/ 'to set up [a fence]' (see 4.7.3 for the transitive-stem-forming suffix /m-ba/), (ii) /gujnbur-**m-ba**/ 'to feel sorry for', (iii) /bujil-**m-ba**/ 'to take no notice of' (see (2-36) for /bujil/), (iv) /baraj~**m**~baraj/ 'in the morning', (v) /baggaj-**ŋ-gu**/ 'spear-**ŋ**-DAT' There is no example of /l-n-b/ across a morpheme boundary (indicated by an asterisk). But there is one example of /lnb/ next to a morpheme boundary: /buŋgulnburu/ 'on knees' (cf. /buŋgu/ 'knee') (mentioned in 2.2.3.2-[1]).

(i) Palatal semivowel /j/ plus nasal plus stop

An example: /wamaj-**n-bi**/ 'good-LINK-INTR'.

2.2.6.3. *Comparison and analysis of intra-root and inter-morphemic consonant clusters*

There is only a very small difference, in terms of number, between intra-root clusters (Table 2-18, 48 patterns) and inter-morphemic ones (Table 2-19, 45 patterns). (It is interesting to note that, in Djaru, inter-morphemic clusters far outnumber intra-root ones (Tsunoda 1981a: 38–40).) In the main they behave similarly. As far as the attested clusters are concerned, the following observations can be made. (A detailed discussion of intra-root and inter-morphemic consonant clusters of Warrongo is in Tsunoda (2008).)

[1] Tendencies and restrictions

The following tendencies or restrictions apply to both types of clusters, unless stated otherwise.

- (a) Cluster-initially, stops and the semivowel /w/ are not attested.
- (b) Cluster-finally, the following phonemes are not attested: the apico-alveolar nasal /n/ and liquids /r, ɹ, l/. The inter-morphemic /n-n/ is an exception. (To be precise, /n=n/. See (4-1018).)
- (c) There is no example of 'nasal+liquid', such as /nl/. (In Djaru, the interfix /gu/ has to be inserted between a nasal and a lateral at a morpheme boundary.)
- (d) The clusters that contain the apico-alveolar stop /d/ are almost completely absent. There is only one within a root (/nd/), and only two across a morpheme boundary (/n-d/ and /l-d/). (This explains the absence of liquid-plus-/d/ clusters within a root (mentioned in 2.1.3.2.6-[3]).) The only example of /l-d/ is /diŋgil~diŋgil/ 'bell', but it is an ideophone, and consequently it is marginal in the Warrongo phonology.

- (e) Nasal+stop ('N+S') clusters are fairly common. Furthermore, every tri-consonantal cluster contains a N+S cluster.
- (f) Among the N+S clusters, homorganic ones are fairly common. (Even the apico-alveolar stop /d/ occurs here, i.e. /nd/) Furthermore, they occur in most of the tri-consonantal clusters. This is no doubt due to an articulatory reason. (Homorganic N-plus-S clusters appear to be among the most common consonant clusters in some other Australian languages, e.g. Dyirbal (Dixon 1972: 272), and Djaru (Tsunoda 1981a: 38), and this may be the case crosslinguistically as well.)

There are clusters that are attested within a root only, and also those that are attested across a morpheme boundary only. The following points are worth mentioning.

- (g) One intra-root cluster starts with /ŋ/: /ŋg/, e.g. /buŋgu/ 'knee'. (See (a) of Table 2-18.) But there is no such inter-morphemic one. This is because /ŋ/ does not, and probably cannot, occur in the final position of roots or suffixes (Table 2-17).
- (h) The following types of clusters are attested across a morpheme boundary only, and not within a root.
- (h-1) The cluster /rj/, e.g. /jamur~jamuri/ 'to hurry' (See (d) of Table 2-19) Within a root, /rj/ and /lj/ appear to be prohibited (2.2.6.2-(d)).
- (h-2) The cluster /nn/, e.g. /wagan-n=na/ 'rise-NF=really' in (4-1018)). (See (e) of Table 2-19)

(For (h-3) to (h-7) below, see 'other' of Table 2-19.)

- (h-3) The following three clusters that start with /m/, i.e. (i) /mʃ/ (/ʃalam~ʃalam/ 'wave~wave'), (ii) /mg/ (/gumim~gumim/ 'busy and not looking'), and (iii) /mɲ/ (/ʃalam~ʃalam-ŋa/ 'wave~wave-TR').
- (h-4) The cluster /pɲ/ (/buwupɲ~buwupɲ/ (Jalngoy?) 'butcher bird').
- (h-5) The two clusters that start with the stop /d/: (i) /dg/ (/waraji-d-gu/ 'one's own-LINK-DAT' (3.6.8)), and (ii) /dɲ/ (/ubijid-ɲumaj/ 'Rosevale-ABL'). They are the only clusters in the language that start with a stop. (/d/ in /waraji-d-gu/ is a linking interfix. It is the only linking interfix that consists of a stop. Recall also that bona fide Warrongo roots do not end in a stop. /ubijid/ 'Rosevale' is a loan.) Therefore, /waraji-d-gu/ contains the only S-plus-S cluster in the language, and /ubijid-ɲumaj/ contains the only S-plus-N cluster, in the language.
- (h-6) The cluster /nw/ (/warman~warman/ 'busy').
- (h-7) The cluster /jj/, in which the same phoneme is repeated: /juɹaj~juɹaj/ 'quiet~quiet'.

Also, all inter-morphemic tri-consonantal clusters involve nasal insertion, e.g. /baraj~m~baraj/ 'in the morning'; see 2.6-[2]-(a).

[2] Natural classes

The various groups of consonants and semivowels listed in 2.2.6.1 (intra-root clusters) and 2.2.6.2 (inter-morphemic ones) may each be considered as natural classes. Then, intra-root clusters and inter-morphemic ones have almost the same natural classes. Examples follow, presented mainly in terms of place of articulation.

- (a) Apico-alveolar. This is the most recurrent feature: (i) apico-alveolar sonorants (/r, l, n/) (2.2.6.1-(b), 2.2.6.2-(b)), and (ii) apico-alveolar liquids (/r, l/) (2.2.6.1-(c), -(d), 2.2.6.2-(c), -(d)).
- (b) Non-apico-alveolar: (i) non-apico-alveolar stops (/b, ʝ, g/) (2.2.6.1-(b), -(f), 2.2.6.2-(f)), (ii) non-apico-alveolar nasals (/m, ɲ, ŋ/) (2.2.6.1-(c), -(g), 2.2.6.2-(g)), and (iii) non-apico-alveolar homorganic clusters (/mb, ɲʝ, ŋg/) (2.2.6.1-(h)).
- (c) Peripheral: (i) peripheral nasals (/m, ŋ/) (2.2.6.1-(e), 2.2.6.2-(c), -(e)).
- (d) Semivowel (/j, w/): (i) (2.2.6.1-(d), 2.2.6.2-(d)).
- (e) Possibly, the retroflex approximant /ɻ/ and the palatal semivowel /j/ (2.2.6.1-(f), -(g), 2.2.6.2-(f), -(g)) constitute a natural class. See 2.5-[4].

That is, mainly in terms of place of articulation, 'apico-alveolar' is the largest natural class, followed by its opposite: non-apico-alveolar. Other classes are much smaller.

As seen above, when apico-alveolars function as a natural class, they consist of sonorants only (/r, l, n/), i.e. liquids and the nasal, and exclude the stop (/d/). When non-apico-alveolars function as a natural class, they consist of stops only, nasals only, or a nasal and a stop. When peripherals function as a natural class, they comprise the nasals only (/m, ŋ/), and exclude the stops (/b, g/) and the semivowel (/w/). This indicates that, when a given group of phonemes function as a natural class, there are preferences between places and manners of articulation as shown below.

(2-88) Preferences:

- | | |
|------------------------|---------------|
| a. apico-alveolars | sonorants |
| b. non-apico-alveolars | nasals, stops |
| c. peripherals | nasals |

There appears to be no place of articulation which prefers stops, to the exclusions of sonorants. (See 2.5 for more on natural classes.)

[3] Relative order of members and syllable contact

Intra-root and inter-morphemic clusters exhibit very similar orders of the members.

[3-1] Intra-root clusters (Table 2-18)

Bi-consonantal clusters exhibit the following orders (repeated from 2.2.6.1).

(2-89) Intra-root bi-consonantal clusters:

- (a) homorganic N-plus-S clusters (/mb, nd, nʃ, ŋɡ/).
- (b) apico-alveolar sonorant (/r, l, n/) + non-apico-alveolar stop (/b, ʒ, g/).
- (c) apico-alveolar liquid (/r, l/) + non-apico-alveolar nasal (/m, ɲ, ŋ/).
- (d) apico-alveolar liquid (/r, l/) + semivowel /w/.
- (e) apico-alveolar nasal (/n/) + peripheral nasal (/m, ŋ/).
- (f) liquid /x/ or semivowel /j/ + non-apico-alveolar stop (/b, ʒ, g/).
- (g) liquid /x/ or semivowel /j/ + non-apico-alveolar nasal (/m, ɲ, ŋ/).

In each combination, the first member is a nasal, a liquid, or the semivowel /j/. They are all sonorants. (But /w/, which is a sonorant, does not occur here.) The second member is often, though not always, a stop. But the second member may be a nasal (/m, ɲ, ŋ) or the semivowel /w/.

Intra-root tri-consonantal clusters exhibit the relative order of its members shown in (2-90).

(2-90) Intra-root tri-consonantal clusters:

- liquid (/r, x, l/) or /j/ + nasal (/m, n, ɲ, ŋ/) + non-apico-alveolar stop (/b, ʒ, g/)

[3-2] Inter-morphemic clusters

Bi-consonantal clusters exhibit the following orders (repeated from 2.2.6.2).

(2-91) Inter-morphemic bi-consonantal clusters:

- (a) homorganic stop-plus-nasal clusters (/m-b, n-d, ɲ-ʒ/, not /ŋ-g/).
 - (b) apico-alveolar sonorant (/n, r, l/) + stop (/b, d, ʒ, g/).
 - (c) apico-alveolar liquid (/r, l/) + peripheral nasal (/m, ŋ/).
 - (d) apico-alveolar liquid (/r, l/) + semivowel (/j, w/).
 - (e) apico-alveolar nasal (/n/) + nasal (/m, n, ŋ/).
 - (f) liquid /x/ or semivowel (/j/) + non-apico-alveolar stop (/b, ʒ, g/).
 - (g) liquid /x/ or semivowel /j/ + non-apico-alveolar nasal (/m, ɲ, ŋ/).
- others: /mʒ, mɡ, mŋ, ɲb, ɲŋ, dɡ, dŋ, nw, jj/.

In (a) to (g), the first member is a nasal, a liquid or the semivowel /j/. The second member is a stop, a nasal, or a semivowel. It is difficult to make any generalization about clusters of 'others'.

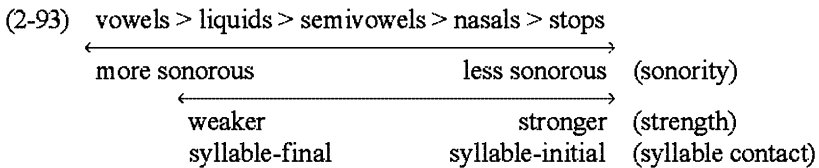
Tri-consonantal clusters show the following order.

(2-92) Inter-morphemic tri-consonantal clusters:

- liquid (/r, x, l/) or /j/ + nasal (/m, n, ŋ/, but not /ɲ/)
- + non-apico-alveolar stop (/b, g/, not /ʒ/)

Compare (2-92) with (2-90). Unlike intra-root clusters, inter-morphemic ones lack the nasal /ɲ/ for the second member, and the stop /ʒ/ for the third. This is another difference between intra-root and inter-morphemic clusters.

The relative order of consonants and semivowels in clusters can be shown very roughly in (2-93). Vowels are added for comparison. '>' means 'precedes'. (See below for sonority, strength, and syllable contact.)



The evidence for this ordering is as follows.

- (i) 'Nasal > stop' is supported by (2-89-a, -b), (2-90), (2-91-a, -b), (2-92).
- (ii) 'Liquid > stop': (2-89-b, -f), (2-90), (2-91-b, -f), (2-92).
- (iii) 'Liquid > nasal': (2-89-c, -g), (2-90), (2-91-c, -g), (2-92).
- (iv) 'Liquid > semivowel': (2-89-d), (2-91-d).
- (v) 'Semivowel > stop': (2-89-f), (2-91-f).
- (vi) 'Semivowel > nasal': (2-89-g), (2-90), (2-91-g), (2-92).

(Also, there is some evidence to group vowels and liquids as against nasals. See 4.7.3.)

Similar rankings of phonemes have been proposed by other scholars. These rankings are claimed to show the degree of (i) sonority of these phonemes, including vowels, and (ii) inversely, the strength of semivowels and consonants. On this view, the first phoneme in a cluster is more sonorous (or weaker) than the segment that follows.

In (2-93), liquids are considered more sonorous (or weaker) than semivowels. In this respect, it is similar to the rankings proposed by Hankamer and Aissen (1974) and by Suzuki (1989), and it differs from those set up by Hooper (1976), Murray and Vennemann (1983), Zwicky (1972) and many others, where the relative ranking of liquids and semivowels is reversed.

As for the nasals, (2-89-e) and (2-91-e) indicate '/n/ > /m, ŋ/'. Furthermore, /mŋ/ of 'others' of Table 2-19 points to '/m/ > /ŋ/', and /jŋ/ of 'others' shows '/j/ < /ŋ/'. Jointly they suggest:

(2-94) /n/ > /m, j/ /ŋ/

There is no evidence to relatively rank /m/ and /j/.

As for stops, /dq/ of 'others' suggests:

(2-95) /d/ > /g/

There is no evidence to relatively rank other stops. The cluster /dq/ occurs in /wa:ra:ji-**d-gu**/ 'one's own-LINK-DAT' (2.2.6.2). It is the only stop+stop cluster in Warrongo.

Note that /n/ of (2-94) and /d/ of (2-95) are apico-alveolar, and that /ŋ/ and /g/ are (dorso-)velar. That is, apico-alveolars may be the most sonorous (or weakest) and velars the least sonorous (or strongest).

There are two exceptions to the generalization of (2-93): /nw/ (nasal > semi-vowel) and /dŋ/ (stop > nasal) of ‘others’. Also, in each of the clusters /nn/ and /jj/, the two members are the same phoneme and consequently they are equal in terms of sonority or strength. At least these clusters are not exceptions to (2-93). These four clusters occur across a morpheme boundary, and not in roots. In this respect, the restrictions are weaker on inter-morphemic clusters than on intra-root clusters.

Note that /n/ of /nw/ and /d/ of /dŋ/ are apico-alveolar, and /w/ and /ŋ/ are velar. Taking (2-94), (2-95), /nw/ and /dŋ/ into consideration, it is possible to set up the following hierarchy:

(2-96)	apico-alveolar > bilabial, lamino-palatal > velar
	←—————→
	more sonorous less sonorous
	weaker stronger
	syllable-final syllable-initial

If this is the case, /nw/ and /dŋ/ conform to (2-96), although they are exceptions to (2-93).

The rankings of consonants and semivowels cited above also concern the phenomenon of syllable contact. For example, Murray and Vennemann (1983: 514) state that there is ‘a universal preference for syllable onsets [i.e. cluster-final consonants/semivowels – TT] that are at least as strong as the preceding syllable offset [i.e. cluster-initial consonant/semivowel – TT]’. On this view, (2-93) (manners of articulation) and (2-96) (places of articulation) summarize the ‘syllable contact laws’ of Warrongo.

2.2.7. Syllables: onset and coda

In 2.2.4, we looked at the syllable types that occur in words, in roots, in suffixes, and in enclitics. In the following, we shall consider syllables in words and roots, and not those in suffixes alone or enclitics alone.

As noted in 2.2.4-[2], tri-consonant clusters present a problem for syllabification. The second member of a given cluster may be assigned to the preceding syllable or the following syllable. In the following, we shall be concerned with bi-consonantal clusters only.

As seen in 2.2.4, words and roots exhibit the following four types of syllables: CV, CVC, CV_i, and CV_iC. Among them, CV and CVC are very common, while the latter two are extremely uncommon. We shall look at each of these four types. Many examples of CV and CVC were given in 2.1.2, among others.

[1] CV

All of the consonants and semivowels are attested in the position of C.

[2] C1VC2

This has yielded at least the following patterns (and no doubt there are more).

(a) C1 is any stop and C2 is a nasal, a liquid or the semivowel /j/ (but not /w/, see below). This pattern is by far the most frequent, e.g. /**baŋ_gaj/** ‘spear’, /**baŋ_bi_ɾa/** ‘echidna’, /**bal_ban/** ‘bone’

(b) C1 is the semivowel /j/ and C2 is the stop /d/: /**wa_ɾa_ji-d-gu/** ‘one’s own-LINK-DAT’, /**ɬu_bi_jid-ŋu_maj/** ‘Rosevale-ABL’. Syllables ending in a stop are unusual in Warrongo. (As noted in 2.2.6.3, /d/ is the only linking interfix that consists of a stop. Bona fide Warrongo roots do not end in a stop. /**ɬubijid/** ‘Rosevale’ is a loan.)

(c) C1 is a nasal and C2 is a liquid or the semivowel /j/ (but not /w/), e.g. /**mar_ga/** ‘thin’, /**maɾ_bu/** ‘louse’, /**mal_ba/** ‘dance style’, /**gi_ɾa_maj/** ‘Girramay’, /**nal_ŋi/** ‘to shake’ /**ɲaŋ_ga/** ‘down’, /**ŋaŋ_gun/** ‘blood’, /**ba_da_ŋal/** ‘downstream-to’, /**ʒal_ŋuj/** ‘avoidance style’.

(d) C1 is a liquid or a semivowel and C2 is a nasal, e.g. /**ŋa_ɾam_bi/** ‘to hear’, /**ju_di_ga_ɾa-n/** ‘swim-ITER-NF’, /**baɪ_ba_ɾam/** ‘Mbabaram’, /**ŋu_ɟiŋ_ʒil/** ‘(place-name)’, /**ʒa_lam/** ‘wave’, /**ʒam_ba/** ‘camp’, /**ʒan_ba_ɾa/** ‘long spear’, /**gi_ʒaŋ/** ‘mussel shell’, /**ʒaŋ_ga/** ‘to look for’, /**wam_bi_mu/** ‘Wambino’ (1.5.4.2-[1]), /**wan_ʒa/** ‘hole’, /**waj_ʒa/** ‘where’, /**waj_gun_di_la/** ‘(placename)’

(e) C1 is a liquid and C2 is the semivowel /j/ (but not /w/), e.g. /**gi_ʒu_ɾuj/** ‘centipede’, /**ʒu_ɾaj/** ‘quiet’.

(f) C1 is a semivowel and C2 is a liquid, e.g. /**ʒal_ga/** ‘road’, /**waŋ_ga_maj/** ‘Warrgamay’, /**ba_wiɪ/** ‘(placename)’, /**wal_wa/** ‘bad’.

(g) C1 and C2 are nasal, e.g. /**mam_bu/** ‘back bone’, /**gu_mun/** ‘quite’, /**maŋ_ʒa/** ‘food’, /**maŋ_ga/** ‘flower’, /**ŋa_nim_ba_ɾi/** ‘how many’, /**ga_nan/** ‘again’, /**ʒan_du/** ‘ignorant’, /**ŋam_ba/** ‘half’, /**ŋuŋ_ʒi_ɾa/** ‘ant nest’.

Stops as a rule do not occur syllable-finally, although there are two exceptions; see (b) above. According to the analysis adopted (2.1.5.2), /w/ does not occur syllable-finally; there is no exception.

[3] CV:

This is attested in only two instances: /**ŋaɪ_ɾa/** ‘(placename)’, /**ʒaɪ_ɾ-a/** ‘yard-LOC’. C1 is the nasal /ŋ/ or the semivowel /j/.

[4] C1VC2

This, too, has only two examples: /bɑ:n/ ‘whip’, /jɑ:t/ ‘yard’. C1 is the stop /b/ or the semivowel /j/, while C2 is the nasal /n/ or the liquid /r/.

Regarding Australian languages, Dixon (1980: 188) states that syllable-initially peripherals are the most favoured, followed by laminals, while syllable-finally apicals are the most favoured. This generalization applies to Warrongo fairly well, as can be seen in the examples above. See also (2-96).

2.3. Statistics

The statistical tendency of occurrence of phonemes will be examined, by means of a dictionary count (2.3.1) and by a text count (2.3.2).

2.3.1. Statistics (1): dictionary count

This dictionary count is based on approximately 1600 roots in Tsunoda (2003). The figures for root-initial and root-final positions are given in Table 2-20. The four dots indicate that the phoneme in question is (or appears to be) prohibited in this position. There are two roots that end in the stop /d/ (2.2.5.1-[3]). But they are both loans from English. They constitute only 0.2% of root-final phonemes. Also, root-initial /a/ and /a:/ are exceptional (2.2.3.1-[1], -[2]). These roots will be ignored in the following discussion of statistics.

Table 2-20. Phoneme frequency (1): dictionary count

	root-initial		root-final		
/b/	23%	}	0.2%	}	
/d/	1%				
/j/	13%				
/g/	25%	}	0.3%	}	
/m/	10%				
/n/	0.4%	}	7%	}	
/p/	2%		}		1%
/tj/	6%				}
/r/		}	1%	}	
/ɹ/	2%		}		1%
/l/		}		5%	}
/j/	7%		}	4%	
/w/	10%	}			}
/a/	0.2%		}	58%	
/i/		}		11%	}
/u/			}	12%	
/a:/				}	

Table 2-22. Phoneme frequency (2): text count

word-initial		word-final	
/b/	13%	}	0%
/d/	0%		
/ʒ/	6%		
/g/	13%		
}		32%	
/m/	6%	}	5%
/n/	0%		
/p/	2%		
/ŋ/	25%		
}		33%	
/r/		}	7%
/ɹ/	0%		
/l/			
/j/	27%	}	9%
/w/	9%		
/a/	0%		
}		36%	
/i/		}	78%
/u/			
/ɔ/			
/a:/	0%		
}		0%	
			38%
			20%
			20%
			0%

2.3.2. Statistics (2): text count

This text count is based on the first 100 words of the texts in Tape 72/26; this portion of the texts is included in Text 1. The dictionary count (2.3.1) concerns roots. However, this text count deals with words. This is because, in texts, nouns and verbs (and verbs in particular) are generally combined with an inflectional suffix. Here, by words, we mean 'word' as shown in (2-78), i.e. an enclitic is considered to be part of the word in question. This text count looks at only 100 words, but it does not seem worthwhile to expand the sample. An expanded sample is likely to produce much the same result. Consider Table 2-22.

In the main, Table 2-22 shows a similar tendency to that in Table 2-20, except for two notable differences in the initial positions.

First, /ŋ/ is 6% by the dictionary count, but it is 25% by the text count, about four times more frequent. This is due to the frequent occurrence of /ŋaja/ '1SG.NOM/ERG' and /ŋuna-ŋumaj/ 'that-after' ('after that; and then'; 3.8.1-[9]) in the texts.

Second, /j/ is 7% by the dictionary count, but it is 27% by the text count, again about four times more frequent. In the texts, /jani/ 'to go/come' occurs very frequently. See Texts 1 and 2 for examples.

2.4. Alternation between phonemes

Alternations between a consonant and another consonant (or a semivowel) are attested. All of them occur in Alf Palmer's data. One of them occurs in Alec Collins' data, as well; see [5].

[1] /l/ ~ /r/

In Alf Palmer's speech, /l/ is sometimes pronounced as /r/. For example, in Text 2, Line 41, /jilbaj/ 'knowing' sounds like [dʒirbai]. This may be a phonetic variant of /l/. However, there are cases where the pronunciation of [r] occurs frequently enough for it to be recognized as manifesting the phoneme /r/. See (2-98) and (2-99). In the case of /gimbira/ in (2-100), only [r] occurs, and not [l], hence /r/.

(2-98) /bijil/, /bijir/ /bijil-ŋa/, /bijir-ŋa/
 'wide' 'wide-TR'

(2-99) /ŋalban/ /ŋarban/
 'fast' 'fast'

(2-100) /gimbi/ /gimbi~gimbi/ /gimbi~gimbi/ /gimbira/
 Vt, Vi 'blow [of wind]' 'windy' 'windy' 'fart'

Regarding (2-100), the verb /gimbi/ 'to blow' appears to belong to L-class (cf. Table 3-14); this is reflected in its derivative word /gimbi~gimbi/ 'windy'. Regarding (2-99), /ŋarban/ 'fast' seems to be used for emphasis. An example from the texts, in which a man says to his wife, 'Walk fast!':

(2-101) /ŋarban jinda ŋarban/
 ngarrban-Ø! yinda ngarrban-Ø!
 fast-NOM 2SG.NOM fast-NOM
 ' [Walk] fast! You [walk] fast!'

Taking these facts into account, the forms involving /l/ may be the older ones. See 3.11.1.7-[11] for more on /l/ and /r/.

Phonetically /ŋarban/ in (2-101) is [ŋarpan]. That is, /b/ is voiceless. As noted in 2.1.3.2.6-[3], /ŋarban/ is the only instance in which /b/ is voiceless in a liquid-plus-stop cluster. In other instances, /b/ is voiced consistently.

[2] /p/ ~ /j/

In this alternation and those discussed below, relevant forms occur in some other languages. In (2-102) and those that follow, the languages are ordered roughly from north to south. A broken line indicates the boundary between Dixon's Herbert River Group (which includes Dyirbal (i.e. Jirrbal, Girramay, etc.), Warrgamay

and Nyawaygi) and the Mari subgroup (which includes Warrongo, Gugu-Badhun, Gujal and Biri). Warrongo neighbours the Herbert River Group. See Table 1-1 and Map 5. (The data on Alec Collins' Warrongo and on Gujal are from Peter Sutton.) There are two sets of alternations that involve /ɲ/ ~ /j/. First, consider:

(2-102) 'sand goanna'	
Jirrbal of Dyirbal (my data from Tommy Springcart)	/ʃagaj/
Warrgamay (Dixon 1981: 114)	/ʃagap/
Nyawaygi (Dixon 1983: 506)	/ʃagap/ 'big goanna'
-----	-----
Alf Palmer's Warrongo	/ʃagap/, /ʃagaj/
Alec Collins' Warrongo	/ʃagaj/
Gugu-Badhun (Sutton 1973: 210)	/ɖagaj/
Gujal	/ɖagaj/

(The correspondence between the palatal /ʃ/ and the dental /ɖ/ is regular, see Table 1-4.) Second, consider:

(2-103) 'fingernail'	
Dyirbal (Dixon 1972: 399)	/biguj/
-----	-----
Alec Collins' Warrongo	/biguj/
Alf Palmer's Warrongo	/biguj/, /biguj/
Gugu-Badhun (Sutton 1973: 208)	/biguj/

In Warrongo, the ergative and the locative forms of /ʃagaj/ 'sand goanna', for instance, are /ʃagap-ɲu/ and /ʃagap-ʃa/, as is the case with /baŋgaj/ 'spear'; see Table 2-15. The same is true of /biguj/ 'finger nail'. This suggests that, with the forms 'sand goanna' and those for 'finger nail', the form ending in /ɲ/ is the older form and that ending in /j/ is an innovation. That is, regarding this change from /ɲ/ to /j/, in the main the Herbert River Group is conservative, and the Mari subgroup is innovative.

[3] /g/ ~ /ʃ/

(2-104) 'liver'	
Jirrbal of Dyirbal (my data from Tommy Springcart)	/ʃiba/
Warrgamay (Dixon 1981: 123)	/giba/
Nyawaygi (Dixon 1983: 508)	/giba~giba/
-----	-----
Alf Palmer's Warrongo	/giba/ ([geba]), /ʃiba/ ([ɖʒiba])
Gugu-Badhun (Sutton 1973: 196)	/ʃiba/

It seems likely that the change is /g/ → /j/, cf. Latin *genus* (the initial consonant is a velar stop) and English *genus* (the initial consonant is a palatal affricate). That is, /giba/ is the older form and /jiba/ is an innovated form. (See 2.1.4.3-[1], -[2]-(e) for the phonetic realizations of /giba/ ([geba]) and /jiba/ ([dʒiba]) in Alf Palmer's speech.)

[4] /i/ ~ /j/

Consider (2-55) and the following forms in Alf Palmer's Warrongo.

(2-105)	/bulari/	/bulari-bulari/ 'two~two (i.e. four)'

	*/bulaji/	/bulaji-bulaji/ 'two~two (i.e. four)'

(Phonetically, /ji/ of /bulaji-bulaji/ is [i] (2.1.4.3-[1], 2.1.5.1.2-[3]-(b-1).)

(2-106)	/bunbul/ 'smoke'	/bunbul-bara/ 'big smoke' (Jalngoy?)	/bunbu-bara/ 'big smoke' (Jalngoy?)

		/bunbul-baja/ 'smoke' (Jalngoy?)	/bunbu-baja/ 'smoke' (Jalngoy?)
(2-107)	/jami/ 'fat (not meat)'	/jami-bara/ 'fat (not thin)'	/jami-baja/ 'fat (not thin)'
(2-108)	/guli/ 'angry'	/guli-bara/ 'angry'	/guli-baja/ 'angry'
(2-109)	/gunda/ 'darkness'	/gunda-bara/ 'sky', 'bright (not dark)'	/gunda-baja/ 'dark'

(The meaning of /gunda-bara/ seems unpredictable.) Clearly a suffix is involved in these forms, and it shows the alternation of /'bara/ ~ /'baja/ (But its function is not clear; see 3.7.1-[8], -[9].) What appears to be a cognate is attested as follows.

(2-110)	/bara/	
	Dyirbal (Dixon 1972: 226)	/bara/ 'comparative'
	Warrgamay (Dixon 1981: 34)	/bara/ 'comparative'
	Alf Palmer's Warrongo	/bara/, /baja/ (meaning unknown)
	Gugu-Badhun (Sutton 1973: 103-104)	/bara/ (meaning unknown)

Only Alf Palmer's Warrongo exhibits the alternation of /bara/ ~ /baja/

There is a phonetic similarity between /ɪ/ and /j/. Recall that phonetically /ɪ/ is realized generally as a retroflex approximant and occasionally as a retroflex flap (2.1.3.1). In each set of the relevant forms in (2-56) and (2-105) to (2-110), /ɪ/ seems to be (always?) realized as a retroflex approximant. Now, Jakobson, Fant and Halle (1967: 22) note: 'As for the so-called "continuant [i.e. approximant -TT] r", it is actually a non-syllabic vowel' That is, the Warrongo /ɪ/, when realized as a retroflex approximant, is a non-syllabic vowel, like /j/.

Dixon (2002: 576, 627) reports the diachronic change of /ɪ/ → /j/ – and also that of /r/ → /j/ – from a few other Australian languages. In view of this, the change in Warrongo seems to be /ɪ/ → /j/, and not /j/ → /ɪ/.

[5] /b/ ~ /m/

This alternation occurs not only Alf Palmer's data, but also Alec Collins'.

(2-111) 'to cut'

Dyirbal (Dixon 1972: 403)	/gunba/
Warrgamay (Dixon 1981: 117)	/gunba/
Nyawaygi (Dixon 1983: 508)	/gunba/

Alf Palmer's Warrongo	/gunba/, /gunma/
Alec Collins' Warrongo	/gunba/, /gunma/
Gugu-Badhun (Sutton 1973: 216)	/gunma/
Ranji Pope's Gujal	/gunma/
Biri (my data)	/gulma/

Alf Palmer's data exhibit the alternation of /b/ ~ /m/ (/gunba/ is far more frequent than /gunma/.) A possible line of development is as follows: /gulma/ → /gunma/ → /gunba/. The first change (/l/ → /n/) involves assimilation (to the following nasal), and the second change (/m/ → /b/) involves dissimilation (away from the preceding nasal). The alternative scenario is the opposite: /gunba/ → /gunma/ → /gulma/. There is no evidence to prefer one hypothesis to the other.

[6] /l/ and /n/

(2-112) 'to squeeze'

Dyirbal (Dixon 1972: 402)	/julma/
Warrgamay (Dixon 1981: 115)	/junma/

Alf Palmer's Warrongo	/julma/, /junma/

A possible line of change is: /julma/ → /junma/. The alternative is: /junma/ → /julma/. Again, there is no evidence to prefer one hypothesis to the other.

Note that [5], too, exhibits the alternation between /l/ and /n/. In [5] the form involving /l/ (/gulma/) occurs in the Mari subgroup. In contrast, in [6] the form

involving /l/ (/julma/) occurs in the Herbert River group. That is, this correspondence is irregular.

In Alf Palmer's data, there is also one instance of each of the following alternations: /d/ ~ /r/ and /l/ ~ /n/; see Table 3-4. There are two instances of /ɹ/ ~ /n/; see Table 3-4 and 4.7.3-[4].

2.5. Natural classes

Natural classes may be recognized on the basis of phonotactics, synchronic alternations, diachronic changes, and allomorphy, among others. In Warrongo, the synchronic alternations discussed in 2.4 appear to be results of diachronic changes. Natural classes proposed for Warrongo are listed in [1] (phonotactics), in [2] (synchronic alternations), in [3] (allomorphy of case suffixes) and discussed in [4]. Some of the classes are very small, consisting of just two members, while others are somewhat larger. It is sometimes very difficult to make a 'natural' generalization. Such classes are 'unnatural' (Lass 1991: 82).

[1] Natural classes (1): in terms of phonotactics

In terms of the possibilities in consonant clusters (2.2.6.1, 2.2.6.2), it is fairly easy to set up 'natural' classes. They can be classified as follows.

- (i-1) Homorganic nasal-plus-stop clusters (/mb, nd, nɟ, ŋg/) (2.2.6.1-(a)).
- (i-2) Non-apico-alveolar nasal-plus-stop homorganic clusters (/mb, nɟ, ŋg/) (2.2.6.1-(h)).
- (i-3) Non-velar nasal-plus-stop clusters (/mb, nd, nɟ/) (2.2.6.2-(a)).
- (ii-1) Apico-alveolar sonorants (/r, l, n/) (2.2.6.1-(b), 2.2.6.2-(b)). Furthermore, they are alike in that they seem to be prohibited word-initially and root-initially.
- (ii-2) Apico-alveolar liquids (/r, l) (2.2.6.1-(c), -(d), 2.2.6.2-(c), -(d)).
- (iii-1) Stops /b, d, ɟ, g/ (2.2.6.2-(b)).
- (iii-2) Non-apico-alveolar stops (/b, ɟ, g/) (2.2.6.1-(b), -(f), 2.2.6.2-(f)).
- (iv-1) Non-apico-alveolar nasals (/m, n, ŋ/) (2.2.6.1-(c), -(g), 2.2.6.1-(g)).
- (iv-2) Peripheral nasals (/m, ŋ/) (2.2.6.1-(e), 2.2.6.2-(c), -(e)).
- (v) Semivowels (/j, w/) (2.2.6.1-(d), 2.2.6.2-(d)).
- (vi-1) Liquids (/r, ɹ, l/) and palatal semivowel /j/ (2.2.6.1-(h), 2.2.6.2-(h)).
- (vi-2) Retroflex approximant /ɹ/ and palatal semivowel /j/ (2.2.6.1-(f), -(g), 2.2.6.2-(f), -(g)).
- (vii) /l, r, j/ (2.2.6.1-(i)). This class does not seem 'natural'.

The classes listed above are recognized on the basis of the occurrence of phonemes in consonant clusters. All of them are 'natural', except for (vii).

Furthermore, in terms of the possibilities in structural positions (Table 2-17), the following classes can be set up. However, they do not seem 'natural', in contrast with the classes listed above.

- (viii-1) Stops (/b, d, ʒ, g/) and velar sonorants (/ŋ, w/): prohibited word-finally.
- (viii-2) Non-apico-alveolar stops (/b, ʒ, g/) and velar sonorants (/ŋ, w/): prohibited root-finally.
- (ix) /b, r, ɹ, l, j, w/: attested suffix-medially and inter-vocalically in suffixes.
- (x) /b, ʒ, g, m, n, ɲ, r, w/: attested enclitic-initially.
- (xi) /ʒ, m, l, w/: attested enclitic-medially.
- (xii) Vowels (/a, i, u/), apico-alveolar sonorants (/n, r, l/), and palatal semi-vowel /j/: attested suffix-finally.
- (xiii) Vowels (/a, i/, u/) and /n, l/: attested enclitic-finally.

[2] Natural classes (2): in terms of synchronic alternations

The following alternations between phonemes are observed in Alf Palmer's Warrongo (2.4-[1] to -[6]).

- (i) Apico-alveolar: lateral /l/ ~ rhotic /r/ (2.4-[1])
- (ii) Palatal: nasal /ɲ/ ~ semivowel /j/ (2.4-[2])
- (iii) Velar stop /g/ ~ palatal stop /ʒ/ (2.4-[3])
- (iv) Retroflex approximant /ɹ/ ~ palatal semivowel /j/ (2.4-[4])
- (v) Bilabial: stop /b/ ~ nasal /m/ (2.4-[5])
- (vi) Apico-alveolar: lateral /l/ ~ nasal /n/ (2.4-[6])

[3] Natural classes (3): mainly in terms of the allomorphy of case suffixes (3.2.1.1)

- (i) Liquids: /r, ɹ, l/ (3.2.1.1-[2]-(c))
- (ii) Palatal non-nasals: /j, ʒ/ (3.2.1.1-[4]). See (2-47).
- (iii) Palatal sonorants: /j, ɲ/ (3.2.1.1-[2]-(d-2), -[4]-(b-2))
- (iv) Peripheral non-nasals: /g, w/ (3.2.1.1-[5]). See (2-60).

[4] Discussion

We have looked at 'natural' classes in terms of [1] phonotactics, [2] synchronic alternations, and [3] mainly in terms of the allomorphy of case suffixes.

Regarding place of articulation, the most recurrent feature is 'apico-alveolar' (referred to eight times), followed by 'non-apico-alveolar' (seven times), and 'peripheral' (three times). The fact that the feature 'apico-alveolars' is recurrent as against all the other places of articulation supports Dixon's (1980: 188) generalization for Australian languages that apicals are the least marked.

As for manner of articulation, the recurrent features are 'semivowel' (seven times), 'nasal' (six times), 'stop' (four times), 'liquid' (four times), 'sonorant' (three times), and 'nasal-plus-stop homorganic' (three times).

As seen in [1]-(ii-1), -(ii-2) above, and also noted in 2.2.6.3-[2], where the feature 'apico-alveolar' is invoked, the stop member /d/ is always excluded.

The term 'liquids' refers to 'the laterals (*l*-sounds) and the various intermittent *r*-sounds' (Jakobson, Fant, and Halle 1967: 19; cf. also Ladefoged 1975: 79 and

Lass 1991: 83), i.e. /l, r, ɻ/ in the case of Warrongo. This term is useful, as seen above. However, there is evidence to divide them into /l, r/ and /ɻ/. The evidence for grouping of /l, r/, to the exclusion of /ɻ/, is in [1]-(ii-2) (four times) (and also perhaps [1]-(ii-1) (twice). In contrast, /ɻ/ often behaves together with the palatal semivowel /j/, not /l, r/; see [1]-(vi-2) (four times). This shows that /ɻ/ should be grouped with /j/. Recall that an approximant /ɻ/ is a non-syllabic vowel, like /j/.

It is a controversial issue in Australian linguistics whether to group /ɻ/ with /r/ under the rubric of ‘rhotics’, or to group it with semivowels (/j, w/) (McGregor 1988, Dixon 2002: 574–575). As far as Warrongo is concerned, it is best to group /ɻ/ with /j/, in contrast with the group of /l, r/.

2.6. ‘Phonological processes’

A small number of phonological processes can be recognized. Except for the apprehensional suffix for verbs (see [2]-(c-1) below), they are all sporadic and non-productive, and have a limited range of application. Except for the apprehensional suffix, all (or most) of the attested instances are listed.

[1] Vowel copying

The suffix /ɻV/ is added to a noun root or a verb root, and the root-final vowel is copied in the vowel of the suffix. The suffix generally seems to mean ‘many’ See 3.7.1-[16] (nouns) and 3.11.1.4 (verbs).

[2] Epenthesis

Almost all the epenthetic rules involve insertion of a nasal, with one exception (insertion of /j/). The epenthetic segments are considered interfixes.

(a) Insertion of /m/

Examples:

(2-113)	/gubi/	/gubi-m-bulu/	/ŋani/	/ŋani-m-bari/
	‘native doctor’	‘native doctor’	‘what’	‘how many’

/baraɻj~m~baraɻj/
‘in the morning’

/daba/	/daba-bulu/
‘black palm’	‘Black Palm (a place on Stone River)’

For comparison, an example in which this rule does not apply (i.e. /daba-bulu/) is included. Similarly for (2-113) and (2-115). See 3.7.1-[5] for /bulu/, and 3.7.1-[6] for /bari/. In Warrongo, the meaning of /bulu/ is not clear, but Warrgamay has

the noun-stem-forming suffix /bulu/ 'very, lots of' (Dixon 1981: 34). See (1-12). The meaning of the placename /daba-bulu/ may be '[a place with] many black palms'. Etymologically, /gubi-m-bulu/ may mean 'true native doctor' or the like. (Stone River appears to be in Warrongo territory (1.4.1)). See 3.8.2-[1] for /baraj-m-baraj/. The non-reduplicated form /baraj/ is not attested in Warrongo, but it occurs in Dyirbal, with the meaning 'next week' (Dixon 1972: 399).

/m/-insertion is also attested in the transitive-stem-forming suffix /(m)ba/ (4.7.3).

(b) Insertion of /n/

A set of examples involving /wamaj/ 'good':

(2-114) /wamaj/ 'good'	/wamaj-n-bi/ 'good-n-INTR'	/wamaj-n-biii/ 'good-n-?'
/wamaj-n-biri-bi/ 'good-n-?-INTR'	/wamaj-bi/ 'good-INTR'	/wamaj-ŋa/ 'good-TR'

See 4.7.1 for the intransitive-stem-forming suffix /bi/, and 4.7.2 for the transitive-stem-forming suffix /ŋa/. /wamaj/ by itself is not attested in Alf Palmer's Warrongo, but it occurs in Alec Collin's data, in Gugu-Badhun (Sutton 1973: 222), and in Ranji Pope's Gujal (Sutton data). (The verb *wamay-n-bi-n* 'good-LINK-INTR-NF' occurs in Text 3, Line 32.)

/n/-insertion also occurs in certain inflected forms of certain nouns (Table 3-3), demonstratives (Table 3-5), and pronouns (Table 3-6). It is possibly involved in the plural suffix /nba/; see 3.7.1-[15].

(c) Insertion of /ŋ/

This is attested in the following.

(c-1) The apprehensional forms of verbs. Verbs are of three classes: L-class, Y-class, and ZERO-class. The apprehensional forms involve the suffix /ga/. In the apprehensional forms, /ŋ/ is absent in L-class, but it is obligatorily inserted in Y-class and ZERO-class (Table 3-14). Examples:

(2-115) L-class	Y-class	ZERO-class
/balga-l-ga/ 'hit-L-APPR'	/ɲina-j-ŋ-ga/ 'sit-Y-ŋ-APPR'	/wadali-ŋ-ga/ 'run-(ZERO)-ŋ-APPR'

As noted above, /ŋ/-insertion in apprehensional forms is productive.

(c-2) The dative of one of the two groups of *y*-final stems (Table 3-2), e.g. /baŋgaj-ŋ-gu/ 'spear-ŋ-DAT'. There is also a dative form that does not involve /ŋ/: /baŋgaj-gu/ 'spear-DAT'.

(c-3) The feminine suffix /gan/ almost always follows /j/ (there are three exceptions) and, when /gan/ follows /j/, /ŋ/ is obligatorily (?) inserted between /j/ and /g/. All the instances, including the exceptions, are listed in 3.7.1-[17]. For example, compare:

(2-116)	[koi]	[koiŋgan]	[jalŋgai]	[jalŋgaŋgan]
	/guwuj/	/guj-ŋ-gan/	/jalŋgaj/	/jalŋgaj-ŋ-gan/
	‘male.ghost’	‘ghost-ŋ-FEM’	‘single.man’	‘single.man-ŋ-FEM’
	/bimu/	/bimu-gan/	/ʒulbun/	/ʒulbun-gan/
	‘WM’	‘WM-FEM’	‘spouse’	‘spouse-FEM’

(The suffix /gan/ seems redundant in /bimu-gan/ ‘wife’s mother’.) Additional examples are shown in Table 1-7. Section terms for feminine members involve the epenthetic /ŋ/ followed by the feminine suffix /gan/.

(c-4) /ʒuwaj-ŋ-guru/ ‘term by which brothers-in-law call (address? refer to?) each other’; cf. /ʒuwaj/ ‘brother-in-law’ (probably, ‘WB’, and not ‘HB’) (1.5.7). However, /ŋ/ is not involved in /wagaj-guru/ ‘(man’s name)’ (1.5.4.2-[1]); cf. /wagaj/ ‘wish-bone’

(d) Insertion of /j/

All the epenthetic rules discussed above involve insertion of a nasal. But there is one that involves the insertion of the semivowel /j/. Section terms for female members involve the insertion of /j/, followed by another epenthetic element /ŋ/ and the feminine suffix /gan/ (see (c-3)). (In addition, two of them exhibit the root-final vowel alternation of /u/ and /a/.) There is another example of /j/-insertion; compare /waŋʒa/ ‘where’ and /waŋʒa-j-mu/ ‘where-j-from’ (3.8.1-[5]).

It seems, on the basis of (a) to (c), that nasal insertion tends to occur following a phonetic [i] or [e], i.e. /j/ or /i/. For example, compare /gubi-m-bulu/ [kobembolo] ‘native doctor’ and /daba-bulu/ [dababolo] ‘Black Palm’. Also, all the verbs of Y-class involve /j/ [i] before the apprehensional suffix, e.g. /ʒina-j-ŋ-ga/ [ʒinaŋga]. Verb stems of ZERO-class end in /i/ ([i] or [e]), e.g. /wadali-ŋ-ga/ [wadaŋga]. This suggests that position immediately following [i] or [e] (/j/ or /i/) is a preferred environment for nasal insertion. Then, it is possible to say that, in the section terms for female members, /j/ is inserted in order to create a preferred environment for nasal insertion (i.e. the insertion off /ŋ/).

All of these epenthetic segments are referred to as linking interfixes in the present work.

[3] Insertion or deletion of /l/

Consider the following examples.

(2-117) a.	/birgil/ 'cold weather'	/birgi-bara/ 'cold-?', i.e. 'cold weather'	/birgi-bara-bi/ 'cold-?-INTR'
b.	/bunbul/ 'smoke' (Jalngoy?)	/bunbul-bara/ 'big smoke'	/bunbu-bara/ 'big smoke' (Jalngoy?)
		/bunbul-baja/ 'smoke' (Jalngoy?)	/bunbu-baja/ 'smoke' (Jalngoy?)
c.	/gagal/ 'big, hard (not soft)'	/gagal-bi/ 'big, hard-INTR'	/gagal-i/ 'hard, strong-INTR'
	/gaga-bara/ 'big-?', i.e. 'big'	/gaga-bara-bi/ 'big-?-INTR'	/gaga-bara-ŋa/ 'big-?-TR'
	/gaga-ɟari/ 'big-?', i.e. 'big'	/gaga-ɪ/ 'big-APPL' (4.14.2.5-(b))	

(See 3.7.1-[7], -[8], and -[9] for /gaga-ɟari/, /bara/ and /baja/, respectively. See 3.11.1.6 for the intransitive-stem-forming suffix /i/.) Two analyses are possible: (i) to say that the roots contain /l/, and that /l/ is deleted in certain words, and (ii) to say that the roots do not contain /l/, and that /l/ is added in certain words. But the conditioning factor for the presence/absence of this /l/ is not known. Compare, for example, /bunbul-bara/ and /bunbu-bara/.

[4] Compensatory lengthening

There is just one example. The language name 'Mbabaram' (1.4.1) was pronounced [ba:baɾam] by Alf Palmer (1.8.4.1-[2]). The initial [m] was dropped and the short vowel [ba] was replaced with the long vowel [ba:]. This vowel lengthening is an instance of compensatory lengthening. (The rhotic in this language is 'back rhotic', and it may be 'a tap, a trill, or a rhotic continuant' (Dixon 1991b: 355–356).)

2.7. Stress

Stress is not distinctive in Warrongo. Nonetheless, it does exist phonetically. It appears that in Warrongo, as in many other languages, a 'stressed syllable is pronounced with a greater amount of energy than an unstressed syllable' (Ladefoged 1975: 222). Impressionistically speaking, stress in Warrongo is generally accompa-

nied by a 'rise in pitch' (Ladefoged 1975: 223). However, this is not always the case. See the first word of (2-126)-A, for instance. The first syllable ([wàŋ]) bears stress (to be precise, secondary stress), and yet it has low pitch. (The subsequent syllables are totally unstressed, but they have middle-level pitch.) That is, stress is not always accompanied by a rise in pitch. Also, again impressionistically speaking, stress in Warrongo does not seem to lengthen the vowel concerned.

It has turned out to be very difficult to generalize about stress in Warrongo. The following account is highly tentative, and it is not exhaustive. Also, I have never investigated Warrongo stress instrumentally, and the following account is highly impressionistic, based on my observation. The following general tendencies may be noted.

[1] Three degrees of stress

It is possible to set up three degrees of stress: primary stress (shown by an acute accent), secondary stress (shown by a grave accent, where necessary or useful) and the absence of stress. However, the difference among them is not always clear-cut.

[2] Word-initial syllable

In the main, stress tends to fall on the word-initial syllable. This is the most dominant tendency. Examples include the following. Disyllabic: /bama/ [báma] 'man', /maguj/ [mákoi] 'big carpet snake', /waʒa/ [wátʃa] 'crow', /winga/ [wínga] 'fish'. Trisyllabic: /dulubu/ [dólobo] 'Joyce Palmer', /ŋaŋiŋi/ [ŋáŋiŋi] 'Edith Lenoy', /jaŋana/ [jaŋana] 'mother', /waʒagan/ [wátʃagan] 'crow', /waruŋu/ [wáronʒo] 'Warrongo'. Quadrisyllabic: (2-78) (/jalga-ŋga=gul/). Pentasyllabic: (2-78) (/janiwu=baʒun/).

Furthermore, in quadrisyllabic and longer words, in addition to the primary stress on the first syllable, secondary stress is sometimes observed on the third syllable. But it is not easy to distinguish this secondary stress from the absence of stress. The putative secondary stress is shown (by a grave accent) in the following examples: /baʒubala/ [bátʃobàla] 'Kirrama Station' and [káŋalègan] 'imaginary hairy man'.

Stress seems never to fall on an enclitic or a suffix.

[3] Reduplication

If a given word involves reduplication (3.7.2, 3.8.2, 3.11.2), stress falls on the first syllable of each root. There appears to be no exception. (The stress on the first syllable of the second root may be considered secondary, and not primary, but this distinction is not easy to make.) Examples: /buna~buna/ [bónabóna] 'couch grass', /ʒigir~ʒigir/ [dʒígirdʒígir] 'willy wagtail', /ʒuda~ʒuda/ [dʒótadʒóta] '(placename)', /gaʒar~gaʒar/ [káʃarkáʃar] '(Adv) going past', /miŋgan~miŋgan/ [míŋganmíŋgan] 'hill~hill', /ŋarban~ŋarban/ [ŋáŋpanŋáŋpan] 'fast~fast', /juaj~juaj/ [jóŋajjójaj] 'quiet~quiet', and /wuma~wuma/ [ómaóma] 'shade~shade'. The same applies to those words which exist in the reduplicated form only, e.g. /guj~guj/ [kóikóí]

'mosquito', and /ŋaː~ŋaː/ [ŋáŋá:] (an onomatopoeic word to describe babies' cries) (2.2.3.1-[1]).

As another example, compare the following:

(2-118)	/baʒan/	/baʒabaʒaŋan/
	[báɖʒan]	[báɖʒabáɖʒaŋan]
	'to bite (NF)'	'to finish up (NF)'

Etymologically, it is not certain if these two verbs are related. Nonetheless, /baʒabaʒaŋan/ clearly involves reduplication of /baʒa/, and stress falls on the first syllable of each of the two occurrences of this root. (The stress on the third vowel of /baʒabaʒaŋan/ may be secondary stress.)

[4] Compounding

If a given word involves compounding (3.7.3, 3.8.3, 3.11.3), (in my observation) primary (not secondary) stress falls on the first syllable of the second root, and secondary (not primary) stress on the first syllable of the first root. There appears to be no exception. Examples: /ʒulaj-juŋgul/ [ɖʒòlajjuŋgól] 'tree-one (placename)' (1.5.4.3-[6], 3.7.3-[1]), and /maɾa-guna/ [màɾagóna] 'hand-faeces' ('lazy person') (3.7.3-[1]).

There are instances where the 'heaviness' of the root or suffix involved, appears to influence stress assignment. This will be discussed in [5] and [6].

[5] Bi-consonantal and tri-consonantal clusters

Bi-consonantal and tri-consonantal clusters behave differently in terms of stress assignment. When the cluster is bi-consonantal, stress falls on the first syllable of the word, e.g. /barbira/ [bárbira] 'echidna', /bargan/ [bárgan] 'swamp wallaby', /balban/ [báiban] 'bone', /bambu/ [bámbo] 'egg', /bujbun/ [bóibon] 'spring water', /gandu/ [gándo] 'dog', /majgan/ [máigan] 'to tell (NF)', and /wambinu/ [wámmino] 'Wambino'.

However, when the cluster is tri-consonantal, (although I have not measured stress instrumentally) my impression is that stress generally (though not always) falls on the cluster-initial phoneme (not on the first syllable of the word). Compare /balmbu/ [balmbo] 'bundle' with /bambu/ [bámbo] 'egg'. Other examples include (i) /ŋurmbun/ [ŋoʔmbon] 'noise that one does not other people to hear', (ii) /muŋarɲabaɾa/ [moŋaʔnbaɾa] 'many', (iii) /biŋga/ [biŋga] 'grey hair', (iv) /guŋgal/ [koŋgal] 'husband', (v) /ʒinbilŋgaj/ [ɖʒinbílŋgaj] 'Alf Palmer', (vi) /jalŋgai/ [jalŋgai] 'single man', (vii) /bilnbian/ [bílnbian] 'crimson rosella (?)', (viii) /ʒajmban/ [ɖʒaímban] 'to find (NF)', (ix) /ʒajŋan/ [ɖʒaíŋɖʒan] 'to copulate with (NF)', (x) /gujŋgan/ [koíŋgan] 'female ghost'.

The cluster-initial phoneme of tri-consonantal clusters is a liquid (/r, ɹ, l/) or the semivowel /j/ (Tables 2-18, 2-19). They can receive stress probably (i) because liquids and /j/ are high in sonority, like vowels (see (2-93)), and (ii) because, furthermore, /j/ is phonetically a vowel ([i] or [e]) (2.1.5.1.1).

As seen above, in certain instances a tri-consonantal cluster attracts stress, but a bi-consonantal one does not. That is, the ‘heavier’ cluster attracts stress, but the ‘lighter’ one does not.

However, there are exceptions, in which stress does not fall on initial phoneme of a tri-consonantal cluster. The reason for this is not known. Examples: /bujɲɲul/ [boiɲɲóɫ] (see 2.1.3.2), /wamaj-n-bi-n/ [wámainbin] ‘good-n-INTR-NF’, and /wulaj-ŋ-ga/ [ólaiŋga] ‘die-ŋ-APPR’.

[6] ‘Stress shift’

Affixation of certain (though not all) suffixes causes ‘stress shift’, the stress shifts to one of the subsequent phonemes. The data are far from complete, and details are not known. Nonetheless at least the following tendencies can probably be recognized. In all the attested examples, the root is disyllabic. Also recall that generally stress falls on the word/root-initial syllable.

- (a) The root contains no consonant cluster.
 - (a-1) The resultant stem/word contains no consonant cluster. Stress shift does not occur: (2-119)-(a-1), (2-120)-(a-1), (2-121)-(a-1), (2-123)-(a-1).
 - (a-2) The resultant stem/word contains one bi-consonantal cluster (CC). Stress shift does not occur: (2-122)-(a-2).
- (b) The root contains a bi-consonantal cluster.
 - (b-1) The resultant stem/word contains one bi-consonantal cluster (CC).
 - (b-1-1) The suffix is CV. Stress shift does not occur: (2-123)-(b-1-1).
 - (b-1-2) The suffix is CVCV. Stress shifts to the next vowel: (2-120)-(b-1-2), (2-121)-(b-2-3).
 - (b-2) The resultant stem/word contains two bi-consonantal clusters (CC, CC).
 - (b-2-1) The suffix is CCV. Stress shift does not occur: (2-122)-(b-2-1).
 - (b-2-2) The suffix is CVC. Stress shifts to the next vowel: (2-119)-(b-2-2).
 - (b-3) The resultant stem/word contains one bi-consonantal cluster and one tri-consonantal cluster (CC, CCC). Stress shifts to the first phoneme of the tri-consonantal cluster: (2-119)-(b-3).
- (c) The root contains a tri-consonantal cluster.
 - (c-1) The resultant stem/word contains one tri-consonantal cluster (CCC). Stress remains in the first phoneme of the first tri-consonantal cluster: (2-120)-(c-1).
 - (c-2) The resultant stem/word contains two tri-consonantal clusters (CCC, CCC). Stress shift to the initial phoneme of the second tri-consonantal cluster: (2-119)-(c-2).

That is, the following two factors seem relevant.

- (i) The absence/presence of a consonant cluster.
- (ii) The heaviness of the cluster in question (i.e. bi-consonantal vs. tri-consonantal).
- (iii) The heaviness of the suffix in question (i.e. CV, CCV vs. CVC, CVCV).

The general tendency seems to be for stress to be more likely to shift if there is a heavy material towards the end of the stem/word. Examples follow.

(2-119) The suffix /gan/ 'feminine' (3.7.1-[17])

- (a-1) The resultant stem/word contains no consonant cluster. Stress shift does not occur.

/bimu/	/bimugan/
[bímɔ]	[bímogán]
'WM'	'WM-FEM'

- (b-2-2) The resultant stem/word contains two bi-consonantal clusters (CC, CC). The suffix is CVC. Stress shifts to the next vowel.

/ʃulbun/	/ʃulbun-gan/
[dʒólbon]	[dʒolbóngán]
'spouse'	

- (b-3) The resultant stem/word contains one bi-consonantal cluster and one tri-consonantal cluster (CC, CCC). Stress shifts to the first phoneme of the tri-consonantal cluster.

/gʌguru/	/gʌgura-j-ŋ-gan/
[gólgorɔ]	[goɽgoráŋgan]
'(male member of a section)'	'(female member of the same)'

- (c-2) The resultant stem/word contains two tri-consonantal clusters (CCC, CCC). Stress shifts to the initial phoneme of the second tri-consonantal cluster.

/jalŋgaj/	/jalŋgaj-ŋ-gan/
[jalŋgai]	[jalŋgaíŋgan]
'single man'	'single woman'

(There are not many examples of /gan/ 'feminine'. /ʃulbun-gan/ means 'woman who runs away from her husband'. Both /bimu/ and /bimu-gan/ mean 'wife's mother', and /gan/ in /bimu-gan/ seems redundant.)

(2-120) The suffix /gali/ 'antipassive' suffix (Table 3-15)

- (a-1) The resultant stem/word contains no consonant cluster. Stress shift does not occur.

/baba-n/	/baba-gali-n/
[bában]	[bábagalen]
'stab-NF'	'stab-ANTIP-NF'

/muʃa-n/	/muʃa-gali-n/
[módʒan]	[módʒagalen]
'eat-NF'	'eat-ANTIP-NF'

/waʃu-n/	/waʃu-gali-n/
[wádʒon]	[wádʒogalen]
'cook-NF'	'cook-ANTIP-NF'

- (b-1-2) The resultant stem/word contains one bi-consonantal cluster (CC). The suffix is CVCV. Stress shifts to the next vowel.

/balga-n/	/balga-gali-n/
[bálgan]	[balgágalen]
'hit-NF'	'hit-ANTIP-NF'

/gaŋʃi-n/	/gaŋʃi-gali-n/
[gáŋʃin]	[gaŋʃígalen]
'carry-NF'	'carry-ANTIP-NF'

/jaŋga-n/	/jaŋga-gali-n/
[jáŋgan]	[jaŋgágalen]
'search-NF'	'search-ANTIP-NF'

- (c-1) The resultant stem/word contains one tri-consonantal cluster (CCC). Stress remains in the first phoneme of the tri-consonantal cluster.

/ʃajɲa-n/	/ʃajɲa-gali-n/
[dʒaíɲdʒan]	[dʒaíɲdʒagalen]
'copulate.with-NF'	'copulate.with-ANTIP-NF'

/ʃajmba-n/	/ʃajmba-gali-jal/
[dʒaímбан]	[dʒaímbagalejal]
'find-NF'	'find-ANTIP-PURP'

(2-121) The suffix /bara/ 'denizen' (3.7.1-[1])

- (a-1) The resultant stem/word contains no consonant cluster. Stress shift does not occur.

/gubu/	/gubu-bara/
[kópo]	[kópobara]
'leaf'	'leaf-denizen'

/gani/	/gani-bara/
[káni]	[káni ba ra]
'far'	'far-denizen'

- (b-2-3) The resultant stem/word contains one bi-consonantal cluster (CC).
The suffix is CVCV. Stress shifts to the next vowel.

/jamba/	/jamba-bara/
[jámba]	[jamb á bara]
'camp'	'camp-denizen'

/bomba/	/bomba-bara/
[bómba]	[bomb á bara]
'dust'	'dust-denizen'

- (2-122) The locative suffix /ŋga/ (following a vowel; 3.6.3).

- (a-2) The resultant stem/word contains one bi-consonantal cluster (CC).
Stress shift does not occur.

/gamu/	/gamu-ŋga/
[gámo]	[gám o ŋga]
'water'	'water-LOC'

- (b-2-1) The resultant stem/word contains two bi-consonantal clusters (CC,
CC). The suffix is CCV. Stress shift does not occur.

/jamba/	/jamba-ŋga/
[jámba]	[jámba ŋ ga]
'camp'	'camp-LOC'

- (2-123) The dative suffix /wu/ (following a vowel; 3.6.4).

- (a-1) The resultant stem/word contains no consonant cluster. Stress shift
does not occur.

/gamu/	/gamu-wu/
[gámo]	[gám o !]
'water'	'water-DAT'

- (b-1-1) The resultant stem/word contains one bi-consonantal cluster (CC).
The suffix is CV. Stress shift does not occur.

/jamba/	/jamba-wu/
[jámba]	[jámba o]
'camp'	'camp-DAT'

[7] Long vowels

Long vowels may cause stress shift. We shall look at both phonologically long vowels and phonetically long vowels.

[7-a] Monosyllabic words/roots

Stress falls on the only syllable, e.g. /bam/ [bám] ‘whip’, /ja:r/ [já:r] ‘yard’ (a loan from English), and /ŋa:ŋa:/ [ŋá:ŋá:] (an onomatopoeic word to describe babies’ cries).

[7-b] Disyllabic or longer words, excluding those which involve reduplication, such as /ŋa:ŋa/

In the word-initial position, a (phonologically or phonetically) long vowel attracts stress in all the attested instances. (This is in keeping with the general tendency in Warrongo for the initial syllable to receive stress; see [2] above.) However, this is not always the case non-initially.

[7-b-1] The long vowel /a:/ [á:]

Examples involving the word-initial position: /ŋa:ra/ [ŋá:ra] ‘(placename)’, /ba:ba:ra:m/ [bá:ba:ra:m] ‘Mbabaram’, and /ja:r-a/ [já:ra] ‘yard-LOC’ (There is no example in which /a:/ [á:] occurs non-initially.)

[7-b-2] The phonetically long vowel [i:]

The only example involving the initial position is /jiji/ [í:] ‘Yes!’ Non-initially [i:] attracts stress in a few instances (e.g. /guji/ [kó:i] ‘hungry’, /ʒalŋgijiji/ [dʒalŋgí:i] ‘Cameron Hill’). But it does not attract stress in other instances, e.g. /majigan/ [má:i:gan] ‘to cut (NF)’, /jami-ji/ [dʒá:mi:] ‘fat-COM’ (see (2-74)), and the following interjections (see (2-50) and (2-51)): /ŋaji/ [ŋá:i] ‘Really?’, /waji/ [wá:i] ‘How is it?’, and /aji/ [á:i] ‘exclamation of surprise’. The conditioning factor on this difference is not known.

Note that /ʒalŋgijiji/ [dʒalŋgí:i] contains a tri-consonantal cluster, and yet stress falls not on the cluster-initial consonant (see [5] above), but on the long vowel [i:]. This suggests that, in terms of stress assignment, the long vowel [i:] outranks a tri-consonantal cluster.

[7-b-3] The phonetically long vowel [o:]

Examples involving the initial position: [bó:i] /buwuj/ ‘OK’, [kó:i] /guwuj/ ‘male ghost’, and [ó:i] /wuwuj/ ‘Hi!’ (repeated from (2-73)). Non-initially [o:] does not attract stress in the examples available, e.g. [gá:mo:] /gamu-wu/ ‘water-DAT’

So far we have listed the general tendencies observed in stress assignment. There are deviations, or what may appear to be deviations, from them. There may be some explanation for some of them.

[8] Deviations (1)

Stress falls on the third syllable in certain words, e.g. /bigaraŋgal/ [bigaɽáŋgal] ‘fish hawk’, /bundilbuna/ [bondelbóna] ‘(placename)’, /waŋgundila/ [waŋgondíla] ‘(placename)’. Etymologically, these words may involve compounding, and this may possibly be the reason for the occurrence of stress on the third syllable (i.e. the initial syllable of the putative second root). For example, /bundilbuna/ may contain the root /buna/; cf. /buna-buna/ [bónabóna] ‘couch grass’. Warrgamay has /waŋgu/ ‘small goanna’ (Dixon 1981: 120). /waŋgundila/ may contain this word.

[9] Deviations (2)

Despite all this, there are instances for which no explanation seems forthcoming, e.g. /jaɽɽjanbara/ [dʒaɽɽdʒánbaɽa] ‘Cashmere Station’, /guriɽala/ [goridʒála] ‘eaglehawk’, /ganda.nu/ [kandá.ɽo] ‘imaginary hairy man’, and /gangabu/ [kangábo] ‘trident fishing spear’; stress falls on the third or second syllable. Compare /ganda.nu/ [kandá.ɽo] with /gandu/ [gándo] ‘dog’; in the latter, stress falls on the initial syllable (as is generally the case in Warrongo).

There are a handful of words that do not seem to have stress. They will be discussed in 2.8, in connection with pitch.

2.8. Pitch

Pitch is not distinctive in Warrongo. Impressionistically speaking, three levels of pitch can be perceived: high (H), middle (M), and low (L), although it is not always easy to distinguish the three levels. The vast majority of words start with H and end with L. In trisyllabic and longer words, the middle-level pitch (M), too, may be recognized.

(2-124)	/bama/	/gamu/	/balanu/	/jaɽa-na/
	[báma]	[gámo]	[bálano]	[jáɽana]
	H L	H L	H M L	H M L
	‘man’	‘water’	‘moon’	‘mother-KIN’

(To be precise, the fall or rise in pitch is not abrupt, but is gradual.)

As mentioned in 2.7, there are a handful of words (and maybe more) that do not seem to have stress. Impressionistically, they seem to have the pitch contours as shown in (2-125).

(2-125) (a)	/ɽaji/	/ɽaji-nba/	/ɽaji-li/	/ɽaji-wuɽɽɽu/
	[ɽai]	[ɽainba]	[ɽaili]	[ɽai:ɽɽɽo]
	LMM	L M M	LMM	LMMMM
	‘young girl’	‘y.g.-many’	‘y.g.-many’	‘good-looking girl’

- | | | |
|-----|-------------------------------|-------------------------------|
| (b) | /buwuj/
[boi] | /guwuj/
[koi] |
| | MMM | MMM |
| | 'OK, I'll go.' (interjection) | 'male ghost' |
| (c) | /ɾuma-ɾumaj/
[ɾonaɾomai] | /ɾugala-mali/
[ɾokalamale] |
| | L M M MM | L M M MM |
| | 'that-after' | 'outside-side' |

(See (2-65) and (2-66) for the analysis of /ji/ and /j/ in the words in (2-125)-(a).) As shown above, these words do not seem to have stress (at least, in my observation). They have the following pitch contour: the pitch height is M and the contour is flat, except that the words in (a) and (c) start with L. They are exceptions to the general tendency shown in (2-124). Ladefoged (1975: 222–223) points out a close relationship between stress and pitch. In view of this, the absence of high pitch and pitch peak in them (their pitch contour is flat) seems responsible for the absence of stress in the words in (2-125). (To be precise, their absence seems to make me perceive no stress in these words.)

(Unlike /taji/ [taji] 'young girl', /guji/ [koi] 'hungry' has stress, and the stress is on the long vowel; see also (2-50) and (2-75). Its pitch contour is LHL or LHH; both are attested.)

2.9. Connected speech

2.9.1. Intonation

So far it has been impossible to provide a reasonably coherent account of intonation of sentences. This is by far the most difficult aspect of Warrongo phonology/phonetics. There are many variations, which are no doubt caused by discourse factors, among others. (Hershberger and Pike (1970) and Patz (2002: 35–41) provide detailed accounts of sentence intonation of Kuku Yalanji. At least some portions of their analysis seem to apply to Warrongo as well.) The following account is not exhaustive. It mainly lists phenomena that have caught my attention.

As samples, Text 1, Lines 3-4 and 7-8 are cited. An impressionistic presentation of stress (primary stress by acute accent and secondary stress by grave accent) and intonation (by means of H, M and L, and also an intonational curve) is indicated. The stress is assigned in terms of each line, and not in terms of each word. The glosses are simplified. In this story, Alf Palmer pretends to be visiting an area outside Warrongo territory.

(2-126) Text 1, Lines 3 and 4:

A (The local people ask Alf Palmer about a language that he has learned somewhere else.)

/wajɔɔɔm a j	jinda	ɲuna	gugu	muga-n/
[wàɲdʒaɲom ai	inda	ɲona	koko	mógan]
L M M MM MM	MM	MM	MM	H L
where-ABL	2SG.NOM	that	language	catch-NF

‘Where did you catch [i.e. learn] that language from?’

B (Alf Palmer answers.)

/jamu	ɲaja=guli	(pause)	muga-gali-n	gugu-ɲgu/
[dʒámo	ɲájagole		mðgagalen	kòkòŋgo]
H L	H MLL		M L L L	M L L
just	1SG.NOM=only		catch-ANTIP-NF	language-ERG

‘I have just learned this [language] by myself.’

(2-127) Text 1, Lines 7 and 8:

A (The local people ask Alf Palmer about his language.)

/jinu	ɲani	gugu/
[íno	ɲani	koko]
H L	LM	H H
2SG.GEN	what	language

‘What [is] your language?’

B (Alf Palmer answers.)

/ɲaigu	waruɲu/
[ɲaigo	wárono]
MMM	H M L
1SG.GEN	language

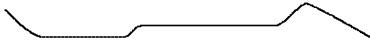
‘My [language is] Warrongo.’

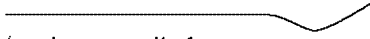
A few aspects of intonation that have been noticed are described below.

Declarative sentences tend to have a sentence-final fall, e.g. (2-126-B) and (2-127-B).

Special questions (which contain an interrogative word) tend to start with a high pitch and have a sentence-final fall. Roughly speaking, this applies to (2-126-A). But this is not always the case; see (2-127-A).

Also, compare (2-128) (which was made up by me; ‘TT’) and (2-129) (which was uttered by Alf Palmer; ‘AP’).

(2-128)  (TT)
 H L M M H L
 what-ACC 2SG.ERG eat-NF
 ‘What did you eat?’

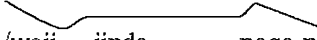
(2-129)  (AP)
 M M M M L H
 what-ACC 2SG.ERG eat-NF
 ‘What did you eat?’

(2-128) is an ordinary kind of special question. It starts with H and has a sentence-final fall. Such special questions seem to be used when, for instance, the speaker does not know what the addressee ate and he/she requests this information. A similar intonation contour is observed in (2-126-A). In this context, probably the speaker did not know where Alf Palmer had learned that language and wanted to know where.

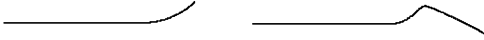
In contrast, (2-129) starts and continues with M and has a sentence-final rise. It was uttered by Alf Palmer when he knew what the addressee had eaten, and he was possibly teasing the addressee. Special questions with such an intonation contour do not seem to really request information.

General (or polar) questions may start with the question marker /waji/ (mentioned in (2-50)); see 4.2.1.2. They tend to start with a high pitch and have a sentence-final fall.

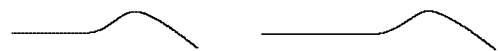
(2-130) (Alf Palmer asked me as follows.)

 (AP)
 /wá:í jinda ɲaga-n/
 [wá:í: inda ɲagan]
 HL MM HL
 Q 2SG.NOM see-NF
 ‘Did you see [him]?’

Intonation contour may be involved in formation of subordination (4.18). An example cited from a text. In this story, a man says to his travel companion as follows. It seems that he considered it not safe to travel during the daytime, probably for fear of some other tribe’s attack.

(2-131)  (AP)
 /gari galɲga-n ɲali-Ø jani-jal/
 [kari kalɲga-n ɲale jani-jal]
 (rise in pitch) (fall in pitch)
 sun fall-NF 1DU-NOM go-PURP
 ‘When the sun has set, we will go.’

/galŋga-n/ has a rise in pitch, and (2-131) has the meaning of ‘when’. (Another example is (3-319). Additional examples are given in 4.18.6.) If /galŋga-n/ has a fall in pitch, the sentence will probably have a different meaning: ‘and’ or the like.

(2-132)  /gari galŋga-n ŋali-Ø jani-jal/ (TT)
 (fall in pitch) (fall in pitch)
 sun fall-NF 1DU-NOM go-PURP
 ‘The sun has set, and we will go.’

Intonation contour for a topic NP is discussed in 4.22.

2.9.2. Other phenomena

‘Casual speech’ (Labov 1972: 79), fast speech and the like exhibit a few differences from the pronunciation of ‘citation forms’ (Lass 1991: 295). Selected examples are given.

[1] Vowel lengthening

(a) The negation word /ɲawa/ is generally pronounced [ɲáwa] (HL or maybe HM). Alf Palmer sometimes said [ɲawá:] (with a long vowel; MHMM). This is probably in order to emphasize negation.

(b) The interjection /ɲagaj/ ‘Ouch!’ is often pronounced [jaká:] (with a long vowel).

(c) In the texts, the verb /jani/ *yani-Ø* ‘go-NF’ is sometimes pronounced [jani:] (with a long vowel). This is probably in order to emphasize the length and continuation of the walk.

(2-133) /ɲali gulbila jani/
 [ɲale kolbila jani:]
 1DU-NOM to.south go-NF
 ‘We kept going/walking to the south.’

(d) In a text, a man fancies a woman and says to her as follows. Here the lengthening of the vowel probably indicates joy.

(2-134) /ɲajgu biɽgo/
 [ɲaigo biɽgó:]
 1SG.GEN wife
 ‘[You are] my wife!’

(e) In a text, a man found a woman, and (with joy?) he called out, [wá:ɲo] ‘Woman!’ (/warɲu/ ‘woman’).

(f) The interjection that is tentatively phonemicized /guwuj/ ‘Hi! Hey!’ (a call to someone in the distance) almost always involves a fairly long vowel (impressionistically the length of two, three or even four syllables): [ko:::ni]. The stress is on the very end of the long vowel [o:::], immediately preceding [i]. See 2.13.1 for more on this word.

The vowel that is lengthened is the second vowel in (a) to (d), but it is the first vowel in (e) and (f). The cause for this difference is not known.

There appears to be no example in which a consonant is lengthened.

[2] Addition of [i] or [e]

This is observed in texts. When a person calls out to someone in the distance, sometimes a high front vowel (generally [i], and sometimes [e]) is added to the end of the noun that refers to the addressee. This vowel is non-phonemic. The last vowel of the noun is somewhat long (e.g. [jaŋá:ii] in (2-135)), though not always (e.g. [ká:lŋai] in (2-136)). Examples:

(2-135) /jaŋa ŋaja jaru/
 [jaŋá:ii ŋaja járo]
 M HHM MM H L
 mother 1SG.NOM here
 ‘Mother, I [am] here!’

(2-136) /jaru ŋaja galŋa/
 [járo ŋaja kálŋai]
 HM MM H L
 here 1SG.NOM MB
 ‘I [am] here, Uncle (MB)!’

A similar phenomenon, in which a non-phonemic [i] is added to the end of a word, occurs in Japanese. (In Wanyjirra ([wá:ŋdʒira]) (Northern Territory, immediately east of Djaru), Maggie Scott sometimes adds the nasal [ŋ] to the end of the name of the language, i.e. [wá:ŋdʒiraŋ]. This [ŋ] is not phonemic.)

[3] Addition of [o]

[o] is added to the end of a word in many examples, but its function is not known.

(2-137) /pula guji jamba-ŋga wuna-n/
 [pula koi:o jambaŋga wonan]
 3SG.NOM hungry camp-LOC lie-NF
 ‘She is lying hungry in the camp.’

[o] is phonetically identical with the allomorph of the dative suffix for vowel-final stems (see (2-61) and [4]-(b) below). But it is unlikely to be the dative suffix in (2-137). [o] occurs in a song, too. See (1-10-d).

[4] Phoneme deletion

Alf Palmer spoke fairly fast, and in texts, sometimes the end of words was blurred. Also, in fast and/or casual speech, certain phonemes were dropped.

(a) Dropping of /w/. Compare [dʒawa] /ʒawa/ 'mouth' and [dʒaɪ]. /w/ seems to be dropped between /a/'s only, and in no other environment. Dropping of /j/ has not been observed.

(b) Dropping of /g/. The dative suffix is generally /gu/ [go] following a consonant, and /wu/ [o] following a vowel (see Table 3-2). However, there is just one example in which the dative suffix following a consonant is [o], and not [go]. Compare [winga.go] /winga.gu/ 'fish-DAT' and [winga.ɔ]. (In [winga.ɔ] a dot is written between [ɪ] and [o] in order to indicate that these two phones are pronounced separately, and not jointly as [ɪo].) /g/ of /gu/ is dropped here. Here, the /ɪ/-final stem behaves rather like a vowel-final stem. This is probably because, as seen in 2.5-[4], /ɪ/ is a non-syllabic 'vowel'. It is highly sonorous; see also (2-93). (In Djaru (Tsunoda 1981a: 36) /r/-final, /l/-final and /n/-final stems sometimes behave like vowel-final stems, although they behave as consonant-final stems elsewhere in the language. These phonemes are all sonorous.)

(c) Dropping of /n-gu/ 'LINK-DAT' See 3.6.5-[5] and 4.9.9.4-[1].

(d) Possibly, omission of the transitive-stem-forming suffix /ŋa/ and the intransitive-stem-forming suffix /bi/. See 3.1.2-[7].

2.10. Careful speech

In 2.9.2, we looked at casual speech, fast speech and the like. 'Careful speech' (Labov 1972:79, Lass 1991: 295) by Alf Palmer produced two interesting phenomena.

2.10.1. Deletion of a phoneme

Upon my request, Alf Palmer pronounced the word for 'grey hair' (/bi.ŋga/) slowly and said [biɪ (pause) ga]. The nasal /ŋ/ was deleted and the consonant cluster was reduced. Dixon (1972: 285, 1981: 21-22) reports a number of similar instances from Dyirbal and Warrgamay, respectively. In each of them a nasal as the second member of a tri-consonantal cluster was deleted in careful pronunciation.

It is important to note the following.

(a) It is only in this ‘careful (and deliberate) speech’ that the nasal /ŋ/ of /biŋga/ was deleted. It was never deleted in ‘non-careful speech’. /biŋga/ and /biɡa/ are not in free variation. It is certain that /ŋɡ/ and /iɡ/ are in contrast, for there is a near-minimal pair: /biŋga/ ‘grey hair’ and /biɡu/ ‘wife’. If /ŋ/ of /biŋga/ is deleted in ‘non-careful speech’ (i.e. /biɡa/), most probably this will not be recognized as the word for ‘grey hair’

(b) Deletion of certain phonemes in fast and/or casual speech is common in Warrongo (2.9.2-[3]) and other languages of the world. Phenomena such as cluster reduction and nasal deletion are reported, e.g. Lass (1991: 298, 302) and Zwicky (1972: 279, 282, 291). In contrast, such reduction and deletion are unlikely to occur in careful speech (see Labov 1972: 70–109). What is striking about [biɿ (pause) ɡa] and similar instances reported by Dixon, is that it is in careful speech, and not in fast or casual speech, that nasal deletion and cluster reduction occurred.

(c) The deletion of /ŋ/ from /biŋga/ ‘grey hair’ (which causes cluster reduction) is the reverse of the insertion of /ŋ/ (2.6-[2]-(c)). The latter produces tri-consonantal clusters, e.g. /baŋɡaj-ŋ-ɡu/ ‘spear-ŋ-DAT’. Note, however, that the insertion of /ŋ/ occurs at morpheme boundaries, whereas the deletion of /ŋ/ from /biŋga/ ‘grey hair’ occurred within a root.

In terms of phonological analysis, the deletion of /ŋ/ from /biŋga/ ‘grey hair’ has the following two implications.

(d) Phonemic analysis is generally based on ‘very careful speech’ (Lass 1991: 30, 295). However, the deletion of /ŋ/ from /biŋga/ and the instances reported by Dixon, suggest that this may not be a good method.

(e) The deletion of /ŋ/ from /biŋga/ suggests that /ŋ/ in /biŋga/ has a ‘lower’ status as a phoneme than the other phonemes in the word (/b, i, ɿ, ɡ, a/). This applies to the instances reported by Dixon. Also, it may apply to all of the tri-consonantal clusters (Tables 2-18, 2-19), in which the second member is a nasal. It should be added here that elsewhere /ŋ/ has a full status as a phoneme, for example, root-initially and intervocalically. Thus, compare /ŋama/ ‘handle of shield’ with /ɡama/ ‘dance style’, and /muŋan/ ‘mountain’ with /muɡan/ ‘to get (NF)’. The above suggests that phonemes can be classified as follows. (i) Those which always have a full status as a phoneme, e.g. probably /b, i, ɿ, ɡ, a/, and (ii) those which may have a lower status as a phoneme in certain environments, e.g. /ŋ/.

Most of the Australian languages have only bi-consonantal clusters, e.g. Djaru (Tsunoda 1981a: 38), but a number of Australian languages possess tri-consonantal clusters as well, e.g. Warrongo. (See Dixon 2002: 656.) It is possible, though by no means certain, that language such as Warrongo used to have bi-consonantal clusters only, and that subsequently a nasal (often homorganic with the following stop) was inserted. (See Dixon (1980: 166, 219, 2002: 657–658) and O’Grady and Fitzgerald

(1995.) Warrongo has at least one suggestive pair: /galga/ Vt ‘put down’ (L-class) and /galŋga/ Vi ‘fall down’ (Y-class). (See Table 3.9.4.1 for the classes of verbs.)

2.10.2. Isolation of suffixes

People who are not trained in linguistics may recognize words, but they will be unlikely to recognize affixes. Alf Palmer was an exception. One day I was discussing reciprocal forms of verbs with him. I cited forms such as /ɟajmba-wa-n/ [dʒaɪmbawan] ‘find-RECP-NF’, /muga-wa-n/ [mógawan] ‘hold-RECP-NF’, /jɪŋga-wa-n/ [dʒɪŋgawan] ‘punch-RECP-NF’, and /ɟunda-wa-n/ [dʒóndawan] ‘kiss-RECP-NF’. Upon hearing these, Alf Palmer said:

(2-138) All [ban].

There are striking facts about this.

First, Alf Palmer recognized and isolated a suffix, to be more precise, a sequence of two suffixes: /wa/ ‘reciprocal’ and /n/ ‘nonfuture’.

Second, Alf Palmer said [ban], not [wan]. This is truly intriguing for a number of reasons. (i) He always said [wan] (and never [ban]) when he pronounced the entire reciprocal forms; see the forms cited above. (ii) [wa] is possible root-initially and word-initially (Table 2-17), e.g. /wanda/ ‘news’. Consequently, Alf Palmer could have easily pronounced [wan]. (iii) Elsewhere in the language, /w/ and /b/ contrast, e.g. /wama/ ‘mad’ and /bama/ ‘man’. (iv) Elsewhere in the language, there is no alternation between /w/ and /b/ (although there are other alternations; see 2.4). (v) The cluster /lw/ is allowed – even within a root ((d) of Table 2-18), e.g. /walwa/ ‘bad’. Therefore, Alf Palmer could have easily pronounced ‘All [wan]’.

It is worth noting the following points.

- (a) Like /w/, /b/ occurs suffix-initially (Table 2-17), e.g. /bara/ ‘denizen’ (3.7.1-[1]).
- (b) This [ban] occurred when Alf Palmer’s attention was focused on the element in question. That is, it occurred in ‘careful speech’. Furthermore, it occurred, so to speak, at a ‘meta-language’ level.
- (c) This [ban] does not contrast with [wan] of /muga-wa-n/ [mogawan] ‘hold-RECP-NF’, etc. Nor is it in free variation with this [wan]. The choice is not optional. [ban] was observed in careful speech only.

In terms of phonological analysis, it does not seem adequate to assign this [b] of [ban] to the phoneme /b/, for the circumstance under which it occurred is unusual; see (b) above. Nor does it seem appropriate to allocate it to the phoneme /w/. Also, it is not suitable to set up an archiphoneme /B/ (or /W/) for this [b] and [w] of /ɟajmba-wa-n/ ‘find-RECP-NF’, etc., for this [b] does not manifest neutralization

in the usual sense. Then, it may be useful to recognize a level of phonological analysis as distinct from that of phonemes and that of archiphonemes. Thus, this [b] may be presented by //b//, using a triple slash. (A single slash is used for the phonemic level. Double slashes are used by some authors for the morphophonemic level; see Lass 1991: 58).

The suffix /ba/ or its variant occurs as a reciprocal marker in neighbouring languages such as Warrgamay (/ba/, Dixon 1981: 49, 74–75), Nyawaygi (/ba/, etc., Dixon 1983: 489), and Dyirbal (/n)bari/, Dixon 1972: 92). Like Warrongo, Gugu-Badhun has /wa/ ‘reciprocal’ (Sutton 1973: 144–145). It seems certain that this /wa/ is a reflex of the reciprocal /ba/. Then, it looks as if a diachronic change was realized synchronically in Alf Palmer’s idiolect, although he was no doubt unaware of this diachronic change.

2.11. Women’s pronunciation (?)

Alf Palmer often included conversations in texts. When he was assuming the role of a woman in a conversation, he sometimes changed his pronunciation, in which pitch seems to be somewhat higher than usual. There is at least one example that involves non-voicing of a stop in addition to high pitch.

The pronoun /ŋajgu/ ‘1SG.GEN’ is generally pronounced by Alf Palmer as [ŋaigo] both in texts and elsewhere. This pronunciation involves the voiced [g]. It does not have high pitch. Examples are in (2-127-B) and (2-134). In contrast, when he was assuming the role of a woman in a conversation, he often (though not always?) pronounced it as [ŋaiko]. This involves the voiceless [k]. An example is cited from a text. In this story, a group of men are dancing, and the women are choosing their husband from among them. One woman says as follows. Here, /ŋajgu/ starts with high pitch.

(2-139) /ŋuna ŋajgu/
 [ŋona ŋaiko]
 M M HML
 that 1SG.GEN
 ‘That [man is my] husband.’

It may (or may not be) significant that this example involves /g/ [ko]. Recall that, among the four stop phonemes, /g/ is the most likely to be voiceless (see (2-4)), and that, among the three vowel phonemes, /u/ is the most likely to make the preceding stop voiceless (2.1.3.2.5). That is, this voiceless allophone [k] occurs in an environment where the voiceless allophone is favoured (2.1.3.2.7).

The use of a voiceless allophone and high pitch in ‘woman’s speech’ does not seem systematic. Nor is it known whether it was confined to Alf Palmer’s texts or it was common in women’s speech when the language was actively spoken. No

such phenomenon is observed among the fluent speakers of Djaru (Tsunoda 1981a: 24–25) and Wanyjirra. In view of this, the phenomenon in question may possibly be a product of Alf Palmer's ingenuity, and it may not reflect the situation of the time when the language was thriving.

2.12. Ideophones

There are probably many ideophones. (See Dixon (1972: 328–329, 1977a) on Dyirbal ideophones.) Examples follow.

The word for 'crow' is /waʒa/ [wátʃa] (HL) or /waʒagan/ [wátʃagan] (HML). The call of a crow is described by [watʃa:] (no stress, MMM). The second vowel is long. (The meaning of /gan/ is not known. It does not seem to be the feminine suffix /gan/ (3.7.1-[17]).) Alf Palmer stated that, in a crow corroboree, people danced about, saying [watʃa:] or [watʃa:watʃa:]. (The word for 'crow' starting with /wa/ is common across the continent. Djaru has separate words for the name of a crow (/wangoɹa/ [wangoʒa]) and the word to describe its call ([wa:kwa:k]).)

The call of brolga (a bird sp.) is [koʒor], and its name, too, is /guur/ [koʒor]. (The word for 'brolga' starting with /gu/ seems common across the continent. Djaru has /gurgali/ [korkale] 'brolga'.)

According to Alf Palmer, a bird species with the name /guguwup/ [kókooɹ] has the call [kókooɹ]. This word involves two occurrences of [o], and not a long [o:]. See (2-77). (/guguwup/ means 'brown pigeon' in Jirrbal and Girramay (Dixon 1972: 403), and 'blue pigeon' in Warrgamay (Dixon 1981: 117).)

/dingil~dingil/ [diŋgildiŋgil] 'bell' (mentioned in 2.2.6.2-(b)). This word contains the only instance of /ld/ cluster in Warrongo. This word contains two occurrences of [il] (not [el]). They are exceptions to the lowering effect of /l/ (2.1.4.3-[2]-(a)). This may be because this word is an ideophone.

The word /ʒigir~ʒigir/ [dʒigirdʒigir] 'willy wagtail (bird sp.)' appears to describe the way the bird wags its tail vertically and repeatedly. This word contains two occurrences of [ir] (not [er]). They are exceptions to the lowering effect of /r/ (2.1.4.3-[2]-(b)). (The word /ʒigir~ʒigir/ is also a placename; see Text 1, Line 20.)

Words for 'willy wagtail' seem similar across the continent, e.g. /ʒirbiji~ʒirbi/ of Djapu of Northern Territory (Morphy 1983: 163), /ʒigiri~ʒig/ of Djaru (Kimberley Language Resource Centre 1992: 50), and /ʒindir~ʒindir(ba)/ of Pitjantjatjara/Yankuntjatjara of central Australia (Goddard 1992: 151). Woivurrung of Melbourne (Blake 1991: 87) has *djirri~djirri* (probably /ʒiri~jiri/ – TT). Note that all of these words start with /ʒi/, that they involve reduplication (two of them involve partial reduplication, e.g. /ʒigiri~ʒig/), that they involve a rhotic (/r/ or /w/), and that the vowels are /i/, except for /a/ of /ba/ in /ʒindirʒindir(ba)/.

Note that /dingil~dingil/ and /ʒigir~ʒigir/ contain exceptions to the respective lowering effects. This suggests that ideophones might be exempt from the lowering effect.

Other onomatopoeic words (a type of ideophones) include /ŋaŋa:/ [ŋaŋa:] for babies' cries (2.2.3.1-[1]) and /gigigi/ [kikiki] for possums' squeaks'

2.13. Adaptation of foreign words

2.13.1. Words from other Australian languages

'When the First Fleet arrived at Sydney Cove in 1788 they soon adopted words from Dharuk, the local language' (Dixon et al. 1990: 1), and these words are now widely distributed over the continent. (The name of the language is also spelt 'Dharug' (Troy 1994: 5).)

At least two words from Dharuk occur in Warrongo: (i) /guwuj/ [ko:ɯɯi] 'Hi! Hey!' (Dixon et al. 1990: 208) (see 2.9.2-[1]-(e)), and (ii) /gaja/ 'hut' (/ganyi/ 'hut' in Dharuk (Dixon et al. 1990: 199); it is spelt 'gunya' by Troy (1994: 44)). Nowadays [ko:ɯɯi] is by white people, too, and it is even listed in a dictionary (*The Australian Pocket Oxford Dictionary* 1976: 178). The spelling is 'Cooee' or 'Cooey'

/jaraman/ 'horse' (e.g. (4-735)) has a wide geographical distribution, and it occurs in Warrongo, too. According to Dixon et al. (1990: 86–87), its source is unknown. Alf Palmer said that the 'proper' Warrongo word for 'horse' is not /jaraman/, but that it is /ɟajai/, e.g. (3-160). The latter's source is not known, either.

How Alf Palmer pronounced the names of the neighbouring languages was discussed in 1.8.4.1-[2] and 2.6-[4].

There may be many words from other Australian languages which I have been unable to identify as non-Warrongo. For example, /gambi/ 'clothes' may come from the Townsville region. It was first recorded at Mt. Black, west of Townsville (with the meaning of 'possum cloak' (1.9)).

All of the words cited above (and possibly those words that I have been unable to identify as non-Warrongo) have been well adapted to the Warrongo phonology. Indeed, /gaja/ 'hut' was used in 2.1.2-[1]-(c) in a presentation of phonemic oppositions in Warrongo.

There is one word that sounded non-Warrongo to my ears: /wanɟundila/ [wanɟondila] 'a place on Herbert River, where there is a big cliff' (see 2.2.6.1). This word contains [il] (not [eɪ]), and it is an exception to the lowering effect of /l/ (see 2.1.4.3-[2]).

2.13.2. Words from English

Words from English found in Warrongo are of two types: (i) those which have a wide geographical distribution, occurring in other languages as well, and (ii) those which do not (or, do not seem to). Native Warrongo words appear to prohibit stops root-finally and word-finally (Table 2-17). In the following we shall mainly look at the fate of word-/root-final stops of English words.

[1] Those words which have a wide distribution

It is likely that these words had been phonologically modified before they entered Warrongo. Examples follow.

(a) /bilangir/ [biláŋger] 'blanket' (from *blanket*; Dixon et al. 1990: 244). The final stop /t/ of *blanket* changed to /r/, and a root/word-final stop was avoided. (/r/ occurs root-finally and word-finally in Warrongo (Table 2-17).) Its locative form is attested: /bilangir-a/ 'yard-LOC' (Table 3-4).

[i] of [biláŋger] is an exception to the lowering effect of /l/ (2.1.4.3-[2]-(b)). This suggests that this word has not been completely adapted to the Warrongo phonology.

(b) /margin/ [márgin] 'gun' (from *musket*; Dixon et al. 1990: 242). The final stop /t/ changed to /n/, and a root/word-final stop was avoided. (/n/ occurs root-finally and word-finally in Warrongo (Table 2-17).)

(c) /jaruʃa/ [dʒárodʒa] 'trousers' (from *trousers*; Dixon et al. 1990: 244). This word occurs in (3-33) and (4-356).

(d) /miʃiji/ [mídʒidʒi] 'white woman' (from *missus*; Dixon et al. 1990: 242).

(e) /wajbala/ [wáibala] 'white man' (from *white fellow*; Dixon et al. 1990: 241). This word occurs in, e.g., (3-75), (3-76), (3-112), and (3-248). It has been well integrated into Warrongo, and it has a verbalized form: *waybala-bi-L* Vi 'do/ behave like a white man' (4.7.1-[1]-(a)).

(f) /pigipigi/ [pigipigi] 'pig' (Dixon et al. 1990: 242). This is one of the three exceptions in which the root-initial /b/ is voiceless; see 2.1.3.2.1.

[2] Those words which do not (seem to) have a wide distribution

(a) /naninani/ 'goat' (from *nanny goat*). This word occurs in (4-624).

(b) /barigin/ 'paddock' (probably from *paddock*). If the origin was *paddock*, /in/ was added and the root/word-final stop was avoided (cf. */barig/). Also, the intervocalic /d/ changed to /r/.

(c) /abirbil/ [aberbɛl] 'Herbert Vale' (2.2.3.1-[3], (2-82)). The stop /t/ of *Herbert* changed to /r/. This avoided a consonant cluster starting with a stop (cf. */abidbil/). Such clusters are extremely uncommon (2.2.6.3-[1]-(h-3)). Its locative form is attested: /abirbin-da/ [aberbinda] 'Herbert Vale-LOC' (Table 3-4). The lateral /l/ changed to the nasal /n/. (This locative formation is unusual. See 3.2.1.3.) The initial /h/ of *Herbert* was dropped. There is no /h/ phoneme in Warrongo (2.1.1). (Warrgamay has /h̩abirbil/ 'Herbert Vale' (Dixon 1981: 119). It begins with /h̩/ and it has /ɹ/, rather than /r/.)

(d) /ubijir/ 'Rosevale' (2.1.5.1.1, 2.2.5.1-[3], 2.2.6.3-[1]-(h-3)). (Its Aboriginal name is /gigubal/ ((d-4) of Table 2-4).) The following forms are attested (Table 3-4): (i) [ɹobe:r] /ubijir/ 'Rosevale', (ii) [ɹobe:rɔ] /ubijir-gu/ 'Rosevale-DAT', and (iii)

[ɹobɛ:ŋomai] /nubijid-ŋumaj/ ‘Rosevale-ABL’. The final /l/ of *Rosevale* changed to /ɹ/ in /nubijir/ and /nubijir-gu/, and to /d/ in /nubijid-ŋumaj/.

In Warrongo, /l/ occurs root-finally and word-finally (Table 2-17), and the change from /l/ to /ɹ/ seems unnecessary. Nonetheless, at least, the root/word-final /ɹ/ (cf. /nubijir/) (Table 2-17) and the inter-morphemic cluster /ɹ-g/ (cf. /nubijir-gu/) ((b) of Table 2-19) are common, and they fit in the Warrongo phonotactics. However, the change from /l/ to /d/ (/nubijid-ŋumaj/) seems ‘unwelcome’, for it created a root-final stop and a consonant cluster starting with a stop. Such clusters are extremely uncommon (2.2.6.3-[1]-(h-3)).

In /nubijid-ŋumaj/, the stop /d/ occurs root-finally, but not word-finally.

(e) /jaɹ/ [jaɹ] /‘yard’ (2.2.7-[3], -[4]). Its locative form, too, is attested: /jaɹ-a/ ‘yard-LOC’ (Table 3-4), e.g. (4-735). The root-final /d/ changed to /ɹ/.

(f) /bijid-a/ [bɛ:ta] ‘bed-LOC’ (2.1.5.1.1, 2.2.5.1-[3]). The root is /bijid/, and it ends with a stop. The locative form is the only attested form, and there is no example of the root by itself. Here again, /d/ occurs root-finally, but not word-finally. The vowel of the root is lengthened, i.e. [bɛ:ta]. This creates a bimoraic root, in conformity with the general tendency in Warrongo that roots are bimoraic or longer: (2-81). I feel inclined to think that /bijid-a/ [bɛ:ta] ‘bed-LOC’ is an ad hoc loan, used on that occasion only.

(g) /ʒumubuɹ/ [dʒómoboɹo] ‘cattle, beef’. The etymology is not known. This word occurs in, e.g. (3-61), (3-75), (3-118), (3-160), and (3-201).

(h) /maŋgi-maŋgi/ ‘sheep’. I recall someone (Alf Palmer?) saying that sheep were named /maŋgi-maŋgi/ because their faces resemble monkeys’. If this is the case, this word must have been coined by someone who had seen a monkey. Monkeys are not native to Australia.

(i) /garman/ [karman] ‘tobacco’. The etymology is not known.

(j) Alf Palmer referred to me as [dʒapaniŋomai] /ʒabaniŋumaj/ ‘Japan-ABL’, i.e. ‘from Japan’. /i/ is inserted between /n/ (cf. *Japan*) and /ŋ/. Since the cluster /nŋ/ is attested in both intra-root and inter-morphemic clusters (see (e) of Tables 2-18 and 2-19), the insertion of /i/ in /ʒabaniŋumaj/ suggests that possibly the cluster /nŋ/ is acceptable, but not preferred.

As noted in 2.13.1, the words adopted from other Australian languages have been well adapted to the Warrongo phonology. In contrast, those from English exhibit a few deviations from the canonical Warrongo phonology: (i) the cluster /dŋ/, and (ii) the root-final (though not word-final) /d/. (The restriction on the final stop seems to be stronger word-finally than root-finally (2.2.5.1-[3]).) That is, they are integrated into the Warrongo phonology less completely than those from other Australian languages.

2.14. Practical orthography

The practical orthography used for the Warrongo language revival activities (1.9) are shown in Table 2-1. I used to employ the letter *u* for the phoneme /u/ in my works on Australian languages. However, in March 2004, it was decided to replace *u* with *o*. This decision was made in consultation with the people in the Warrongo language class, including Rachel Cummins. There are two reasons for this change.

(a) In the English orthography, *u* is pronounced in at least five different ways: *put*, *but*, *cute*, *minute*, and *bury*. Due to this, the use of the letter *u* for certain Australian languages has caused a serious confusion to some people.

(b) As noted in 2.1.4.2, the phoneme /u/ is phonetically almost always [o], with only a handful of exceptions.

(See Tsunoda (2005: 194–199) for problems encountered in practical orthographies used for language revitalization activities.)

In the chapters that follow, the practical orthography will be used.

Chapter 3

Word classes and morphology

3.1. Word classes

3.1.1. Outline of word classes

The following word classes can be set up for Warrongo. Except for interjections, all of them contain interrogative member(s), and most of them contain demonstrative member(s) as well.

- (a) Nouns, including:
 - (a-1) interrogative members: *ngani* ‘what’, *nganimbarri* ‘how many’, etc.
- (b) (Personal) pronouns, including:
 - (b-1) interrogative member: *wanyo* ‘who’.
- (c) Adverbs, including:
 - (c-1) interrogative members: *wanyja* ‘where’, *wayi* ‘How is it?’, etc., and;
 - (c-2) demonstrative members: *yama* ‘thus, in this way, in that way’, *yarro* ‘this, here’, *ngona* ‘that, there’, *ngoni* ‘there, that’.
- (d) Verbs, including:
 - (d-1) interrogative members: *ngani-bi-L* ‘to do/become what’ (Vi), *ngani-nga-L* ‘to do what’ (Vi), etc., and;
 - (d-2) demonstrative members: *yama-bi-L* ‘to do thus’ (Vi), *yama-nga-L* ‘to do thus’ (Vt), etc.
- (e) Interjections.

(-*bi-L* (4.7.1) and -*nga-L* (4.7.2) are verb-stem-forming suffixes. Verbs are of three classes: L-class, Y-class, and ZERO-class (Table 3-14). This is indicated for each verb where information is available.)

This classification of word classes (adopted from Tsunoda (1981a: 51–75) on Djaru) is mainly based on morphological evidence – to be specific, inflectional possibilities. Nouns and pronouns inflect for case, but details differ somewhat (Tables 3-2 through 3-6). Some of the adverbs inflect for case, though in the main only to a limited degree (Tables 3-5, 3-7, and 3-8), while the other adverbs do not inflect. (See 3.4.3 for a discussion of case inflection of adverbs.) Verbs inflect for tense, mood or the like (Tables 3-14 and 3-15). Interjections do not inflect.

In this classification, neither demonstratives nor interrogatives form a separate word class, but instead they are included in the relevant word class.

Interrogative members start with *ng* or *w*. Relevant examples are few, but the conditioning factor seems to be as follows. The initial phoneme is (i) *w* if the second syllable starts with the palatal phoneme *ny* or *y*, e.g. *wanyo* 'who', *wanyja* 'where', *wanyjarri* 'which way', and *wayi* 'How is it?', and (ii) *ng* if the second syllable starts with *n*, e.g. *ngani* 'what' and *nganimbarri* 'how many'. There is no exception.

In Djaru (Tsunoda 1981a: 68) and Wanyjirra, an interrogative word may have an indefinite reading as well, e.g. *ngana* 'who' and 'someone, anyone', and *nyamba* 'what' and 'something, anything'. However, an indefinite reading has not been attested with Warrongo interrogatives. It is not known if this is due to the incompleteness of the data.

Nouns form an open class. The same may apply to adverbs. The verb class is probably open, although I have never seen a new verb root being introduced into Warrongo. Pronouns form a closed class. The same is probably true of interjections.

In the relevant word classes, interrogative and demonstrative members each constitute a closed subclass.

This classification of word classes does not set up 'adjective' as a separate word class. What may be considered semantic equivalents of certain adjectives of, say, English, e.g. *jarribara* 'good' and *gagabara* 'big', are included in the word class of nouns. They will be referred to as 'adjective-like nouns', in contrast with nouns such as *bama* 'man' and *gamo* 'water'. The latter will be referred to as 'nouns proper'. Morphologically, adjective-like nouns and nouns proper share the same case morphology (Table 3-2). Syntactically as well, there is no strong reason to distinguish between them. See 4.5.2.1.4-[1]).

In addition to the five word classes listed above, there are about a dozen enclitics; see 4.25. Their characterization was given in 2.2.2. They in the main provide modal qualifications or the like, e.g. =*gol* 'only' and =*bajon* 'I do not know' in (2-79). (Enclitics are preceded by an equal sign, while other morpheme boundaries are indicated by a hyphen.) There is one conjunction, and it is an enclitic: =*ngomay* 'after, if, because' (4.10).

There is no bound (as against free) pronoun, such as pronominal clitic, pronominal suffix, or the like.

3.1.2. Additional comments on individual word classes

[1] Nouns and pronouns

As noted in 3.1.1, nouns and pronouns inflect for case, but they have slightly different case suffixes. Furthermore, roughly speaking, with nouns, the form for the so-called intransitive subject ('S') and that for the so-called transitive object ('O') are identical, in distinction from that for the so-called transitive subject ('A'). (See Dixon (1994: 6) for the labels 'S, O, A'.) That is, nouns have the ergative-absolutive pattern. In contrast, for pronouns, roughly speaking, the S and the A have the same form, as opposed to the O. That is, pronouns have the nominative-accusative

pattern. In my previous writings (e.g. Tsunoda 1988b), I used the case labels ‘absolutive’ and ‘ergative’ for nouns, and ‘nominative’ and ‘accusative’ for pronouns. However, in accordance with the proposal by Goddard (1982) and Blake (1985), I now use the labels ‘ergative’, ‘nominative’ and ‘accusative’ for both nouns and pronouns jointly. See Table 3-1.

Table 3-1. Case labels: ergative, nominative, and accusative

	noun		pronoun
	‘man’		‘1DU’
	previous label	current label	previous label
A	<i>bama-nggo</i> ERG	ERG	<i>ngali-Ø</i> NOM
S	<i>bama-Ø</i> ABS	NOM	<i>ngali-Ø</i> NOM
O	<i>bama-Ø</i> ABS	ACC	<i>ngali-nya</i> ACC

[2] Pronouns

Among the pronouns, the first and the second person pronouns almost always refer to humans. Numerous examples will be given below. But there is one example in which *yorra-Ø* ‘2PL-NOM’ is used to address kangaroos, i.e. (non-human) animates: see (4-985).

Third person pronouns generally refer to humans. Again, numerous examples will be given below. But occasionally they refer to animates, e.g.:

- (a) ‘3SG’: (i) *nyola* ‘3SG.NOM’ in (3-177), (4-228), (4-600) (a kangaroo), (4-782) (a horse), (ii) *nyonya* ‘3SG.ACC’ in (4-676) (a kangaroo), (4-800) (a possum), (4-813) (a fish), (iii) *nyongo-n-go* ‘3SG-LINK-DAT’ in (3-82) (a kangaroo), (iv) *nyongo* ‘3SG.GEN’ in (4-789) (a possum), and;
- (b) ‘3PL’: *jana-Ø* ‘3PL-NOM’ in (3-5) (rock wallabies), (4-565) (fish), (4-738) (dogs), and Text 2, Line 6 (fish).

There is no example of ‘3DU’ referring to animates, although this is no doubt possible.

There is one example in a text in which *nyola* ‘3SG.NOM’ refers to *gandaro* ‘one of the two imaginary, hairy human-like beings’ (1.5.8-[8]).

In (4-730) (*nyola* ‘3SG.NOM’), Text 1, Line 38 (*nyola* ‘3SG.ERG’) and Line 39 (*nyonya* ‘3SG.ACC’), the pronoun ‘3SG’ refers to Blue Tongue Lizard. In this text (the myth about the origin of water), presumably Blue Tongue Lizard is not just an animate, but it is personified.

The texts have yielded three examples in which *nyola* ‘3SG.NOM’ refers to a body part or the like: (4-224-d) (penis), (4-982-W) (semen), and (4-984-A) (erection).

There are two examples in texts in which *nyola* '3SG.NOM' refers to an inanimate entity: (4-862) (a freezer or a freezing room), and (4-900) (second B) (a forest ti tree).

Pronouns lack an inclusive-vs.-exclusive distinction, but there is a way to achieve this distinction. See 4.5.2.1.2-[2].

[3] Nouns

Nouns generally do not make a number distinction (1.1) or gender distinction. But there are just a few suffixes that indicate number, (3.7.1-[14] to [-16]) and one suffix that indicate 'feminine' (3.7.1-[17]).

Nouns comprise 'nouns proper' (e.g. *bama* 'man', *gamo* 'water') and 'adjective-like nouns' (e.g. *jarribara* 'good' and *gagabara* 'big').

Nouns also include numerals: *nyon.gol* 'one', *bolari* 'two', *gorrbara* 'three', and *marrgabala* 'many' (also 'much?'). Like many other Australian languages (cf. Dixon (1980: 107-108) on Australian languages in general, and Tsunoda (1981a: 52) on Djaru), there does not seem to be any other numeral. When requested to translate 'four', Alf Palmer gave *bolari~bolari* 'two-two', and also its variants *bolaro~bolaro* and *bolayi~bolayi* (see (2-103)). Similarly, for 'five', he gave *bolayi-gorrbara* 'two-three' and *gorrbara-bolaro* 'three-two'. (These words will be discussed in 3.7.3.) However, it is not certain if they are traditional Warrongo numerals.

Like Djaru and many other Australian languages, Warrongo distinguishes 'vegetable food' and meat: *manyja*, e.g. (3-117), (4-981), and *minya*, e.g. (4-767), (4-803), respectively. There appears to be no single word for 'food'.

There are a large number of nouns which can describe a mental, psychological, or bodily state, e.g. *goyi* 'hungry' and *gido* 'cold (of person, body, place)'. Some of them may be translated into English with a noun or an adjective, depending on the morphosyntactic environment in which they occur. One such noun is *woga* 'sleep (noun), asleep (adjective)'.

(3-1) *ngaya* *yani-Ø* *woga-wo*. (TT)
 1SG.NOM go-NF sleep-DAT
 'I went for a sleep.'

(3-2) *ngaya* *woga-Ø* *wona-n*. (AP)
 1SG.NOM asleep-NOM lie, sleep-NF
 'I lay asleep', i.e. 'I slept'.

There are nouns that may be considered abstract nouns, such as *morran* 'illness, ill', *rilga* 'lust', *bolba* 'love, in love', *goli* 'anger, angry'; they are generally combined with the comitative suffix (3.6.8-[4]), e.g. (2-48).

Some of the nouns describe the way an action is done, e.g. *ngalban*, *ngarrban* 'quick, fast', and *yoray* 'quiet'. They agree with the actor NP (ergative for A, and nominative for S) in terms of case. They are best translated into English by means of an adverb, e.g. 'quickly' and 'quietly', e.g. (3-19), (3-20), (3-40), (3-203), (3-204),

(4-145). There is the abstract noun *bariny* ‘to avoid someone, to dodge’ This noun is attested in the locative case only: *bariny-ja*; see (3-21).

There are nouns that refer to spirits, e.g. *gowoy* ‘male ghost’, *goynggan* ‘female ghost’ (see 3.7.1-[17] for the feminine suffix *-gan*), and the two types of imaginary hairy human-like being (1.5.8-[8]): *gandaro* (smaller type), e.g. (3-68), and *gangaligan* (larger type).

The demonstrative words *yarro* ‘this, here’, *ngona* ‘that, there’, and *ngoni* ‘there, that’ are considered as members of adverbs, rather than nouns. See 3.4.3-[1]. Nonetheless, their case marking is most conveniently described together with nouns; see 3.2.1.4.

There are nouns and verbs that occur in songs and/or that are said to belong to Jalngoy ‘the avoidance style’. See 1.6.1, 1.6.2 and 3.11.1.1.

For asking the name ‘What is the name of X?’, the interrogative member of the pronoun *wanyo* ‘who’ is used if X is human, e.g. (4-841) to (4-845), but *ngani* ‘what’, an interrogative member of nouns, is used if X is inanimate, at least for a placename; see (4-860) to (4-862). It is not known whether *wanyo* ‘who’ or *ngani* ‘what’ is used if X is (non-human) animate. Also, there is an expression for ‘What is the name of this place?’ See (3-13-A), and (3-14-A, -A).

[4] Adverbs

Adverbs describe place/direction/destination (including the cardinal directions), time, manner, modality, etc. Adverbs of place/direction/destination, those of time and at least one of manner inflect for case, though only to a limited degree. The semantic types and members of these types of adverbs are most conveniently discussed in conjunction with case inflection (see 3.4). There is one example in which all of the four words for the cardinal directions occur; they occur in the following order: south - north - west - east. See (4-603). There are about a dozen adverbs of modality or the like; see 4.24. There are two or three adverbs that involve the suffix *-ngomay* ‘after’ (3.8.1-[9]); this suffix is identical with the ablative-1 suffix *-ngomay* ‘from, after’ (3.6.7).

[5] Interjections

Interjections have no inflection. They are listed in 4.26.

[6] Verbs

Verbs inflect for tense, mood or the like. They describe actions, perception, mental or psychological states, possession, etc.

The verb *yani-* (irregular verb; cf. Table 3-14) does not specify the direction away from, or, towards, the speaker (or some other focal point), e.g. (3-18), (3-43), (3-50). That is, it may be translated as ‘go’ or ‘come’ (e.g. (3-21), (3-27) ‘go’, (3-248), (3-249) ‘come’), as is the case, e.g. in Djaru (Tsunoda 1981a: 82) and many other Australian languages. Nonetheless, Warrongo has *waga-L* Vi ‘rise, get up’, e.g. (3-3),

galngga-Y Vi ‘fall down, fall over’, e.g. (3-213), (3-234), and *ragara-L* Vi ‘go down, come down’, e.g. (4-728) (first W).

- (3-3) *waga-n ngaya jolany-ja*. (AP)
 rise-NF 1SG.NOM tree-LOC
 ‘I went up [i.e. climbed] a tree.’

There is no ‘copula verb’; see (2-127-A, -B), (2-134), (2-139), for instance. Nor is there any verb that exclusively expresses existence or the like; see (2-135), (2-136). The following three intransitive verbs generally have the meanings indicated: *nyina-Y* ‘sit’, *jana-Y* ‘stand’, and *wona-Y* ‘lie, lie down, sleep’. But they can describe existence or the like.

- (a) *nyina-Y* Vi ‘sit’, e.g. (3-4) (‘be’), (3-5) (‘live’).
 (b) *jana-Y* Vi ‘stand’, e.g. (3-6) (‘be’), (4-897) (‘There are fish in a river’), (4-900) (second B).
 (c) *wona-Y* Vi ‘lie, sleep’, e.g. (3-7) (‘be’), (4-602) (‘live’), (4-603) (‘live’).

- (3-4) (In a text, a woman looks for a kangaroo (not a specific kangaroo, but a non-specific kangaroo), finds one, and says as follows.)

yori-Ø yarro nyina-n. (AP)
 kangaroo-NOM this,here sit-NF

‘A kangaroo is sitting here’ or ‘This kangaroo is sitting’, i.e. ‘There is a kangaroo here’

- (3-5) (An example from a text. A man is talking about rock wallabies.)

yarro-n-da jana-Ø nyina-garra-n
 here-LINK-LOC 3PL-NOM live-ITER-NF

‘They live here.’

- (3-6) (In a text, a man goes to the river to catch fish, and finds some fish in the shade in the river.)

ngoni=wa win.gar-Ø jana-garra-n woma-ngga. (AP)
 there,that=FOC fish-NOM stand-ITER-NF shade-LOC

‘Right there, fish are standing in the shade’, i.e. ‘There are fish right there, in the shade.’

- (Note the use of *jana-Y* ‘stand’ to describe the existence/presence of fish in (3-6) and (4-897). The enclitic =*wa* seems to indicate focus or the like. See 4.25-[6].)

- (3-7) (In a text, a man looks up at a tree and finds a possum up there.)

gajarra-Ø yarro ngarra wona-n. (AP)
 possum-NOM this,here high,up lie-NF

Lit. ‘A possum is lying up here’, i.e. ‘There is a possum up there.’

(Note the use of *yarro* ‘this, here’, rather than *ngona* ‘that, there’ or *ngoni* ‘there, that’.)

Furthermore, existence or the like can be expressed by the comitative case (3.6.8-[8]), and non-existence by means of the adverb *nyawa* ‘negation’ (see 4.20.6).

There is no verb for ‘become’. But the intransitive *waga-L* ‘go up, rise’ (cf. (3-3)) can mean ‘become’ in the expressions for ‘get angry’ (but apparently not in any other expression, such as ‘to become ill’), e.g. (3-94) and:

(3-8) *jamo nyola goli-Ø waga-n ngaygo-n-go.* (AP)
 just 3SG.NOM angry-NOM get.up-NF 1SG-LINK-DAT
 ‘He got angry with me for no reason.’

(See 4.24-[8] for the adverb of modality *jamo* ‘just, for no reason’.)

Also, verbs formed with the intransitive-stem-forming suffix *-bi-L* (4.7.1) may describe a state (i.e. ‘be’) or a change (i.e. ‘become’). There are verbs for ‘be/become so’, ‘be/become what’, etc. (3.9.2). Verbs formed with the transitive-stem-forming suffix *-nga-L* (4.7.2) may describe creation (i.e. ‘make’) or causation (i.e. ‘make’ again). Also, there are verbs for ‘do so’, ‘do what’, etc. (3.9.2). Those formed with the transitive-stem-forming suffix *-(m)ba-L* may denote causation.

Some of the verbs formed with *-bi-L* or *-nga-L* are ‘delocutive verbs’ See 4.7.1-[3] and 4.7.2-[4], respectively.

There is no verb for ‘do’, but there are verbs for ‘do so’, ‘do what’, etc.

‘Performative verbs’, ‘speech act verbs’, ‘mental state verbs’ or the like abound in languages such as English (J. L. Austin [1962] 1975, Searle [1969] 2005), John Robert Ross (1970), Olson and Astington (1990), Olson (1994)). However, this is not the case in Warrongo. So far only the following verbs have been found: *birra-L* ‘speak [a language], tell, talk’ (Vt), *mayga-L* ‘tell’ (Vt), *banjo-L* ‘ask’ (Vt), *ngawa-L* ‘understand [a language, but not an idea, thought, etc.]’ (Vt), *jagoli-ZERO* ‘be sorry’ (Vi) (and its derived words; see 3.11.6), *ngorgali-ZERO* ‘be ashamed’ (Vi) (and its derived words; 3.11.6), *wanbali-ZERO* ‘fear’ (Vi) (and its derived words; 3.11.6), *yimirri-ZERO* ‘be glad’ (Vi) (and its derived words; 3.11.7), and probably *balga-L* ‘call’ (Vt) (as in ‘call him John’). (The use of *balga-L* in the sense of ‘call’ is infrequent. It generally means ‘hit, kill’.) There appears to be no verb for ‘believe’, ‘think’, ‘hope’, ‘want’, etc. But see 4.7.2-[8]-(f).

What may be expressed by a verb, say, in English, may be expressed by some other means in Warrongo: (i) nouns, e.g. *jilbay* ‘knowing’, e.g. (3-76), *nyando* ‘not knowing’, (ii) adverbs, e.g. *ngalnga* ‘counterfactual’, i.e. ‘I thought that ..., but that was not the case’ (4.24-[4]), and (iii) enclitics, e.g. =*gaji* ‘counterfactual’, i.e. ‘I thought that ..., but that was not the case’ (4.25-[1]) and =*bajon* ‘I do not know’ (4.25-[2]).

Dixon (1980: 407) surveys Australian languages and points out a connection between, roughly speaking, the noun *jawa/dhawa* ‘mouth’ and the verb *jawa-/dhawa-* ‘to eat’ (*Dh* presents a lamino-interdental stop.) It is interesting to note

that Warrongo has the noun *jawa* ‘mouth’ and the verbs *baja-L* ‘to bite’, *bija-L* ‘to drink’, and *moja-L* ‘to eat’; the verbs contain *ja*. (This observation is due to Meaghan Cummins and Mie Tsunoda.)

[7] Dual word class membership (?)

As a rule, word class membership is mutually exclusive, and transfer of word class membership requires the use of a derivational suffix. Thus, there are two very productive verb-stem-forming suffixes: *-bi-L* for forming intransitive stems (4.7.1), and *-nga-L* for forming transitive stems (4.7.2). They may be used for turning nouns into verbs. Also there are a small number of non-productive suffixes, e.g. *-ra* ‘agent’ (3.7.1-[11]) and *-no* ‘(personal name)’ (3.7.1-[12]), which derive nouns from verb roots.

There are, however, a small number of roots/stems that may possibly have a dual word class membership.

(a) Noun and verb

Compare the following sets of roots/stems.

(a-1) *yagi* ‘split (‘adjective-like’ noun).

yagi-bara (i) ‘split, open’ (‘adjective-like’ noun), (ii) Vt (L-class) ‘spread’, e.g. (3-9-a).

yagi-bara-nga-L Vt ‘split’.

(a-2) *ngamba* (i) ‘half’ (noun), (ii) Vt (class unknown) ‘break [something] into halves’, e.g. (3-9-d, -e).

ngamba-goman ‘other-half’, e.g. (4-26).

ngamba-nga-L Vt ‘break, cut into halves’, e.g. (3-9-c), Text 2, Line 9.

ngamba-bi-L Vi ‘[something] break’.

(a-3) *wamaynbiri* (i) ‘good’ (noun), (ii) Vi (class unknown) ‘be good’.

wamaynbiri-bi-L ‘be/become good’.

(-*bara* is a noun-stem-forming suffix; see 3.7.1-[8].) Consider the following excerpt from a text.

(3-9) (‘I cooked a possum.’)

a. *ngona-ngomay yagibara-n.*

that-after split-NF

‘After that, [I] split [i.e. cut up (?)] [the possum] up.’

b. *gido-bi-yal wanda-n.*

cold-INTR-PURP leave-NF

‘[I] left [it] so that [it] would become cold.’

c. *ngona-ngomay jarra-Ø ngamba-nga-n moja-igo.*

that-after leg-ACC half-TR-NF eat-PURP

‘After that, [I] halved the leg so that [my wife and I] could eat [it].’

- d. *nyongo jarra-Ø ngamba-n.*
 3SG.GEN leg-ACC break-NF
 ‘[I] broke the leg into halves for her.’
- e. *ngaygo jarra-Ø ngamba-n.* (AP)
 1SG.GEN leg-ACC break-NF
 ‘[I] broke the leg into halves for me.’

(Sentences b and c contain purposive subordination ‘so that may’ (4.8).) It is possible that Alf Palmer forgot to add the transitive-stem-forming suffix *-nga-L* to *yagibara* and *ngamba* in instances such as (3-9), that this is an instance of ‘fast/casual speech phenomena’; see 2.9.2-[4]-(d), and that consequently *yagibara* and *ngamba* do not have a dual class membership. However, when the tape was re-played, Alf Palmer did not correct any word in the excerpt above. This indicates that he considered all these words correct. In view of this, I tentatively conclude that *yagibara* and *ngamba* have a dual class membership: noun and verb. The same tentative conclusion applies to *wamaynbiri*.

(b) Adverb and verb

Compare the adverb *wonaja* ‘camping about’ (e.g. (3-15) and (3-16)) and the intransitive verb *wonaja-garra-n* ‘camp about-ITER-NF’, e.g. (4-609). Here, too, I tentatively conclude that *wonaja* has a dual membership: adverb and verb.

[8] Derivational processes

There are three derivational processes: affixation of stem-forming suffixes, reduplication, and compounding. See 3.7 on nouns, 3.8 on adverbs, and 3.11 and 4.7 on verbs. It should be noted in particular that there are adverbs that are formed by the affixation of what is identical with a case suffix (i.e. *-ngomay* ‘ablative-1’); see 3.8.1-[9]. (The words mentioned in [7], which may possibly have a dual class membership, may be regarded as involving affixation of a zero suffix.)

3.2. Noun morphology (1): case inflection

Case inflection of nouns and also of the three demonstrative members of adverbs (*yarro* ‘this, here’, *ngona* ‘that, there’, *ngoni* ‘there, that’) is examined in 3.2, and the derivation of nouns in 3.7.

3.2.1. Case inflection of nouns and three demonstrative words

The following eight cases can be recognized for nouns, pronouns and the three demonstrative words: nominative, ergative, accusative, genitive, dative, locative, comitative, and ablative. (At least four pronouns have two ablative forms; cf. Table 3-6.) Nouns and the three demonstrative words are classified into the following

four groups: (i) regular nouns, comprising most of ‘nouns proper’ and ‘adjective-like nouns’ (3.2.1.1), (ii) vowel-final human proper nouns and vowel-final kin nouns (3.2.1.2), (iii) irregular nouns (3.2.1.3), and (iv) the interrogative member *ngani* ‘what’ and the demonstrative words (3.2.1.4).

3.2.1.1. Regular nouns

In Alf Palmer’s Warrongo, regular nouns have case forms shown in Table 3-2. The case suffixes and their allomorphy are described below.

[1] The nominative form and the accusative form do not involve any non-zero suffix. That is, they are noun stems with no change.

[2] The ergative suffix is as follows.

(a) *-nggo* for vowel-final stems.

(b) *-Do* for nasal-final stems (*D* is a stop that is homorganic with the preceding nasal).

(c) *-do* for liquid-final stems (*rr*, *r*, *l*), together with the deletion of the stem-final liquid.

(d) *-jo* for *y*-final stems, together with:

(d-1) the (quite frequent but probably optional) deletion of the stem-final *y* in *Y*-group, and;

(d-2) the change of the stem-final *y* into *ny* in *NY*-group.

(Following a stem-final liquid, the ergative *-do* is voiceless, i.e. [t₀]. The same applies to the locative *-da* (see [3] below) following a stem-final liquid. All the other stops in case suffixes are voiced.)

There is a noun *jalanggo* ‘clothing for a woman to cover her private parts with’, and its ergative form is *jalanggo-nggo*. This form is a regular formation, since *jalanggo* is vowel-final; see (a) above. In Djaru (Tsunoda 1981a: 48–49), when the addition of a suffix creates two nasal-plus-stop clusters within one word, the nasal of the second cluster is deleted (obligatorily in some cases and optionally in others). Therefore, Djaru would have *jalanggo-go* in place of *jalanggo-nggo*. In contrast, as the existence of *jalanggo-nggo* shows, this nasal deletion does not take place in Warrongo.

[3] The locative case has exactly the same allomorphy with that of the ergative case, except that it involves *a* rather than *o*.

Table 3-2. Regular nouns

	‘man’	‘locust’	‘child’	‘mussel shell’
NOM/ACC	<i>bama</i>	<i>jojam</i>	<i>galbin</i>	<i>giyany</i>
ERG	<i>bama-nggo</i>	<i>jojam-bo</i>	<i>galbin-do</i>	<i>giyany-jo</i>
LOC	<i>bama-ngga</i>	<i>jojam-ba</i>	<i>galbin-da</i>	<i>giyany-ja</i>
COM	<i>bama-yi</i>	<i>jojam-ji</i>	<i>galbin-ji</i>	<i>giyany-ji</i>
DAT	<i>bama-wo</i>	<i>jojam-go</i>	<i>galbin-go</i>	<i>giyany-go</i>
GEN	<i>bama-ngo</i>	<i>jojam-ngo</i>	<i>galbin-ngo</i>	<i>giyany-ngo</i>
ABL	<i>bama-ngomay</i>	<i>jojam-ngomay</i>	<i>galbin-ngomay</i>	<i>giyany-ngomay</i>
	‘brolga’	‘fish’	‘snake’	
NOM/ACC	<i>gororr</i>	<i>win.gar</i>	<i>jambal</i>	
ERG	<i>goro-do</i>	<i>win.ga-do</i>	<i>jamba-do</i>	
LOC	<i>goro-da</i>	<i>win.ga-da</i>	<i>jamba-da</i>	
COM	<i>gororr-ji</i>	<i>win.gar-ji</i>	<i>jambal-ji</i>	
DAT	<i>gororr-go</i>	<i>win.gar-go</i>	<i>jambal-go</i>	
GEN	<i>gororr-ngo</i>	<i>win.gar-ngo</i>	<i>jambal-ngo</i>	
ABL	<i>gororr-ngomay</i>	<i>win.gar-ngomay</i>	<i>jambal-ngomay</i>	
	Y-group		NY-group	
	‘single man’	‘big carpet snake’	‘spear’	
NOM/ACC	<i>yalnggay</i>	<i>magoy</i>	<i>banggay</i>	
ERG	<i>yalngga-jo</i>	<i>magoy-jo (magoy-ji TT)</i>	<i>banggany-jo</i>	
LOC	<i>yalngga-ja</i>	<i>magoy-ja (magoy-ja TT)</i>	<i>banggany-ja</i>	
COM	<i>yalngga-ji</i>	<i>magoy-ji (magoy-ji TT)</i>	<i>banggany-ji</i>	
DAT	<i>yalnggay-go</i>	<i>magoy-go</i>	<i>banggay-go</i>	
			<i>banggay-ng-go</i>	
GEN	<i>yalnggay-ngo</i>	<i>magoy-ngo</i>	<i>banggay-ngo</i>	
ABL	<i>yalnggay-ngomay</i>	<i>magoy-ngomay</i>	<i>banggay-ngomay</i>	
	Y-/NY-group			
	‘hot’			
NOM/ACC	<i>jawoy</i>			
ERG	<i>jawoy-jo</i>			
LOC	<i>jawony-ja</i>			
COM	<i>jawoy-ji</i>			
DAT	<i>jawoy-go</i>			
GEN	<i>jawoy-ngo</i>			
ABL	<i>jawoy-ngomay</i>			

[4] The comitative suffix is as follows.

- (a) *-yi* for vowel-final stems.
 (b) *-ji* for all other stems, and in the case of *y*-final stems, together with:

- (b-1) the (quite frequent but probably optional) deletion of the stem-final *y* in Y-group, and;
 (b-2) the change of the stem-final *y* into *ny* in NY-group.

(The comitative *-yi* is phonetically [i]; see 2.1.5.1.2-[2]-(a).) As noted above, the deletion of the stem-final *y* in Y-group seems optional. Thus, Alf Palmer approved the forms (indicated with 'TT') that I suggested. Also, for the comitative, a form without *y* (*yabngga-ji*) and also those with *y* (*magoy-ji*, *jawoy-ji*) are attested.

[5] The dative suffix is as follows.

- (a) *-wo* for vowel-final stems.
 (b) *-go* for all other stems, with the optional insertion of *ng* in NY-group of *y*-final stems.

This *ng*-insertion was mentioned in 2.6-[2]-(c-2). *Banggay-go* occurs in (3-88). (*-wo* is phonetically [o]; see 2.1.5.2. The consonant cluster *n-g* across a morpheme boundary, as in *galbin-go*, is phonetically [ng] (<n-g>), and not [ŋ] (<ng>). *g* in *win.gar-go* 'fish-DAT' was deleted in one instance in fast speech; see 2.9.2-[4]-(b).)

[6] The genitive suffix is *-ngo* for all types of stems.

(The noun *banggay* 'spear' is inanimate, and therefore its genitive form, *banggay-ngo*, is unlikely to occur in natural speech.)

[7] The ablative suffix is *-ngomay* for all types of stems.

Table 3-2 clearly shows that *y*-final stems behave as consonant-final ones, rather than as vowel-final ones. It is in view of this that the stem-final [i] is analyzed as /j/ <y>, and not as /i/ (2.1.5.1.3-[2]).

In Table 3-2, *y*-final stems are divided into two groups: Y-group, represented by *yabnggay* 'single man' and *magoy* 'big type of carpet snake', and NY-group, represented by *banggay* 'spear'. However, this division does not seem clear-cut. First, it is not certain if all members of NY-group can involve *ng*-insertion for the dative. Second, there is at least one root that has characteristics of both groups: *jawoy* 'hot'. Its ergative form and the comitative form are of Y-group. However, its locative form is of NY-group. The Y-group form **jawoy-ja* was rejected by Alf Palmer. (Ideally, the lexicon should specify the group membership of each stem ending in *y*. Also the case of *jawoy* 'hot' shows that ideally allomorphic information should be provided for each *y*-final stem. However, this is simply impossible, due to the incompleteness of the data.)

As seen in 1.5.4.3-[3] there are placenames that take the form of a sentence, and one of them takes a case suffix: (1-5) *banggorro jolba-y* 'turtle-NOM jump-NF', 'Turtle jumped'. Its locative form is attested: *banggorro jolba-ja* 'turtle jump-LOC'.

That is, this placename belongs to Y-group of *y*-final stems. Note that the final *y* is deleted. It is not known whether other sentential placenames can have a case suffix.

Now, compare the following words that contain the root **jidal* 'morning'. The root by itself is not attested. (Regarding time expressions, the locative case can indicate 'during' (3.6.3-[2]), while the dative can mean 'until' (3.6.4-[8]).)

(a) Locative: (i) *jida-da* 'morning-LOC', 'in the morning', (ii) *jida-da-bi-L* 'morning-LOC-INTR', 'to sleep, etc. until morning', (iii) *jida-da-goman* 'morning-LOC-another', 'the next morning (in the past)' (a noun). (The root-final *l* is deleted; this is a regular formation. See *jamba-da* 'snake-LOC' in Table 3-2.)

(b) Dative: *jidal-go-bi-L* 'morning-DAT-INTR', 'to sleep, etc. until the morning', e.g. (4-130). (The retention of the root-final *l* is regular.)

It seems that, at least in *jida-da-bi-L* and *jida-da-goman*, the form *jida-da* 'morning-LOC' was reanalyzed as a root, no longer functioning as a locative form. This is presumably because **jidal* was used in the locative form very frequently. (Note the fate of the preposition *to* in the adverbs *today* and *tomorrow* of English.) There are two pieces of evidence for this view. First, *jida-da-bi-L* 'morning-LOC-INTR' means 'to sleep, etc. until the morning', and it does not mean 'in the morning'. That is, the use of the locative form is unexpected. Cf. *jidal-go-bi-L* 'morning-DAT-INTR', 'to sleep, etc. until the morning'. Second, in compounding the root *goman* 'other, another' is generally attached to a root, and not to a case suffix (3.7.3-[1]). *Jida-da-goman* (in which *goman* is added to a locative form) is the only exception.

Thus far we have looked at the case inflection of regular nouns in Alf Palmer's Warrongo. Alec Collins' Warrongo (recorded by Peter Sutton) seems identical with Alf Palmer's regarding case inflection, except for at least three differences.

First, in ergative and locative forms of Alf Palmer's Warrongo, the stem-final *l* is deleted. However, in Alec Collins' Warrongo, apart from one exception, this *l* is retained, e.g. *gaybal-da* 'fire-LOC' in (3-246) and *wangal-do* 'boomerang-ERG' in (4-256). The only exception is *jida-da* 'morning-LOC', in which this *l* is deleted, e.g. (3-256), as in Alf Palmer's Warrongo. (It is not known whether, in Alec Collins' Warrongo, stem-final rhotics (*rr*, *r*) are retained or deleted in these environments.)

Second, in Alec Collins' Warrongo, for *y*-final stems, the ergative suffix is *-ny-jo*, and the locative suffix is *-ny-ja*, and the stem-final *y* is retained. Compare *jolay* 'stick' and *jolay-ny-jo* 'stick-ERG'; and *banggay* 'spear' and *banggay-ny-ja* 'spear-LOC'. In Alf Palmer's Warrongo, these stems (NY-group) show the alternation of *y* and *ny*. That is, the stem-final *y* is not retained. Compare *banggay* 'spear', *banggay-ny-jo* 'spear-ERG', and *banggay-ny-ja* 'spear-LOC'.

Third, in the limited data available from Alec Collins, the dative suffix for *y*-final stems is always *-ng-go*, i.e. *ng* is inserted, e.g. *banggay-ng-go* 'spear-ng-DAT' and *wamay-ng-go* 'good-ng-DAT'. In Alf Palmer's Warrongo, this *ng*-insertion occurs, but not always.

3.2.1.2. Vowel-final proper and kin nouns

Among human proper nouns and kin nouns, consonant-final ones appear to behave like consonant-final regular nouns, as shown in Table 3-2. At least, there is no evidence to the contrary. However, vowel-final ones exhibit a few deviations. See Table 3-3. The forms with an asterisk were suggested by me but rejected by Alf Palmer. '(?)' means 'not certain'. Comments on these nouns follow. Information on vowel-final human proper nouns is limited, and it is not certain if what is stated below applies to all of them.

[1] Vowel-final human proper nouns

The accusative case may involve the zero suffix (-Ø) or *-nya*, e.g. (i) *gonira-Ø* and *gonira-nya* both 'Gonira-ACC', and (ii) *jabino-Ø* and *jabino-nya* both 'Jabino-ACC'. At least the accusative form of the following three names is attested with *-nya* only, and not with -Ø: *babino-nya* 'Babino-ACC', *bayombirri-nya* 'Bayombirri-ACC', and *jilanggo-nya* 'Jilanggo-ACC' (See 1.5.4.2-[1], -[2] and 3.7.1-[12] for these personal names.) *Jilanggo* is a woman's name, while the other names are men's names. That is, the accusative suffix *-nya* can be used irrespective of whether the name is a man's name or a woman's name. Etymologically, *jilanggo* means 'fig tree'. It seems certain that it cannot take *-nya* 'ACC' when it means 'fig tree', not the name.

Table 3-3. Vowel-final human proper nouns and kin nouns

	'Gonira'	'father'	'father'
NOM	<i>gonira</i>	<i>gaya</i>	<i>gaya-na</i>
ACC	<i>gonira</i> <i>gonira-nya</i>	<i>gaya</i> <i>gaya-nya</i> (?)	<i>gaya-na</i> <i>gaya-na-nya</i>
ERG	<i>gonira-nggo</i>	<i>gaya-nggo</i> <i>*gaya-lo</i>	<i>gaya-na-nggo</i> <i>gaya-na-lo</i>
LOC	<i>gonira-ngga</i> <i>gonira-ngo-n-da</i> <i>gonira-ngo-n-in-da</i>	<i>gaya-ngga</i> <i>gaya-ngo-n-da</i> <i>gaya-ngo-n-in-da</i>	<i>gaya-na-ngga</i> <i>gaya-na-ngo-n-da</i> <i>gaya-na-ngo-n-in-da</i>
COM	<i>gonira-yi</i> <i>gonira-ngo-n-ji</i>	<i>gaya-yi</i> <i>gaya-ngo-n-ji</i>	<i>gaya-na-yi</i> <i>gaya-na-ngo-n-ji</i>
DAT	<i>*gonira-wo</i> <i>gonira-ngo-n-go</i>	<i>gaya-wo</i> <i>gaya-ngo-n-go</i>	<i>gaya-na-wo</i> <i>gaya-na-ngo-n-go</i>
GEN	<i>gonira-ngo</i>	<i>gaya-ngo</i>	<i>gaya-na-ngo</i>
ABL	<i>gonira-ngomay</i>	<i>gaya-ngomay</i>	<i>gaya-na-ngomay</i>

The linking interfixes *-ngo-n-* occur in the locative (followed by another linking interfix *-in*), the comitative and the dative, and the resultant stems behave like *n*-final stems (cf. Table 3-2). Etymologically *-ngo-n-* may consist of *-ngo-* and *-n-*.

Elsewhere, *-ngo* is used as the genitive suffix; see Tables 3-2 and 3-3. *-n* by itself is also used as a linking interfix; see Tables 3-5 and 3-6, in particular. This *n*-insertion was mentioned in 2.6-[2]-(b).

In the dative, the use of *-ngo-n* is preferred, and is possibly obligatory. Consider (3-10), which I suggested to Alf Palmer.

- (3-10) *galjabara-Ø gonira-wo galngga-n.* (TT)
 rain-NOM Gonira-DAT fall-NF
 Intended meaning: 'The rain is falling on Gonira'.

Alf Palmer replaced *gonira-wo* with *gonira-ngo-n-go* 'Gonira-LINK-LINK-DAT', saying that *gonira-ngo-n-go* is 'more plain' than *gonira-wo*. (By 'more plain', probably he meant 'more acceptable'.) Also, consider (3-11), which I suggested to Alf Palmer.

- (3-11) *gonira-wo yangga-gali-n.* (TT)
 Gonira-DAT search.for-ANTIP-NF
 Intended meaning: [Someone] is looking for Gonira.

Alf Palmer commented on this sentence as follows: 'just like look for fruit'. That is, he meant that the use of the dative suffix *-wo* is appropriate for words for fruit (i.e. an inanimate noun), but not for the name Gonira (i.e. a proper noun). ((3-11) is an instance of the antipassive construction (4.9).)

For the name *Gonira*, the locative case is attested in three forms: *gonira-ngga*, *gonira-ngo-n-da*, *gonira-ngo-n-in-da*. Alf Palmer's comments suggest that they may be semantically differentiated. For *gonira-ngo-n-in-da*, Alf Palmer gave (3-12) and stated to the effect that it means 'alongside Gonira'. He used the word *alongside*.

- (3-12) *warrngo-Ø nyina-n gonira-ngo-n-in-da.* (AP)
 woman-NOM sit-NF Gonira-LINK-LINK-LINK-LOC
 Tentative translation: 'A woman is sitting alongside Gonira'.

For *gonira-ngga* 'Gonira-LOC', Alf Palmer gave the gloss 'on top [of Gonira – TT]' No comment was obtained on *gonira-ngo-n-da*.

[2] Vowel-final kin nouns

Kin nouns were discussed in 1.5.7. Most of the vowel-final kin nouns have two forms: one with the kin suffix *-na* (3.7.1-[18]) and one without. Those with *-na* are used more frequently than those without.

The case suffixes of vowel-final kin nouns are similar to those of the vowel-final human proper noun *gonira*, with one important difference.

With the forms containing *-na*, the accusative case may involve the zero suffix (*-Ø*) or *-nya* (as is the case with vowel-final proper nouns), e.g. *gaya-na-Ø* and

gaya-na-nya both 'F-KIN-ACC'. Other attested accusative forms with *-nya* are *yanga-na-nya* 'M-KIN-ACC', *bolo-na-nya* 'FF-KIN-ACC', and *galnga-na-nya* 'MB-KIN-ACC', e.g. (4-162). However, with the forms not containing *-na*, it is not certain if *-nya* is acceptable; cf. *gaya-nya* (?) (intended meaning 'father-ACC') in Table 3-3.

The major difference from vowel-final human proper nouns concerns the allomorphy of the ergative case suffix. Vowel-final kin nouns with *-na* can take *-nggo*, like regular nouns, e.g. *gaya-na-nggo* 'F-KIN-ERG', e.g. (3-255). Furthermore, at least four (and possibly five) of them can also take *-lo*: (i) *gaya-na-lo* 'F-KIN-ERG', e.g. (3-28), (4-38-A), (4-47), (ii) *yanga-na-lo* 'M-KIN-ERG', (iii) *bimo-na-lo* 'FZ/WM-KIN-ERG', (iv) *gami-na-lo* 'FM-KIN-ERG', and possibly (iv) *galnga-na-lo* (not certain) 'MB-KIN-ERG'. In contrast, those without *-na* seem to take *-nggo* only, e.g. *gaya-nggo* 'F-ERG', and they seem unable to take *-lo*. Thus, **gaya-lo* 'F-ERG' was rejected by Alf Palmer.

The ergative suffix *-lo* is attested only with these vowel-final kin nouns with *-na* and the pronoun *wanyo-lo* 'who-ERG' (Table 3-6). It is irregular. (This very irregularity supports the view that Alf Palmer's data are reliable. See 1.8.4.1-[2].)

In many Australian languages, including Djaru (Tsunoda 1981a: 54), the allomorphs of the ergative suffix include *-nggo* and *-lo*, and those of the locative suffix include *-ngga* and *-la* (Dixon 1980: 297). Then, for Warrongo, the locative *-la* would be expected, but it is not attested anywhere in the language.

Alec Collins' Warrongo has the following forms for the kin noun *galnga* 'MB': *galnga* 'MB-NOM/ACC', *galnga-na* 'MB-KIN-NOM/ACC', *galnga-na-nya* 'MB-KIN-ACC', *galnga-na-n-go* 'MB-KIN-LINK-DAT'. Note the kin suffix *-na* and the accusative suffix *-nya*. The only instance of the dative form involves the linking interfix *-n*.

3.2.1.3. Irregular nouns

Some of the liquid-final stems are irregular. See Table 3-4, which also contains a root that ends in a stop: *biyid* 'bed'. The kin suffix *-nyjarr* (cf. *gami-nyjarr*) was discussed in 2.2.4-[3], and will be discussed in 3.7.1-[19].

The loan placename *robiyirr* 'Rosevale' (discussed in 2.1.5.1.1, 2.2.5.1-[3], 2.2.6.2, 2.2.6.3-[1]-(h-3), and 2.13.2-[2]-(d)) is unusual in that (i) the stem shows the alternation between *rr* and *d*, and (ii) its ablative form has an unusual cluster of *d* plus *ng* across a morpheme boundary (2.2.6.3-[1]-(h-3)). This word appears to be an ad hoc loan. It was given by Alf Palmer, but it was later rejected by him. He said that its Aboriginal name is [gekobal] *gigobal*; see Table 2-4, (d-4) and Table 2-5, (c-7). As for the other loans, *bilanggirr* 'blanket' was discussed in 2.13.2-[1]-(a), *yaarr* 'yard' in 2.2.3.1-[1], 2.13.2-[2]-(e), *abirrbil* 'Herbert Vale' in 2.2.4-[1], 2.13.2-[2]-(b), and *biyid-a* 'bed-LOC' in 2.1.5.1.1, 2.2.5.1-[3] and 2.13.2-[2]-(f).

The forms with an asterisk are ergative forms. They were approved by Alf Palmer. But since the nouns in question are placenames, they will be unlikely to occur in the ergative case.

With regular nouns (Table 3-2), the ergative suffix for liquid-final stems (*rr*, *r*, *l*) is *-do*, and the stem-final liquid is deleted. However, *gami-nyjarr-o* is an exception; not *-do* but *-o* is added, and the stem-final liquid (*rr*) is retained. Similarly, the locative forms *gami-nyjarr-a*, *wonyorr-a*, *bilanggirr-a*, *yaarr-a*, e.g. (4-735), *ngamor-a* and *jalbar-a* are exceptions; not *-da* but *-a* is added, and the stem-final liquid is retained. (There is a noun *jalbar* ‘beard, moustache’. It is not a placename, unlike *jalbar* in Table 3-4. Presumably, its locative form is the regular form *jalba-da* ‘beard-LOC’.)

Table 3-4. Irregular nouns

	‘father’s mother’	‘(placename)’	‘Rosevale’
NOM/ACC	<i>gami-nyjarr</i>	<i>wonyorr</i>	<i>robiyirr</i>
ERG	<i>gami-nyjarr-o</i>	<i>wonyorr-o*</i>	
LOC	<i>gami-nyjarr-a</i>	<i>wonyorr-a</i>	
COM	<i>gami-nyjarr-ji</i>		
DAT	<i>gami-nyjarr-go</i>	<i>wonyorr-go</i>	<i>robiyirr-go</i>
GEN	<i>gami-nyjarr-ngo</i>		
ABL	<i>gami-nyjarr-ngomay</i>	<i>wonyorr-ngomay</i>	<i>robiyid-ngomay</i>
	‘blanket’	‘yard’	‘armpit’
NOM/ACC	<i>bilanggirr</i>	<i>yaarr</i>	<i>ngamor</i>
LOC	<i>bilanggirr-a</i>	<i>yaarr-a</i>	<i>ngamor-a</i>
	‘(placename)’	‘(placename)’	‘Herbert Vale’
NOM/ACC	<i>jalbar</i>	<i>mondor</i>	<i>abirrbil</i>
ERG	<i>jalbar-o*</i>	<i>mondon-do*</i>	<i>abirrbil-do*</i>
LOC	<i>jalbar-a</i>	<i>mondon-da</i>	<i>abirrbil-da</i>
DAT	<i>jalbar-go</i>	<i>mondor-go</i>	<i>abirrbil-go</i>
ABL	<i>jalbar-ngomay</i>	<i>mondor-ngomay</i>	<i>abirrbil-ngomay</i>
	‘bed’		
LOC	<i>biyid-a</i>		

In the locative form of *mondor* ‘place a few miles north of Pamona (Paluma (?))’, and of *abirrbil* ‘Herbert Vale’, the stem-final liquid is changed to *n*, and the locative *-da* is added, like regular *n*-final stems. The alternation between a liquid and *n* is unusual and is not attested elsewhere in Warrongo. But a similar phenomenon occurs in Warrgamay (Dixon 1981: 28–29) and Nyawaygi (Dixon 1983: 453–454).

The dative and the ablative forms in Table 3-4 are formed regularly.

Four of the irregular nouns (*robiyirr*, *bilanggirr*, *yaarr*, *abirrbil*) are loans from English. As noted in 2.13.2-[2], they have not been well integrated into the Warrongo phonology.

Furthermore, the other three placenames, i.e. *wonyorr*, *jalbar*, and *mondor*, are probably non-Warrongo. Alf Palmer stated that the placename *wonyorr* refers to

a 'place between Herbert Vale and Murray River, on Cardwell Range' (cf. Map 3). Judging by the map in Dixon (1972: 25), this place appears to be in Girramay territory. The place *jalbar* 'place near Herbert Vale' appears to be in Warrgamay territory. Very roughly speaking, in Girramay (Dixon 1972: 42) and Warrgamay (1981: 21), the locatives form of rhotic-final stems involve the addition of just *-a*, and the rhotic is retained. The formation and the location of these two placenames strongly suggest that they are a Girramay word and a Warrgamay word, respectively.

As for *mondor* 'place on Herbert River, where wild yams grow', its locative form (*mondon-da*) fits in the pattern of Warrgamay and Nyawaygi. This suggests that *mondor* is a Warrgamay word or a Nyawaygi word.

To sum up, all these irregular nouns appear to be loans – from English or a neighbouring language, except for the kin nouns with the suffix *-nyjarr* and *ngamor* 'armpit'

3.2.1.4. Ngani 'what', yarro 'this, here', ngonon 'that, there', and ngonon 'there, that'

Ngani 'what' is an interrogative member of nouns. Strictly speaking, *yarro* 'this, here', *ngonon* 'that, there', and *ngonon* 'there, that' are demonstrative members of adverbs (see 3.4.2), but they are most conveniently dealt with here. See Table 3-5. There is at least another interrogative member of nouns: *nganimbarri* 'how many' (and also 'how much (?)'). Presumably, it behaves like vowel-final stems shown in Table 3-2.

Most of the gaps in Table 3-5 are probably accidental, that is, they are due to the incompleteness of the data. Nonetheless, some of them may well be genuine gaps.

Table 3-5. *Ngani* 'what', *yarro* 'this, here', *ngonon* 'that, there', and *ngonon* 'there, that'

	'what'	'this, here'	'that, there'	'there, that'
NOM/ACC	<i>ngani</i>	<i>yarro</i>	<i>ngonon</i>	<i>ngonon</i>
ACC	<i>ngani</i>	<i>yarro</i>	<i>ngonon</i>	
ERG	<i>ngani-nggo</i>	<i>yarro-nggo</i> <i>yarro-n-do</i>	<i>ngonon-n-do</i>	<i>ngonon-n-do</i>
LOC	<i>ngani-ngga</i>	<i>yarro-n-da</i>	<i>ngonon-ngga</i> <i>ngonon-n-da</i>	<i>ngonon-ngga</i> <i>ngonon-n-da</i>
COM	<i>ngani-yi</i>	<i>yarro-yi</i>	<i>ngonon-yi</i>	
DAT	<i>ngani-wo</i> (<i>ngani-n-go</i>)	<i>yarro-wo</i> (<i>yarro-n-go</i>)	<i>ngonon-wo</i> (<i>ngonon-n-go</i>)	<i>ngonon-wo</i>
GEN	<i>ngani-ngo</i>	<i>yarro-ngo</i>	<i>ngonon-ngo</i>	
ABL	<i>ngani-ngomay</i>	<i>yarro-ngomay</i>	<i>ngonon-ngomay</i>	<i>ngonon-ngomay</i>

Some of the forms listed in Table 3-5 involve the linking interfix *-n*, e.g. *yarro-n-da* 'this, here-LINK-LOC', e.g. (3-5). All of the dative forms that involve *-n*

were given by Alf Palmer spontaneously, but they were later rejected by him. It is not certain if they are really incorrect. (Recall that Alec Collins' Warrongo has *galnga-na-n-go* 'MB-KIN-LINK-DAT' (3.2.1.2). It involves *-n*.) It is in view of this that they are included in the table, in parentheses.

Alec Collins' Warrongo data yielded the following forms.

'what': *ngani* (NOM/ACC), *ngana-nggo* (ERG) (note the second vowel *a*), *ngani-wo* (DAT), *ngani-ngomay* (ABL).

'this, here': *yarro* (NOM/ACC), *yarro-n-da* (LOC).

'that, there': *ngona* (NOM/ACC), *ngona-n-do* (ERG), *ngona-n-da* (LOC).

'there, that': *ngoni* (NOM/ACC), *ngoni-n-da* (LOC).

The use of *-n* looks almost obligatory for the ergative and the locative cases, except for *ngana-nggo* 'what-ERG'

Note that Alec Collins' data (though not Alf Palmer's Warrongo) yielded *ngani* and *ngana* for 'what'. Both forms (for 'what') are attested in each of Gugu-Badhun (Sutton 1973: 133) and Ranji Pope's Gujal (Peter Sutton, e-mail message of 24 April 2009).

3.3. Pronoun morphology

Table 3-6 shows the inflection of (personal) pronouns and their interrogative member 'who' – mainly of Alf Palmer's Warrongo. The form given by Alec Collins but not by Alf Palmer is indicated with '(AC)'.¹

Table 3-6. Pronouns, including 'who'

	'1SG'	'1DU'	'1PL'
NOM	<i>ngaya</i>	<i>ngali</i>	<i>ngana</i>
ERG	<i>ngaya</i>	<i>ngali</i>	<i>ngana</i>
ACC	<i>nganya</i>	<i>ngali-nya</i>	<i>ngana-nya</i>
GEN	<i>ngaygo</i>	<i>ngali-ngo</i>	<i>ngana-ngo</i>
DAT	<i>ngaygo-n-go</i>	<i>ngali-ngo-n-go</i> (<i>ngali-n-go</i> M)	<i>ngana-ngo-n-go</i> (<i>ngana-n-go</i> M)
LOC	<i>ngaygo-n-da</i>	<i>ngali-ngo-n-da</i>	<i>ngana-ngo-n-da</i>
COM	<i>ngaygo-n-ji</i>	<i>ngali-yi</i>	<i>ngana-yi</i>
ABL-1	<i>ngaygo-ngomay</i>	<i>ngali-ngo-n-ji</i>	<i>ngana-ngo-n-ji</i>
ABL-2		<i>ngali-ngomay</i>	<i>ngana-ngomay</i>
			<i>ngana-ngo-ni</i>
	'2SG'	'2DU'	'2PL'
NOM	<i>yinda</i>	<i>yobala</i>	<i>yorra</i>
ERG	<i>yinda</i>	<i>yobala</i>	<i>yorra</i>

ACC	<i>yina</i>	<i>yobala-nya</i>	<i>yorra-nya</i>
GEN	<i>yino</i> (<i>yono</i>)	<i>yobala-ngo</i>	<i>yorra-ngo</i>
DAT	(<i>yino-ngo-n-go</i>) <i>yino-n-go</i>	<i>yobala-ngo-n-go</i> (<i>yobala-n-go</i>)	<i>yorra-ngo-n-go</i> (<i>yorra-n-go</i>)
LOC	<i>yino-n-da</i>	<i>yobala-ngo-n-da</i>	<i>yorra-ngo-n-da</i>
COM	<i>yino-n-ji</i>	<i>yobala-yi</i>	<i>yorra-yi</i>
ABL-1	<i>yino-ngo-n-ji</i>	<i>yobala-ngo-n-ji</i>	<i>yorra-ngo-n-ji</i>
ABL-2	<i>yino-ngomay</i>	<i>yobala-ngomay</i>	<i>yorra-ngomay</i>
	‘3SG’	‘3DU’	‘3PL’
NOM	<i>nyola</i>	<i>bola</i>	<i>jana</i>
ERG	<i>nyola</i>	<i>bola</i>	<i>jana</i>
ACC	<i>nyonya</i> <i>nyongo-nya</i>	<i>bola-nggo</i> <i>bola-nya</i>	<i>jana-nggo</i> <i>jana-nya</i>
GEN	<i>nyongo</i>	<i>bola-ngo</i>	<i>jana-ngo</i>
DAT	<i>nyongo-n-go</i>	<i>bola-ngo-n-go</i> (<i>bola-n-go</i>)	<i>jana-ngo-n-go</i> (<i>jana-n-go</i>)
LOC	<i>nyongo-n-da</i>	<i>bola-ngo-n-da</i>	<i>jana-ngo-n-da</i>
COM	<i>nyongo-n-ji</i>	<i>bola-yi</i>	<i>jana-yi</i>
ABL-1	<i>nyongo-ngo-n-ji</i>	<i>bola-ngo-n-ji</i>	<i>jana-ngo-n-ji</i>
ABL-2	<i>nyongo-ngomay</i>	<i>bola-ngomay</i>	<i>jana-ngomay</i>
	‘who’		
NOM	<i>wanyo</i>		
ERG	<i>wanyo-lo</i>		
ACC	<i>wanyo-na</i> (<i>wanyo-nya</i> G)		
GEN	<i>wanyo-ngo</i>		
DAT	<i>wanyo-ngo-n-go</i> <i>wanyo-n-go</i>		
LOC	<i>wanyo-ngo-n-da</i>		
COM	<i>wanyo-ngo-n-ji</i>		
ABL(1)	<i>wanyo-ngomay</i>		

The forms in parentheses were given by Alf Palmer, but later rejected by him. They might have crept in, due to ‘a slip of the tongue’. Among them, *ngali-n-go* ‘1DU-LINK-DAT’ (see (4-697) and (4-1024-b)) and *ngana-n-go* ‘1PL-LINK-DAT’ occur in Mamu (Dixon 1972: 50). (They are marked with ‘M.’) *Wanyo-nya* ‘who-ACC’ occurs in Girramay (Dixon 1972: 50). (It is marked with ‘G.’) In the case of some other forms, it is not known why they were rejected.

Pronouns use the linking interfix(es) (*-n-* or *-ngo-n-*) in more numerous environments than nouns do (Tables 3-2 through 3-5).

At least four pronouns (three in Alf Palmer's data and one in Alec Collins' data) are attested with two ablative forms: *-ngomay* (ablative-1) and *-ni* (ablative-2). The ablative-1 occurs in nouns, too, but the ablative-2 occurs in these pronouns only.

The singular pronouns differ from the other pronouns as follows.

(a) Their ACC and GEN forms are irregular. They may be considered as instances of fusion, as against agglutination (see 2.2.1-(e)). (In contrast, the ACC and GEN forms of other pronouns simply involve the addition of *-nya* or *-na*, and *-ngo*, respectively, to the respective NOM forms.) (*Nyongo-nya* '3SG-ACC' is unusual in that it is built on the GEN form.)

(b) Their DAT, LOC, COM and ABL-1 forms are built on their respective GEN forms. (In contrast, those of the other pronouns are built on their respective NOM forms, with a linking interfix generally attached.)

All the four ABL-2 forms are built on their respective GEN forms.

'Who' has separate forms for the ERG, NOM and ACC. '3DU' and '3PL' differ from the other pronouns (except for 'who') in that they can take the ergative suffix, e.g. (3-113) (*bola-nggo* '3DU-ERG').

3.4. Adverb morphology (1): case inflection

3.4.1. Types of adverbs

Formation of adverbs will be discussed in 3.8. Adverbs can be classified, largely on semantic grounds, into the following groups, each of which contains interrogative and demonstrative members.

[1] Place, direction or destination, e.g. *birri* 'near', *bada* 'downstream', *gani* 'far', *ngarra* 'high, on top', *nyarrga* 'beneath, down', *jorri* 'alongside', *gana* 'below, inside', *ngogala* 'outside, over there, on the other side (of house, etc.)', *ganba* 'ahead, in front', *goda* 'behind'. (*Wora* 'middle, centre' may be a noun, rather than an adverb. See 3.4.3 for a comparison of adverbs with nouns.)

Note that *gana* may mean either 'below' or 'inside'. Similarly, in Djaru (Tsunoda 1981a: 246), the adverb *gani* and its reduplicated form *gani-gani* may mean 'down' or 'inside'. It may be that in the perception of Warrongo people and Djaru people, the down/below and the inside are identical.

There are words for the cardinal directions: *wanggarri* 'east', *golbila* 'south', *gowa* 'west', and *gonggarri* 'north', e.g. (4-603).

The interrogative members include *wanyja* 'where', *wanyja-bara* 'where from' (hardly ever used), *wanyja-rri* 'which way' (direction), *wanyja-rro* 'where to' (and also 'where at (?)'), and *wanyja-y-mo* 'where from' (mentioned in 2.6-[2]-(d); hardly ever used).

The demonstrative members are *yarro* ‘this, here’, *ngona* ‘that, there’, and *ngoni* ‘there, that’. (See also 3.4.3-[1].)

Adverbs of place/direction/destination, including the words for the cardinal directions and interrogative members, often take the adverb-stem-forming suffix *-ngal* ‘to’ (3.8.1-[2]) or *-mali* ‘on/to the X side of something/someone’ (3.8.1-[3]).

[2] Time, etc., e.g. *ganba* ‘before’, *nyalay* ‘before, not long ago, for the first time’, *nyila* ‘today, soon’, *garrbala* ‘tomorrow’ In the analysis adopted, *garri* ‘sun, day-time’ and *gonda* ‘darkness, night, last night, yesterday’ are nouns, and not adverbs. (See 3.4.3-[2].) Most of these adverbs of time are deictic, that is, they are demonstrative members of adverbs.

The attested interrogative members are *wanyja-mara* ‘when’, *wanyja-mira* ‘when’ (cf. *wanyja* ‘where’), and *nganimbarri-mara* ‘how long (of time)’ (cf. *nganimbarri* ‘how many’; see 3.7.1-[6] for *-barri*.) They are hardly ever used.

[3] Manner, etc., e.g. *ganan* ‘more’, e.g. ‘once more’, *gana* ‘(precise meaning unknown) a word used to describe the way one dances or looks at something’. Tentatively *warra* ‘in a wrong way’ (manner), ‘in a wrong direction’, and ‘cannot’, is listed as an adverb of modality: 4.24-[11].

As mentioned in 3.1.2-[3], there are nouns that describe the way an action is done. They are best translated into English by means of an adverb, e.g. ‘quickly’ and ‘quietly’, e.g. (3-40).

The demonstrative member is *yama* ‘in this way, in that way, thus’. The interrogative member is *wanyja-rri* ‘how’ (manner). Note that this word may also mean ‘which way’ (direction).

[4] Modality. Generally, adverbs of modality qualify the whole sentence, while other types of adverbs qualify the verb. Adverbs of modality are discussed in 4.24.

3.4.2. *Wanyja* ‘where’

The declension of *wanyja* ‘where’ ‘where’ is shown in Table 3-7. Without any suffix, *wanyja* can mean ‘where at’, e.g. (2-87), (3-153) (first A, third A), (4-870-A), (4-903) (first F), or ‘where to’, e.g. (4-975-A). One of the locative forms involves the linking interfix *-n-*. Two of the forms occur in Alec Collins’ data, too.

Table 3-7. *Wanyja* ‘where’

‘at, in’, and ‘to’	<i>wanyja</i> (AP, AC)
LOC	<i>wanyja-ngga</i> (AP), <i>wanyja-n-da</i> (AP, AC)
DAT	<i>wanyja-wo</i> (AP)
ABL	<i>wanyja-ngomay</i> (AP)

There is an interesting use of *wanyja* ‘where’, and it is exemplified here. A question which literally means ‘Where is this place?’ or the like seems to mean ‘What is the name of this place?’ There are at least two examples.

(3-13) (A conversation cited from a text.)

A. *wanyja yarro-Ø yamba-Ø?*
 where this,here-NOM place-NOM
 ‘Where [is] this place?’, i.e. ‘What is [the name of] this place?’

B. *yarro-Ø godami-Ø. (AP)*
 this-NOM Godami-NOM
 ‘[The name of] this [place] is Godami.’

(3-14) (A conversation cited from a text)

A. *yarro-Ø wanyja?*
 this,here-NOM where
 ‘Where [is] this [place]?’, i.e. ‘What [is the name of] this [place]?’

A. *yamba-Ø nyarri-Ø / wanyja-ngomay-Ø yarro-Ø?*
 place-NOM name-NOM where-ABL-NOM this,here-NOM
 ‘Where [is] the name of this place from?’, i.e. ‘What is the name of this place?’

B. *balabala-Ø yarro-Ø. (AP)*
 Balabala-NOM this,here-NOM
 ‘[The name of] this [place] is Balabala.’

Note that the second A in (3-14) involves the ablative-1 form (*wanyja-ngomay-Ø*).

3.4.3. Comparison of adverbs and nouns: case inflection

The distinction between nouns and adverbs is not clear-cut. As mentioned in 3.1.2-[4], adverbs of place/direction/destination (including the cardinal directions), those of time and at least one of manner show case inflection, like nouns, though to a limited degree. It is possible to say that they constitute a subtype of nouns, i.e. they are nouns which have a defective inflection. Nonetheless, the present work (tentatively) sets up the class of adverbs. According to the analysis adopted, in the main the differences between these adverbs and nouns in terms of case inflection are as follows. (Adverbs of modality never take a case suffix.) See Table 3-8.

[1] Words for place/direction/destination

In order to express a location (‘at, in, on’, etc.), nouns must take the locative suffix, e.g. (3-42) (*yamba-ngga* ‘camp-LOC’). In contrast, adverbs of place/direction/destination can express this meaning without the locative suffix, e.g. (i) *ngarra* ‘high, up’ in (3-7), (3-51), (4-560), (4-631), (4-882), (4-883), (ii) *birri* ‘near’ in (3-45), (iii)

golbila ‘in the south’ in (4-62), (4-64), (iv) *gonggarri* ‘in the north’ in (4-84), the four words for the cardinal directions in (4-603), (vi) *ganba* ‘in front’ in Text 3, Line 15, and (vii) *ngoni* ‘there, that’ in (3-51), (4-8). Some of the adverbs of place/direction/destination are attested with the locative suffix, e.g. (viii) ‘*birri-ngga* ‘near-LOC’ in (3-54), and (ix) *gana-ngga* inside-LOC’ in (4-897), Text 2, Line 36. But this use of the locative suffix is infrequent and optional.

Table 3-8. Comparison of adverbs and nouns

	LOC suffix	DAT suffix	ABL suffix
place, direction,	‘at, in, on’, etc.	‘to’	‘from’
destination			
noun	obligatory	obligatory	obligatory
adverb	optional, infrequent	optional, infrequent	obligatory
time	‘at, in, on’, etc.	‘until’	‘from, since, after’
noun	obligatory	obligatory	obligatory
adverb	never used	obligatory	obligatory
manner			
noun	obligatory		
adverb	optional		

In order to express a direction/destination (‘to’), nouns must take the dative suffix, e.g. (3-21) (*yamba-wo* ‘camp-DAT’), (3-81) (*gamo-wo* ‘water-DAT’). Adverbs of place/direction/destination do not need to – and they generally do not – take the dative suffix, e.g. (2-133) (*golbila* ‘to south’), and also (4-177) (*ngarra* ‘upwards’), (4-172) (*ngoni=wa* ‘to there’), Text 1, Line 16 (*gada* ‘upstream’), and *gonggarri* ‘to north’. Furthermore, some of the adverbs of place/direction/destination may take the adverb-stem-forming suffix *-ngal* ‘to’ (3.8.1-[2]), e.g. (i) *gonggarri-ngal* ‘north-to’ in (4-105), (4-172), (4-545), (4-1020), Text 1, Line 13, and (ii) *golbila-ngal* ‘south-to’. The adverb *golmi* ‘back’ (as in ‘go/come back’) seems never to take the dative suffix or *-ngal* ‘to’, e.g. (3-154), (3-249), (4-49), (4-97), (4-103), Text 3, Line 2.

To express a starting point, etc. (‘from’), both nouns and adverbs of place/direction/destination must take the ablative-1 suffix *-ngomay* (3.6.7), e.g. (i) nouns: (3-129) (*yamba-ngomay* ‘camp-ABL’), and (ii) adverbs: (3-152) (*ngoni-ngomay* ‘there-ABL’), (4-496) (*gowa-ngomay* ‘west-ABL’).

Table 3-8 excludes the demonstrative members: *yarro*, *ngona* and *ngoni*. Their use in terms of the relevant case suffixes is as follows. (Their case paradigm is shown in Table 3-5.)

Ngoni is almost always used in the sense of ‘there’ (i.e. referring to places) and rarely ‘that’ (i.e. referring to humans, animals, or inanimates other than places),

whereas for *ngona* both ‘that’ and ‘there’ are common, and for *yarro* both ‘this’ and ‘here’ are common.

When these demonstrative members express a location (‘at, in, on’, etc.) (rather than a direction/destination), their use seems to be roughly as follows.

(a) *ngoni* ‘there, that’

(a-1) With no non-zero case suffix

(a-1-1) Intransitive clauses, e.g. (3-6), (3-108), Text 1, Line 35.

(a-1-2) Transitive clauses, e.g. (4-8), (4-52), (4-212), Text 1, Line 34, Line 37.

(a-2) *ngoni-n-da* ‘there, that-LINK-LOC’

(a-2-1) Intransitive clauses, e.g. (4-228).

(a-2-2) Transitive clauses, e.g. (3-322), (4-64), (4-81), (4-96).

(b) *ngona* ‘that, there’

(b-1) With no non-zero case suffix

(b-1-1) Intransitive clauses, e.g. (3-17), (3-261), Text 1, Line 51.

(b-1-2) Transitive clauses: no clear example. Possibly (4-80).

(b-2) *ngona-n-da* ‘that, there-LINK-LOC’

(b-2-1) Intransitive clauses, e.g. (3-76), (3-99), (3-221), (4-132), (4-209-B), Text 1, Line 54’.

(b-2-2) Transitive clauses, e.g. (3-48), Text 1, Line 71.

(c) *yarro* ‘this, here’

(c-1) With no non-zero case suffix

(c-1-1) Intransitive clauses, e.g. (2-135), (2-136), (3-4), (3-7), (4-92), (4-181).

(c-1-2) Transitive clauses: (3-170) (third W).

(c-2) *yarro-n-da* ‘this, here-LINK-LOC’

(c-2-1) Intransitive clauses, e.g. (3-5), (3-16), (3-43), (3-226-a), (3-240), (3-288-A), (3-315), (4-90).

(c-2-2) Transitive clauses, e.g. (1-10-b), (4-168), Text 1, Line 63-b.

That is, when these demonstrative members have the locative case suffix (*ngoni-n-da*, *ngona-n-da*, *yarro-n-da*), they each are used in both intransitive and transitive clauses. However, when they do not have the locative suffix, *ngoni* ‘there, that’ is used in both intransitive and transitive clauses. In contrast, *ngona* ‘that, there’ and *yarro* ‘this, here’ are used in intransitive clauses, but they are hardly ever used in transitive clauses.

A note on *ngona* ‘that, there’ and *yarro* ‘this, here’ is in order. Consider (3-4), for instance. It is an intransitive clause. *Yarro* ‘this, here’ may be taken to be constituting an NP with the noun *yori-Ø* ‘kangaroo-NOM’ (S), and it will be considered to be in the nominative case: *yarro-Ø* ‘this-NOM’. The sentence may be translated as ‘This kangaroo is lying’. Alternatively, *yarro* may be considered a separate constituent from *yori-Ø* ‘kangaroo-NOM’, and it will not be considered to be in the nominative case. The sentence may be translated as ‘A kangaroo is lying here’. An analogous comment applies to *yarro-Ø* ‘this, here-ACC’ the third

W in (3-170). It is a transitive clause. The situation is different with *yarro-n-da* ‘this, here-LINK-LOC’. A word in the LOC cannot be taken to be a member of the S (NOM). The same applies to *ngona* ‘that, there’ and the locative *ngona-n-da*.

In order to express ‘to’, *ngoni* ‘there, that’ seems never to take the dative suffix, e.g. (4-172) (*ngoni=wa* ‘to there’), but *yarro* ‘this, here’ and *ngona* ‘that, there’ seem to require it, e.g. *yarro-wo* ‘here-DAT’ in (3-195), Text 3, Line 2.

In order to express ‘from’, these demonstrative members must take the ablative-1 suffix (*-ngomay*), like all other adverb and also nouns, e.g. *yarro-ngomay* ‘here-ABL1’ in (3-134), (4-13), (4-18-b), (4-77), (4-114).

I consider these demonstratives members of the class of adverbs, and not of nouns, for they can express ‘at, in’ without the locative suffix, like other adverbs of place/direction/destination.

Examples of these demonstrative members follow.

(3-15) *wajo-n ngoni-n-da wonaja-ngga* (AP)

cook-NF there-LINK-LOC camping.out-LOC

‘[I] cooked [a kangaroo and a possum] there while camping out.’

(3-16) (An example from a text. Alf Palmer visits a place, and asks the local people, ‘Where are other people?’ The local people answer as follows.)

nyawa ngali-Ø=goli yarro-n-da wonaja wona-n (AP)

NEG IDU-NOM=only this-LINK-LOC camping.out lie-NF

‘No. Only we two are camping here.’

(3-17) (An example from a text)

ngona ngali-Ø birra-wan-n birra-wa-n birra-wa-n (AP)

that,there IDU-NOM talk-RECP-NF talk-RECP-NF talk-RECP-NF

‘Those we talked and talked’ or ‘There we talked and talked.’

[2] Words for time

In order to express ‘at, in, during’, etc., nouns must take the locative suffix, e.g. (3-18), but adverbs of time never do, e.g. (i) *garrbala* ‘tomorrow’, e.g. (3-248), (3-314), (4-119), Text 2, Line 29, and (ii) *nyila* ‘today, soon’, e.g. (3-285), (3-316), (4-422), and (iii) *ganba-mara* ‘before-very’, i.e. ‘long ago’, e.g. (3-43), (3-233). At least, there is no such example in the data.

(3-18) *ngali-Ø yani-Ø gonda-ngga*. (AP)

IDU-NOM go-NF night-LOC

‘We went [i.e. travelled] during the night.’

In order to express ‘until’, both nouns and adverbs of time must take the dative suffix, e.g. (3-100) (*nyila-wo* ‘soon-DAT’) and Text 2, Line 28 (*garrbala-wo* ‘tomorrow-DAT’). There is a dative form ‘until’ to which the intransitive-stem-forming suffix *-bi-L* (4.7.1) is added: *jidal-go-bi-L* ‘morning-DAT-INT’, ‘do until the morning’ (mentioned in 3.2.1.1).

Similarly, in order to express ‘from, since, after’, both nouns and adverbs of time must take the ablative suffix-1 *-ngomay*. Examples are given in 3.6.7-[3].

[3] Words for manner

We shall look at nouns first. As examples, consider (3-19) (an intransitive clause) and (3-20) (a transitive clause). The noun *ngarrban* ‘quick’ must agree with the modified noun in terms of case. In (3-20), it must take the ergative suffix. Other examples include (3-40).

(3-19) *ngarrban-Ø bama-Ø wadali-n.* (TT)
 quick-NOM man-NOM run-NF
 ‘The quick man ran’, i.e. ‘the man ran quickly.’

(3-20) *ngarrban-do bama-nggo gamo-Ø bija-n.* (TT)
 quick-ERG man-ERG water-ACC drink-NF
 ‘The quick man drank water’, i.e. ‘The man drank water quickly.’

Also, consider (3-21) (an example cited from a text). The noun *bariny* ‘to avoid meeting someone by taking a different road’, i.e. ‘to dodge’, takes (and no doubt must take) the locative suffix.

(3-21) *bariny-ja yani-Ø ngana-Ø yamba-wo.* (AP)
 dodging-LOC go-NF 1PL-NOM camp-DAT
 ‘We went to the camp, dodging [him].’

In contrast, adverbs of manner do not need to take any case suffix, e.g. *nyon.gol-nyon.gol* ‘one by one’ (without the ergative suffix) in (4-220) (a transitive clause). (However, among the adverbs of manner, at least *wonaja* is attested with a case suffix: in the locative, e.g. (3-15).)

To sum up, a given word is classified as an adverb, and not as a noun:

- (a) if it can express ‘at, in, on’, etc. (in space or time) or manner without the locative suffix, or;
- (b) if it can indicate ‘to’ (direction/destination) without the dative suffix, or;
- (c) if it can describe manner without the ergative suffix (in the case of transitive clauses).

Otherwise, the word is classified as a noun.

Consider ‘adverb’ in Table 3-8. The use of a case suffix is in the main (i) optional or never used in ‘at, in, on’ etc., (ii) optional or obligatory in ‘to’ or ‘until’, and (iii) obligatory in ‘from’ This suggests the following hierarchy.

(3-22) Case suffix for adverbs:

case label:	‘at, in, on’	‘to, until’	‘from’
case suffix:	←—————→		
	less obligatory		obligatory

This hierarchy is in essence the same as the following hierarchy for English regarding the use of a preposition with *where*: (**at*) *where* > (*to*) *where* > *from where*. That is, in these expressions, *at* is never used, *to* is optional, and *from* is obligatory. See Dixon (1980: 295).

There are a number of suffixes, marking 'to', 'from', etc., that occur only with adverbs. They are considered stem-forming suffixes (although it is possible to regard them as case suffixes used with adverbs only). They are discussed in 3.8.1.

3.5. Notes on case inflection

3.5.1. Silverstein's NP hierarchy

As mentioned in 3.1.2, roughly speaking, with nouns, the nominative and the accusative case are identical, in distinction from the ergative (that is, they have an ergative pattern: S/O, A), while with pronouns the nominative and the ergative share the same form, as opposed to the accusative case (that is, they have an accusative pattern: S/A, O). See Table 3-1.

However, as can be seen from Tables 3-3 and 3-6, there are three deviations from this generalization. (i) At least some of the vowel-final proper and kin nouns optionally take the non-zero accusative suffix: *-nya*. (ii) '3DU' and '3PL' can optionally take a non-zero ergative suffix: *-nggo*. (iii) 'Who' has distinct forms for the nominative, the ergative, and the accusative cases, i.e. it has a 'tripartite' (Comrie 1978b: 332) pattern (A, S, O).

A modified version of the NP hierarchy proposed by Silverstein (1976: 122) neatly describes the distribution of non-zero accusative marking, and non-zero ergative marking. It also neatly describes the distribution of the linking interfix(es) *-n-* (or *-ngo-n-*). See Table 3-9. The plus sign ('+') means 'obligatory', the plus in parentheses ('+') 'used, but in the main optional', and the minus sign ('-') 'never used'.

Table 3-9. Silverstein's NP hierarchy

	pronoun		noun		
	1SG, DU, PL	3DU, PL	vowel-final proper and kin	'this', 'that', 'what'	regular noun
accusative marking	+	+	(+)	-	-
ergative marking	-	(+)	+	+	+
linking interfix	+	+	(+)	(+)	-

As predicted by Silverstein, the non-zero marking of the accusative case extends from the high end of the hierarchy, while the non-zero marking of the ergative case spreads from the low end. Note also that the non-zero marking of the accusative case and the use of the linking interfixes exhibit very similar distributions.

3.5.2. Genitive, comitative and ablative cases

The genitive, comitative and ablative-1 cases differ from other cases in that they may be followed by another (non-zero) case suffix.

[1] The genitive case

It is common in Australian languages for the genitive (or dative) case forms to take a further case suffix (see Dixon 1980: 300), e.g. Dyirbal (Dixon 1972: 105) and Djaru (Tsunoda 1981a: 66). In Warrongo, this double case-marking does occur, but it occurs only under limited circumstances: only with pronouns and only in certain types of NPs. See 4.5.2.2.2, 4.5.2.2.3, and 4.5.2.2.5 to 4.5.2.2.7.

[2] The ablative cases

The ablative-1 forms (*-ngomay*) can be, and often are, followed by another (non-zero) case suffix, whereas the ablative-1 forms (*-ni*) do not (at least in the data obtained). See Table 3-10.

[3] The comitative case

The comitative forms, too, can be, and often are, followed by a non-zero case suffix; see Table 3-11.

3.5.3. Nouns with no case inflection (?)

Crosslinguistically, adjectives generally have two functions: (i) attributive and (ii) predicative. This applies to most of the 'adjective-like' nouns of Warrongo. When an 'adjective-like' noun qualifies another noun or a pronoun, it agrees with the latter in terms of case, cf. (3-20). However, there are 'adjective-like' nouns that appear to be used predicatively only and that seem to lack any non-zero case; they seem to have the nominative case only. One such example is *walwandan* 'ill, not well'. This word often occurred, e.g., in texts and elicitation, but it was always used in the nominative case and as the 'predicate' of verbless intransitive clauses, e.g. (3-23), (3-149), (3-175) (first W), (4-679), and Text 1, Lines 59, 60. (This is reminiscent of English adjectives such as *afraid*, *awake*, and *aware*, which are used predicatively only, and never attributively.)

- (3-23) *ngaya* *walwandan-Ø*. (AP)
 1SG:NOM ill-NOM
 'I [felt] ill.'

Walwandan is not attested with any non-zero case, such as **walwandan-do* ‘ill-ERG’. Etymologically it contains the adjective-like noun *walwa* ‘no good’. This may be coincidental, but the final consonant *n* is identical with one of the nonfuture suffixes: *-n* (Table 3-14). Also, there is the (non-productive) verb-stem-forming suffix *-nda* ‘repeatedly’, ‘plural actors’ (3.11.1.2). Then, originally *walwandan* may have been a verb.

There are a fair number of nouns that, like *walwandan* ‘ill’, seem to be used predicatively only and occur in the nominative case only. At least they are not attested in the attributive function or with any non-zero suffix. Most (though not all) of them appear to be based on a verb root and they involve a stem-forming suffix. Some of these suffixes are listed below.

(a) *-barri* ‘(meaning not clear)’ (3.7.1-[6]), e.g. *wanba-l-barri* ‘frightened’ (cf. *wanba-L* (Vi) ‘to be afraid’) and *baja-l-barri* ‘bold’ (cf. *baja-L* (Vt) ‘to bite’).

(b) *-jarri* ‘(meaning not clear)’ (3.7.1-[7]), e.g. *wanba-l-jarri* ‘frightened’. (There is at least one exception: *walwa-jarri* ‘bad’. It is attested in the dative (*walwa-jarri-wo*) and the ergative (*walwa-jarri-nggo*). See Text 1, Lines 56 and 57. Unlike the words listed above and those listed below, *walwa-jarri* ‘bad’ is based not on a verb, but on the adjective-like noun *walwa* ‘bad’. This may be the cause for its exceptional nature.)

(c) *-monga* ‘someone who does X habitually’ (3.7.1-[13]), e.g. *baja-l-monga* ‘someone who is inclined to bite or bites habitually’

(d) *-l...-l*, (3.11.1.6-[5]), e.g. *bari-l~bari-l* ‘difficult’ (this word was mentioned in (2-55)) (cf. *bari-L* (Vt) ‘to twist’).

(e) *-rr...-rr* (3.11.1.7-[4]), e.g. *yimirr~yimirr* ‘glad’, e.g. (4-730) (cf. *yimirri-ZERO* and *yimirr~yimirri-ZERO* (Vi) ‘to be glad’).

Furthermore, the noun *yamanyon* ‘similar’ is not attested with any non-zero case suffix. See 4.23 for more on this word.

3.6. Meanings and functions of cases

The case forms of nouns, pronouns and adverbs, including their interrogative and demonstrative members, have been shown above. The meanings and functions of each case are described below.

3.6.1. Nominative case

The nominative case can mark the following.

[1] The so-called ‘subject’ of an intransitive clause (‘S’), where the predicate may be an intransitive verb, e.g. (3-2) to (3-8), (3-12), a noun, e.g. (3-24), (3-25), or a

pronoun, e.g. (3-26). In (2-135) and (2-136), *yarro-Ø* ‘this, here-NOM’, a demonstrative member of adverbs, indicates a location without the locative suffix. Semantically, the S NP may refer to an actor, a patient, an experiencer, a theme, and so on.

[2] The ‘predicate’ of a ‘nominal sentence’ (Jespersen 1924: 120), e.g. (3-24) (*goyi-Ø* ‘hungry-NOM’) and (3-25) (*walwa-Ø* ‘bad-NOM’).

[3] An ‘addressee’ Here, the nominative is used like the ‘vocative’ case, e.g. (2-135) (*yanga-Ø* ‘M-NOM’), (2-136) (*galnga-Ø* ‘MB-NOM’), (3-27) (*majowarrgi-Ø* ‘mate-NOM’), and Text 3, Line 3 (*galnga-Ø* ‘MB-NOM’).

(3-24) *ngaya* *goyi-Ø*. (AP)
1SG:NOM hungry-NOM
‘I [am] hungry.’

(3-25) *gamo-Ø* *walwa-Ø*. (AP)
water-NOM bad-NOM
‘[This] water [is] bad [e.g. not fit to drink].’

(3-26) *yarro-Ø* *ngaygo*. (AP)
this-NOM 1SG.GEN
‘This [is] my [food]’ or ‘This [is] mine’

(3-27) *ngali-Ø* *yani-yal*, *majowarrgi-Ø*. (AP)
1DU-NOM go-PURP friend-NOM
‘Let’s go, mate.’

The ‘vocative’ use of the kin terms with the kin suffix *-na* and that of those without *-na* exhibit a complicated situation. See 3.7.1-[18].

[4] The nominative case may also indicate the subject of the antipassive construction (4.9), reflexive/middle construction (4.11), and reciprocal construction (4.12). They are all ‘surface-intransitive’; they may be considered as ‘derived’ from underlying transitive clauses. In addition, the nominative case may mark the subject of iterative constructions (4.13), some of which may be considered as derived from underlying transitive clauses.

[5] The nominative case may indicate the topic (rather than the S or the A) of a sentence. See 4.22.

3.6.2. Ergative and accusative cases

The ergative case marks the following.

[1] The so-called 'subject' of a transitive clause ('A')

The A is generally human, e.g. (3-28) (father), but it may be a human body part, e.g. (1-11-a) (testicles), (3-29) (pubic hair), or a non-human animate, e.g. (3-30) (dog), or an inanimate. There are a number of examples of an inanimate A, e.g. (3-31) (cyclone), (3-32) (water), (3-33) (mountain mist), (3-34) (trousers), (3-328) (a cyclone), and (4-481) (first A) (*ngani-nggo* 'what-ERG'). In (1-11-a), the body part (i.e. testicles) is not separated from the rest of the body. The same applies to the pubic hair in (3-29). There is one example in which a body part is separated from the rest of the body: 'skull' in (4-764-c). It can in no way be considered as human or animate.

(3-28) *gaya-na-lo ganyji-n gajarra-Ø*. (AP)

father-KIN-ERG carry-NF possum-ACC
'[My] father carried a possum.'

(3-29) *minga-Ø gamba-n jirri-do*. (AP)

vulva-ACC cover-NF pubic.hair-ERG
'The pubic hair has covered [her] vulva.'

(3-30) *gando-nggo gamo-Ø bija-n*. (AP)

dog-ERG water-ACC drink-NF
'The dog drank water.'

(3-31) (On the 24th December 1971, when I was Palm Island, a cyclone struck the island and destroyed many houses.)

gambarra-nggo yamba-Ø woda-n. (AP)

cyclone-ERG house-ACC pull.down-NF
'The cyclone pulled down [i.e. destroyed] the houses.'

(3-32) (According to Rachel Cummins, Alf Palmer's mother was pushed down into the gorge at Blencoe Falls; see 1.7. Alf Palmer himself said that his mother was drowned. He wondered what had happened to her, and said as follows.)

wanyja-rri nyonya gamo-nggo ganyji-n? (AP)

where-to 3SG.ACC water-ERG carry-NF
'Where did the water carry her to?'

(3-33) (Looking at the hill on Palm Island, Alf Palmer said:)

mongan-Ø gomborro-nggo gamba-n. (AP)

hill-ACC mountain.mist-ERG cover-NF
'The mountain mist has covered the hill.'

- (3-34) *jarroja-nggo jombi-Ø gamba-n.* (AP)
trousers-ERG penis-ACC cover-NF
'The trousers have covered [his] penis.'

(The root for 'pubic hair' is *jirril*. See *jambal* 'snake' in Table 3-2.)

Semantically, the A describes an actor in a broad sense (cf. Foley and Van Valin 1984: 29), such as (i) an agent, e.g. (3-28), (3-30), (ii) an experiencer, e.g. the A of seeing, finding, and hearing, as in (4-329) (seeing), (4-341) (finding), (3-230) (hearing), (iii) someone who is in pursuit of (e.g. searches for) something, e.g. (4-252), and (iv) a possessor (of a body part only?), e.g. (3-228), (4-889) to (4-891), and (4-893).

When the A is inanimate, it generally refers to a natural force, e.g. (3-31) (cyclone), (3-32) (flowing water), and (3-33) (mountain mist). In (4-676-c), the skull is probably held to be a source of mythical power. But the trousers in (3-34) may not be regarded as natural forces.

[2] Instrument for an action

The ergative case may describe an instrument for an action. The noun may refer to an inanimate entity (such as stone and *ngani-nggo* 'what-ERG'), e.g. (3-35) (stone). But it may also refer to (i) a body part, e.g. (3-36) (eyes), (3-37) (hand), (3-297) ('[to carry] on the shoulders'), (3-103) (eyes), or (ii) bodily secretions or the like, e.g. (3-38) (saliva), (4-749-a) (fart), and (4-932) (fart). That is, here body part nouns and bodily secretion nouns are treated as inanimate. The same applies to other Australian languages such as Djarru (Tsunoda 1981a: 57), and Japanese. One clause may contain two nouns in the ergative, one for the A and the other for an instrument, e.g. (3-35) to (3-38). (The ergative case describing an instrument is often translated with the English *with*, but it is best rendered with *on* in (3-297).)

- (3-35) *warrngo-nggo nyonya jingga-lgo barri-nggo.* (AP)
woman-ERG 3SG:ACC punch-PURP stone-ERG
'The woman will punch him with a stone.'

- (3-36) *bama-nggo jili-nggo warrngo-Ø jabi-n.* (AP)
man-ERG eye-ERG woman-ACC stop-NF
'The man winked at the woman'. (Lit. 'The man stopped the woman with [his] eyes.')

- (3-37) *yinda nyani-Ø baba-Ø mara-nggo.* (AP)
2SG.ERG ground-ACC dig-IMP hand-ERG
'Dig the ground with [your] hand.'

- (3-38) *ngaya nyonya boybo-n garnya-nggo.* (AP)
1SG.ERG 3SG.ACC spit.on-NF saliva-ERG
'I spat on him with saliva.' (AP)

The ergative case of pronouns (including 'who') does not seem to indicate an instrument. Also, the ergative case of those nouns that have a human or non-human animate referent (i.e. excluding body part/bodily secretion nouns) cannot describe an instrument. Thus, I suggested (3-39) to Alf Palmer. The intended meaning is 'I hit a dog with a child [using the child's hand]' Alf Palmer stated to the effect that such a sentence could only mean 'I, a child, hit a dog', e.g. that *galbin-do* marks the A, and not an instrument. See (4-6) for an example spontaneously given by Alf Palmer.

- (3-39) *ngaya gando-Ø balga-n galbin-do.* (TT)
 1SG.ERG dog-ACC hit-NF child-ERG
 'I, a child, hit a dog.'

As noted in 3.1.2-[3] and 3.4.3, nouns describing a manner such as *ngalban* and *ngarrban* 'quick, fast' and *yoray* 'quiet' may be translated by means of English adverbs. But they qualify the S (in the nominative), e.g. (3-19), (3-203), (3-205), or the A (in the ergative), e.g. (3-20), (3-40), (3-204), (4-145), (4-148), agreeing with the qualified S or A in terms of case. That is, they are nouns (to be more precise 'adjective-like' nouns) and not adverbs.

- (3-40) (Alf Palmer said, jocularly.)
ngarrban-do yinda janynja-Ø. (AP)
 quick-ERG 2SG.ERG copulate.with-IMP
 'Copulate with [her] quickly.'

As seen in Table 3-6, most of the pronouns do not have any non-zero suffix for the ergative case. Now, compare (3-20) (the A is a noun) and (3-40), (4-6) (the A is a pronoun). This comparison clearly shows the pronoun in question is in the ergative case.

Nouns in the ergative case for an instrument generally occur in transitive clauses, e.g. (3-35) to (3-38). They may also occur in the reflexive construction (4.11) and the reciprocal construction (4.12). These constructions are all intransitive, but they may be considered 'derived' from underlying transitive clauses. In contrast, nouns in the ergative case describing an instrument appear to never occur in ordinary, i.e. 'non-derived', intransitive clauses. Thus, a sentence analogous to (3-41) was rejected by Alf Palmer. For the intended meaning, the comitative case (3.6.8) will be used instead, e.g. (3-155).

- (3-41) **bama-Ø yari-Ø jola-nggo.* (TT)
 man-NOM walk-NF stick-ERG
 Intended meaning: 'The man is walking with [the help of] a stick.'

[3] Frequency (?)

There is one example in which the ergative case possibly indicates frequency. There is a transitive verb *nyon.go-do-nga-L* ‘do once’, e.g. (4-141), whose formation is as follows. There is a noun *nyon.gol* ‘one’, and its ergative form is *nyon.go-do* ‘one-ERG’ (note the deletion of the root-final *l*; see 3.2.1.1-[2]-(c)). This is in turn combined with the transitive-stem-forming suffix *-nga-L* (4.7.2-[1]-(e)). Given the existence of this verb, ergative forms by themselves would be expected to mark frequency, as in ‘once, twice, three times, etc.’ However, there is no such example. It is possible, though by no means certain, that at an earlier stage of the language the ergative case marked frequency and that this use has survived in just one word, and in a verbalized form: *nyon.go-do-nga-L* ‘do once’.

[4] The ergative case can also mark the ‘object’ or the undergoer NP of the anti-passive construction; see 4.9.1.

In many Australian languages, one and the same form denotes the so-called transitive subject (‘A’) and an instrument, and some authors recognize two separate cases: ergative case (for the A) and instrumental case (cf. Dixon 2002: 135). I myself used to adopt this practice, e.g. Tsunoda (1981a: 55) on Djaru and Tsunoda (1988b) on Warrongo. However, I now prefer the traditional view of case: ‘cases are traditionally recognized on the basis of a distinction of case form (Blake 1994: 20), and cases have functions and meanings (Blake 1994: 3). That is, since the same form describes the so-called transitive subject and an instrument, only one case will be recognized. If one and the same form were separated according to its functions and meanings, that would result in multiplication of cases.

The accusative case marks the so-called ‘(direct) object’ of transitive clauses, e.g. (3-28) through (3-38). Its semantic range was alluded to above, e.g. the patient of an action, the goal of perception, the goal of pursuit, and a possessee. It may also mark a recipient and the like. See 4.3.3.2.

3.6.3. Locative case

The locative case marks the following.

[1] Location or movement, ‘in, at, on, below, above, near, alongside, around’, etc.; ‘into, onto, out of, through, round, over, across, up, down, against’, etc.

Examples include (3-3) (‘up’), (3-5) and (3-6) (‘in’), (3-12) (‘alongside’), and:

(3-42) *ngana-∅ yamba-ngga nyina-n.* (AP)

IPL-NOM camp-LOC sit-NF

‘We were sitting in the camp.’

(3-43) *ganba-mara ngaya yarro-n-da yani-n.* (AP)

ago-very 1SG.NOM this,here-LINK-LOC walk-NF

‘Long ago I used to walk [about] in this [place].’

(3-44) ('I was cooking a kangaroo.')

barri-Ø bamba-ngga ngaya jarga-n. (AP)
 stone-ACC belly-LOC 1SG.ERG insert-NF
 'I put [a heated] stone in [or into] [its] belly.'

(3-45) ('I speared a kangaroo, but it got away.')

mirgan-mirgan-da yamba-ngga yani-Ø. (AP)
 hill-hill-LOC country-LOC go-NF
 '[It] went [along] in/through many hills [or a hilly country].'

(See 3.7.2 for reduplication of nouns.)

(3-46) *ngaya gamo-ngga wara-n.* (AP)

1SG.NOM water-LOC jump-NF
 'I jumped [i.e. dived] into the water.'

(3-47) ('I had sex with my wife. She said to me:')

yinda ngona-Ø galga-n ngaygo-n-da jirga-Ø. (AP)
 2SG.ERG that-ACC pour-NF 1SG-LINK-LOC semen-ACC
 'You poured that semen into me.'

(Note that *ngona* 'that', and not *yarro* 'this', is used here.)

(3-48) ('I caught a possum.')

ngaya [gajarra-Ø TT] baygo-n ngona-n-da
 1SG.ERG [possum-ACC] bash-NF that-LINK-LOC
jolany-ja. (AP)
 'I bashed [the possum] against that tree.'

The locative case does not specify exact location or movement. In particular, with the intransitive verb *banda-L* 'emerge, pass through a passage', the locative case can mean '[go/come out] from, to, into, at, through', e.g. (3-219), (4-63), Text 3, Line 14, and:

(3-49) *gombo-ngga boji-Ø banda-n.* (AP)

anus-LOC fart-NOM emerge-NF
 'The fart came out from/through the anus.'

Nonetheless, a more precise description of location or movement can be achieved with the addition of an adverb of place/direction/destination, e.g. (3-291) and (4-607-a) (*malan-da goyay-ngal* 'creek-LOC across-to'), and:

(3-50) *jorri yani-Ø ngali-Ø wo yalga-ngga.* (AP)

beside,by go-NF 1DU-NOM (error) road-LOC
 'We walked beside, by the road', i.e. 'We walked beside the road.'

- (3-51) ('Where did you find a possum?')
ngoni ngarra magarra-ngga. (AP)
 there high,up small.scrub-LOC
 'Up there, in a small scrub.'
- (3-52) *ngaya jolamy-ja golma-mali jana-n.* (AP)
 1SG.NOM tree-LOC behind-side stand-NF
 'I stood at/by a tree, behind', i.e. 'I stood behind a tree.'

An adverb that accompanies a locative noun often contains an adverb-forming suffix (3.8.1), e.g. (i) *-rro* 'to', (ii) *-ngal* 'to', e.g. (3-291), (4-607-a), and (iii) *-mali* 'to/on the X side of', e.g. (3-52).

As mentioned in 3.4.3, adverbs of place/direction/destination may take the locative suffix or the dative suffix. Without any case suffix (and any derivational suffix) they may accompany a locative noun, e.g. *jorri* 'beside, by' in (3-50), and *birri* in (3-53). Furthermore, such an adverb in the locative may accompany a noun in the locative, e.g. (3-54) (*birri-ngga* 'near-LOC'); and (4-897) and Text 2, Line 36 (*gana-ngga* 'inside-LOC').

- (3-53) *gamo-ngga birri nyina-ya.* (AP)
 water-LOC near sit-PURP
 '[We] will sit by the water, near', i.e. '[We] will sit near the water'
- (3-54) *wona-ya ngali-Ø gamo-ngga birri-ngga.* (AP)
 lie,sleep-IMP 1DU-NOM water-LOC near-LOC
 'Let's sleep by the water, near', i.e. 'Let's sleep near the water'

Diachronically, the use of an adverb as in (3-53) may become a source of postpositions. (There is no example of the following combination: *birri gamo-ngga* 'near water-LOC', in which the use of an adverb may become a source of prepositions.)

In one example, i.e. (3-55), a noun lacks the locative suffix although its suffixation (i.e. *gamo-ngga* 'water-LOC') would be expected, cf. (3-53).

- (3-55) *ngali-Ø wona-n ngona-ngga gamo birri.*
 1DU-NOM lie,sleep-NF that-LOC water near
 'We slept by that water, near', i.e. 'We slept near the water' (AP)

There is only one such example in my Warrongo data. (Breen (1974: 111) gives two similar examples from Bidyara and Gungabula.) This absence of the locative suffix may be simply due to an error. However, it is also possible that *birri* is beginning to acquire the status of postposition.

There appears to be no example in which an adverb of place/direction/ destination in the dative ('to') accompanies a dative noun. The derivational suffix *-ngal* 'to' is used instead, e.g. (3-259).

[2] Time

In this use, the locative generally indicates duration of time (e.g. 'for', 'during', 'while', etc.), e.g. (3-18), (4-491). There appears to be no clear example in which the locative case refers to a point in time ('at', 'in', etc.).

[3] Instrument and means

The locative case may describe (i) an instrument or concrete means such as '[to carry] in a bag', '[to cook] on the fire', '[to cook] on a heated stone', '[to wash] in the water', e.g. (3-56), (3-57), (4-382), and (ii) abstract means or manners, e.g. (3-21) (*bariny-ja* 'dodging-LOC'), (3-58) ('[to dance] to music'), (3-59) ('[to go] in large numbers'). Along a similar line, the locative can mark '[to work] on [a job]', e.g. (3-60) to (3-62). '[To] carry on the shoulders' is expressed by the ergative case in (3-297). Presumably, this meaning can be expressed by the locative case as well, although there is no example available.

(3-56) *woronbara-ngga gamo-Ø ganyji-n.* (AP)
coolamon-LOC water-LOC carry-NF
'[They] carried water in coolamons.'

(3-57) *yori-Ø ngaya bori-ngga wajo-l.* (AP)
kangaroo-ACC 1SG.ERG fire-LOC cook-NF
'I cooked a kangaroo on the fire.'

(3-58) *ngana-Ø=goli nyamba-garra-n gama-ngga.* (AP)
1PL-NOM=only dance-ITER-NF Gama-LOC
'We danced to the Gama song by ourselves.'

(3-59) *garo-ngga ngana-Ø yani-Ø.* (AP)
all.the.people-LOC 1PL-NOM go-NF
'We all went' or 'We went in large numbers.'

(3-60) *yinda magoli-Ø nyon.go-da.* (AP)
2SG.NOM work-NF one-LOC
'You [should] work on one [job]', i.e. 'Don't move from one job to another.'

(The root for 'one' *nyon.gol*. The formation of its locative form *nyon.go-da* involves the deletion of the stem-final *l*. See 3.2.1.1-[3].)

(3-61) *jomoboro-ngga yinda magoli-yal.* (AP)
cattle-LOC 2SG.NOM work-PURP
'You will work on cattle.'

(3-62) ('He is working on that job (*magol*).')
mago-da yinda nyonya wanda-Ø. (AP)
work-LOC 2SG.ERG 3SG.ACC leave-IMP
'Leave him in [that] work.' ('Don't disturb him' or 'Don't take him to another job.')

(See 3.11.1.6-[1] for the noun *magol* ‘work’, and -[3] for the intransitive verb *magoli-ZERO* ‘work’. The formation of the locative *mago-da* involves the deletion of the stem-final *l*. See *jambal* ‘snake’ in Table 3-2.)

[4] Company and care: ‘in the company of’, ‘together with’, ‘under the care of’, ‘in the employment of’, etc.

In the data available, this use primarily involves a pronoun or a kin noun, e.g. (3-176), (4-225-A), (4-907-j), and:

(3-63) *ngaya nyamba-yal bola-ngo-n-da.* (AP)
1SG.NOM dance-PURP 3DU-LINK-LINK-LOC
‘I will dance with them two.’

(3-64) *bola-nya wanda-n gaya-na-ngga yanga-na-ngga.* (AP)
3DU-ACC leave-NF father-KIN-LOC mother-KIN-LOC
‘[I] left them two [my two wives] in the care of [my] father and mother.’

(Warrongo lacks expressions for ‘and’; see 4.5.2.1.2-[4].) The person(s) who is/are in the company of the locative noun is the S, e.g. in (3-63), and the O, e.g. in (3-64). There appears to be no example in which it is the A that is in the company of the locative. Then it is possible, though by no means certain, that the locative for ‘in the company of’ behaves in an ergative pattern: S/O vs. A.)

Company can also be expressed by the comitative case; see 3.6.8-[2].

[5] Cause, reason and fear

The locative can mark cause or reason ‘over; because of’ The cause/reason may be human, non-human animate or inanimate, e.g. (4-483), (4-903) (third S), (4-1024-a, -d, -f, -g), and:

(3-65) *warrngo-Ø balga-wa-n gornnga-da.* (AP)
woman-NOM hit-RECP-NF husband-LOC
‘The women hit [i.e. fought] each other over husbands.’

(The root for ‘husband’ is *gornngal*. Note the deletion of *l*.)

(3-66) *warrngo-Ø goli-yi-Ø yani-Ø gornnga-da.* (AP)
woman-NOM angry-COM-NOM go-NF husband-LOC
‘The women went [home, being] angry because of [a fight for] husbands.’

Note that (3-65) and (3-66) do not mean ‘angry with husbands’. This meaning is expressed by the dative (3.6.4-[7]-(c)) and the genitive (3.6.5-[5]).

With the intransitive verbs *wanba-L* and *wanbali-ZERO* ‘be afraid, fear’, the locative marks that which or one who is feared, e.g. (3-67) and (3-68). (*Gandaro* is an imaginary, hairy man who is believed to live in the scrub (1.5.8-[8]).)

(3-67) [*jana-Ø* TT] *wanba-lji yino-n-da*. (AP)
 [3PL-NOM] fear-STAT 2SG-LINK-LOC
 '[They] are afraid of you.'

(3-68) *ngaya wanbali-n gandaro-ngga*. (AP)
 1SG.NOM fear-NF Gandaro-LOC
 'I am afraid of Gandaro.'

With *wanbali-ZERO*, the dative (e.g. *gandaro-wo* 'Gandaro-DAT') can be used in place of the locative, e.g. (3-95). With the intransitive verb *wanba-L* also 'be afraid, fear', only the locative is attested.

Other examples of the locative 'for fear of' include '[to keep way] from' and '[to hide] from', e.g. Text 1, Line 50.

The locative of 'cause/reason, fear' is often suffixed with the enclitic =*mo* (see 4.24-[10]), e.g. (3-69) and (4-1024-a, -d, -g).

(3-69) (An example from a text. 'They are going to kill you'.)
ngani-wo ngani-nga ngani-ngga=mo yina balga-lgo? (AP)
 what-DAT (error) what-LOC=CAUSE 2SG.ACC kill-PURP
 'Why and over what are [they] going to kill you?'

Cause or reason can also be expressed by the dative case (3.6.4-[2], -[7]-(c)), e.g. (3-69) (*ngani-wo*) and by the ablative-1 case (3.6.7-[6]).

3.6.4. Dative case

(The following account of the dative is largely repeated from Tsunoda (1976b), which was written in accordance with the questionnaire prepared by B. J. Blake for 'Topic C: The bivalent suffix *-ku*' of the 1974 biennial conference of the then Australian Institute of Aboriginal Studies.) The dative case marks the following.

[1] Purpose 'for', e.g. 'in order to obtain', 'in pursuit of', 'in preparation for', 'for the use of', 'for the benefit of [a beneficiary]', etc.

Examples include (3-145), (3-301), (4-52), (4-85), (4-754-b), and:

(3-70) *ngaya gajarra-wo yani-Ø*. (AP)
 1SG.NOM possum-DAT go-NF
 'I went for [i.e. to get] a possum.'

(3-71) *gajarra-wo ngaya nyonya birri-n*. (AP)
 possum-DAT 1SG.ERG 3SG.ACC send-NF
 'I sent him for [i.e. to go and get] a possum.'

- (3-72) *ngani-wo yinda?* (AP)
 what-DAT 2SG.NOM
 ‘What [are] you after?’
- (3-73) *nyola ganyji-lgo nyongo birrigibara-wo.* (AP)
 3SG.ERG take-PURP 3SG:GEN winter-DAT
 ‘He will take his [woman] for winter [to keep him warm].’
- (3-74) *gan.gabo-Ø ngani-wo ngona-Ø?* (AP)
 fish.spear-NOM what-DAT that-NOM
 ‘What [is] that *gan.gabo* for?’
- (3-75) (‘On a cold winter night.’)
waybala-nggo jomoboro-wo yago-Ø wajo-n. (AP)
 white man-ERG cattle-DAT grass-ACC burn-NF
 ‘The white man burnt grass for the cattle [to keep them warm].’
- (3-76) *ngona-n-da=wa yinda magoli-ya waybala-wo.* (AP)
 there-LINK-LOC=FOC 2SG.NOM work-IMP white man-DAT
 ‘Work there for the white man [as his employee].’

Beneficiaries can be described by the genitive case, too; see 3.6.5-[3].

[2] Cause and reason

In the data, the use of the dative for cause/reason is limited to *ngani-wo* ‘what-DAT’, ‘what for, why’, e.g. (3-69), (3-77), (4-748-c), and the ‘complement’ of the intransitive verb *wanbali-ZERO* ‘be afraid [of]’, e.g. (3-95).

- (3-77) *ngani-wo yinda yagay-bi-n?* (AP)
 what-DAT 2SG.NOM Ouch!-INTR-NF
 ‘Why did you scream?’

(The verb *yagay-bi-L* consists of the interjection *yagay* ‘Ouch!’ (4.26-(s)) and the intransitive-stem-forming suffix *-bi-L* (4.7.1-[3]).)

Cause or reason can also be expressed by the locative and by the ablative-1 cases.

[3] Possession and affiliation

Generally, the genitive marks possessors (3.6.5-[1]), but the dative marks possessors in a few instances. The possessees are language, father, e.g. (3-78), husband, track on grass, name, animal’s tail, camp/nest, e.g. (3-79). Along a similar line, the dative marks affiliation to a place, e.g. (3-80), (4-79).

- (3-78) (‘These are your children.’)
yinda gaya-Ø nyongo-n (hesitation) *jana-ngo-n-go.* (AP)
 2SG.NOM father-NOM (error) 3PL-LINK-LINK-DAT
 ‘You [are] their father.’

- (3-79) *yarro-Ø=wa jarrogan-go yamba-Ø* (AP)
 this-NOM=FOC scrub.turkey-DAT nest-NOM
 Tentative translation: 'Indeed this [is] a scrub turkey's nest.'

(The enclitic =*wa* seems to indicate focus. See 4.25-[7].)

- (3-80) *ngaya yarro-wo yamba-wo*. (AP)
 1SG.NOM this-DAT camp-DAT
 'I [belong] to this camp.'

[4] Goal and direction/destination of movement: 'to', 'into'

The goal/direction/destination may be human, non-human animate or inanimate. They may co-occur with intransitive verbs such as 'go/come', 'run', 'fall', 'emerge', etc. (3-81), (3-331) ('into'), and transitive verbs such as 'throw', 'carry', etc., e.g. (3-82) to (3-84). Note that the dative can mark 'into', like the locative. Compare (3-81) (dative) with (3-46) (locative).

- (3-81) *ngaya gamo-wo wara-n*. (AP)
 1SG.NOM water-DAT jump-NF
 'I jumped [i.e. dived] into the water.'

- (3-82) ('I found a kangaroo.')
- ngaya banggay-Ø goyba-n nyongo-n-go*. (AP)
 1SG.ERG spear-ACC throw-NF 3SG-LINK-DAT
 'I threw a spear at it [i.e. the kangaroo].'

(The sentence that follows (3-82) says that 'I speared it'. That is, in this context, the spear reached the target.)

- (3-83) ('In a fight, he tried to kill me.')
- nyola ngaygo-n-go banggay-Ø goyba-n*. (AP)
 3SG.ERG 1SG-LINK-DAT spear-ACC throw-NF
 'He threw a spear at me.'

(The sentences that follow (3-83) state that 'I managed to avoid the spear' That is, the spear did not reach the target.)

- (3-84) *ngaya nyawa yina bindaynga-lgo goman-go*. (AP)
 1SG.ERG NEG 2SG.ACC let.go-PURP other-DAT
 'I won't let you [my wife] go to other [men].'

When the goal is human, bestowal is often implied, e.g. (3-84), but this is not always the case, e.g. (3-83). Also, as (3-83) shows, the goal is not always reached.

[5] Recipient

With three-place verbs, e.g. 'give', 'send', 'show', 'teach', 'tell', the dative often, though not always, marks the recipient, e.g. (1-17), (3-85), (3-170). The case frames of these verbs will be discussed in 4.3.3.2.

- (3-85) *garrman-Ø goyba-n nyongo-n-go ngaygo-n-go*. (AP)
 tobacco-ACC give-NF 3SG-LINK-DAT 1SG-LINK-DAT
 '[A white man] gave tobacco to me [and] to him.'

Note that *goyba-L* has two readings: 'throw' in (3-82) and (3-83), and 'give' in (3-85).

[6] The dative can mark the 'object' of antipassive constructions (4.9.1), iterative constructions (4.13.2.2), and applicative constructions (4.14.3.2).

[7] 'Complement' (or 'object' of an intransitive verb or of a noun)

The term 'complement' is used in the absence of a better term. Many intransitive verbs and (adjective-like) nouns take a dative complement. They include the following. Some of the intransitive verbs involve the intransitive-stem-forming suffix *-bi-L* (4.7.1), e.g. *jilbay-bi-L* 'know, learn'. Some of the nouns involve the comitative suffix *-ji/-yi* (3.6.8), e.g. *goli-yi* 'angry'

(a) *jilbay* 'knowing', e.g. (3-86), (3-334), *jilbay-bi-L* (Vi) 'know, learn', *nyando* 'not knowing', e.g. (4-900-A), *nyando-bi-L* (Vi) 'do not know, forget', e.g. (3-87), *borrmo-bi-L* (Vi) 'forget', e.g. (3-88). (*Borrmo-bi-L* 'deaf-INTR' means 'be/become deaf' and 'forget' (4.7.1-[1]-(a))

(b) *walngga-yi* 'fond [of]' ('breath-COM', literally 'something is not usual/normal with breath'; see 3.6.8-[5]-(a-1)), e.g. (3-89), (3-90), *gaworra-yi* 'love-COM', i.e. 'in love [with]', *mirriji-L* (Vi) 'feel itchy [for]', i.e. 'badly want', *walwandan* 'sick [and longing] [for]'

(c) *jarribara* 'good, kind, etc. [to]', e.g. (3-91), *jarribara-bi-L* (Vi) 'be/become good/kind [to]', *yimirr-yimirri-ZERO*, *yimirr-yimirr-bi-L* (Vi) 'smile, be glad/pleased [with]', e.g. (3-92), *jagoli-ZERO*, e.g. (3-93), (4-422), *jagol-bi-L*, *jagol-jagoli-ZERO* (Vi) 'feel sorry [for]', e.g. (4-352), *ngorgali-ZERO* (Vi) 'be embarrassed [about]', *walwa-bi-L* (Vi) 'bad-INTR', i.e. 'be/become bad-tempered [towards]', *goli-yi* 'angry-COM', i.e. 'angry [with]', e.g. (4-936), *goli waga-L* (Vi) 'get angry [with]', e.g. (3-8), *goli-yi waga-L* (Vi) 'get angry [with]', e.g. (3-94), *goli-bi-L* (Vi) 'be/become angry [with]', *wanbali-ZERO* (Vi) 'be afraid [of]', e.g. (3-95), (generally the locative is used; see 3.6.3-[5]), *banbarri-ZERO* (Vi) 'shiver [e.g. with fear] [at]', i.e. 'be afraid [of]', e.g. (3-96).

(d) *manyja-wo goyi wola-Y* 'food-DAT hungry die (Vi)', i.e. 'be hungry for food', *gamo-wo ngayiran* 'water-DAT thirsty', i.e. 'thirsty for water' (It is not known if *ngayiran* is a noun or a verb.)

- (e) *miramira* 'smart, skillful, good [at a spear, etc.]', e.g. (3-97).
 (f) *gawali-ZERO* (Vi) 'call out [to]', e.g. (4-350-a), *wayo~wayo-bi-L* (Vi) 'call out like a dog [to]', *yaji-ZERO* 'laugh [at]', e.g. (3-98), (4-748-c).
 (g) *badi-ZERO* (Vi) 'cry [for someone or something]', *bonba-Y* (Vi) 'cry [for someone or something]'
 (h) *nyina-Y* (Vi) 'sit [and wait for]', e.g. (3-99), (4-707), *jana-Y* (Vi) 'stand [and wait for]', e.g. (4-745), *ngajirri-ZERO* 'wait [for]'

(3-86) *yinda jilbay-Ø ngaygo gogo-wo.* (AP)
 2SG.NOM knowing-NOM 1SG.GEN language-DAT
 'You know [i.e. understand] my language.'

(3-87) (This sentence immediately follows (4-862).)
ngaya nyando-bi-n nyarri-wo. (AP)
 1SG.NOM ignorant-INTR-NF name-DAT
 'I forgot [its] name.'

(3-88) *ngaya borrmo-bi-n banggay-go.* (AP)
 1SG.NOM deaf-INTR-NF spear-DAT
 'I forgot to bring a spear.'

(3-89) *ngaya yino-n-go walngga-yi-Ø.* (AP)
 1SG.NOM 2SG-LINK-DAT breath-COM-NOM
 'I [am] fond of you, I like you [often implying sexual desire].'

(3-90) *yinda ngaygo-n-go walngga-yi-Ø?* (AP)
 2SG.NOM 1SG-LINK-DAT breath-COM-NOM
 '[Are] you in love with me?'

(3-91) *nyongo-n-go nyola jarribara-Ø.* (AP)
 3SG-LINK-DAT 3SG.NOM good-NOM
 'He [is] good/kind to him.'

(3-92) *jowa-na-Ø galnga-na-Ø yimirr-yimirri-n yino-n-go.* (AP)
 nephew-KIN-NOM uncle-KIN-NOM be.glad-be.glad-NF 2SG-LINK-DAT
 '[Your] nephew and uncle are pleased with you.'

(3-93) *nyola jagoli-n jolbon-ji-go.* (AP)
 3SG.NOM feel.sorry-NF spouse-COM-DAT
 'He felt sorry for [that] married man.'

(Literally *jolbon-ji* means 'a person who has a spouse' (3.6.8-[6].)

(3-94) *ngona-ngomay nyola ngaygo-n-go goli-yi-Ø waga-n.* (AP)
 that-after 3SG.NOM 1SG-LINK-DAT angry-COM-NOM get.up-NF
 'After that she got angry with me.'

(3-95) *ngani-wo wanbali-n?* (AP)
 what-DAT fear-NF
 'What are [you] afraid of?'

(3-96) *ngaya banbarri-Ø nyongo-n-go.* (AP)
 1SG.NOM shiver-NF 3SG-LINK-DAT
 'I shiver at her', i.e. 'I am frightened of her.'

(Alf Palmer's translation for *banbarri-Ø* of this particular sentence is 'frightened'.)

(3-97) *ngana-Ø miramira-Ø banggay-go.* (AP)
 1PL-NOM smart-NOM spear-DAT
 'We [are] good with a spear.'

(The example above is cited from a text. In this particular context, it means 'We are good at avoiding spears that are thrown at us'.)

(3-98) *warrngo-wo yobala-Ø yaji-garra-n.* (AP)
 woman-DAT 2DU-NOM laugh-ITER-NF
 'You-two are laughing at the woman.'

(3-99) *ngona-ngomay ngana-Ø ngona-n-da ngana-Ø nyina-garra-n*
 that-after 1PL-NOM that-LINK-LOC 1PL-NOM sit-ITER-NF
bama-wo. (AP)
 man-DAT
 'After that, we sat there [and waited] for the man.'

[8] Time

The dative case may express (i) 'until', e.g. (3-100), Text 2, Line 28, and (ii) period or duration of time, e.g. *balano-goman~goman-go* 'moon-another~another', i.e. 'for many months', and (3-101). See also (4-103) (*jidalo-go-bi-n* 'morning-DAT-INTR', i.e. 'do until morning'.)

(3-100) (A man says to a group of children who are waiting for the meat to be cooked.)
nyila-wo nyila-wo jana-ya. (AP)
 soon-DAT soon-DAT stand-IMP
 'Stand [and wait] until soon', i.e. 'Wait a minute.'

(3-101) *bolari-wo garri-wo ngaya miranga-n.* (AP)
 two-DAT day-DAT 1SG.ERG make-NF
 'I made [it] for two days' or 'It took me two days to make [it].'

3.6.5. Genitive case

The corpus contains many instances of the genitive of pronouns (including *wanyo-ngo* ‘who-GEN’), but very few instances of the genitive of nouns. The genitive marks the following. It generally refers to humans and occasionally to animates, but there is no example involving an inanimate.

[1] Possessor and producer

The genitive case may indicate (i) possessor of a body part, e.g. (3-102), (3-103), name, e.g. (3-104), language, e.g. (2-127-A, -B), (3-86), clothing, blanket, e.g. (3-105), (4-781), kinsfolk, e.g. (2-134) (wife), (3-122) (father), friend, domestic or pet animal, e.g. (3-106), tool, food, e.g. (3-26), camp, e.g. (3-107), etc., and (ii) producer of bodily secretion or the like, e.g. faeces, e.g. (3-108), sore, voice, e.g. (3-86), and footprint, e.g. (3-109).

(3-102) (An example from a text. ‘The women were dancing naked.’)

gombo-Ø jana-nggo nyaga-n warrngo-ngo. (AP)
 buttocks-ACC 3PL-ERG see-NF woman-GEN
 ‘They [the men] were watching the women’s buttocks.’

(3-103) (‘That man might be angry. If so.’)

jili-nggo yino yinda ngonbaynga-Ø. (AP)
 eye-ERG 2SG.GEN 2SG.ERG tell-IMP
 ‘Tell [me] with your eyes.’

(3-104) (Alf Palmer described his name.)

nyarri-Ø ngaygo jimbilnggay-Ø. (AP)
 name-NOM 1SG.GEN Jimbilnggay-NOM
 ‘My name [is] Jimbilnggay.’

(3-105) *yarro-Ø=wa ngali-ngo bilanggirr-Ø.* (AP)

this-NOM=FOC 1DU-GEN blanket-NOM
 ‘This [is] our blanket.’

(3-106) *wanyo-ngo gando-Ø bonba-garra-n?* (AP)

who-GEN dog-NOM cry-ITER-NF
 ‘Whose dog is crying [i.e. barking]?’

(3-107) *binggil-barra-ngo yamba-Ø yarro-Ø=wa.* (AP)

Binggil-denizen-GEN camp-NOM this-NOM=FOC
 ‘This [is] the camp of Binggil people.’

(The English name of Binggil is ‘Mission Beach’.)

(3-108) ('He has a diarrhoea.')

aa gona-Ø banda-n nyongo ngoni=rro ngoni=rro. (AP)
 Ah! faeces-NOM emerge-NF 3SG.GEN there=again there=again
 'Ah, his faeces are coming out here and there', i.e. 'He is defecating here and there.'

(*Ngoni=rro ngoni=rro* means 'here and there' or 'everywhere' (4.25-[5].))

(3-109) ('They might find our footprints.')

ngali-ngo jina-Ø gamba-Ø. (AP)
 IDU-GEN footprint-ACC cover-IMP
 'Cover our footprints.'

Inalienable possession, e.g. of body parts and name, can be expressed by the genitive case, e.g. (3-102) to (3-104). It can also be expressed by the juxtaposition of the possessor and the possessee. See 4.20.5.

There is no example of 'possessor's possessor', as in 'the man's dog's food', in contrast with Djaru (Tsunoda 1981a: 195).

[2] Performer and user/consumer

The genitive case may express (i) performer of a song, a dance, e.g. (3-110), and (ii) user or consumer of road, fighting ground, fire, water, food, etc., e.g. (3-112) (*waybala-ngo* 'white man's [food]'), (4-787).

(3-110) *ngali-Ø nyaga-Igo nyilamo-Ø gama-Ø yino.* (AP)
 IDU-ERG see-PURP new-ACC Gama-ACC 2SG.GEN
 'We will watch your new Gama dance [i.e. the new Gama dance that you are going to perform].'

[3] Beneficiary

The beneficiary NP may occur with intransitive verbs, e.g. (3-111), (adjective-like) nouns, e.g. (3-112) (*ngana-ngo* '1PL-GEN'), or transitive verbs, e.g. (3-113), (3-114), (3-298).

(3-111) ('We are hungry.')

yani-ya ngali-ngo. (AP)
 go-IMP IDU-GEN
 Go [hunting] for us.'

(3-112) ('We prefer traditional Aboriginal food to European food.')

ngana-ngo waybala-ngo manyja-Ø walwajarri-Ø. (AP)
 1PL-GEN white.man-GEN food-NOM bad-NOM
 'White people's food [is] no good to us [Aborigines].'

(The beneficiary is *ngana-ngo* '1PL-GEN'.)

(3-113) ('I was cold.')

gagal-Ø bori-Ø bola-nggo wajo-n ngaygo. (AP)
big-ACC fire-ACC 3DU-ERG burn-NF 1SG.GEN
'They-two made a big fire for me.'

(3-114) *gajarra-Ø ngayya balga-n jana-ngo.* (AP)

possum-ACC 1SG.ERG kill-NF 3PL-GEN
'I killed a possum for them.'

[4] Recipient

The genitive case may denote a recipient, used with transitive verbs such as 'carry', 'send', 'throw', 'leave', etc. Bestowal is generally implied. The case frames of these verbs will be discussed in 4.3.3.2.

(3-115) *ngaygo yinda gamo-Ø ganyji-ya.* (AP)

1SG.GEN 2SG.ERG water-ACC carry-IMP
'Bring water to me [to give me].'

(3-116) *nyongo wanda-l ngayya ngona-Ø.* (AP)

3SG.GEN leave-NF 1SG.ERG that-ACC
'I will leave that [woman] for him.'

When used with the verb *goyba-L* 'give, throw', the dative may either describe the goal of throwing, e.g. (3-82), (3-83), or indicate bestowal, e.g. (3-85), (3-170). In contrast, when used with this verb, the genitive seems to always indicate bestowal, e.g. (3-117), (3-118). (Additional examples are listed in 4.3.3.2-[1].) For example, consider (3-117). This sentence was suggested to Alf Palmer by me, in an attempt to confirm the genitive form of roots that end in *m*. (This explains the unnaturalness of this sentence.) It was approved and translated by Alf Palmer as 'Tucker [i.e. food -IT] belongs to the locust' This translation suggests that (3-117) implies bestowal of food to the locusts.

(3-117) *jojam-ngo manyja-Ø goyba-n.* (AP)

locust-GEN food-ACC give-NF
'[I] gave food to locusts.'

(3-118) *ngayya jomoboro-Ø yino goyba-lgo.* (AP)

1SG.ERG beef-ACC 2SG.GEN give-PURP
'I will give you beef.'

[5] 'Complement'

The genitive case may indicate 'complement' of (i) *jarribara* 'good', e.g. (3-119), (ii) *goli-yi-Ø* 'angry-COM-NOM', e.g. (3-120), (iii) *goli-Ø waga-L* 'angry-NOM rise (Vi)', i.e. 'get angry', e.g. (3-121), and (iv) *gawali-ZERO Vi* 'call out', e.g. (3-122).

(3-119) ('They are good people.')

wowo jarribara-Ø ngali-ngo ngona-Ø. (AP)

Oh! good-NOM 1DU-GEN that-NOM

'Oh! Those [people are] good to us.'

(3-120) ('They should leave his wife alone.')

goli-yi-Ø jana-ngo. (AP)

angry-COM-NOM 3PL-GEN

'[He is] angry with them.'

(3-121) ('Why did they get angry with them?')

jana-Ø=goli jana-ngo goli-Ø waga-n. (AP)

3PL-NOM=only 3PL-GEN angry-NOM rise-NF

'They got angry with them for no reason.'

(The enclitic =*goli* means 'only, just, for no reason', etc. (4-25-[3].))

(3-122) (An example cited from a text. A woman was carrying a possum.)

gaya-Ø nyongo gawali-Ø nyonga. (AP)

father-NOM 3SG.GEN call.out-NF 3SG.GEN

'Her father called out to her'

(When the tape was replayed, Alf Palmer confirmed that the second occurrence of *nyongo* means 'to her'.)

Goli-yi-Ø 'angry', *goli-Ø waga-L* 'get angry', and *gawali-ZERO* 'call out' allow NOM-DAT and NOM-GEN, but NOM-GEN is used infrequently in comparison with NOM-DAT. All the examples of this GEN involve a pronoun, and not a noun, e.g. (3-119) (*ngali-ngo* '1DU-GEN'), (3-120) and (3-121) (*jana-ngo* '3PL-GEN'), and (4-122) (*nyongo* '3SG.GEN'). Now, recall that the dative form of a pronoun is based on its genitive form, involving the linking interfix *-n* (Table 3-6). Thus, compare:

ngali-ngo '1DU-GEN'*ngali-ngo-n-go* '1DU-GEN-LINK-DAT'*nyongo* '3SG:GEN'*nyongo-n-go* '3SG-LINK-DAT'*jana-ngo* '3PL-GEN'*jana-ngo-n-go* '3PL-GEN-LINK-DAT'

This suggests the following possibility: *-n-go* are deleted in fast speech (see 2.9.2-[3]-(c)), and *goli-yi-Ø* 'angry', *goli-Ø waga-L* 'get angry', and *gawali-ZERO* 'call out' do not allow NOM-GEN.

[6] There is one unusual use of what appears to be the genitive suffix: *yarro-ngo-nga-L* 'this-GEN-TR', i.e. 'send/pull hither' This word contains the transitive-stem-forming suffix *-nga-L* (4.7.2-[4]-(c)). This *-ngo* may be a linking interfix (cf. *-ngo-* in Tables 3-3 and 3-6). But if this *-ngo* is the genitive suffix, in this verb the genitive case indicates a direction/destination.

3.6.6. Ablative-2 case

(The account of the ablative-2 is very brief, while that of the ablative-1 is long. We shall look at the ablative-2 first.) As noted in 3.3, the ablative-2 is attested with only three pronouns in Alf Palmer's data and only one pronoun in Alec Collins' data (Table 3-6). It has yielded very few examples, and it is difficult to generalize about, but it seems to mean (i) 'from, out of [place]', e.g. (3-123) (the only example of ABL-2 in Alec Collins' data), (3-125) (see the comment on *yino-ni* '2SG-ABL'), and (ii) choice 'out of' 'to choose A out of B', e.g. (3-124), (3-132) (*jana-ngoni* '3PL-ABL').

(3-123) ('I speared a kangaroo.')

ngaya banggay-Ø woda-n nyongo-ni. (AC)
 1SG.ERG spear-ACC pull.out-NF 3SG-ABL
 'I pulled the spear out of it.'

(3-124) ('I was in a fight.')

ngaya balga-lgo bama-Ø nyon.gol-Ø jana-ngoni. (AP)
 1SG.ERG kill-PURP man-ACC one-ACC 3PL-ABL
 'I will kill one man out of them.'

3.6.7. Ablative-1 case

Unlike the ablative-2 (*-ni*), the ablative-1 (*-ngomay*) is fully productive (see Tables 3-2 through 3-7). Also, it can be followed by another non-zero case suffix. *-ngomay* forms often qualify another noun or pronoun, showing agreement in terms of case. In view of this, those *-ngomay* forms which are not followed by a non-zero case suffix, are best considered as nominative forms or accusative forms. See Table 3-10, with *ngona* 'that, there' as an example. The following combinations do not seem to exist: ABL-GEN, ABL-COM and ABL-ABL.

-ngomay forms in the main behave like NY-group of *y*-final stems (e.g. *banggay* 'spear'; see Table 3-2), except that the dative form seems to be always *-ng-go*, rather than *-go*.

Table 3-10. *-ngomay* 'ablative-1' plus another case

	'that, there'
ABL-NOM	<i>ngona-ngomay-Ø</i>
ABL-ACC	<i>ngona-ngomay-Ø</i>
ABL-ERG	<i>ngona-ngomany-jo</i>
ABL-LOC	<i>ngona-ngomany-ja</i>
ABL-DAT	<i>ngona-ngomay-ng-go</i>

The central meaning of the *-ngomay* ablative seems to be ‘from [place, time]’, but it can have a wide range of meanings, as shown below.

[1] Starting point in space or the like

The ablative-1 case may indicate a starting point in space: ‘from, out of’ (e.g. a place a person went/came from on a particular occasion, e.g. Text 1, Lines 12, 16, 18, 20, 21, 22, 25, 27, 36, (3-125) to (3-127), a place where a person hails from originally, e.g. (3-128), a place from which distance is measured, (3-129), other kinds of starting point, e.g. (3-130), source, e.g. (4-804-b), material, e.g. (3-131), choice (‘out of’), e.g. (3-132). Along a similar line, in Text 2, Line 39, ‘fish from smoke’ means ‘smoked fish’. Also, (3-133) (‘[wake someone up] from [sleep]’) may be assigned to [1]. The use of [1] is the commonest use.

(3-125) (‘Take this woman with you this time.’)

ngaya yinony yino-ngomay-Ø ngaya ganyji-n yino-n-ga. (AP)
1SG.ERG (error) 2SG-ABL-ACC 1SG.ERG carry-NF 2SG-LINK-DAT
‘I took [her] from you [and I] have brought [her back] to you.’

(When the tape was replayed, Alf Palmer replaced the second word with *yino-ni*, and said that it is a Jalngoy (cf. 1.6.1) word and that it means ‘from you’. I do not feel certain if it is a Jalngoy word.)

(3-126) (‘We lost our swag. We went back from there to look for it.’)

ngona-ngomany-jo ngana-Ø golgorra-Ø jaymba-n. (AP)
there-ABL-ERG 1PL-ERG swag-ACC find-NF
Lit. ‘We, [who went back] from there, found the swag.’

(Alf Palmer’s comment on this sentence is ‘From there we went back.’)

(3-127) *ngaya yangga-gali-n bama-wo yamba-ngomay-ngga.* (AP)

1SG.NOM search.for-ANTIP-NF man-DAT camp-ABL-DAT
‘I am looking for a man [who has gone away] from the camp.’

(3-128) *ngaya jabon-ngomay-Ø jabon-barra-Ø.* (AP)

1SG.NOM coast-ABL-NOM coast-denizen-NOM
‘I [am] from the coast, a coastal person.’

(3-129) *gani-mara gamo-Ø yamba-ngomay-Ø.* (AP)

far-very water-NOM camp-ABL-NOM
‘The water [is] very far from the camp.’

(3-130) (‘In a fight, he was speared in the leg.’)

nyola banggay-Ø nyawa woda-n jarra-ngomay-Ø. (AP)
3SG.ERG spear-ACC NEG pull.out-NF leg-ABL-ACC
‘He could not pull the spear out of [his] leg.’

- (3-131) *jola-ngomay-Ø yinda banggay-Ø miranga-lgo.* (AP)
 stick-ABL-ACC 2SG.ERG spear-ACC make-PURP
 ‘You will make a spear from the stick.’
- (3-132) *ngana-Ø balga-lgo bama-Ø nyon.gol-Ø ngonni-ngomay-Ø*
 1PL-ERG hit-PURP man-ACC one-ACC there-ABL-ACC
jana-ngoni. (AP)
 3PL-ABL
 ‘We will kill one man out of them, out of [the people] there’, or ‘Let’s kill

(This sentence contains an instance of the ablative-2 as well as one of the ablative-1. Both seem to indicate choice ‘out of’)

- (3-133) *nganya nyola walmbi-n woga-ngomay-Ø.* (AP)
 1SG.ACC 3SG.ERG wake.up-NF asleep-ABL-NOM
 Lit. ‘She woke me up from asleep.’

[2] Location

The ablative-1 case often indicates a location. (The distinction between [2] and [1] is not clear-cut.) Examples include Text 1, Lines 3, 30, 38, 66, 67, and (3-134) to (3-136), (4-793), (4-794) (second B).

- (3-134) *yarro-ngomay-Ø wamay-n-biri-Ø gamo-Ø.* (AP)
 this-ABL-NOM good-LINK-?-NOM water-NOM
 ‘The water of this [place is] good.’

(See the first paragraph of 3.7.1 for the suffix *-biri*.)

- (3-135) (‘Do not walk around with your buttocks exposed.’)
bama-nggo nyagal-ga golma-mali-ngomany-jo. (AP)
 man-ERG see-APPR behind-side-ABL-ERG
 ‘The men, who are behind [you], might see your [buttocks].’
- (3-136) *ngali-Ø mirgan~mirgan-ngomay-nggo yamba-wo yani-Ø.* (AP)
 1DU-NOM hill-hill-ABL-DAT camp-DAT go-NF
 ‘We went to a camp [which was located] in a hilly area.’

(See 3.7.2-[1] for the formation of *mirgan~mirgan* ‘hilly’.) There is an interesting use of the ablative case. An expression of ‘Where is this place from’ seems to mean ‘What is the name of this place?’ See (3-14) (second A).

[3] Possessor

This use is not common. In this use, the ablative-1 case suffix (*-ngomay*) is often (though not always) followed by a non-zero case. The possessee is generally, though not always, *yamba* ‘camp/house’ (There is a further discussion of this use in 4.5.2.2.3.) In (3-137), the referent is a spear. Examples follow. See also (4-111).

(3-137) *ngaygo-ngomany-jo baba-n.* (AP)

1SG-ABL-ERG stab-NF

‘[I] stabbed [i.e. speared] [it] with my [spear]’

(3-138) *ngaya yani-Ø yamba-wo yino-ngomay-nggo.* (AP)

1SG.NOM go-NF camp-DAT 2SG-ABL-DAT

‘I went to your camp.’

(3-139) (Alf Palmer described the way Jalngoy (1.6.1) should be used.)

bimo-na-ngomany-ja yamba-ngga yinda jalngoy-bi-ya. (AP)

WM-KIN-ABL-LOC camp-LOC 2SG.NOM Jalngoy-INTR-IMP

‘At [your] WM’s [i.e. mother-in-law’s] camp, you should speak Jalngoy.’

(*Jalngoy-bi-L* means ‘speak Jalngoy’ (4.7.1-[1]-a).)

[4] Starting point or the like in time: ‘from’, ‘since’

Examples include (3-140), (4-866), and ‘after’, e.g. (3-141).

(3-140) (A woman went away with another man, and:)

ganba-mara-ngomay-Ø gornggal-Ø golma-mali yani-Ø. (AP)

ago-very-ABL-NOM husband-NOM behind-side come-NF

‘[Her] husband from long ago [i.e. her first husband] came behind.’

(3-141) *garrbala-ngomay-Ø ngaya wona-n.* (‘AP)

next.day-ABL-NOM 1SG.NOM lie, sleep-NF

‘I slept [there] the day after the next day’

Garrbala is an adverb, and not a noun. It generally means ‘tomorrow’, and *garrbala-ngomay* generally means ‘[on] the day after tomorrow [in the future]’ In (3-141), it refers to a time in the past.

[5] ‘After [being in a certain state]’

In this use, the ablative-1 case suffix is attached to a noun or an adverb, e.g. (4-173), and:

(3-142) (‘I was hiding in the grass.’)

yoray-ngomay-Ø ngaya waga-n. (AP)

quiet-ABL-NOM 1SG.NOM rise-NF

‘After [being] quiet, I got up.’

- (3-143) *ngaya morran-ngomay-Ø*. (AP)
 1SG.NOM illness-ABL-NOM
 ‘I [am] after illness’, i.e. ‘I have recovered my health.’

[6] ‘After doing something to [something]’ (attached to a noun)

Examples include:

- (3-144) *jarribara-bi-n ngaya gona-ngomay-Ø*. (AP)
 good-INTR-NF 1SG.NOM faeces-ABL-NOM
 ‘After faeces [i.e. after defecation] I feel good.’
- (3-145) *goygal-ngomay-Ø yani-Ø nyola barrbira-wo*. (AP)
 bandicoot-ABL-NOM go-NF 3SG.NOM echidna-DAT
 ‘After [spearing] a bandicoot, he went for [i.e. to get] an echidna.’
- (3-146) (Alf Palmer said that he needed to repair his fishing net.)
manyja-ngomany-jo ngaya baba-lgo mogarro-Ø. (AP)
 food-ABL-ERG 1SG.ERG sew-PURP fishing.net-ACC
 ‘I, after [eating] food, will sew [my] fishing net’, i.e. ‘I will sew [my] fishing net after the meal.’

In order to show the difference between ‘ABL-ACC’ and ‘ABL-ERG’, Alf Palmer gave (3-147) and (3-148). (This shows Alf Palmer’s high degree of insight into the language.) *Bori* can mean both ‘fire’ and ‘firewood’.

- (3-147) (‘I cooked a possum in the fire, and:’)
bori-ngomay-Ø ngaya gajarra-Ø moga-n. (AP)
 fire-ABL-ACC 1SG.ERG possum-ACC get-NF
 ‘I took the possum from the fire.’
- (3-148) a. *ngaya bori-Ø moga-n*.
 1SG.ERG firewood-ACC get-NF
 ‘I got firewood.’
- b. *ngaya bori-Ø goyba-n*.
 1SG.ERG fire-ACC throw-NF
 ‘I threw the firewood.’
- c. *bori-ngomany-jo ngaya gajarra-Ø moga-n*. (AP)
 fire-ABL-ERG 1SG.ERG possum-ACC catch-NF
 ‘I, after [getting and throwing] firewood, got a possum.’

There are instances in which words that contain *-ngomay* ‘after’ do not seem to take a non-zero case suffix, i.e. *-ngomay* seems to form adverbs. See 3.8.1-[9]. Also there is the enclitic conjunction =*ngomay* ‘after, if, because’. See 4.10.

[7] Reason and cause

Examples include (3-268), (3-175) (first H), and:

(3-149) *ngani-ngomay-Ø walwandan-Ø?* (AP)
 what-ABL-NOM sick-NOM
 'Why [do you feel] sick?'

(3-150) *ngaya goyi-ngomany-jo bajabajanga-n.* (AP)
 1SG.ERG hungry-ABL-ERG finish.up-NF
 'I, [being] hungry, finished up [the food].'

Reason and cause can also be expressed by the locative case (3.6.3-[5]), and by the dative (3.6.4-[2]).

3.6.8. Comitative case

(The following account of the comitative case is largely repeated from Tsunoda (1976a), which was written in accordance with the questionnaire prepared by R. M. W. Dixon for 'Topic A: The derivational affix "having"'.) The comitative suffix has two allomorphs: *C-ji/V-yi* (see 3.2.1.1-[4] for details). Like the ablative-1 case, the comitative suffix is fully productive (see Tables 3-2 through 3-6). Also, it can be followed by a non-zero case suffix. Comitative forms often qualify another noun, showing agreement in terms of case. Those comitative forms which are not followed by a non-zero case suffix are best considered as the nominative or the accusative form. See Table 3-11. The following combinations do not seem to exist: COM-GEN, COM-COM, and COM-ABL.

The inflection of comitative forms is irregular. They in the main behave like liquid-final stems (which end in *rr*, *r* or *l*), although the suffix itself is vowel-final (cf. Table 3-2). There is a diachronic reason for this, as will be shown shortly.

There is an adjective-like noun *warayi* 'one's own'. The root *wara* is not attested, but clearly this word involves the comitative suffix *-yi*. In terms of case inflection, it behaves like comitative forms, and not like vowel-final stems. It exhibits the widest range of inflectional possibilities among the words that contain this suffix. The dative form may involve the linking interfix *-l-* or *-d-*.

Table 3-11. Comitative plus another case

COM-NOM	<i>-ji-Ø,</i>	<i>-yi-Ø</i>
COM-ACC	<i>-ji-Ø,</i>	<i>-yi-Ø</i>
COM-ERG	<i>-ji-do</i>	<i>-yi-do</i>
COM-LOC	<i>-ji-da</i>	<i>-yi-da</i>
COM-DAT	<i>-ji-go</i>	<i>-yi-go</i>
	<i>? -ji-d-go</i>	<i>-yi-l-go, -yi-d-go</i>

- (a) ‘-COM-NOM/ACC’ *wara-yi-Ø*, e.g. (2-57), (4-446), (4-447), Text 1, Line 10.
 (b) ‘-COM-ERG’ *wara-yi-do*, e.g. (4-147).
 (c) ‘-COM-LOC’ *wara-yi-da*, e.g. (1-10-g), (2-57), (4-112), (4-113), (4-608).
 (d) ‘-COM-DAT’ *wara-yi-go*, e.g. (4-115), *wara-yi-l-go*, e.g. (4-116) to (4-118),
wara-yi-d-go, e.g. (1-10-a), (2-17), (2-57), (4-114).

We turn to Table 3-11. For the dative, *-yi-l-go* is attested with *wara-* only, and not with any other root or stem. Also, *-ji-d-go* would be expected, but it is not attested.

Phonetically, *-ji-Ø* is [dʒi], and *-yi-Ø* is [i]. *-ji-do* is [dʒito] and *-yi-do* is [ito] (*d* is always (?) voiceless in this environment). *-ji-da* is [dʒita] and *-yi-da* is [ita] or [eta] (again, *d* is always (?) voiceless in this environment). *-ji-go* is [dʒigo] and *-yi-go* is [igo] or [ego] (here, *g* is always (?) voiced). (3-93) contains *jolbon-ji-go* ‘spouse-COM-DAT’ [dʒolbondʒigo]. *-yi-l-go* is [elgo] (*g* is always voiced). *-yi-d-go* is [etgo] (both stops are always voiceless). *-yi-d-go* contains the only stop-plus-stop cluster in Warrongo (2.2.6.2).

In the early 1970s, R. M. W. Dixon (p.c.) suggested that the irregularity of the declension of the Warrongo comitative forms indicates that the underlying forms are **-jirr/-yirr* (see also Dixon 1977: 134, 139). (Many Australian languages have comitative suffixes similar to **-jirr/-yirr* (Dixon 1976b: 203, 1980: 325, 2002: 170).) According to the scenario suggested by Dixon, in Warrongo, **rr* disappeared in the nominative, accusative, ergative, and locative. In the dative, **rr* changed into *l*, and it then changed into *d*. But *l* and *d* can be optionally deleted.

In modern Warrongo, this *l* appears to be retained only in one word: *wara-yi-l-go* ‘one’s own’, while this *d* is retained in the COM-DAT form of many words. Both *l* and *d* are often deleted.

The irregularity in the declension of comitative forms supports the view that the data recorded from Alf Palmer are reliable (see 1.8.4.1-[2]).

The comitative can have a wide range of meanings, which include the following.

[1] Human agent at rest

The comitative case may describe a human agent at rest: (i) holding something inanimate, e.g. (3-151), and (ii) in the company of human(s), e.g. (3-152), (3-153) (second A), (4-62), (4-542) (second A).

- (3-151) *woronbara-yi-Ø jana-garra-n nyola.* (AP)
 coolamon-COM-NOM stand-ITER-NF 3SG.NOM
 ‘He, with a coolamon, is standing’, i.e. ‘He is standing with a coolamon.’

- (3-152) *yinda warrngo-yi-Ø nyina-garra-n.* (AP)
 2SG.NOM woman-COM-NOM sit-ITER-NF
 ‘You, with a woman, are sitting’

(3-153) (A conversation cited from a text)

A. *wanyja yinda wona-n?*
 where 2SG.NOM lie,sleep-NF
 ‘Where did you sleep?’

B. *yarro-n-da malan-da.*
 this-LINK-LOC creek-LOC
 ‘By this creek.’

A. *wanyo-ngo-n-ji-Ø?*
 who-LINK-LINK-COM-NOM
 ‘Who with?’

B. *ngaya=goli.*
 1SG.NOM=only
 ‘By myself.’

Company can also be expressed by the locative case; see 3.6.3-[4].

[2] Human agent moving

The comitative case may denote a human agent moving: (i) holding something (unhelpful) inanimate, e.g. (3-154), (ii) holding something (helpful) inanimate (i.e. an instrument), e.g. (3-155), and (iii) in the company of human(s), e.g. (3-156).

(3-154) *ngaya golmi yani-Ø gamo-yi.* (AP)
 1SG.NOM back come-NF water-COM-NOM
 ‘I, with water, came back’, i.e. ‘I brought back water’

(3-155) (‘I am an old man.’)
jomban-ji-Ø ngaya yani-Ø galngga-yngga. (AP)
 stick-COM-NOM 1SG.NOM walk-NF fall-APPR
 ‘I walk with a stick in case [or lest] I fall over.’

(This is an instance of the apprehensional construction ‘lest should’ (4.17).)

(3-156) *yanga-na-Ø gornngal-ji-Ø nyilamo-yi-Ø yani-Ø.* (AP)
 mother-KIN-NOM husband-COM-NOM new-COM-NOM go-NF
 ‘[My] mother, with a new husband, went [away].’

[3] Concrete or abstract means or manner

The comitative case may indicate concrete or abstract means of manner, in (i) intransitive clauses, e.g. (3-157) to (3-159), Text 3, Line 12, and (ii) transitive clauses, e.g. (3-160).

(3-157) *warrjan-ji-Ø ngaya goyay-ngal yani-yal.* (AP)
 boat-COM-NOM 1SG.NOM across-to go-PURP
 ‘I, by boat, will go across [from Palm Island to the mainland].’

- (3-158) *ngaya bonggoro-yi-Ø jana-n.* (AP)
1SG:NOM knees-COM-NOM stand-NF
'I, with knees, stood', i.e. 'I knelt down.'
- (3-159) *bama-Ø nyamba-garra-n nyilamo-yi-Ø gama-yi-Ø.* (AP)
man-NOM dance-ITER-NF new-COM-NOM gama-COM-NOM
'The men were dancing to the new Gama song.'
- (3-160) *jayari-yi-do bama-nggo jomoboro-Ø ganyji-n.* (AP)
horse-COM-ERG man-ERG bullock-ACC carry-NF
'Men on horseback are droving cattle.'

In (3-159) ('[dance] to [music]'), the locative can be used in place of the comitative case. See (3-58).

Consider the following intransitive verb: *jalngony-ji-bi-L* 'Jalngoy-COM-INTR', 'speak in Jalngoy' (*jalngoy* 'avoidance style' (1.6.1). It contains the intransitive-stem-forming suffix *-bi-L* (4.7.1).) This verb suggests that the comitative case can describe '[speak] in [Jalngoy]'. But there is no example of a comitative form by itself (*jalngony-ji*), without *-bi-L*. (There is also *jalngoy-bi-L* 'speak Jalngoy'; see (3-139).)

[4] Mental state or the like

In this use, the comitative suffix is added to what may be considered abstract nouns (3.1.2-[3]), such as *morran* 'illness, ill', e.g. (3-161), *rilga* 'lust', *bolba* 'love, in love', *goli* 'anger, angry', e.g. (3-94), (3-162).

- (3-161) *morran-ji-Ø nyola wona-n.* (AP)
illness-COM-NOM 3SG.NOM lie-NF
'She, with illness, is lying', i.e. 'She is lying ill'.
- (3-162) *nyola goli-yi-Ø.* (AP)
3SG.NOM anger-COM-NOM
'He [is] angry.'

These nouns are generally used with the comitative suffix unless:

- (a) they are affixed with a derivational suffix, e.g. *goli-bi-L* 'be(come) angry', e.g. (3-308), (3-309), or;
- (b) they are used in idiom-like expressions, together with an intransitive verb, e.g. *goli waga-L* 'angry rise', i.e. 'get angry', e.g. (3-8), (4-149), and *bolba wona-Y* 'in.love lie', i.e. 'be in love'.

Gaworra and *raworra* both 'love' are attested only in the form with the comitative suffix: *gaworra-yi* and *raworra-yi* both 'in love', e.g. (1-10-c). (It is possible that one of *gaworra* and *raworra* is a Jalngoy word (1.6.1).)

Nonetheless, *goli-yi waga-L* ‘angry-COM-NOM rise (Vi)’, i.e. ‘get angry’ (which contains the COM-NOM form *goli-yi* despite the co-occurrence of the verb *waga-L*), is attested, e.g. (3-94).

The ergative form *goli-yi-do* ‘angry-COM-ERG’ is attested.

The adjective-like nouns *gido* ‘cold’, *goyi* ‘hungry’, *nyando* ‘not knowing’ and *nyormgo* ‘busy and not looking’, and the adverb of modality *balo* ‘leave [someone] alone’ (4.24-[5]) are generally used without the comitative suffix, e.g. (3-163), (4-280), (4-944) to (4-947). But they are occasionally used with it, e.g. (3-164), (4-948). Compare:

(3-163) *ngana nyando-Ø*. (AP)
1PL.NOM not.knowing-NOM
‘We [do] not know.’

(3-164) *ngaya nyando-yi-Ø*. (AP)
1SG.NOM ignorant-COM-NOM
‘I [do] not know.’

In instances such as (3-164), the meaning of the comitative is not known.

Woga means ‘sleep’ (noun, not verb) or ‘asleep’; see (3-1) and (3-2). The comitative form *woga-yi* means ‘sleepy’

As additional examples, consider the following words: (i) *yibirra* ‘dream’ (noun?), (i) *yibirra-yibirra-bi-L* (Vi) ‘dream-INTR’, i.e. ‘dream’, (iii) *yibirra-yibirra-yi* (noun) ‘dream-dream-COM’, i.e. ‘dreaming’, and (iv) *yibirra-yi yibirra-yi* (noun) ‘dream-COM dream-COM’, i.e. ‘dreaming’

[5] Unusual feature of body parts and bodily secretions

It is quite natural for a person to have a body part or bodily secretion. (This is ‘inalienable’ possession.) Therefore, normally this is not mentioned; this is presupposed (cf. Chvany 1973: 71). When used with nouns of body parts or bodily secretion, the comitative case describes ‘marked’ states. Here, the division between the following two kinds of body parts or bodily secretions is highly crucial (Tsunoda 1995).

- (i) ‘Everyone’-type: those that people normally have or those that everyone has, e.g. eye, belly, foot.
- (ii) ‘Not everyone’-type: those that people normally do not have or those that not everyone has, e.g. grey hair, pimple, sore.

This dichotomy is reflected in the use of the comitative case, as follows.

- (a) When the comitative suffix is added to a noun of ‘everyone’-type:
 - (a-1) either it indicates that something is unusual/abnormal/wrong with that body part or secretion, or;
 - (a-2) it states explicitly something about that body part or secretion.

- (b) When the comitative suffix is added to a noun of ‘not everyone’-type, it merely describes the possession of that body part or bodily secretion. It does not say that that something is unusual/abnormal/wrong with that body part or secretion.

Examples of (a-1) include the following.

bolo-yi ‘belly-COM’: ‘satiated with food, having diarrhoea, wanting to defecate, pregnant’, e.g. (3-165). (Djaru (Tsunoda 1981a: 229) has *monda-yaru* ‘belly-having’, ‘pregnant’)

mambo-yi ‘back-COM’: ‘having a sore back’.

jina-yi ‘foot-COM’: ‘having sore or tired feet’, e.g. (3-166).

jinggo-yi ‘body hair-COM’: ‘hairy’ (i.e. having more hair more than usual or the average).

gona-yi ‘faeces-COM’: (rarely) ‘having faeces inside’, (generally) ‘having diarrhoea, wanting to defecate’, e.g. (3-168).

walngga-yi ‘breath-COM’: ‘something is wrong/unusual with the breath’, i.e. ‘short-winded, tired’, and also ‘in love, eager, keen, fond’, e.g. (3-89), (3-90), (3-147), (3-169), (4-170), (4-277).

- (3-165) (‘I have had a good meal.’)

ngaya nyina-n bolo-yi-Ø. (AP)
1SG.NOM sit-NF belly-COM-NOM
‘I am sitting, being satiated with food.’

- (3-166) *ngaya jiji-yi-Ø jina-yi-Ø yamba-ngga nyina-n*. (AP)

1SG.NOM sore-COM-NOM foot-COM-NOM camp-LOC sit-NF
‘I had a sore, my feet [were] tired[, and] I was sitting in the camp.’

- (3-167) (An example cited from a text. A man describes Gandaro, one of the two imaginary, hairy human-like beings (1.5.8-[8]).)

gando-Ø=yamanyon jinggo-yi-Ø. (AP)
dog-NOM=like body.hair-COM-NOM
‘[Gandaro is] hairy like a dog.’

- (3-168) *ngona-Ø bama-Ø gona-yi-Ø*. (AP)

that-NOM man-NOM faeces-COM-NOM
‘That man has a diarrhoea.’

- (3-169) *ngaya walngga-yi-Ø*. (AP)

1SG.NOM breath-COM-NOM
‘I [am] tired.’

- (3-170) *walngga-yi-do nyola manyja-Ø goyba-n yino*. (AP)

breath-COM-ERG 3SG.ERG food-ACC give-N 2SG.GEN F
‘She [, who is] fond [of you,] gave you food.’

The only example available of (b) is Sentence c’ of (3-171).

(3-171) (An excerpt from a text)

- a. *ngaya wanda-n yino-n-go ngaya nyon.gol-Ø.*
 1SG.ERG leave-NF 2SG-LINK-DAT 1SG.ERG one-ACC
 'I have left one [woman] for you.'
- b. *nyon.gol-ji-Ø ngaya.*
 one-COM-NOM 1SG.NOM
 'I [too,] have one [woman].' (Alf Palmer's translation: 'I have only one woman.')
- c. *ngaya jombi-Ø nyon.gol-Ø.*
 1SG.NOM penis-NOM one-NOM
 'I have [only] one penis.'
- (c'. *ngaya nyon.gol-ji-Ø jombi-yi-Ø.*)
 1SG.NOM one-COM-NOM penis-COM-NOM
 'I have [only] one penis.)
- d. *bolari-yi-Ø ngaya (slight rise)/bolari-wo yangga-gali-yal. (AP)*
 two-COM-NOM 1SG.NOM two-DAT search.for-ANTIP-PURP
 'If I had two [penises, I] would look for two [women].'

When the tape was replayed, Alf Palmer said that Sentence c does 'not sound too good', and instead he gave Sentence c'. It is normal for a man to have one penis. But in this particular context, it is worthwhile to say that 'I have [only] one penis'. That is, Sentence c' is an instance of (a-2). (In Sentence d, the pause and the intonation are relevant, and they are indicated. This sentence is an instance of counterfactual conditional. See 3.18.6.2. Presumably there is no man who has two penises, and therefore Sentence d is not an example of (a-1) or (a-2). It is not an example of (b), either.)

Examples of (b) include the following.

jalbar-ji-Ø 'beard-COM', e.g. (3-172).

jiji-yi 'sore-COM' 'having a sore', e.g. (3-166).

goymbirra-yi 'tribal cicatrices-COM' (only initiated men had tribal cicatrices, on the chest), e.g. (3-173).

birngga-yi 'grey hair-COM' 'old person', e.g. Text 1, Lines 57, 58.

boji-yi 'fart, wind-COM' 'passing wind' (people generally do not keep passing wind all the time, and passing wind is a marked state), e.g. (3-174).

(3-172) ('You did not have a beard before, but:')

yinda jalbar-ji-Ø. (AP)
 2SG.NOM beard-COM-NOM
 'You have a beard [now].'

(3-173) *yinda goymbirra-yi-Ø? (AP)*

2SG.NOM tribal.cicatrices-COM-NOM

'Do you have tribal cicatrices?', i.e. 'Are you an initiated man?'

- (3-174) *yinda boji-yi-Ø boji-yi-Ø*. (AP)
 2SG.NOM fart-COM-NOM fart-COM-NOM
 ‘You are farting a lot, too much.’

(*Boji-yi-Ø* is repeated, for emphasis.)

[6] ‘Idiomatic’ uses

In some instances, the comitative forms have as a literal meaning ‘having, holding, with’, and furthermore an idiomatic meaning. Examples:

galbin-ji ‘child-COM’: ‘with a child’ and ‘pregnant’, e.g. (3-175) (second and fifth W, and third and sixth H).

jolbon-ji ‘married person, spouse-COM’. *Jolbon* seems to mean ‘married person’ or perhaps ‘spouse’ *Jolbon-ji* means ‘married person’, e.g. (3-93), (3-176). (It is not certain if *jolbon-ji* can mean ‘together with (or, in the company of) one’s spouse’.)

manyaja-yi ‘food-COM’: ‘having food’ and ‘satiated with food’.

gogo-yi ‘language-COM’: ‘having language’ and ‘talking’.

- (3-175) (A conversation between a husband (H) and his wife (W), cited from a text.)

W. *ngaya walwandan-Ø*.

1SG.NOM sick-NOM

‘I don’t feel well.’

H. *ngani-ngomay-Ø?*

what-ABL-NOM

‘Because of what?’

W. *ngaya galbin-ji-Ø*.

1SG.NOM child-COM-NOM

‘I [am] with a child’, i.e. ‘I [am] pregnant.’

H. *galbin-Ø! wanyja galbin-Ø?*

child-NOM where child-NOM

‘Baby! (lit. child). Where [is] the baby?’

W. *ngaya yarro-Ø ganyji-n bolo-ngga*.

1SG.ERG this,here-ACC carry-NF belly-LOC

‘I carry [i.e. have] this [baby] in [my] belly’ or ‘I carry [the baby] here in [my] belly.’

H. *yinda galbin-ji-Ø!*

2SG.NOM child-COM-NOM

‘You [are] pregnant!’

W. *yowo ngaya galbin-ji-Ø*.

yes 1SG.NOM child-COM-NOM

‘Yes, I [am] pregnant.’

- H. *nganimbarri-Ø?*
 how.many-NOM
 ‘How many [babies]?’
- W. *gorrbara-Ø galbin-Ø.*
 three-NOM child-NOM
 ‘Three babies.’
- H. *gorrbara-yi-Ø galbin-ji-Ø!*
 three-COM-NOM child-COM-NOM
 ‘[You] have three babies!’

(Since the number of the babies is three, the plural form (*galbiri* ‘children’; see 3.7.1-[16]) would be expected. That is, *galbiri-yi-Ø* ‘children-COM-NOM’)

- (3-176) *ngaya yani-Ø jolbon-ji-da.* (AP)
 1SG.NOM go-NF spouse-COM-LOC
 ‘I went together with [the man] who had a spouse’, i.e. ‘I went together with the married [man].’

(Here, the locative describes company; see 3.6.3-[4])

In most instances of the comitative (‘X has Y, X is with Y’), X and Y are in contact with, or in the vicinity of, each other. *Jolbon-ji* in the sense of ‘married person’ seems to be exceptional in that X and Y are not necessarily so. That is, the married person is not necessarily in contact with, or in the vicinity of, his/her spouse. See (3-176).

[7] Inanimate or non-human object having inanimate, non-human or human object or being

Examples include:

- (3-177) (A man speared a kangaroo, but:)
nyola banggany-ji-Ø wadali-Ø. (AP)
 3SG.NOM spear-COM-NOM run-NF
 ‘It [the kangaroo] ran away [i.e. hopped away] with the spear [in it].’
- (3-178) *barrawo-Ø ganyji-n gamo-yi-Ø.* (AP)
 bark.water.container-ACC carry-NF water-COM-ACC
 ‘[I] carried a bark water-container with water [in it].’
- (3-179) (‘You are sitting on a tree and laughing at me on the ground.’)
ngaya jolay-Ø yarro-Ø gonma-lgo yino-ngo-n-ji-Ø. (AP)
 1SG.ERG tree-ACC this-ACC cut-PURP 2SG-LINK-LINK-COM-ACC
 ‘I will cut [down] this tree with you [on it].’

[8] Characteristics of a place

Examples include (3-180-a), (3-181), and (3-182-c). In this use, the comitative case seems to imply ‘many’, as shown in the translations below.

(3-180) (‘My country is no good.’)

- a. *mirgan-mirgan-Ø jolgi-yi-Ø*.
 hill-hill-NOM scrub-COM-NOM
 ‘[It is] hilly. [It] has [many] scrubs’, i.e. ‘There are [many] scrubs [in my country].’
- b. *yino nyawa jolgi-Ø*. (AP)
 2SG.NOM NEG scrub-NOM (X Z Y)
 ‘[But] your country has no scrub’ or ‘There is no scrub in your country.’

(Alf Palmer’s gloss for *jolgi-yi* ‘scrub-COM’ is ‘many scrub’. In this use, the comitative implies ‘many’ This is reflected in the relevant translations. The reduplicated form *mirgan-mirgan* means ‘hilly’ (3.7.2-[1]. See 4.20.6 for ‘X Z Y’)

(3-181) *barngan-ji-Ø jondol-ji-Ø yarro-Ø*
 kangaroo.rat-COM-NOM pademelon-COM-NOM this-NOM
yamba-Ø yori-yi-Ø. (AP)
 country-NOM kangaroo-COM-NOM
 ‘This place [is] with kangaroo rats, pademelons, and kangaroos’, i.e. ‘There live [many] kangaroo rats, pademelons, and kangaroos in this country.’

- (3-182) a. *nyola nganya banjo-n*.
 3SG:ERG 1SG:ACC ask-NF
 ‘She asked me.’
- b. *yamba-Ø yino yamanyon-Ø jarribara-Ø?* (AP)
 country-NOM 2SG:GEN similar-NOM good-NOM
 Lit. ‘Is your country similar [and] good?’ or ‘Is you your country like wise good?’
- c. (‘I replied.’)
nyawa ngaygo mirgan-mirgan-Ø yamba-Ø walwajarri-Ø
 NEG 1SG:GEN hill-hill-NOM country-NOM bad-NOM
mongan-ji-Ø (AP)
 mountain-COM-NOM
 ‘No. My country [is] hilly and no good. It is with [many] mountains’,
 i.e. ‘There are many mountains’

(Alf Palmer’s translation of Sentence b is to the following effect: ‘Is your country good like this country?’)

Warrongo does not have ‘existential construction’ as such. But the comitative case can express ‘There are/live in’, as shown above.

[9] Names of places and tribes

The comitative suffix seems to be involved in the names of a few places and tribes.

At least, *jalogan-ji* ‘Tiger Mountain’ (cf. *jalogan* ‘Tiger Mountain’) was confirmed to contain the comitative suffix. It declines irregularly as in Table 3-11, and not regularly (cf. Table 3-2). (In 1974, Tommy Murray, a Jirrbal speaker (1.8.4.3-[7]) stated that *jalogan* is the name of a man. If this is the case, then *jalogan-ji* ‘Tiger Mountain’ literally means ‘[a place] with [a man called] Jalogan’. What Alf Palmer called ‘Tiger Mountain’ is presumably the same as ‘Tiger Hill’ (see Map 3). It appears to be in Warrongo territory. Then the man seems likely to have been a Warrongo man.)

There are nouns *yirrgay* ‘a language in the north’ and *yirrgany-ji* ‘people of the north’. (Note the alternation between *y* and *ny*; cf. Table 3-2.) The dative form of *yirrgany-ji* is attested: *yirrgany-ji-wo*. It takes the allomorph for vowel-final stems (-*wo*) (Table 3-2). That is, *yirrgany-ji* declines regularly. It does not decline irregularly. This suggests the following scenario. Etymologically *yirrgany-ji* contained the comitative suffix, and declined irregularly, but subsequently it was reanalyzed as a (vowel-final) root and it now declines regularly. (According to Patz (1991: 243, 246), Yirrgay is a dialect of Djabugay that used to be spoken in the Cairns area.)

The same scenario may apply to the place name *bongorrji* ‘Mt. Pandanus’ (location unknown). Etymologically it may have contained the comitative suffix (i.e. *bongorr-ji*). However, it no longer declines irregularly. It declines regularly. The locative form has the allomorph for vowel-final stems: *bongorrji-ngga*.

Etymologically at least, the following words probably contain the comitative suffix:

yanggarr-ji ‘a place on the way to the western region (location unknown)

yidiny-ji ‘the Yidiny language, Yidiny person’ (cf. *yidiny* ‘the Yidiny language, Yidiny person’)

However, it is not known whether they decline irregularly or regularly. (*Yanggarr* by itself is not attested in Warrongo. Gugu-Badhun has the word *yanggarrji* ‘main lagoon in front of Valley of Lagoons homestead’ (Sutton 1973: 224). According to Dixon (1977b: 3, 7), *yidiny* refers to the language in question and *yidiny-ji* to the ‘tribe’, and the latter contains the comitative suffix.)

[10] COM-LOC ‘hoping to get something’

The combination of comitative-plus-locative can have a specialized meaning: ‘hoping to get something from someone or hoping to be given something by someone’, e.g.:

(3-183) *ngali-Ø* *yani-Ø* *manyja-yi-da*. (AP)
 1DU-NOM go-NF food-COM-LOC
 ‘Let’s go, hoping to be given food [from someone].’

(Alf Palmer's translation is: 'Another lot have tucker [i.e. food]. They might give us food'.)

(3-184) (A kangaroo is being cooked.)

galbiri-Ø jana-garra-n yori-yi-da. (AP)
 children-NOM stand-ITER-NF kangaroo-COM-LOC
 'The children are standing about, hoping to be given kangaroo [meat].'

(3-185) *ngana-Ø yino-n-go yani-Ø yori-yi-da.* (AP)

IPL-NOM 2SG-LINK-DAT come-NF kangaroo-COM-LOC
 'We came to you, in the hope we would be given kangaroo [meat].'

Alf Palmer compared the COM-LOC with the dative 'for' (3.6.4-[1]) and stated highly revealingly in effect as follows: *yori-wo* 'kangaroo-DAT' means 'go hunting a kangaroo' (cf. (3-70)), while *yori-yi-da* 'kangaroo-COM-LOC' means 'to get a kangaroo from someone'. It thus seems that COM-LOC means 'counting on someone who has something'. The meaning of the portion 'counting on someone' is presumably expressed by the locative case. However, this meaning is attested in the COM-LOC only, and it is not attested in any other use of the locative (3.6.3), e.g. when the locative is not preceded by the comitative.

Note that the combination 'COM-LOC' does not always mean 'counting on someone who has something'. See (3-176) ('spouse-COM-LOC'). It seems that 'COM-LOC' has this meaning only when it refers to something that can be given, e.g. food.

There is an unusual example of COM-LOC:

(3-186) (Alf Palmer made an arrangement for the next interview.)

ngali-Ø magol-ji-da birra-wa-ya. (AP)
 IDU-NOM work-COM-LOC talk-RECP-IMP
 'Let's talk while I am working.'

(*Magol* 'work' is a noun (3.11.1.6-[1].) Probably the locative means time 'during' (3.6.3-[2]). But it is not known what the comitative expresses here.

[11] There are a fair number of examples in which the meaning of the comitative is not known and its use seems redundant, e.g.

gobi, gobi-yi, gobi-yi-gobi-yi 'native doctor

jolbon.gan, jolbon.gan-ji 'a woman who has run away from her husband' (cf. *jolbon* 'married person, spouse')

The ergative form *gobi-yi-do* is attested. It declines irregularly as in Table 3-11. This confirms that *gobi-yi* contains the comitative suffix.

Comitative forms can be followed by a noun-stem-forming suffix, e.g. *yirrgany-ji-barra* 'person of the north' (see 3.7.1-[1] for *-barra* 'denizen').

Comitative forms can be turned into verbs, by means of the intransitive-stem-forming suffix *-bi-L* (4.7.1-[1]-(d-2)), and the transitive-stem-forming suffix *-nga-L* (4.7.2-[1]-(e)).

The comitative suffix is probably related to the linking interfix *-yi* (Table 4-6). It may possibly be related to the conjugational endings *-lji* 'stative', *-nji* 'participle', and *-njirra* 'participle' (Table 3-14).

Many Australian languages have the suffix for 'without' or 'X-less' (sometimes called 'privative') as well as that for 'with, having' (often called 'comitative'), e.g. *-jarul-yaru* 'with, having' and *-mulungu* 'without' of Djarru (1981a: 225, 227). Warrongo has no suffix for 'without'. But it can express 'without' by means of the adverb *nyawa* 'negation' (4.20.6).

3.7. Noun morphology (2): derivation

Warrongo has three ways to form stems (of nouns, adverbs and verbs): affixation of a stem-forming suffix, reduplication ('XX'), and compounding ('XY').

There are stems that combine two (though not three?) of these three methods: (i) reduplication plus compounding ('XYY'; there is no example of 'XXY'), (ii) reduplication plus affixation, and (iii) compounding plus affixation. In addition, there are stems that involve affixation plus affixation. For example, a 'root + noun-stem-forming suffix' may be followed by a verb-stem-forming suffix.

Formation of nouns is discussed in the following: noun-stem-forming suffixes in 3.7.1, reduplication in 3.7.2, and compounding in 3.7.3.

3.7.1. Noun-stem-forming suffixes

There are many noun-stem-forming suffixes. Among them, only *-barra* 'denizen' ([1] below) is fully productive, with a clear meaning. All the others seem to be non-productive, and many of them are vague in meaning. One example is *-biri* in *wamay-n-biri* 'good', e.g. (3-134) (*wamay* 'good' is attested in Alec Collins' data only). Note the *n*-insertion (2.6-[2]-(b)). In the following we discuss mainly those that (i) are attested with a few roots at least (not just one root), and (ii) have a discernable meaning. There are many instances in which the suffix is added to a root that is not attested elsewhere in the data, i.e. a *cran*-morpheme (cf. English *cranberry*).

As noted in 3.5.3, nouns that end in the suffix *-barri* ([6] below), *-jarri* ([7]), or *-monga* ([13]) do not seem to take a non-zero case suffix. (There is at least one exception: *walwa-jarri* 'bad-*jarri*' is attested with case suffixes. See Text 1, Line 57 (*walwajarri-wo* 'bad-DAT') and Line 58 (*walwajarri-nggo* 'bad-ERG').)

There are two productive suffixes that derive verbs from nouns: *-bi-L* (4.7.1) and *-nga-L* (4.7.2). In contrast, there is no productive suffix which derives nouns from verbs. There are three suffixes that carry out this derivation, but they are not productive: *-ra* ([11]), *-no* ([12]), and *-lmonga* ([13]).

The affixation of at least a few of the suffixes may cause stress shift (2.7-[6]).

[1] *-barra* 'denizen'

This suffix was discussed in 1.2 and 1.5.4.1-[1]. Additional examples: (i) *binggil-barra* 'person from Binggil' (*binggil* 'Mission Beach'), e.g. (3-107), (ii) *jabon-barra* 'person from the coast' (*jabon* 'coast'), e.g. (3-128), Text 2, Line 43, and (iii) *wanggarri-bara* 'easterner' (*wanggarri* 'east'). Alf Palmer called me *gonggarri-barra* 'northerner' (*gonggarri* 'north'), for I came from Japan, from the north.

Compare the following set of stems.

yago (i) 'grass', (ii) 'small kangaroo grass (as against *gajan* 'big grass, blady grass').

yago-barra 'place near Innot Hot Springs on Herbert River'

yago-bolan 'a place along Herbert River to the west of Cashmere (in the direction of Mount Surprise).'

yago-bolan-barra 'person of Yagobolan'.

Yago-bolan-barra refers to a denizen, like other examples of *-barra*. However, *yago-barra* refers to a place. This appears to be the only example involving *-barra* that refers to a place, and not a denizen.

Compare the following stems (the first two mentioned in 3.6.8-[9]).

yirrgay 'a language in the north'.

yirrgany-ji 'yirrgay-COM': 'northerner'

yirrgany-ji-barra 'northerner'

Since *yirrgany-ji* already means 'person of the north', the use of *-barra* in *yirrgany-ji-barra* seems redundant.

There is also *gambil-barra* 'person from the west', e.g. Text 2, Line 44. *Gambil* is not attested by itself. It occurs in Dyirbal and means 'mountains, tableland' (Dixon 1972: 402). Therefore, in Dyirbal, *gambil-barra* will not mean 'person from the west'.

The ablative-1 case (*-ngomay*) (3.6.7) can have much the same meaning: 'person from a place' It, too, is fully productive. Both *jabon-ngomay* 'coast-ABL' and *jabon-barra* 'coast-denizen' occur in (3-128).

[2] *-gaba* 'denizen'

This suffix was discussed in 1.5.4.1-[2].

[3] *-bolan* '(meaning unknown)'

This suffix, whose meaning is not known, occurs in four placenames: (i) *yago-bolan* (mentioned in [1] above), (ii) *waga-bolan* 'bushy country on Herbert River', (iii) *worro-bolan* 'place (Harding Paddock?) near Ravenshoe', and (iv) *yirram-*

bolan 'place on Herbert River on Kirrama Road, where there was an old fighting ground'. Except for *yago* 'grass' in *yago-bolan*, the meaning of the root to which *-bolan* is added is not known.

Warrgamay has *yirra* 'tooth' (Dixon 1981: 121). (Warrongo has *rirra* 'tooth'.) If *yirram-bolan* contains the Warrgamay *yirra*, this placename is a Warrgamay word, although the place *yirram-bolan* 'place on Herbert River on Kirrama Road' appears to be in Warrongo territory (Map 3). If it contains *yirra* and *-bolan*, it involves *m*-insertion (2.6-[2]-(a)). But *-bulan* seems to be absent in Dixon's (1981) work on Warrgamay.

[4] *-bayan* '(meaning unknown)'

Consider the following set of words.

gaban (i) 'tree sp.' (same as *gaban-gaban?*), (ii) 'grub in a *gaban* tree'

(This word is phonetically [kaban]. There is a railway station with the name 'Kaban' between Ravenshoe and Herberton. It may have been named after this tree and/or grub.)

gaban~gaban 'ironwood, with red flowers and poisonous honey'

gaban-bayan (i) 'a bushy country on Herbert River', (ii) woman's name (one of Alf Palmer's daughters. Her English name is Evelyn Greenwood.)

gaban-bila (i) 'place near Ravenshoe, not far from Harding Paddock' (this may possibly be in Warrongo territory), (ii) woman's name (one of Alf Palmer's granddaughters).

The meaning of *-bayan* is not known. It is attested in two more placenames: (i) *maji-bayan* 'cattle station on Mt. Fox Range (possibly Stony Hill Station)' (this may be in Warrongo territory), and (ii) *yirra-bayan* 'place on Herbert River on Kirrama scrub' (this may be in Warrongo territory). The meaning of *maji* is not known. It is a *cran*-morpheme.

The placename *yirra-bayan* may possibly involve the Warrgamay noun *yirra* 'tooth' (see Dixon 1981: 121). The two placenames *yirra-bayan* and *yirram-bolan* (mentioned in [2] above) may possibly refer to the same place.

As for *gaban-bila*, it may contain the noun-stem-forming suffix *-bila* 'with' of Jirrbal and Girramay (Dixon 1972: 222). (Note that the place *gaban-bila* may be in Warrongo territory. The person with the name *gaban-bila* is presumably a Warrongo person, since she is Alf Palmer's granddaughter.)

[5] *-bolo* 'a place full of

This suffix occurs in three stems. In two of them, it seems to mean '[a place] which has many [plants, etc.]': (i) *daba-bolo* 'Black Palm' (a place on Stone River) (probably in Warrongo territory) (*daba* 'black palm'), and (ii) *dombil-bolo* 'a place in the Niagara district' (probably in Warrgamay territory) (*dombil* 'knot (of tree)'). (However, it is not known if trees in that area have many knots.) (iii) The

meaning of *-bolo* is not clear in *gobi-m-bolo* 'wise man, native doctor' (*gobi* 'wise man, native doctor'). (Note the *m*-insertion; see 2.6-[2]-(a).)

Warrgamay has the noun-stem-forming suffix *-bulu* 'very, lots of', e.g. *wunyan-bulu* 'very lustful' (Dixon 1981: 34). This word occurs in a curse used by Alf Palmer; see (1-12). Both *gubi* 'clever man, doctor' and *gubimbulu* 'very clever man' occur in Warrgamay (Dixon 1981: 34). This suggests that the Warrongo word *gobi-m-bolo* may mean 'very wise man'.

[6] *-barri* 'covered with [something unpleasant]'

Attached to two nouns of bodily secretion, this suffix means 'covered with [something unpleasant]': (i) *garnyja-barri* 'covered with spit all over the body' (*garnyja* 'spit'), and (ii) *jojarra-barri* 'wet with urine all over' (*jojarra* 'urine'). There are at least three other instances, in which *-barri* seems to have a different meaning or function from that observed above.

(a) *ngani-m-barri* 'how many', e.g. (3-175) (fourth H), also 'how much (?)' (*ngani* 'what'). Note the *m*-insertion; see 2.6-[2]-(a).

(b) *wanba-l-barri* 'frightened' (adjective-like noun) (*wanba-L* Vi 'fear, be frightened'). Cf. *wanba-l-birri* and *wanba-l-jarri* both 'frightened' (adjective-like nouns). (*-l* is a stem-forming suffix; see 3.11.1.6-[2]. See (c), [7]-(a) and [13] below.)

(c) *baja-l-barri* 'brave, bold, tough' Cf. *baja-L* Vt 'bite'. But it is not certain if *baja-l-barri* is related to the verb *baja-L*. Nyawaygi (Dixon 1983: 504) has *bajalbarri* 'stubborn, hard-headed' (Adj) (obviously cognate with the Warrongo *baja-l-barri*) and *baja* 'shut, blocked, finished' (Adj). Warrgamay (Dixon 1981: 112) has *baja* Adj 'shut, blocked'.

The comitative suffix or the like ('having/with') with the shape of *-barri* or a similar shape occurs in many parts of the continent (Sutton 1976: 302), e.g. *-barri* of Gugu-Badhun (Sutton 1973: 105) and *-barri* of Warrwa of Kimberley, Western Australia (McGregor 1998: 175).

[7] *-jarri* '(meaning unknown)'

This suffix occurs in three stems, but its meaning is not clear.

(a) *wanba-l-jarri* 'frightened' (adjective-like noun). Cf. *wanba-l-barri* and *wanba-l-birri* both 'frightened' (adjective-like nouns). Alf Palmer said that *wanba-l-jarri* is a Jalngoy word, i.e. the avoidance style (1.6.1).

(b) *walwa-jarri* 'bad' (*walwa* 'bad'). (As noted above, this word is attested with case suffixes.)

(c) *gaga-jarri* 'big' (*gagal* 'big, hard (not soft)'). (This involves the insertion or deletion of *l* (2.6-[3]). See also [8] and [9]-(a).)

[8] *-bara* ‘intensifier (?)’

-bara (discussed in 2.4-[4]) occurs in a large number of nouns. Its affixation may cause insertion or deletion of the root-final *l* (2.6-[3]). In a few of them, this suffix appears to have one of the following two functions.

(a) To intensify the meaning, e.g. (i) *jilbay-bara* ‘knowing very well’ (*jilbay* ‘knowing’), (ii) *bonbol-bara* and *bonbo-bara* ‘big smoke’ (Jalngoy?) (*bonbol* ‘smoke’).

(b) To turn a noun into an ‘adjective-like’ noun, e.g. *jami-bara* ‘fat (not thin)’ (an adjective-like noun) (*jami* ‘fat (not meat or flesh)’).

However, its function or meaning is unclear in the majority of examples, e.g. (i) *yalnggay-bara* ‘single man’ (*yalnggay* ‘single man’), (ii) *woron-bara* ‘water/baby carrier made of *woron* bark’ (*woron* ‘beef wood’ and ‘water/baby carrier made of *woron* bark’), (iii) *birrgi-bara* ‘cold weather’ (*birrgil* ‘cold weather’), and (iv) *gaga-bara* ‘big’ (*gagal* ‘big, hard (not soft)’).

In one pair, the form with *-bara* and the one without have opposite meanings: *gonda-bara* ‘sky’, ‘bright (not dark)’ (*gonda* ‘darkness, night’, e.g. (3-18)).

In a number of examples, *-bara* is added to a *cran*-morpheme, e.g. *binyjo-bara* ‘foot’ (Jalngoy ?), *jarri-bara* ‘good’, *jalnyjan-bara* ‘Cashmere Station’, *nyanyja-bara* ‘heavy (of weight)’, and *yanga-bara* ‘long’ (cf. *yanga* ‘mother’).

The suffix *-bara* occurs in Dyirbal (Dixon 1972: 226–228) and Warrgamay (Dixon 1981: 34), indicating ‘comparative’, e.g. *jala-bara* ‘shallower’ of Dyirbal. It occurs in Gugu-Badhun, too, but its meaning is not clear (Sutton 1973: 103–104).

[9] *-baya*

-baya (discussed in 2.4-[4]) is a variant of *-bara*. Examples follow.

(a) *bonbol-bara*, *bonbo-bara* ‘big smoke’ (Jalngoy?), *bonbol-baya* ‘smoke’, *bonbo-baya* ‘smoke’ (Jalngoy?) (*bonbol* ‘smoke’). *-baya* seems to intensify the meaning or derive a Jalngoy word.

(b) *jami-bara*, *jami-baya* ‘fat (not thin)’ (*jami* ‘fat (not meat)’). *-baya* seems to derive an adjective-like noun.

(c) *goli-bara*, *goli-baya* ‘angry’ (*goli* ‘angry’). *-baya* possibly intensifies the meaning.

(d) *gonda-bara* ‘sky’, ‘bright (not dark)’, *gonda-baya* ‘darkness’ (*gonda* ‘darkness, night’). Note that *gonda-bara* and *gonda-baya* appear to have opposite meanings.

At least *bonbol-baya* ‘smoke’ – and possibly a few others as well – occurs in songs only. It is possible, though by no means certain, that words used in songs are more conservative or archaic than those used in ordinary speech. This suggests that *-baya* is the conservative form, and that *-baya* changed into *-bara*, rather than the other way round.

[10] *-jala* 'maniac'

This suffix occurs in only three stems. It describes a human propensity which may be translated 'maniac'. In two stems, it is added to a noun root: *warrngo-jala* 'a man who badly wants a woman' (*warrngo* 'woman'), and *jombi-jala* 'a woman who badly wants a penis, i.e. who badly wants to have intercourse' (*jombi* 'penis'). In the third stem, it is added to a verb root: *goni-jala* 'an aggressive person' (*goni-L* Vt 'fight').

There are a number of examples of *-jala* in which its meaning is not clear, e.g. *jano-jala* 'short' (*jano* 'half, a short man').

Nyawaygi (Dixon 1983: 459) has the noun-stem-forming suffix *-jala* 'very', e.g. *gubi-jala* 'very clever' (*gubi* 'clever').

[11] *-ra* 'agent'

There is only one example, in which *-ra* is added to a verb root: *goni-ra* 'fight-agent', i.e. 'fighter' (*goni-L* Vt 'fight'). *Gonira* is Alf Palmer's uncle's name, and I was given this name (1.5.4.2-[2]). The case inflection of this name is shown in Table 3-3.

-ra 'agent' occurs in Biri: *balga-ra* 'hit-er', i.e. 'policeman' (*balga-* 'hit') (data from Peter Sutton). Its cognate suffix *-rda* occurs in Bidyara and Gungabula, e.g. *gumi-rda~gumi-rda* 'murderer' (*gumi-* 'hit, kill') (Breen 1973: 141, 205, 206). *-ra* and *-rda* exhibit the regular phonological correspondence between /r/ and /d/; see (ii) of Table 1-6.

[12] *-no* '(personal name)'

This suffix occurs in four personal names, being attached to a verb root. Two of them derive from a myth about the gigantic eel Yamani (1.5.3, 1.5.4.2-[1]): (i) *wambi-no* '(man's name)' (*wambi-L* Vi 'rest'), and (ii) *babi-no* '(man's name)' (*babi-L* Vt 'nick'). *Wambi-no* is also Alec Collins' father's name.

The other two names are (iii) *boyba-no* '(woman's name)' (*boyba-* (class unknown, probably L-class) Vt 'hide'), and (iv) *jabi-no* '(man's name)' (*jabi-L* Vt 'stop'). Alf Palmer stated that *Boyba-no* is his aunt's name. Since his father is an Englishman (1.8.4.1-[1]), this aunt must be a maternal aunt. *Jabi-no* is the name of Roderick Palmer, who is Alf Palmer's SS. It is not known if these two names have a mythological origin. According to Atkinson (1979: 36-37), Wambino had a son whose English name is Runaway Harry and whose Aboriginal name is 'Chubino'. Probably this name, too, is Jabino.

In Djaru, different suffixes are used between men's names (*-yarri*) and women's names (*-ngali* or *-ngarri*). In contrast, the Warrongo suffix *-no* is found in men's names and also in a women's name.

Etymologically, the suffix *-no* may be a verbal inflectional suffix. (Note that it is attached to verb roots.) The verbal inflectional suffix *-nu* (i.e. *-no*) is widely attested among Australian languages (Dixon 1980: 385, 389). Dyirbal (which in-

cludes Jirrbal, Girramay and Mamu) has two classes of verbs, i.e. L-class and Y-class, and the unmarked/nonfuture tense suffix is *-n* for L-class, and *-nyu* for Y-class (Dixon 1972: 55). Dixon (1972: 355) postulates that, at some time in the history of Dyirbal, the unmarked/non-future suffix was **-nu* for L-class, and **-nyu* for Y-class.

	L-class	Y-class
	'hit'	'come'
modern Dyirbal	<i>balga-n</i>	<i>bani-nyu</i>
earlier Dyirbal	<i>*balga-nu</i>	<i>*bani-nyu</i>

Modern Warrongo does not have a verbal inflectional suffix *-no*, but it has *-n* 'nonfuture' (for all of L-class, Y-class, and ZERO-class), and the suffix for one of the participles is *-nyo* (i.e. *-nyu*) (Table 3-14). This suggests that (in view of Dixon's internal reconstruction for Dyirbal) the Warrongo non-future *-n* may possibly have been *-no*. The names listed above lend supportive evidence to this reconstruction of the Warrongo **-no*.

The Yamani story (1.5.3) refers to Blunder Swamp, which is certainly in Warrongo territory (Map 3). That is, the Yamani story as narrated by Alf Palmer is a Warrongo story. (Probably it is shared by other groups, such as Jirrbal people.) This indicates that these names are in the Warrongo language. This, too, supports the reconstruction of the Warrongo **-no*. (Furthermore, since the Yamani story may be shared by Dyirbal people, these names may be in the Dyirbal language. This supports Dixon's reconstruction of the Dyirbal **-nu*, too.)

[13] *-monga* 'someone who does X habitually'

This suffix is attached to the form of a verb identical with the nonfuture-2 form, and turns it into a noun. The nonfuture-2 suffix is *-l* for L-class, *-y* for Y-class, and *-Ø* for ZERO-class (Table 3-14).

L-class:	<i>-l-monga</i>
(Y-class:	<i>-y-monga</i>)
ZERO-class:	<i>-Ø-monga</i>

-monga describes habit or inclination: 'someone who does X habitually' It does not seem highly productive. The attested forms are as follows. L-class: (i) *baba-l-monga* 'stinger (e. g. bees)', 'person who is good with a spear' (*baba-L* Vt 'stab, sting'), (ii) *baja-l-monga* 'biter, one who is inclined to bite' (*baja-L* Vt 'bite'), (iii) *jaymyja-l-monga* 'person who likes to have or habitually has intercourse' (*jaymyja-L* Vt 'copulate with'), and (iv) *goyba-l-monga* 'person who tends to give out' (*goyba-L* Vt 'give'). (There is no example of Y-class.) ZERO-class: *wadali-Ø-monga* 'someone who runs habitually' (*wadali-ZERO* Vi 'run'). (*-l* may be regarded as a linking interfix.) Examples follow.

(3-187) (Alf Palmer described a man who works in the bakery and cuts bread.)

bama-Ø gonba-l-monga-Ø. (AP)
 man-NOM cut-*l*-habitual-NOM
 ‘The man [is] a cutter.’

(3-188) *walwa-Ø wobirri-Ø baba-l-monga-Ø.* (AP)
 bad-NOM English.bee-NOM sting.bite-*l*-habitual-NOM
 ‘English bees [are] bad. [They are] stingers.’

(Alf Palmer’s translation is ‘Always bite, stingers’.)

(3-189) *ngona-Ø bama-Ø wadali-Ø-monga-Ø.* (AP)
 that-NOM man-NOM run-ZERO-habitual-NOM
 ‘That man [is] a runner.’

The verb *gonba-L* ‘cut’ is transitive. It takes the ERG-ACC case frame. In contrast, *bama-Ø* in (3-187) is in the nominative, and not the ergative. This clearly shows that *gonba-l-monga* is a noun (nominalized from a verb), and no longer a verb. The same is true of *baba-l-monga* in (3-188).

Now, the transitive verb *goyba-L* ‘give’ has three case frames, and one of them is ‘donor-ERG gift-ACC recipient-DAT’ (4.3.3.2-[1]). There is one example of *goyba-l-monga*.

(3-190) *rayi-wo yinda goyba-l-monga-Ø.* (AP)
 girl-DAT 2SG.NOM give-*l*-habitual-NOM
 Lit. ‘You [are] a habitual giver to a girl.’

Alf Palmer’s translation is ‘Too much give it, give it out, very kind’. It is interesting to note that the ‘recipient-DAT’ (*rayi-wo*) is retained, despite the fact that *goyba-l-monga* is no longer a verb. That is, the nominalization leaves intact one aspect of the syntax of the verb *goyba-L* ‘give’.

In all the examples, forms with *-monga* are used ‘predicatively’, and they occur in the nominative case (-Ø). They are not attested with a non-zero case suffix.

Dyirbal has the suffix *-munga*, which is added to verb stems and indicates ‘someone who habitually or always does X’, and the resultant stems can take a non-zero case suffix (Dixon 1972: 81).

As is common in Australian languages, Warrongo nouns generally do not make a number distinction (1.1, 3.1.2-[2]). But there are a few suffixes that indicate number. They will be discussed in [14], [15] and [16].

[14] *-jarran* ‘two’

This is attested with four noun roots with human referents: (i) *warrngo-jarran* ‘two women’ (*warrngo* ‘woman’), (ii) *rayi-jarran* ‘two teen-age girls’ (*rayi* ‘teen-age girl’), (iii) *jolbon-jarran* ‘two married persons’ (*jolbon* ‘spouse, married person’), and (iv) *yangabara-jarran* ‘two tall persons’ (*yangabara* ‘long, tall’).

Suffixes for 'two' which are the same as, or, similar to, *-jarran* have a very wide distribution on the continent (Capell [1956] 1966: 61–63, Dixon 1972: 90), e.g. *-jarran* 'two' of Dyirbal (Dixon 1972: 228) and Warrongo, and *C-guyarral/V-wuyarra* 'two' of Djaru (Tsunoda 1981a: 233). Clearly, these suffixes are related to the pan-Australian (?) numeral *guyarra* 'two' (Capell 1966: 61).

[15] *-nba, -li* 'many'

These are attested with two noun roots of human referents. (i) 'Many teen age girls' (*rayi* 'teen age girl'): *rayi-nba*, e.g. Text 1, Line 62, *rayi-li*, e.g. (4-147), (4-422), and (ii) *warrngo-nba* 'many women' (*warrngo* 'woman'). (*Rayi, rayi-li* and *rayi-nba* were discussed in (2-65) and (2-66), together with *rayi-wolnyjo* 'good-looking girl'. The meaning of *-wolnyjo* is not known.) It is not known if *goymbinba* 'young man (who has gone through the first stage of initiation?)' contains the suffix *-nba*. (Cf. *goymbirra-yi* 'tribal cicatrices-COM' (only initiated men had tribal cicatrices, on the chest), e.g. (3-173).)

As expected, the forms without any plural suffix can have plural referents 'many', and not just one referent, e.g. (3-65) (*warrngo* 'women'), (4-578) (*rayi* 'teen-age girls').

Dyirbal has the plural suffix *-nba* (Dixon 1972: 241)

There may be a semantic link between duality/plurality and reciprocity (Sutton 1976). Therefore, etymologically *-nba* may consist of *-n* and *-ba* (involving the *n*-insertion; see 2.6-[2]-(b)) and *-ba* may be related to the reciprocal suffix *-wa-Y*. (Recall that Alf Palmer pronounced the forms *-wa-n* 'RECP-NF' as [ban] (2.10.2).) It is relevant to mention the existence of the following verbal reciprocal suffixes: *-ba* in Warrgamay (Dixon 1981: 49, 74–75) and Nyawaygi (Dixon 1983: 489), and *-(n)barri* in Dyirbal (Dixon 1972: 92). See Tsunoda (2007: 1432) for a further discussion.

[16] *-rV* 'dual (?), plural/multiple (?)'

This suffix (mentioned in 2.6-[1]) is attached to noun roots and verb roots, and its vowel copies that of the preceding syllable. There are three examples of nouns: (i) *galbi-ri* '(many?) children', e.g. (3-175) (last H), (3-184), (4-489), (4-566), (*galbin* 'child'; **galbi* is not attested), (ii) *gando-ro* 'many dogs' (dubious) (*gando* 'dog'), and (iii) *bonggo-ro-yi* 'knee-*rV*-COM', i.e. 'on knees' (e.g. (3-158)) (*bonggo* 'knee').

The suffix *-rV* seems to indicate plurality or multiplicity in *galbi-ri* '(many?) children' and *gando-ro* 'many dogs' (dubious), and duality in *bonggo-ro-yi* 'on knees'. In addition, *-ro* may be contained in the adverb *bonggo-lnboro* 'on knees' (3.8.1-[10]).

As expected, *galbin* seems to be used to refer to any number of child/children.

In Warrongo, the only unequivocal plural form of any noun is *galbiri* 'children'. In Japanese, nouns generally do not make a number distinction, e.g. *gakusee* 'a student, students'. But the suffix *-domo* or the suffix *-tati*, both 'plural', can be added to nouns with human referents, e.g. *gakusee-domo* and *gakusee-tati* 'student-

plural', i.e. 'students'. Now, compare *ko* 'a child, children', *ko-domo* 'a child, children', and *ko-domo-tati* 'children' (not 'a child'). This suggests that *-domo* in *ko-domo* 'a child, children' no longer functions as a plural affix, and another plural suffix (*-tati*) is added to mark plurality. That is, etymologically *ko-domo-tati* 'children' contains two plural suffixes. No doubt the double plural-marking in *child-r-en* of English followed the same process. All these suggest the following possibility: if a given language has nouns with plural marking, they will include the noun that refers to 'child'. And if a given language has nouns with double plural-marking, they will include the noun that refers to 'child'.

In Warrongo, there are a few examples in which the plural form *galbiri* may possibly have a singular referent, e.g. (4-567), (4-598). Cf. *ko-domo* 'a child, children' of Japanese.

The status of *gando-ro* 'many dogs' as a bona fide Warrongo word is not certain. Probably it was suggested by me and approved by Alf Palmer. Nonetheless, Alec Collins' data recorded by Peter Sutton yield the following words for 'dog': *gando* (ordinary style) and *gawandoro* (Jalngoy). It is possible – though by no means certain – that this word is phonetically [gawanduɽu] and phonemically /ganduru/. If this is the case, *gando-ro* is a bona fide Warrongo word.

There are four verbs that contain the suffix *-rV* 'all, many'; see 3.11.1.4.

Outside Warrongo, there is one possible example of *-ro*, i.e. *wulgu-ru*. It may possibly mean 'many canoes' (1.5.4.1-[2]-(b)).

[17] *-gan* 'feminine'

This occurs in a fair number of stems, e.g. (i) *yalnggay-ng-gan* 'single woman' (*yalnggay* 'single man'), (ii) *goy-ng-gan* [koiŋgan] 'female ghost, dead woman' (*gowoy* [koi] 'male ghost, dead man') (cf. (2-73)), (iii) *jolbon-gan* 'woman who runs away from her husband' (*jolbon* 'spouse, married person'), and (iv) the names of female members of the four sections (1.5.5). Note that *yalnggay-ng-gan* and *goy-ng-gan* involve *ng*-insertion (2.6-[2]-(c-3)). In addition, the names of female members of the four sections involve *y*-insertion (2.6-[2]-(d)): *-y-ng-gan*.

Other examples of *-gan* 'feminine' (i) *bimo-gan* 'WM' (*bimo* 'FZ, WM') (1.5.7), and (ii) *goyo-gan* 'daughter-in-law'. The meaning of *goyo-* is not known. *Goyo* is not attested elsewhere in the language, apart from *goyo* 'bean, wild grape'.

Warrongo nouns generally lack gender distinction (3.1.2-[3]). The forms involving *-gan* exhibit the only gender distinction in the language.

Compare *mogoynggon* 'term by which to refer to a deceased wife in avoidance of her name' and *mogoyo* 'sister-in-law' (1.5.7). The word *mogoynggon* may be divided as follows: *mogoy-ng-gon*. (Note the insertion of the nasal *ng* (2.6-[2]-(a)). It is not known if this *-gon* is related to the feminine suffix *-gan*.

[18] *-na* 'kin'

This is affixed to vowel-final kin roots. (See 1.5.7 for kin terms.) Most of them are disyllabic. (The only exceptions are the trisyllabic roots *yaboja* 'YB', *woribo* 'son-

in-law', and *yindala* 'woman's daughter (not certain)'). Consonant-final kin nouns (i.e. *gornggal* 'husband' (e.g. (3-140))) never take *-na*.

The affixation of *-na* seems to have no semantic effect. But the forms with *-na* and those without it exhibit the following differences.

(a) Morphologically, the ergative suffix allomorph *-lo* is attested only with three kin nouns with *-na* (3.2.1.2-[2]).

(b) Syntactically, as a general tendency the forms with *-na* seem to lack a 'vocative' use, i.e. they seem unable to be used as address terms.

In terms of the affixation of *-na*, vowel-final kin nouns can be classified into three groups.

Group A: those which optionally take *-na*, and both the forms with *-na* and those without are common.

Group B: those which seem almost always to take *-na*.

Group C: those which seem to never take *-na*.

All of them can be used as reference terms. But there is a restriction on the use of the forms with *-na* as address terms. We shall look at each group.

Group A

Those vowel-final kin roots which optionally take *-na*. Both the forms with *-na* and those without are common e.g. *yanga*, *yanga-na* 'M'; *gaya*, *gaya-na* 'F'; *bimo*, *bimo-na* 'FZ, WM'; *galnga*, *galnga-na* 'MB'; *birgo*, *birgo-na* 'W'; *bolo*, *bolo-na* 'FF (and reciprocal)'; *gami*, *gami-na* 'FM (and reciprocal)'; *ngaji*, *ngaji-na* 'MF (and reciprocal)', and *babi*, *babi-na* 'MM (and reciprocal)'. *Ngaji-na* is not attested (Figures 1-1 and 1-2), but almost certainly it is a bona fide Warrongo word.

At least four (and possibly five) members of this group exhibit an interesting behaviour regarding the allomorphy of the ergative case suffix. The ergative suffix is generally *-nggo* for vowel-final stems. However, it may be *-lo* for at least the following kin nouns with *-na*. (i) *gaya-na-nggo* (e.g. (3-255)), *gaya-na-lo* 'F-KIN-ERG' (e.g. (3-28), (4-38-A), (4-47)), (ii) *yanga-na-nggo*, *yanga-na-lo* 'M-KIN-ERG', (iii) *bimo-na-nggo*, *bimo-na-lo* 'FZ/WM-KIN-ERG', (iv) *gami-na-nggo*, *gami-na-lo* 'FM-KIN-ERG', e.g. (3-191), and also possibly (v) *galnga-na-nggo*, *galnga-na-lo*. The kin nouns without *-na* seem unable to take *-lo*. For example, **gaya-lo* 'F-ERG' was rejected by Alf Palmer. (The behaviour of these kin nouns was discussed in 3.2.1.2-[2]. See also Table 3-3.) It is not known if the ergative *-lo* can be used with any other kin noun with *-na* of this group, or with any kin noun with *-na* of any other group.

(3-191) *gami-na-lo* *nganya* *nyaga-n*. (AP)
 FM-KIN-ERG 1SG.ACC see-NF
 '[My] FM saw me.'

(A-1) Their use as reference terms

(A-1-1) Those with *-na* can be used as reference terms, e.g. (3-64) (*gaya-na-ngga* 'F-KIN-LOC', *yanga-na-ngga* 'M-KIN-LOC'), (3-92) (*galnga-na-Ø* 'MB-KIN-NOM'), (3-139) (*bimo-na-ngomany-ja* 'WM-KIN-ABL-LOC'), (3-156) (*yanga-na-Ø* 'M-KIN-NOM'), (4-60) (*galnga-na-Ø* 'MB-KIN-NOM').

(A-1-2) Those without *-na*, too, can be used as reference terms e.g. (3-122) (*gaya-Ø* 'F-NOM'), (3-193) (*yanga-Ø* 'M-ACC', *gaya-Ø* 'F-ACC', *galnga-Ø* 'MB-ACC'), (4-1013) (*birgo-Ø* 'wife-NOM').

(A-2) Their use as address terms

(A-2-1) Those forms with *-na* are not attested as address terms. It is not known if this is due to the incompleteness of the data or a meaningful gap in the data.

(A-2-2) Those without *-na* can be used as address terms; they occur in the nominative case. Examples include (2-135) (*yanga-Ø* 'M-NOM'), (2-136) (*galnga-Ø* 'MB-NOM'), (3-196) (*gaya-Ø* 'F-NOM', *yanga-Ø* 'M-NOM'), (3-192) (*gaya-Ø* 'F-NOM'), (3-197) (*bimo-Ø* 'FZ-NOM'), (4-1008-A) (*gaya-Ø* 'F-NOM'), Text 3, Line 3 (*galnga-Ø* 'MB-NOM').

Group B

Those vowel-final kin roots which seem almost always to take *-na*, e.g. *mogi-na* 'EB', *barri-na* 'YZ', *jorga-na* 'EZ', *yaboja-na* 'YB', *jowa-na* ('woman's S, (man's sister's) S' (*Jowa-na* was translated as 'nephew' by Alf Palmer.) There is one exception: *jowa-Ø* 'nephew-NOM' used as an address term; see (3-194) and (3-195).

(B-1) Their use as reference terms

(B-1-1) Those forms with *-na* can be used as reference terms, e.g. (3-92), (3-193), (4-60) (*jowa-na-Ø* 'nephew-KIN-NOM or -ACC').

(B-1-2) Those without *-na* are not attested as address terms. It is not known if this is due to the incompleteness of the data or a meaningful gap in the data.

(B-2) Their use as address terms

(B-2-1) Those forms with *-na* seem to be able to be used as address terms, but there is only one example: (3-198) (cited from a text) (*jowa-na-Ø* 'nephew-KIN-NOM').

(B-2-2) Those forms without *-na* seem to occur in the nominative only and to be used as address terms only. But there are only two examples (given during a discussion): (3-194) and (3-195) (*jowa-Ø* 'nephew-NOM').

Group C

Those vowel-final kin roots which seem never to take *-na*: *bolgo* ‘YZ, EZ’, *woribo* ‘son-in-law’, *yindala* ‘(woman’s) D (not certain)’. The information on them is limited, but presumably they can be used as reference terms and as address terms.

Additional examples and comments on them follow.

- (3-192) (An example cited from a text. ‘I asked my father, “Where is she from?”’)

yinda *jilbay-Ø* (fall) *gaya-Ø?* (AP)
 2SG.NOM knowing-NOM father-NOM
 ‘Do you know [her], Dad?’

- (3-193) (An example cited from a text. A man says to a woman, ‘I took you to see your mother and father. So, this time:’)

ngaya *baya~baya* *yina* *ganyji-lgo* *ngaygo*
 1SG.ERG in.turn~in.turn 2SG.ACC carry-PURP 1SG.GEN
yanga-Ø *nyaga-lgo* *gaya-Ø* *galnga-Ø* *jowa-na-Ø* (AP)
 mother-ACC see-PURP father-ACC uncle-ACC nephew-KIN-ACC
 ‘In return, I will take you so that [you] will see my mother, father, uncle and nephew.’

(This sentence is an instance of purposive subordination ‘so that may’ (4.8).) Note that in (3-193) *jowa-na-Ø* ‘nephew-KIN’ (Group B) has *-na*, but the other kin nouns, i.e. *yanga* ‘M’, *gaya* ‘F’ and *galnga* ‘MB’ (Group A) do not. Upon playing the tape, I asked Alf Palmer if *jowa*, without *-na*, could be used here, and he stated to the effect that *jowa*, without *-na*, could only be used to address someone, and gave the following examples.

- (3-194) *jowa-Ø!* (AP)
 nephew-NOM
 ‘Nephew!’

- (3-195) *jowa, yarro-wo yani-ya!* (AP)
 nephew this-DAT come-IMP
 ‘Come here, nephew!’

Alf Palmer’s comment just cited indicates that *jowa*, without *-na*, can only be used as an address term, and not as a reference term. (But there are only two examples.) Alf Palmer added the following sentence.

- (3-196) *gaya-Ø!* *yanga-Ø!* (AP)
 father-NOM mother-NOM
 ‘Father! Mother!’

On another occasion, Alf Palmer stated to the effect that *bimo* 'FZ, WM', without *-na*, can be used as an address term only, and he gave:

- (3-197) *bimo-Ø*. (AP)
 FZ,WM-NOM
 'Aunt!'

(Note that (3-197) would not be used to address a man's WM, for they are in a taboo relationship to each other (1.6.1).) As these examples show, *gaya* 'F' (without *-na*), *yanga* 'M' (without *-na*) and *bimo* (without *-na*) (all Group A) can be used as address terms. (They can also be used as reference terms, as seen in (A-2-1).)

There is only one example in which *jowa-na* (which contains *-na*) is used as an address term:

- (3-198) (An example from a text. A man came and called out.)
jowa-na-Ø [ei]. (AP)
 nephew-KIN-NOM hey
 'Hey, [my] nephew!'

[19] *-nyjarr* 'kin'

This suffix is exceptional and truly intriguing and. First, it is attested with only two of the kin roots.

gami, *gami-nyjarr*, both 'FM and reciprocal'.
babi, *babi-nyjarr*, both 'MM and reciprocal'.

Both of them refer to a grandmother, but not a grandfather. *-nyjarr* is not attested with any other kin terms, such as *bolo* 'FF and reciprocal' or *ngaji* 'MF and reciprocal'. Thus, kin nouns such as *bolo-nyjarr* and *ngaji-nyjarr* do not seem to exist.

Second, *gami-nyjarr* and *babi-nyjarr* decline irregularly (Table 3-4). I note in passing that Alf Palmer gave another form, which declines regularly, like other vowel-final stems (Table 3-2), i.e. *gami-nyja* (without the suffix-final *rr*) in:

- (3-199) *gami-nyja-wo ngaya gamo-Ø goyba-n*. (AP)
 FM-KIN-DAT 1SG-ERG water-ACC give-NF
 'I gave water to [my] FM.'

The meaning of *-nyjarr* is not known for certain. Both *gami* and *gami-nyjarr*, for example, seem to mean 'FM and reciprocal'. Alf Palmer stated to the effect that the forms with *-nyjarr* and those without have the same meaning and that those with *-nyjarr* are of the avoidance style, Jalngoy (1.6.1).

Kin suffixes that have a shape similar to *-nyjarr* are widely distributed on the continent (Breen 1976: 294 and McConvell 2008). Indeed, the very suffix *-nyjarr*

occurs in Wanyjirra of Northern Territory (my data). The situation is truly intriguing, in terms of distribution and meaning.

Regarding distribution, *-nyjarr* occurs with *gami* only, i.e. only *gami-nyjarr* occurs. (This form is exactly the same as the Warrongo *gami-nyjarr*.) And it occurred only once (in a text). Affixation of *-nyjarr* to other kin roots was rejected by two Wanyjirra speakers: Maggie Scott and Dolly. Furthermore, *gami* does not, and cannot, occur without *-nyjarr*. (In Warrongo, *gami* 'FM' and *babi* 'MM' can occur without *-nyjarr*, e.g. *gami-ngga* 'FM-LOC'.)

Concerning meaning, the Wanyjirra *gami-nyjarr* means 'a woman's daughter's child'. Unlike other terms for grandparents/grandchildren, it does not have the corresponding 'reciprocal' meaning, that is, it cannot mean 'MM'. This is despite the fact that McConvell refers to *-nyjarr* as 'kin reciprocal'. (Wanyjirra has the word *jaja* 'MM and reciprocal'. It has a reciprocal meaning.)

[20] *-warray* 'many, each one's' (kin)

This is affixed to five kin roots and one kin stem with *-na*. (The roots involved are vowel-final.) It is translated by Alf Palmer using 'many', 'plenty of', or 'each one's'. The resultant stems decline like *banggay* 'spear' (NY-group), not like *yalnggay* 'single man' (Y-group); see Table 3.2. The attested forms are the following, accompanied by my tentative glosses based on Alf Palmer's.

gaya 'F', *gaya-warray* 'many *gaya*'

galnga 'MB', *galnga-warray* 'many *galnga*'.

bimo 'FZ, WM', *bimo-warray* 'many *bimo*'.

birgo 'W', *birgo-warray* 'each one's wife'.

gami 'FM and reciprocal', *gami-warray* 'many *gami*, each one's *gami*'

bolo 'FF and reciprocal', *bolo-na-warray* 'many (not certain)/each one's (not certain) *bolo*'

[21] *-goway* 'all my, lots of' (kin)

This is suffixed to five kin roots and one kin stem with *-na*. (Again the roots involved are vowel-final.) It is translated 'all my' or 'lots of' by Alf Palmer. The attested forms are the following, accompanied by my tentative glosses based on Alf Palmer's.

yanga 'M', *yanga-goway* 'lots of *yanga*'

galnga 'MB', *galnga-goway* 'all my *galnga*'

bolo 'FF and reciprocal', *bolo-goway* 'all my *bolo*'

ngaji 'FM and reciprocal', *ngaji-goway* 'all my *ngaji*, lots of *ngaji*'

babi 'MM and reciprocal', *babi-goway* 'all my *babi*'

jowa-na '(woman's) S', *jowa-na-goway* 'all my *jowana*'.

(The root *jowa* seems to always take *-na* ([18]).)

It is not known if the resultant stems decline like *yalggay* 'single man' or *banggay* 'spear' (Table 3-2). But a dative form is attested: *ngaji-goway-ng-go* 'MF-goway-ng-DAT'. Note the presence of *-ng-*. This suggests that these stems decline like *banggay*. Recall that, for the dative, *banggay* has two forms (*banggay-ng-go* and *banggay-go*), but *yalnggay* has only one form (*yalnggay-go*).

This may be due to the incompleteness of the data, but in terms of the roots/stems to which they are attached, *-goway* and *-warray* exhibit a complementary distribution, except that *galnga* 'MB' is attested with both.

[22] *-giri* 'with, having' (?)

Warrgamay has the noun-stem-forming suffix *-girri* 'with', 'comitative' (Dixon 1981: 32), and Nyawaygi has *-gi* 'comitative' (Dixon 1983: 457). (Etymologically, these Warrgamay and Nyawaygi suffixes may be related to the Warrongo suffix *-ji/-yi* 'the comitative case'. See Dixon (1976b) and Eades (1976) for the possible connection between them.)

The suffix *-giri* (not *-girri*) is attested in four words of Alf Palmer's Warrongo. It is not certain if they are Warrongo words. *-giri* would be expected to mean 'with' or 'having', but its meaning is not clear.

(a) [ɲawagjuɲi], tentatively /ɲawagiɲi/ <nyawagiri> 'the Nyawaygi language'. This word was discussed in 1.8.4.1-[2].

(b) *Mandagiri* 'a place in the Warrgamay country' Alf Palmer said that this is the Warrongo name of that place. Also, he said that *mandagirr* (not *mandagirri*) is the Warrgamay name of *mandagiri*. Its locative form is *mandagirr-a*, and this conforms to Warrgamay morphology; see Dixon (1981: 29). Warrgamay has *manda* 'penis' (Dixon 1981: 118). Therefore *mandagiri* and *mandagirr* may possibly mean '[a place] with a penis'.

(c) *Ngalwagiri* 'Abergowrie' Abergowrie is in Warrgamay territory (see 1.4.1 and Dixon 1981: xxiv). Dixon (1981: 119) lists *ngalwagirri* 'Abergowrie' (not *ngalwagiri*), but the meaning of *ngalwa* is not known.

(d) *Wangalgiri*. Alf Palmer gave three glosses: (i) the Warrongo name of *wangalgirra* (a Warrgamay name?), which is about 1.5 miles from Cashmere on Herbert River, where the river runs in a boomerang-shape (this appears to be in Warrongo territory), (ii) place near Abergowrie, called [jelawatalu:] (Yellow Waterloo (?)) (this appears to be in Warrgamay territory), and (iii) a boomerang-shaped gut. Warrgamay (Dixon 1981: 120) and Warrongo have *wangal* 'boomerang'. *Wangalgiri* may mean '[a place] with a boomerang'. If *mandagirr* is a Warrgamay name, then *wangalgirra*, too, will be a Warrgamay name (in the locative?). *Wangalgirra* may mean '[a place] with a boomerang'.

3.7.2. Reduplication

Reduplication involves a repetition of the form ‘X’, resulting in ‘XX’. All the attested instances involve full reduplication, and there is no instance of partial reduplication. (Reduplication is shown by means of a tilde; see List of abbreviations and symbols.) Reduplication to form noun stems is of three types: (i) reduplication of a noun root (this is fairly productive), (ii) that of a noun with a case suffix (there is only one example: *gobi-yi~gobi-yi* ‘native doctor-COM-native doctor-COM’ in [5] below), and (iii) that of a verb root with a stem-form (there are a fair number of examples). We shall look at (i) and (ii) in the following. For (iii), see 3.11.1.6-[5] and 3.11.1.7-[4].

My Warrongo data contains just one instance in which reduplication occurs twice, that is, the resultant word has the form ‘XXX’: *garmboymo~garmboymo~garmboymo* ‘grandfather’s grandfather’s grandfather’s grandfather’ (Alf Palmer’s gloss; in this gloss, the word ‘grandfather’ is used four times). As noted in 2.2.3.3, this word has nine syllables, and it is the longest word that is attested in my Warrongo data. See 3.8.1-[4] for its meaning.

Reduplication appears to have a few functions, as shown below.

[1] Reduplicated stems may have a plural meaning, often indicating ‘many’, e.g., (i) *jolbon* ‘married person’, *jolbon~jolbon* ‘(many) married persons’, and (ii) *goman* ‘different’, *goman~goman* ‘(many) different ones’.

Reduplicated stems such as the following were translated by Alf Palmer by means of English adjectives, e.g. (i) *woma* ‘shade’, *woma~woma* ‘shady’, (ii) *mirgan* ‘hill’, *mirgan~mirgan* ‘hilly’, e.g. (3-45), (3-182-c), (iii) *jorra* ‘cloud’, *jorra~jorra* ‘cloudy’, (iv) *ngorrmbon* ‘noise (in particular, undesirable noise)’, *ngorrmbon~ngorrmbon* ‘noisy’. These reduplicated stems clearly have the meaning of ‘many’, and *mirgan~mirgan*, for example, can be said to mean ‘many hills’.

[2] Some of the reduplicated stems seem to have an intensified meaning, e.g., (i) *gamo* ‘water’, *gamo~gamo* ‘grog’ (perhaps ‘strong water’), e.g. (4-399), and (ii) *yigarra* ‘freshwater shrimp’, *yigarra~yigarra* ‘scorpion’ (perhaps ‘strong freshwater shrimp’). (No doubt, *gamo~gamo* was coined employing the existing word *gamo* ‘water’, in order to describe a new item that was introduced into the Aboriginal society. Gugu-Badhun has *gamu~gamu* ‘rum’ (Sutton 1973: 101), and Kuku Yalanji has *gamu~gamu* ‘alcohol’ (Patz 2002: 54).)

[3] This may be due to the incompleteness of the data, but at least about five (and possibly more) adjective-like nouns that describe manner, e.g. *ngarrban* ‘fast, quick’, exhibit an interesting behaviour regarding reduplication.

First, the reduplicated forms of these nouns are not attested with any non-zero case suffix. For example, *ngarrban~ngarrban-do* ‘fast-fast-ERG’ is not attested. In contrast, the non-reduplicated forms can be combined with a non-zero case suffix, e.g. *ngarrban-do* ‘fast-ERG’

Second, the reduplicated forms are attested in intransitive clauses only, and they are not attested in transitive clauses. In contrast, the non-reduplicated forms are attested in both intransitive and transitive clauses. (Some (though not all) of the derived clauses, e.g. antipassive (4.9), reflexive/middle (4.11) and reciprocal (4.12), are derived from transitive clauses and they are ‘surface-intransitive’. See 4.3.2 for the dichotomy of basic and derived clauses.) The distribution of the relevant attested instances is as follows.

(a) Non-reduplicated forms (e.g. *ngarrban*) are attested in:

(a-1) intransitive clauses:

(a-1-1) basic clauses, cf. (3-19);

(a-1-2) derived clauses, such as the antipassive clauses, and;

(a-2) transitive clauses, e.g. (3-40), (3-200), cf. (3-20).

(b) Reduplicated forms (e.g. *ngarrban-ngarrban*) are attested:

(b-1) in intransitive clauses ONLY:

(b-1-1) basic clauses, e.g. (3-201);

(b-1-2) derived clauses, such as antipassive clauses, e.g. (3-202), but;

(b-2) NOT in transitive clauses.

(3-200) *ngarrban-do yinda bija-Ø gamo-Ø*. (AP)
 quick-ERG 2SG.ERG drink-IMP water-ACC
 ‘Drink water quickly.’

(3-201) *ngarrban-ngarrban-Ø jomoboro-Ø yani-Ø wadali-n*. (AP)
 fast-fast-NOM cattle-NOM go-NF run-NF
 ‘The cattle are running fast.’

(3-202) *ngarrban-ngarrban-Ø yinda bija-gali-ya*. (AP)
 fast-fast-NOM 2SS.NOM drink-ANTIP-IMP
 ‘Drink (it) quickly.’

(3-19) is a basic intransitive clause. (It literally means ‘The fast/quick man ran’.)

(3-20) is a transitive clause. (It literally means ‘The fast/quick man drank water’)

Note that *ngarrban* is in the ergative case. Similarly for (3-40) and (3-200).) (3-201) is a basic intransitive clause, while (3-292) is an instance of the antipassive construction (‘surface-intransitive’).

Other adjective-like nouns that appear to behave like the pair of *ngarrban* ‘fast, quick’ and *ngarrban-ngarrban* include the following.

yoray ‘quiet’, e.g. (3-203) (basic intransitive), *yoray-yoray*, e.g. Text 1, Line 42 (basic intransitive). A transitive clause similar to (3-204) was approved by Alf Palmer.

yaja ‘slow, for a while’, e.g. (3-205) (basic intransitive), (3-206) (transitive), *yaja-yaja*.

mori, mori~mori ‘greedy’, e.g. (3-207) (derived intransitive).

nyorrngo, nyorrngo~nyorrngo ‘busy, not looking’, e.g. (3-208) (basic intransitive).

(3-203) *ngali-Ø nyina-n yoray-Ø*. (AP)

1DU-NOM sit-NF quiet-NOM

‘We sat quiet.’

(3-204) *bama-nggo yoray-jo gamo-Ø bija-n*. (TT)

man-ERG quiet-ERG water-ACC drink-NF

‘The man drank water quietly.’

(3-205) *ngali-Ø yaja-Ø jana-ya*. (AP)

1DU-NOM for.a.while-NOM stand-IMP

‘Let’s wait (lit. stand) for a while.’

(3-206) (Unfortunately, the full sentence was not recorded. The words added by me are indicated by ‘TT’)

yaja-nggo [TT *yinda nganya mayga-Ø*] (AP)

slow-ERG 2SG.ERG 1SG.ACC tell-IMP

‘[Tell me] slowly; take time.’

(3-207) *mori~mori-Ø nyawa goyba-gali-n*. (AP)

greedy~greedy-NOM NEG give-ANTIP-NF

‘[That] greedy [man] does not give [anything].’

(3-208) (‘A man was approaching to stab me, but I was not aware of it.’)

ngaya nyorrngo~nyorrngo-Ø nyina-n woma-ngga. (AP)

1SG.NOM not-looking~not-looking-NOM sit-NF shade-LOC

‘I was sitting in the shade, not looking.’

As seen in 3.5.3, there are nouns that seem not to take any non-zero case suffix. That is, they may be said to always have a zero case suffix. They are attested in the predicative use only (and not in the attributive use), and they are assigned to the nominative case (and not the accusative case). (Recall that, with most of the nouns, the nominative and the accusative cases have a zero suffix. See Table 3-2, in particular.) The reduplicated forms discussed above, are likewise assigned to the nominative case (and not the accusative case). However, they are attested in the attributive use (and not in the predicative use).

In contrast with the reduplicated adjective-like nouns discussed above, adverbs are attested not only in intransitive clauses, but also in transitive clauses, irrespective of whether or not they are reduplicated, e.g. *baya* and *baya~baya* ‘in return, in revenge’ Examples include (3-217) and (3-218); both of them are transitive clauses and contain *baya~baya*. Furthermore, there are adverbs that are formed by reduplicating a noun, e.g. *nyon.gol~nyon.gol* ‘one~one’, i.e. ‘one by one, one for each, one after another’ They, too, can be used not only in intransitive, but also in transitive clauses. See (3-219) and (3-320).

[4] There are possibly instances of reduplication that indicates ‘addition’, i.e. ‘X and X’ or ‘X plus X’; see 3.7.3-[1].

[5] There are many instances in which the function of reduplication is not known. For example, compare *gobi* ‘native doctor’, *gobi-yi*, and the reduplication of the latter *gobi-yi~gobi-yi*. The semantic difference among these words, if there is any, is not known. (*Gobi-yi* appears to involve the comitative suffix *-yi* (3.6.8). That is, *gobi-yi~gobi-yi* appears to be a reduplication of a noun with a case suffix and it is the only such example.)

[6] There are many nouns that appear to exist in the reduplicated form only, e.g. (i) *balja~balja* ‘corpse from which the flesh has been cut off and in which only the bones are left’ (song word?), (ii) *goyi~goyi* ‘wrinkle’, (iii) *jalam~jalam* ‘big waves, wavy’, and (iv) *jimi~jimi* ‘fighting stick or club with a round head’. Many of them refer to fauna, flora, or places, e.g. (v) *bariny~bariny* ‘sparrow hawk’, (vi) *jigirr~jigirr* ‘willy wagtail’ (bird sp.) (discussed in 2.12), ‘a place on upper Herbert River’, (vii) *jowal~jowal* ‘big locust’, (viii) *raga~raga* ‘forest ti-tree’ (cf. (4-900) (second B)), (ix) *balgo~balgo* ‘grass hat’ (Jalngoy?), e.g. (4-590), (x) *bogon~bogon* ‘Spring Water Creek (on Herbert River in Wairuna area)’, (xi) *joda~joda* ‘a bushy country on Herbert River’

Consider the following set: *barro~barro* ‘bent’, *barro~barro-bi-L* Vi ‘bend, become bent’, *barro~barro-nga-L* Vt ‘bend’, and *barro~nga-L* Vt ‘bend’. The root *barro* can be set up, but it does not seem to be used by itself.

There is occasionally a root that is identical to the root that exists in the reduplicated form only, but it is not certain if they are related etymologically. For example: (i) *bariny~bariny* ‘sparrow hawk’ and *bariny* (noun) ‘to dodge’, e.g. (3-21)), (ii) *balgo~balgo* ‘grass hat’ and *balgo* ‘stone axe’ (not Warrongo?), and (iii) *joda~joda* ‘a bushy country on Herbert River’ and *joda* ‘big-sized dilly bag’.

[7] In the majority of examples, a disyllabic root is reduplicated. At least in two instances, a monosyllable is reduplicated: (i) *ngon~ngon* ‘milk’, and (ii) *goy~goy* ‘mosquito’. The roots *ngon* and *goy* can be set up. As noted in 2.2.3.1-[1], monosyllabic roots are exceptional in Warrongo.

There are adverbs that are formed by reduplicating a noun root. See 3.8.2-[2]. Stress in reduplicated words was discussed in 2.7-[3].

3.7.3. Compounding

Compounding involves two different roots, i.e. ‘XY’. They are of the following types. The first member is always a noun. (‘Noun’ refers to a ‘noun proper’, ‘Adjective’ to an ‘adjective-like noun’ (3.1.1), and ‘Numeral’ to a numeral (a type of noun) (3.1.2-[3]).)

[1] No verb is involved: Noun-Noun, Noun-Adjective, Noun-Numeral, Numeral-Numeral, Noun-Adverb.

[2] The second member is a verb: Noun-Verb.

Noun-Noun and Noun-Adjective are the most common, and also there are a fair number of examples of Noun-Verb. The relative order of the members within a compound noun may be taken to reflect the ‘underlying’ word order. See 4.6.1.

Compounds have one single intonation contour, and each of them can be regarded as one phonological word. Stress in compound words was discussed in 2.7-[4].

[1] Noun-Noun, Noun-Adjective, Noun-Numeral, Numeral-Numeral, and Noun-Adverb

The meaning of a given compound noun can be generally deduced from the meanings of its constituents, e.g. *jolay-nyon.gol* ‘tree-one’, i.e. ‘One Tree Plain’ (a place on Herbert River) (1.5.4.3-[6]). (This is an instance of Noun-Numeral).

However, when used in compounds, the words listed in Table 3-12 have – generally, though not always – a different meaning from that they have when they are used by themselves. In compounds, *mara* ‘hand’ may have time reference: ‘day’ or ‘week’. Presumably, the concept of week did not exist in the pre-contact days, and it was introduced after contact. There is also *mara=goli* ‘the next day, tomorrow’ =*goli* is an enclitic and it means ‘only’ See 4.25-[3]. (All of these nouns except for *garri* ‘sun, daytime’ are attested in the formation of adverbs by means of compounding; see 3.8.3.)

Table 3-12. Meanings of nouns when used in compounds

	when used by themselves	when used in compounds
<i>mara</i>	‘hand’	‘person, day, week’
<i>garri</i>	‘sun, daytime’	‘day’
<i>gonda</i>	‘darkness, nighttime’	‘night’
<i>balano</i>	‘moon’	‘month’
<i>woga</i>	‘asleep, sleep’	‘day, night’

Among the nouns listed in Table 3-12, *mara* ‘hand’ is the most frequently used in compounding, e.g. (i) *mara-minya* ‘hand-game’, i.e. ‘hunter’, (ii) *mara-gona* ‘hand-faeces’, i.e. ‘lazy person’, (iii) *mara-nganyi* ‘hand-face’, i.e. ‘person who is very swift when fighting’, (iv) *mara-garo* ‘hand-all the people’, i.e. ‘all the people’, (v) *mara-jalan* ‘hand-greedy’, i.e. ‘greedy person’, and (vi) *mara-ngarra* ‘hand-high/up (Adv)’, i.e. ‘leader’, e.g. Text 3, Line 15. (*Mara-ngarra* ‘leader’ is the only instance in which the second member is an adverb: *ngarra* ‘high/up’ (Adv).) (Kuku Yalanji has similar compounds (Patz 2002: 59–61).) There is just one example in which *mara* ‘hand’ without compounding seems to mean ‘person’. See (3-197).

The use of the word for ‘hand’ in Warrongo and Kuku Yalanji to refer to certain types of people is reminiscent of (i) *farm hands* of English, and (ii) *ka-syu*

'song-hand', i.e. 'singer', and *kik-i-te* 'listen-INFINITIVE-hand', i.e. 'listener', of Japanese. The hand is probably considered representative of all the acts by humans, including those by the mouth, e.g. singing, and those by the ear, e.g. listening.

Examples of nouns other than *marā* 'hand', and also an example of *marā*, are given below.

There are many compound nouns whose second member is the noun *goman* 'other, another, different', e.g., (i) *bama-goman* 'man-', i.e. 'different men', e.g. Text 1, Line 5, (ii) *warrngo-goman* 'woman-', e.g. (4-822), (iii) *gogo-goman* 'language-', i.e. 'different languages', e.g. Text 1, Line 6, (iv) *raba-goman* 'fork-', i.e. 'another fork-shaped branch', (v) *gaya-goman* 'father-', i.e. 'step-father', (vi) *yalga-goman* 'road-', e.g. (3-209), (vii) *garri-goman* 'sun-', i.e. 'a couple of day's time', (viii) *gonda-goman* 'nighttime-', i.e. 'the daytime of the day after', (ix) *marā-goman-da* 'hand-another-LOC' (always in the locative?) 'a couple of days ago', and (x) *woga-goman* 'asleep-', i.e. 'the next day (not necessarily tomorrow), the day after tomorrow' (Recall that, in the analysis adopted (3.4.3), nouns cannot indicate 'at, in, on, etc.' or 'to' without a case suffix, but adverbs can.)

The noun *goman* 'another, etc.' is attested with the interrogative *ngani* 'what', and the demonstratives *yarro* 'this' and *ngona* 'that': *ngani-goman* 'what else', *yarro-goman* 'this another one', and *ngona-goman* 'that another one', e.g. (3-209).

(3-209) ('We kept travelling.')

ngona-goman-da ngali-Ø wona-n yalga-goman-da.
that,there-other-LOC IDU-NOM sleep-NF road-other-LOC
'We slept on that, another road.'

There is a noun *jida-da-goman* 'morning-LOC-another', 'the next morning (in the last)'. The first root is *jidal* 'morning', but as mentioned in 3.2.1.1, *jida-da* is probably reanalyzed as a root, no longer functioning as a locative form.

A reduplicated form can be further compounded, resulting in 'XYY' (There is no example of 'XXY'.) This generally involves *goman* 'another, different, etc.', e.g., (i) *balano-goman-goman-go* 'moon-another~another-DAT', i.e. 'month after month', (ii) *yamba-goman-goman-da* 'camp-another~another-LOC', i.e. 'in different camps', and (iii) *gogo-goman-goman* 'language-another~another', i.e. '[many] different languages' in Text 1, Line 2.

In the examples of compounding given above, generally the first constituent is modified by the second constituent (and also by the third, if there is one). But there are two types of deviation from this general pattern.

Deviation-1: 'addition'

As mentioned in 3.1.2-[3], when requested to translate 'four', Alf Palmer gave *bolari~bolari* 'two-two' (discussed in (2-105)), and also its variants *bolaro~bolaro* and *bolayi~bolayi*. Similarly, for 'five', he gave *bolayi-gorrbara* 'two-three' and *gorrbara-bolaro* 'three-two'. (*Bolari* and *gorrbara* can each be used by them-

selves, but *bolayi* and *bolaro* do not seem to be.) It is not certain if they are traditional Warrongo numerals. Furthermore, each of them may possibly be a phrase, and not a compound word. Nonetheless, if they are traditional Warrongo words at all, then they are instances of 'addition'. That is, *bolari~bolari*, *bolaro~bolaro* and *bolayi~bolayi* 'two-two' are the only instances of reduplication that indicates addition, i.e. 'X and X' or 'X plus X'. *Bolayi-gorrbara* 'two-three' and *gorrbara-bolaro* 'three-two' are the only instances of compounding that indicates addition, i.e. 'X and Y' or 'X plus Y'.

There is no example of a compound noun that indicates 'X or Y'

Deviation-2: 'possessive compound'

The only example is *mara-yigarra* 'scorpion' (*mara* 'hand', *yigarra* 'freshwater shrimp'). This word does not mean just 'freshwater shrimp's hands'. Rather, it seems to mean 'something that has a freshwater shrimp's hands, or, something that has hands like a freshwater shrimp's'. That is, it seems to mean 'something that has Y's X, or, something that has X like Y's'. (Here, 'X' refers to the first member of the compound noun, and the 'Y' to its second member.) *Mara-yigarra* resembles the majority of compound nouns in that the second member modifies the first. But it differs in that the entire compound has the additional meaning of 'something that has ...'. That is, *mara-yigarra* is reminiscent of what is called 'possessive compound' in Sanskrit grammar (Iwamoto [1965] 1966: 93-94).

There are instances in which the effect of compounding is not known. For example, compare (i) *balgara* and *gaja-balgara* both 'full (e.g. basket)', and (ii) *jimi~jimi* and *gaja-jimi~jimi* both 'fighting stick'. The semantic difference in each pair, if there is any, is not known. There is the noun *gaja* 'head'. But it is not certain if this noun is involved in these compounds.

[2] Instances in which the second member is a verb: Noun-Verb

These are names of places and those of animates (a bird and an insect).

(a) Placenames. There are five placenames that have the form of a clause: (1-1) (a transitive clause: AVO), and (1-2) through (1-7) (intransitive clauses: SV). The name for 'Turtle Jump' has three variants, and one of them, i.e. (1-5), is attested in the locative case, too (3.2.1.1).

(b) Names of animates. There are two such nouns. Alf Palmer gave (3-210) (OV) for 'rifle-bird', and (3-211) (OV) for 'cricket (of green type)'. These names can be analyzed as follows.

(3-210) *gima-Ø yorrmbi-lga.* (AP)
 grub-ACC suck-APPR

Tentative translation: '[A rifle-bird] sucks a grub.'

- (3-211) *ganyo-Ø* *babi-lga*. (AP)
 round.yam-ACC nick-APPR
 Tentative translation: '[A cricket] nicks a yam.'

To be more precise, *gima* refers to a stage of the growth of a grub in which it starts having wings, in a cocoon. Alf Palmer stated that a rifle-bird sucks the inside of *gima*. But it is not known if a cricket nicks yams.

Note that the verbs in (3-210) and (3-211) involve the apprehensional suffix ('APPR'). The apprehensional generally indicates that something – often unpleasant – might happen (3.10.11). But it seems to describe a habit, inclination or the like in (3-210) and (3-211).

These clause-like placenames, and also the names in (3-210) and (3-211) differ from other noun stems in that they resemble a clause or part of a clause. Nonetheless, each of them was pronounced by Alf Palmer with one intonation contour, with no clear pause, and at least one of them is attested with a case suffix (i.e. the locative suffix). In these respects, they behave like usual stems.

3.8. Adverb morphology (2): derivation

Derivation of adverbs will be described in terms of affixation of adverb-forming suffixes (3.8.1), reduplication (3.8.2), and compounding (3.8.3).

3.8.1. Adverb-stem-forming suffixes

There are a number of suffixes that form adverbs. Most of them are affixed to adverb roots, the latter which can be used as adverbs by themselves, i.e. without any adverb-forming suffix. In a few instances, such suffixes are attested with demonstratives, the interrogative word *ngani* 'what', numerals, etc.

[1] *-rri* and *-rro* are suffixed to the interrogative *wanyja* 'where at/in': *wanyja-rri* 'which way' (direction), e.g. (3-32), 'how' (manner), 'why' (reason)', *wanyja-rro* 'where to'.

Wanyja 'where at/in' can take a case suffix (Table 3-7), but *wanyja-rri* and *wanyja-rro* are not attested with any case suffix.

Wanyja-rro 'where-to' occurs in Alec Collins' data.

[2] *-ngal* 'to, towards' (direction) is suffixed to the following.

(a) Three adverbs for cardinal directions: (i) *gonggarri-ngal* 'to north', e.g. Text 1, Line 13 (*gonggarri* 'in or to north'), (ii) *golbila-ngal* 'to south' (*golbila* 'in or to south'), and (iii) *gowa-ngal* 'to west' (*gowa* 'in or to west'). There is *wanggarri* 'in or to east' *Wanggarri-ngal* 'to east' is not attested, but it is almost certainly a bona fide Warrongo word.

(b) A few other adverbs of place, e.g., (i) *ngarra-ngal* ‘to high, upwards’ (*ngarra* ‘at or to high, above’), (ii) *gola-ngal* ‘to upstream’ (*gola* ‘at or to upstream’), (iii) *bada-ngal* ‘to downstream’ (*bada* ‘at or to downstream’), and (iv) *goyay-ngal* ‘to across’, e.g. (3-157), (3-291), (4-607-a) (*goyay* ‘at or to across [a river or the sea]’). There is *nyarrga* ‘at or to down’. *Nyarrga-ngal* ‘to down, downwards’ is not attested, but it is almost certainly a bona fide Warrongo word.

(c) The interrogative adverb *wanyja* ‘where at/in’, *wanyja-rrri* ‘which way, etc.’, and *wanyja-rro* ‘where to’: (i) *wanyja-ngal* ‘where to’, e.g. (3-235-A), (ii) *wanyja-rrri-ngal* ‘which way, where to’, and (iii) *wanyja-rro-ngal* ‘where to’. The adverbs that contain *-ngal* do not seem to take any case suffix.

(d) The demonstrative *yarro* ‘this, here’: *yarro-ngal* ‘to this way, hither’ (direction/destination). The following words are not attested, but they, too, are probably bona fide Warrongo words: *ngona-ngal* ‘to that way’ (*ngona* ‘that, there’) and *ngoni-ngal* ‘to that way’ (*ngoni* ‘there, that’).

As seen in 3.6.3-[1], the locative case can indicate location or direction/destination, and it has a wide range of meanings such as ‘in, at, on, below, above, near, around, into, onto, out of, through, round, across, up, down’, and so on. An adverb with *-ngal* sometimes occurs with a noun in the locative and describes a more specific location or direction/destination. For example, in (3-291), *goyay-ngal* ‘across-to’ and *malan-da* ‘creek-LOC’ jointly mean ‘across the creek’.

[3] *-mali* ‘on or to the X side of someone or something’ is suffixed to the following.

(a) One adverb for a cardinal direction: *gonggarri-mali* ‘on or to the northern side of someone or something’ (*gonggarri* ‘in or to north’).

(b) Other adverbs of place or time, e.g. (i) *goyay-mali* ‘on or to the other side [of a river or sea]’ (*goyay* ‘across [a river or sea]’), (ii) *ngogala-mali* ‘on or to the other side, outside, behind’, e.g. (4-561) (*ngogala* ‘on the other side [of a house, etc.], outside, over there’), (iii) *ngarra-mali* ‘on or to top of someone or something’, e.g. (3-212), (4-303), (*ngarra* ‘up, above, high’), (iv) *nyarrga-mali* ‘under or below someone or something’, e.g. (3-212) (*nyarrga* ‘below, low, down’), (v) *gana-mali* ‘underneath’ (*gana* ‘below, inside’), (vi) *ganba-mali* ‘in front of, or, ahead of, someone’, e.g. (3-213) (*ganba* ‘before (of time, space), ahead (of sequence), in front (of space)’, e.g. Text 3, Line 15, (vii) *golma-mali* ‘behind someone or something (of time, sequence, space)’, e.g. (3-52), (3-135), (3-140), (3-213) (*golma* ‘behind (of time, sequence, space)’).

There is the adverb *gowa* ‘in or to the west’ (an adverb for a cardinal direction) and ‘high, above (e.g. the sun at midday)’. Alf Palmer gave *gowa-mali*. He said that it means ‘on top’ and that it has the same meaning as *ngarra-mali* ‘on top of someone or something’. Presumably, it can also mean ‘on or to the western side of something or someone’, although this meaning is not attested.

(c) The interrogative adverb *wanyja* ‘at or to where’ *wanyja-mali* ‘on or to what side of someone or something?’

(d) Demonstrative nouns: (i) *yarro-mali* ‘on or to this side of someone or something’ (*yarro* ‘this, here’), (ii) *ngona-mali* ‘on or to that side of someone or something’ (*ngona* ‘that, there’), (iii) *ngoni-mali* ‘over to the other side’ (*ngoni* ‘there, that’). (*Ngoni-mali* occurs in Alec Collins’ Warrongo, but it is not attested in Alf Palmer’s.)

There are *goya-ngal* ‘across, to the other side’ and *goya-mali* ‘on the other side’. *Goya* is not attested elsewhere in the language, but it is no doubt related to *goyay* ‘across [a river or sea]’

Two sentential examples follow. Each example contains two adverbs with *-mali* that indicate an opposite spatial relation.

(3-212) (‘We were fighting.’)

ngali-Ø galngga-n bolari-Ø,
 1DU-NOM fall-NF two-NOM,
ngaya ngarra-mali nyola nyarrga-mali. (AP)
 1SG.NOM above-side 3SG.NOM below-side
 ‘We two fell over. I [was] on top [of him and] he [was] underneath [me].’

(3-213) (‘Let’s go now.’)

yinda ganba-mali yani-ya, ngaya golma-mali. (AP)
 2SG.NOM before-side go-IMP 1SG.NOM behind-side
 ‘You go in front. I [will go] behind.’

Like an adverb with *-ngal*, an adverb with *-mali* sometimes occurs with a noun in the locative and describes a more specific location or direction/destination. For example, in (3-52), *golma-mali* ‘behind-side’ and *jolany-ja* ‘tree-LOC’ jointly mean ‘behind a tree’

[4] *-mo* ‘from (of space)’ is attested in only four words: (i) *gonggarri-mo* ‘from north’ (*gonggarri* ‘in or to north’), (ii) *ganba-mo* ‘from before’ (attested in Alec Collins’ Warrongo, but not in Alf Palmer’s) (*ganba* ‘before (in time or space), ahead, in front’, attested at least in Alf Palmer’s Warrongo), (iii) *ngoni-mo* ‘from there’ (*ngoni* ‘there, that’), and (iv) *wanyja-mo* ‘from where’, *wanyja-y-mo* ‘from where’ (*wanyja* ‘at or to where’). Note the *y*-insertion in *wanyja-y-mo* (2.6-[2]-(d)). *Wanyja-mo* ‘from where’ occurs in Alec Collins’ data, too.

The following nouns contain *mo*, which may be related to *-mo* ‘from’

- (a) *nyilamo* ‘new’, e.g. (3-156) (cf. the adverb *nyila* ‘today, now, soon’, e.g. (4-491)).
 (b) *garmboymo* ‘grandfather’s grandfather’ (Alf Palmer’s gloss).
 (c) *garmboymo~garmboymo* ‘all grandfathers’, ‘grandfather’s grandfather’s grandfather’ (Alf Palmer’s glosses).

(d) *garmboymo~garmboymo~garmboymo* ‘grandfather’s grandfather’s grandfather’s grandfather’ (Alf Palmer’s gloss). (This word is the only instance in my Warrongo data in which reduplication occurs twice, that is, the resultant has the form of ‘XXX’ (3.7.2). It has nine syllables, and it is the longest word that is attested in my Warrongo data (2.2.3.3).)

Etymologically *nyilamo* ‘new’ may have meant ‘from now’ Gugu-Badhun has *galamu* ‘old’ (Sutton 1973: 213). Etymologically it may contain *-mu* ‘from’ (*Gala* does not seem attested in Gugu-Badhun. The adverb *gala* ‘more’ is attested in Warrongo, but its etymological connection with the Gugu-Badhun *galamu* ‘old’ is not known.)

In Alf Palmer’s glosses, the word ‘grandfather’ occurs twice in ‘grandfather’s grandfather’ for (b), three times in ‘grandfather’s grandfather’s grandfather’ for (c), and four times in ‘grandfather’s grandfather’s grandfather’s grandfather’ for (d). The meanings of the words in (b) to (d) are not understood well. Alf Palmer’s comments on the words in (b) and (c) indicate that here by ‘grandfather’ he meant *bolo* ‘father’s father’ (‘FF’; cf. Figure 1-1). Then, judging by Alf Palmer’s glosses, (b) *garmboymo* would mean ‘FF’s FF’, and (c) *garmboymo~garmboymo* would mean ‘all FF’s’ and ‘FF’s FF’s FF’. Similarly (d) *garmboymo~garmboymo~garmboymo* would mean ‘FF’s FF’s FF’s FF’.

-mu occurs in the following languages, with the meaning indicated: ‘ablative, causal’ in Yidiny (Dixon 1977b: 132–133, 164, 202), ‘since (of time)’ in Dyirbal (Dixon 1972: 58, 252–253), and ‘ablative, causal’ in Biri (my data).

There were a language whose name is spelt ‘Koa’, around Winton, central Queensland, and one whose name is spelt ‘Koamu’ and ‘Guwamu’, around St. George, southern Queensland (Tindale 1974: 175, Wurm 1972: 141). Tindale (1974: 42) suggests that the names of these languages contain the word ‘*goa* ‘no’ of the Moreton Bay language of Brisbane (more than 1000 km away from Koa, and about 500 km away from Koamo/Guwamu.) (The apostrophe in ‘*goa*’ indicates stress (Tindale 1974: 2).) In my view, there is another possibility. Warrongo has [gowa] /guwa/ ‘west’, and this word seems to have a wide geographical distribution (see Tindale 1974: 38). It is possible, though there is no evidence, that Koa is /guwa/ and means ‘west’, and that Koamu/Guwamu is /guwa-mu/ and means ‘from the west’. That is, possibly these people were referred to as westerners by the people who lived to the east of them.

[5] *-mondo* ‘from (a source in space)’ is attested in one word only: *goda-mondo* ‘[come] from behind’ (*goda* ‘in/at behind’). No doubt, *-mondo* ‘from’ is related to *-mo* ‘from’ discussed above.

(3-214) (‘I went off with a woman, and her father was chasing me.’)

nyongo gaya-Ø goda-mondo yani-Ø. (AP)
 3SG.GEN father-NOM behind-from come-NF
 ‘Her father came from behind.’

-mondo is not productive in Warrongo. But suffixes whose shape is the same as, or similar to, *-mondo*, and which indicate a source and/or cause occur in Gujal (Sutton data), Kuku Yalanji (Patz 2002: 45, 47, 70), and Bidyara and Gungabula (Breen 1973: 68–69). Patz (2002: 70) mentions that Kuku Yalanji has *kudamundu* ‘behind’ (i.e. *godamondo*), and that it could be a fossilized abessive form. It is interesting to note that this form, which could be a fossilized form in Kuku Yalanji, is the only form attested in Warrongo.

[6] *-ngando* ‘from (of space), because of (?)’ is attested in only three words: (i) *goda-ngando* ‘[come] from behind’, e.g. (3-215) (*goda* ‘later, behind’), (ii) *golma-ngando* ‘[come] from behind’ (*golma* ‘behind’), and (iii) *ngani-ngando* ‘because of what (?)’ (*ngani* ‘what’) (Alf Palmer’s translation is ‘What is over?’).

(3-215) *galnga-na-Ø* *goda-ngando* *yani-Ø*. (AP)
 MB-KIN-NOM behind-from come-NF
 ‘[My] mother’s brother came from behind.’

-ngando occurs in Gujal (Sutton data) (apparently ‘from’ (of time)). Bidyara and Gungabula (Breen 1973: 110–111, 205) have *gurra* ‘behind’ and *gurrangandu* ‘behind’. No doubt these two words correspond to the Warrongo words *goda-ngando* and *goda*, respectively. That is, *rr* corresponds to *d*.

This may be accidental, but all of *-mo*, *-mondo*, and *-ngando*, which all mean ‘from’, end in the vowel *-o*.

[7] *-mara* ‘very’ is attested in four adverbs, and two nouns. Two of the adverbs: (i) *gani-mara* ‘very far, a long way’, e.g. (3-129) (*gani* ‘far, away’), and (ii) *ganbamarara* ‘a long time ago’, e.g., (3-140), (3-233), (4-547) (*ganba* ‘before’ (of time), ‘in front’ (of space), e.g. Text 3, Line 15. *-mara* also occurs in the following adverbs, but its meaning is not clear: (iii) *wanyja-mara* ‘when’ (cf. *wanyja* ‘where’), and (iv) *nganimbarri-mara* ‘how long (of time)’ (cf. *nganimbarri* ‘how many’) (3.7.1-[6]). (v) In one instance, *-mara* is added to the noun *goman* ‘other, another’ and forms a new noun stem: *goman-mara* ‘another one’ (e.g. man, woman, dog). (vi) A song cited in (1-10-f) contains the noun *gorra-mara*, which was glossed by Alf Palmer as ‘last one’ In addition, he said that it meant ‘younger brother, younger sister’ Its etymology is not known, but possibly it contains *gorra*, which is identical with *gurra* ‘behind’ of Bidyara and Gungabula and which corresponds to *goda* ‘later, behind’ of Warrongo. If this is the case, *gorra-mara* may mean ‘someone who was born later (later than the other siblings)’ *Gorra* by itself is not attested in Warrongo.

[8] *-ngal* ‘time(s), etc.’ is attested in four words: (i) *nyon.gol-ngal* ‘once’ (*nyon.gol* ‘one’), (ii) *bolari-ngal* ‘twice’ (*bolari* ‘two’), (iii) *gorrbara-ngal* ‘three times’ (*gorrbara* ‘three’), and (iv) *nyila-ngal* ‘again’, *nyila-ngo-ngal* ‘immediately, very soon’ (*nyila* Adv ‘today, soon’). *-ngo* is probably a linking interfix. It is used as such in Tables 3-3 and 3.6.

[9] *-ngomay* ‘from, after, etc.’ is generally used for the ablative-1 case, and the resultant stems can be further followed by another non-zero case suffix (Table 3-10). (The resultant stems are considered nouns or pronouns.) Thus, they will take the ergative suffix if they modify a noun in the ergative, e.g. (3-126) (*ngona-ngomany-jo* ‘there-ABL-ERG’).

However, in the data obtained, where *-ngomay* means ‘after (time)’, it is not followed by any non-zero case suffix. This is irrespective of whether the clause in question is intransitive or transitive. The present work classifies the words involving *-ngomay* ‘after (time)’ (which are not followed by a non-zero case suffix) as adverbs. This *-ngomay* is attested at least with the following words.

(a) The demonstrative noun *ngona* ‘that, there’. *Ngona-ngomay* ‘that-after’ means ‘after that’, ‘and then’. It occurs in the texts very frequently, generally sentence-initially. It seems to indicate a change in the topic, scene or the like. Examples in an intransitive clause include (3-94), Text 1, Lines 1, 15, 44, 55, Text 2, Lines 1, 13. Examples in a transitive clause include (3-9-a, -c), (3-216), Text 1, Lines 29, 62, Text 2, Line 37.

(b) The adverb of time *gonda-gorrbara* ‘for three nights’. See *gonda-gorrbara-ngomay* ‘after three nights’ in (3-216) (a transitive clause). (*Gonda* ‘night’ (noun), *gorrbara* ‘three’ (noun).) (The formation of *gonda-gorrbara* will be discussed in 3.8.3.)

(3-216) (In a text, someone gives advice to a man who has a sore on his penis: ‘Wash your penis with water. Leave her vagina for three nights.’)

<i>ngona-ngomay</i>	/	<i>gonda-gorrbara-ngomay</i>	<i>yinda</i>	/	<i>moga-Ø</i>	(AP)
that-after		night-three-after			2SG.ERG	take-IMP
‘And then, after three nights, take [her vagina].’						

If *ngona-ngomay* and *gonda-gorrbara-ngomay* are nouns, and not adverbs, they will modify the A *yinda* ‘2SG.ERG’ and they will occur in the respective ergative forms: *ngona-ngomany-jo* and *gonda-gorrbara-ngomany-jo*. Compare (3-216) with (3-126).

(c) The adverb of time *garrbala* ‘tomorrow, next’. *Garrbala-ngomay-Ø* ‘the day after the next day’ in (3-141) (an intransitive clause) was regarded as a noun there. However, possibly it should be regarded as an adverb.

[10] *-Inboro* is attested in just one word: *bonggo-Inboro* ‘on knees’. (This word was discussed in 2.2.3.2-[1] and 2.2.4-[3].) In view of the existence of the nouns *bonggo* ‘knee’ and *bonggo-ro-yi* ‘knee-*rV*-COM’, i.e. ‘on knees’, e.g. (3-158), *-Inboro* appears to contain the suffix *-rV* ‘dual (?), plural/multiple (?)’ (3.7.1-[16]).

There are possibly two more adverb-stem-forming suffixes: *-goli* (4.25-[3]) and *-gol* (4.25-[4]).

3.8.2. Reduplication

Roughly speaking, reduplication to form adverb stems is of two types: (i) reduplication of an adverb root and (ii) that of a noun root.

[1] Reduplication of adverb roots

A few adverbs each have both reduplicated and non-reduplicated forms. Sometimes, reduplication appears to intensify the meaning, e.g. *birri* 'close', e.g. (3-53), *birri~birri* 'very close', e.g. (4-673), but in most instances, its function is not understood, e.g. *wonaja* and *wonaja~wonaja* 'camping out', and *baya* and *baya~baya* 'in one's turn, in return', e.g. 'in return for kindness, in revenge for something, in response to an address'. The reduplicated forms *wonaja~wonaja* and *baya~baya* do not seem to have an intensified meaning. Nor do they seem to indicate 'repeatedly'. The reduplicated form *baya~baya*, rather than the non-reduplicated form, is generally used. Examples of *baya~baya* include (3-193), (4-18-b), (4-540-c), and:

(3-217) ('While I was sleeping, you were on the watch, so:')

yinda wona-ya baya~baya (AP)
 2SG.NOM lie-IMP in.turn~in.turn
 'Sleep in [your] turn' or 'It's your turn to sleep'

(3-218) ('I helped him, so:')

nyola ganyji-n worriba-Ø gajarra-Ø ngaygo baya~baya (AP)
 3SG.ERG carry-NF bee-ACC possum-ACC 1SG.GEN in.turn~in.turn
 'He carried [i.e. brought] bees and possums for/to me in return.'

As noted in 3.7.2-[3], the reduplicated forms of certain nouns that describe manner are attested in intransitive clauses only (including 'surface-intransitive' clauses), and not in transitive clauses. In contrast, adverbs can be used in both intransitive and transitive clauses. This is irrespective of whether the adverbs are in the reduplicated form or not. Thus, *baya~baya* is used in an intransitive clause in (3-217), and a transitive clause in (3-218).

The following adverb exists in the reduplicated form only: *barray~m~barray* 'in the morning' (Note the *m*-insertion (2.6-[2]-(a)). This word was also discussed in 2.2.6.2-(h).) The non-reduplicated *barray* is not attested in the Warrongo data, but Dyirbal (Dixon 1972: 399) has *barray* 'next week'.

[2] Reduplication of noun roots

A few adverbs are formed by reduplicating a noun root, e.g., (i) *nyon.gol~nyon.gol* 'one by one, one for each, one after another', e.g. (3-219), (3-220) (*nyon.gol* 'one'), (ii) *ngami~ngami* 'on the lap' (*ngami* 'lap (of body)'), and (iii) *gonda~gonda* 'yesterday, the day before' (Alf Palmer), e.g. (4-58), (4-543), 'last night' (Alec Collins)

(*gonda* ‘nighttime’ (Alf Palmer)). These adverbs can be used in both intransitive and transitive clauses. Thus, *nyon.gol~nyon.gol* is used in an intransitive clause in (3-219), and a transitive clause in (3-220).

(3-219) *nyon.gol~nyon.gol ngana-Ø yamba-ngga banda-lgo.* (AP)
 one~one 1PL-NOM house-LOC go.out-PURP
 ‘We will go out of the house one by one, or, one after another.’

(3-220) *jana-nggo nyon.gol~nyon.gol ganyji-n.* (AP)
 3PL-ERG one~one carry-NF
 ‘They each carried [a possum].’

3.8.3. Compounding

Compounding to form adverb stems is of two types: Noun-Noun, and Adverb-Noun.

[1] Noun-Noun

There are a few adverbs of time that are formed by compounding a noun (of time) with a numeral (*bolari* ‘two’ or *gorrbara* ‘three’) or *goman* ‘another’, e.g. (i) *woga-bolari* ‘asleep-two’, i.e. ‘for two nights’, e.g. (3-221), (ii) *gonda-gorrbara* ‘night-three’, i.e. ‘for three nights’, (iii) *mara-gorrbara* ‘hand-three’, i.e. ‘for three weeks’ (note that *mara* ‘hand’ means ‘week’ here; cf. Table 3-12), (iv) *balano-gorrbara* ‘moon-three’, i.e. ‘for three months, for three nights’, and (v) *woga-goman* ‘asleep-another’, i.e. ‘on the next day or night’

As can be seen, all of the nouns listed in Table 3-12 except for *garri* ‘sun, daytime’ are attested in the formation of adverbs by means of compounding. (But *garri* is attested in a combination of reduplication and compounding: *garri-goman~goman* ‘sun-another~another’ See below.)

There are instances that involve both reduplication and compounding, resulting in the form ‘XYY’, e.g. (i) *woga-goman~goman* ‘asleep-another~another’, i.e. ‘for many nights, night after night, day after day, month after month’, e.g. (3-222), and (ii) *garri-goman~goman* ‘sun-another~another’, i.e. ‘every day’ As is the case with nouns of the type ‘XYY’ (3.7.3-[1]), the ‘Y’ is *goman* ‘another’ in these compound adverbs, too.

(3-221) *woga-bolari ngona-n-da wona-n.* (AP)
 asleep-two that-LINK-LOC lie-NF
 ‘[We] lay [i.e. slept] there for two nights.’

(3-222) *yani-Ø ngaya woga-goman~goman.* (AP)
 go-NF 1SG.NOM asleep-another-another
 ‘I went [i.e. travelled] day after day.’

[2] Noun-Adverb

In a few instances, the noun *goman* ‘another’ is added to an adverb root, and the resultant stem is again an adverb, e.g. (i) *garrbala* ‘tomorrow, on the next day’, *garrbala-goman* ‘the day after tomorrow, the day after the next day (in past or future)’, and (ii) *wonaja* ‘camping out’, *wonaja-goman* ‘in, at or for another camping out’.

[3] Again on the difference between nouns and adverbs

As seen in 3.4.3, the present work distinguishes between nouns and adverbs. Thus, in expressions of temporal location, nouns need to take the locative suffix, while on the other hand adverbs of time need not – in fact, (almost certainly) cannot – take the locative suffix.

However, this distinction is not really clear-cut. Those words of time which are formed by reduplication or compounding generally do not take the locative suffix to indicate temporal location, e.g. *woga-bolari* ‘for two nights’ in (3-221), and *woga-goman~goman* ‘day after day’ in (3-222). They are classified as adverbs in the present work. However, at least one such adverb is attested with the locative case suffix as well: *woga-goman* ‘asleep-another’ (without the locative suffix) ‘on the next day, on the day after tomorrow’, and *woga-goman-da* (with the locative suffix *-da*) ‘on the next day, on the day after tomorrow’ It will be possible to say that, as far as the adverb *woga-goman* is concerned, the use of the locative suffix is acceptable, though optional. (There is also the word *balano-goman~goman-go* (with the dative suffix *-go*) ‘moon-another~another-DAT’, i.e. ‘month after month’. Since it takes a case suffix, it may be considered as a noun.)

To conclude, the distinction between nouns and certain types of adverbs is not clear-cut. Ideally, each of the border-line cases should be specified as to what case suffix is acceptable, optional, or unacceptable. Unfortunately, however, this is impossible, due to the incompleteness of the data.

3.9. Verb morphology (1): introduction and inflection

3.9.1. Verb roots and transitivity

The vast majority of verb roots are disyllabic, e.g. *nyina-Y* Vi ‘sit’ and *moja-L* Vt ‘eat’. (‘-Y’, ‘-L’ and ‘-ZERO’ indicate the conjugational classes of verbs; see 3.9.3.) There are a fair number of verbs whose etymology is not known, and for which a disyllabic root cannot be set up immediately. Etymologically, at least some of them appear to contain a disyllabic root. For example, compare *bogara-L* Vi ‘swell up’ (e.g. (4-858-A)), *joyora-Y* Vi ‘slip’, and *ragara-L* Vi ‘descend’ (e.g. (4-728) (first W)). They may each consist of a disyllabic root and *-ra*. Also, compare *gajorri-ZERO* Vi ‘go past’, *garrogaja-L* Vt ‘go past [someone]’, and the adverb *gajarr~gajarr* ‘[go] past’. The verbs probably contain the disyllabic root *gajo-* or *gaja-*

Also, *gajorri-ZERO* may contain the stem-forming suffixes *-rr* and *-i*. (See 3.11.1.7 for *-rr* and *-i*.) Nonetheless, there are at least three verbs for which a disyllabic root cannot be set up: *bayombi-L* Vt '[fish] wave [its tail]' (1.4.5.2-[1]), *mayiga-* (class unknown) 'cut' (cf. (2-58)), and *mirriji-L* Vi 'feel itchy' (2.2.3.1-[3]). (There is also *mirriji-l-bi-L* Vi 'feel itchy' See 4.7.1 for the intransitive-stem-forming suffix *-bi-L*.) Here, we will have to recognize trisyllabic roots.

All of the verb roots are vowel-final. (In contrast, in Djaru (Tsunoda 1981a: 77), all of the verb roots are consonant-final.)

Verbs (to be precise, verb stems) can be divided, in terms of transitivity, into the following two groups.

- (a) Transitive verbs (Vt), which can occur with an A NP (in the ERG).
- (b) Intransitive verbs (Vi), which can occur with an S NP (in the NOM), but not with an A NP.

Transitive verbs and intransitive verbs each include non-derived stems (they are the same as roots) and derived stems. See 3.9.2 and 3.9.3. The dichotomy between transitive and intransitive verbs is as a rule clear-cut and the two groups are mutually exclusive. However, there are at least four pairs of exceptions. See 3.9.3. There is a fairly close correlation between transitivity and conjugation types, as shown in 3.9.3.

3.9.2. Verbalization, interrogative verbs, and demonstrative verbs

Nouns (including adjective-like nouns), many adverbs, and a few pronouns are attested with the following verb-stem-forming suffixes. (i) *-bi-L* ('INTR') (4.7.1) for forming intransitive stems. (ii) *-nga-L* ('TR') (4.7.2) or *-(m)ba-L* ('TR') (4.7.3) for forming transitive stems. Among these verbs, those that contain an interrogative word are interrogative members of verbs, while those that contain a demonstrative word are demonstrative members of verbs (3.1.1). The interrogative members are the following.

<i>ngani</i> 'what'	<i>ngani-bi-L</i> Vi 'be what, become what'
	<i>ngani-nga-L</i> Vt 'do what, do how'
<i>wanyja</i> 'where'	<i>wanyja-nga-L</i> Vt 'do what, do how, do to where'
<i>wanyjarro</i> 'where to'	<i>wanyjarro-bi-L</i> Vi 'go where'
<i>wanyjarri</i> 'which way' (direction)	<i>wanyjarri-bi-L</i> Vi 'go which way' (direction), 'do how' (manner)
	<i>wanyjarri-nga-L</i> Vt 'do how' (manner)

The demonstrative members are the following.

<i>yama</i> ‘so, thus, in such a way’	<i>yama-bi-L</i> Vi ‘be so, become so, do so, do in such a way’
	<i>yama-nga-L</i> Vt ‘do so, do in such a way’
<i>yarro</i> ‘this, here’	<i>yarro-nga-L</i> Vt ‘send/bring/etc. here/hither’
	<i>yarro-ngo-nga-L</i> Vt ‘send here, pull’

Warrongo does not have a verb for ‘be’ or ‘do’, but it has verbs for ‘be what’, ‘be so’, ‘do what’, ‘do so’, etc. (3.1.2-[6]).

Verbs formed with *-bi-L*, *-nga-L* or *-(m)ba-L* (including interrogative and demonstrative verbs) often modify another verb. But they may also be used by themselves, without qualifying any other verb. See 4.5.4.1.

Verbs formed by means of *-bi-L* or *-nga-L* include delocutive verbs. See 4.7.1-[3] and 4.7.2-[4].

3.9.3. Conjugational classes

There are three conjugational classes: L-class, Y-class, and ZERO-class. See Table 3-14. The differences among them are clearly seen in the nonfuture-2 (e.g. *baba-l* ‘stab’ (L-class), *nyina-y* ‘sit’ (Y-class), and *wadali-Ø* ‘run’ (ZERO-class)), and the apprehensional (e.g. *baba-l-ga* (L-class), *nyina-y-ng-ga* (Y-class), and *wadali-Ø-ng-ga* (ZERO-class)). (The apprehensional forms involve *-ga*. Also note the *ng*-insertion (2.6-[2]-(c-1).) Furthermore, verbs of L-class involve *-l-* in the future and the stative (*-l-ji*), affirmative imperative (*-l-nga*), the negative imperative (*-l-mo*), and the purposive-1 (*-l-go*). Since *l*, *y* and ZERO (\emptyset) characterize the respective conjugational classes, they may be termed ‘conjugational markers’ (Dixon 1980: 279).

As noted in 3.9.1, there is a fairly close correlation between transitivity and conjugation types. The details are as follows.

(a) L-class

(a-1) Roots (they are ‘non-derived’ or ‘basic’).

(a-1-1) All transitive roots, e.g. *baba-L* ‘stab’, *ganyji-L* ‘carry’, *wajo-L* ‘cook’ – except for *woyji-ZERO* Vt ‘burn’.

(a-1-2) A small number of intransitive roots, e.g. *banda-L* ‘emerge’, *yodi-L* ‘swim’, *jago-L* ‘be sorry’

(a-2) Derived stems.

(a-2-1) Transitive stems formed with *-nga-L* or *-(m)ba-L*.

(a-2-2) Applicative verbs (*-ri-L*) (4.14) (surface-transitive).

(a-2-2-1) Locative verbs (derived from intransitive roots).

(a-2-2-1) Instrumental verbs (derived from transitive roots).

(a-2-3) Intransitive stems formed with *-bi-L*.

(b) Y-class

(b-1) Roots.

(b-1-1) No transitive root.

(b-1-2) A large number of intransitive roots, e.g. *jana-Y* 'stand'.

(b-2) Derived stems.

(b-2-1) Reciprocal verbs (*-wa-Y*) (4.12) (surface-intransitive; mainly derived from transitive roots).(b-2-2) Iterative verbs (*-garra-Y*) (4.13) (mostly surface-intransitive but a few may be surface-transitive; derived from intransitive roots and transitive roots).

(c) ZERO-class

(c-1) Roots.

(c-1-1) At least one transitive root: *woyyi-ZERO* Vt 'burn'.(c-1-2) At least four intransitive roots: *badi-ZERO* 'cry', *ragi-ZERO* 'hide', *yaji-ZERO* 'laugh', *yodi-ZERO* 'swim'

(c-2) Derived stems.

(c-2-1) Intransitive stems formed with the verb-stem-forming suffixes *-l-i-ZERO* (3.11.1.6).(c-2-2) Intransitive stems formed with the verb-stem-forming suffixes *-rr-i-ZERO* (3.11.1.7).(c-2-3) Antipassive verbs (*-ga-l-i-ZERO*) (4.9) (surface-intransitive; derived from transitive roots).(c-2-4) Reflexive/middle verbs (*-ga-l-i-ZERO*, *-l-i-ZERO*) (4.11) (surface-intransitive; derived from transitive roots and intransitive roots).

Consider Table 3-13. Regarding both roots and derived stems, L-class is predominantly transitive, while Y-class and ZERO-class are almost entirely intransitive. Concerning roots (excluding derived stems), L-class contains almost all the transitive roots (they are numerous) and only a few intransitive roots, while the roots in Y-class are all intransitive. ZERO-class contains at least one transitive root and four intransitive roots.

Table 3-13. Conjugational classes and transitivity

	L-class	Y-class	ZERO-class
roots and derived stems	predominantly Vt	almost entirely Vi	almost entirely Vi
roots	almost all of Vt roots, a few Vi roots	Vi roots only	at least one Vt root, at least four Vi roots
final vowel	of roots		
	mostly <i>-a-L</i> , also <i>-i-L</i> and <i>-o-L</i>	<i>-a-Y</i> only	<i>-i-ZERO</i> only
	of derived stems		
	<i>-a-L</i> and <i>-i-L</i>	<i>-a-Y</i> only	<i>-i-ZERO</i> only

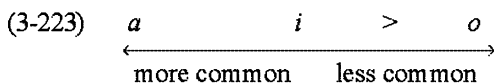
Comments on the roots of ZERO-class follow. ZERO-class contains at least one transitive root: *woyji-ZERO* Vt 'burn'. Its apprehensional form is *woyji-ng-ga*, spontaneously used in (4-653), and the form *-ng-ga* indicates that this verb belongs to ZERO-class. ZERO-class contains at least four intransitive roots: *badi-ZERO* 'cry', *ragi-ZERO* 'hide', *yaji-ZERO* 'laugh', *yodi-ZERO* 'swim'. Alf Palmer gave (3-283), which contains *yodi-ng-ga* 'swim-APPR'. The form *-ng-ga* indicates that this verb belongs to ZERO-class (cf. Table 3-14). For the apprehensional form of *badi-ZERO*, I suggested both *badi-l-ga* (L-class) and *badi-ng-ga* (ZERO-class), out of which Alf Palmer chose *badi-ng-ga* (ZERO-class). Similarly, for the apprehensional form of *yaji-* 'laugh', he chose *yaji-ng-ga* (ZERO-class) and rejected *yaji-l-ga* (L-class). For *ragi-* 'hide', he approved *ragi-ng-ga*, which I suggested.

In ZERO-class, the suffixes shown in (c-2-1) to (c-2-4) can be segmented, as shown above. However, generally they will be left unsegmented in the following. This is in order to facilitate their presentation.

There are a large number of verb roots whose conjugational class is not known. This will be shown by means of a question mark following the root. For each verb root (and also for each verb stem), its class membership is indicated (i.e. *-L*, *-Y*, *-ZERO* (or *-Ø*)), as well as its transitivity status (i.e. Vt, Vi) – where information is available.

All the roots and derived stems of Y-class end in *a* (e.g. *nyina-Y* Vi 'sit', *balga-wa-Y* 'hit-REC'), while all the roots and derived stems in ZERO-class end in *i* (e.g. *badi-ZERO* 'cry', *wada-li-ZERO* Vi 'run'). In L-class, most of the roots end in *a* (e.g. *balga-L* Vt 'hit'), but there are a few that end in *i* (e.g. *ganyji-L* Vt 'carry'), and also a few that end in *o* (e.g. *wajo-L* Vt 'cook'). Derived stems of L-class consist of those ending in *a* (e.g. those formed with *-nga-L* 'TR') and those ending in *i* (i.e. those formed with *-bi-L* (INTR')). There is no verb-stem-forming suffix which ends in *o*. This is shown in Table 3-13.

Roughly speaking, the final vowels of verb roots and derived verb stems show the following tendency:



The relative order in (3-223) differs from those shown in Table 2-21 in that *i* is more common than *o*.

Warrongo has the following pairs of intransitive and transitive roots. In each pair, the two roots have the same form. 'S O' indicates that the S of the intransitive verb corresponds to the O of the transitive verb, while 'S A' shows that the S corresponds to the A. Most of the pairs exhibit the correspondence of 'S O', rather than 'S A'.

(a-1) *jarga-L* Vi 'go in, enter', e.g. (4-775).

(a-2) *jarga-L* Vt 'put in, enter', e.g. (3-44), (4-471), (4-684), (4-812-A), Text 2, Lines 14, 20, 21. ('S O')

- (b-1) *gimbi-L* Vi '[wind] blow'
 (b-2) *gimbi-L* Vt '[wind] blow' ('S A')
 (c-1) *binda-Y* Vi '[something] stand up', e.g. (3-242-b).
 (c-2) *binda-L* Vt 'stand [something] up', e.g. (4-767). ('S O')
 (d-1) *wajo-?* Vi '[something] burn', e.g. (4-560), (4-561).
 (d-2) *wajo-L* Vt 'burn, cook', e.g. (4-8), (4-473), (4-973-A, -B). ('S O')
 (e-1) *wandi-L* Vi 'rest [on something]'
 (e-2) *wandi-L* Vt 'hang up', e.g., Text 2, Lines 32, 33-a, 35. ('S O')
 (f-1) *ngaba-L* Vi 'bathe'
 (f-2) *ngaba-L* Vt 'soak'. ('S O')
 (g-1) *nyamba-Y* Vi 'dance', e.g. (3-58).
 (g-2) *nyamba-L* Vt 'paint, wet'.

Etymologically, the two verbs in each of (a) to (d) are clearly related to each other. Those in (e) and (f), too, are almost certainly related. Those in (g), too, may be related; people used to paint themselves for a dance.

As noted in 3.9.1, the dichotomy between transitive and intransitive verbs is as a rule clear-cut and the two groups are mutually exclusive. The verbs in (a) and (b) are exceptions. In each pair, the two verbs are of the same class (L-class) and they differ in terms of transitivity only. That is, in each of (a) and (b), one and the same verb is used both as an intransitive verb and as a transitive verb. The verbs in (e) are both of L-class. Since they are almost certainly related, they are near-exceptions. The same applies to the verbs in (f). (According to Dixon ([1984] 1989a: 78), in Alec Collins' Warrongo, *ngaba-* 'bathe' is of Y-class; what appears to be the nonfuture-2 form is *ngaba-y*. For the nonfuture-2 form of Y-class, see *nyina-y* 'sit' in Table 3-14.)

In (c), the intransitive root is of Y-class, while the transitive root is of L-class. (This fits in the general tendency noted above.) That is, they should be considered as two separate verbs. (See also 4.7.2-[6]-(b) for *binda-Y* Vi 'stand up'.) The same applies to the verbs in (g).

In (d), the transitive root is of L-class, but the class membership of the intransitive root is not known.

Recall that the verb Vi 'jump' *jolba-* in the placename 'Turtle Jump' may be either of L-class (*jolba-l*, as in (1-4)), or of Y-class (*jolba-y*, as in (1-5)). This suggests that *jolba-* is (or perhaps was) undergoing class membership shift. The direction of the change – whether it is from L-class to Y-class or the other way round – is not known. (Alternatively, this verb may have had a dual class membership.)

There are possibly a few additional instances of class membership shift. See 4.7.2-[6].

The data on Alec Collins' Warrongo are limited, and the class membership of verbs is little known. At least, the transitive verb *ngawa-Y* 'hear' is of Y-class, although it is of L-class in Alf Palmer's Warrongo: *ngawa-L*.

3.9.4. Verbal paradigms

In 3.9.4.1, we shall illustrate the paradigm of L-class (using roots), Y-class (using a root: *nyina*- Vi 'sit') and ZERO-class (using not a root but a derived stem: *wadali*- 'run'). (*Wadali*-Ø can be segmented into the root *wada*-L Vi 'play about' and the stem-forming suffixes *-l* and *-i*. See 3.11.1.6-[3].) (There are at least five roots in ZERO-class (3.9.3), but the information on their paradigms is severely limited.) We shall look at the paradigms of other derived stems in 3.9.4.2.

3.9.4.1. Verbal paradigm (1): L-class, Y-class and ZERO-class

The conjugational categories can be classified into three groups (although this classification is not clear-cut). This is shown in Table 3-14.

- (a) Those that have a finite use only, i.e. used as the predicate of a simple sentence or as the predicate of the main clause of a complex sentence.
- (b) Those that have a non-finite use only, i.e. used as the predicate of the subordinate clause of a complex sentence.
- (c) Those that have both finite and non-finite uses.

Warrongo does not have a gerund or infinitive (i.e. a verbal form that can be used like a noun, e.g. *reading* and *to read* of English).

Among the conjugational categories, the following are fully productive or fairly highly productive: nonfuture-1, -2, apprehensional, general imperative-1, -2, and purposive-1, -2. Participle-1, -2 are fairly productive. The other categories do not seem productive – except that nonfuture-3 is highly productive with the irregular verb *yami*- Vi 'go', i.e. *yami*-Ø 'go-NF'

Maximum caution is exercised in presenting Table 3-14. (i) Parentheses (e.g. (*baba-la*)) indicate that this particular form with this particular root/stem was attested, but that such a form does not seem to be productive in this class/subclass. (ii) '(TT)' (e.g. *bambo-l-ga* (TT)) indicates that this particular form has been composed by me (but was not checked by Alf Palmer). It is probably an acceptable form. It was not attested with this particular root/stem, but such a form is attested with some other roots/stems of the same class/subclass. (iii) A parenthesis plus 'TT' (e.g. (*bambo-la* TT)) indicates that this particular form with this particular root/stem was not attested, that it was composed by me (but was not checked by Alf Palmer), and that such a form does not seem to be productive in this class/subclass. It was attested with only one root/stem or at most a few other roots/stems of this class/subclass. (iv) Four dots (' ') indicate that such a form does not seem to exist in this class/subclass. (v) A question mark ('?') indicates that it is not known if the form in question exists in this class/subclass. The reasons for this maximum caution will be given below.

Table 3-14. Verbal paradigm (1): L-class, Y-class and ZERO-class

L-class (1): transitive			
	<i>a</i> -final 'stab'	<i>i</i> -final 'carry'	<i>o</i> -final 'shoot'
finite			
past	<i>(baba-la)</i>	<i>(ganyji-la)</i>	<i>(bambo-la TT)</i>
nonfuture-1	<i>baba-n</i>	<i>ganyji-n</i>	<i>bambo-n</i>
nonfuture-2	<i>baba-l</i>	<i>ganyji-l</i>	<i>bambo-l</i>
nonfuture-3		<i>ganyji-Ø</i>	
future	<i>(baba-l-ji TT)</i>	<i>(ganyji-l-ji)</i>	
stative			
apprehensional	<i>baba-l-ga</i>	<i>ganyji-l-ga</i>	<i>bambo-l-ga (TT)</i>
general imperative-1	<i>baba-Ø</i>		<i>(bambo-Ø)</i>
general imperative-2		<i>ganyji-ya</i>	<i>bambo-ya</i>
affirmative imperative		<i>ganyji-l-nga (TT)</i>	
negative imperative	<i>baba-l-mo</i>		
finite and non-finite			
purposive-1	<i>baba-l-go</i>	<i>ganyji-l-go</i>	<i>bambo-l-go</i>
purposive-2		<i>ganyji-yal</i>	<i>bambo-yal (TT)</i>
purposive-3			
purposive-4			
non-finite			
participle-1	<i>baba-nyo</i>	<i>ganyji-nyo</i>	<i>bambo-nyo</i>
participle-2	<i>(baba-nji TT)</i>	<i>ganyji-nji</i>	<i>(bambo-nji TT)</i>
participle-3			
adnominal	?	<i>ganyji-ngo</i>	?
L-class (2): intransitive			
	<i>a</i> -final 'emerge'	<i>i</i> -final 'swim'	<i>o</i> -final 'be sorry'
finite			
past	<i>(banda-la TT)</i>		
nonfuture-1	<i>banda-n</i>	<i>yodi-n</i>	
nonfuture-2	<i>banda-l</i>	<i>yodi-l</i>	
nonfuture-3		<i>yodi-Ø</i>	
future			
stative			
apprehensional	<i>(wamba-l-ji Vi 'fear')</i>		<i>jago-lji</i>
general imperative-1	<i>banda-l-ga</i>	<i>yodi-l-ga</i>	
general imperative-2	<i>banda-Ø</i>		
affirmative imperative	<i>banda-ya</i>	<i>yodi-ya</i>	
negative imperative			

finite and non-finite

purposive-1	<i>banda-l-go</i>	?
purposive-2	<i>banda-yal</i>	<i>yodi-yal</i>
purposive-3		
purposive-4		

non-finite

participle-1		?
participle-2	<i>banda-nji</i>	?
participle-3		?
adnominal	?	?

Y-class (all *-a*)ZERO-class (all *-i*)

Vi 'sit'

Vi 'run'

finite

past

nonfuture-1	<i>nyina-n</i>	<i>wadali-n</i>
nonfuture-2	<i>nyina-y</i>	<i>wadali-Ø</i>
nonfuture-3		

future

stative

apprehensional	<i>nyina-y-ng-ga</i>	<i>wadali-Ø-ng-ga</i>
general imperative-1	(<i>nyina-Ø</i>)	
general imperative-2	<i>nyina-ya</i>	<i>wadali-ya</i>

affirmative imperative

negative imperative

finite and non-finite

purposive-1		(<i>wadali-l-go</i>)
purposive-2	<i>nyina-yal</i>	<i>wadali-yal</i>
purposive-3	(<i>nyina-yal-go</i>)	
purposive-4		

non-finite

participle-1	(<i>nyina-nyo</i> TT)	(<i>wadali-nyo</i> TT)
participle-2	<i>nyina-nji</i> (TT)	<i>wadali-nji</i>
participle-3	<i>nyina-nji-rra</i>	
adnominal	(<i>nyina-ngo</i>)	?

	irregular
	Vi 'go, come'
finite	
past	
nonfuture-1	<i>yani-n</i>
nonfuture-2	<i>yani-l</i> (not productive)
nonfuture-3	<i>yani-Ø</i>
future	
stative	
apprehensional	<i>yani-l-ga, yani-ng-ga, yani-l-ng-ga</i>
general imperative-1	
general imperative-2	<i>yani-ya</i>
affirmative imperative	
negative imperative	
finite and non-finite	
purposive-1	(<i>yani-l-go</i>)
purposive-2	<i>yani-yal</i>
purposive-3	<i>yani-yal-go</i>
purposive-4	<i>yani-yi</i>
non-finite	
participle-1	
participle-2	<i>yani-nji</i>
participle-3	<i>yani-nji-rra</i>
adnominal	<i>yani-ngo</i>

The reasons for the maximum caution mentioned above are as follows.

[1] Reason 1. As noted above, the following categories do not seem productive: past, nonfuture-3 (except that it is highly productive with the irregular verb *yani-Vi* 'go'), future, stative, affirmative imperative, negative imperative, purposive-3, -4, participle-3 and adnominal. For example, the nonfuture-3 is attested with only five verbs (three roots and two derived stems): *ganyji-L Vt* 'carry', *yodi-L Vi* 'swim', the irregular verb *yani-Vi* 'go, come', *magan-bi-L Vi* 'false-INTR', i.e. 'lie, tell a lie', and *wonaja~wonaja-bi-L Vi* 'camping.out~camping.out-INTR', i.e. 'camp about'. (*-bi-L* is an intransitive-stem-forming suffix (4.7.1).) (This may be coincidental, but they are all *i*-final.) As another example, the stative is attested with only four intransitive roots (of L-class), most of which express emotion, e.g. *wanba-lji* 'be afraid-STAT', e.g. (3-67), (4-139). (The form *wanba-lji* is listed in the column for *banda-L Vi* 'emerge' The stative form of *banda-L* would be expected to be *banda-lji*, but it is not attested. This is probably due to a semantic restriction; the meaning 'emerge' is incompatible with the stative.)

The above suggests the following facts. (i) Not every verb may have a complete paradigm. Indeed, the information obtained on the paradigm of individual verbs is not complete. (ii) Verbs of the same class/subclass may not always possess exactly the same conjugational possibilities.

[2] Reason 2. Furthermore, among the categories that seem productive, some are productive only in certain classes or subclasses of verb roots. The following three categories are worthy of note.

(a) The general imperative-1 ($-\emptyset$) is productive with transitive and intransitive *a*-final roots, e.g. *baba-∅* Vt 'stab-IMP', *banda-∅* Vi 'emerge-IMP', and *waga-∅* Vi 'get up'. But the general imperative-2 (*-ya*) is productive with all roots of L-class and Y-class and all derived stems of ZERO-class, except for *a*-final transitive roots.

(b) The purposive-1 (*-lgo*) is productive with L-class roots. But the purposive-2 (*-yal*) is productive with all roots of L-class and Y-class and all derived stems of ZERO-class, again except for *a*-final transitive roots.

That is, *a*-final transitive roots deviate regarding (a) and (b).

(c) The participle-1 (*-nyo*) and the participle-2 (*-nji*) are each attested in all of L-class, Y-class and ZERO-class. But generally the participle-1 is more frequently used with transitive verbs (4.15.1.1). (In contrast, the participle-2 is used roughly equally frequently with intransitive verbs and transitive verbs.)

[3] Reason 3. As shown above, in L-class, transitive and intransitive roots show slight differences between them. Among the transitive roots, *a*-finals, *i*-finals, and *o*-finals exhibit subtle differences. Similarly, among the intransitive roots, *a*-finals, *i*-finals, and *o*-finals show differences. For the *o*-final intransitive roots of L-class, it is difficult to find a suitable example. The only examples I have found (*jago-L* 'be sorry' and *gobi-L* 'whistle') appear to have the stative form only (see 3.10.7). That is, they have a highly defective paradigm.

It is in view of these reasons that maximum caution was exercised in presenting Table 3-14.

As stated above, the following are fully productive, fairly highly productive or fairly productive: nonfuture-1, -2, apprehensional, general imperative-1, -2, purposive-1, -2, and participle-1, -2. The apprehensional 'something unpleasant may happen' (3.10.11) needs to be commented on. It is used very infrequently (while most of the above-mentioned categories are used frequently). Despite this, it appears to be productive. This is because Alf Palmer produced the apprehensional form for any verb that I presented to him. Such examples were given in 3.9.3. As another example, the intransitive verb *bonba-Y* 'cry' is almost always used in the nonfuture-1 form of its iterative form (*-garra-Y*; see 4.13): *bonba-garra-n* 'cry-ITER-NF'. And yet, Alf Palmer was able to give the apprehensional form of *bonba-Y*: *bonba-*

y-ng-ga. (It is because of the apprehensional suffix *-y-ng-ga* that I was able to assign the root *bonba-* to Y-class.) Other examples of the apprehensional not listed in Table 3-14 include *jana-y-ng-ga* Vi ‘stand-APPR’, *joyora-y-ng-ga* Vi ‘slip’ and *jojorra-y-ng-ga* Vi ‘be drowned’.

(Incidentally, the above suggests that a conjugational category of low frequency can be productive, i.e. that frequency and productivity may need to be distinguished.)

Note the existence of the irregular verb: verb *yani-* Vi ‘go, come’ It has two forms that are not attested in any other verb: *yani-l-ng-ga* ‘apprehensional’ and *yani-yi* ‘purposive-4’ Furthermore, it exhibits the features of both L-class (*yani-l* ‘nonfuture-2’, *yani-l-ga* ‘apprehensional’) and ZERO-class (*yani-ng-ga* ‘apprehensional’). The apprehensional *yani-l-ng-ga* is a mixture of the two classes. (The verb for ‘go’ is irregular in Dyirbal (Dixon 1972: 55), and – outside Australia – Amis of Taiwan (Naomi Tsukida and Yuki Inaida, p.c.), Q’eqchi’ of Guatemala (Ken Shibushita, p.c.), Japanese, German, and English. This suggests that the verb for ‘go’ may be among those verbs which are likely to be irregular.)

Note also that *yani-* ‘go’ has the purposive-1 *yani-lgo* (but this form does not seem productive). As seen in 1.8.2-[2], William Craig’s letter dated 14th July 1898 contains eight Warrongo words, one of which is “yan-ulgoo” ‘go’. This word may be analyzed as *yano-lgo* ‘go-PURP’ (phonemically /janulgu/). But the verb root *yano-* is not attested in the data obtained in modern studies on Warrongo. Dyirbal has *yanu-L* ‘go’, but its purposive form seems to be *yanuli* (see Dixon 1972: 55, 68, 251). Therefore, *yanulgo* does not seem to be a Dyirbal form, either. It is possible that *yanolgo* existed in a certain variety of Warrongo.

In Table 3-14, the suffixes are divided into their constituents, e.g. *-l-go* ‘purposive-1’ and *-y-ng-ga* ‘apprehensional’ This is in order to show their formation. However, in sentential examples, they are each shown as one single unit, e.g. *-lgo* and *-yngga*.

There are three nonfutures: nonfuture-1, -2, and -3. In the following, they will be simply glossed as ‘NF’, e.g. *baba-n* ‘stab-NF’ Similarly for the two general imperatives, the four purposives, and three participles.

3.9.4.2. *Verbal paradigm (2): derived stems*

[1] Transitive stems that are formed with *-nga-L* (4.7.2) or *-(m)ba-L* (4.7.3) seem to share inflectional possibilities with *a*-final transitive roots (L-class).

[2] Intransitive stems that are formed with *-bi-L* (4.7.1) in the main inflect like intransitive verb roots of L-class (e.g. *banda-L* Vi ‘emerge’), but they deviate from them at least in the following respects.

(a) It is not certain if they have the nonfuture-2 (*-l*). (But they have the nonfuture-1 (*-n*), e.g. (3-233) (*jolgi-bi-n* ‘bush-INTR-NF’), and the nonfuture-3 (*-∅*), e.g. (3-253) (*magan-bi-∅* ‘false-INTR-NF’), and Text 1, Line 10’ (*wara-yi-bi-∅* ‘one’s.

own-INTR-NF’). (In Alec Collins’ Warrongo, they have the nonfuture-2. See (3-245) (*ngani-bi-l* ‘what-INTR-NF’).

(b) They seem to lack the general imperative-1 (-Ø).

(c) A participle-1 form is attested: *ngani-bi-nyo* ‘what-INTR-PTCP’, e.g. (4-604).

(d) They are not attested with the participle-2 (-*nji*).

Table 3-15. Verbal paradigm (2): reciprocal verbs; iterative verbs; and antipassive verbs and reflexive/middle verbs

	reciprocal (Y-class)	iterative (Y-class)
	<i>balga-L</i> Vt ‘hit’	<i>yaji-ZERO</i> Vi ‘laugh’
nonfuture-1	<i>balga-wa-n</i>	<i>yaji-garra-n</i>
nonfuture-2	<i>balga-wa-y</i>	<i>yaji-garra-Ø, yaji-garra-y</i> (?)
apprehensional	<i>balga-wa-y-ng-ga</i>	<i>yaji-garra-y-ng-ga, yaji-garra-ng-ga</i>
general imperative		<i>yaji-garra-Ø</i> (TT)
general imperative-2	<i>balga-wa-ya</i>	<i>yaji-garra-ya</i> (TT)
purposive-2	<i>balga-wa-yal</i>	<i>yaji-garra-yal</i>
purposive-3	<i>birra-wa-yalgo</i>	
participle-2	<i>balga-wa-nji</i>	
	antipassive and reflexive/middle (ZERO-class)	
	<i>baba-L</i> Vt ‘stab’	
nonfuture-1	<i>baba-gali-n</i>	
nonfuture-2	<i>baba-gali-Ø</i>	
apprehensional	<i>baba-gali-ng-ga</i>	
general imperative-2	<i>baba-gali-ya</i>	
purposive-2	<i>baba-gali-yal</i>	
purposive-3		
participle-2	?	

[3] Applicative verbs (4.14) (surface-transitive) belong to L-class. They can be divided into locative verbs (*Vi-ri-L*; derived from intransitive roots) and instrumental verbs (*Vt-ri-L*; derived from transitive roots). Locative verbs seem to share inflectional possibilities with the intransitive verbs formed with *bi-L*. In contrast, instrumental verbs have the purposive-1 (-*lgo*) only and possibly the apprehensional (-*lga*) as well. See 4.14.3.5.1-[2].

[4] Reciprocal verbs (*Vt/Vi-wa-Y*) (4.12) (surface-intransitive) belong to Y-class. See Table 3-15. For the apprehensional, Alf Palmer gave Y-class forms, e.g. *balga-wa-y-ng-ga* ‘hit-RECP-APPR’ and *birra-wa-y-ng-ga* ‘talk-RECP-APPR’. The nonfuture-2 (-*y*) was obtained in elicitation, but it was never used spontaneously. Reciprocal verbs are of Y-class, but their inflectional possibilities seem somewhat more limited than roots of Y-class (represented by *nyina-Y* Vi ‘sit’ in Table 3-14).

[5] Iterative verbs (Vt/Vi-*garra-Y*) (4.13) (either surface-intransitive or surface-transitive) belong to Y-class. See Table 3-15. For the apprehensional, Alf Palmer gave Y-class forms, e.g. *yaji-garra-y-ng-ga* 'laugh-APPR' and *badi-garra-y-ng-ga* 'cry-ITER-APPR', e.g. (4-569). Two imperative forms are attested: *-garra-Ø* and *-garra-ya*. The two nonfuture-2 forms (*-garra-Ø* and *-garra-y*) are hardly ever used. It is not certain if they are acceptable.

[6] Antipassive verbs (Vt/Vi-*gali-ZERO*) (4.9) and reflexive/middle verbs (Vt/Vi-*gali-ZERO*, Vt/Vi-*li-ZERO*) (4.11) (all surface-intransitive) belong to ZERO-class. The *-gali*-verbs 'antipassive, reflexive/middle' have the inflectional possibilities shown in Table 3-15. The *-li*-verbs 'reflexive/middle', too, probably have the same possibilities. (That is, their inflectional possibilities seem to be somewhat limited in comparison with the intransitive verbs of ZERO-class represented by *wadali-ZERO* Vi 'run'. In particular, they lack the participle-2 (*-nji*)).

A voice suffix (i.e. antipassive, reflexive/middle, applicative, or reciprocal) or an aspectual suffix (i.e. iterative) precedes a tense suffix (i.e. nonfuture) or a mood suffix or the like (i.e. imperative, purposive, or apprehensional). Their relative order conforms to the universal tendency pointed out by Foley and Van Valin (1984: 208–234).

The preceding has been concerned with the conjugation of verbs of Alf Palmer's Warrongo. The information on that of Alec Collins' Warrongo (recorded by Peter Sutton) is severely limited, but there are differences as well as commonalities between the two idiolects. At least, Alec Collins' has the three conjugational classes: L-class, e.g. (3-244) (*miranga-l* 'make-NF'), (3-245) (*ngani-bi-l* 'what-INTR-NF'), Y-class, e.g. (3-246) (*nyina-y* 'sit-NF'), and ZERO-class. ZERO-class has the following: nonfuture *-n*, nonfuture *-Ø*, purposive *-go*, and imperative *-ya*. See 4.9.1. The adnominal *-ngo*, too, is attested; see (4-798). Additional comments on Alec Collins' data will be given in the following.

3.10. Meanings and functions of conjugational categories

Participles are predominantly used in subordinate clauses. They will be discussed in 4.15. The use of the adnominal will be looked at in 4.16.

3.10.1. Past

The past (*-la*) is attested in Alf Palmer's Warrongo, but not in Alec Collins'. It is not productive. It mainly occurs with transitive verbs, e.g. *jilwa-L* Vt 'kick', *jingga-L* Vt 'punch', *ngawa-L* Vt 'hear', and *ngarrambi-?* Vt 'hear'. But it is attested with at least one intransitive verb: *ngarba-L* Vi 'jump with a fright'. Where

information is available, the past *-la* occurs only with verbs of L-class. Therefore, *ngarrambi-?* Vt ‘hear’, too, may be of L-class. All these verbs are roots, with no stem-forming suffix, except for *ngarrambi-?* Vt ‘hear’ See 3.11.1 for its formation. The past is generally used in songs, e.g. (1-10-d, -e), (1-11), (4-703), and it is used in the ordinary style very infrequently, e.g. (3-224).

- (3-224) *bama-nggo gando-Ø jilwa-la*. (AP)
 man-ERG dog-ACC kick-PST
 ‘The man kicked a dog.’

3.10.2. Nonfuture-1

The nonfuture-1 (*-n*) occurs in both Alf Palmer’s and Alec Collins’ Warrongo. We shall first look at Alf Palmer’s Warrongo, followed by Alec Collins’.

In Alf Palmer’s Warrongo, the nonfuture-1 is the most frequently used among the three nonfutures. (There is one exception: the irregular verb *yani-* Vi ‘go, come’ Among its three nonfutures, the nonfuture-3 (*yani-Ø*) is almost always used, the nonfuture-1 (*yani-n*) is used just occasionally, and the nonfuture-2 (*yani-l*) is hardly ever used.) Also, the nonfuture-1 is the most frequently used among all the conjugational categories. It is an unmarked category, and it has a wide range of tense/aspect/mood meanings.

[1] Time reference

In the vast majority of examples, the nonfuture-1 refers to the past time, e.g. (3-2), (3-3), (3-8), or the present time, e.g. (3-4) to (3-7). In a few examples, it refers to ‘past in past’ or ‘before-past’ (Jespersen 1924: 256), e.g. (3-225-b) and (4-730) (‘Blue Tongue Lizard had died’).

- (3-225) (‘I cooked a possum and gave its head to a dog.’)

- a. *gaja-Ø mojan gando-nggo*.
 head-ACC eat-NF dog-ERG
 ‘The dog ate the head.’
- b. *nyongo goyba-n*. (AP)
 3SG.GEN give-NF
 ‘[I] had given [it] to it.’

Occasionally, the nonfuture-1 describes a decision, intention, determination to do something in the future, e.g. (3-226-a, b), (3-227), and (4-768) (fourth B). Here, the nonfuture-1 has future reference. It is used as if to state that the event has already taken place.

(3-226) (Alf Palmer was planning to visit the mainland, but suddenly he decided not to go. He said:)

- a. *nyawa, ngaya walwandan-Ø yarro-n-da nyina-n.*
 NEG 1SG.NOM sick-NOM here-LINK-LOC stay-NF
 ‘No. I am sick [and I] will stay here.
- b. *nyawa yani-n.* (AP)
 NEG go-NF
 [I] will not go.’

(3-227) (An example from a text. A man found a nice girl and said:)

- ngaya ganyji-n.* (AP)
 1SG.ERG carry-NF
 ‘I will take [her with me]!’

The conditions under which the nonfuture-1 expresses a decision/intention/determination are not known for certain. But semantically, it probably describes an action in the near future, and not just in the future. Phonetically, in a few instances the verb has a prominent stress. This applies to *ganyji-n* of (3-227). This sentence was pronounced with stronger stress than usual. It also has a high and flat intonation contour, unlike most declarative sentences, which generally have a falling intonation contour.

In (4-772), the nonfuture-1 expresses counterfactual apodosis: ‘If there were no food, we would die’

There are four intransitive stems that consist of an intransitive root and the stem-forming suffix *-yi* ‘future (?)’ They seem to have a nonfuture-1 form only, e.g. *wola-yi-n* ‘die-*yi*-NF’ They always mark a future intention or future possibility. See 3.11.1.5.

The nonfuture-1 can also mark ‘generic time’ (Jespersen 1924: 259), e.g. (3-228-a, -b), (3-229), and also (4-686), (4-767) (the second clause), and possibly (4-140) and Text 2, Line 6.

(3-228) (Alf Palmer seemed to believe that there is an inverse correlation between a man’s size and the size of his penis. He used to make the following comment.)

- a. *jangarago-nggo ganyji-n gagabaraa-Ø.*
 small-ERG carry-NF big-ACC
 ‘Small [men tend to] carry [i.e. have] a big [penis].’
- b. *gagabara-nggo ganyji-n jangarago-Ø.* (AP)
 big-ERG carry-NF small-ACC
 ‘Big [men tend to] carry [i.e. have] a small [penis].’

(Note in passing that the verb *ganyji-L* ‘carry’ can be used to describe possession of a body part. See 4.20.8.)

(3-229) (When asked to translate 'step child' into Warrongo, Alf Palmer gave the following.)

mara-Ø *gagal-nga-n* (AP)

hand-ACC big-TR-NF

Lit. '[Someone] makes a person big'

Recall that the noun *mara* 'hand' can mean 'person' in compound nouns (Table 3-12). In (3-229), although it is not used in a compound, it seems to mean 'person'. I asked Alf Palmer if this *mara* referred to 'child', his answer was in the affirmative. This suggests that the noun *mara* 'hand' can mean 'person', including 'child'.

[2] Aspectual meanings

The nonfuture-1 can have various aspectual meanings. We shall first look at the aspectual meanings with past reference or present reference (this use is by far the more common), followed by those with future reference (there are not many examples). (The aspectual meanings of the antipassive and the iterative will be discussed in 4.9.10 and 4.13.3.1, respectively.)

When the nonfuture-1 has past or present reference, it describes a 'punctual' situation in many instances, e.g. (3-8), (3-9-a, -b, -d, -e).

But the nonfuture-1 may describe 'durative' situations, e.g. (3-230). Specifically, it can have aspectual meanings such as the following.

(a) Progressive: (i) past, e.g. (3-42), (3-52), (3-166), and (ii) present, e.g. (3-4), (3-16), (3-151), (3-152), (3-160), (3-165), (3-231).

(b) Habitual: (i) past, e.g. (3-43), (3-232), (4-764-a), (4-808), and (ii) present, e.g. Text 2, Line 47. Along a similar line, the nonfuture-1 describes a tendency in (3-228-a, -b).

(c) Stative: (i) past, e.g. (3-233), and (ii) present, e.g. (3-5), (3-68), (3-92), (3-95), (3-144).

(3-230) *ngaya* *ngawa-n*. (AP)

1SG.ERG hear-NF

'I hear [a noise/voice].'

(3-231) (When Alf Palmer saw smoke rising, he said as follows.)

joga-Ø *waga-n*. (AP)

smoke-NOM rise-NF

'Smoke is rising.'

(3-232) (Alf Palmer acted as a consultant for R.M.W. Dixon's study of Warrgamay (1.8.4.1-[2]. He had a job during the day, and he did the language work after work. He described the language work as follows.)

ngali-Ø *jaymba-wa-n* *nyara-ngga*. (AP)

1DU-NOM find-RECP-NF light-LOC

Lit. 'We [i.e. R. M. W. Dixon and I] used to find each other in the the light', i.e. 'We used to meet in the light [at night].'

(3-233) (An example from a text. ‘White men made a road here, but’)

ganba-mara jolgi-bi-n. (AP)
ago-very bush-INTR-NF
‘Long ago [this place] used to be a bush.’

The nonfuture-1 also has the use of ‘perfect’ (Comrie [1976] 1978a: 56–61): (i) perfect of recent past, e.g. (3-234), (ii) perfect of persistent situation, e.g. (2-235-B), (iii) perfect of result, e.g. (3-29), (3-33), (3-34), and (iv) experiential perfect, e.g. (3-236).

(3-234) *garri-Ø galngga-n?* (AP)
sun-NOM fall-NF
‘Has the sun set [yet]?’

(3-235) (A conversation cited from a text.)

A. *wanyja-ngal yorra-Ø?*
where-to 2PL-NOM
‘Where [are] you [going] to?’

B. *yino-n-go ngana-Ø yangga-gali-n.* (AP)
2SG-LINK-DAT 1PL-NOM search.for-ANTIP-NF
‘We have been looking for you.’

(3-236) (Alf Palmer asked me as follows.)

mojagara-Ø yinda moja-n? (AP)
crab-ACC 2SG.ERG eat-NF
‘Have you [ever] eaten crabs?’

The nonfuture-1 with future reference has not yielded many examples, but it may describe a punctual situation, e.g. (3-227), and a durative situation, e.g. (3-226-a, -b).

[3] Modal and related meanings

In the vast majority of instances, the nonfuture-1 is used to make statements. Many examples have already been given. However, it may be used to express a modal or related meaning. Examples follow.

The nonfuture-1 describes a decision, intention, determination or the like (with future reference) in (3-226-a, -b), (3-227), and (4-768) (fourth B).

There is at least one example in which the nonfuture-1 seems to express ‘try to’

(3-237) (An example from a text. A group of men joined a fight.)

a. *baba-n baba-n.*
spear-NF spear-NF
Lit. ‘[They] speared [the enemies]. [They] speared [them].’

b. *nyawa /*
NEG
‘No.’

c. *ngarro-mba-n* / *ngarro baba-n* / (AP)

in.vain-TR-NF in.vain spear-NF

Lit. '[They] did in vain [to them]. [They] speared [them] in vain'. That is, 'They tried to spear them, but they could not.'

The adverb of modality *ngarro* means 'in vain, unsuccessfully, can/could not' (4.24-[9]). *-(m)ba-L* is a transitive-stem-forming suffix (4.7.3). The verb *ngarro-mba-L* (Vt) means 'try to do in vain/ unsuccessfully' or 'try to do, but cannot'. Line a literally mean '[They] speared [the enemies]. [They] speared [them].' However, Line c clearly shows that the spearing was unsuccessful. This in turn suggests that the verb *baba-n* in the nonfuture-1 in Line a means 'tried to spear', and not just 'speared'. (Ryle ([1949] 1951: 150) notes for English that *mend* can mean 'try to mend'. In Japanese, *ake-ru* Vt 'open [a door]' and *moyas-u* Vt 'burn', for example, can mean 'try to open' and 'try to burn', respectively (Ikegami 1985, Miyazima 1985).)

There is one example in which a nonfuture-1 form combined with the enclitic *=na* 'really' indicates a command. See (4-1018) (*waga-n=na* 'get up-NF=really')

Nonfuture-1 forms may co-occur with various adverbs of modality and have various modal meanings, e.g. (i) *nyawa* 'negation', e.g. (3-130), (3-226-b), (3-241-c), (ii) *ngarro* 'in vain', e.g. (3-237-c), and (iii) *ngalnga* 'prohibition', e.g. (4-930), (4-931). See 4.24 for adverbs of modality.

So far, we have looked at the nonfuture-1 of Alf Palmer's Warrongo. The data on Alec Collins' Warrongo (collected by Peter Sutton) are severely limited, but judging by Peter Sutton's translations, the nonfuture-1 seems to have past reference, e.g. (3-123) (*woda-n* 'pull-NF'), and present reference, e.g. (3-246) (*banda-n* 'emerge-NF').

3.10.3. Nonfuture-2

The nonfuture-2 occurs in both Alf Palmer's and Alec Collins' Warrongo. The suffix is *-l* for L-class, e.g. (3-238) (*baba-l* Vt 'spear-NF'), *-y* for Y-class, e.g. (3-239) (*nyina-y* Vi 'sit-NF'), and null for ZERO-class, e.g. (3-177) (*wadali-Ø* Vi 'run-NF') and (3-241) (*banbarri-Ø* Vi 'shiver-NF'). We shall first look at Alf Palmer's Warrongo, followed by Alec Collins'

In Alf Palmer's Warrongo, the nonfuture-2 is used much less frequently than the nonfuture-1, and it is difficult to generalize about it. But in the main its meanings do not seem to deviate from those of the non-future-1. See (3-277), which contains both the nonfuture-1 *wanbali-n* 'fear-NF' and the nonfuture-2 *wanbali-Ø* 'fear-NF'. In (3-277), the two nonfutures do not seem to show any difference regarding time reference.

Other examples follow.

(a) Past reference: (i) L-class: (3-57) (*wajo-l* ‘cook-NF’), (3-238) (*baba-l* ‘spear-NF’), (ii) Y-class, e.g. see the comment on (3-333) (*wola-y* ‘die-NF’), Text 2, Line 12 (*nyina-y* ‘sit-NF’), (iii) ZERO-class: (3-122) (*gawali-Ø* ‘call out-NF’), (3-177), Text 1, Line 44 (*wadali-Ø* ‘run-NF’).

(b) Present reference: (i) L-class: (4-762) (*wanba-l* ‘be afraid-NF’), Text 1, Line 29 (*joga-L* ‘dip-NF’), (ii) Y-class: (3-239) and (3-240) (*nyina-y* ‘sit-NF’), (3-241-b) (*binda-y* ‘stand up’), (iii) ZERO-class: (3-96) and (3-242) (*banbarri-Ø* ‘shiver-NF’).

(c) Future reference: (i) L-class, e.g. (3-116) (*wanda-l* ‘leave-NF’), (4-409) (*balga-l* ‘hit-NF’), (ii) Y-class, e.g. Text 2, Line 12 (*nyina-y* ‘sit-NF’), and also see the comments (b-2) below on (3-240).

(3-238) *ngaya yori-Ø baba-l*. (AP)
 1SG.ERG kangaroo-ACC spear-NF
 ‘I speared a kangaroo.’

(3-239) (Alf Palmer commented on a man who was sitting nearby.)
jamo nyina-y. (AP)
 just sit-NF
 ‘[He] is just sitting [there].’

(*Jamo* is an adverb of modality. It means ‘just, for no reason, for no purpose’ See 4.24-[8].)

(3-240) (When Alf Palmer was sitting on the ground, i.e. when he was already on the ground, he said.)
ngaya yarro-n-da nyina-y. (AP)
 1SG.NOM here-LINK-LOC sit-NF
 ‘I am sitting here.’

(3-241) (Alf Palmer was talking about someone else’s penis.)
 a. *nyawa wola-n*.
 NEG die-NF
 ‘[It] has not died [yet].’
 b. *binda-y*. (AP)
 stand.up-NF
 ‘[It still] stands up [if/when he sees a young girl].’

(3-242) (Alf Palmer used to go fishing even in his eighties (1.8.4.1-[1]). One day, he fell into the sea while fishing. On the following day he said to me as follows.)
gido-Ø ngaya banbarri-Ø. (AP)
 cold-NOM 1SG.NOM shiver-NF
 ‘[Yesterday] I was cold [and] shivering.’

However, the nonfuture-2 differs from the nonfuture-1 as follows.

(a) Unlike the nonfuture-1, the nonfuture-2 has yielded at least one example of 'should' (obligation, advice, or the like): (3-60) ('You should work on one job; don't move from one job to another').

(b) The nonfuture-2 of intransitive roots of Y-class exhibits the following differences from their nonfuture-1 counterpart.

(b-1) Past reference. In Y-class, the nonfuture-1 of intransitive roots has past reference in many examples, e.g. (i) (3-42), (3-166), (3-203), (3-208) (*nyina-n* 'sit-NF'), (ii) (3-52), (3-158) (*jana-n* 'stand-NF'), and (iii) (3-2), (3-55), (3-141), (3-153) (*wona-n* 'lie down-NF'). In contrast, their nonfuture-2 hardly ever has past reference. There is only one possible example: *wola-y* 'die-NF'. See the comments on (3-333).

(b-2) Future reference. In Y-class, the nonfuture-1 of intransitive roots does not seem to have future reference. At least there is no example. In contrast, their nonfuture-2 can have future reference. A probable example is Text 2, Line 12 (*nyina-y* 'sit-NF'). As another example, when the tape recording of (3-240) was replayed to him, Alf Palmer said *nyina-y* meant 'gonna sit down [i.e. I am going to sit down], not down yet'. That is, it has future reference. It may be that, at least in Alf Palmer's introspection (if not in performance), the nonfuture-2 of the intransitive roots of Y-class prefers a future reading to a present reading.

Like nonfuture-1, the nonfuture-2 can occur with an adverb of modality, e.g. (3-243) (*ngalnga* 'prohibition'). See 4.24 for adverbs of modality

(3-243) *ngalnga yinda goyba-ra-l*. (AP)
 PROH 2SG.ERG give-many-NF
 'Don't give out the food.'

(See 3.11.1.4 for the formation of *goyba-ra-L* 'give out'.)

Thus far we have looked at the nonfuture-2 of Alf Palmer's Warrongo. The data on Alec Collins' Warrongo are severely limited. Judging by Peter Sutton's translations (given below), the nonfuture-2 seems to have present reference only, e.g. (3-244) to (3-246) (see *nyina-y* 'sit-NF' in (3-246)). (The nonfuture-1 seems to have past reference, e.g. (3-123) (*woda-n* 'pull-NF'), and also present reference, e.g. (3-246) (*banda-n* 'emerge-NF')).

(3-244) *wanyo-ngo miranga-l yinda?* (AC)
 who-GEN make-NF 2SG.ERG
 'Who are you making it [a boomerang —TT] for?'

(3-245) *ngani-bi-l yinda?* (AC)
 what-INTR-NF 2SG.NOM
 'What are you doing?'

- (3-246) *ngaya gaybal-da nyina-y, bayin.girra-Ø banda-n.* (AC)
 1SG.NOM fire-LOC sit-NF sweat-NOM emerge-NF
 ‘I’m sitting by the fire and sweating.’

(According to Peter Sutton, the word for ‘sweat’ in Alec Collins’ Warrongo is *bayin.girra*. It contains the cluster *-n-g-*. In contrast, in my observation of Alf Palmer’s pronunciation, this word is *bayinggirra*. It contains the cluster *-ng-g-*.)

3.10.4. Nonfuture-3

The nonfuture-3 (*-Ø*) occurs in Alf Palmer’s Warrongo only, and not in Alec Collins’. As mentioned in 3.9.4.1, it is attested with at least three roots: irregular *yani-* Vi ‘go/come’ (see [1] below), *ganyji-L* Vt ‘carry’ (see [2]), *yodi-L* Vi ‘swim’ ([3]) and two derived stems (*magan-bi-L* Vi ‘false-INTR’, i.e. ‘lie, tell a lie’ and *wonaja~wonaja-bi-L* Vi ‘camping out~camping out-INTR’, i.e. ‘camp about’). The nonfuture-3 forms, too, may occur with an adverb of modality.

[1] *Yani-* Vi ‘go’

The nonfuture-3 (*yani-Ø*) is used very frequently, and the other nonfuture forms are uncommon, e.g. the nonfuture-1 *yani-n* in (3-43).

The nonfuture-3 may have the following time references.

- (a) Past reference (this is by far the most common), e.g. (3-18), (3-21), (3-214), (3-215), Text 1, Lines 1, 12, 13, 15, 16, 18, 21, 23.
 (b) Present reference, e.g. (3-247).
 (b-1) Present habitual, e.g. (3-155).
 (c) Future reference (there are many examples), e.g. (3-248), (3-262-A), (3-332), (4-763), (4-764-b). (To be precise, *yani-Ø* in (3-248) and (3-326) seems to express future intention or near future.)

There is an example of exhortation ‘Let’s’: (3-167) (‘Let’s go’)

An example involving an adverb of modality (*ngalnga* ‘prohibition’) is (3-249).

- (3-247) *golobo-Ø ngarra-mali yani-Ø.* (AP)
 wind-NOM above-side go-NF
 ‘The wind is blowing above.’

- (3-248) (Alf Palmer talked about two government officers’ forthcoming visit to Palm Island.)

garrbala bolari-Ø waybala-Ø yani-Ø yarro-wo. (AP)
 tomorrow two-NOM white.man-NOM come-NF here-DAT
 ‘Tomorrow two white men will come here.’

- (3-249) *ngalnga golmi yani-Ø*. (AP)
 PROH back come-NF
 'Don't come back.'

[2] *Ganyji-L* Vt 'carry'

There are very few examples. The nonfuture-3 has past reference, e.g. in (3-250), and future reference in only one example: (3-251). Present reference, too, is probably possible, although there is no example.

- (3-250) *yinda yori-Ø ganyji-Ø*. (AP)
 2SG.ERG kangaroo-ACC carry-NF
 'You carried [a] kangaroo.'

- (3-251) *yarro-wo ganyji-Ø*. (AP)
 here-DAT carry-NF
 '[I] will carry (i.e. bring) [it] here.'

As seen above, all of the three nonfutures can have future reference. The examples suggest that the nonfutures can have future reference only regarding an event in the near future or an event that is certain to occur. The S/A is often, though not always, the first person.

[3] *Yodi-ZERO* Vi 'swim'

Alf Palmer's data have yielded only one example, i.e. (4-559-a). It is fragmentary, and difficult to comment on. Dixon (1989a: 77) cites one example from Alec Collins' Warrongo, i.e. (3-252). Again, it is difficult to comment on it. (In Alec Collins' Warrongo, judging by (3-252), *yodi-* 'swim' is of ZERO-class, as is the case in Alf Palmer's (see (c-1-2) in 3.9.3).)

- (3-252) *ngaya yodi-Ø*. (AC)
 1SG.NOM swim-NF
 Dixon's translation: 'I swim.'

[4] *Magan-bi-L* Vi 'tell a lie' and *wonaja-wonaja-bi-L* Vi 'camp about'

The only of example of *magan-bi-L* Vi 'tell a lie' contains the adverb of modality *ngalnga* 'prohibition'.

- (3-253) *ngalnga magan-bi-Ø*. (AP)
 PROH false-INTR-NF
 'Don't tell a lie.'

- (3-254) ('Take that woman with you.')
- | | |
|---------------------------------|------------------------|
| <i>wonaja-wonaja-bi-Ø</i> | <i>yobala-Ø</i> . (AP) |
| camping.out~camping.out-INTR-NF | 2DU-NOM |
| 'You-two will camp about.' | |

In this sentence, *wonaja-wonaja-bi-Ø* seems to describe an event in the near future, or possibly advice or the like. When the tape was replayed, Alf Palmer stated that *wonaja-wonaja-bi-Ø* is the same as *wonaja-wonaja-bi-n* (the non-future-1 form).

3.10.5. Future

In Alf Palmer's Warrongo, the future (*-lji*) is not productive. (Future situations are generally described by purposives (3.10.12 to 3.10.15). Also, as seen above, they may be described by the three nonfutures.) The future is attested with at least two verbs: *ganyji-L* Vt 'carry' and *manja-L* Vt 'send', e.g. (3-255). They are transitive and of L-class. Alec Collins' Warrongo (Sutton 1973: 151–152) seems to have *-yay* (not listed in Table 3-14) as well as *-lji* for the future, e.g. (3-256), (3-257). Probably it is not productive, either. Gugu-Badhun (Sutton 1973: 149–151) has *-lji*, *-yay* and *-yi* for the future. Girramay, east of Warrongo, has *-ljay/-njay* 'future' (Dixon 1972: 55). It may be related to *-yay* 'future' of Gugu-Badhun and Alec Collins' Warrongo. (*-ljay/-njay* and *-yay* were mentioned in 1.4.2.4.)

(3-255) *ngaygo gaya-na-nggo gambi-Ø manja-lji*. (AP)
 1SG.GEN F-KIN-ERG clothes-ACC send-FUT
 'My father will send [me] clothes.'

(3-256) *ngaya goman-Ø balga-lji jida-da*. (AC)
 1SG.ERG another-ACC kill-FUT morning-LOC
 'I will kill another one [a kangaroo – TT] in the morning.'

(3-257) *ngaya nyina-yay yarro-n-da yindogay gada nyola*
 1SG.NOM stay-FUT this-LINK-LOC ? possibly 3SG.NOM
banda-lji. (AC)
 emerge-FUT
 'I'll stay here, he might come up and come out here.'

The exx. (3-256) and (3-257) are cited from Sutton (1973: 151, 152). (The glosses have been changed slightly, but the translations are Sutton's.) Sutton does not give a gloss for *yindogay*. Alf Palmer's Warrongo has the adverb *yindo* 'somewhere here'.

Alf Palmer stated that *manja-lji* 'send-FUT' in (3-255) means 'might' (i.e. 'My father might send me clothes'). He said, 'You are not sure if you get one or not'. This suggests that *manja-lji* marks not just future, but rather future uncertainty. This is in contrast with the future reference of the nonfutures. As mentioned in 3.10.4, the latter seems to have future reference only regarding an event that is certain to occur or an event in the near future.

3.10.6. Comparative notes on tenses: past, present and future

Consider Table 3-16. Data on Gugu-Badhun and on Alec Collins' Warrongo are from Sutton (1973: 149–152). The data on Gugu-Badhun are limited, and those on Alec Collins' Warrongo are severely limited. In Alf Palmer's Warrongo, *-n* 'nonfuture-1' and *-l, -y* both 'nonfuture-2' predominantly have past and present reference, although they may have future reference. Table 3-16 suggests the following possibility. In what may be considered the proto-language of Warrongo and Gugu-Badhun, *-n* had past reference, while *-l/-y* had present reference. Subsequently, the variety of Warrongo spoken by Alf Palmer lost this opposition (not necessarily in his lifetime). This may be due to an influence from Dyirbal; it has the opposition of nonfuture (i.e. past and present) vs. future (Dixon 1972: 55), and does not distinguish between past and present. (The information on $-\emptyset$ (i.e. nonfuture-2 of ZERO-class of Alf Palmer's Warrongo) of Gugu-Badhun and Alec Collins' Warrongo is very small, and it is excluded from this comparison.)

Table 3-16. Past, present and future

	Gugu-Badhun	Alec Collins' Warrongo	Alf Palmer's Warrongo
<i>-n</i>	past	past only (?)	predominantly past and present
<i>-l, -y</i>	past, present	present only (?)	predominantly past and present
<i>-lji</i>	future	future	future

3.10.7. Stative

The stative (*-lji*, identical to the future suffix *-lji*) occurs in Alf Palmer's data, but not in Alec Collins'. (The stative *-lji* and the future *-lji* contain the suffix *-ji*, which is formally identical with one of the two allomorphs of the comitative suffix: *C-ji*, *V-yi* (3.6.8).)

As mentioned in 3.9.4.1, the stative is attested only with four intransitive roots of L-class: *wanba-L* 'be afraid', e.g. (3-67), (3-258), (4-115), *jago-L* 'be sorry', e.g. Text 1, Line 49 (*jago-lji*), *ngorga-L* 'be embarrassed, ashamed, shy', and *gobi-L* 'whistle' (These four roots are involved in the derivation of a number of verb stems. See 3.11.1.6.)

Among these four roots, *wanba-L* is attested only with the stative and the nonfuture-2 (*wanba-l*, e.g. (4-762), and no other conjugational suffix. For example, *wanba-n* 'be afraid-NF' is not attested. The other three roots are attested with the stative suffix only, and not any other conjugational suffix. They appear to have a highly defective paradigm. See the paradigm of *jago-L* 'be sorry' in Table 3-14.

These verbs express a psychological state, except for the action verb *gobi-L* ‘whistle’. The stative appears to express the following.

- (a) Habit in the case of *gobi-lji* ‘whistle-STAT’, e.g. ‘always whistling’. Alf Palmer’s gloss for it is ‘whistle too much’.
- (b) State of mind in the case of the other three verbs.

Time reference is to the past or present. (There appears to be no example with future reference.) An example of *wanba-lji* ‘be afraid-STAT’:

- (3-258) *ngaya wanba-lji*. (AP)
 1SG.NOM be.afraid-STAT
 ‘I am frightened.’

3.10.8. General imperatives

All of the imperatives – two general imperatives (‘IMP’), affirmative imperative (‘AFFIMP’) (3.10.9), and negative imperative (‘NEGIMP’) (3.10.10) – occur in Alf Palmer’s data, but the affirmative imperative does occur in Alec Collins’ data.

In Alf Palmer’s Warrongo, the general imperatives are fully productive, but the other two imperatives are not productive. The general imperatives can be used both in (i) the affirmative, and (ii), with an adequate adverb of modality, in the negative. They are the unmarked imperatives.

[1] Formation

The suffix employed is $-\emptyset$ for the general imperative-1, and $-ya$ for the general imperative-2. Each occurs in each of Alf Palmer’s and Alec Collins’ data. The following account concerns Alf Palmer’s Warrongo. (Relevant information in Alec Collins’ data is severely limited.) The use/non-use and productivity of the two general imperatives vary from class to class of verbs, and also from subclass to subclass.

First we shall mainly look at the general imperative-1 ($-\emptyset$).

- (a) For the following verbs, $-\emptyset$ is the only general imperative, and also it is productive.
 - (a-1) *a*-final transitive roots and also stems containing *-nga-L* (4.7.2) or *-(m)ba-L* ‘TR’ (4.7.2). They do not have the general imperative-2 ($-ya$).
- (b) For the following verbs, $-\emptyset$ is productive, though $-ya$ may be used.
 - (b-1) *a*-final intransitive roots of L-class. (See also (g-1) below.)
- (c) $-\emptyset$ ‘IMP’ is attested with at least one *o*-final transitive root (of L-class): *bambo- \emptyset* Vt ‘shoot-IMP’, e.g. (3-260). But it does not seem productive with *o*-final roots. (It is in view of this that *bambo- \emptyset* Vt ‘shoot-IMP’ is parenthesized in Table 3-14.)

- (d) $-\emptyset$ 'IMP' is attested with at least one *a*-final intransitive root (of Y-class): *nyina*- \emptyset Vi 'sit-IMP'; see (3-261) and (4-755-b). But it does not seem productive with roots of Y-class (all intransitive). (It is in view of this that *nyina*- \emptyset Vi 'sit-IMP' is parenthesized in Table 3-14.)

We turn now to the general imperative-2 (*-ya*).

- (e) *-ya* can occur with all the verbs – irrespective of whether they are roots or derived stems (which contain a derivational suffix), except that it is not attested with *a*-final transitive verbs, irrespective of whether they are roots or derived stems (formed with *-nga-L* 'TR' or *-(m)ba-L* 'TR'); *a*-final transitive verbs seem never to take *-ya*.
- (f) For the following groups of verbs, *-ya* is the only general imperative, and also it is productive.
- (f-1) Y-class, including reciprocal verbs (*-wa-Y*) (4.12) (they are all surface-intransitive) and iterative verbs (*-garra-Y*) (4.13) (they are mostly surface-intransitive).
- (f-2) ZERO-class, including antipassive verbs (*-gali-ZERO*) (4.9) and reflexive/middle verbs (*-gali-ZERO*, *-li-ZERO*) (4.11) (they are all surface-intransitive).
- (f-3) Intransitive stems formed with *-bi-L* 'INTR' (4.7.1).
- (f-4) *i*-final transitive roots of L-class.
- (f-5) Locative verbs (Vi-*ri-L*) (4.14.2) (they are surface-transitive).

The verbs of (f-1) to (f-5) have *-ya* only, and do not take $-\emptyset$.

Instrumental verbs (Vt-*ri-L*) (4.14.3) (they are surface-transitive) appear to have the purposive (Vt-*ri-lgo*) only and no other conjugational category, and consequently they have no imperative form.

- (g) For the following group of verbs, *-ya* is productive, though $-\emptyset$ may be used.
- (g-1) *a*-final intransitive roots of L-class.
- (h) For the following group of verbs, *-ya* is productive, though $-\emptyset$ is exceptionally attested.
- (h-1) *o*-final transitive roots of L-class, e.g. (4-75) (*wajo-ya* 'burn-IMP').

What has been stated above is roughly summarized in Table 3-17. There is a very close association between *-ya* and intransitive verbs, while there is a fairly close association between $-\emptyset$ and transitive verbs. (We shall comment on the purposives-1, -2 in 3.10.12.)

Table 3-17. General imperatives and purposives

	L-class Vt	L-class Vi	L-class Vt	Y-class mostly Vi	ZERO-class Vi
final vowel	-a	-a	-i, -o	-a	-i
general imperative-1	-Ø	-Ø			
general imperative-2		-ya	-ya	-ya	-ya
purposive-1	-lgo	-lgo	-lgo		
purposive-2		-yal	-yal	-yal	-yal

[2] Meaning and function

No difference has been found between the two general imperatives regarding meaning or function, and they will be treated together in the following.

(a) The general imperatives mainly expresses command, order, instruction, advice, request, suggestion, e.g. (3-37), (3-40), (3-62), (3-76), (3-100), (3-103), (3-109), (3-111), (3-115), (3-139), (3-195), (3-200), and:

(3-259) *gajarra-Ø ngaygo nyon.gol-Ø goyba-Ø*. (AP)
possum-ACC 1SG.GEN one-ACC give-IMP
'Give me one possum' or 'Please give me one possum.'

(3-260) ('I think they are intending to kill me.')

yinda-Ø bambo-Ø. (AP)
2SG.ERG shoot-IMP
'Shoot [them].'

(3-261) (A conversation cited from a text. Person A says, 'I will camp there for a while', to which Person B replies as follows.)

yowo ngona-n-da nyina-Ø jarribara-Ø. (AP)
yes there-LINK-LOC sit-IMP good-NOM
Lit. 'OK, stay there, [being] good.'

(This sentence seems to mean something like 'Have a good stay there'.) When the tape was replayed, Alf Palmer confirmed to the effect that the verb *nyina-Ø* has no non-zero suffix. Judging by the context, this verb will have to be considered as an imperative form. There is at least one more example of *nyina-Ø* used as imperative form: (4-755-b).

(b) The general imperatives may also express permission, consent, approval, etc., e.g. (3-217), and B in the following:

(3-262) (A conversation cited from a text. Person A is leaving, and he says to Person B as follows.)

A: *ngaya yani-Ø*.
 1SG.NOM go-NF
 'I'm going [now].'

B: *bowoy, yani-ya yinda*. (AP)
 OK go-IMP 2SG.NOM
 'OK, you go.'

The nonfuture in (3-262-A) seems to describe intention/decision to do something in the near future; see 3.10.2-[1].

In an extreme case of approval, the general imperatives express approval to what has already been done or said, rather like the English expressions 'Well done' or 'Well said'. Examples include (4-854-M) and:

(3-263) (An example from a text. A man says to a woman, 'Let's have sex'. She replies as follows.)

jarribara-bi-ya yinda mayga-gali-ya. (AP)
 good-INTR-IMP 2SG.NOM tell-ANTIP-IMP
 Tentative translation: 'Well said.'

(3-264) (In a text, a person said the following, in consent to what someone else had said.)

yama-bi-ya yinda mayga-gali-ya. (AP)
 thus-INTR-IMP 2SG.NOM tell-ANTIP-IMP
 Tentative translation: 'Well said.'

In (3-263), the intransitive verb *jarribara-bi-ya* Vi 'do in a good way' modifies the antipassive verb *mayga-gali-ya* (surface-intransitive), and the sentence literally means 'Do in a good way [and] tell.' (See 4.5.4.1 for modification of a verb by another verb.) Similarly for (3-264) and (4-854-M). Alf Palmer's translation for (4-263) is 'Be good. Tell me good way.'

This may or may not be significant, but in all the examples of 'Well said!', the verbs are intransitive. The verb may be an antipassive verb, which is surface-intransitive.

(c) In most instances, the general imperative is addressed to second person; see the examples above. But in a number of examples, it is addressed to first person. It generally expresses exhortation ('Let's'); the first person must be dual or plural, e.g. (3-54) (dual), (3-186) (dual), (3-205) (dual), (4-131) (dual), (4-534 (first B) (dual), Text 1, Line 48 (plural), and;

- (3-265) *yowo ngali-Ø yani-ya.* (AP)
 OK 1DU-NOM go-IMP
 'OK, let's go.'

The following is an unusual example; the S in Sentence B is first person dual, but the general imperative does not express exhortation.

- (3-266) (A conversation cited from a text.)

A: *banda-Ø yinda!*
 emerge-IMP 2SG.NOM
 'Come out!'

B: *ngali-Ø banda-Ø.* (AP)
 1DU-NOM emerge-IMP
 '[OK,] we'll come out.'

The imperative in (3-266-B) is not a command or the like directed at the first person (i.e. 'Let's'). Rather, B is an answer to A, indicating B's intention to act in accordance with A's command. Generally, an intention to act is expressed by the purposives (3.10.12 to 3.10.15) and occasionally by the nonfutures (3.10.2-[1], 3.10.3, 3.10.4), and rarely by the future (3.10.5). However, in (3-266), B does not use any purposive, any nonfuture or the future. B simply repeats the conjugational category of A, i.e. the imperative. (The sentence B is reminiscent of an echo question, e.g. A: I saw a dog. B: You saw a DOG?. The term 'echo question' and its example were provided by John B. Whitman (p.c.)) See (4-30) (first B) for a similar use of the imperative in an answer.

(d) In a few instances, the general imperative is addressed to third person; it seems to express exhortation, permission, non-interference or the like ('Let him/her/etc. '), or wish. Examples include (4-985), and:

- (3-267) (Alf Palmer and I used to sit on the ground during an interview, and I often had numb legs. When he saw me in agony, he said:)
nyola jobi-ya. (AP)
 3SG.ERG rub-IMP

It is not clear whom the pronoun *nyola* '3SG.ERG' refers to. Alf Palmer approved my translation 'Let him rub [my numb feet]'. But it may be that this sentence describes the speaker's wish, like the optative: 'I hope he/she will rub [my numb legs]'

- (3-268) (Alf Palmer characterised *mara-gona* 'lazy person' as follows.)

nyola yamba-ngga nyina-ya wona-ya wola-ya
 3SG.NOM camp-LOC sit-IMP lie-IMP die-IMP
goyi-ngomay-Ø wola-ya. (AP)
 hungry-ABL-NOM die-IMP

Tentative translation: 'Let him sit and lie in the camp [doing no work] and die from [being] hungry'

(See 3.7.3-[1] for *mara-gona* ‘lazy person’, literally ‘hand-faeces’.)

(e) The general imperatives are attested with three adverbs of modality: *ngalnga* ‘prohibition’ (4.24-[3]), *nyawa* ‘negation’ (to be precise, general negation) (4.24-[2]), and *balo* ‘non-interference’ (4.24-[5]).

The negative imperative (3.10.10) is not productive. Prohibition (‘Don’t’) is generally expressed by a combination of a general imperative with *ngalnga* ‘prohibition’ (used in most examples), e.g. (3-269), or *nyawa* ‘general negation’ (used in a few examples only), e.g. (3-270), (4-921).

(3-269) *ngalnga yinda wanbali-ya*. (AP)
 PROH 2SG.NOM be.afraid-IMP
 ‘Don’t be afraid.’

(3-270) *nyawa yama-nga-Ø*. (AP)
 NEG thus-TR-IMP
 Lit. ‘Don’t do in such a way.’

Yama-nga-L, which consists of the demonstrative adverb *yama* ‘thus, in such a way’ and *-nga-L* ‘TR’, literally means ‘do thus, do in such a way’ But it often means ‘tell’, and in the context in which (3-270) was uttered, the sentence means ‘Don’t tell it’. See 4.7.2-[8] for more on this.

The adverb of modality *balo* ‘non-interference’ (‘Leave [someone] alone, I don’t mind’) often co-occurs with a general imperative, and the sentence expresses non-interference, approval, or the like. The ‘subject’ (i.e. S or A) seems to be always third person, e.g.:

(3-271) (People are calling out in the distance.)
balo=wa jana-Ø=goli gawali-ya. (AP)
 NONINT=FOC 3PL-NOM=only call.out-IMP
 ‘Leave them alone, let them call out. I don’t mind.’

The enclitic *=wa* (4-25-[6]) seems to indicate focus. The enclitic *=goli* (4-25-[3]) means ‘only’, ‘by oneself’ or the like.

(f) In a few examples, a general imperative occurs in what may be considered a subordinate clause and it expresses condition. See 4.18.6.1.

(g) The ‘subject’ (the S/A NP) of a general imperative may be elliptical. But where it is overtly expressed, all of the pronouns have been attested with the general imperative, except for *bola* ‘3DU’ (But presumably *bola* ‘3DU’ can be used with the general imperative in sentences like (3-267), (3-268), or (3-271).) Examples include (i) ‘1SG’: (4-30) (first B), (ii) ‘1DU’: (3-186) (S NP), (3-265) (S NP), (iii) ‘1PL’: Text 1, Line 48, (iv) ‘2SG’: (3-37) (A NP), (3-40) (A NP), (3-62) (A NP), (3-76) (S NP), (3-103) (A NP), (3-115) (A NP), (3-139) (S NP), (3-200) (A NP), (3-202) (S NP),

(3-213) (S NP), (3-216) (A NP), (3-217) (S NP), (v) '2DU': (4-490), (4-571), (vi) '2PL': (4-985), (vii) '3SG': (3-267) (A NP), (3-268) (S NP), (v) '1PL': Text 1, Line 48; and (viii) '3PL', e.g. (3-271). Among the pronouns, *yinda* '2SG' occurs with the general imperative the most frequently.

(h) As noted above, the S/A NP of a general imperative may be elliptical. However, rather unexpectedly, it is overtly expressed far more frequently than elliptical. Judging by the context, it is almost always '2SG' that is elliptical, e.g. (3-109) (A NP), (3-111) (S NP), (3-195) (S NP). There is just one example of '2PL': (3-100) (S NP).

(i) The imperative prototype may be set up and characterized as follows. (i) It is addressed to the hearer, i.e. the second person, and (ii) 'it is meant to influence the behaviour of the hearer' (Jespersen 1924: 313). In terms of the criterion (ii), the use discussed in (a) is prototypical, and the use examined in (b) is very close to the prototype. In the prototypical use, the general imperative may be either in the affirmative, e.g. (3-259), (3-260), or, in the negative, e.g. (3-269), (3-270).

However, the following uses of the general imperatives deviate from the imperative prototype in one respect. (b) 'Well said', cf. (3-263), (3-264). This is addressed to the hearer, i.e. the second person, but it is not meant to influence his/her behaviour. (c) 'Let's', cf. (3-265). This is addressed to the first person, and not the second person. (d) 'Let him/her', cf. (3-267), (3-268). This is addressed to the third person. (e) 'Leave him/her alone', cf. (3-271). This, too, is directed at the third person. In these non-prototypical uses (in contrast with the prototypical use) the general imperative is always in the affirmative; at least there is no example of negation. For example, there is no example such as 'Well not said', 'Let's not', 'Don't let him/her' or 'Don't leave him/her alone'.

3.10.9. Affirmative imperative

As noted in 3.10.8, the affirmative imperative occurs in Alf Palmer's data, but not in Alec Collins'. It is attested with only one verb root, of L-class: *garbi-L* Vt 'hide'. The suffix employed is *-lnga*.

(3-272) *garbi-lnga* *jolay-Ø*. (AP)
 hide-AFFIMP stick-ACC
 'Hide the stick.'

No semantic difference between the general imperatives used in the affirmative and the affirmative imperative is known.

The category of affirmative imperative, as distinct from the general imperative and the negative imperative, seems uncommon, and it is not reported for any of the surrounding languages.

3.10.10. Negative imperative

The negative imperative occurs in both Alf Palmer's and Alec Collins' data. It is attested with six transitive roots in Alf Palmer's data, and with one intransitive root and one intransitive stem formed with *-bi-L* 'INTR' in Alec Collins' data. They all belong to L-class, and the suffix employed is *-lmo*. An example from Alf Palmer's Warrongo:

- (3-273) *yinda woda-lmo*. (AP)
 2SG.ERG pull-NEGIMP
 'Don't pull [out the meat from the fire].'

No semantic difference between the general imperatives used in the negative and the negative imperative is known.

In Alf Palmer's Warrongo, the adverb of modality *ngalnga* 'prohibition', i.e. 'Don't', can optionally co-occur with the negative imperative, e.g. (3-274), (4-929). In Alec Collins' data, *ngalnga* 'prohibition' occurs with the negative imperative in both of the two examples, e.g. (3-275).

- (3-274) ('I do not want to go.')
- ngalnga nganya yinda birri-lmo*. (AP)
 PROH 1SG.ACC 2SG.ERG send-NEGIMP
 Lit. 'Don't send me', i.e. 'Don't make me go.'

- (3-275) ('Don't fight with your husband.')
- ngalnga jili-Ø goman-bi-lmo* (AC)
 PROH eye-NOM another,different-INTR-NEGIMP
 Peter Sutton's translation: 'Don't look for another man'.

Literally, (3-275) means something like '[Your] eyes should not be another/different.'

The use of *ngalnga* with the negative imperative seems redundant. This is reminiscent of the use of two negation markers in one sentence, observed in a certain variety of English, e.g. *I can't get no satisfaction* (The Rolling Stones) and *We don't need no education* (Pink Floyd). In English, this double negation is considered substandard. However, it is considered 'correct' in the standard variety of languages such as Rumanian (Mallinson 1986: 138).

The category of negative imperative does not seem common, but it occurs in Dyirbal (Dixon 1972: 111) (which includes Jirrbal, Girramay and Mamu), Warrgamay (Dixon 1981: 49), and Nyawaygi (Dixon 1983: 471). In Dyirbal, the suffix contains *-m* or *-mu*, and in Girramay in particular, the suffix for L-class is *-lmu* (Dixon 1972: 111), as in Warrongo. In Nyawaygi, too, the suffix employed contains *-m*.

3.10.11. Apprehensional

[1] Formation

The apprehensional occurs in Alf Palmer's Warrongo (but its existence in Alec Collins' Warrongo is not known for certain). It employs the following suffixes. All these forms involve *-ga*. Some of them involve *ng*-insertion (2.6-[2]-(c-1)).

- (a) *-l-ga* for L-class.
- (b) *-y-ng-ga* for Y-class, except for iterative verbs (*-garra-Y*); see (e).
- (c) *-ng-ga* for ZERO-class.
- (d) *-l-ga*, *-ng-ga*, or *-l-ng-ga* for the irregular verb *yani*- Vi 'go, come'
- (e) *-y-ng-ga* or *-ng-ga* for iterative verbs (*-garra-Y*).
- (f) For *wara-L* Vi 'jump', the irregular form *wara-n.ga* (/waɾa-nga/) was observed once, in addition to the regular form *wara-lga* (/waɾa-lga/). The irregular form involves /n/, and not /l/.

Instrumental verbs (*Vt-ri-L*) (L-class) have the purposive-2 (*-lgo*) only, and no other conjugational category, and consequently they lack the apprehensional form.

[2] Function and meaning

(a) The apprehensional predominantly indicates that an event might occur, and it often implies that the event is unpleasant, e.g. (3-135), (4-71), (4-72), (4-653), and:

(3-276) ('He got angry, so:')

nganya nyola balga-lga. (AP)
 1SG.ACC 3SG.ERG hit,kill-APPR
 '[I thought] he might hit me.'

(3-277) (A conversation between a husband (H) and his wife (W).)

W. *ngaya wanbali-n.*
 1SG.NOM be.afraid-NF
 'I am worried.'

H. *yinda wanbali-Ø?*
 2SG.NOM be.afraid-NF
 'Are you worried?'

W. *yowo ngaya wanbali-n.*
 yes 1SG.NOM be.afraid-NF
 'Yes, I am worried.'

H. *ngaya wadali-ngga yina wanda-lga.* (AP)
 1SG.NOM run-APPR 2SG.ACC leave-APPR
 '[You are worried that] I might run [away and that I] might leave you.'

(*Wadali*-ZERO can mean 'run', and also 'run away, flee, escape')

(3-278) ('You had better leave that woman.')

bama-nggo yina balga-lga. (AP)
 man-ERG 2SG.ACC kill-APPR
 '[Her] man might kill you.'

(3-279) ('If you don't behave yourselves.')

ngali-Ø yobala-nya wanda-lga. (AP)
 1DU-ERG 2DU-ACC leave-APPR
 'We-two might leave you-two.'

(4-280) ('He is worried.')

yinda nyonya balga-lga. (AP)
 2SG.ERG 3SG.ACC kill-APPR
 '[He is thinks that] you might kill him.'

(3-281) ('They are annoying, so.')

ngaya balga-lga jana-nya. (AP)
 1SG.ERG hit-APPR 3PL-ACC
 'I might hit them.'

The apprehensional can be used in the subordinate clause of two types of complex sentences: 'lest should' (4.17) and 'X is afraid that' (4.18.1).

(b) As seen above, the apprehensional predominantly describes a possible occurrence of an unpleasant event. But in a few instances, the apprehensional seems to have future reference, sometimes implying intention. On one occasion Alf Palmer provided the gloss 'by and by' This use of the apprehensional is possibly, though not certainly, confined to the first person 'subject' (S/A) only. It is attested with verbs of Y-class (intransitive), e.g. (3-282), two apprehensional forms of the irregular verb *yani-* 'go, come' (*yani-ngga*, *yani-lngga*), and transitive verbs. (4-254) may contain an additional example (an antipassive verb; surface-intransitive). (3-283), in which the S is third person, may possibly have future reference, implying intention.

(3-282) (Alf Palmer had been planning to visit the mainland, but he suddenly cancelled the plan.)

ngaya nyina-yngga yamba-ngga. (AP)
 1SG.NOM stay-APPR home-LOC
 'I will stay home.'

(3-283) (An example obtained in elicitation)

nyola yodi-ngga. (AP)
 3SG.NOM swim-APPR
 Tentative translation: 'He will swim.'

(c) There is one unusual example:

(3-284) (Alf Palmer was going to ask someone to carry some fish to his home.)

nyola ganyji-lga. (AP)

3SG.ERG carry-APPR

Tentative translation: 'He might carry [the fish].'

Possibly this sentence describes the speaker's wish, like the optative: 'I hope that he will carry [the fish]' There is no other example of this kind.

(d) The apprehensional is used in the name of riflebird and that of cricket. See (3-210) and (3-211). Here, the apprehensional seems to describe habit, inclination or the like. It is possible, though by no means certain, that the use of the apprehensional to describe habit, inclination or the like was once productive and that it has survived in these two names.

(e) The apprehensional is attested with three adverbs of modality. Here, it does not seem to imply unpleasantness. (i) *gada* 'maybe, might' (4-25-[6]), e.g. (3-285). (ii) *nyawa* 'negation', e.g. (3-286) – negative intention/decision (with a first person S/A only?). (iii) *ngalnga* 'prohibition', e.g. (3-287) – prohibition (with a second person S/A only?).

(3-285) *bama-Ø gonggarri-ngomay-Ø nyila yani-ngga gada.* (AP)

man-NOM north-ABL-NOM today come-APPR might

'The man from the north might come today.'

(3-286) *ngaya nyonya nyawa bindaynga-lga* (AP)

1SG.ERG 3SG.ACC NEG let.go-APPR

'I won't let her go.'

(3-287) *ngalnga yinda wanda-lga.* (AP)

PROH 2SG.ERG leave-APPR

'Don't leave [it].'

3.10.12. Four purposives

[1] Formation

Alf Palmer's Warrongo has four purposives: purposive-1 (*-lgo*), purposive-2 (*-yal*), purposive-3 (*-yalgo*), and purposive-4 (*-yi*). Alec Collins' Warrongo appears to have two purposives: *-lgo/-go* and *-yi*. The following account of purposives mainly concerns Alf Palmer's Warrongo, but one example will be cited from Alec Collins': (3-318) (*-yi*). The four purposives will be simply glossed 'PURP'

The purposive-1, -2 are productive, while the purposive-3, -4 are not productive. We shall look at the purposive-1, -2 below. The purposive-3, -4 will be discussed in 3.10.14 and 3.10.15, respectively.

The distribution of the purposive-1 (*-lgo*) and the purposive-2 (*-yal*) in terms of types of verbs is shown in Tables 14 and 15, together with other conjugational categories. The details are as follows.

(a) Purposive-1 (*-lgo*)

As noted in 3.9.3, the element *l* is characteristic of L-class. *-lgo* is productive in L-class, and it is attested with verbs of L-class only, with three exceptions (two of ZERO-class, and the irregular verb *yani*- Vi 'go, come').

(a-1) L-class

(a-1-1) For the following groups of verbs, *-lgo* is the only purposive. They do not have any other purposive, such as *-yal*.

(a-1-1-1) *a*-final transitive verbs, including stems formed with *-nga-L* (4.7.2) or *-(m)ba-L* 'TR' (4.7.3).

(a-1-1-2) Locative verbs (*Vi-ri-L*) (4.14.2) and instrumental verbs (*Vt-ri-L*) (4.14.3). (Instrumental verbs appear to take *-lgo* only, and no other conjugational suffix (or any suffix at all).)

(a-1-2) For the following verbs, *-lgo* is productive, though it is not the only purposive,

(a-1-2-1) *i*-final transitive roots. They have *-yal* as well.

(a-1-2-2) *o*-final transitive roots. They have *-yal* as well.

(a-1-2-3) Intransitive stems formed with *-bi-L* 'INTR' (4.7.1). They appear to have *-yal* as well.

(a-2) ZERO-class

-lgo is attested with two verbs of ZERO-class (they are intransitive): *magoli-lgo* 'work-PURP' and *wadali-lgo* 'run-PURP', e.g. (3-290). They are the only verbs of ZERO-class that are attested with *-lgo*. (These *-lgo* forms are possibly errors.) They have *-yal*, like other verbs of ZERO-class: *magoli-yal* and *wadali-yal*. Their *-yal* forms are productive.

(a-3) Irregular verb *yani*- Vi 'go, come'

-lgo is attested with the irregular verb *yani*- Vi 'go, come' (i.e. *yani-lgo*), but this purposive form does not seem productive. *Yani*- has the other three purposives as well: *-yal*, *-yalgo* and *-yi*.

(b) Purposive-2 (*-yal*)

The purposive-2 occurs in all of L-class, Y-class and ZERO-class – irrespective of whether they are roots or derived stems (which contain a derivational suffix) – and also with the irregular verb *yani*- Vi 'go, come'

(b-1) L-class

(b-1-1) *a*-final transitive verbs (including stems with *-nga-L* or *-(m)ba-L* 'TR'). They do not seem to take *-yal*. They take *-lgo*.

(b-1-2) *i*-final transitive roots. *-yal* is productive, though it is not the only purposive. They have *-lgo* as well.

- (b-1-3) *o*-final transitive roots. *-yal* is attested, but it is not productive. They take *-lgo* as well. *-lgo* is productive.
- (b-1-4) *a*-final intransitive roots (L-class). They have *-lgo* as well. *-yal* is productive, though it is not the only purposive.
- (b-1-5) Intransitive stems containing *-bi-L* 'INTR'. *-yal* is productive, though it is not the only purposive. They appear to take *-lgo* as well.
- (b-2) Y-class, including iterative verbs (*-garra-Y*, 4.13)
-yal is the only purposive, and it is productive.
- (b-2-1) Reciprocal verbs (*-wa-Y*). *-yal* is productive, though it is not the only purposive. *-yalgo*, too, is attested.
- (b-3) ZERO-class, including antipassive verbs (*-gali-ZERO*) (4.9) and reflexive/middle verbs (*-gali-ZERO*, *-li-ZERO*) (4.11)
-yal is the only purposive – except for the two exceptions mentioned in (a-2) above —, and it is productive.
- (b-4) Irregular *yani*- Vi 'go, come'
-yal is productive, though it is not the only purposive. *Yani*- Vi 'go, come' has the other three purposives as well: *-lgo*, *-yalgo*, and *-yi*.

Note that one and the same verb may have both of the purposive-1 and the purposive-2, e.g. *ganyji-lgo* 'carry-PURP' in (3-289-B), (3-297) and *ganyji-yal* 'carry-PURP' in (3-293).

What has been stated above is roughly summarized in Table 3-17. In terms of their distribution, although the details are not exactly identical, the general imperative-1 (*-Ø*) and the purposive-1 (*-lgo*) are similar, while the general imperative-2 (*-ya*) and the purposive-2 (*-yal*) are similar.

First, there is a fairly close association (i) among the general imperative-1, the purposive-1 and transitive verbs, and (ii) among the general imperative-2, the purposive-2 and intransitive verbs.

Second, Y-class and ZERO-class lack the general imperative-1 and the purposive-1 (there are two exceptions; see (a-2)).

Third, *a*-final transitive verbs lack the general imperative-2 and the purposive-2.

Fourth, *a*-final transitive verbs on the one hand and Y-class and ZERO-class on the other exhibit a complementary distribution.

[2] Semantics

All the purposives are unspecified regarding time reference. Other aspects of their semantics will be discussed in the following.

3.10.13. Purposive-1 and purposive-2

No significant difference has been found between the purposive-1 and the purposive-2 in terms of meaning or function, and they are treated together below. (But there is possibly one difference in their function; see 4.8.5-[3].)

The purposive-1, -2 have the following two syntactic functions.

- (i) Finite use: as the predicate of a simple sentence, or as the predicate of the main clause of a complex sentence.
- (ii) Non-finite use: as the predicate of the subordinate clause of a complex sentence.

The non-finite use will be discussed in 4.8, in particular, and only the finite use will be examined in the following.

(a) The purposive-1, -2 primarily express intention, volition, wish or the like. They generally concern a future event, i.e. an intention to do something in the future, e.g. (3-45), (3-61), (3-63), (3-146), (3-157), and also (3-288-B), (3-289-B), (3-290). But occasionally they concern a past event, i.e. someone's intention in the past to do something, e.g. (2-291), (3-292), (4-815).

(3-288) (A conversation cited from a text)

A: *yarro-n-da yinda wombi-ya.*
 here-LINK-LOC 2SG.NOM rest-IMP
 'Have a rest here.'

B: *yowo, ngaya yarro-n-da wombi-ya.* (AP)
 yes 1SG.NOM here-LINK-LOC rest-PURP
 'OK, I will have a rest here.'

(3-289) (A conversation cited from a text)

A: *yinda ganyji-ya bola-nya.*
 2SG.ERG carry-IMP 3DU-ACC
 'Take [these] two [women with you].'

B: *yowo, ngaya ganyji-lgo.* (AP)
 yes 1SG.ERG carry-PURP
 'OK, I will take [them with me].'

(3-290) (I was a middle distance runner, and I used to go for a run every afternoon even during fieldwork. Alf Palmer said the following about another athlete and me.)

yobala-Ø wadali-lgo. (AP)
 2DU-NOM run-PURP
 'You-two will run [together for training].'

(3-291) (Alf Palmer told me that his mother was drowned in a river. He described her drowning as follows. Recall that Rachel Cummins (Alf Palmer's DD), too, stated that Alf Palmer's mother was pushed over and fell into a gorge; see 1.7.)

malan-da nyola yodi-yal goyay-ngal. (AP)
 river-LOC 3SG.NOM swim-PURP across-to
 'She intended to swim across a river'

(This sentence literally means ' in a river, across', i.e. 'across a river' See 3.6.3-[1])

(3-292) (A man had his hand caught by a giant clam, and:)

a. *mara-Ø nyola woda-lgo.*
 hand-ACC 3SG.ERG pull-PURP
 'He tried to pull [out his] hand.'

b. *nyola mara-nggo ngamba-nga-lgo ngona-Ø jon.goy-Ø.* (AP)
 3SG.ERG hand-ERG half-TR-PURP that-ACC tendon-ACC
 'He tried to break that tendon [of the giant clam] with [his] hand.'

(*Ngambanganga-L* means 'break into halves'.)

The purposive-1, -2 may be used to inquire about the hearer's intention, wish or the like, e.g.:

(3-293) *banggay-Ø yarro-Ø yinda ganyji-yal?* (AP)
 spear-ACC this-ACC 2SG.ERG take-PURP
 'Do you want to take this spear [with you]?'

(3-294) *bija-lgo yinda gamo-Ø?* (AP)
 drink-PURP 2SG.ERG water-ACC
 'Do you want to drink water?'

In the examples given above, the intention is a human's. But the intention may be a non-human animate's.

(3-295) (A group of people left a corpse behind. One of them said:)

wajagan-do moja-lgo. (AP)
 crow-ERG eat-PURP
 'The crows will eat [the corpse].'

(b) The purposive-1, -2 may describe the speaker's proposal, suggestion, offer or the like to do something. The S/A NP is (always?) first person singular.

(3-296) (When someone said, 'He is over there. He is looking for us', another replied as follows.)

ngaya gawali-yal? (AP)
 1SG.NOM call.out-PURP
 'Shall I call out [to him]?'

(3-297) ('You have sore feet.')

ngaya yina ganyji-lgo wandola-nggo? (AP)
 1SG.ERG 2SG.ACC carry-PURP shoulders-ERG
 'Shall I carry you on [my] shoulders?'

(3-298) ('I have already painted a bark painting for you.')

ngaya bangga-lgo yino goman-Ø? (AP)
 1SG.ERG paint-PURP 2SG.GEN another-ACC
 'Shall I paint another [one] for you?'

In (3-298), the genitive case seems to express a beneficiary (3.6.5-[3]).

(c) Questions (4.2.1.2) are generally directed at the hearer. But they can be directed at the speaker. When a question contains a purposive verb, it inquires about the speaker's own intention or the like.

(3-299) *wanyja-nga-lgo ngaya?* (AP)
 where-TR-PURP 1SG.ERG
 'What shall I do with [this]?'

(3-300) (A man went hunting and caught a kangaroo rat. But it was only a small one. He said as follows.)

ngani-nga-lgo yarro-Ø jangarago-Ø? (AP)
 what-TR-PURP this-ACC small-ACC
 Lit. 'What shall [I] do with this small [one]?'

(*Wanyja-nga-L* and *ngani-nga-L* are interrogative members of verbs; see 3.9.2.) Alf Palmer's translation for (4-300) is 'Little one no good'. Other examples include Text 2, Line 24.

(d) When the S/A NP is first person dual or plural, the sentence (with a purposive-1 or -2) generally means 'We will' or 'Let's', e.g. (3-27) (1DU), (3-110) (1DU), (3-132) (1PL), and:

(3-301) *ngali-Ø win.gar-go yani-yal.* (AP)
 1DU-NOM fish-DAT go-PURP
 'Let's go for fish', i.e. 'Let's go to catch fish.'

(e) The purposive-1, -2 may have future reference without implying intention, volition or the like, e.g. (3-302).

(3-302) (I used to collect shells when I was on Palm Island. Alf Palmer advised me not to pick up a poisonous shell, saying as follows.)

yinda wola-yal. (AP)

2DG.NOM die-PURP

‘[If you pick up a poisonous shell] you will die [from the poison].’

(f) The purposive-1 (*-lgo*) may express obligation, duty, advice, etc. The S/A NP is (always?) second person.

(3-303) (‘Oh, you cooked the possum without taking out the guts.’)

nyawa, bamba-Ø woda-lgo yinda. (AP)

NEG guts-ACC take.out-PURP 2SG.ERG

‘No, you should take [or, should have taken] the guts out [before cooking a possum].’

(3-304) (Alf Palmer thought that I should do language work only with him, and with no one else. One day, when he found out that I had interviewed another person, he said as follows.)

ngaygo=goli yinda moga-lgo. (AP)

1SG.GEN=only 2SG.ERG get-PURP

‘You should get [i.e. study] only my [language, and no one else’s].’

The two examples above involve *-lgo*. Presumably the purposive-2 (*-yal*), too, can express obligation, duty, advice, etc., although there is no example.

(g) There is one example in which *-lgo* appears to describe ability.

(3-305) (‘Someone is calling out.’)

wayi bama-Ø ngawa-lgo? (AP)

Q man-ACC hear-PURP

‘Can [you] hear the man?’

It is not known if other verbs, e.g. *nyaga-lgo* ‘see, look at-PURP’, can describe ability. Nor is it known whether this expression of ability is possible with conjugational categories other than the purposive-1 (*-lgo*). (The verb *ngawa-L* can also mean ‘understand [a language]’, and when it has this meaning, it can express ability (‘can understand [a language]’) in the nonfuture-1 form (*ngawa-n* ‘understand-NF’)), e.g. (4-345) to (4-346), and in the two nonfuture forms of the antipassive (*ngawa-gali-n*, *ngawa-gali-Ø* ‘understand-ANTIP-NF’, e.g. (4-348), (4-349)).

Also, the purposive-1, -2 seem to indicate something like ‘generic tense’, irrespective of the transitivity of the clause, e.g. (i) transitive: (4-286), (4-289-W), (4-631), (4-632), and (ii) intransitive: (4-281), (4-287) (all antipassive) and (4-209-B) (*balga-wa-yal* ‘hit-RECP-PURP’). (Reciprocal verbs are surface-intransitive (4.12.1).)

The nonfuture-1, too, can describe ‘generic tense’, e.g. (i) transitive: (3-228), (3-229), and (ii) intransitive: (4-399) to (4-401) (all antipassive).

(h) The purposive-1, -2 are attested with four adverbs of modality: *nyawa* ‘negation’ (4.24-[2]), *ngalnga* ‘prohibition’ (4.24-[3]), *balo* ‘non-interference’ (4.24-[5]), and *wayi* ‘question’ (4.24-[1]).

When used with the purposive-1 or -2, *nyawa* ‘negation’ and *ngalnga* ‘prohibition’ each express the following.

- (i) When the S/A is first person: intention not to do something, e.g. (3-84) (*nyawa*), (3-306) (*nyawa*), (3-307) (*ngalnga*), (4-549) (*ngalnga*), (4-712-d) (*ngalnga*).
- (ii) When the S/A is second person: prohibition, e.g. (3-308) (*nyawa*), (3-309) (*ngalnga*).

(3-306) *nyawa ngaya yani-yal.* (AP)
 NEG 1SG.NOM go-PURP
 ‘I will not go.’

(3-307) *ngalnga ngaygo ngaya bindaynga-lgo.* (AP)
 PROH 1SG.GEN 1SG.ERG let.go-PURP
 ‘I will not let my [husband] go.’

(3-308) *yinda nyawa goli-bi-yal.* (AP)
 2SG.NOM NEG angry-INTR-PURP
 ‘Don’t get angry.’

(3-309) *ngalnga yinda goli-bi-yal.* (AP)
 PROH 2SG.NOM angry-INTR-PURP
 ‘Don’t get angry.’

(3-84) (involving *nyawa*) and (3-307) (involving *ngalnga*) constitute a near-minimal pair. (3-308) and (3-309) constitute a minimal pair.

When the S/A is third person, a sentence with *nyawa* ‘negation’ appears to describe the S/A’s negative intention or the like (rather than prohibition), e.g. (3-310). There is no example of *ngalnga* with third person.

(3-310) (‘Don’t worry.’)
nyawa, ngali-nya nyawa balga-lgo. (AP)
 NEG 1DU-ACC NEG kill-PURP
 ‘No. They won’t kill us.’

Examples of *balo* 'non-interference' include:

- (3-311) *balo* [nyola TT,AP] *yani-yal*. (AP)
 NONINT [3SG.NOM] go-PURP
 'Let [him] go, I don't mind.'

(As it was originally uttered by Alf Palmer, this sentence did not contain *nyola*. The word *nyola* was suggested by me and approved by Alf Palmer.)

Examples of *wayi* 'question' with a purposive include (3-305).

The purposive-1, -2 are each attested with all of the first, second and third persons.

3.10.14. Purposive-3

The purposive-3 involves *-yalgo*, which is obviously a combination of the purposive-2 *-yal* and *-go* of the purposive-1 *-lgo*. It is not productive. It is attested at least with the irregular verb *yani-* Vi 'go, come' and the reciprocal verb *birra-wa-Y* 'tell-RECP'. These verbs have the purposive-1 (*-yal*) as well. (*-yalgo* may be acceptable with some other verbs. For example, on one occasion Alf Palmer gave *nyina-yalgo* 'sit-PURP', but later he rejected it. It is in view of this that, in Table 3-14, *nyina-yalgo* is parenthesized.)

The purposive-3 is attested in a very few examples. It is used in simple sentences only. It appears to have the finite use only, and to lack the non-finite use (i.e. use in subordinate clauses). It expresses intention to do something in the future (not in the past), in all of the examples, e.g.:

- (3-312) *ngaya yani-yalgo win.gar-go*. (AP)
 1SG.NOM go-PURP fish-DAT
 'I will go for [i.e. to catch] fish.'

- (3-313) *ngani-Ø ngali-Ø birra-wa-yalgo?* (AP)
 what-ACC 1DU-NOM tell-RECP-PURP
 Lit. 'What shall we tell to each other?', i.e. 'What shall we talk about?'

3.10.15. Purposive-4

The purposive-4 occurs in Alf Palmer's and also Alec Collins' Warrongo. It involves the suffix *-yi*. It is attested only with the irregular verb *yani-* Vi 'go, come': *yani-yi* (phonetically [jani:] in Alf Palmer's Warrongo and probably in Alec Collins' as well). It occurs in a very small number of examples. It is generally used in simple sentences, but there are two examples in which the purposive-4 appears to be used in a subordinate clause.

In simple sentences, the purposive-4 generally describes intention to do something in the future, e.g. (3-314). But it may express intention in the past to do something, e.g. (3-315). It may also express future, e.g. (3-316), or probably future uncertainty, e.g. (3-317), (3-318) (this is the only example in Alec Collins' Warrongo). In the two examples used in a subordinate clause, it seems to express future condition: (3-319) and Text 3, Line 8. (In contrast, the purposive-1, -2 describe (i) purpose or (ii) consequence, successive action, when used in subordinate clauses (4.8.1).)

(3-314) *garrbala ngaya golmi yani-yi.* (AP)
tomorrow 1SG.NOM back come-PURP
'I will come back tomorrow.'

(3-315) (Alf Palmer was planning to go to the mainland, but suddenly he decided not to.)
yani-yi. nyawa gada yarro-n-da nyina-yal. (AP)
go-PURP NEG maybe here-LINK-LOC stay-PURP
'[I] intended/planned to go. [But I will] not. Maybe I will stay here.'

(3-316) *jana-Ø nyila yani-yi.* (AP)
3PL-NOM soon come-PURP
'They will come soon.'

(3-317) *galjabara-Ø yani-yi.* (AP)
rain-NOM come-PURP
Alf Palmer's translation: 'Rain might come.'

(3-318) *yindogay gada yani-yi.* (AC)
? ? come-PURP
Peter Sutton's translation: 'They might come.'

(Alf Palmer's Warrongo has *yindo* 'somewhere here' and *gada* 'might, possibly' (4.24-[6]).)

(3-319) *bola-Ø yani-yi, nyina-yal ngali-Ø.* (AP)
3DU-NOM come-PURP sit-PURP 1DU-NOM
'When they come, we will sit [down and have a meal with them].'

Unlike other verbs, the irregular verb *yani-* 'go, come' has all of the four purposive forms (*yani-yal*, *yani-lgo*, *yani-yalgo*, *yaniyi*), but the purposive-2 *yani-yal* is the only productive form, being used in almost all instances.

My corpus contains *yaji-yi* Vi 'laugh-?', and Alf Palmer's translation is 'smiling'. It does not seem to be a purposive-4 form. Etymologically at least, it may be a verb root followed by the comitative *-yi* (3.6.8): 'having smile'

3.11. Verb morphology (2): derivation

There are three ways to derive verb stems: (i) affixation of a verb-stem-forming suffix (3.11.1), (ii) reduplication of a verb root (3.11.2), and (iii) compounding of a noun and a verb root (3.11.3).

3.11.1. Verb-stem-forming suffixes

Some of the verb-stem-forming suffixes are added to verb roots/stems only, while others may also be added to roots/stems of some other word class.

There are just a few suffixes that derive nouns from verbs, and they are not productive (3.7.1). In contrast, there are two highly productive suffixes for deriving verb stems from nouns, etc.: *-bi-L* 'INTR' and *-nga-L* 'TR'.

There are five verb-stem-forming suffixes that have a transitivity-changing effect, e.g. forming an intransitive stem from a transitive root, or a transitive stem from an intransitive root (as well as providing an aspectual meaning in some instances). They are mentioned in 3.9.3, and they will be further discussed in the chapter on syntax: (i) *-gali-ZERO* 'antipassive' (4.9), (ii) *-gali-ZERO*, *-li-ZERO* 'reflexive/middle' (4.11), (iii) *-wa-Y* 'reciprocal' (4.12), (iv) *-garra-Y* 'iterative' (4.13), and (v) *-ri-L* 'applicative': locative verbs (4.14.2), and instrumental verbs (4.14.3).

The following suffixes, too, are conveniently discussed in the chapter on syntax: *-bi-L* 'INTR' (4.7.1), *-nga-L* 'TR' (4.7.2), and *-(m)ba-L* (4.7.3).

Other verb-stem forming suffixes are examined below.

3.11.1.1. *-rra-(y)-mbi-L* ('song style ?')

-rra-(y)-mbi-L occurs in both Alf Palmer's Warrongo and Alec Collins' (recorded by Peter Sutton). In Alf Palmer's Warrongo, the verbs involving *-rra-(y)-mbi-L* are found in songs only. All the attested stems are listed below, together with their counterparts used in the ordinary style.

	ordinary style	songs
'hear, listen to'	<i>ngawa-L</i> (also used in songs)	<i>nga-rra-mbi-L</i> (AP, AC), e.g. (1-10-d, -e), (3-320) (Jalngoy?) <i>nga-rra-y-mbi-?</i> (AP)
'see, look at'	<i>nyaga-L</i>	<i>ya-rra-y-mbi-?</i> (AP) (Jalngoy?)
'fall down'	<i>galngga-Y</i>	<i>nya-rra-y-mbi-?</i> (AP)

In Alf Palmer's Warrongo, these verbs occur in the past tense (3.10.1, *-la*) only, and their class membership is not known. Alec Collins' data yielded *ngarra-mpi-l*, with the nonfuture-2 suffix *-l*. That is, in his Warrongo, this verb belongs to L-class (Cf. Table 3-14). The other verbs, given by Alf Palmer, too, may belong to L-class, though this is not certain.

Alec Collins gave (3-320) as a Jalngoy sentence.

(3-320) *wayi bonya ngaya ngarrambi-l?* (AC)

Q ? 1SG.ERG hear-NF

Peter Sutton's translation: 'Who (is talking that) I can hear?'

(The meaning of *bonya* is not known. *Wayi bonya* may possibly be *wanyo-nya* 'who-ACC'. If this is the case, this sentence can be translated as 'Whom do I hear?')

Alf Palmer considered *nga-rra-mpi-L* 'hear' and *ya-rra-y-mpi-?* 'see' as Jalngoy (the avoidance style) words, and Alec Collins considered *nga-rra-mpi-L* as a Jalngoy word. As mentioned in 1.6.1, *nga-rra-mpi-L* is one of the two words that both Alf Palmer and Alec Collins regarded as Jalngoy words, and it seems certain to be a Jalngoy word.

The verbs for songs have the structure shown in (3-321). Except for *nga-rra-mpi-la*, they involve the insertion of *y* (see 2.6-[2]-(d)). *-rra-* may be a marker of song/Jalngoy words. *-mpi-* looks like a prenasalized form of *-bi-L* 'INTR', but it is not known if they are related.

(3-321) CV-*rra-(y)-mpi-la*

Ngawa-L and *nga-rra-mpi-L* 'hear' have cognates, e.g. *ngambi-* 'hear' of Freddy Toomba's Gual (recorded by Peter Sutton), *ngarrmi-L* 'hear' of Jirrbal Jalnguy (Dixon 1972: 406), *ngamba-L* Vt 'hear' of Dyirbal (which includes Jirrbal, Girramay and Mamu) (Dixon 1972: 406), and *ngara-L/Y* 'hear' of Nyawaygi (Dixon 1983: 510).

It is tempting to speculate how these Warrongo verbs for songs/Jalngoy developed. For *nga-rra-(y)-mpi-?* 'hear', one possible scenario is the following. Dixon (1980: 409) suggests that the proto-Australian 'had a fair number of monosyllabic verbal roots (more than any modern language)'. Dixon (2002: 117-124) lists 68 sets of verb roots that have a wide geographical distribution on the Australian continent. One set concerns roots for 'hear, understand'. They all start with *nga-*, i.e. *nga-m* [sic], *ngara-*, *ngawa-*, *ngangga-*, *ngamba-*. The Warrongo *ngawa-L* 'hear', *nga-rra-mpi-L* 'hear', and their cognates listed above, likewise start with *nga*. Then, according to Dixon's hypothesis, all these verbs are reflexes of the original **nga-*, and they were each combined with augmenting segments, e.g. *wa*, *rra*, *mpi*, *rrmi*, *mba*, *ra*, *ngga*. (Although Dixon does not mention this, the consonants of these augmenting segments are confined to peripherals (*b*, *g*, *m*, *ng*, *w*) and rhotics (*rr*, *r*), and their vowels to *a* and *i*.) In Warrongo, the augmenting *rra* occurs in verbs for songs (and Jalngoy?) only. Also, *nga-rra-y-mpi-?* involves *y*-insertion.

As for *ya-rra-y-mbi-?* ‘see, look at’, the initial *ya* may be a lenited form of the initial *nya-* of *nyaga-L* ‘see, look at’. For *nya-rra-y-mbi-?* ‘fall down’, the following words may be relevant: *nyarra* adverb ‘down’ of Warrongo, and *nyarra-* ‘sit down’ of Yidiny (Dixon 1991a: 297).

3.11.1.2. *-nda-Y* ‘repeatedly’, ‘plural actors’

This suffix occurs in Alf Palmer’s and Alec Collins’ data. It is added to verb roots: one transitive and four intransitives. Its affixation does not seem to change the transitivity of the verb concerned. Alec Collins’ data yielded *baja-nda-y* ‘bite-*nda-NF*’, with the nonfuture-2 suffix *-y*. That is, this verb belongs to Y-class in his Warrongo. In Alf Palmer’s Warrongo, too, presumably (though this is not certain) *baja-nda-* belongs to Y-class. Also, the four intransitive stems, given by Alf Palmer, appear to belong to Y-class. This is because, for their apprehensional, Alf Palmer approved the forms for Y-class: *jana-nda-y-ngga*, *nyina-nda-y-ngga*, *wona-nda-y-ngga*, *wola-nda-y-ngga*.

<i>baja-L</i> Vt ‘bite’	<i>baja-nda-Y</i> Vt ‘bite [everything], bite [someone, something] about’ (AP), (AC)
<i>jana-Y</i> Vi ‘stand’	<i>jana-nda-Y</i> Vi ‘stand about’ (AP)
<i>nyina-Y</i> Vi ‘sit’	<i>nyina-nda-Y</i> Vi ‘sit down about’ (AP)
<i>wona-Y</i> Vi ‘lie, sleep’	<i>wona-nda-Y</i> Vi ‘sleep about’ (AP)
<i>wola-Y</i> Vi ‘die’	<i>wola-nda-Y</i> Vi ‘[all] die’ (AP)

In Alf Palmer’s Warrongo, *-nda-Y* appears to indicate a repetition of an action by the same actor(s), or a simultaneous occurrence of an action by plural (many?) actors. However, its meaning is not clear in Alec Collins’ data.

(3-322) (‘I went hunting with my dog. It caught goannas.’)

nyola *baja-nda-n* *ngoni-n-da=wa* (AP)
 3SG.ERG bite-*nda-NF* there-LINK-LOC=FOC
 ‘It bit [them all] there.’

Alf Palmer’s gloss for *baja-nda-n* in (3-322) is ‘bite everything’.

(3-323) *rirra-nggo bama-nggo baja-n-dan*. (TT, AP)

tooth-ERG man-ERG bite-*nda-NF*
 ‘The man bit [it] with [my] tooth repeatedly.’

(As it was uttered by Alf Palmer, this sentence contained *ngaya* ‘1SG.ERG’. He approved *bama-nggo* ‘man-ERG’. This shows clearly that *baja-nda-Y* is transitive. Note also the presence of *rirra-nggo* ‘tooth-ERG’.)

(3-324) ('There is a snake there.')

baja-nda-y nyola ngona-n-do. (AC)

bite-*nda*-NF 3SG.ERG there-LINK-ERG

Peter Sutton's translation: 'Look out he'll bit you.'

(Sutton's transcription gives *wunando*, but judging by the context, it is probably *ngona-n-do*. I have tentatively replaced *wunando* with *ngona-n-do*. Then, a literal translation will be 'It, that [snake], bites [you].')

As noted in 3.5.3, the noun *walwa-ndan* 'ill, sick' (cf. the noun *walwa* 'bad, ill, sick') contains the suffix *-ndan*. However, it is not known if this suffix is related to the verb-stem-forming suffix *-nda-Y*.

3.11.1.3. -ya-L 'all', 'all the time'

This suffix, attested in Alf Palmer's Warrongo only, is added to two intransitive roots, and it forms intransitive stems, with no change in their transitivity. The derived stems appear to belong to L-class. At least, for the apprehensional of *wara-ya-*, Alf Palmer approved the L-class form: *wara-ya-lga*.

yani- Vi 'go, come' (irregular verb)

yani-ya-? (L-class?) Vi '[all] go'

wara-L Vi 'jump'

wara-ya-L Vi 'jump all the time'

(3-325) *ngoni-wo jana-Ø yani-ya-n.* (AP)

there-DAT 3PL-NOM go-*ya*-NF

'They all went there.'

Dyirbal (Dixon 1972: 249) has the suffix *-ja-Y*, which indicates either (i) 'an action is repeated' or (ii) 'an action involves many [participants, either – TT] S or O'. Clearly the Dyirbal *-ja-Y* and the Warrongo *-ya-L* are related, with the stop *j* being lenited to the semivowel *y*. This correspondence (*j ~ y*) is also seen in the pronouns for '1SG': Dyirbal *ngaja* and Warrongo *ngaya* (Table 1-5).

3.11.1.4. -rV-L 'plural' ('all', 'many')

This suffix (also used in the formation of noun stems (3.7.1-[16]) occurs in Alf Palmer's Warrongo only. Its vowel copies that of the preceding syllable (2.6-[1]).

[1] In most instances, *-rV-L* indicates 'many' or 'all'. It is added to verb roots: one intransitive and three transitives, yielding verbs that mean 'many/all actors do here and there', 'many/all actors do something to one', or 'one actor does something to many/all'. It does not change their transitivity. Among the derived stems, the tran-

sitives belong to L-class. The intransitive *jana-ra-*, too, appears to be of L-class. For its apprehensional, Alf Palmer approved the L-class form *jana-ra-lga*.

<i>jana-Y</i> Vi ‘stand’	<i>jana-ra-L</i> Vi ‘[all] stand about’, e.g. (4-534), Text 3, Line 19
<i>balga-L</i> Vt ‘hit’	<i>balga-ra-L</i> Vt ‘[all] hit [one]’, e.g. (3-326)
<i>goyba-L</i> Vt ‘give, throw’	<i>goyba-ra-L</i> Vt ‘give out [to many]’, e.g. (3-226), (4-26), Text 2, Line 46, ‘sell’, e.g. (3-327), ‘throw [many]’, e.g. (3-328), ‘[many] give’, e.g. (4-566)
<i>ganyji-L</i> Vt ‘carry’	<i>ganyji-ri-L</i> Vt ‘[many] carry, pick up’, ‘carry, pick up [many]’

(3-326) *jana-nggo nyonya balga-ra-n.* (AP)
3PL-ERG 3SG.ACC hit-many-NF
‘They all hit him.’

(3-327) (‘The people at the meat work killed the cattle, and now:’)
jomoboro-Ø goyba-ra-lgo ngoni-ngomay-Ø. (AP)
cattle-ACC give-many-PURP there-ABL-ACC
‘[They] will sell the cattle [i.e. meat] from there.’

(Alf Palmer stated that, in this sentence, *goyba-ra-lgo* means ‘sell’.)

(3-328) *gambarra-nggo yamba-Ø goyba-ra-n.* (AP)
cyclone-ERG house-ACC throw-many-NF
‘The cyclone threw [i.e. blew away] many houses.’

This suffix has a possible cognate: ‘plural subject marker *-ri-*’ of Gugu Yalanji. It ‘is used on intransitive roots or stems’ (Patz 2002: 105).

[2] In (a) below, the ‘underlying’ O of the transitive verb corresponds to the ‘surface’ S of the intransitive stem involving *-rV-L*; they show the correspondence of ‘O S’. (Here, the colon indicates ‘corresponds to’.) The intransitive stem is an ‘anticausative’ verb (Comrie 1985: 325). In (b) and (c), the affixation of *-rV-L* seems redundant. It seems to bring about no change in transitivity (i.e. ‘A A’ in (b), and ‘S S’ in (c)), and no clear change in meaning. (Alf Palmer stated that *waga-ra-L* Vi ‘get up’ is a word of Jalngoy, the avoidance style (1.6.1).) All of the derived stems appear to belong to L-class. For their apprehensional, Alf Palmer approved L-class forms: *woda-ra-lga*, *wanda-ra-lga*, *waga-ra-lga*.

(a) <i>woda-L</i> Vt ‘take out, pull off’, e.g. (3-123), (3-303), (3-329), (3-341)	<i>woda-ra-L</i> Vi ‘come out’, e.g. (3-330) (O S)
(b) <i>wanda-L</i> Vt ‘leave’	<i>wanda-ra-L</i> Vt ‘leave alone’ (A A)
(c) <i>waga-L</i> Vi ‘rise, get up’	<i>waga-ra-L</i> Vi ‘get up’ (S S)

(3-329) *bama-nggo jombi-Ø woda-n.* (TT)
 man-ERG penis-ACC(O) take.out-NF
 'The man took out his penis'

(3-330) ('She has found a possum, up on a tree.')

jombi-Ø woda-ra-n. (AP)
 penis,tail-NOM(S) take.out-ra-NF

Lit. '[Its] tail has come out [from a hollow of a tree?]', i.e. '[Its] tail is hanging [from a hollow of a tree?].'

(*Jombi* means 'penis (of a man)' and 'tail (of a possum, etc.)' Depending on the context, this sentence may mean 'A penis has come out [from trousers, etc.]')

As noted in 3.9.1, *-ra-* is found in a few other intransitive verbs: *joyora-Y* 'slip, crawl', *ragara-L* 'descend', *bogara-L* 'swell up'. In Warrongo, most of the verb roots are disyllabic, and etymologically these verbs may each consist of a disyllabic root and *-ra-*.

Bidyara and Gungabula ('B&G'), about 1,000 km to the south of Warrongo, have the verb *bugarda* 'swell' (Breen 1973: 193). It is clearly cognate with the Warrongo *bogara-L*. The *rd* (retroflex stop) of B&G corresponds to *r* (retroflex approximant or tap) of Warrongo. See (ii) of Table 1-6. Like *-ra-* of the Warrongo *bogara-L* 'swell up', *-rda-* of the B&G *bugarda* does not seem to be functioning as a suffix. It may be a 'fossilized' suffix that was once productive.

Alf Palmer's Warrongo has the word *ngayiran* 'thirsty'. Its word class membership is not known. Etymologically it may be a verb root with *-ra* and the nonfuture-1 suffix (*-n*). If it is a noun, then, like *walwandan* (3.5.3), it does not take any non-zero case suffix. (Alec Collins' Warrongo and Gugu-Badhun (Sutton 1973: 223) have *wayirra* 'thirsty'. It appears to be a noun.)

3.11.1.5. *-yi-*? 'future'

-yi-?, attested in Alf Palmer's Warrongo only, is added to four intransitive roots; one is of L-class and the others are of Y-class. It does not change their transitivity. This may be coincidental, but these roots all end in *a*. (Phonetically, this *yi* is a short vowel [i], e.g. *wara-yi-n* [waɣain].) The class membership of the derived stems is not known. In all the examples available, they take the nonfuture-1 suffix (*-n*) only, and no other conjugational suffix. Despite this, these verbs always indicate intention (to do something in the future) or future possibility.

wara-L Vi 'jump'

nyina-Y Vi 'sit, stay'

wona-Y Vi 'lie, lie down'

wola-Y Vi 'die'

wara-yi-n Vi 'will jump'

nyina-yi-n Vi 'will sit/stay'

wona-yi-n Vi 'will lie, lie down'

wola-yi-n Vi 'might die'

(3-331) (Even when he was in his eighties, Alf Palmer used to go fishing in the sea (1.8.4.1-[2]). One day he said as follows.)

gamo-Ø yarro-wo yani-Ø, warrjan-go ngaya wara-yi-n. (AP)
 water-NOM this-DAT come-NF raft-DAT 1SG.NOM jump-yi-NF
 ‘When the water [i.e. tide] comes [in], I will jump into the raft [i.e. boat] [and go fishing].’

(Note that (2-331) is an instance of subordination. See 4.18.6.1-[2].)

(3-332) *garrbala ngaya nyawa yani-Ø. nyina-yi-n.* (AP)
 tomorrow 1SG.NOM NEG go-NF stay-yi-NF
 ‘I will not go tomorrow. [I] will stay [here].’

(3-333) *wola-yi-n.* (AP)
 die-yi-NF
 Alf Palmer’s translation: ‘He gonna [i.e. is going to – TT] die. [He is] far too gone.’

When asked about *wola-y* ‘die-NF’ (cf. 3.10.3) and *wola-yngga* ‘die-APPR’ (3.10.11) in connection with (3-333), Alf Palmer gave the following comments: (i) *wola-y*: ‘finished’, i.e. the person died, and (ii) *wola-yngga*: ‘you are not sure [if the person – TT] died or not’.

3.11.1.6. -l and -i

In a seminal work on Australian languages, Capell (1966: 66) states as follows: ‘The phoneme -l- is a very common and important verbal formative throughout Australia’. The same is true of Warrongo. Thus, *l* characterises verbs of L-class (Table 3-14). Furthermore, -*l* is used as a stem-forming suffix, in the derivation of verbs and also nouns, as shown below. In this derivational function it is followed by another stem-forming suffix -*i* in certain environments. The distribution of -*l* and -*i* is as follows.

- [1] X-*l* (noun)
- [2] X-*l* followed by another stem-forming suffix or a noun
- [3] X-*l-i*-ZERO (Part 1) (intransitive verb)
- [4] X-*l-i*-ZERO (Part 2) (intransitive verb)
- [5] X-*l-X-l* (noun)
- [6] X-*l-X-l* followed by another stem-forming suffix
- [7] X-*l-X-l-i*-ZERO (intransitive verb)

(Here, a tilde indicates reduplication. See List of abbreviations and symbols.)

'X' represents a root. 'X' is generally disyllabic, with the form of CVC(C)V. The only exception is *wonaja* 'camping out' (see [3] below). It is trisyllabic.

The root 'X' is generally a verb root (e.g. *gawa-L* Vi 'call out' (see [1] below)), but it may be a noun root (e.g. *gido* 'cold' (see [3] below)) or an adverb root (i.e. *wonaja* 'camping out' (see [3] below)). 'X' may be also a root that is not used by itself. For example, the verb root *magō-* 'work' is not used by itself. But it has derived stems, e.g. *magō-l* noun 'work' (see [1] below), *magō-l-i-ZERO* Vi 'work' (see [3] below), and the locative verb *magō-ri-L* Vt 'work with [a co-worker]' (4.14.2.1).

Most of the verb roots to which *-l* is added, are clearly of L-class. Presumably, the other roots, too, are of L-class. (For three roots at least, Alf Palmer approved the L-class forms of the apprehensional: *wada-lga* 'play about' ([3]), *gimbi-lga* Vt, Vi '[wind] blow', and *boni-lga* 'be dizzy'.)

As shown above, the affixation of *-l* (resulting in *X-l*) and the reduplication of *X-l* produce nouns. This derivation of nouns is most conveniently discussed here. It was not discussed in 3.7, where other derivations of nouns are considered.

-l and *-i* have a wide distribution. But their use is not very productive. Unlike *-bi-L* 'INTR' (4.7.1) and *-nga-L* 'TR' (4.7.2), the roots to which *-l* and *-i* are added, are not numerous. All of the attested forms are listed below. Note that *L*, as in *wanba-L* 'be afraid', indicates that the verb in question is of L-class, and that it does not represent any phoneme. In contrast, *l* represents a phoneme. Thus, *wanba-l* may be (i) 'be afraid-NF', or (ii) the root *wanba-* and the stem-forming suffix *l*.

As seen in 2.6-[3], there are instances of formation of noun stems that may be considered either as deletion or retention of *l*.

Alec Collins' data yielded a few examples of the derivation involving the suffixes *-l-i* (see [3], (4)-(a), -(b), -(c) below).

We shall now look at each of [1] to [7].

[1] *X-l* (noun)

X is followed by *-l*, resulting in a noun:

<i>gawa-L</i> Vi 'call out'	<i>gawa-l</i> noun 'voice', e.g. (3-334)
<i>gobi-L</i> Vi 'whistle'	<i>gobi-l</i> noun 'whistle'
<i>magō-</i> 'work'	<i>magō-l</i> noun 'work'

(3-334) *ngaya jilbay-Ø nyongo gawal-go*. (AP)
 1SG.NOM knowing-NOM 3SG.GEN voice-DAT
 'I know his voice.'

The word *gawal* consists of *gawa-* and *-l*. However, in a sentential example, the morpheme boundary is not indicated. Similarly for some (though not all) of the words involving *-l* or *-l-i*.

Mago- is not used by itself. The locative form of the noun *magol* ‘work’ is attested: *magoda*; see (3-62). Note the deletion of the stem-final *l* (Table 3-2). The ‘COM-LOC’ form (*magol-ji-da*), too, is attested; see (3-186).

[2] *X-l* followed by a stem-forming suffix or a noun

X-l forms a base for further derivation, which may be followed by a verb-stem-forming suffix (*-bi-L* ‘INTR’ (4.7.1), *-nga-L* ‘TR’ (4.7.2), or *-(m)ba-L* ‘TR’ (4.7.3)), a noun-stem-forming suffix (*-barri* (3.7.1-[6]), *-jarri* (3.7.1-[7]) or *-birri*) or a noun. The noun may be further followed by a stem-forming suffix. (*-birri* is not productive, and consequently it was not discussed in 3.7.1.) It may also involve compounding.

<i>gobi-L</i> Vi ‘whistle’	<i>gobi-l-bi-L</i> Vi ‘whistle’ (Jalngoy?)
<i>mago-</i> ‘work’	<i>magol-goman</i> noun ‘another work’
<i>goman</i> ‘other, another’	
<i>joga-L</i> Vi ‘grow up’	<i>joga-l-bi-L</i> Vi ‘grow up’
<i>jogal</i> ‘straight [e.g. of road]’	<i>joga-l-nga-L</i> Vt ‘grow’
<i>binyji-L</i> Vi ‘feel fine’	<i>binyji-l-bi-L</i> Vi ‘feel much better, feel really good’
	<i>binyji-l-goman-bi-L</i> Vi ‘feel funny’
	cf. <i>goman</i> noun ‘other, another, different’
<i>jago-L</i> Vi ‘be sorry’, e.g. Text 1, Line 49	<i>jago-l-goman</i> noun ‘another person who also feels sorry’
	<i>jago-l-nga-L</i> Vt ‘[ERG] feel sorry for [ACC]’, e.g. (4-203)
<i>wanba-L</i> Vi ‘fear’, e.g. (3-258), (4-762)	<i>wanba-l-bi-L</i> Vi ‘fear’
	<i>wanba-l-nga</i> Vt ‘frighten’
	<i>wanba-l-barri</i> noun ‘frightened’
	<i>wanba-l-birri</i> noun ‘frightened’
	<i>wanba-l-jarri</i> noun ‘frightened’ (Jalngoy?)
<i>wombi-L</i> Vi ‘have a rest’	<i>wombi-l-bi-L</i> Vi ‘have a rest’
<i>boji-</i> (not attested)	<i>boji-l-mba-L</i> Vt ‘take no notice of’ [someone], cf. (4-217) cf. <i>boji-l-boji-l-i-ZERO</i> Vi ‘take no notice’ ([7])

Alf Palmer stated that *gobi-l-bi-L* Vi ‘whistle’ and *wanba-l-jarri* noun ‘frightened’ are words of Jalngoy, the avoidance style (1.6.1).

The nouns listed above that end in *-barri*, *-birri* or *-jarri* are not attested with a non-zero case suffix. They seem to be used as the ‘predicate’ only. See 3.5.3.

[3] X-*l-i*-ZERO (Part 1) (intransitive verb)

X-*l* forms an intransitive verb of ZERO-class. The root to which *-l-i*-ZERO is added is generally an intransitive root, but it may be a noun or an adverb. The verb root and the verb derived from it generally appear to have the same meaning.

- | | |
|---|---|
| <p><i>banda-L</i> Vi ‘[person] emerge’,
e.g. (3-49), (3-266-A, -B),
‘[something] crack, chap’</p> | <p><i>banda-l-i</i>-ZERO Vi ‘[person] emerge, [something] crack, burst, explode’</p> |
| <p><i>gawa-L</i> Vi ‘call out’
cf. <i>gawa-l</i> ‘voice’</p> | <p><i>gawa-l-i</i>-ZERO Vi ‘call out’, e.g. (3-122), (3-296)
cf. <i>gawa-Y</i> Vi ‘vomit’, e.g. (4-492), <i>gawa</i> noun,
‘stuff vomited’, <i>gawa-gali</i>-ZERO Vi ‘vomit’, e.g. (4-493)</p> |
| <p><i>gobi-L</i> Vi ‘whistle’</p> | <p><i>gobi-l-i</i>-ZERO Vi ‘whistle’</p> |
| <p><i>wada-L</i> Vi ‘play’,
e.g. (4-488)</p> | <p><i>wada-l-i</i>-ZERO Vi ‘[person, dog, cattle] run, [kangaroo] hop, [person, animal] flee, [water] flow’, e.g. (3-177), (3-201), (4-228)
cf. <i>wanya-li</i>-ZERO (or <i>wanyja-li</i>-ZERO?) Vi ‘run’ (Jalngoy?)
See below.</p> |
| <p><i>wombi-L</i> Vi ‘have a rest’
cf. <i>magol</i>-<i>l</i> noun ‘work’</p> | <p><i>wombi-l-i</i>-ZERO Vi ‘have a rest’
<i>magol-i</i>-ZERO Vi ‘work’, e.g. (3-60) to (3-62), (4-496)</p> |
| <p><i>joga-L</i> Vi ‘grow up’</p> | <p><i>joga-l-i</i>-ZERO Vi ‘grow up’</p> |
| <p><i>binyji-L</i> Vi ‘feel fine, well or good’</p> | <p><i>binyji-l-i</i>-ZERO Vi ‘feel fine, well or good’</p> |
| <p><i>wanba-L</i> Vi ‘fear, be afraid’,
e.g. (4-762)</p> | <p><i>wanba-l-i</i>-ZERO Vi ‘fear, be afraid, be frightened’, e.g. (3-277-W, -H, -W)</p> |
| <p><i>nyinyji-L</i> Vi ‘be quiet’</p> | <p><i>nyinyji-l-i</i>-ZERO Vi ‘be quiet’, e.g. (3-335)</p> |
| <p><i>ngorga-L</i> Vi ‘be shy, ashamed’</p> | <p><i>ngorga-l-i</i>-ZERO Vi ‘be shy, ashamed, afraid’</p> |
| <p><i>jago-L</i> Vi ‘be sorry’, e.g.
Text 1, Line 49</p> | <p><i>jago-l-i</i>-ZERO Vi ‘be sorry, quiet’, e.g. (3-93)
cf. <i>jago-l-nga-L</i> Vt ‘be sorry for [someone]’, e.g. (4-203)</p> |
| <p><i>gido</i> noun ‘cold (not hot)’</p> | <p><i>gido-l-i</i>-ZERO Vi ‘get cold’
cf. <i>gido-bi-L</i> Vi ‘get cold, become cool’</p> |
| <p><i>gaga</i> not attested
cf. <i>gagal</i> noun ‘big, strong hard, (not soft)’ (cf. 2.6-[3])</p> | <p><i>gaga-l-i</i>-ZERO Vi ‘get strong, be hard’
cf. <i>gagal-bi-L</i> Vi ‘grow up, be hard’
cf. <i>gaga-bara</i> ‘big’ (<i>l</i> absent)</p> |

- gada* not attested
 cf. *gada-bi-L* Vi '[tree] crack' *gada-l-i-ZERO* Vi 'crack [a finger]'
 cf. *gada-nga-L* Vt 'crack [a finger]', e.g. (4-469)
gadal-gadal noun 'dry',
gadal-gadal-bi-L Vi '[tree] crack'
 cf. *gadala* noun 'dry', *gadala-bi-L* 'become dry',
gadala-nga-L Vt 'dry'
- wonaja* adverb 'camping out' *wonaja-l-i-ZERO* Vi 'sleep' (Jalngoy ?)

- (3-335) *yamba-ngga gaji wona-n. yamba-Ø ninyjili-n.* (AP)
 house-LOC maybe lie-NF house-NOM be.quite-NF
 '[They] might be lying [i.e. sleeping] in the house[, for] the house is quiet.'

There is also the following set of words:

- joygol* 'straight' *joygol-bi-L* Vi 'be straight'
 joygol-i-ZERO Vi 'be straight'

The root (*joygol*) itself seems to contain *l*, and *-i* is added to it.

As shown above, morphologically, the sequence of *-li* is analysed as consisting of two morphemes. Phonetically, however, it is pronounced as one unit [le], and not as a sequence of [l] and [e]. (See 2.1.4.3-[2]-(a) for the phonetic realization of /li/.)

I stated above that *wonaja* adverb 'camping out' is a root. However, etymologically it may be the locative form of the nonfuture-2 form *wona-y* Vi 'lie down-NF', i.e. *wona-ja* 'lie down-LOC'. Recall that the nonfuture-2 *jolba-y* Vi 'jump-NF' in a placename has the locative form: *jolba-ja* (1.5.4.3-[3], 3.2.1.1).

There are a number of other intransitive verbs involving *-li-ZERO*. Etymologically, they may consist of a verb root (intransitive?) and *-li-ZERO*. But synchronically the putative roots are not attested as verbs, and they do not occur elsewhere in the corpus. Such verbs include the following. There may be more.

- balgo-li-ZERO* Vi 'sleep' (Jalngoy?; used in songs) (AP)
bargo-li-ZERO Vi 'lie down, sleep' (used in songs) (AP)
bona-li-ZERO Vi 'sleep' (AP)

(The reduplicated form *bonal~bonali-n* 'sleep~sleep-NF' was approved by Alf Palmer.)

- gan.ga-li-ZERO* Vi 'call out' (Jalngoy?) (AP) cf. *gawa-l-i-ZERO* Vi 'call out' (AP)
wanyja-li-ZERO Vi 'run' (Jalngoy?) (AP, AC) cf. *wada-l-i-ZERO* Vi 'run'
wanda-li-ZERO Vi 'run' (Jalngoy?) (AP)

(One of *balgo-li-ZERO* and *bargo-li-ZERO* may be a mishearing on my part.) Biri has *ganggali-* 'call out' (my data, see also Terrill 1998: 101). Alf Palmer stated that *gan.ga-li-ZERO* is a Jalngoy word. He also stated that *wanda-l-i-ZERO* Vi 'run'

and *wanyja-l-i-ZERO* Vi ‘run’ are Jalngoy words. They appear to be related to *wada-l-i-ZERO* Vi ‘run’ of the ordinary style, by phonological changes: *d ~ nd ~ nyj*. *Wanyja-l-i-ZERO* Vi ‘run’ occurs in Alec Collins’ Warrongo, too, e.g. (2-336). But it does not seem to be a Jalngoy word.

- (3-336) *wanyjali-n yinda*. (AC)
 run-NF 2SG.NOM
 Peter Sutton’s translation: ‘You run.’

[4] *X-l-i-ZERO* (Part 2) (intransitive verb)

The root is transitive (unlike [3]). The derived stems are of two types: reflexive and antipassive. They are all surface-intransitive.

- (a) Reflexive verbs. They occur in both Alf Palmer’s and Alec Collins’ Warrongo. They are listed in 4.11.2.1-[2] and 4.11.3.1-[2].
 (b) Antipassive verbs in Alec Collins’ Warrongo (though not in Alf Palmer’s). See (4-255) to (4-257) and comments on them.

-l-i-ZERO is also involved in the antipassive suffix *-gali-ZERO* (of Alf Palmer’s Warrongo). See 4.9.1.

[5] *X-l-X-l* (noun)

X-l is reduplicated, resulting in a noun (sometimes an ‘adjective-like noun’). The *X* is generally a verb root, either transitive or intransitive.

<i>giba-L</i> Vt ‘scratch’	<i>giba-l~giba-l</i> noun ‘scratch’
<i>bari-L</i> Vt ‘twist’	<i>bari-l~bari-l</i> noun ‘twisty, hard to understand [of language]’
<i>bayi-L</i> Vt ‘twist’	<i>bayi-l~bayi-l</i> noun ‘cunning’
<i>boji-</i> (not attested)	<i>boji-l~boji-l</i> noun ‘taking no notice’ cf. <i>boji-l-mba-L</i> Vt ‘take no notice of [someone]’ (mentioned in [2] above)
<i>boya-L</i> Vt ‘[someone] blow’	<i>boya-l~boya-l</i> noun ‘bark chips that are scratched and come off the trunk of a tree’ (See 1.5.8-[9].)
<i>jago-L</i> Vi ‘be sorry’	<i>jago-l~jago-l</i> noun ‘sorry’
<i>gimbi-L</i> Vt, Vi ‘[wind] blow’	<i>gimbi-l~gimbi-l</i> noun ‘windy’
<i>ngorga-L</i> Vi ‘be shy, ashamed’	<i>ngorga-l~ngorga-l</i> ‘shy, ashamed, embarrassed’

(*Jago-L* and *ngorga-L* are found with the stative suffix *-lji* (3.10.7) only, and with no other conjugational category.)

The nouns listed in [5] are not attested with a non-zero case suffix. Among them, ‘adjective-like nouns’ (*bari-l~bari-l*, *bayi-l~bayi-l*, *boji-l~boji-l*, *jago-l~jago-l*, *gimbi-l~gimbi-l*, *ngorga-l~ngorga-l*) seem to have the predicative use only. See 3.5.3.

[6] X-l-X-l followed by another stem-forming suffix

X-l is reduplicated, and then is followed by *-bi-L* ‘INTR’.

boya-l~boya-l noun *boya-l~boya-l-bi-L* Vi ‘chips and dust caused by a possum come off the trunk of a tree’

cf. *gobi-L* Vi ‘whistle’ *gobi-l~gobi-l-bi-L* Vi ‘whistle’

(The reduplicated form *gobi-l~gobi-L* is not attested.)

[7] X-l-X-l-i-ZERO (intransitive verb)

X-l-X-l is followed by *-i*, resulting in an intransitive verb of ZERO-class. The X is a verb root, either transitive or intransitive.

boji-l~boji-l noun ‘taking no notice’ *boji-l~boji-l-i-ZERO* Vi ‘take no notice, do not care’

boni-L ‘be dizzy, groggy, mad’ *boni-l~boni-l-i-ZERO* Vi ‘be fairly mad (but not so mad as *boni-L*)’
(*boni-l-i-ZERO* not attested)

jago-l~jago-l noun ‘sorry’ *jago-l~jago-l-i-ZERO* Vi ‘be sorry’

binyji-L Vi ‘feel fine, well, good’ *binyji-l~binyji-l-i-ZERO* ‘feel fine, well, good’

gawa-L Vi ‘call out’ *gawa-l~gawa-l-i-ZERO* Vi ‘call out’

wanba-L Vi ‘fear’ *wanba-l~wanba-l-i-ZERO* Vi ‘fear’

gobi-L Vi ‘whistle’ *gobi-l~gobi-l-i-ZERO* Vi ‘whistle’

(The following reduplicated forms are not attested: *boni-l~boni-l*, *binyji-l~binyji-l*, *gawa-l~gawa-l*, *wanba-l~wanba-l*, and *gobi-l~gobi-l*)

Alf Palmer stated that some of the words given above belong to Jalngoy, the avoidance style (1.6.1). They are indicated to that effect. However, since he himself admitted that he did not know Jalngoy well, it is not certain if they are Jalngoy words.

As can be seen, a number of words may be derived from one and the same root, involving *-l* and some other suffix(es). Examples:

(a) *gobi-L* Vi ‘whistle’: *gobi-l-bi-L* (Jalngoy?), *gobi-l-i-ZERO*, *gobi-l~gobi-l-bi-L*, *gobi-l~gobi-l-i-ZERO* Vi ‘whistle’

- (b) *wanba-L* Vi ‘fear’: (i) *wanba-l-barri*, *wanba-l-birri*, *wanba-l-jarri* (Jalngoy?) noun ‘frightened’, (ii) *wanba-l-bi-L*, *wanba-l-i-ZERO*, *wanba-l-wanba-l-i-ZERO* Vi ‘fear’, and (iii) *wanba-l-nga-L* Vt ‘frighten’.

Note that a set of verbs that involve the same root may have apparently the same meaning, e.g. *wanba-L*, *wanba-l-bi-L*, *wanba-l-i-ZERO*, and *wanba-l-wanba-l-i-ZERO* Vi ‘fear’. For members of such a set, Alf Palmer indicated to the effect that there is no semantic difference. The reduplicated forms (e.g. *gobi-l-gobi-l-i-ZERO* Vi ‘whistle’, *wanba-l-wanba-l-i-ZERO* Vi ‘fear’) might be expected to express repetition or continuation. However, Alf Palmer stated to the effect that they do not have such a meaning.

Nonetheless, there is one possible difference. That is, one member of a given set – particularly, the one involving *-bi-L* – may possibly be a Jalngoy word. Thus, Alf Palmer stated that, among the verbs that mean ‘whistle’ (listed above), *gobi-l-bi-L* is a Jalngoy word. His knowledge of Jalngoy is severely limited (cf. 1.6.1). At least this statement accords well with Dixon’s (1971, 1972: 86, 89, 323) description of Dyirbal Jalnguy: the use of verb-stem-forming suffixes (*-bi-L* ‘INTR’, *-(m)ba-L* ‘TR’) is a very common device for forming verbs of Dyirbal Jalnguy.

3.11.1.7. *-rr and -i*

-rr, attested in Alf Palmer’s Warrongo only, is used in much the same way as *-l*, except that (i) *-rr* is less productive than *-l*, and (ii) the roots to which *-rr* is added, are never used by themselves. They only occur affixed with *-rr*. (Their word class status cannot be determined.) This contrasts with *-l*, most of the roots to which *-l* is added, can be used as a verb, a noun or an adverb.

This may be coincidental, but all the roots to which *-rr* is added, start with *y*, with at least one pair of exceptions, shown in [9] below.

The distribution of *-rr* is the same as that of *-l*. Unlike *-l*, ‘X’ is always disyllabic. But like *-l*, ‘X’ has the form of CVC(C)V.

[1] X-*rr* (noun)

[2] X-*rr* followed by another stem-forming suffix

[3] X-*rr-i-ZERO* (intransitive verb)

[4] X-*rr-X-rr* (noun)

[5] X-*rr-X-rr* followed by another stem-forming suffix

[6] X-*rr-X-rr-i-ZERO* (intransitive verb)

All the attested examples are listed below.

[1] X-*rr* (noun)

The root is followed by *-rr*, resulting in a noun. The only example:

yimi-rr noun ‘glad’

[2] X-*rr* followed by another stem-forming suffix

X-*rr* is followed by *-bi-L* 'INTR':

yimi-rr-bi-L Vi 'be glad'

yaba-rr-bi-L Vi '[woman] open legs [for sexual intercourse]', e.g. (3-337-b).

yamo-rr-bi-L Vi 'hurry'

(3-337) (An example cited from a text.)

- a. (A man wanted to have sex with his wife, and said to her:)

yinda ya yaba-rr-i-ya (fall) / *wona-ya* (fall)/

2SG.NOM (error) open.leg-*rr-i*-IMP lie-IMP

'Open [your] legs. Lie down.'

- b. *nyola yaba-rr-bi-n* (slight rise) / *wona-n* (slight rise) / (AP)

3SG.NOM open.leg-*rr*-INTR-NF lie-NF

'[Then] she opened [her] legs. [She] lay down.'

[3] X-*rr-i*-ZERO (intransitive verb)

X-*rr* is followed by *-i*, resulting in an intransitive verb of ZERO-class:

yimi-rr-i-ZERO Vi 'be glad'

yaba-rr-i-ZERO Vi '[woman] open legs [for sexual intercourse]', e.g. (3-337-a)

yamo-rr-i-ZERO Vi 'hurry'

Morphologically, the sequence of *-rr-i* consists of two morphemes. But phonetically it is pronounced as a unit, i.e. [re]. See 2.1.4.3-[2]-(b) for the phonetic realizations of /ri/ and /ir/.

[4] X-*rr*~X-*rr* (noun)

X-*rr* is reduplicated, resulting in a noun.

yimi-rr~yimi-rr noun 'glad', e.g. (4-730), (4-731)

The nouns that involve this *-rr*, i.e. *yimi-rr* and *yimi-rr~yimi-rr* 'glad', are not attested with any non-zero case suffix. They seem to be used 'predicatively' only. See 3.5.3.

[5] X-*rr*~X-*rr* followed by another stem-forming suffix

X-*rr*~X-*rr* is followed by *-bi-L* 'INTR', resulting in an intransitive verb:

yimi-rr~yimi-rr-bi-L Vi 'be glad'

[6] X-*rr*~X-*rr-i*-ZERO

X-*rr*-X-*rr* is followed by *-i*, resulting in an intransitive verb of ZERO-class:

yimi-rr~yimi-rr-i-ZERO Vi 'be glad', e.g. (3-92)

yamo-rr~yamo-rr-i-ZERO Vi 'hurry'

Additional remarks on *-rr* and *-i* follow.

[7] Semantics and register

As is the case with verbs formed with *-l-i*, there are a few sets of verbs that are respectively built on the same root, e.g. *yimi-rr-bi-L*, *yimi-rr-i*-ZERO, *yimi-rr~yimi-rr-bi-L* *yimi-rr~yimi-rr-i*-ZERO Vi 'be glad'. Their difference is not known in terms of meaning or register (i.e. the ordinary style vs. Jalngoy). In contrast with his comments on the verbs involving *-l-bi-L*, Alf Palmer did not say that those with *-rr-bi-L* were Jalngoy words.

[8] Phonetics and phonology

In *yimi-rr~yimi-rr* 'glad', *yimi-rr~yimi-rr-bi-L* 'be glad' and *yimi-rr~yimi-rr-i*-ZERO 'be glad', *rr* and the *yi* that follows, are pronounced as one unit, e.g. *yimi-rr~yimi-rr-i-n* [imerimeren] (/jimirjimirin/) (*-n* 'NF'). Almost always there is no pause between the last [r] of the first element (*yimi-rr-*) and the [i] of the second element (*-yimi-rr-i-n*). They are jointly pronounced as [ri], rather than as [r (pause) i]. That is, phonologically the cluster /rj/ is recognized. But phonetically /j/ is not realized. See 2.1.5.1.2-[3]-(a-4) and 2.2.6.2-(d).

In *yamo-rr~yamo-rr-i-n* [jamorjamoren] (/jamurjamurin/), phonetically *rr* and *ya* are not fused, although there is no pause between them.

This difference seems to be caused by the difference in the vowel quality. That is, the root-initial syllable of *yimi-* is *yi* /ji/ [i], while that of *yamo-* is *ya* /ja/ [ja].

[9] Other verbs

Consider the following set of words:

gajo-rr-i-ZERO Vi 'go past'

gaja-rr~gaja-rr Adv '[go] past'

garro-gaja- (class unknown) Vt 'go past [someone]'

Clearly these words are related. (The etymology of *garro-* is not known.) The root shows an alternation of vowels: *o* and *a*. (*Gajo-* and *gaja-* do not occur elsewhere in the corpus.) The reduplicated form *gaja-rr~gaja-rr* is not attested with any non-zero case suffix. It may be considered as a noun or as an adverb. Here, it is tentatively labeled as an adverb. *Gajo-rr-i*-ZERO 'go past' and *gaja-rr~gaja-rr* 'past'

begin with *g*, and they are exceptional in that *-rr* is added to a root that does not begin with *y*.

In addition to the verbs listed above, there are a number of verbs (all intransitive) that contain *-rri-ZERO* and belong to *ZERO-class*: *banbarri-ZERO* ‘shiver (with cold, anger)’, e.g. (3-96), (3-242), *jojorri-ZERO* ‘be drowned’, *ngajirri-ZERO* ‘wait [for someone]’ (later Alf Palmer said that this is a Jirrbal word, but it is not listed in Dixon (1972: 406)), *ngalmirri-ZERO* ‘be kind [to someone]’, *yobarri-ZERO* ‘run away, escape’, *walmbirri-ZERO* ‘get up’ (later Alf Palmer said that this is a word of the Djabugay language, north of Yidiny, but it is not listed in Patz (1991)), *womirri-ZERO* ‘wait [for woman]’ It looks as if they each consist of a disyllabic root and *-rr-i-ZERO*. However, the putative roots (e.g. *banba-*) do not occur elsewhere in the corpus. However, there is one exception: *yobarri-ZERO* ‘run away, escape’ may be related to *yoba-y-nga-L Vt* ‘steal’; see 4.7.2-[6]-(b). That is, the root *yoba-* may possibly be recognized. *Walmbirri-ZERO* ‘get up’ is exceptional in that it contains a tri-consonantal cluster. As noted above, all the other roots and putative roots to which *-rr-i-ZERO* is added, have the structure of *CVC(C)V*, and do not contain a tri-consonantal cluster.

As seen in 3.11.1.6-[3], there is the verb *wonaja-l-i-ZERO Vi* ‘sleep’ (cf. adverb *wonaja* ‘camping out’). Now, there is the verb *wonajajarri-?* (probably *ZERO-class Vi* ‘camp out, sleep all the time’). It consists of the adverb *wonaja* ‘camping out’ and *-jarri-*. *-jarri-* may be analysed as *-ja* plus *-rr-i*. But *-ja* cannot be accounted for. This verb may have been used due to an error and it may not be a bona fide Warrongo word.

There are two verbs with the same (?) meaning based on the same root: *jojorri-ZERO* (mentioned above) and *jojorra-Y* ‘be drowned’.

[10] Hyphenation and glossing

When giving sentential examples, generally *-l* and *-i* are not separated. Similarly for *-rr* and *-i*. For example, they will be shown as follows.

Regarding *-l* and *-i* (3.11.1.6)

[3] *X-l-i-ZERO* (Part 1) (intransitive verb), e.g. *wadali-ZERO* ‘run’.

[4] *X-l-i-ZERO* (Part 2) (intransitive verb), e.g. *balba-li-ZERO* ‘roll-REFL’, *wajoli-ZERO* ‘cook-MID’

Others, e.g. *bonali-ZERO* ‘sleep’.

[7] *X-l-X-l-i-ZERO*, e.g. *wanbal-wanbali-ZERO* ‘fear~fear’

Regarding *-rr* and *-i* (3.11.1.7)

[3] *X-rr-i-ZERO*, e.g. *yimirri-ZERO* ‘be glad’.

[6] *X-rr-X-rr-i-ZERO*, e.g. *yimirr~yimirri-ZERO* ‘be glad’.

[11] History

Historically, this *-rr* may have derived from the *-l* discussed in 3.11.1.6.

First, as mentioned at the beginning of 3.11.1.7, they have the same distribution.

Second, synchronically Warrongo exhibits an alternation between *l* and *rr* (2.4-[1]). The following words were discussed in 2.4-[1].

<i>gimbi-L</i> Vt, Vi ‘[wind] blow’	<i>gimbi-l~gimbi-l</i> noun ‘windy’ (3.11.1.6-[5])
	<i>gimbi-rr~gimbi-rr</i> noun ‘windy’
	<i>gimbi-rra</i> noun ‘wind [of fart]’

The noun *gimbi-rra* ‘fart’ is probably related to the verb *gimbi-L* ‘blow’. There are two variants of the noun: *gimbi-l~gimbi-l* and *gimbi-rr~gimbi-rr*. These facts suggest a change from *l* to *rr* in *gimbi-rr~gimbi-rr* and *gimbi-rra*. (In actual speech of Alf Palmer, *gimbi-rr~gimbi-rr* is much more frequent than *gimbi-l~gimbi-l*.)

Third, Dyirbal (Dixon 1972:402) has *gaja-L* Vt ‘pass by without seeing’ and *garru-gaja-L* Vt ‘pass by’. This suggests that the Warrongo adverb *gaja-rr~gaja-rr* ‘[go] past’ was **gaja-l-gaja-l*, with *l* changing to *rr*. (The adverb *gajarr~gajarr* is not listed in Dixon 1972.)

To sum up, it seems likely that this *-rr* derived from *l* etymologically.

There is a man’s name *Bayombirri*, which is based on the verb *bayombi-L* Vt ‘[fish] wave [its tail]’ (1.5.4.2-[1]). Alf Palmer approved the apprehensional form *bayombi-lga*, so *bayombi-* seems to be of L-class. It is possible that, originally, the name was *Bayombi-li*, and that it turned into *bayombi-rri*.

[12] Cognates

Warrgamay (Dixon 1981: 80) and Nyawaygi (Dixon 1983: 498) have the intransitive-stem-forming suffix *-mbi~bi-i*. *-bi* is identical with the Warrongo *-bi-L* ‘INTR’, while *-i* is identical with the Warrongo *-i*, which follows *-l* and *-rr*.

3.11.2. Reduplication of verb roots

Reduplication involving *l* was discussed in 3.11.1.6, and that involving *rr* in 3.11.1.7. In the following, reduplication of verb roots is examined. This type of reduplication is not productive, and there are very few examples. Generally, it does not change the class membership or transitivity of the verb concerned. The resultant stems appear to indicate repetition, prolongation, distributivity, intensity, multiplicity, or careful attention. All the attested instances are listed.

<i>nyaga-L</i> Vt ‘see, look at’	<i>nyaga-nyaga-L</i> Vt ‘have a good look at, watch; mind [someone]’, e.g. Text 3, Line 32
<i>moja-L</i> Vt ‘eat’	<i>moja~moja-L</i> Vt ‘have a good feed’ (Alf Palmer’s gloss), ‘eat again and again’

<i>wara-L</i> Vi ‘jump’	<i>wara~wara-L</i> Vi ‘jump about’
<i>ngawa-L</i> Vt ‘hear, listen to, think about’	<i>ngawa-ngawa-gali-ZERO</i> Vi ‘think [about DAT]’, e.g. (4-432)

The reduplicated form *ngawa-ngawa-L* is not attested by itself. It is always followed by *-gali-ZERO*. The suffix *-gali-ZERO* has at least two functions: antipassive and reflexive/middle (both surface-intransitive), and *ngawa-ngawa-gali-ZERO* ‘think’ appears to be reflexive; see the comment on (4-432).

3.11.3. Compounding

There are at least five compound verbs. They are all transitive. They consist of a noun and a transitive root, with one exception: *jili-ngonba-y-nga-L* Vt ‘show’ contains a derived stem, formed with *-nga-L* ‘TR’ (see 4.7.2-[6]-(a)).

(a) Four compound verbs involve a noun for a body part or body secretion.

<i>jili</i> noun ‘eye’	<i>jili-ngonba-y-nga-L</i> Vt ‘show, teach, look over at [a distance]’
<i>ngonba-</i> Vt ‘point, show’ (Y-class ?)	
<i>bibi</i> noun ‘clitoris’	<i>bibi-baba-L</i> Vt ‘poke [a woman]’ (Alf Palmer’s gloss), e.g. (3-339)
<i>baba-L</i> Vt ‘thrust, pierce, stab’	
<i>jiji</i> noun ‘a sore’	<i>jiji-marrga-L</i> Vt ‘poke [a woman]’ (Alf Palmer’s gloss)
<i>marrga-L</i> Vt ‘hurt’	

Etymologically, these compound verbs may be each based on a clause that contains the following: ‘whole-ACC’, ‘part-ACC’ and a transitive verb. (The whole-part relationship is often expressed by the apposition of the whole and the part in the same case (4.20.5.2), e.g. ‘woman-ACC’ and ‘clitoris-ACC’ in (3-338).) For example, compare the following.

(3-338) *bama-nggo warrngo-Ø bibi-Ø baba-n.* (TT)
 man-ERG woman-ACC clitoris-ACC stab-NF
 Lit. ‘The man stabbed the woman’s clitoris.’

(3-339) *bama-nggo warrngo-Ø bibi-baba-n.* (AP)
 man-ERG woman-ACC clitoris-stab-NF
 Lit. ‘The man clitoris-stabbed the woman.’

(Alf Palmer’s gloss for *bibi-baba-L* is ‘poke a woman’.)

There is a reflexive verb that is based on the compound verb *bibi-baba-L*, i.e. *bibi-baba-li-ZERO* Vi ‘clitoris-stab-REFL’, ‘[man] masturbate’, e.g. (4-387). The reflexive form literally means ‘[man] clitoris-poke himself’

I first came across the reflexive verb *bibi-baba-li-ZERO*. On the basis of it, I made up the compound verb *bibi-baba-L* (cf. (3-339), which Alf Palmer approved.

(b) Two compound verbs involve a noun that concerns geography or the like.

<i>galba</i> noun 'sand'	<i>galba-baba-L</i> Vt 'wash [e.g. clothes]',
<i>baba-L</i> Vt 'thrust, pierce, stab'	e.g. (3-340), (3-341)
<i>jabo</i> noun 'grave'	<i>jabo-baga-L</i> Vt bury [in a grave?]
<i>baga-L</i> Vt 'dig'	

(3-340) *ngana-Ø gambi-Ø galba-baba-n.* (TT)
 1PL-ERG clothes-ACC sand-stab-NF
 'We washed the clothes.'

(3-341) ('I cooked a possum.')

woda-n gamo-ngga galba-baba-n. (AP)
 take.out-NF water-LOC sand-stab-NF
 '[I] took [the guts] out [of the possum and] washed [them] in the water.'

Unlike the compound verbs discussed in (a), the compound verbs examined in (b) do not seem to have a corresponding transitive clause. At least I am unable to compose a transitive clause on which, say, (3-112) may be based.

Chapter 4

Syntax

4.1. Introductory notes

The syntax of Alf Palmer's Warrongo is well documented, whereas the information on that of Alec Collins' Warrongo is severely limited. The following account in the main concerns Alf Palmer's Warrongo. Nonetheless, reference to Alec Collins' Warrongo will be sometimes made.

The most outstanding feature of Warrongo syntax is syntactic ergativity, which is largely created by the use of the antipassive construction (4.9). Word order is fairly free, and Warrongo syntax is largely non-configurational (cf. Hale 1983). But it is configurational to a very limited degree; see 4.5.2.2. Also, it is entirely dependent-marking (cf. Nichols 1986). Warrongo discourse is highly elliptical.

4.2. Types of sentences

Sentences may be classified as follows.

- (a) Declarative, imperative, interrogative, and exclamatory sentences (4.2.1).
- (b) Affirmative and negative sentences (4.2.2).
- (c) Simple and complex sentences (4.2.3).

4.2.1. Sentence types (1): declarative, imperative, interrogative, and exclamatory sentences

On phonetic, morphological, syntactic, semantic and/or pragmatic grounds, sentences may be classified into declarative, imperative, interrogative, and exclamatory sentences. Exclamatory sentences are marginal. Among the other three types of sentences, declarative sentences are the least marked, and they will be discussed last. Imperative sentences (4.2.1.1), interrogative sentences (4.2.1.2) and declarative sentences (4.2.1.3) generally contain a verb, although they do not always do. Exclamatory sentences do not contain a verb (4.2.1.3).

4.2.1.1. Imperative sentences

The imperative prototype may be characterized as follows (3.10.8-[2]-(a)-(i)). (i) It is addressed to the hearer, i.e. the second person, and (ii) it is meant to influence

the behaviour of the hearer. In Warrongo, imperative sentences generally have a verb. But there are a few examples which do not contain a verb but which are best considered imperative sentences.

[1] Imperative sentences with a verb

The verb is in the main in one of the four imperative forms: two general imperatives (3.10.8), affirmative imperative (3.10.9), and negative imperative (3.10.10). General imperatives are by far the most frequent.

Imperative sentences in the affirmative with a verb are generally formed with (almost always) one of the two general imperative forms or (rarely) the affirmative imperative. Examples are in 3.10.8 and 3.10.9, respectively.

Negation of imperative sentences is achieved by the use of:

- (a) a verb in the negative imperative form (its use is uncommon), or:
- (b) a verb and the adverb *ngalnga* 'prohibition' (generally), or *nyawa* 'general negation' (less frequently).

With *ngalnga* 'prohibition', the verb is mainly a general imperative, e.g. (3-269), (4-34). But the following, too, are attested: nonfuture-1, e.g. (4-930), (4-931), nonfuture-2, e.g. (3-243), nonfuture-3, e.g. (3-249), (3-253), apprehensional, e.g. (3-287), purposive-1, e.g. (4-43, (4-68), purposive-2, e.g. (3-309). *Ngalnga* may co-occur – rather redundantly – with a negative imperative form, e.g. (3-274), (3-275).

Verbs used with *nyawa* 'general negation' indicating prohibition are generally general imperatives, e.g. (3-270), but there is one example involving the purposive-2: (3-308).

Imperative sentences are generally directed to second person, as in the examples cited above. But they may be directed to first person – either dual or plural (not singular), indicating 'Let's ...', e.g. (3-265) (1DU), Text 1, Line 69 (1PL). They may also be directed to third person, expressing 'Let him/her/them ...' (exhortation 'Let's ...', permission, non-interference, or the like), e.g. (3-268), (3-271).

Purposives may indicate advice or the like, and they, too, may be considered as a type of imperative sentences, e.g. (3-303), (3-304).

The word order in imperative sentences with a general imperative is discussed in 4.6.3.3.

[2] Imperative sentences without a verb

The few examples include the following.

- (4-1) (An example cited from a text. A man says to his wife, who has sore feet and cannot keep up with him.)

ngarrban-Ø! *yinda* *ngarrban-Ø!* (AP)
 fast-NOM 2SG.NOM fast-NOM
 'Fast! Fast!'

(4-2) ('Don't look down when you walk. Look ahead.')

ngalnga yinda jili-Ø nyarrga! (AP)
 PROH 2SG.NOM eye-NOM down (Adv)
 'Don't look down.'

In (4-1), there is a strong stress on each of the two occurrences of *ngarrban-Ø*, and phonetically, (4-1) may be considered a prototypical imperative sentence. Syntactically, (4-1) may be considered elliptical, with a verb in an imperative form, say, *yani-ya* 'go, come, walk-IMP', being understood. See (4-884).

(4-2) contains an expression of the whole-part relationship; the apposition of the whole and the part in the same case (4.20.5.2): '2SG.NOM' and 'eye-NOM' in (4-2). Literally, (4-2) may be translated as 'Your eyes should not [be] down'.

All the examples of the negation of an imperative sentence without a verb involve *ngalnga* 'prohibition'. There is no example involving *nyawa* 'general negation'.

4.2.1.2. *Interrogative sentences*

The interrogative prototype may be characterized as follows. (i) It is addressed to the hearer, and (ii) it seeks information from the hearer (cf. Jespersen 1924: 302). Interrogative sentences may be divided into two types (Comrie 1984): general questions (corresponding to yes-no questions of English) and special questions (corresponding to WH-questions of English). Both types of interrogative sentences generally contain a verb, although they do not always.

[1] General questions

Warrongo has two ways to form general questions: (i) rising intonation and (ii) adverb *wayi* 'question'. The use of a rising intonation is far more frequent than the use of *wayi*.

Examples of the use of a rising intonation include (3-234), (3-236), (3-293), (3-294), (3-296) to (3-298).

The word order of general questions with a rising intonation does not deviate from that of declarative sentences (see 4.6.3.2).

Examples of general questions involving the adverb *wayi* 'question' include (1-10-d, -e), (2-130), (3-305), (4-703), and:

(4-3) *wayi yinda jarribara-Ø?* (AP)
 Q 2SG.NOM well-NOM
 'Are you well?'

(4-4) *yinda wayi jarribara-Ø?* (AP)
 2SG.NOM Q well-NOM
 '(As above.)'

- (4-5) *ngaygo majowarrgi-Ø wayi yinda nyaga-n?* (AP)
 1SG.GEN friend-ACC Q 2SG.ERG see-NF
 'Did you see my mate?'

The adverb *wayi* occurs sentence-initially most often, e.g. (1-10-d, -e), (2-130), (3-305), (4-3), (4-703), but it is also attested in the second position, e.g. (4-4), and even in the third position: (4-5).

General questions involving *wayi* have a falling intonation – except for those in songs: (1-10-d, -e), (4-703). The stress is strongest and the pitch highest on *wayi* (this is irrespective of the position it occupies), and subsequently they become weaker and lower, respectively. See (2-130).

It might be argued regarding (4-5) that *ngaygo* '1SG.GEN' and *majowarrgi-Ø* 'friend-ACC' constitute an NP and that *wayi* 'Q' occupies the second position, occurring after the first constituent (*ngaygo majowarrgi-Ø* 'my friend'). However, as we shall see in 4.5.2.1.3, in Warrongo a noun and its 'modifier(s)' do not necessarily form an NP in a strict sense, and *wayi* 'Q' should be regarded as occupying the third (and not the second) position.

The adverb *wayi* is also used in what appears to be a special question. See (4-11) and (4-12) below.

There are a very few examples of tag questions, in which the tag question marker [ei] (tentatively phonemicized /ay/) is added to the end of the sentence. They have a rising intonation. E.g.

- (4-6) ('I think you are a *gobi* ('a native doctor'; cf. 1.5.8-[7]).)
jalgor-Ø yinda ganba-mara gobi-nggo mojan-n, ay? (AP)
 flesh-ACC 2SG.ERG ago-very native.doctor-ERG eat-NF TAGQ
 'You, a native doctor, ate human flesh a long time ago, didn't you?'

The variety of English spoken in Queensland has tag questions that end in something like [ai], and it is possible that Warrongo tag questions with *ay* were formed due to influence from English. However, as noted above, these Warrongo tag questions have a rising intonation, in contrast with the English tag questions with [ai], which have a falling intonation.

[2] Special questions contain an interrogative member of nouns, pronouns, adverbs, or verbs. See 3.1.1 and 3.9.2. The interrogative member tends to occur sentence-initially, e.g. (3-13-A) (*wanyja* 'where'), (3-69) (*ngani-wo* 'what-DAT'), (3-69) (*ngani-ngga* 'what-LOC'), (3-72) (*ngani-wo* 'what-DAT'), (3-106) (*wanyo-ngo* 'who-GEN'), (3-153) (*wanyja* 'where', *wanyo-ngo-n-ji-Ø* 'who-LINK-LINK-COM-NOM'), (3-175) (*ngani-ngomay-Ø* 'what-ABL-NOM', *wanyja* 'where', *nganimbarri-Ø* 'how many-NOM'), (3-244) (Alec Collins' Warrongo) (*wanyo-ngo* 'who-GEN'), (3-299) (*wanyja-nga-lgo* 'where-TR-PURP'), (3-300) (*ngani-nga-lgo* 'what-TR-PURP'), (4-7) (*ngani-bi-n* 'what-INTR-NF'), (4-27) (*ngani-Ø* 'what-

ACC'), (4-37) (*ngani-Ø* 'what-ACC'). But it may occur in the second position (less frequently), e.g. (3-14) (first A: *wanyja* 'where') (3-74) (*ngani-wo* 'what-DAT'), (4-8) (*wanyo-lo* 'who-ERG'), and in the third position, e.g. (3-14) (second A: *wanyja-ngomay-Ø* 'where-ABL-NOM'), (4-9) (*wanyja-rro* 'where-to'). In one example the interrogative member occurs even in the fourth position: (4-10). That is, interrogative members are less frequent as we move away from the initial position. See 4.5.4.1-[3] and 4.8.5-[4] for a further discussion of the position of interrogative members. (A detailed discussion of the position of Warrongo interrogative members is in Tsunoda 1992.)

- (4-7) *ngani-bi-n yinda?* (AP)
 what-INTR-NF 2SG.NOM
 'What have you become?', 'What did you do?', 'What is the matter with you?', etc.
- (4-8) *ngoni wanyo-lo bori-Ø wajo-n?* (AP)
 there who-ERG fire-ACC burn-NF
 'Who made a fire there?'
- (4-9) *ngona-Ø bama-Ø wanyja-rro?* (AP)
 that-NOM man-NOM where-to
 'Where [is] that man [going] to?'
- (4-10) *nyola nganya mayga-lgo ngani-wo?* (AP)
 3SG.ERG 1SG.ACC tell-PURP what-DAT
 'What will he tell me about?'

In a complex sentence, an interrogative member tends to occur sentence-initially. See 4.6.4.

As seen in [1] above, *wayi* is generally used for forming general questions. In addition, in several examples, it seems to form something like a special question, which requires not a 'yes/no' answer, but information on 'how', 'where', etc., e.g. (4-11) to (4-13). In such questions, *wayi* (always?) occurs in the second position. Recall that it generally occurs sentence-initially when it forms general questions.

- (4-11) *yinda wayi?* (AP)
 2SG.NOM Q
 'How are you feeling?', 'What are you doing?', etc.
- (4-12) ('My penis is not active.')
- yino wayi?* (AP)
 2SG.GEN Q
 'How [is] yours?'
- (4-13) *nyola wayi yarro-ngomay-Ø bama?* (AP)
 3SG.NOM Q this-ABL-NOM man-NOM
 'Where is he, the man from here?'

In one example, *wayi* occurs – rather redundantly – in a sentence that already contains an interrogative word. Here again, it occurs in the second position. (In Japanese, special questions are generally accompanied by the (sentence-final) question particle *ka* – rather redundantly.)

- (4-14) *wanyja-n-da wayi barrbira-Ø wajo-igo?* (AP)
 where-LINK-LOC Q echidna-ACC cook-PURP
 ‘Where shall [I] cook the echidna?’

The question adverb *wayi*, which forms general questions, occurs in Gugu-Badhun (Sutton 1973: 22), and Warluwarra of Western Queensland (Breen 1971: 259–262). It occurs in Djaru, too, but it does not form general questions. It occurs with an interrogative member (Tsunoda 1981a: 207), rather like (4-14) of Warrongo.

[3] There are at least two types of questions that deviate from the interrogative prototype. In one type, of which there is only one example, i.e. (2-129) (a special question), the question is addressed to the hearer. But the speaker probably knows the answer and he is not seeking any answer from the hearer. (This sentence has a rising intonation, and not a falling intonation.) In the other type, of which there are a fair number of examples, e.g. (3-299), (3-300), (4-14), Text 2, Lines 24, 30 (all special questions), the speaker thinks to himself, ‘What shall I do ?’, ‘How am I going to do ?’ Here the question is not addressed to any hearer at all. Furthermore, the speaker is seeking an answer, but he/she is seeking an answer from himself, and not from any hearer. (These sentences generally have a falling intonation.)

[4] There is no example of negation of a question, such as ‘Don’t you like fish?’ (a general question) and ‘What didn’t you shoot?’ (a special question). Djaru has the adverb for negative question: *wanyja* and *wayjarra* ‘why not’, as in ‘Why didn’t you spear a kangaroo’ (Tsunoda 1981a: 208).

[5] Intonation in questions

In Warrongo in general, it is very difficult to generalize about intonation patterns (2.9.1). This is particularly true of questions; it is difficult to decide the number of intonation patterns and the pragmatic effect of each pattern.

First, general questions without *wayi* generally have a rising intonation (see [1] above), but there are instances that have a falling intonation.

Second, generally, special questions have a falling intonation, starting with the strongest stress and the highest pitch. This applies to the examples cited above. See also (2-126-A) and (2-127-A). There are, however, deviations from this general pattern. (2-129) is an example; it has a rising (and not falling) intonation. It is not a prototypical question; the speaker probably knows the answer and he is not seeking information. This explains the deviant intonation of (2-129).

4.2.1.3. Exclamatory and declarative sentences

Exclamatory sentences consist of either:

- (a) an interjection, or;
- (b) a noun or the like used to address someone.

Interjections are listed in 4.26. Examples of (a) include Text 1, Line 11 (*yowo* ‘OK!’), Line 68 (*aa* ‘I see’), and Text 2, Line 34 (*yowo* ‘OK!’). Another interjection is *yagay* ‘Ouch!’ Its second vowel is often long: [jaká:ii]. As for (b), as seen in 3.7.1-[18], vowel-final kin roots can be used as address terms, e.g. (3-192), (3-194) to (3-197), but, when combined with the kin suffix *-na*, generally they cannot be used as address terms.

All other sentences than imperative, interrogative and exclamatory sentences are declarative sentences. Many examples have already been given.

4.2.2. Sentence types (2): affirmative and negative sentences

Negation may be achieved by the use of:

- (a) negative imperative, optionally accompanied by *ngalnga* ‘prohibition’ (3.10.10), or;
- (b) for other sentences:
 - (b-1) *nyawa* ‘general negation’, e.g. (3-226-b), (3-241-a), (3-270), (3-286), (3-306), (3-308), (3-310), (3-332), (4-124) (first B), or;
 - (b-2) *ngalnga* ‘prohibition’, e.g. (3-243), (3-249), (3-253), (3-269), (3-287), (3-307), (3-309), (4-2), (4-34), (4-41), (4-43).

Nyawa can be used for negation of existence or possession, as in ‘There is no or ‘X does not have’ See 4.20.6.

There are also a few adverbs that have some kind of negative sense: *ngarro* ‘in vain, unsuccessfully’ (4.24-[9]), *ngara* ‘cannot or could not do easily’ (4.24-[10]), *warra* ‘do not or did not properly’ (4.24-[11]), and *ngalnga* ‘counterfactual’ (4.24-[4]), i.e. ‘It looks/looked as if ..., but in fact that is/was not the case’ Sentences that contain one of these adverbs may be considered negative sentences.

The issue of the scope of negation has not been investigated. See 4.8.5-[5] for some discussion.

So far we have looked at negative sentences. All other sentences are affirmative sentences.

4.2.3. Sentence types (3): simple and complex sentences

A simple sentence consists of just one clause. Many examples have already been given. A complex sentence consists of two (or possibly more) clauses. The following

types of complex sentences may be recognized: (i) purposive subordination ('so that may', etc.) (4.8), (ii) subordination with the enclitic *ngomay* 'after, if, because' (4.10), (iii) participial subordination ('when', etc.) (4.15), (iv) apprehensional construction ('lest ... should') (4.17), (v) 'X is afraid that ...' (4.18.1), (vi) 'X is glad that ...' (4.18.2), (vii) 'X knows that ...' (4.18.3), (viii) 'X sees/hears Y doing ...' (4.18.4), (ix) 'X tells/asks Y ...' (4.18.5), and (x) 'if/when' (4.18.6.2).

4.3. Types of clauses

Clauses may be classified as follows.

- (a) Intransitive and transitive clauses (4.3.1).
- (b) Basic and derived clauses (4.3.2).
- (c) One-place, two-place, and three-place clauses (4.3.3).

The classifications of (a) and (c) do not coincide with each other. See 4.3.3.4-[1].

These classifications of clauses concern non-elliptical ones. However, Warrongo discourse is highly elliptical (4.1), and many examples given below are elliptical; it is often difficult to provide non-elliptical examples.

4.3.1. Clause types (1): intransitive and transitive clauses

This classification – of non-elliptical clauses – is as follows.

- (a) Intransitive clauses:
 - (a-1) NOM(S) Vi.
(This type contains an intransitive verb.)
 - (a-2) NOM(S) plus some other word(s).
(This type is a so-called verbless clause. It lacks a verb.)
- (b) Transitive clauses:
ERG(A) (ACC(O)) Vt.

Intransitive clauses contain a NOM NP for the 'intransitive subject' ('S'). (They may contain some other words.)

Some of the verbless clauses ((a-2)) may be considered elliptical, with the verb understood. For example, in (4-1) and (4-2), *yani-ya* 'go-IMP' may be considered understood, and *yani-n* 'go-NF' in (4-9). However, for some other verbless clauses it is difficult to supply a verb, e.g. (4-3), (4-4), (4-11), (4-12), and they will have to be considered genuinely verbless. Unlike some Australian languages such as Djarru (Tsunoda 1981a: 122–123), Warrongo does not have a verb which functions as a copula verb.

All the transitive clauses contain a transitive verb. They contain an ERG NP for the 'transitive subject' ('A'). Most of them contain an ACC NP for the 'transitive

object' ('O'). (They may contain some other words.) But there are (non-elliptical) transitive clauses that lack an ACC NP (O); their case frame is ERG (or ERG-ZERO); see 4.3.3.4-[1].

4.3.2. Clause types (2): basic and derived clauses

Those clauses which contain a verb (i.e. (a-i) and (b) of 4.3.1) may be divided into (i) basic (or, non-derived) clauses and (ii) derived clauses. Derived clauses contain one of the following verbs.

- (a) An antipassive verb: surface-intransitive, derived from a transitive verb (4.9).
- (b) (i) A reflexive verb: surface-intransitive, derived from a transitive verb, or (ii) a middle verb: surface-intransitive, derived mainly from a transitive verb and occasionally from an intransitive verb (4.11).
- (c) A reciprocal verb: surface-intransitive, derived mainly from a transitive verb and occasionally from an intransitive verb (4.12).
- (d) An iterative verb: (i) mostly surface-intransitive, derived from an intransitive verb and occasionally from a transitive verb, but also (ii) surface-transitive, derived from a transitive verb in a few instances (4.13).
- (e) An applicative verb: (i) a locative verb: surface-transitive, derived from an intransitive verb, or (ii) an instrumental verb: surface-transitive, derived from a transitive verb (4.14).

A derived verb generally corresponds to a basic (or 'underlying') verb, and may be considered as derived from the latter. (However, there are a small number of 'derived verbs' for which the 'basic' verb is difficult to set up. See 4.11.5-[1] and 4.12.5, in particular.)

4.3.3. Clause types (3): in terms of valency

4.3.3.1. *Introductory notes*

We shall look at basic clauses. The valency of derived clauses will be discussed in the sections shown in 4.3.2. Largely on notional – and not really any rigid, formal – grounds, basic clauses may be classified into three place clauses (4.3.3.2), two-place clauses (4.3.3.3), and one-place clauses (4.3.3.4). The following case-frames can be recognized.

- (a) Three-place clauses:
 - (a-1) Transitive clauses: ERG-ACC-DAT, ERG-ACC-GEN, ERG-ACC-LOC, ERG-ERG-ACC.
 - (a-2) Intransitive clauses: none.

- (b) Two-place clauses:
 (b-1) Transitive clauses: ERG-ACC.
 (b-2) Intransitive clauses: NOM-DAT, NOM-GEN, NOM-LOC.
- (c) One-place clauses:
 (c-1) Transitive clauses: ERG (or ERG-ZERO).
 (c-2) Intransitive clauses: NOM.

Intransitive clauses include so-called verbless clauses ((a-2) of 4.3.1). So-called ‘equational sentences’ often have the form ‘NOM-NOM’, e.g. (3-24) to (3-26). So do sentences such as (2-135) and (2-136) (both ‘I’m here’). Tentatively they are assigned to (c-2).

All of the three-place clauses are transitive (i.e. they contain an ERG NP (‘A’)). Two-place clauses are of two types: transitive and intransitive. Most of the one-place clauses are intransitive, but there are one-place clauses that are transitive, i.e. (c-1): ERG (or ERG-ZERO).

Note that the transitive-vs.-intransitive dichotomy (i.e. whether a given clause contains an ergative NP (‘A’) or not) does not coincide with the classification of clauses in terms of valency. For example, there are transitive clauses that are one-place (i.e. ERG-ZERO), while there are intransitive clauses that are two-place (i.e. (b-2): NOM-DAT, NOM-GEN, NOM-LOC).

4.3.3.2. Three-place clauses

There are a fair number of three-place verbs.

[1] *Goyba-L* ‘give’ and ‘throw’

Goyba-L may mean ‘give’ or ‘throw’. When it means ‘give’, it has the three case-frames shown in Table 4-1. (a) and (b) are each frequently used, but (c) is not. In all the examples of *goyba-L* ‘give’, the donor is human and the gift inanimate. The recipient is generally human, but occasionally non-human animate, e.g. (3-117).

Table 4-1. Case frames of *goyba-L* ‘give’

	donor	gift	recipient	example
(a)	ERG	ACC	DAT	(3-85), (3-199), (4-15), (4-16), (4-19), (4-20)
(b)	ERG	ACC	GEN	(3-117), (3-118), (3-170), (4-17), (4-18-b), (4-19), Text 3, Line 26
(c)	ERG	ERG	ACC	(4-21) to (4-25)

Examples of (a) include the following.

- (4-15) *ngaya yino-n-go goyba-lgo yarro-Ø*. (AP)
 1SG.ERG 2SG-LINK-DAT give-PURP this-ACC
 ‘I will give this to you.’
- (4-16) *jarra-Ø goyba-n goman-go*. (AP)
 leg-ACC give-NF other-DAT
 ‘[I] gave [a kangaroo] leg to other [people].’

Examples of (b) include the following.

- (4-17) *yinda goyba-Ø ngali-ngo manyja-Ø*. (AP)
 2SG.ERG give-IMP 1DU-GEN food-ACC
 ‘Give us food.’
- (4-18) (‘We had a fight, but let’s be good friends.’)
 a. *gambi-Ø yino goyba-Ø*.
 clothes-ACC 2SG.GEN give-IMP
 ‘Give [me] your clothes.’
- b. *ngaya baya-baya yino gambi-Ø goyba-lgo*
 1SG.ERG in.return~in.return 2SG.GEN clothes-ACC give-PURP
yarro-ngomay-Ø. (AP)
 here-ABL-ACC
 ‘I will give you [my] clothes from here in return.’

Note that the genitive *yino* ‘2SG.GEN’ denotes a recipient in Sentence b, but it does not in Sentence a; it describes a possessor.

Examples of (a) and (b):

- (4-19) *gaya-na-wo* (or *gaya-na-ngo*) *ngaya manyja-Ø goyba-n*. (AP)
 F-KIN-DAT (F-KIN-GEN) 1SG.ERG food-ACC give-NF
 ‘I gave food to [my] father’
- (4-20) (An example cited from a text. ‘Yes, I heard that.’)
yino ngona-Ø gogo-Ø goyba-n yino-n-go. (AP)
 2SG.GEN that-ACC word-ACC give-NF 2SG-LINK-DAT
 ‘[He] gave that word to you’, i.e. ‘[He] said that to you.’

In (4-20), the recipient is expressed twice: by the GEN and the DAT.

Semantic differences between case-frames (a) and (b), if any, are not known. At least, when the recipient is a noun, it tends to take the DAT, i.e. (a), while, when it is a pronoun, it tends to take the GEN, i.e. (b). Recall that there are very few examples of nouns in the genitive case (3.6.5). (3-117) contains a noun recipient in the genitive: *jojam-ngo* ‘locust-GEN’

There is one example in which the recipient in the DAT or the GEN would be expected but is difficult to set up. See (4-210) (fourth H) (lit. ‘give a name [to a tree]).

Examples of (c) include the following.

- (4-21) *ngaya manyja-nggo goyba-lgo bola-nya.* (AP)
 1SG.ERG food-ERG give-PURP 3DU-ACC
 'I will give them-two food.'
- (4-22) *bola-nggo nganya goyba-n manyja-nggo.* (AP)
 3DU-ERG 1SG.ACC give-NF food-ERG
 'They-two gave me food.'
- (4-23) *goybinba-Ø manyja-nggo goyba-n.* (AP)
 young.man-ACC food-ERG give-NF
 '[They] gave food to the young men.'

The recipient, in the ACC, is understood in (4-24), while the gift, in the ERG, is understood in (4-25).

- (4-24) *yarro-n-doyinda goyba-Ø.* (AP)
 this-LINK-ERG 2SG.ERG give-IMP
 'Give [me] this [food].'
- (4-25) *ngaya yina goyba-lgo.* (AP)
 1SG.ERG 2SG.ACC give-PURP
 'I will give [it] to you.'

In the context in which it was uttered, (4-25) does not mean 'I will give you [to someone]'

In my previous writings on Warrongo (e.g. Tsunoda 1988b), I separated the instrumental case from the ergative case. According to that analysis, the case-frame (c) in Table 4-1 will be ERG-INS-ACC. A case frame that is equivalent to (c) occurs in Dyirbal (Dixon 1972: 300). This case-frame is analogous to one of the case-frames of English verbs such as *furnish*, *present*, *provide*, and *supply*, e.g. *furnish a person with money*.

Thus far we have looked at the case frames of *goyba-L* 'give'. When this verb means 'throw', it always (?) uses the case-frame (a), e.g. (3-82), (3-83), Text 2, Line 11.

[2] *Goyba-ra-L* 'give out [to many]'

This verb (see 3.11.1.4 for its formation) is attested with (a) and (b), but not (c), of Table 4-1. (b) is far more frequent than (a). An example of (b) is (4-26). Two of the examples involve both (a) and (b), e.g. Text 1, Line 65-d.

- (4-26) ('I cooked a kangaroo, and cut it up into pieces.')
- goyba-ra-n ngaya jana-ngo ngamba-goman-Ø.* (AP)
 give-many-NF 1SG.ERG 3PL-GEN piece-different-ACC
 'I gave out various pieces to them.'

Table 4-2. Case frames of *ngonbaynga-L* ‘show, teach’

	show-er, teacher	what is shown, what is learnt	shown-to, learner	example
(a)	ERG	ACC	DAT	(4-27), (4-28), (4-30-A, -A)
(b)	ERG	DAT	ACC	(4-29), (4-319), (4-30-B, -B)

[3] *Ngonbaynga-L* ‘show, teach’

This verb (see 4.7.2-[6]-(a) for its formation) has the two case-frames shown in Table 4-2.

(4-27) *ngani-Ø gambi-Ø nyola ngonbaynga-n ngaygo-n-go.* (AP)
 what-ACC clothes-ACC 3SG.ERG show-NF 1SG-LINK-DAT
 ‘She showed me whatsisname, [her] clothes.’

(See 4.21 for *ngani* ‘whatsisname’.)

(4-28) *ngaya ngonbaynga-lgo yino-n-go minga-Ø.* (AP)
 1SG.ERG show-PURP 2SG-LINK-DAT vulva-ACC
 ‘I will show you [my] vulva.’

(4-29) *yinda ngana-nya ngonbaynga-Ø gamo-wo.* (AP)
 2SG.ERG 1PL-ACC teach/show-IMP water-DAT
 ‘Teach us about the water’, or ‘show us water’

The following conversation, which is excerpted from a text, nicely illustrates the two case-frames. Person A did not know that a knot of a forest tree contains water (cf. 1.5.8-[12]), and asks Person B as follows.

- (4-30) A. *ngaygo-n-go yinda ngonbaynga-Ø.*
 1SG-LINK-DAT 2SG.ERG show/teach-IMP
 ‘Show/teach [the water] to me.’ (case-frame (a))
- B. *ngaya yina ngonbaynga-Ø.*
 1SG.ERG 2SG.ACC show/teach-IMP
 Tentative translation: ‘Do you mean to say that I should show/teach [it] to you?’ (case-frame (b))
- A. *yinda ngaygo-n-go ngonbaynga-Ø.*
 2SG.ERG 1SG-LINK-DAT show/teach-IMP
 ‘Show/teach [it] to me.’ (case-frame (a))
- B. *yowo, ngaya ngonbaynga-lgo yina.* (AP)
 OK 1SG.ERG show/teach-PURP 2SG.ACC
 ‘OK, I will show/teach [it] to you.’ (case-frame (b))

This conversation is interesting in two respects.

First, the second sentence looks like an imperative sentence directed at the speaker, i.e. first person singular. Imperatives directed at the first person dual or plural mean 'Let's ...', e.g. (3-265), but this is not the case with the second sentence above. What is happening here is that, in the second sentence, Speaker B repeats the first sentence (uttered by Speaker A), and the show-er/teacher NP and the shown-to/learner NP exchange their person-plus-plus-number accordingly. The inflection of the verbs (i.e. \emptyset general imperative-1) remains unchanged. A tentative translation for this sentence is 'Do you mean to say that I should show/teach it to you?' (3-240-B) is a similar example.

Second, the case of the 'shown-to, learner' changes from the DAT, to the ACC, back to the DAT, and finally to the ACC. (The NP referring to the water is understood throughout.) The pragmatic effect of this switch in discourse, if any, is not known. The following two points may be worthy of note. (i) Speaker A uses the case-frame (a) consistently, and Speaker B uses the case-frame (b) consistently. (ii) The 'shown-to, learner' is consistently in the DAT if it is first person, and it is the ACC if it is second person.

There is an example that means 'show/teach someone how to', i.e. (4-274); the learner is in the ACC; cf. (b) of Table 4-2.

[4] *Jilbaynga-L* 'let know, teach'

This verb consists of the noun *jilbay* 'knowing' and the transitive-stem-forming suffix *-nga-L*; see 4.7.2-[1]-(a). The noun *jilbay* 'knowing' has the NOM-DAT case frame, e.g. (3-86) and (4-31). What is known about, is in the DAT. In the only example available, i.e. (4-32), the verb *jilbaynga-L* 'let know, teach' has the case-frame (b) of Table 4-2. That is, what is shown/learnt about, is again in the DAT.

(4-31) *nyola jilbay- \emptyset gogo-wo.* (TT)
 3SG.NOM knowing-NOM language-DAT
 'She knows the language.'

(4-32) *yinda nyonya jilbay-nga- \emptyset gogo-wo.* (AP)
 2SG.ERG 3SG.ACC knowing-TR-IMP language-DAT
 'Teach her the language.'

[5] *Mayga-L* 'tell'

This verb has the two case-frames shown in Table 4-3. (a) is often used, but (b) is used only infrequently. Examples of (a) include (4-10), which is non-elliptical. The topic (DAT) is often understood, as in (4-33). The hearer (ACC) is understood in (4-34).

Table 4-3. Case frames of *mayga-L* ‘tell’

	speaker	topic	hearer	example
(a)	ERG	DAT	ACC	(4-10), (4-33), (4-34)
(b)	ERG	ACC	DAT	(4-35), (4-36), (4-37)

- (4-33) *gorngga-do birgo-Ø mayga-n.* (AP)
 husband-ERG wife-ACC tell-NF
 ‘The husband told [his] wife [about it].’

(The root of the noun ‘husband’ is the *l*-final *gornggal*. See Table 3-2.)

- (4-34) *ngalnga yinda mayga-Ø ngaygo-n-go.* (AP)
 PROH 2SG.ERG tell-IMP 1SG-LINK-DAT
 ‘Don’t tell [other people] about me.’

Examples of (b) include (4-35), which is non-elliptical. The topic (ACC) is understood in (4-36), while the hearer (DAT) is understood in (4-37).

- (4-35) *ngaya borri-Ø yino-n-go mayga-n.* (AP)
 1SG.ERG name-ACC 2SG-LINK-DAT tell-NF
 ‘I told the names [of plants (?)] to you.’

- (4-36) *yinda ngaygo-n-go mayga-Ø.* (AP)
 2SG.ERG 1SG-LINK-DAT tell-IMP
 ‘Tell [it] to me.’

- (4-37) *ngani-Ø nyola mayga-n ?* (AP)
 what-ACC 3SG:ERG tell-NF
 ‘What did he tell [you]?’

Mayga-L ‘tell’ can also have the frame ‘teller-ERG listener-ACC clause’ (the topic is expressed by a clause which expresses reported speech). See 4.18.5-[1].

There are examples involving *mayga-L* ‘tell’ that mean ‘tell someone to do’, e.g. (4-241), (4-273).

As seen in Table 4-2, *ngonbaynga-L* ‘show, teach’ has two case-frames, in which the case of ‘what is shown, what is learnt’ and that of ‘shown-to, learner’ are, so to speak, exchanged, between the DAT and the ACC. The same applies to the two case-frames of *mayga-L* ‘tell’; see Table 4-3. It may be thought that sentences that contain such a verb would be confusing – particularly when one of the two NPs was understood; cf. (4-30), (4-33), (4-34), (4-36), and (4-37). However, in actual use, no such confusion is likely to occur. First, generally the context is sufficient for preventing such confusion. Second, in all the examples the ‘shown-to, learner’ and the ‘hearer’ are consistently human and ‘what is shown, what is learnt’ and the topic are consistently inanimate – irrespective of their case.

[6] *Birri-L* 'send [something, someone]'

This verb has the case frames of (a) and (b) of Table 4-1. Examples of (a) (the recipient is in the DAT) include (1-17), and (4-38-B). Examples of (b) (the recipient is in the GEN) include (4-38-A).

(4-38) (A conversation cited from a text. Person A: 'I did not steal that woman.')

A. *ngaygo birri-n gaya-na-lo.*
1SG.GEN send-NF F-KIN-ERG
'[My] father sent [her] to me.'

B. *yino-n-go birri-n?* (AP)
2SG-LINK-DAT send-NF
'Did [he] send [her] to you?'

[7] *Manja-L* 'send [something]'

This verb has the case frames of (a) and (b) of Table 4-1. There are just a few examples. (4-39) is an example of (a) (the recipient is in the DAT). (4-40) and (4-978) are examples of (b) (the recipient is in the GEN).

(4-39) ('Please paint a bark painting for me.')

ngaya manja-lgo yanga-na-wo gaya-na-wo. (AP)
1SG.ERG send-PURP M-KIN-DAT F-KIN-DAT
'I want to send [one] to [my] mother [and] father.'

(4-40) *yarro-Ø ngaygo nyola manja-n manyja-Ø.* (AP)

this-ACC 1SG.GEN 3SG.ERG send-NF food-ACC
'He sent me this food.'

(Recall that the verb root *manja-* 'send' and the noun *manyja* 'food' constitute a minimal pair; see (2-87) and the paragraph that follows.) *Birri-L* can mean 'send [something]' and 'send [someone]' It is not known if *manja-L* can mean 'send [someone]' as well.)

[9] *Bindaynga-L* 'let [someone] go/come to a person or to a place'

This verb (see 4.7.2-[6]-(b) for its formation) has only six relevant examples. It is attested with only (a) of Table 4-1; the recipient/goal is in the DAT. Examples include (3-84), (4-41), (4-42). In the relevant examples, the GEN consistently indicates a possessor, and not a recipient/goal; see *ngaygo* '1SG.GEN' in (4-41) and *yino* '2SG.GEN' in (4-43).

(4-41) ('My husband is a good man.')

ngalnga ngaygo ngaya bindaynga-lgo warrngo-goman-go. (AP)
PROH 1SG.GEN 1SG.ERG let.go-PURP woman-other-DAT.
'I will not let my [husband] go to other women.'

(4-42) (A conversation cited from a text. Person A: ‘Don’t take that woman with you. The men might kill you.’ Person B: ‘No.’)

B. *ngaygo-n-go jana-nggo bindaynga-n.* (AP)
 1SG-LINK-DAT 3PL-ERG let.go-NF
 ‘They let [her] come to me.’

(4-43) *ngalnga yinda bindaynga-lgo yino gornngal-Ø.* (AP)
 PROH 2SG.ERG let.go-PURP 2SG.GEN husband-ACC
 ‘You must not let your husband go.’

[10] *Goybalnga-L* ‘send [someone], let [someone] go’

This verb (see 4.7.2-[5]-(b-2) for its formation) has only two examples. It is attested only with (a) of Table 4-1; the recipient is in the DAT.

(4-44) (‘I found two women.’)

a. *yanga-na-wo ngaya goybalnga-lgo nyon.gol-Ø.*
 M-KIN-DAT 1SG.ERG send-PURP one-ACC
 ‘I will send one [of them] to [my] mother.’

b. *gaya-na-wo goybalnga-lgo ngaya goman-Ø manyja-wo*
 F-KIN-DAT send-PURP 1SG.ERG other-ACC food-DAT
wajo-gali-yal. (AP)
 cook-ANTIP-PURP
 ‘I will send the other to [my] father so that [she] will cook food’,
 or, ‘I will I will send the other to [my] father to cook food.’

(The second sentence contains a subordinate clause with a purposive verb ‘so that may’ (4.8.1). Also, the verb in the subordinate clause is an antipassive verb. This sentence is analogous to (4-262).

[11] *Ganyji-L* ‘carry, take, bring [someone/something] to a person/place’

Ganyji-L has the case frames shown in Table 4-4. A significant difference from the case frames of the verbs discussed above is that the GEN case often indicates a beneficiary or a possessor, rather than a recipient. Whether the GEN form in question describes a recipient, a beneficiary or a possessor depends on the context. (The same applies to the DAT.) For example, in the context in which (4-48) was uttered, the GEN denotes a possessor, and not a recipient (‘He brought my wife to me’) or a beneficiary (‘He took my wife for me’).

Table 4-4. Case frames of *ganyji-L* 'carry, take, bring'

	carrier	person/thing carried	destination	examples
(a)	ERG	ACC	DAT	(4-45), Text 3, Lines 28, 32
	carrier	person/thing carried	recipient	example
(b)	ERG	ACC	DAT	(4-46-a), Text 1, Line 57
(c)	ERG	ACC	GEN	(3-218), (4-47-a), (4-49-a)
	carrier	person/thing carried	beneficiary	
(d)	ERG	ACC	DAT	(4-46-b), Text 1, Line 57
(e)	ERG	ACC	GEN	(3-218), (4-47-b), (4-49-b)
	carrier	person/thing carried	possessor	
(f)	ERG	ACC	GEN	(4-48), (4-49-c)

(4-45) ('He has caught a possum.')

ganyji-lgo nyola [gajarra-Ø TT] yamba-wo. (AP)
 carry-PURP 3SG.ERG [possum-ACC] camp-DAT
 'He will carry [the possum] to the camp.'

(4-46) ('I took your wife away, but:')

ngaya ganyji-n yino-n-go. (AP)
 1SG.ERG carry-NF 2SG-LINK-DAT
 (a) 'I brought [her back] to you.'
 (b) 'I brought [her back] for you.'

(4-47) *gaya-na-lo ganyji-n gajarra-Ø ngali-ngo.* (AP)

F-KIN-ERG carry-NF possum-ACC 1DU.GEN
 (a) '[My] father brought a possum to us.'
 (b) '[My] father brought a possum for us.'

(4-48) ('He stole my wife.')

nyola ganyji-n ngaygo birgo-Ø. (AP)
 3SG.ERG carry-NF 1SG.GEN wife-ACC
 'He took my wife [with him].'

(4-49) ('He stole my wife, but:')

warrngo-Ø ngaygo golmi ganyji-n. (AP)
 woman-ACC 1SG.GEN back carry-NF
 (a) 'He brought the woman back to me.'
 (b) 'He brought the woman back for me.'
 (c) 'He brought my woman back.'

[12] *Boybo-L* ‘hide’

This verb takes ERG-ACC-LOC: ‘ERG hides ACC from LOC’, e.g. Text 1, Line 50. This case frame is unusual in that it contains the locative case.

[13] *Banjo-L* ‘ask’: ‘enquire’ and ‘request’

Like the English verb *ask*, *banjo-L* may mean ‘enquire’ or ‘request’.

(a) When *banjo-L* means ‘enquire’, ERG-ACC is attested, e.g. (4-56), (4-95), Text 1, Line 29. In addition, it may be followed by a subordinate clause (‘ask X if ’); see 4.18.5-[2].

When *banjo-L* means ‘request’, it seems to have the case frame ‘ERG request ACC for DAT’, cf. (4-50). This is in view of the example (4-124) (A: ‘I will ask him.’ B: ‘You will ask him for what?’).

(4-50) *galbin-do yanga-na-Ø banjon-n manyja-wo.* (TT)
 child-ERG M-KIN-ACC ask-NF food-DAT
 ‘The child asked [his/her] mother for food.’

Furthermore, ‘ERG requests ACC’ can be followed by subordinate clause containing a purposive verb: ‘ask X to do ’ See (4-242).

[14] *Birra-L* ‘tell’

The case frames of this verb will be discussed in 4.12.3-[3]-(c). There is a slight indication that derived verb *birra-wa-Y* ‘tell, talk-RECP’ may have a four-place case frame. See Table 4-39 and the comments on it.

There are clauses that have ‘ERG ACC ACC’ (X names/calls Y Z), but they are not considered as three-place in the present work. See 4.7.2-[8].

4.3.3.3. *Two-place clauses*

Two-place clauses are of two types: transitive and intransitive.

[1] Transitive clauses: ERG-ACC

They all contain a transitive verb. They all take the ERG-ACC case frame (unless they are elliptical). Non-elliptical examples include (4-6), (4-8).

[2] Intransitive clauses: NOM-DAT, NOM-GEN, NOM-LOC

Many of the intransitive clauses contain an intransitive verb, but others are ‘verbless’ clauses.

NOM-DAT occurs with many intransitive verbs and also adjective-like nouns. Those intransitive verbs and adjective-like nouns which take NOM-DAT are listed in 3.6.4-[7].

NOM-GEN almost always occurs with intransitive verbs, e.g. (3-121), (3-122). But it may occur with an adjective-like noun, e.g. (3-119), (3-120). (The NOM-GEN may possibly be a fast speech phenomenon. See 3.6.5-[5].)

NOM-LOC occurs only with intransitive verbs that indicate fear, e.g. (3-67), (3-68), and not with adjective-like nouns.

4.3.3.4. One-place clauses

[1] ERG (or ERG-ZERO)

The clauses with ERG (or ERG-ZERO) are transitive (since they contain an ERG NP ('A'), although they are one-place. The transitive-stem-forming suffix *-nga-L* (4.7.2) can be affixed to nouns and produce transitive verbs. These verbs can have a wide range of meanings, and one of them is 'to make/create [something]' In this use, these verbs take the ERG (or ERG-ZERO) case frame, without an ACC NP (unlike the transitive clauses discussed in 4.3.3.3-[1].) They already contain 'a notional object' in them, and semantically these clauses may be considered two-place. But syntactically they are one-place. Examples follow.

(4-51) (When Alf Palmer saw a cargo boat approaching a jetty at Palm Island, he said as follows.)

warrjan-do jalam~jalam-nga-n. (AP)

boat-ERG wave~wave-TR-NF

Alf Palmer's translation: 'The boat made big waves.'

(4-52) (I was a middle distance runner, and, even while carrying out fieldwork on Palm Island, I used go for a run every afternoon (see (3-290)). One day Alf Palmer saw a group of men working on road maintenance, and he said as follows.)

ngoni bama-nggo yalga-nga-n yino-n-go. (AP)

there man-ERG road-TR-NF 2SG-LINK-DAT

'There the men are making a road for you.'

(In this sentence, the dative indicates a beneficiary.)

[2] NOM

Clauses with this case frame are intransitive. Many of them contain an intransitive verb, e.g. (3-2) to (3-7). But, there are also one-place clauses that lack a verb, e.g. (4-1), (4-11), (4-13).

The 'so-called nominal sentences' (Jespersen 1924: 120), such as 'equational sentences', may appear to have NOM-NOM, e.g. (4-3) and (4-4). (As mentioned in 3.1.2-[6], Warrongo does not have a copula verb. That is, these sentences/clauses contain no verb.) Dixon (1972: 71) considers the Dyirbal equivalents of (4-3) and (4-4) as consisting of one NP. Unlike Djaru (Tsunoda 1981a: 122-123), Warrongo

exhibits no syntactic evidence that they consist of two NPs (i.e. NOM-NOM). They are tentatively considered as constituting a subtype of the frame 'NOM'.

4.4. Constituents of clauses

Classification of the constituents of clauses is not a straightforward matter even in the case of basic clauses, and this is very difficult for derived clauses. This classification concerning derived clauses will not be attempted. Constituents of basic clauses may be classified as follows, only loosely and not rigidly. The cases employed are shown, where relevant.

[1] Nucleus: verb.

[2] Arguments:

(a) S (NOM), O (ACC).

(b) A (ERG).

(c) Other arguments: ERG, DAT, GEN, LOC.

[3] Adjuncts: ERG, DAT, LOC, GEN, ABL-2, adverbs with *-ngomay* 'after', and adverbs with no case marking.

Needless to say, not all the constituents listed above will occur in one instance of a clause. For example, regarding [1], there are 'verbless clauses'. Also, the S (NOM) and the O (ACC) are incompatible, and they cannot occur in the same clause. Furthermore, recall that Warrongo discourse is highly elliptical (4.1), and one instance of clause will be unlikely to contain many constituents. See Texts 1 and 2.

Constituents of clauses in the main consist of one word each. But they may consist of two or more words.

Comments on [1], [2] and [3] follow.

[1] The nucleus consists of a verb or two. It corresponds to the 'nucleus' of Foley and Van Valin's (1984: 77) framework.

[2] 'Arguments' roughly corresponds to the 'core' of Foley and Van Valin (1984: 77). Many examples of [1] and [2] have already been given.

(a) The S (NOM) and the O (ACC) play a central role in Warrongo syntax. Specifically, Warrongo exhibits syntactic ergativity, involving the S/O pivot. See 4.9.4 and 4.10.3, in particular.

(b) The A (ERG) does not participate in the S/O pivot.

The traditional concept of subject in effect comprised the S and the A, i.e. S/A pivot (cf. Dixon 1979: 102), although terms such as 'A', 'O', 'S' (which were coined by (Dixon 1972: 50)) and 'pivot' (originally used by Heath (1975: 102, fn. 5, 1976: 606), and subsequently adopted by Dixon (1979: 121, 1994: 11)) were not employed.

In Warrongo syntax, the S/O pivot plays a crucial role, as mentioned above, and the traditional concept of the subject (i.e. S/A pivot) does not seem relevant to Warrongo syntax.

(c) ‘Other arguments’ are arguments other than the S, the A, and the O. ‘Other arguments’ of three-place clauses (4.3.3.2) and two-place clauses (4.3.3.3) include the following.

(c-1) Three-place clauses:

ERG: (4-21) to (4-23) (gift of giving).

DAT: (3-81) to (3-83) (goal); (3-85) (recipient); (4-10), (4-34) (topic); (4-15) and (4-16) (recipient); (4-27), (4-28), (4-30-A) (‘shown-to’, learner); (4-29), (4-32) (what is shown/learnt); (4-35), (4-36) (hearer).

GEN: (3-135), (3-136), (3-170), (4-17), (4-19) (recipient).

LOC: Text 1, Line 50 (‘hide ACC from LOC’).

(c-2) Two-place clauses:

DAT: many examples are listed in 3.6.4-[7].

GEN: (3-121) (‘angry with GEN’), (3-122) (‘call out to GEN’).

LOC: (3-67), (3-68) (‘afraid of LOC’).

[3] ‘Adjuncts’ in this classification roughly correspond to the ‘periphery’ of Foley and Van Valin (1984: 77). The division between [2]-(c) ‘other arguments’ and [3] ‘adjuncts’ is not clear-cut and admittedly it is perhaps arbitrary in some instances.

Examples of adjuncts follow.

(a) ERG: (3-35) to (3-38) (instrument).

(b) LOC: (3-18) (temporal location); (3-21) (manner); (3-42) through (3-55) (location, movement, etc.); (3-56) through (3-62) (instrument, means, manner); (3-63), (3-64) (company, care); (3-65), (3-66) (cause, reason).

(c) DAT: (3-70) through (3-74) (purpose); (3-75), (4-76) (beneficiary); (3-77) (cause, reason); (3-78) to (3-80) (possession, affiliation); (3-81), (3-84) (direction, destination).

(d) GEN: (3-111) to (3-114), (4-52) (beneficiary).

(e) ABL-2 (*-ngoŋi*): (3-123), (3-124) (‘out of ’).

(f) *X-ŋgomay* ‘after that, and then’, etc., e.g. (3-216).

(g) Adverbs with no case-marking: (3-248) (temporal location); (4-2) (modality: prohibition); (4-3) to (4-5) (modality: question); (4-6) (temporal location); (4-8) (location); (4-9) (direction, destination); (4-11) to (4-13) (modality: question).

Additional comments on adjuncts follow.

Nouns and pronouns may be used as arguments (cf. [2] above) or as adjuncts. When used as adjuncts, they must take a case suffix; see (a) to (e) above. Among adverbs, those of modality ((g) above; listed in 4.24) seem to never take a case

suffix. (But there is one possible exception: (4-948).) Also, as noted in 3.4.3-[2], certain adverbs, e.g. *garrbala* ‘tomorrow’ (e.g. (3-248), (3-314), (4-119), Text 2, Line 29), do not – and most probably cannot – take the locative case suffix to indicate temporal location.

The ablative-1 case (*-ngomay*) (3.6.7) indicates starting point in space/time, origin, source, donor, material, choice (‘out of’), time ‘after’, reason/cause, etc. On semantic grounds, the ABL-1 (to be precise, nouns, etc. in the ablative-1 case) may be expected to be assigned to adjuncts. However, as noted in 3.6.7, the ABL-1 modifies another noun (or a pronoun), agreeing in terms of case. In view of this, the ABL-1 is considered a modifier of a noun or pronoun, and it is not assigned to adjuncts.

However, as seen in 3.8.1-[9], certain combinations of a noun and the suffix *-ngomay* indicate ‘after [a point in time]’ They do not modify any noun or pronoun, and they do not show agreement in terms of case. (They are not followed by any other non-zero case suffix.) They are classified as adverbs, and *-ngomay* is considered an adverb-stem-forming suffix. These words are regarded as adjuncts. See (f) above.

On semantic grounds, the comitative case (3.6.8), too, might be expected to be assigned to adjuncts. It marks company, instrument, means, manner, etc. However, like the ablative-1 case, it modifies another noun or a pronoun, showing case agreement, and consequently it is considered a modifier of a noun or a pronoun, and it is not assigned to adjuncts.

There are ‘adjective-like’ nouns that describe manner or the like, e.g. *ngarrban* ‘fast’, *yoray* ‘quiet’, *yaja* ‘slow, for a while’, and *mori* ‘greedy, tight’. These adjective-like nouns are often conveniently translated by means of adverbs into English. However, as their examples demonstrate, they modify another noun or a pronoun, showing case agreement. When they modify the A NP (in the ergative case), they take the ergative suffix, e.g. (3-20), (3-40), (3-200), (3-204), (3-206). Consequently, these adjective-like nouns are considered as modifiers of another noun or a pronoun, and they are not assigned to adjuncts.

However, as mentioned in 3.7.2-[3], when these adjective-like nouns are reduplicated, they are not attested with any non-zero case suffix; see (3-201), (3-207), and (3-208). They are tentatively assigned to adjuncts.

4.5. Types of phrases

4.5.1. Introductory notes

The following types of phrases may be conveniently set up for Warrongo: noun phrases (4.5.2), adverb phrases (4.5.3), and verb phrases (4.5.4). However, in the main, what are labelled ‘phrases’ below do not constitute a phrase in a rigid sense. The reason for this is given below. In this connection, a discussion of configura-

tionality (cf. Hale 1983) is in order. Configurationality may be classified as follows, although authors such as Hale (1983) do not seem to make this distinction.

- (a-1) Phrasal configurationality, or, configurationality at the phrase level, which concerns the constituents of a phrase, i.e. words.
- (a-2) Clausal configurationality, or, configurationality at the clause level, which concerns the constituents of a clause, i.e. phrases.
- (a-3) Sentential configurationality, or, configurationality at the sentence level, which concerns the constituent of a sentence, i.e. clauses.

The following two criteria may be proposed as diagnostic tests for configurationality (again, although writers such as Hale (1983) do not seem to set up such criteria).

- (b-1) Contiguity of the constituents of a given construction.
- (b-2) Fixed relative order of the constituents.

If a given construction meets both criteria, then it is highly configurational, and if it fulfils neither of them, it is non-configurational. If it meets one of them only, then it is mildly configurational. That is, on this view, configurationality is a matter of degree.

At the clause level, i.e. concerning phrases, Warrongo is entirely non-configurational; see 4.6.3.2 and 4.6.3.3. At the sentence level, i.e. regarding clauses, it is partly configurational, and partly non-configurational. See 4.6.4 and 4.20.7, in particular.

At the phrase level, i.e. concerning words, in Warrongo, generally the constituents of a 'phrase' are not always contiguous with each other, and they may occur separately. Their relative order is not fixed. That is, Warrongo is in the main non-configurational at the phrase level.

There are, however, a small number of exceptions. In some of the noun phrases (4.5.2.2.2 and 4.5.2.2.6) and some of the verb phrases (4.5.4.2-[2]), the constituents are contiguous with each other and they are rigidly ordered. Consequently, they may be considered as phrases in a rigid sense. Warrongo is configurational as far as these noun phrases and verb phrases are concerned. But it is non-configurational elsewhere, i.e. in terms of other phrases and also at the clause level and the sentence level.

4.5.2. Noun phrases

Noun phrases ('NPs') can be divided into two types: (i) non-configurational NPs (4.5.2.1), and (ii) configurational NPs (4.5.2.2). The former do not constitute NPs in a rigid sense, while the latter do (to varying degrees). The former are common,

while the latter are exceptional. The modifier in the latter is generally a personal pronoun in the genitive. (Warrongo differs from languages such as English and Japanese in that non-configurational NPs, rather than configurational NPs, are the norm or common.)

4.5.2.1. *Non-configurational NPs*

4.5.2.1.1. *Constituents of non-configurational NPs*

A non-configurational NP appears to be able to consist of almost any one or more of the following: (i) a 'noun proper' (e.g. *bama* 'man'), (ii) an adjective-like noun (e.g. *jarribara* 'good', (iii) an interrogative member of noun (e.g. *ngani* 'what'), (iv) a pronoun, (v) the interrogative member of pronoun (*wanyo* 'who'), and (vi) a demonstrative member of adverb (e.g. *yarro* 'this, here'). However, there is no example in which all of them occur in one NP. Also, *ngani* 'what' seems unlikely to co-occur with a pronoun and/or with *wanyo* 'who'. Non-configurational NPs exhibit the following two properties.

- (a) The constituents of an NP are individually case-marked, and they agree in terms of case.
- (b) Any one member can stand alone as an NP.

Examples of (b) include the following: (i) a noun proper, e.g. (4-52) (*bama-nggo* 'man-ERG'), (ii) an adjective-like noun, e.g. (3-228) (*yangabara-nggo* 'tall, long-ERG', *jangarago-Ø* 'small-ACC', *jangarago-nggo* 'small-ERG', *yangabara-Ø* 'tall, long-ACC'), (iii) an interrogative member of noun, e.g. (4-37) (*ngani-Ø* 'what-ACC'), (iv) a pronoun, e.g. (4-36) (*yinda* '2SG-ERG'), (v) the interrogative member of pronoun, e.g. (4-8) (*wanyo-lo* 'who-ERG'), and (vi) a demonstrative member of adverb, e.g. (4-24) (*yarro-n-do* 'this, here-ERG').

Examples of NP consisting of two or more members are given in 4.5.2.1.2 and 4.5.2.1.3.

A noun and/or a pronoun in the genitive, too, can occur in NPs. But they lack the two properties above; this will be discussed in 4.5.2.2.1.

4.5.2.1.2. *Types of non-configurational NPs*

On semantic grounds, NPs consisting of two (or possibly more) members can be classified into the following types.

- [1] Modification: A modifies B.
- [2] Inclusion: A includes B.
- [3] Apposition: A, namely B.

[4] Co-ordination: A and B.

[5] Whole-part relationship: this will be discussed in 4.20.5.

There is no example of the type 'A or B'. Warrongo has no conjunction that will be equivalent to the English *and* or *or*.

Examples and comments follow.

[1] 'Modification', e.g..

(4-53) *ngali-Ø nyina-ya jarribara-ngga yamba-ngga.*
 1DU-NOM sit-IMP good-LOC camp-LOC
 'Let's sit down in the good camp.' (AP)

Many additional examples are in 4.5.2.1.3.

[2] 'Inclusion' is shown by the combination of (i) a dual or plural pronoun and (ii) pronoun/noun(s) that indicates a subset of the group referred to by the dual or plural pronoun. Examples include (4-112) (*ngaya ngali-Ø* '1SG.ERG 2SG.ERG'), (4-495) (*ngali-Ø majowarrgi-Ø* '1DU-NOM friend-NOM'), (4-496) (*bola-Ø birgo-yi-Ø* '3DU-NOM wife-COM-NOM'), Text 1, Line 35 ('3PL-NOM, including the water rat, the kangaroo rat, '), and:

(4-54) *ngali-Ø yinda majowarrgi-Ø.* (AP)
 1DU-NOM 2SG.NOM friend-NOM
 'We-two, including you, are mates', i.e. 'You and I are mates.'

(4-55) *ngali-Ø yinda baba-Ø.* (AP)
 1DU-ERG 2SG.ERG stab-IMP
 'Let's stab [him].'

(4-56) *ngali-nya yina banjo-n.* (AP)
 1DU-ACC 2SG.ACC ask-NF
 '[They] asked us-two, including you.'

(4-57) (An example cited from a text. A: 'Will she be your (SG) wife?')
 B. *ngali-ngo yino birgo-Ø.* (AP)
 1DU-GEN 2SG.GEN wife-NOM
 Lit. 'She [is] the wife of us-two, including you', i.e. 'She is your wife and my wife.'

(4-58) *yina ngana-nya nyaga-n.* (AP)
 2SG.ACC 1PL-ACC see-NF
 '[They] saw us, including you.'

(4-59) ('You and that man had a fight.')

ngona-Ø gonda~gonda ngona-n-da baba-wa-n yobala-Ø. (AP)
 that-NOM night-night there-LINK-LOC spear-RECP-NF 2DU-NOM
 'You-two, including that [man], speared each other there the day before.'

(See 3.8.2-[2] for *gonda~gonda* 'the day before'.)

(4-60) *nyola bola-Ø yani-Ø.* (AP)

3SG.NOM 3DU.NOM go-NF
 'They-two, including him, went.'

(4-61) *jowa-na-Ø galnga-na-Ø jana-Ø yani-Ø.* (AP)

nephew-KIN-NOM MB-KIN-NOM 3PL-NOM go-NF
 'They, including [my] nephew and uncle, went.'

NPs of 'Inclusion' are common in the NOM (for the S), e.g. (4-54), (4-59) to (4-61). But they are attested in the ERG (for the A), e.g. (4-55), the ACC (for the O), e.g. (4-56), (4-58), and the GEN, e.g. (4-57). Presumably they can be used in other cases, too.

The pronoun that 'includes' a given subset is attested in the first person, e.g. (4-54) to (4-58), the second person, e.g. (4-59), and the third person, e.g. (4-60), (4-61).

Probably the most frequently attested combination is the one that contains '1DU including 2SG', e.g. (4-54) to (4-56).

The function of this inclusion seems to be the clarification of the subset. Thus, in (4-61), the inclusion of *jowa-na-Ø* and *galnga-na-Ø* specifies a subset of 'they'. Similarly, the inclusion of *nyola* in (4-60) presumably makes it clear that 'he', too, went.

This inclusion has an interesting side effect. As noted in 3.1.2-[2], pronouns in Warrongo do not have the opposition of 'inclusive-vs.-exclusive'. However, *ngali-Ø yinda* '1DU-NOM 2SG.NOM' in (4-54), for example, would be able to function as an 'inclusive' form, i.e. 'you and I', as against the putative 'exclusive' *ngali nyola* '1DU.NOM 3SG.NOM', 'we-two, including him/her', i.e. 'he/she and I' (Unfortunately, there is no example of *ngali nyola*, although it is no doubt grammatical.) Similarly for (4-58); it would contrast with, for instance, the putative *nyo-nya ngana-nya* '3SG.ACC 1PL-ACC', 'us all, including him/her' (Again, there is no example of this, although it is no doubt grammatical.)

[3] Examples of 'Apposition' include (3-39) (*ngaya galbin-do* '1SG.ERG child-ERG'), (4-6) (*yinda gobi-nggo* '2SG.ERG native.doctor-ERG'), and Text 3, Line 2 (*yinda galbin-Ø* '2SG.NOM child-NOM').

As seen in 3.1.2-[1], with pronouns, the NOM and the ERG forms are generally identical, in contrast with nouns, which have a distinct ERG suffix (Table 3-1). For example, *yinda* may be either '2SG.NOM' or '2SG.ERG'. In (4-6), *yinda* is in the RRG (and not the NOM). It agrees with *gobi-nggo* in terms of case. Similarly for (3-39).

[4] Examples of ‘Co-ordination’ include (3-64) (*gaya-na-ngga yanga-na-ngga* ‘F-KIN-LOC M-KIN-LOC’), (3-85) (*nyongo-n-go ngaygo-n-go* ‘3SG-LINK-DAT 1SG-LINK-DAT’), (3-92) (*jowa-na-Ø galnga-na-Ø* ‘nephew-KIN-NOM uncle-KIN-NOM’), (3-181) (*bamgan-ji-Ø jondol-ji-Ø yori-yi-Ø* ‘kangaroo.rat-COM-NOM pademelon-COM-NOM kangaroo-COM-NOM’), (3-218) (*worriba-Ø gajarra-Ø* ‘bee-ACC possum-ACC’), (4-39) (*yanga-na-wo gaya-na-wo* ‘M-KIN-DAT F-KIN-DAT’), and (4-62) (*nyongo ngaygo*). Recall that Warrongo lacks a conjunction for ‘and’.

(4-62) *ngali-Ø warrngo-yi-Ø, nyongo ngaygo.* (AP)
 1DU-NOM woman-COM-NOM 3SG.GEN 1SG.GEN
 ‘We [are] with women (or, we have women). His [and] mine.’

Languages such as Djaru have NPs which consist of a generic noun and a specific noun. Examples from Djaru include *guyu jaji* ‘game kangaroo’, i.e. ‘kangaroo’ (Tsunoda 1981a: 93). No such examples are found in my Warrongo data. Nonetheless, there are examples in which one noun specifies the type of the other noun, e.g. (4-805) (*jomoboro-Ø jalgor-Ø* ‘cattle-ACC meat-ACC’, i.e. ‘beef’) and also (4-804) (*goyjarri-Ø bambo-Ø* ‘scrub.turkey-ACC egg-ACC’, i.e. ‘scrub turkey egg’), and (4-808) (*gobonbara-Ø mangga-Ø* ‘palm sp.-ACC flower-ACC’, i.e. ‘*gobonbara* flower’).

[5] There are NPs that consist of a proper noun and a common noun (cf. Greenberg [1963] 1978: 89–90, 112). There are at least six examples. Four of them involve *yamba* ‘camp, place, country’ for the ‘common noun’, and the ‘proper noun’ is a placename, e.g. (4-63) to (4-65). The fifth example, i.e. (4-66), involves *bama* ‘man’ for the ‘common noun’, and the ‘proper noun’ is a noun referring to a group of denizens of a place (*yimon-barra* ‘Yimon-denizen’). (The location of Yimon is not known for certain.) In the sixth example, i.e. (4-208-b), the common noun is *warrngo* ‘woman’ and the ‘proper noun’ is *gambil-barra* ‘westerner’. In all of these examples, the ‘proper noun’ precedes – and immediately precedes – the ‘common noun’, except for (4-65-b) (the ‘common noun’ *yamba* ‘place, camp’ precedes). Furthermore, they agree in terms of case: the LOC, the NOM or the ACC.

(4-63) (‘We were travelling.’)
ngali-Ø banda-n gamanda-ja yamba-ngga. (AP)
 1DU-NOM emerge-NF Midway.Creek-LOC camp.place-LOC
 ‘We came out to Midway Creek, to the camp’, i.e. ‘to the camp of Midway Creek.’

(Gamanday is a place near Abergowrie. See Map 3 for the location of Abergowrie. In the locative *gamanda-ja*, the stem-final *y* is deleted; see Table 3-2.)

(4-64) ('The stockmen will take the cattle to Townsville.')

ngoni-n-da golbila balga-lgo jana-Ø gabilgaba-ngga
 there-LINK-LOC in.south kill-PURP 3PL-ERG Townsville-LOC
yamba-ngga. (AP)
 camp-LOC

'They will kill [the cattle] in the south, in Townsville, in the place/camp',
 i.e. 'in the place of Townsville'.

(*Gabilgaba-ngga yamba-ngga* may be translated as 'in the city of Townsville'. See 1.5.4.1-[2]-(a) for the etymology of *gabilgaba*.)

(4-65) (This example is cited from the myth about *banggarra* 'blue tongue lizard'. One of the names of the place where Blue Tongue Lizard hid the water (English name: Cameron Creek) is *Banggarra* (1.5.4.3-[1]).)

a. *ngoni=wa banggarra-Ø* /
 there=FOC Cameron.Creek-NOM
 'Banggarra [is] right there.'

b. *yamba-Ø banggarra-Ø.* (AP)
 camp.place-NOM Cameron.Creek-NOM
 'The camp of Banggarra.'

(The enclitic =*wa* seems to indicate focus. See 4.25-[6].)

(4-66) ('I left a place called Yimon.')

yimon-da ngayya wanda-n yimon-barra-Ø bama-Ø. (AP)
 Yimon-LOC 1SG.ERG leave-NF Yimon-denizen-ACC man-ACC
 'I left the Yimon people at Yimon.'

(Here, *bama* seems to refer to the people there, and not just the men there.)

[6] This does not really concern an NP, but there is one example in which a repetition of a numeral (a subtype of noun) indicates 'each'. (There is an adverb *nyon. gol-nyon.gol* 'one~one', i.e. 'one by one, one for each, one after another' (3.8.2-[2]).)

(4-67) ('You have cooked possums.')

a. *bolari-Ø bolari-Ø goyba-Ø.*
 two-ACC two-ACC give-IMP
 'Give [us] two [possums] each.'

b. *ngali-Ø bolari-Ø.* (AP)
 1DU-NOM two-NOM
 'We [are] two.'

4.5.2.1.3. Order of the constituents of non-configurational NPs

As mentioned in 4.5.2.1.1, a non-configurational NP appears to be able to consist of almost (though not quite) any one or more of (i) a noun proper ('N'), (ii) an adjective-like noun ('Adj'), (iii) an interrogative member of noun, (iv) a pronoun, (v) the interrogative member of pronoun, and (vi) a demonstrative member of adverb ('Dem'). In typological studies of the order of the constituents of noun phrases, it is a usual practice to include numeral and genitive (Greenberg 1978: 107–110). In view of this, numeral ('Num') and genitive ('Gen') will be included in the following discussion. (In the present study, numerals are classified as a subtype of nouns; see 3.1.2–[3]. In the examples given below, the genitive form almost always involves a pronoun, and not a noun. As seen in 3.6.5, the genitive case is rarely attested with nouns.)

It is also a common practice in typological studies to include statistical information (e.g. Greenberg 1978, Hawkins 1983), and in view of this the following discussion will contain statistical data. The data are based on about one hour's texts (Tapes 72/32 and 72/33), which constitute about one sixth of the Warrongo texts I recorded.

As mentioned above, there is no example of NP in which all the types of constituents listed above occur. The longest NP attested (in Tapes 72/32 and 72/33) is in (4-68); it consists of five constituents, i.e. the head noun and four modifiers. The ex. (4-69) contains an example of NP that consists of four constituents, i.e. the head noun and three modifiers. Text 2, Line 31 contains another example.

(4-68) *ngalnga yinda bindaynga-lgo yino gornggal-Ø ngona-Ø*
 PROH 2SG.ERG let.go-PURP 2SG.GEN husband-ACC that-ACC
nyon.gol-Ø jarribara-Ø. (AP)
 one-ACC good-ACC
 'Don't let that one good husband of yours go.'

(4-69) *wowo, ngaygo yarro-Ø jarribara-Ø wobirri-Ø ngayya*
 Oh! 1SG.GEN this-ACC good-ACC English.bee-ACC 1SG.ERG
baja-lgo. (AP)
 bite-PURP
 'Oh! I will bite [i.e. eat] this nice English bee of mine.'

The order of the constituents of the NP is 'Gen N Dem Num Adj' in (4-68), 'Gen Dem Adj N' in (4-69), and 'Dem Gen Num N' in Text 2, Line 31. As can be seen, the relative order of NP constituents is not fixed, and it is difficult to generalize about it. This is in sharp contrast, say, with English, where their relative order is fixed, e.g. *these three big books of mine*. In this respect, Warrongo deviates from Greenberg's (1978: 111) Universal 20: 'When any or all of the items – demonstrative, numeral, and descriptive adjective – precede the noun, they are always found in that order. If they follow, the order is the same or its exact opposite'

Among the instances of NPs (in Tapes 72/32 and 72/33) in which a noun is accompanied by two or more modifiers, the five most frequent orders and their examples are as follows.

- (a) Adj Dem N: 5 examples, cf. (4-70)
- (b) N Dem Adj: 4 examples, e.g. (4-658) (*bori-Ø ngona-Ø gagal-Ø* 'fire-ACC that-ACC big-ACC')
- (c) Dem N Adj: 4 examples, e.g. (4-990-a) (*yarro-wo yamba-wo jarribara-wo* 'this-DAT camp-DAT good-DAT')
- (d) Dem N Gen: 3 examples, e.g. (4-71)
- (e) Dem Gen N: 3 examples, e.g. (4-72)

(4-70) (Two people were travelling. They found a nice hollow in the ground to have a rest.)

jarribara-Ø yarro-Ø banggo-Ø (AP)
 good-NOM this-NOM hollow-NOM
 'this nice hollow'

(4-71) (Someone caught a possum, and he was advised not to leave it on the ground. He replied as follows.)

yowo, gando-nggo baja-lga yarro-Ø gajarra-Ø ngali-ngo. (AP)
 yes dog-ERG bite-APPR this-ACC possum-ACC 1DU-GEN
 'OK [I won't]. A dog might bite [i.e. eat] this possum of ours.'

(4-72) *yarro-Ø ngaygo gajarra-Ø baja-lga.* (AP)
 this-ACC 1SG.GEN possum-ACC bite-APPR
 '[The dog] might bite [i.e. eat] this possum of mine.'

In perhaps the majority of the examples, the head noun and its modifiers are contiguous, as shown in the examples above. However, they are not always contiguous, and they may occur separately, as shown below.

As alluded to above, instances of NPs that contain two or more modifiers in addition to the head noun, are not numerous. In the following, we shall look at NPs that contain one modifier in addition to the head noun.

[1] The head noun and an adjective-like noun as the modifier

They are contiguous in (4-73), (4-74), but discontinuous in (4-75), (4-76).

(4-73) *yowo, baja-lgo ngaya jarribara-Ø gona-Ø.* (AP)
 OK bite-PURP 1SG.ERG good-ACC young.bee-ACC
 'OK, I will bite [i.e. eat] nice young bees.'

(4-74) *ngalnga bonggorray-Ø gagabara-Ø goyba-lgo.* (AP)
 PROH snore-ACC big-ACC throw-PURP
 'Don't throw a big snore', i.e. 'Don't snore loudly.'

- (4-75) *yinda gagal-Ø wajo-ya bori-Ø.* (AP)
2SG.ERG big-ACC burn-IMP fire-ACC
'Make a big fire.'
- (4-76) *gajarra-Ø nyola ganyji-n goman-Ø.* (AP)
possum-ACC 3SG.ERG carry-NF another-ACC
'She carried [i.e. brought] another possum.'

[2] The head noun and a demonstrative as the modifier

They are contiguous in (4-77), (4-78), but discontinuous in (4-79), (4-80).

- (4-77) *ngali-Ø yani-yal yarro-ngomay-Ø jolgi-ngomay-Ø.* (AP)
IDU-NOM go-PURP this-ABL-NOM scrub-ABL-NOM
'We will go [away] from this scrub.'
- (4-78) *yorl-Ø yarro-Ø nyina-n.* (AP)
kangaroo-NOM this,here-NOM sit-NF
'This kangaroo is squatting.'
- (4-79) *yarro-wo yinda yamba-wo?* (AP)
this-DAT 2SG.NOM camp-DAT
'[Do] you [belong] to this camp?'
- (4-80) *yamba-Ø ngaya wanda-n ngona-Ø.* (AP)
camp-ACC 1SG.ERG leave-NF that-ACC
'I left that camp.'

(In (4-80), *ngona* 'that, there' may be taken to describe a place: 'I left the camp there' See 3.4.3-[1].)

[3] The head noun and a genitive form

They are contiguous in (4-81), (4-82), but they are discontinuous in (4-83), (4-84).

- (4-81) *ngaygo banggay-Ø ngoni yamba-ngga ngaya wanda-n.* (AP)
1SG.GEN spear-ACC there camp-LOC 1SG.ERG leave-NF
'I left my spear there in the camp.'
- (4-82) *ngaya gombo-Ø nyongo moga-n.* (AP)
1SG.ERG buttocks-ACC 3SG.GEN grab-NF
'I grabbed her buttocks.'
- (4-83) *yino wanyja birgo-Ø?* (AP)
2SG.GEN where wife-NOM
'Where [is] your wife?'
- (4-84) *yamba-Ø gonggarri wanda-Ø ngali-ngo!* (AP)
camp-ACC in.north leave-IMP IDU-GEN
'Let's leave our camp in the north.'

[4] The head noun and a numeral

They are contiguous in (4-85), but they are discontinuous in (4-86), (4-87).

(4-85) *yani-ya gajarra-wo nyon.gol-go!* (AP)
 go-IMP possum-DAT one-DAT
 'Go for [i.e. to get] one possum.'

(4-86) *nyon.gol-Ø ngaya nyaga-n gajarra-Ø.* (AP)
 one-ACC 1SG.ERG see-NF possum-ACC
 'I saw [i.e. found] one possum.'

(4-87) *bambo-Ø jaymba-n nyon.gol-Ø.* (AP)
 egg-ACC find-NF one-ACC
 '[I] found one egg.'

Although the number of relevant examples is limited, it may be worthwhile to mention that, among the modifiers of nouns, the numeral appears to behave slightly differently from other modifiers – i.e. adjective-like noun, demonstrative, and genitive – in the following three respects. (The following account includes those NPs which contain two or more modifiers in addition to the head noun.)

- (a) The numeral follows the head noun more frequently than it precedes.
- (b) When the numeral precedes, it is discontinuous with the head noun in all the relevant examples.
- (c) When the numeral follows, it is more often discontinuous with the head noun than it is contiguous with it.

A detailed account follows.

(a) The numeral follows the head noun more frequently than it precedes, in contrast with the adjective-like noun, demonstrative and genitive, which precede more frequently than they follow. (This tendency is interesting in that it deviates from Greenberg's (1978: 86, 111) Universal 18: 'When the descriptive adjective precedes the noun, the demonstrative and the numeral, with overwhelmingly more than chance frequency, do likewise'.) Relevant statistical data follow. The numeral precedes in 2 examples (9%), e.g. (4-86), but it follows in 9 examples (91%), e.g. (4-68), (4-85), (4-87). In contrast, the adjective-like noun precedes in 53 examples (60%), e.g. (4-69), (4-70), (4-73), (4-75), but follows in 36 examples (40%), e.g. (4-68), (4-74), (4-76), (4-658), (4-990-a). The demonstrative precedes in 79 examples (72%), e.g. (4-69) to (4-72), (4-77), (4-79), (4-990-a), but follows in 30 examples (28%), e.g. (4-68), (4-78), (4-80), (4-658). The genitive precedes in 54 examples (59%), e.g. (4-68), (4-69), (4-81), (4-83), but follows in 37 examples (41%), e.g. (4-82), (4-84).

(b) As just mentioned, the numeral follows the head noun more frequently than it precedes. When it precedes, it is discontinuous with the head noun in all the relevant examples. In contrast, the adjective noun, demonstrative and genitive are attested

in the position immediately preceding the head noun, e.g. (4-69) (adjective-like noun), (4-71) (demonstrative), and (4-81) (genitive).

(c) When the numeral follows, it is more often discontinuous with the head noun (and other member(s) of the NP, if any) (5 examples), e.g. (4-69), (4-87), than it is contiguous with it (3 examples), e.g. (4-85). No such tendency was observed with genitive, demonstrative, and adjective-like noun.

Warrongo seems unusual in that the numeral behaves differently from the adjective-like noun, demonstrative, and genitive. Cf. Greenberg's Universal 18. No such language seems to be reported by typological studies of word order such as Greenberg (1978) and Hawkins (1983).

There are compound nouns (3.7.3-[1]) and compound adverbs (3.8.3-[1]) that consist of (i) a noun proper and (ii) an adjective-like noun or a numeral. In terms of (a) and (b), numerals behave differently from adjective-like nouns. However, in these compound words, a numeral follows just as an adjective-like noun does. Examples involving an adjective-like noun include *bama-goman* 'man-another' (a noun) and *woga-goman* 'asleep-another', i.e. 'on the next day or night' (an adverb). Examples involving a numeral include *jolay-nyon.gol* 'tree-one', i.e. 'One Tree Plain' (a noun) and *woga-bolari* 'asleep-two', i.e. 'for two nights' and *gonda-gorrbara* 'night-three', i.e. 'for three nights' (adverbs).

4.5.2.1.4. Additional remarks on non-configurational NPs

[1] 'Adjective' as a subtype of noun

Morphologically, adjective-like nouns decline like other nouns (Table 3-2). Syntactically, an adjective-like noun can stand alone as an NP (like a noun proper, an interrogative member of noun, a pronoun, the interrogative member of pronoun, and a demonstrative member of adverb) (4.5.2.1.1). Examples of NPs consisting of an adjective-like noun alone include (3-228) and (4-16) (*goman-go* 'other-DAT'). Therefore, there are no morphological or syntactic grounds for separating 'adjectives' from nouns in Warrongo. Consequently, adjective-like nouns are considered as a subtype of nouns (3.1.2-[3]).

[2] 'Unusual' NPs

In the examples examined in 4.5.2.1.3, the head noun is modified by an adjective-like noun, demonstrative, numeral and/or genitive. There are, however, instances of NP in which the head noun co-occurs with some other type of NP member(s). For example, an NP may contain an interrogative member of noun or pronoun as well as the head noun, e.g.:

(4-88) *wanyo bama-Ø yani-Ø?* (AP)
 who-NOM man-NOM come-NF

Lit. 'Who man is coming?', i.e. 'Who is the man that is coming?'

Also, an NP may contain an adjective-like noun as well as a pronoun.

(4-89) *goyi-nggo ngaya wajo-n.* (AP)
 hungry-ERG 1SG.ERG cook-NF
 ‘I, [a] hungry [person], cooked [food].’

(4-90) *ganba-mara ngaya jangarago-Ø yarro-n-da*
 before-very 1SG.NOM small-NOM this,here-LINK-LOC
waymba-garra-n. (AP)
 walk.about-ITER-NF
 ‘A very long time ago I, [a] little [child], walked around in this place.’

(4-91) (A woman is going to bathe in a creek, and her husband says to her as follows.)
nyaga-lga bama-nggo yina balgoro-Ø. (AP)
 see-APPR man-ERG 2SG.ACC naked-ACC
 ‘[Some] men might see you, [a] naked [person].’

An NP may contain a pronoun and a demonstrative member of adverb.

(4-92) *yarro-Ø nyola wola-n.* (AP)
 here,this-NOM 3SG.NOM die-NF
 ‘This [person], he died.’

In each of (4-89) to (4-92), the adjective-like noun or the demonstrative may be considered to be in apposition with the pronoun (agreeing in terms of case), as alluded to by the English translations given above. Note in particular that, in (4-89), *ngaya* ‘1SG.ERG’ agrees with *goyi-nggo* ‘hungry-ERG’ in terms of case – as is the case with (4-6) – despite the fact that it does not have a distinct ERG suffix.

But the adjective-like noun or the demonstrative may also be considered to be modifying the pronoun. Then, an English translation, say, for (4-89), will be something like ‘Hungry I cooked [some food]’ (Such expressions, which involve a pronoun modified by an adjective, are common in Japanese.)

There is another possibility. That is, in (4-92), for instance, *yarro-Ø* does not constitute an NP with *nyola*, and, this sentence means ‘He died here’. See 3.4.3-[1].

The NPs that have been discussed so far are non-configurational, for they fail to meet either of the criterion (b-1) ‘contiguity of the constituents’ and (b-2) ‘fixed relative order of the constituents’ (see 4.5.1).

4.5.2.2. *Configurational NPs*

There are four types of configurational NPs. The modifier is generally a personal pronoun in the genitive, and it is first necessary to describe the behaviour of the genitive in NPs.

4.5.2.2.1. Genitive in NPs

As stated in 4.5.2.1.1, in non-configurational NPs, (a) the constituents of an NP are individually case-marked, agreeing in terms of case, and (b) any one member can stand alone as an NP. The genitive is an exception to these two generalizations.

In Australian languages such as Dyirbal (Dixon 1972: 105) and Djaru (Tsunoda 1981a: 66), genitive forms may take an additional, non-zero case suffix and agree with the noun they modify, in terms of case. In contrast, in Warrongo, generally genitive forms do not take an additional case suffix (apart from the exceptions discussed below), and consequently they do not show the case agreement in question. That is, the genitive is an exception to the generalization of (a).

For example, regarding the ergative case, sentences such as (4-93) are not attested, and they are almost certainly ungrammatical. Sentences such as (4-94) and (4-95) are used instead; note that *ngaygo* lacks the ergative suffix. Examples concerning the locative include (4-96). Note that *ngaygo* '1SG.GEN' lacks the locative case. An example involving the dative case is (4-97). Note that *ngaygo* '1SG.GEN' lacks the dative case.

(4-93) **ngaygo-nggo gando-nggo gamo-Ø bija-n.* (TT)
 1SG.GEN-ERG dog-ERG water-ACC drink-NF
 Intended meaning: 'My dog drank water.'

(4-94) *ngaygo gando-nggo gamo-Ø bija-n.* (TT)
 1SG.GEN dog-ERG water-ACC drink-NF
 'My dog drank water.'

(4-95) *nganya nyola ngaygo warrngo-nggo banjo-n.* (AP)
 1SG.ACC 3SG.ERG 1SG.GEN woman-ERG ask-NF
 'She, my woman (i.e. wife), asked me.'

(4-96) *ngaygo yamba-ngga wanda-lgo ngoni-n-da.* (AP) *yina.* (AP)
 1SG.GEN camp-LOC leave-PURP there-LINK-LOC 2SG.ACC
 '[I] will leave you there, in my camp.'

(4-97) *ngaya golmi yani-Ø ngaygo yamba-wo.* (AP)
 1SG.NOM back go-NF 1SG.GEN camp-DAT
 'I went back to my camp.'

A genitive form with no additional case suffix occurs by itself as the S, e.g. (4-98), or as the O.

(4-98) *ngaygo yarro-wo yani-Ø.* (TT)
 1SG.GEN here-DAT come-NF
 'My [e.g. friend, dog] came here.'

However, a genitive form by itself cannot occur as the A. If *gando-nggo* is deleted from (4-94), we will obtain (4-99).

- (4-99) *ngaygo gamo-Ø bija-n.* (TT)
 1SG.GEN water-ACC drink-NF
 ‘[Someone] drank my water.’

That is, (4-99) no longer means ‘My [e.g. dog] drank water’ That is, once *gando-nggo* ‘dog-ERG’ is deleted from (4-94), *ngaygo* ‘1SG.GEN’ no longer modifies the A. The same applies to (4-96) (the locative) and (4-97) (the dative). Compare (4-96) with (4-100), and (4-97) with (4-101). Probably (4-100) makes sense. But it is not known if (4-101) makes sense. Literal and tentative translations are provided.

- (4-100) *ngaygo wanda-lgo ngoni-n-da yina.* (TT)
 1SG.GEN leave-PURP there-LINK-LOC 2SG.ACC
 ‘[I] will leave you, [who are] mine, there.’
- (4-101) *ngaya golmi yani-Ø ngaygo.* (TT)
 1SG.NOM back go-NF 1SG.GEN
 ‘I, [who am] mine, went back.’

The difference between (i) (4-95) to (4-97) and (ii) (4-99) to (4-101) show that the genitive is an exception to the generalization of (b) that any one member can stand alone as an NP.

Configurational NPs are exceptional in a number of respects. In particular, the genitive form does, or, may, occur in all of them, and it takes an additional, non-zero case suffix.

To sum up, in Warrongo in general, the genitive is exceptional in that it generally does not take an additional, non-zero case suffix, unlike other members of NPs. However, the genitive in configurational NPs is exceptional among the various uses of the genitive in that it takes an additional, non-zero case suffix.

The four types of configurational NPs are discussed below.

4.5.2.2.2. ‘One’s camp’ (1)

The genitive forms of the three singular pronouns (though not of non-singulars) are attested with an additional case suffix. The attested cases are the LOC and the DAT; there is no example of any other non-zero case. See Table 4-5. (The form in parentheses, followed by ‘(TT)’, has been made up by me, but it was not checked by Alf Palmer. It is probably acceptable, although this is not definitely certain.)

Table 4-5. Locative and dative of genitive singular pronouns

	LOC	DAT
<i>ngaygo</i> ‘1SG.GEN’	<i>ngaygo-ngga</i>	<i>ngaygo-wo</i>
<i>yino</i> ‘2SG.GEN’	<i>yino-ngga</i>	<i>yino-wo</i>
<i>nyongo</i> ‘3SG.GEN’	<i>(nyongo-ngga)</i> (TT)	<i>nyongo-wo</i>

In the examples available, the genitive form (of a singular pronoun) always modifies a noun, and it does not occur by itself. It agrees with the noun in terms of case, in the LOC or the DAT. In all the examples, the noun is *yamba* ‘camp, house, place, country’. No other noun is attested.

The genitive form is always contiguous with the noun *yamba* ‘camp’. Furthermore, it immediately precedes. That is, their relative order is fixed. Therefore, in terms of both the contiguity and the fixed order of the constituents (4.5.1-(b-1), -(b-2)), these NPs are configurational.

(4-102) *yarro-n-da nyina-yal yinda ngaygo-ngga yamba-ngga.* (AP)
 here,this-LINK-LOC sit-PURP 2SG.NOM 1SG.GEN-LOC camp-LOC
 ‘You will sit in here, in this camp’ (or, ‘in this camp of mine’).

(4-103) *ngona-ngomay golmi yani-Ø ngaygo-wo yamba-wo.* (AP)
 that-after back go-NF 1SG.GEN-DAT camp-DAT
 ‘After that [I] went back to my camp.’

(4-104) (‘She is your woman. Don’t let her go.’)
yinda mori-nga-Ø ngoni-n-da yino-ngga
 2SG.ERG greedy,tight-TR-IMP there-LINK-LOC 2SG.GEN-LOC
yamba-ngga. (AP)
 camp-LOC
 ‘Keep [her] to yourself there, in your camp.’

(See (4-144) in connection with *mori-nga-L* ‘greedy, tight-TR’.)

(4-105) *waybala-Ø gonggarri-ngal yani-Ø nyongo-wo yamba-wo.* (AP)
 white.man-NOM north-to go-NF 3SG.GEN-DAT camp-DAT
 ‘The white man went north, to his camp.’

4.5.2.2.3. ‘One’s camp’ (2)

See Table 4-6. Only the LOC and the DAT forms are attested, and no other case is attested, as is the case with Table 4-5. Also, only six forms are attested. In Table 4-5, singular pronouns are attested, but non-singulars are not. In contrast, in Table 4-6, two plural pronouns are attested – i.e. second person plural *yorra-yi-d-go* and the first person plural *ngana-ngo-n-ji-n-da* – in addition to the singular pronouns. The forms in parentheses, followed by ‘(TT)’, have been made up by me, but they were not checked by Alf Palmer. They may or may not be acceptable.

Table 4-6. Locative and dative of ‘pronoun-LINK’

	LOC	DAT
<i>ngaygo</i> ‘1SG.GEN’	<i>ngaygo-yi-da</i>	(<i>ngaygo-yi-d-go</i> (TT))
<i>yino</i> ‘2SG.GEN’	<i>yino-yi-da</i>	<i>yino-yi-d-go</i>
<i>nyongo</i> ‘3SG.GEN’	<i>nyongo-yi-da</i>	(<i>nyongo-yi-d-go</i> (TT))
<i>ngali-Ø</i> ‘1DU-NOM/ERG’	(<i>ngali-yi-da</i> (TT))	(<i>ngali-yi-d-go</i> (TT))
<i>yobala-Ø</i> ‘2DU-NOM/ERG’	(<i>yobala-yi-da</i> (TT))	(<i>yobala-yi-d-go</i> (TT))
<i>bola-Ø</i> ‘3DU-NOM/ERG’	(<i>bola-yi-da</i> (TT))	(<i>bola-yi-d-go</i> (TT))
<i>ngana-Ø</i> ‘1PL-NOM/ERG’	(<i>ngana-yi-da</i> (TT))	(<i>ngana-yi-d-go</i> (TT))
<i>yorra-Ø</i> ‘2PL-NOM/ERG’	(<i>yorra-yi-da</i> (TT))	<i>yorra-yi-d-go</i>
<i>jana-Ø</i> ‘3PL-NOM/ERG’	(<i>jana-yi-da</i> (TT))	(<i>jana-yi-d-go</i> (TT))
<i>ngana-ngo</i> ‘1PL-GEN’	<i>ngana-ngo-n-ji-n-da</i>	

Ngana-ngo-n-ji-n-da is built on the GEN form *ngana-ngo* ‘1PL-GEN’, and it involves two linking interfixes: *-n-* (occurring twice) and *-ji-*. Among the other attested forms, the singulars are based on their respective GEN forms, and they involve linking interfixes: *-yi-* for the LOC and *-yi-* and *-d-* for the DAT. In contrast, the second person plural *yorra-yi-d-go* is built on the NOM/ERG form *yorra-Ø*, and not on the GEN form *yorra-ngo* (see Table 3-6 for the inflection of pronouns). This suggests that the other non-singulars, too, will be based on their respective NOM/ERG forms – if they are acceptable at all.

The linking interfix *C-ji-/V-yi-* is formally identical with the comitative-case suffix *C-ji/V-yi* (3.6.8). As is the case with the COM suffix (see Table 3-11), the forms involving the linking *-yi-* decline irregularly, behaving as if they were consonant-final. Unlike the COM suffix, however, the forms with the linking *-yi-* have only one form for the DAT, i.e. *-yi-d-go*; the other two variants for the DAT (*-yi-go*, *-yi-l-go*) are not attested. (The form involving the linking *-ji-*, i.e. *ngana-ngo-n-ji-*, is followed by another linking interfix *-n-*. The resultant *ngana-ngo-n-ji-n-* behaves regularly, taking the LOC *-da*, like any other *n*-final stems (Table 3-2). (In *-n-ji-n-da*, the first interfix seems to be *n* rather than *ny*. But this is not certain.)

For convenience, we shall refer to these pronouns as ‘pronouns-LINK’.

In the examples available, a pronoun-LINK modifies a noun, and it does not occur by itself. It agrees with the noun in terms of case, in the LOC or the DAT. In all the examples, the noun is *yamba* ‘camp, house’, as is the case with the NPs discussed in 4.5.2.2.2, and no other noun is attested. The pronoun-LINK is always contiguous with the noun *yamba*. It may precede, e.g. (4-106), or follow, e.g. (4-107), (4-108). That is, their relative order is not fixed. Therefore, in terms of the contiguity of the constituents (though not in terms of their fixed order) (4.5.1-(b-1)), these NPs are configurational.

- (4-106) *ngaygo-yi-da yamba-ngga ngali-Ø birra-wa-n.* (AP)
 1SG.GEN-LINK-LOC camp-LOC 1DU-NOM talk-RECP-NF
 ‘We talked with each other in my camp.’
- (4-107) *ngaya yani-Ø yamba-wo yino-yi-d-go.* (AP)
 1SG.NOM go-NF camp-DAT 2SG.GEN-LINK-DAT
 ‘I went to your camp.’
- (4-108) *nyola wajo-lgo yamba-ngga nyongo-yi-da.* (AP)
 3SG.ERG cook-PURP camp-LOC 3SG.GEN-LINK-LOC
 ‘He will cook [it] in his camp.’

The linking interfix C-*ji*/V-*yi* has possible cognates: *-jin* of Jirrbal and Mamu (Dixon 1972: 105), and *-yin* in Narrinyeri of South Australia (Taplin 1880: 10, 12, quoted by Dixon 1972: 105).

There is just one example of *-n-ji-n-* in my Warrongo data. During the playback of a tape, Alf Palmer gave the following.

- (4-109) *ngana-ngo-n-ji-n-da yamba-ngga.* (AP)
 1PL-GEN-LINK-LINK-LINK-LOC camp-LOC
 ‘in our camp’

As seen in 3.6.7-[3], the ablative-1 case (*-ngomay*) can describe a possessor, and the possessee is generally, though not always, *yamba* ‘camp, house’. (Recall that the only noun involved in the NPs discussed in 4.5.2.2.2 and here, in 4.5.2.2.3, is the noun *yamba*. An ABL-1 form may take an additional, non-zero case suffix and show case agreement with the noun modified, e.g. (3-126) and (3-127).)

Table 4-7. Cases of ‘one’s camp’

	LOC	DAT
genitive with no case suffix (4.5.2.2.1)	<i>ngaygo yamba-ngga</i> e.g. (4-96)	<i>ngaygo yamba-wo</i> e.g. (4-97), cf. (4-110)
genitive with case suffix (4.5.2.2.2)	<i>ngaygo-ngga yamba-ngga</i> e.g. (4-102), cf. (4-104)	<i>ngaygo-wo yamba-wo</i> e.g. (4-103), cf. (4-105)
with linking interfix (4.5.2.2.3)	<i>ngaygo-yi-da yamba-ngga</i> e.g. (4-106), cf. (4-108)	<i>yino-yi-d-go yamba-wo</i> e.g. (4-107)
ABL-1 case (3.6.7-[3])	<i>yino-ngomany-ja yamba-ngga</i> cf. (3-139)	<i>yino-ngomay-nggo yamba-wo</i> e.g. (3-138)

There are four ways of saying ‘one’s camp’ in the LOC and in the DAT, at least when the GEN form of a singular pronoun is involved. (Non-singular pronouns are not attested in the NPs discussed in 4.5.2.2.2.) See Table 4-7, where *ngaygo* ‘1SG.

GEN' or *yino* '2SG.GEN' is given as an example. The relative order of the GEN pronoun and the noun in Table 4-7 does not reflect the order in actual examples.) The relative order is fixed in the NPs discussed in 4.5.2.2.2 and 4.5.2.2.6, but not in those discussed in 4.5.2.2.1, 4.5.2.2.3, 4.5.2.2.4, 4.5.2.2.5, and 3.6.7-[3].

- (4-110) *nyila=gol ngaya yarro-wo yani-Ø nyaga-gali-yal*
 today=only 1SG.NOM this-DAT come-NF see-ANTIP-PURP
yamba-wo yino-Ø (AP)
 camp-DAT 2SG.GEN
 'For the first time I have come here to see your camp.'

(This sentence contains the antipassive construction in purposive subordination (4.9.4). See 4.25-[4] for *nyila=gol* 'for the first time'.)

As mentioned above, genitive forms (of nouns and pronouns) cannot take the ERG suffix as an additional case suffix; see Table 4-5. Also, the forms with linking interfix(es) lack the ERG form; see Table 4-6. Forms such as **ngaygo-nggo* '1SG.GEN-ERG' would be expected; see (4-93). However, Alf Palmer rejected *ngaygo-nggo* and stated that *ngaygo-ngomany-jo* '1SG.GEN-ABL-ERG' should be used. This form involves the ABL-1 suffix *-ngomay*. As an example, Alf Palmer gave a sentence rather like (4-111).

- (4-111) *ngaygo-ngomany-jo gando-nggo gamo-Ø bija-n. (TT)*
 1SG.GEN-ABL-ERG dog-ERG water-ACC drink-NF
 'My dog drank water.'

4.5.2.2.4. 'One's own camp'

There are nine relevant examples. They each contain (i) a genitive pronoun with no further case suffix, (ii) the noun *warayi* 'one's own', and (iii) the noun *yamba* 'camp'. The attested combinations of these three words are listed in Table 4-8. (The relative order of the words reflects the actual order in the relevant examples.) (As seen in 3.6.8, etymologically *warayi* contains the comitative suffix *-yi*, and it declines irregularly.)

Examples follow.

- (4-112) ('Teach me the Gama dance.')
- ngaya ngali-Ø=rro nyamba (pause)*
 1SG.ERG 1DU-ERG=too (error)
- nyamba-ri-lgo yino yamba-ngga warayi-da. (AP)*
 dance-APPL-PURP 2SG.GEN camp-LOC one's.own-LOC
- Tentative translation: 'We-two, too, can dance to [it] in your own camp.'

Table 4-8. Cases of 'one's own camp'

LOC				
(a)	<i>yino</i> 2SG.GEN	<i>yamba-ngga</i> camp-LOC	<i>warayi-da</i> one's.own-LOC	(4-112)
(b)	<i>nyongo</i> 3SG.GEN	<i>warayi-da</i> one's.own-LOC	<i>yamba-ngga</i> camp-LOC	(4-113)
DAT				
(c)	<i>ngaygo</i> 1SG.GEN	<i>warayi-d-go</i> one's.own-LINK-DAT	<i>yamba-wo</i> camp-DAT	(4-114)
(d)	<i>ngaygo</i> 1SG.GEN	<i>yamba-wo</i> camp-DAT	<i>warayi-go</i> one's.own-DAT	(4-115)
(e)	<i>yamba-wo</i> camp-DAT	<i>ngaygo</i> 1SG.GEN	<i>warayi-d-go</i> one's.own-LINK-DAT	(1-10-a)
(f)	<i>yamba-wo</i> camp-DAT	<i>ngaygo</i> 1SG.GEN	<i>warayi-l-go</i> one's.own-LINK-DAT	(4-116)
(g)	<i>yamba-wo</i> camp-DAT	<i>nyongo</i> 3SG.GEN	<i>warayi-l-go</i> one's.own-LINK-DAT	(4-117)
(h)	<i>nyongo</i> 3SG.GEN	<i>yamba</i> camp	<i>warayi-l-go</i> one's.own-LINK-DAT	(4-118)

(See 4.14.2.1 for the applicative verb *nyamba-ri-L* Vt 'dance to [music]' See 4.25-[5] for the enclitic =*rro* 'too, again'. In (4-112), 'we-two' (A) and 'your (2SG)' are not coreferential. This shows that *warayi* 'one's own' does not have to be coreferential with the A. The same applies to (4-118): 'we' (A) and 'his'. Most probably, it does not have to be coreferential with the S, either.)

(4-113) (In the text, (4-113) immediately follows (4-108).)

(pause) *nyongo warayi-da yamba-ngga.* (AP)
3SG.GEN one's.own-LOC camp-LOC
'in his own camp'

(4-114) (A man finds two women, and says to them as follows.)

yarro-ngomay-Ø ganyji-lgo golmi ganyji-lgo
here-ABL-ACC carry-PURP back carry-PURP
ngaya ngaygo warayi-d-go yamba-wo. (AP)
1SG.ERG 1SG.GEN one's.own-LINK-DAT camp-DAT
'I will take [you-two] from here to my own camp.'

- (4-115) *ngona-ngomay ngaya golmi ngaygo yamba-wo warayi-go*
 that-after 1SG.NOM back 1SG.GEN camp-DAT one's.own-DAT
warayi-go golmi yani-Ø banggay-go. (AP)
 one's.own-DAT back go-NF spear-DAT
 'After that, I went back to my own camp for a spear.'
- (4-116) *ngaya ngoni-ngomay-Ø yarro-wo golmi yani-Ø*
 1SG.NOM there-ABL-NOM here-DAT back come-NF
yamba-wo ngaygo warayi (pause)
 camp-DAT 1SG.GEN (error?)
warayi-l-go. (AP)
 one's.own-LINK-DAT
 'From there I came back here to my own camp.'
- (4-117) *nyola golmi yani-Ø yamba-wo nyongo warayi-l-go.* (AP)
 3SG.NOM back go-NF camp-DAT 3SG.GEN one's.own-LINK-DAT
 'He went back to his own camp.'
- (4-118) *ngona-ngomay ngana-Ø ganyji-n balgan-go=jan nyongo yamba*
 that-after 1PL-ERG carry-NF bark.hut-DAT=? 3SG.GEN camp
warayi-l-go. (AP)
 one's.own-LINK-DAT
 'After that, we carried [him] to his own camp.'

(See 4.25-[11] for the enclitic =*jan*.)

Except for (4-118), these examples conform to the following two general tendencies in Warrongo.

- (a) The genitive pronoun is not followed by a non-zero case suffix (4.5.2.2.1).
- (b) The members of a given NP are individually case-marked (4.5.2.1.1), except for the genitive pronoun.

(4-118) is exceptional in that *yamba* 'camp' lacks a case suffix, i.e. the dative *-wo*. It is possible to say that here the dative suffix (*-(l)-go*) is attached not to the last word of the phrase (*warayi*), but to the phrase *yamba warayi* as a whole. In this respect, as far as this example is concerned, it is possible to say that here we are dealing with an enclitic (*-(l)=go*), and not a suffix. See 2.2.2-(b-2).

In all the examples given above, the genitive pronoun, *warayi* 'one's own', and *yamba* 'camp' are contiguous with each other (though their relative order is not fixed). In terms of the contiguity of the constituents (though not in terms of their relative order) (4.5.1-(b-1, b-2)), these NPs are configurational.

4.5.2.2.5. 'One's/this camp'

There are only two relevant examples at hand. The head noun is *yamba* 'camp', and the modifier is either the pronoun *yino* '2SG.GEN' or the demonstrative *yarro* 'this, here'. These NPs are attested in the DAT only, and no other case. Examples:

(4-119) *garrbala ngali-Ø yani-yal yamba yino-wo*. (AP)
tomorrow 1DU-NOM go-PURP camp 2SG.GEN-DAT
'We will go to your camp tomorrow.'

(4-120) *yarro-wo yamba jana-Ø yani-Ø*. (AP)
this-DAT camp 3PL-NOM come-NF
'They came to this camp.'

In (4-120), the demonstrative precedes the head noun, as is generally the case in Warrongo; see 4.5.2.1.3. In (4-119), the genitive follows the head noun, as is the case in 4.5.2.2.6 (Table 4-9), but in contrast with the relative order shown in 4.5.2.2.2 (Table 4-5) and also in contrast with the general tendency in Warrongo (4.5.2.1.3).

In these examples, the head noun and the modifier are contiguous with each other, although their relative order is not fixed. That is, in terms of the contiguity of the constituents (4.5.1-(b-1)), these NPs are configurational.

In the examples available of this type of NPs, the head noun is *yamba*, and no other noun is attested. As for the modifier, the pronoun *yino* '2SG.GEN' is attested. But it is not known if any other pronoun is acceptable here. Also, the demonstrative *yarro* 'this, here' is attested. But it is not known if the other demonstratives (*ngona* 'that, there' and *ngoni* 'there, that') are acceptable here. The modifier is in the DAT. It is not known if any other case is possible here.

Regarding (4-119) it is possible to say that here the dative suffix is attached not to the last word of the phrase (*yino*), but to the phrase *yamba yino* as a whole. Therefore, it is possible to say that here we are dealing with an enclitic (=wo), and not a suffix. See 2.2.2-(b-2). Similarly, regarding (4-120), it is possible to say that here the dative suffix is attached not to the first word of the phrase (*yarro*), but to the phrase *yarro yamba* as a whole. Again, it is possible to say that here we are dealing with an enclitic (=wo), and not a suffix. See 2.2.2-(b-3).

4.5.2.2.6. 'His/her father'

The NPs that consist of the noun *gaya* 'father' and the pronoun *nyongo* '3SG.GEN' as the modifier exhibit an unusual behaviour. First, the noun *gaya* 'father' always immediately precedes *nyongo* '3SG.GEN'. This is despite the general tendency for the head noun to be preceded by the genitive (and also adjective-like noun and demonstrative); see 4.5.2.1.3. Second, only *nyongo*, i.e. the last constituent of the NP, takes a case suffix, and *gaya* does not have any (non-zero) case suffix. Again, this

deviates from the general tendency for the constituents of a given NP to be case-marked individually (4.5.2.1.1). This unusual behaviour is observed in the combination of *gaya* ‘father’ and *nyongo* ‘3SG.GEN’ only, and it is not attested with any other noun or with any other pronoun.

Table 4-9. Cases of ‘his/her father’

	<i>gaya</i> ‘father’	<i>nyongo</i> ‘3SG.GEN’	example
NOM/ACC	<i>gaya</i>	<i>nyongo</i>	
ERG	<i>gaya</i>	<i>nyongo-n-do</i> (also AC)	(4-121)
LOC	<i>gaya</i>	<i>nyongo-n-da</i>	(4-122)
DAT	<i>gaya</i>	<i>nyongo-n-go</i>	(4-123)

The attested forms are given Table 4-9. (Note the existence of the linking interfix *-n*.) The NOM/ACC form is included, to make the table more complete. The ergative form *gaya nyongo-n-do* is attested in Alec Collins’ Warrongo as well as in Alf Palmer’s. Examples follow.

(4-121) *banjo-n gaya nyongo-n-do*. (AC)
 ask-NF father 3SG.GEN-LINK-ERG
 ‘His father asked [them].’

(4-122) *banda-n gaya nyongo-n-da*. (AP)
 emerge-NF father 3SG.GEN-LINK-LOC
 ‘[We] came out to his father.’

(4-123) *yama-nga-n nyola gaya nyongo-n-go*. (AP)
 so-TR-NF 3SG.ERG father 3SG.GEN-LINK-DAT
 ‘He told [it] to his father.’

(For *yama-nga-L* ‘tell’, see 4.7.2-[8].)

As seen above, the noun *gaya* ‘father’ and the pronoun *nyongo* ‘3SG.GEN’ are contiguous with each other, and furthermore their relative order is fixed. Therefore, these NPs are configurational in terms of both the contiguity and the relative order of the constituents (4.5.1-(b-1), -(b-2)).

Regarding (4-121) to (4-123) it is possible to say that here the case suffix in question is attached not to the last word of the phrase (*nyongo*), but to the phrase *gaya nyongo* as a whole. Therefore, it is possible to say that here we are dealing with enclitics (=do, =da, =go), and not suffixes. See 2.2.2-(b-2).

4.5.2.2.7. Additional examples

Consider the following conversation cited from a text.

(4-124) (A: ‘You and he are going to fight?’ B: ‘No. I will ask him.’)

B. *nyawa ngayá balga-lgo banjo-lgo.*
 NEG 1SG.ERG hit-PURP ask-PURP
 ‘I will not hit [him]. [I] will ask [him].’

A. *ngani-wo banjo-lgo?*
 what-DAT ask-PURP
 ‘What will [you] ask [him] for?’

B. *nyongo-n-go warrngo-wo.* (AP)
 3SG.GEN-LINK-DAT woman-DAT
 ‘[I will ask him] for his woman’, i.e. ‘I will ask him to give me his woman.’

Generally, *nyongo-n-go* is used as ‘third person singular dative’ (Table 3-6), e.g. (3-82), (3-83). (If this word is used as such, the above sentence will be translated as ‘[I will ask him] for her, for the woman’.) However, the context indicates that here *nyongo-n-go* modifies *warrngo-wo*, i.e. it has the genitive meaning and is followed by a further case suffix (the DAT). This use of *nyongo-n-go* is similar to that in (4-123). But it differs in that (i) the noun involved is *warrngo* ‘woman’, and not *gaya* ‘father’, (ii) the pronoun precedes, and not follows, the noun *warrngo* ‘woman’, and (iii) the noun is combined with the dative suffix. I suggested the following to Alf Palmer.

(4-125) *nyongo-wo warrngo-wo.* (TT, AP)
 3SG.GEN-DAT woman-DAT
 Intended meaning: ‘[I will ask him] for his woman.’

Alf Palmer approved it, and stated to the effect that it is the same as the last sentence of (4-124). This use of *nyongo-wo* is similar to that in (4-105) in that (i) the pronoun is combined with the DAT form and (ii) the pronoun precedes (and immediately precedes) the noun. But it differs in that the noun involved is *woman* ‘woman’, and not *yamba* ‘camp’.

4.5.2.2.8. Discussion and summary of configurational NPs

We have seen instances of configurational NPs. These NPs are exceptional in a number of respects.

[1] Restrictions on their formation

There are severe restrictions on the formation of these NPs.

As far as the attested examples are concerned, the head nouns are (i) only *yamba* ‘camp, house’ in 4.5.2.2.2 to 4.5.2.2.5, and (ii) only *gaya* ‘father’ in 4.5.2.2.6. (Also, there are two examples in which the head is *warrngo* ‘woman’.)

The modifier is (i) only a pronoun on in 4.5.2.2.2, 4.5.2.2.3, 4.5.2.2.6, (ii) only a pronoun and *warayi* ‘one’s own’ in 4.5.2.2.4, and (iii) only either a pronoun or a demonstrative in 5.5.2.2.5.

When a pronoun is a/the modifier, it may be only one of the three singular pronouns in 4.5.2.2.2 and 4.5.2.2.4, and, furthermore, only the singular ‘2SG’ in 4.5.2.2.5 and only the singular ‘3SG’ in 4.5.2.2.6. (In 4.5.2.2.3, a pronoun of any person and any number may possibly be acceptable.) When the modifier is a demonstrative, it is only *yarro* ‘this’ in 4.5.2.2.5.

The cases attested are (i) only DAT in 4.5.2.2.5, (ii) only LOC and DAT in 4.5.2.2.2, 4.5.2.2.3, 4.5.2.2.4, and (iii) only NOM/ACC, ERG, LOC and DAT in 4.5.2.2.6.

In 4.5.2.2.2, 4.5.2.2.3, 4.5.2.2.5, and 4.5.2.2.6, the GEN is unusual in that it takes an additional case suffix. (Nonetheless, as just noted, the range of cases it can take is limited, and severely limited except for in 4.5.2.2.6.)

The NPs in 4.5.2.2.5 and 4.5.2.2.6 are unusual in that the head noun is not case-marked. They deviate from the general tendency in Warrongo for members of an NP to be case-marked individually (4.5.2.1.1).

Specifically, in (4-119), (4-121) to (4-123), only the last member of the NP (the modifier) is case-marked. In (4-120), only the first member is case-marked. Here possibly we are dealing with enclitics, and not suffixes. (In languages such as Nganhcara of Cape York Peninsular (Smith and Johnson 2000: 421) and Warlpiri of Central Australia (Hale 1967) it seems common for the last constituent only of an NP to be case-marked. Gooniyandi of Western Australia (McGregor 1990: 173–174) has twelve postpositions that mark case, e.g. the ergative. They are ‘typically occur one per phrase’, being ‘attached to any word in the phrase’.)

[2] Configurationality

In terms of the two criteria for identifying configurationality proposed in 4.5.1 ((b-1) contiguity and (b-2) fixed relative order) the NPs discussed above are configurational to varying degrees:

- (a) 4.5.2.2.2, 4.5.2.2.6: configurational in terms of both (b-1) and (b-2).
- (b) 4.5.2.2.3, 4.5.2.2.4, 4.5.2.2.5: configurational in terms of (b-1) only.

There is no NP which is configurational in terms of (b-2) only.

The configurational NPs are exceptional among the NPs of Warrongo. The vast majority of the NPs are not configurational.

[3] We have seen that the configurational NPs are exceptional in a number of respects. The cause for the existence of these exceptional NPs is not known. It is possible that their formation was productive previously but that, during the process of language obsolescence, it became non-productive, leaving these exceptions as the only remnants. However, it is also possible that these NPs were exceptions even when the language was fully thriving; every language is full of irregularities. It is also tempting to suggest (although there is no evidence for this) that configurationality was emerging in Warrongo, initially in these exceptional NPs only. It would have been fascinating to see if configurationality would spread to other areas of the language.

4.5.3. Adverb phrases

The following types of adverb phrases can be set up.

[1] Adverb phrases consisting of one or more adverbs.

[2] Those consisting of an adverb and a noun in the LOC or the DAT.

That is, an adverb phrase contains at least one adverb.

[1] Adverb phrases consisting of one or more adverbs, e.g. (4-3) to (4-5) (*wayi* 'question'), (4-6) (*ganba-mara* 'long ago'), (4-8) (*ngoni* 'there'), (4-9) (*wanyja-rro* 'to where'), (4-14) (*wanyja-n-da* 'where'), (4-34) (*ngalnga* 'prohibition'), (4-59) (*gonda-gonda* 'last night'), (4-64) (*ngoni-n-da golbila* 'there in the south'), (4-84) (*gonggarri* 'in the north'), (4-90) (*yarro-n-da* 'here'), (4-110) (*nyila=gol* 'today for the first time'), (4-172) (*ngoni gonggarri-ngal* 'there north-to').

[2] Adverb phrases which consist of an adverb and a noun in the LOC or the DAT, e.g. (3-53) (*gamo-ngga birri* 'water-LOC near'), (4-81) (*ngoni yamba-ngga* 'there camp-LOC'), (4-126) (*mongan-go ngarra*), (4-491) (*nyila gonda-ngga* 'today night-LOC', i.e. 'tonight'). (Presumably a pronoun in the locative or the dative, too, can be used in this way, although there is no example.)

(4-126) *ngaya mongan-go ngarra yani-Ø*. (TT)
 1SG.NOM hill-DAT up go-NF
 'I went up to the hill.'

Adverbs of place/direction/destination and those of time can take the LOC suffix or the DAT suffix (3.4.3), and such a case-marked adverb can occur with a noun with

an appropriate case suffix, e.g. (3-54) (*gamo-ngga birri-ngga* ‘water-LOC near-LOC’), and Text 2, Line 36 (*gana-ngga yamba-ngga* ‘inside-LOC house-LOC’).

An adverb with an adverb-stem-forming suffix (3.8.1), e.g. *-rri* ‘to’, *-rro* ‘to’, *-ngal* ‘to’, and *-mali* ‘on or to side of ...’, can occur with a noun in the LOC or the DAT, e.g. (3-52) (*jolany-ja golma-mali* ‘tree-LOC behind-side’, i.e. ‘behind a tree’), and (3-291) and (4-607-a) (*malan-da goyay-ngal* ‘creek-LOC across-to’, i.e. ‘across a river’).

[3] The members of an adverb phrase tend to be contiguous, e.g. (3-52) to (3-54), (4-96), Text 2, Line 36, but they may be discontinuous, e.g. (3-291), (4-607-a). In the adverb phrases of [2], the adverb tends to follow the noun, e.g. (3-52) to (3-54), (3-291), (4-96), but it may precede, e.g. Text 2, Line 36. In terms of the two criteria for identifying configurationality – (b-1) contiguity and (b-2) fixed relative order (4.5.1) – the adverb phrases are non-configurational in both respects. They do not constitute phrases in a rigid sense.

[4] Noun phrases

Nouns and pronouns in the ABL-1 case may modify another noun, agreeing in terms of case (3.6.7). They are regarded as modifiers of the noun, and they are not considered as adverb phrases. The same applies to the nouns and pronouns in the COM case (3.6.8). This is despite the fact that, semantically, the ABL-1 (‘from, after’) and the COM (‘with’) may have a meaning similar to that of adverb phrases.

Similarly, phrases consisting of two or more nouns and/or pronouns in the LOC or the DAT may semantically look similar to adverb phrases. Consider, e.g. (4-53) (*jarribara-ngga yamba-ngga* ‘good-LOC camp-LOC’, i.e. ‘in a good camp’), (4-990-a) (*yarro-wo yamba-wo jarribara-wo* ‘this-DAT camp-DAT good-DAT’, i.e. ‘to this camp’). Nonetheless, since they do not contain any adverb, they are not considered as adverb phrases. They are regarded as NPs. (In terms of the classification of the constituents of clauses (4.4), they are adjuncts, and not arguments.)

4.5.4. Verb phrases

It is useful to set up the following two types of verb phrases.

- (a) Verb phrases consisting of two verbs (4.5.4.1).
- (b) Those consisting of (i) a verb and (ii) a noun or adverb (4.5.4.2).

Verb phrases of (a) are not configurational. They do not constitute a phrase in a rigid sense. However, a number of verb phrases of (b) seem to be configurational, constituting phrases in a rigid sense. In this respect, too (in addition to the configurational NPs, discussed in 4.5.2.2) Warrongo seems to be configurational.

4.5.4.1. Verb phrases consisting of two verbs

There are two types of verb phrases: (i) those containing an intransitive verb formed with the intransitive-stem-forming suffix *-bi-L* and (ii) those containing a transitive verb formed with the transitive-stem-forming suffix *-nga-L* or *-(m)ba-L*. A verb formed by one of these suffixes often occurs with another verb and provides a wide range of semantic modifications. The two verbs agree in terms of transitivity (to be precise, surface-transitivity) and the conjugational category (e.g. non-future).

[1] Verb phrases containing a verb formed with *-bi-L* 'INTR' (see 4.7.1 for details.) Examples include the following. The meaning that the verb with *-bi-L* provides, is indicated in the parenthesis: (3-263), (3-264) (manner) (the antipassive verb *maygagali-ya* 'tell-ANTIP-IMP' is surface-intransitive; see 4.9.2); (3-337-b), (4-127), (4-128) (manner); (4-129) (time: duration); (4-130), (4-131) (time: 'until'); (4-132) (frequency: time(s)); (4-133) (direction); (4-134) (manner); (4-150) (destination); (4-258) (manner); and (4-992-A) (manner).

(4-127) *ngaya yama-bi-n yaji-garra-n.* (AP)
1SG.NOM so-INTR-NF laugh-ITER-NF
'I did so, laughed', i.e. 'I laughed like this/that'.

(4-128) *nyola magan-bi-n wola-n.* (AP)
3SG.NOM false-INTR-NF die-NF
'He did falsely, died', i.e. 'He pretended to be dead'.

(4-129) *ngona-n-da ngali-Ø nyina-n woga-goman-bi-n.* (AP)
there-LINK-LOC 1DU-NOM stay-NF asleep-another-INTR-NF
'There we stayed, did another sleep', i.e. 'We stayed there another night.'

(4-130) (There was a big fight.)
jana-Ø balga-wa-n jidal-go-bi-n. (AP)
3PL-NOM hit-RECP-NF morning-DAT-INTR-NF
'They hit each other [i.e. fought] until the morning.'

(The reciprocal verbs (*-wa-Y*) are surface-intransitive. See 4.12.)

(4-131) *yarro ngali-Ø nyina-ya garrbala-bi-ya.* (AP)
here 1DU-NOM stay-IMP tomorrow-INTR-IMP
'Let's stay here until tomorrow.'

(4-132) *ngona-n-da ngali-Ø wona-yal bolari-ngal-bi-yal.* (AP)
there-LINK-LOC 1DU-NOM lie-PURP two-time-INTR-PURP
'We will lie [i.e. sleep] there twice [i.e. for two nights].'

(*Bolari-ngal* means 'twice' See 3.8.1-[8] for the adverb-stem-forming suffix *-ngal* 'frequency: time(s)').

- (4-133) *wanyja-rri-bi-yal ngali-Ø yani-yal?* (AP)
 which.way-INTR-PURP 1DU-NOM go-PURP
 ‘Which way shall we go?’

(*Wanyja* means ‘where’, and *wanyja-rri* means ‘which way’ (direction) in (4-133), and ‘in what way’, ‘how’ (manner) in (4-134). See 3.8.1-[1] for the adverb-stem-forming suffix *-rri*.)

- (4-134) *wanyja-rri-bi-n nyola nyina-n?* (AP)
 how-INTR-NF 3SG.NOM sit-NF
 ‘How is he sitting?’

[2] Involving a transitive verb formed with *-nga-L* (see 4.7.2 for details) or *-(m)ba-L* ‘TR’ (see 4.7.3 for details.)

(a) Examples involving a transitive verb with *-nga-L* include the following: (4-135), (4-136) (content of speech); (4-137), (4-138) (manner); (4-139) (destination); (4-140) (manner); (4-141) (frequency: time(s)); (4-142) (consequence/result observed in the referent of the O NP, i.e. causation); (4-143) (the number of the referents of the O NP); (4-185) (causation); and Text 2, Lines 24, 30 (manner).

- (4-135) *ngaya nyonya mayga-n yama-nga-n.* (AP)
 1SG.ERG 3SG.ACC tell-NF so-TR-NF
 ‘You should do so, should tell’, i.e. ‘You should tell [him] so.’

- (4-136) *ngaya nyonya magan-nga-n mayga-n.* (AP)
 1SG.ERG 3SG.ACC false-TR-NF tell-NF
 ‘I did falsely, told her’, i.e. ‘I told her a lie’.

- (4-137) (‘I tried to spear a kangaroo, but I failed, because:’)
walwa-nga-n ngaya banggay-Ø goyba-n. (AP)
 bad-TR-NF 1SG.ERG spear-ACC throw-NF
 ‘I did badly, threw the spear’, i.e. ‘I did not throw the spear properly.’

- (4-138) *yarro-Ø ngani-nga-lgo yinda moja-lgo?* (AP)
 this-ACC what-TR-PURP 2SG.ERG eat-PURP
 ‘You will do what with this, eat?, i.e. ‘How are you going to eat this?’

- (4-139) *wanyja-nga-n nyola ganyji-n?* (AP)
 where-TR-NF 3SG.ERG carry-NF
 ‘Where did he carry [it] to?’

(*Wanyja-nga-L* means ‘do to where’ in (4-139), and ‘do how’ in (4-140) and Text 2, Lines 24, 30.)

(4-140) (Alf Palmer asked me how to read Japanese writing.)

wanyja-nga-n gogo-Ø birri-n? (AP)

where-TR-NF language-ACC send-NF

Lit. 'Where do [you] send the language?'

(This sentence seems intended to mean 'How do you read the language?')

(4-141) *nyon.go-do-nga-n ngaya wona-ri-n* (AP) [TT *nyonya*]
 one-ERG-TR-NF 1SG.ERG lie,sleep-APPL-NF [3SG.ACC]
 'I did once, slept with [her]', i.e. 'I slept with her once.'

(The root for the noun 'one' is *nyon.gol*. For the formation of its ergative form, see *jambal* 'snake' in Table 3-2. This ergative form seems to mean 'time(s)'. See 3.6.2-[3]. *Wona-ri-L* is a locative verb and it is surface-transitive (4.14.2).)

(4-142) *ngaya nyonya balga-l-go gowoy-nga-lgo.* (AP)
 1SG.ERG 3SG.ACC hit-PURP male.ghost-TR-PURP
 'I will hit him, make [him] a male.ghost', i.e. 'I will kill him'

(4-143) ('We need helpers for the fight.')

bolari-nga-Ø ngali-Ø ganyji-ya golmbal-Ø. (AP)
 two-TR-IMP 1DU-ERG take-IMP helper-ACC
 'Let's do two, take helpers', i.e. 'Let's take two helpers.'

There are a fair number of corresponding (or nearly corresponding) pairs consisting of a verb with *-bi-L* 'INTR' and a verb with *-nga-L* 'TR': For example, (i) involving the adverb *yama* 'thus': (4-127) (*yama-bi-L*) and (4-135) (*yama-nga-L*), (ii) involving the noun *magan* 'false': (4-128) (*magan-bi-L*) and (4-136) (*magan-nga-L*); and (iii) involving the adverb *wanyja* 'where' or *wanyjarri* 'which way, how': (4-133), (4-134) (*wanyjarri-bi-L*) and (4-139), (4-140) (*wanyja-nga-L*).

(b) There are only a few examples of a verb with *-(m)ba-L* modifying another verb, e.g. (4-213).

[3] Word order within a verb phrase containing a verb with *-bi-L*, *-nga-L* or *-(m)ba-L*
 As mentioned above, there are only a few examples of *-(m)ba-L* modifying another verb, and they will be excluded from the following discussion.

If the verb with *-bi-L* or *-nga-L* is an interrogative verb, then it generally occurs sentence-initially, e.g. (4-7), (4-134), (4-138), (4-139). But this is not always the case, e.g. (4-138). (As noted in 4.2.1.2-[2], an interrogative word tends to occur sentence-initially.) The interrogative verb tends to be discontinuous with the other verb, although this is not always the case.

Where the verb with *-bi-L* or *-nga-L* is not an interrogative verb, it may be contiguous or discontinuous with the verb it modifies, and their relative order is not fixed.

In terms of the two criteria for identifying configurationality – (b-1) contiguity and (b-2) fixed relative order (4.5.1) – verb phrases consisting of two verbs are non-configurational. They do not constitute a phrase in a rigid sense.

[4] There are a few pairs in which an adjective-like noun can be used (i) in a verbalized form and (ii) as a noun. In the available pairs of examples, the verbalized forms involve *-nga-L* ‘TR’, and the verb modifies another transitive verb. When used as a noun, the adjective-like noun is in the ERG and modifies the head noun (also in the ERG). For example, compare (4-144) with (4-145); (4-146) with (4-147); and (4-136) with (4-148).

(4-144) *yinda mori-nga-n moga-n.* (AP)
 2SG.ERG greedy,tight-TR-NF hold-NF
 ‘You are holding [it] tightly [or jealously] [lest you lose it].’

(4-145) *yinda mori-nggo moga-n.* (AP)
 2SG.ERG greedy-ERG hold-NF
 ‘(As above.)’

(4-146) *ganyji-ya yinda warayi-nga-Ø.* (AP)
 carry-IMP 2SG.ERG one’s.own-TR-IMP
 ‘Carry your own [thing].’

(4-147) *warayi-do nyola ganyji-n.* (AP)
 one’s.own-ERG 3SG.ERG carry-NF
 ‘He carried his own [thing].’

(Alf Palmer’s translation for (4-147) is ‘Owner carried’.)

(4-148) *bama-nggo magan-do mayga-n.* (AP)
 man-ERG dishonest-ERG tell-NF
 ‘The dishonest man told’, i.e. ‘The man told a lie.’

As these examples show, the transitive verb with *nga-L* and the adjective-like noun in the ERG seem to have much the same meaning.

4.5.4.2. *Verb phrases consisting of a verb and a noun or adverb*

[1] Verb phrases consisting of a verb and a noun

At least the following combinations may be regarded as verb phrases consisting of a verb and a noun.

(a) *woga-Ø wona-Y* ‘asleep-NOM lie (Vi)’, i.e. ‘sleep’, e.g. (3-2).

(b) *goli-Ø waga-L* ‘angry-NOM rise (Vi)’, i.e. ‘get angry’, e.g. (3-8), (4-149).

(c) *goli-yi-Ø waga-L* ‘angry-COM-NOM rise (Vi)’, i.e. ‘get angry’, e.g. (3-94).

(d) *goyi-Ø wola-Y* ‘hungry-NOM die (Vi)’, i.e. ‘be dying for [food-DAT]’

(4-149) *goli-Ø ngaya waga-n.* (AP)
 angry-NOM 1SG.NOM rise-NF
 ‘I got angry.’

In these combinations, generally the noun and the verb phonologically constitute a unit. They have one intonation contour. They have only one main stress, rather than two, and it falls on the first syllable of the first word. Semantically, they seem to constitute a unit. Syntactically, in the examples available, the two words are always contiguous and the noun always immediately precedes the verb, with at least one exception. That is, *goli-Ø* ‘angry-NOM’ always precedes *waga-L* Vi ‘rise, get up’, and furthermore they are almost always contiguous, e.g. (3-8). However, in just one example, i.e. (4-149), they are not contiguous.

These verb phrases are configurational (in terms of both contiguity and fixed order) and they constitute phrases in a rigid sense, except for (3-149).

[2] Verb phrases consisting of a verb and an adverb

(a) *Wonaja wona-Y* ‘camp out’. The adverb *wonaja* ‘camping out’ and the intransitive *wona-Y* ‘lie’ seem to be configurational (in terms of contiguity and fixed order), constituting a phrase in a rigid sense. See (3-16).

(b) Crosslinguistically, ‘directionals’ seem often (or generally?) to occur next to the verb (cf. Foley and Van Valin 1984: 212). In Warrongo, too, adverbs of direction/destination are almost always contiguous with the verb, e.g. (3-291) (*goyay-ngal* ‘across-to’ immediately follows the verb), (4-177) (*ngarra* ‘up’ immediately follows the verb), and Text 1, Line 16 (*gola* ‘upstream’ immediately follows the verb). Among adverbs of direction/destination, *golmi* ‘back’ and *gani* ‘far, away’ need to be commented on separately.

Golmi ‘back’ is almost always contiguous with a verb and it immediately precedes it. (In contrast, the adverbs mentioned in the preceding paragraph follow, and not precede, the verb.) There are numerous examples, e.g. (3-249), (3-314), (4-49), (4-97), (4-103), (4-114), (4-116). Most of them involve *yani-* Vi ‘go, come’. Note that (4-150) contains two verbs, but that it still conforms to the generalization that *golmi* ‘back’ is contiguous with a verb and immediately precedes it. (*Jolgi-wo-bi-n* and *yani-Ø* constitute a verb phrase (4.5.4.1). They in turn form a verb phrase with *golmi*.)

(4-150) *ngali-Ø golmi jolgi-wo-bi-n yani-Ø.* (AP)
 1DU-NOM back scrub-DAT-INTR-NF go-NF
 ‘We went back to the scrub.’

However, there is one instance in which *golmi* is contiguous with a verb, but it follows, and not precedes, it.

(4-151) (An example cited from a text. ‘I warned them that my people are waiting to kill people’)

bola-Ø wadali-n (fall)/ golmi yamba-wo (fall) / wanba-lji (fall). (AP)
 3DU-NOM run-NF back camp-DAT be.afraid-STAT
 ‘They-two ran back to [their] camp. [They] were frightened.’

(A slash indicates a pause. ‘Fall’ means a falling intonation. In (4-151), *wadali-n* and *golmi* do not form one single intonation contour. It is not known if this explains the reason why *golmi* follows the verb.)

The adverb *gani* ‘far, away’ immediately precedes a verb in all the examples available, e.g. *gani goyba-L* in (4-152) and Text 2, Line 47.

(4-152) (‘I ate the meat, but I did not eat the bones.’)

ngaya balban-Ø gani goyba-n. (AP)
 1SG.ERG bone-ACC far throw-NF
 ‘I threw the bones away’

(*Gani goyba-L* can mean ‘throw [something] far’, but it seems to mean ‘discard’ in (4-152) and Text 2, Line 47.)

To sum up, adverbs of direction/destination are almost always contiguous with a verb, and in terms of contiguity, such an adverb and a verb are configurational. Furthermore, (in the examples available) *gani* ‘far, away’ and a verb are always contiguous and their relative order is fixed. They are configurational in terms of both contiguity and fixed order. They constitute a phrase in a rigid sense. Also, *golmi* ‘back’ and the verb, too, are almost always configurational in terms of both contiguity and fixed order, constituting a phrase in a rigid sense, except for (4-151).

4.6. Order of constituents

The order of constituents (cf. Greenberg 1978) can be discussed in terms of words (4.6.1), phrases (4.6.2), clauses (4.6.3), and sentences (4.6.4). (The following discussion is largely repeated from Tsunoda 1990.)

4.6.1. Constituent order in words

Warrongo has numerous suffixes, but it has no prefix. Compound words exhibit the following order.

- (a) Compound nouns
 (a-1) Noun-Noun, Noun-Adjective, Noun-Numeral, Numeral-Numeral, Noun-Adverb (3.7.3-[1]).
 (a-2) Noun(S, NOM)-Vi i.e. SVi (3.7.3-[2]), e.g. (1-3) through (1-7).
 (a-3) Noun(NOM)-Noun(S, NOM)-Vi i.e. NOM-plus-SVi (3.7.3-[2]), e.g. (1-2).
 (a-4) Noun(A, ERG)-Noun(O, ACC)-Vt i.e. AOVt (3.7.3-[2]), e.g. (1-1).
 (a-5) Noun(O, ACC)-Vt i.e. OVt (3.7.3-[2]), e.g. (3-181), (3-182).
- (b) Compound verbs
 Noun(O(?), ACC(?))-Vt i.e. O(?)Vt (3.11.3)

A compound noun of (a-2) corresponds to an intransitive clause of 'SVi'. (a-3) contains a noun in the NOM in addition to the S (NOM), but its function does not seem to be the S. (There is only one compound noun of this type.) (a-4) corresponds to a transitive clause. (There is only one compound noun of this type.) (a-5), too, corresponds to a transitive clause, except that it lacks a noun in the ERG.

However, the same may not apply to (b): compound verbs. (They were listed in 3.11.3.) It looks as if they contain an O NP (in the ACC) and that consequently they each correspond to a transitive clause, except that they lack an A noun (in the ERG). However, as mentioned in 3.11.3, it is difficult to set up a corresponding transitive clause for them, in contrast with (a-2) to (a-5), each of which has a corresponding clause. That is, these compound verbs do not seem to correspond to any clause.

There is a crosslinguistic tendency observed in compounds consisting of a noun and a verb (cf. Comrie 1978b: 337): O > S > A, whereby O is the easiest to compound with a verb, followed by S, with A being the most difficult to compound with a verb. Compound nouns of Warrongo (though not compound verbs) conform to this tendency.

Now, if we are to set up an underlying level for Warrongo at which the compounding rule applies, then this language will have the orders shown in (a-1) through (a-5) at this putative level. (Compound verbs are excluded.)

Table 4-10. Head and dependent

	head	dependent	
NPs	noun	adjective	(a-1)
	noun	numeral	(a-1)
clauses	Vi	S	(a-2), (a-3)
	Vt	A, O	(a-4), (a-5)

According to the widely accepted head-vs.-dependent dichotomy (see Nichols 1986: 57), the noun is the head, while the adjective and numeral are dependents. The verb (Vi or Vt) is the head, while the A, O, and S are dependents. See Table

4-10. Then, at the putative level where compounding applies, Warrongo will have the following orders.

- (a) 'Head-first' order in (a-1), i.e. in noun phrases.
- (b) 'Head-last' order in (a-2) through (a-5), i.e. in clauses. (The verb is compound-final.)

That is, there is a discrepancy between these NPs and clauses in terms of the order of head and dependent, as far as this putative level is concerned.

My typological survey of constituent orders in 130 languages (Tsunoda 1991: 266–290) looks at the surface level, and not at any underlying level. Among these languages, only Slavey (North America) has exactly the same orders (at the surface level) as in Warrongo (at the 'compounding' level), i.e. noun-adjective, noun-numeral, SVi, and AOVt. The following ten languages, too, have these orders, but they allow some other order(s) in addition to SVi and AOVt: Mizo (India), Diyari (Australia), Omaha-Ponca, Hualapai, Navajo, Eastern Pomo, Choctaw, Chickasaw, Dakota, and Yuchi (all North America). That is, roughly speaking, about 10% of the languages surveyed have noun-adjective, noun-numeral, SVi, and AOVt (and some other order(s)), at the surface level. That is, the discrepancy in Warrongo noted above – between noun phrases and clauses at the 'compounding level' – is crosslinguistically not uncommon at the surface level.

4.6.2. Constituent order in phrases

The order of constituents in phrases was already discussed: noun phrases in 4.5.2, adverb phrases in 4.5.3, and verb phrases in 4.5.4. In NPs, the numeral follows the noun proper more frequently than it precedes. This tendency conforms to the order of the noun proper and the numeral in a compound noun: (a-1) in 4.6.1. However, the adjective-like noun precedes the noun proper more frequently (as do the genitive and the demonstrative). This tendency does not conform to the order of the noun proper and the adjective in compound nouns: again (a-1). That is, the relative order of the noun proper and the adjective-like noun in a compound noun does not match the more frequent order of these two constituents at the surface level.

4.6.3. Constituent order in clauses

4.6.3.1. *Introductory notes*

Clauses of Warrongo can be classified into the following three types, in terms of the dichotomy of simple-vs.-complex sentences (cf. 4.2.3).

- (a) The only clause in a simple sentence, i.e. an independent clause.
- (b) The main clause of a complex sentence.
- (c) Subordinate clause(s) of a complex sentence.

We shall exclude subordinate clauses from the following discussion. The reasons for this are as follows. As mentioned in 1.1 and 4.1, Warrongo discourse is highly elliptical. Furthermore, an NP in subordinate clauses is often deleted under coreferentiality with an NP of the main clause; see 4.8.4, in particular. Consequently, subordinate clauses consist of even fewer constituents than independent clauses and main clauses, and this makes it extremely difficult to investigate the order of their constituents.

We shall look at the following types of clauses: independent clauses and main clauses that are used as affirmative declarative sentences (4.6.3.2), and clauses that are used as imperative sentences (4.6.3.3).

The constituent order in clauses that are used as interrogative sentences was already discussed in 4.2.1.2. Recall in particular that the question marker *wayi* in general questions and interrogative words in special questions tend to occur initially.

Clauses that are used as negative sentences generally involve an adverb for negation, such as *nyawa* 'negation', *ngalnga* 'prohibition' or some other adverb which has some kind of negative sense (4.2.2.). Unlike *wayi* 'question', the position of these adverbs is difficult to generalize about. Examples are given in 4.24-[2], -[3], -[10], -[11].

4.6.3.2. *Constituent order in those independent clauses and main clauses which are used as affirmative declarative sentences*

As stated in 1.1 and 4.1, word order in Warrongo is fairly free, and it is very difficult to generalize about. Nonetheless, we shall look at the order of the A NP, the O NP, and the S NP in clauses that contain a verb. This is partly in view of the attention that has been paid to the order of these constituents in typological studies (cf. Greenberg 1978). We shall exclude other arguments and also adjuncts (cf. 4.4) from the following discussion.

As we saw in 4.5.2 (noun phrases), in 4.5.3 (adverb phrases), and in 4.5.4 (verb phrases), the constituents of what are labelled 'phrases' in the present work may not be contiguous. This makes it often difficult to decide the order of phrases within clauses. We shall exclude from the following discussion those clauses that contain a phrase whose constituents are discontinuous. We shall look at only those clauses in which (i) phrases consist of one word each and/or (ii) the constituents of each phrase are contiguous. We shall first look at intransitive clauses, followed by transitive clauses. (The statistical data provided below are based on the texts in Tape 72/31 – about 30 minutes in duration.)

[1] Intransitive clauses

The orders attested (in the texts of Tape 72/31) and the numbers of their examples are as follows.

(a) SVi:	167 examples	(57%)
(b) Vi:	99 examples	(34%)
(c) ViS:	26 examples	(9%)

(As noted above, the other arguments and adjuncts are excluded from consideration.) Between (a) (SVi) and (c) (ViS), (a) is by far the more frequent, and (a) may be considered unmarked. In elicitation, too, (a) is the usual order. Examples of (a), (b) and (c) in Text 2 (Tape 72/28) follow. (a): Lines 1, 2, 6, (b): Line 8, and (c): Line 12. (The present work contains three texts; they follow the main text. Text 2 is an excerpt from Tape 72/28.)

As noted in 4.6.1, compound nouns that consist of a noun in the nominative (the S) and an intransitive verb have the order of SVi. This order matches the unmarked order of (a) (SVi).

[2] Transitive clauses

The orders attested (in the texts of Tape 72/31) and the numbers of their examples are as follows.

(a) Vt:	56 examples	(24%)
(b) AOVt:	46 examples	(20%)
(c) AVt:	42 examples	(18%)
(d) OVt:	29 examples	(13%)
(e) OAVt:	19 examples	(8%)
(f) AVtO:	16 examples	(7%)
(g) VtA:	8 examples	(3%)
(h) VtAO:	7 examples	(3%)
(i) OVtA:	5 examples	(2%)
(j) VtO:	4 examples	(2%)
(k) VtOA:	no example	(0%)

(Other arguments and adjuncts are excluded from considerations.) All of the six logically possible combinations of A, O and Vt (i.e. AOVt, AVtO, OAVt, OVtA, VtAO, VtOA) are attested in the texts of Tape 72/31 – except for (k). But this order is attested elsewhere in the texts. Among these six orders, (b) (AOVt) is the most frequent, followed by (e) (OAVt), (f) (AVtO), (h) (VtAO), and (i) (OVtA), in this order.

Of these six orders, in the two most frequent orders, i.e. (b) (AOVt) and (e) (OAVt), Vt follows A and O. In the two least frequent orders, i.e. (i) (OVtA) and (k) (VtOA), A follows O and Vt. In the two orders in between, i.e. (f) (AVtO) and (h) (VtAO), O follows A and Vt.

Examples (not necessarily from Tape 72/31) include the following. (a) (Vt): (3-9-a, -b), (3-137). (b) (AOVt): (3-30), (3-31), (3-34) to (3-36). (c) (AVt): (3-48), (3-73), (3-101), (3-150). (d) (OVt): (3-9-c, -d, -e), (3-56), (3-64). (e) (OAVt): (3-44), (3-57), (3-102),

(3-113), (3-114). (f) (AVtO): (3-28), (3-47), (3-83), (3-110), (3-124). (g) (VtA): (4-64), (4-121), (4-123). (h) (VtAO): (3-116), (4-73), (4-91). (i) (OVtA): (3-29), (3-33), (4-153). (j) (VtO): Text 3, Line 23. (k) (VtOA): (4-154), (4-155).

(4-153) ('My wife and I were travelling.')

waybala-Ø nyaga-n nyola. (AP)
white.man-ACC see-NF 3SG.ERG
'She saw a white man.' (OVtA)

(4-154) (A conversation cited from a text. Person A: 'My father gave me this woman.')

B. *nyawa, yobaynga-n yarro-Ø yinda.* (AP)
NEG steal-NF this-ACC 2SG.ERG
'No, you stole this [woman].' (VtOA)

(4-155) ('I found a honeycomb on a tree. I cut the tree down, and:')

woda-n jangal-Ø ngay. (AP)
take.out-NF honey-ACC 1SG.ERG
'I took the honey out [of the honeycomb]' (VtOA)

As noted above, among the six logically possible orders, (b) (AOVt) is the most frequent. In elicitation, too, AOVt is the usual order. For transitive clauses, AOVt may be considered the unmarked order. Also, this is the order that is observed in the compound noun of (a-4) (AOVt), discussed in 4.6.1. Here again, the order in the compound noun matches the most frequent order (among the six logically possible orders).

[3] Discussion

(a) Non-configurationality at the clause level

As seen above, the relative order of the S and Vi, and also that of the A, O and Vt are not fixed. (The same applies to the relative orders that include other arguments and adjuncts, although they were not discussed above.) Furthermore, as seen in 4.5.2 (noun phrases), 4.5.3 (adverb phrases) and 4.5.4 (verb phrases), the constituents of a given phrase may be discontinuous (except for a small number of phrases that are configurational). That is, Warrongo is non-configurational at the clause level.

(b) Conditioning factors for the order of the constituents

It has proved extremely difficult to determine factors that may condition the relative order of the constituents – of independent clauses and main clauses that are used as affirmative declarative sentences. For example, an examination of their order in terms of the following factors has not produced any significant result: (i) given-vs.-new, (ii) topic-vs.-comment, and (iii) focus. Nonetheless, there is at least one factor that seems to influence their relative order, namely, repetition of the verb.

In the texts, a verb is often repeated to indicate the prolongation of an activity. This is more frequent involving an intransitive verb than involving a transitive verb. Examples involving an intransitive verb include the following. The verb is repeated four times, five occurrences in all, in (4-156); repeated five times, six occurrences in all, in (4-157); repeated five times, six occurrences in all, in (4-712-a).

(4-156) *ngali-Ø yani-Ø yani-Ø yani-Ø yani-Ø yani-Ø.*
 IDU-NOM go-NF (AP)
 ‘We went on and on and on.’ (SViViViViVi)

(4-157) *ngana-Ø nyina-n nyina-n nyina-n nyina-n nyina-n nyina-n.* (AP)
 IPL-NOM sit-NF
 ‘We kept sitting [there]’ (SViViViViViVi)

Other examples include the following.

Text 1, Line 54: *yodi-n* ‘swim-NF’ is repeated twice (i.e. occurs three times). *ngaba-garra-n* ‘bathe-ITER-NF’ is repeated once (i.e. occurs twice).

Text 2, Line 2: *yani-Ø* ‘go-NF’ is repeated once (two occurrences in all).

Text 2, Line 12: *nyina-y* ‘sit-NF’ is repeated once (two occurrences in all).

Text 3, Line 10: *nyina-n* ‘sit-NF’ is repeated twice (three occurrences in all).

The intransitive verb involved is often, though not always, *yani-* ‘go, come’, e.g. (4-157), (4-712-a), and Text 2, Line 2. The verb involved is always (?) in a nonfuture form: the nonfuture-3 (-Ø) for *yani-* ‘go, come’, e.g. (4-156), (4-712-a), Text 2, Line 2, and generally the nonfuture-1 (-n) for other verbs, e.g. (4-157). Text 2, Line 12 is an exception: the nonfuture-2 (-y) is used.

The examples above start with SVi. Furthermore, there are instances which start with ViS (not SVi) and in which the verb is repeated. That is, the sentence has the form ‘ViSVi(Vi...)’. Again, the verb involved is often, though not always, *yani-* ‘go, come’ Examples:

(4-158) (‘I was traveling.’)
yani-Ø ngaya-Ø yani-Ø yani-Ø yani-Ø yani-Ø. (AP)
 go-NF 1SG.NOM
 ‘I went on and on and on.’ (ViSViViViVi)

(4-159) *nyina-n ngaya nyina-n nyina-n nyina-n.* (AP)
 sit-NF 1SG.NOM
 ‘I sat for a long time.’ (ViSViViVi)

Another example is Text 3, Line 21 (*balga-wa-n* ‘hit-RECP-NF’): ViSViViVi. (Reciprocal verbs are surface-intransitive (4.12.1).)

So far we have looked at repetition of intransitive verbs. We turn now to transitive verbs. There are indeed instances in which a transitive verb is repeated. But,

as noted above, this repetition is less frequent involving a transitive verb than involving an intransitive verb. The transitive verb involved is often, though not always, *jaynyja-L* ‘copulate with’. The verb is always (?) in the nonfuture-1 form (-*n*). Examples:

(4-160) *ngaya nyonya jaynyja-n jaynyja-n*
 1SG.ERG 3SG.ACC copulate.with-NF
jaynyja-n jaynyja-n jaynyja-an. (AP)
 ‘I kept making love to her.’ (AOVtVtVtVt)

(4-161) (‘I entered a scrub, and found a tree I wanted.’)
jolay-Ø ngaya jingga-n jingga-n jingga-n. (AP)
 tree-ACC 1SG.ERG punch-NF
 ‘I hit the tree [with a stone?] repeatedly.’ (OAVtVtVt)

(*Jingga-L* means ‘punch’, ‘hit with the fist, a stone, etc.’)

(4-162) *galnga-na-nya ngaya mayga-n mayga-n.* (AP)
 MB-KIN-ACC 1SG.ERG tell-NF
 ‘I kept telling my uncle.’ (OAVtVt)

(4-163) (‘I found a possum.’)
ngaya baygo-n baygo-n. (AP)
 1SG.ERG bash-NF
 ‘I bashed and bashed [it on the trunk of a tree].’ (AVtVt)

Another example is (4-751-a) (*jaynyja-n* ‘copulate.with-NF’): AVtVtVt.

The examples cited above start with the A or the O. There are a small number of instances which start with the Vt (more specifically the order is VtAO) and in which the verb is repeated. That is, the sentence has the form ‘VtAOVt(Vt...),’ e.g. (164), (4-165). Again, the verb involved is often, though not always, *jaynyja-L* ‘copulate with’: (4-164).

(4-164) *jaynyja-n ngaya nyonya jaynyja-n jaynyja-n jaynyja-n*
 copulate.with-NF 1SG.ERG 3SG.ACC
jaynyja-n. (AP)
 ‘I kept making love to her.’ (VtAOVtVtVtVt)

(4-165) (This sentence describes a technique for tracking down a possum; see 1.5.8-[9].)
boya-n ngaya boyan boya-n. (AP)
 blow-NF 1SG.ERG
 ‘I kept blowing at [the trunk of a tree].’ (VtAVtVt)

Consider Table 4-11, which concerns intransitive clauses that occur in the texts of Tape 72/31. Table 4-11 shows the following. When the order is SVi (167 examples

in all; 100%), the verb is not repeated in 147 examples (i.e. 88%), and repeated in 20 examples (i.e. 12%). In contrast, when the order is ViS (26 examples in all; 100%), the Vi is not repeated in 15 examples (58%), but it is repeated very frequently, namely in 11 examples (42%). That is, there is a fairly close association between the ViS order and the repetition of the Vi.

Table 4-11. Repetition of Vi in intransitive sentences

word order	SVi	SViVi(Vi ...)	ViS	ViSVi(Vi ...)
number of examples	147	20	15	11
percentage	88%	12%	58%	42%

The situation is different with transitive verbs. First, as noted above, the repetition of a transitive verb is less frequent than is the case with intransitive verbs. Second, on the basis of the small number of examples, there appears to be no association between the VtA order and the repetition of the Vt. Thus, among the seven examples (100%) of VtAO, it is only in one example (14%) in which the verb is repeated; see (4-122). The figure is 42% for the intransitive counterparts; see Table 4-11. Generally the A precedes Vt irrespective of whether the verb is repeated or not.

4.6.3.3. Constituent order in those independent clauses and main clauses which are used as imperative sentences

As seen in 4.2.1.1, imperative sentences do not always contain a verb. Where a verb is contained, it is not always in an imperative form. The following discussion will be concerned with the most common imperative sentences, i.e. those which contain a verb in a general imperative form. The situation is different between intransitive and transitive imperatives. (The texts in Tape 72/31 were examined for the statistical information given below.) As noted in 3.10.8-[2]-(h), the S/A of general imperatives is overtly expressed far more frequently than elliptical.

[1] Intransitive imperatives

Their word order tendency is much the same as that of declarative intransitive sentences (4.6.3.2-[1]). That is, the SiV order is the usual one. Examples (not necessarily from Tape 72/31) include the following. (i) SVi: (3-139), (3-186), (3-265), (3-288-A), (ii) ViS: (3-54), (3-261), (3-262-B), (3-266-A), (iii) Vi: (3-100), (3-111).

[2] Transitive imperatives

As seen above, where an intransitive verb is involved, the SVi order is more frequent than the ViS order in each of declaratives and imperatives. However, the

situation is slightly different where a transitive verb is involved. The number of general imperatives involving a transitive verb is small, but the tendency is as follows. In the main, the relative frequency of the six logically possible orders is the same as in declarative transitives; see 4.6.3.2-[2]. For example, (i) OVtA and (k) VtOA are the least frequent, and they are not attested in the texts of Tape 72/31. But they are attested elsewhere in the texts.

However, there is one deviation. In declaratives, (b) AOVt (46 examples) is the most frequent, followed by (e) OAVt (19 examples). In imperatives, this ranking is reversed. OAVt is the most frequent (seven examples), followed AOVt (four examples). (In each of them, the Vt follows the O and the A. That is, in imperatives, too, the orders in which the Vt follows the A and the O are the most frequent among these six orders.)

Examples of these six orders (not necessarily from Tape 72/31) follow. (b) AOVt: (3-37), (3-62), (3-166). (e) OAVt: (4-167), Text 1, Line 69, Text 2, Lines 16, 32, 33-a, 36. (f) AVtO: (3-200), (4-17). (h) VtAO: (4-168). (i) OVtA: (4-169). (k) VtOA: (4-170).

(4-166) *yinda ngona-Ø moja-Ø*. (AP)
2SG.ERG that-ACC eat-IMP
'Eat that.' (AOVt)

(4-167) *yarro-Ø yinda moja-Ø*. (AP)
this-ACC 2SG.ERG eat-IMP
'Eat this.' (OAVt)

(It seems unlikely that the difference between *ngona* 'that' and *yarro* 'this' is the cause for the difference in word order between (4-166) and (4-167).)

(4-168) *yowo, wanda-Ø yarro-n-da ngana-Ø jana-nya*. (AP)
yes leave-IMP here-LINK-LOC 1PL-ERG 3PL-ACC
'OK, let's leave them here.' (VtAO)

(4-169) *mara-Ø moga-Ø yinda*. (AP)
hand-ACC grab-IMP 2SG.ERG
'Grab [his] hand.' (OVtA)

(4-170) *nyaga-nyaga-Ø yalga-Ø yinda*. (AP)
see~see-IMP road-ACC 2SG.ERG
'Watch the road.' (VtOA)

(Reduplication of *nyaga-L* Vt 'see, look at' means 'have a good look at, watch, mind [someone]'. See 3.11.2.)

Examples of elliptical orders include the following. (a) Vt: Text 1, Line 65-a, Text 2, Lines 10, 15. (c) AVt: (3-40), (3-103), (3-260), (3-267). (d) OVt: (3-109), (3-259).

4.6.4. Constituent order in sentences

Complex sentences generally consist of two clauses (the main clause and the subordinate clause), but they may contain more clauses. The following discussion concerns the relative order of these clauses.

Warrongo discourse is highly elliptical (1.1, 4.1) and consequently the main clause and the subordinate clause may consist of one word each.

Where the two clauses consist of two or more words, in the main, the constituents of the main clause are contiguous, and so are those of the subordinate clause. That is, the two clauses are kept separate. However, there are instances in which a constituent of a clause is not contiguous with the other constituents of the clause; the two clauses are not always kept separate. Details are as follows.

(a) The main clause and the subordinate clauses are kept separate.

(a-1) In the following types of subordination, the main clause seems always to precede the subordinate clause.

(a-1-1) Apprehensional construction ('lest ... should') (4.17).

(a-1-2) 'X is afraid that ...' (4.18.1).

(a-1-3) 'X is glad that ...' (4.18.2).

(a-1-4) 'X knows that ...' (4.18.3).

(a-1-5) 'X sees/hears Y doing ...' (4.18.4).

(a-1-6) 'X tells/asks Y ...' (4.18.5).

(a-1-7) 'If' 'If' and 'when/while' (4.18.6).

(a-2) In the following type of subordination, the main clause almost always precedes the subordinate clause. But there are a very small number of exceptions.

(a-2-1) Purposive subordination (4.8). The subordinate clause contains a verb in the purposive-1 or the purposive-2, and it describes (i) purpose or (ii) result, consequence, successive action.

(a-3) In the following types of subordination, the main clause precedes or follows the main clause.

(a-3-1) Subordination involving the participle-1 (*-nyo*) (anteriority, simultaneity, purpose) (4.15.1).

(a-3-2) Subordination involving the participle-2 (*-nji*) (anteriority, simultaneity) (4.15.2).

(a-3-3) Subordination involving the participle-3 (*-njirra*) (simultaneity) (4.15.3).

(b) In the following types of subordination, the main clause and the subordinate clauses are not always kept separate. The main clause may precede or follow the subordinate clause and furthermore the subordinate may be even embedded in the main clause.

(b-1) Subordination with the enclitic *=ngomay* (anteriority) (4.10).

(b-2) Subordination involving a body part noun (4.20.7).

- (c) This applies despite (a). ((b) is irrelevant.) If the sentence contains an interrogative member, it generally occurs sentence-initially (4.2.1.2-[2]), e.g. (4-246) and (4-982-M) (although this is not always the case: see (4-679)). If the interrogative member is a constituent of the second clause and if the second clause consists of two or more words, then the interrogative word is not contiguous with the other constituent(s), and the main clause and the subordinate clauses are not kept separate.

Furthermore, there are occasionally instances such as the following.

- (4-171) *bama-Ø yani-Ø, yinda nyaga-Ø, ngaygo-n-go.* (AP)
 man-NOM(S) come-NF 2SG.ERG(A) see-IMP 1SG-LINK-DAT
 'Look! A man is coming towards me.'

- (4-172) *yarro-ngomay-Ø jana-Ø, yarro-n-da jana-Ø*
 here-ABL-NOM 3PL-NOM(S) here-LINK-LOC 3PL-NOM(S)
nyamba-garra-n, yani-Ø yarro-ngomay-Ø ngoni=wa
 dance-ITER-NF go-NF here-ABL-NOM there=FOC
gonggarri-ngal. (AP)
 north-to
 'They danced here. They went from here to there, to the north.'

In such examples, one sentence is inserted into another sentence. There is a slight pause at the sentence boundaries (indicated by a comma). They might be tentatively labelled 'accidental complex sentences'.

Complex sentences of the type (a-1) are configurational in terms of both of the criteria set up in 4.5.1: (b-1) contiguity and (b-2) fixed relative order. The main clause and the subordinate clause are contiguous, and their relative order is fixed. That is, they are strictly configurational. Complex sentences of the other types are not.

4.7. Verb formation: *-bi-L* 'INTR', *-nga-L* 'TR', and *-(m)ba-L* 'TR'

Most of the verb-stem-forming suffixes were discussed in 3.11.1. However, the transitive-stem-forming suffixes *-nga-L* (4.7.2) and *-(m)ba-L* (4.7.3) are most conveniently discussed in the chapter on syntax (i.e. Chapter 4), as will become clear in the relevant sections. Verbs formed with *-nga-L* often exhibit behaviour parallel to that of verbs formed with the intransitive-stem-forming *-bi-L* (4.7.1), and *-bi-L*, too, is most conveniently discussed in the chapter on syntax.

The verbs formed with *-bi-L*, *-nga-L* or *-(m)ba-L* can be – and often are – used by themselves. In addition, as shown 4.5.4.1, they often occur with, and modify, another verb, agreeing in terms of transitivity and the inflectional category.

4.7.1. Intransitive-stem-forming suffix *-bi-L* ‘be, become’ (state, change/inchoation)

This suffix occurs both in Alf Palmer’s and Alec Collins’ Warrongo. It is very productive. It is attested with (i) nouns, including adjective-like nouns and the interrogative member *ngani* ‘what’, (ii) adverbs, including interrogative members, demonstrative members, and the adverb of negation *nyawa*, (iii) interjections, and (iv) verb roots and derived verb stems. The use of (i) is particularly productive. The stems formed with *-bi-L* are intransitive. They belong to L-class. Verbs that contain a demonstrative member are referred to as demonstrative verbs, and those that contain an interrogative member as interrogative verbs. All of them were listed in 3.9.2. They will be included in the following discussion.

Nouns and adverbs to which *-bi-L* is added, exhibit a very wide range of meaning, including quality, health, dimension, size, number, human classification, human propensity, knowledge, emotion, body secretion, speech, temperature, fire, manner, direction/destination, and time.

Perhaps in the majority of the instances, a verb with *-bi-L* describes state or change/inchoation (or ‘inchoative’): ‘be X, be like X’ (state) or ‘become X, become like X’ (change). (Some of the verbs with *-bi-L* are attested with the meaning of ‘be’, but not with ‘become’. Some others are attested with ‘become’, but not with ‘be’. This is shown in their gloss. Nonetheless, both ‘be’ and ‘become’ are almost certainly acceptable for each of them.) But its meaning is somewhat irregular in some instances. For example, it may mean ‘do in a X way’, ‘have X’, or ‘speak X’. Sometimes, *-bi-L* seems to have no clear meaning, being used simply to form an intransitive stem, e.g. *yama-bi-L* ‘do so’ (*yama* Adv ‘so’) ([2]-(a) below) and *yagay-bi-L* ‘scream’ (*yagay* ‘Ouch!’) ([3] below).

We shall now look at these verbs in terms of the type of the roots/stems to which *-bi-L* is added.

[1] Involving nouns

(a) When added to a noun, *-bi-L* is generally added to its root.

jarribara ‘good, well’ *jarribara-bi-L* ‘be/become good/well, do in a good way’, e.g. (3-144), (3-263), (4-854-M), (4-855-b)

(*Jarribara* possibly contains the suffix *-bara*. See (3.7.1-[8]). That is, *jarribara* may not be a root.)

wamay ‘good’ (attested in Alec Collins’ data only) *wamay-n-bi-L* ‘be/become good’, e.g. Text 3, Line 32 (AP)

walwa ‘bad, ill’ *walwa-bi-L* ‘be/become bad/ill’, e.g. Text 2, Line 33-b

goli ‘angry’ *goli-bi-L* ‘be/become angry’, e.g. (3-308), (3-309)

magan ‘false’ *magan-bi-L* ‘tell a lie’, e.g. (3-253), (4-128)

jilbay ‘knowing’ *jilbay-bi-L* ‘know, get to know, learn’

<i>nyando</i> 'ignorant, not knowing'	<i>nyando-bi-L</i> 'do not know, forget'
<i>borrmo</i> 'deaf'	<i>borrmo-bi-L</i> 'be deaf, forget', e.g. (3-88), (4-243)

(The ear seems to be regarded as the seat of intelligence. See 1.5.8-[2].)

<i>nyilamo</i> 'new, young'	<i>nyilamo-bi-L</i> 'be young, become young again, look strange'
<i>goman</i> 'different'	<i>goman-bi-L</i> 'be different', e.g. (3-275)
<i>milmorro</i> 'quick'	<i>milmorro-bi-L</i> 'do [e.g. dance] quickly'
<i>yangabara</i> 'long, tall'	<i>yangabara-bi-L</i> 'become long', e.g. (4-901)

(*Yangabara* may contain the suffix *-bara*.)

<i>marinya</i> 'wet'	<i>marinya-bi-L</i> 'become wet'
----------------------	----------------------------------

(On one occasion in a text, the intransitive verb *marinya-bi-L* 'be/become wet' was used to describe a penis which was ready for intercourse. In contrast, the noun *gadala* 'dry' was used to refer to a penis which was not ready for intercourse. See (4-830). According to Dixon (1989a: 150), Dyrbal has the word *dabnga* 'dry tree, half-dead and withering' and this word may refer to a penis in such a state.)

<i>rimbo</i> 'heap, big mob'	<i>rimbo-bi-L</i> Vi 'gather'
<i>bama</i> 'man'	<i>bama-bi-L</i> 'be/become a man, be/become like a man', 'come to life', e.g. (4-173)
<i>birgo</i> 'wife'	<i>birgo-bi-L</i> 'become [someone's] wife', e.g. (4-175)
<i>jolbon</i> 'spouse'	<i>jolbon-bi-L</i> 'get married', e.g. (4-685), (4-918)
<i>gowoy</i> 'male ghost'	<i>gowoy-bi-L</i> lit. 'become a male ghost', i.e. '[a man] die', e.g. (4-602)
<i>waybala</i> 'white man'	<i>waybala-bi-L</i> 'be/become/do/behave like white man', e.g. 'talk like a white man, i.e. speak English'
<i>wambaworo</i> 'erect penis'	<i>wambaworo-bi-L</i> 'have an erection'
<i>walngga</i> 'breath, eager'	<i>walngga-bi-L</i> 'want, like'
<i>gogo</i> 'language, speech'	<i>gogo-bi-L</i> 'talk, speak'
<i>jalnгой</i> 'the avoidance style' (1.6.1)	<i>jalnгой-bi-L</i> 'speak in the avoidance style', e.g. (3-139)
<i>ngorrmbon</i> 'undesirable noise, noise which one does not other people to hear'	<i>ngorrmbon-bi-L</i> 'inadvertently make a noise which one does not want other people to hear'

<i>garogaro</i> (noun) ‘shout’	<i>garogaro-bi-L</i> ‘shout, call out’
<i>jigobina</i> ‘shooting star’	<i>jigobina-bi-L</i> lit. ‘become a shooting star’ See 1.5.8-[4].
<i>jolgi</i> ‘bush’	<i>jolgi-bi-L</i> ‘be a bush’, e.g. (3-233)
<i>dombil</i> ‘knot of forest ti tree’	<i>dombil-bi-L</i> ‘[forest ti tree] have knots’, e.g. (4-900) (second B)

(Knots of forest ti trees contain water, which was used for drinking by Aboriginal Australians (1.5.8-[12]).)

<i>bomba</i> ‘dust, ashes’	<i>bomba-bi-L</i> ‘become like dust/ashes’, e.g. Text 2, Line 10
<i>nyara</i> ‘flame, light’	<i>nyara-bi-L</i> ‘[fire] flare up, light up’
<i>nyon.gol</i> ‘one’	<i>nyon.gol-bi-L</i> ‘do once, stay one night’
<i>gorrbara</i> ‘three’	<i>gorrbara-bi-L</i> ‘do three times’
<i>ngani</i> ‘what’	<i>ngani-bi-L</i> ‘be/become what’, ‘What is the matter?’, e.g. (4-7), (4-679), (4-901), (4-902), (4-903) (second S), (4-904)

(4-173) (An example from a text. ‘I was killed, but’):

gowoy-ngomay-Ø *ngaya* *bama-bi-n*. (AP)
male.ghost-ABL-NOM 1SG.NOM man-INTR-NF
‘After [being a] male ghost [i.e. a dead man], I came to life.’

Another example is (4-175). Compare it with (4-174).

(4-174) *yarro-Ø* *ngaygo* *birrgo-Ø*. (AP)
this,here-NOM 1SG.GEN wife-NOM
‘This [is] my wife.’

(4-175) [*nyola* TT] *birgo-bi-yal* *ngaygo*. (AP)
[3SG.NOM] wife-INTR-PURP 1SG.GEN
‘[She] wants to be my wife.’

In (4-174), *ngaygo* and *birrgo-Ø* may be considered as constituting an NP: *ngaygo* is the modifier and *birrgo-Ø* is the head, i.e. an NP of the type ‘Gen N’ (4.5.2.1.3-[3]). In (4-175), too, semantically *birgo* can be regarded as modified by *ngaygo*. However, they can in no way form an NP. Syntactically, *ngaygo* will have to be assigned to ‘Adjuncts’ (4.4). That is, *ngaygo* modifies *birgo*, a part of a verb, and they do not form an NP.

(b) *-bi-L* is attested with noun stems that contain a noun-stem-forming suffix (3.7.1). Examples follow.

walwa-jarri 'bad' cf. *walwa walwa-jarri-bi-L* 'go bad' cf. *walwa-bi-L* 'be/become
'bad'. (See 3.7.1-[7] for *-jarri*) bad/ill' listed in (a) above.

gayga-l-bara 'stinking' *gayga-l-bara-bi-L* 'be/become stinking'
(See 3.7.1-[8] for *-bara*)

birrgi-bara 'cold weather, *birrgi-bara-bi-L* 'be/become cold'

jami-baya 'fat (as against *jami-baya-bi-L* 'be/become fat'
'thin')

(cf. *jami* 'fat (as against 'meat'). For *-baya*, see 3.7.1-[9].)

yalnyjabara 'crowd, mob' *yalnyjabara-bi-L* 'do something in large numbers'
(*Yalnyjabara* probably contain the suffix *-bara*.)

bajalbarri 'bold, brave' *bajalbarri-bi-L* 'be/become bold, brave'

(*Bajalbarri* possibly contains the suffix *-barri*. See 3.7.1-[6]-(c).)

(c) *-bi-L* can be added to a noun stem that involves reduplication (cf. 3.7.2) (indicated by a tilde), one that involves compounding (3.7.3), and one that involves reduplication and compounding, e.g.:

yoray~yoray 'quiet-quiet' *yoray~yoray-bi-L* 'be quiet'
cf. *yoray* 'quiet'

nyorrngo~nyorrngo *nyorrngo~nyorrngo-bi-L*
'busy and not looking' 'be busy and not looking', e.g. (4-258)
cf. *nyorrngo* '(as above)' cf. *nyorrngo-bi-L* '(as above)'

jilmal 'cramp, numbness' *jilmal~jilmal-bi-L* 'have a cramp or numbness'
(*jilma~jilmal* not attested)

jingorra 'snore, sneeze' (noun) *jingorra~jingorra-bi-L* 'snore, sneeze'
boji 'fart' *boji~boji-bi-L* 'pass wind, keep farting',
e.g. (4-749-c)

yibirra (noun? verb?) 'dream' *yibirra~yibirra-bi-L* 'dream'

barro~barro 'bent-bent', *barro~barro-bi-L* 'be/become bent'
(*barro* not attested)

woga-goman 'asleep-another', *woga-goman-bi-L* 'camp one more night',
i.e. 'the next day' (3.7.3-[1]) e.g. (4-129)
woga-goman~goman-bi-L 'camp night after night'

(*Woga-goman* involves compounding, and *woga-goman~goman* involves reduplication and compounding)

(d) In a few instances, *-bi-L* is added to a noun that has a case suffix.

(d-1) Dative case (cf. 3.6.4)

(d-1-1) 'to' (destination), 'into' or 'for', e.g. *jolgi-wo-bi-L* 'scrub-DAT-INTR', i.e. 'go into a scrub', e.g. (4-150), *biro-wo-bi-L* 'gully-DAT-INTR', i.e. 'go down to a gully' in (4-176), *gamo-wo-bi-L* 'water-DAT-INTR', i.e. 'go to/for water', *malan-go-bi-L* 'creek-DAT-INTR', i.e. 'go into a creek, arrive at a creek', *mongan-go-bi-L* 'mountain-DAT-INTR', i.e. 'go up to a mountain', *nyara-wo-bi-L* 'light-DAT-INTR', i.e. 'go to a light'

(d-1-2) 'in' (place), e.g. *wora-wo-bi-L* 'centre-DAT-INTR', i.e. 'be in the centre of a group of people'

(d-1-3) 'until' (time), e.g. *jidai-go-bi-L* 'morning-DAT-INTR', i.e. 'do until morning' in (4-130), and *woga-goman-go-bi-L* 'sleep-another-DAT-INTR', i.e. 'do until the next night'.

(d-2) Comitative case (cf. 3.6.8)

(d-2-1) *jalngony-ji-bi-L* 'Jalngoy-COM-INTR', i.e. 'speak in Jalngoy' (1.6.1) (cf. *jalngoy-bi-L* 'speak in Jalngoy', listed in (a) above).

(d-2-2) *jingorra-yi-jingorra-yi-bi-L* 'snore-COM-snore-COM-INTR', i.e. 'snore, sneeze' (cf. *jingorra* (noun) 'snore, sneeze', *jingorra~jingorra-bi-L* 'snore, sneeze' (listed in (c) above)).

(d-2-3) *wara-yi-bi-L* 'talk/etc. one's own [language, etc.], e.g. Text 1, Line 10' See 3.6.8 for the etymology of *wara-yi*.

(d-2-4) *mangga-yi-bi-L* 'flower-COM-INTR', i.e. 'have a flower' in (4-177).

(d-3) Locative in *jida-da-bi-L* 'morning-LOC-INTR', i.e. 'do until morning'

See 3.2.1.1 for a diachronic discussion of *jidai-go-bi-L* 'morning-DAT-INTR', i.e. 'do until morning' and in *jida-da-bi-L* 'morning-LOC-INTR', i.e. 'do until morning'.

(4-176) *ngana-Ø biro-wo-bi-n* (AP)
IPL-NOM gully-DAT-INTR-NF
'We went to the gully'

(4-177) *jolay-Ø waga-n waga-n ngarra ngarra*
tree-NOMrise-NF rise-NF up up
mangga-yi-bi-n (AP)
flower-COM-INTR-NF
'The tree grew higher and higher and had flowers.'

[2] Involving adverbs

(a) When added to adverbs, *-bi-L* is generally added to roots.

<i>birri</i> 'close'	<i>birri-bi-L</i> 'go/come close'
<i>ngarra</i> 'up, above'	<i>ngarra-bi-L</i> 'go up'
<i>nyarrga</i> 'down, beneath'	<i>nyarrga-bi-L</i> 'be/become low down'

<i>gowa</i> 'in/to the west'	<i>gowa-bi-L</i> 'go to the west'
<i>golmi</i> 'back' (direction, destination)	<i>golmi-bi-L</i> Vi 'return' (intransitive)
<i>garrbala</i> 'tomorrow'	<i>garrbala-bi-L</i> 'do until tomorrow', e.g. (4-131)
<i>wonaja</i> 'camping out'	<i>wonaja-bi-L</i> 'camp out', e.g. (4-178)
<i>yarro</i> 'this, here'	<i>yarro-bi-L</i> 'come here'
<i>yama</i> 'thus, so'	<i>yama-bi-L</i> 'do so', e.g. (3-264), (4-127), (4-179)
<i>nyawa</i> 'no, not'	<i>nyawa-bi-L</i> 'have/get nothing'

(4-178) *wonaja-bi-n* *ngana-Ø*. (AP)
 camping.out-INTR-NF 1PL-NOM
 'We camped out.'

(4-179) 'wowo', *yama-bi-n* *nyola* *ngaygo-n-go*. (AP)
 Oh! so-INTR-NF 3SG.NOM 1SG-LINK-DAT
 "'Oh!", he said so to me.'

(b) *-bi-L* may occur with adverbs that contain an adverb-stem-forming suffix (3.8.1).

<i>bolari-ngal</i> 'twice',	<i>bolari-ngal-bi-L</i> 'do twice', e.g. (4-132)
<i>wanyja-rro</i> 'where to'	<i>wanyja-rro-bi-L</i> 'go where', e.g. (4-180), (4-974-A, -B)
<i>wanyja-rri</i> 'which way' (direction), 'how' (manner), 'why' (reason)	<i>wanyja-rri-bi-L</i> 'go which way' (direction), e.g. (4-133), 'do how' (manner), e.g. (4-134)

(4-180) *wanyja-rro-bi-n* *jana-Ø?* (AP)
 where-*rro*-INTR-NF 3PL-NOM
 'Where are they going to?'

(c) *-bi-L* is attested with at least one reduplicated adverb stem.

<i>wonaja~wonaja</i> 'camping.out-camping.out' cf. <i>wonaja</i> 'camping out'	<i>wonaja~wonaja-bi-L</i> 'camp out about (repeatedly)', e.g. (3-254), (4-989-b) cf. <i>wonaja-bi-L</i> 'camp out' (listed in (a) above)
--	--

(d) *-bi-L* occurs with adverbs that contain the DAT suffix 'until'.

<i>garrbala</i> 'tomorrow'	<i>garrbala-wo-bi-L</i> 'do until tomorrow/the', next day, e.g. (4-181) cf. <i>garrbala-bi-L</i> 'do until tomorrow' in (4-131)
<i>nyila</i> 'today, soon'	<i>nyila-wo-bi-yal</i> 'wait for a short while' (lit. 'do until soon'), e.g. (4-182), cf. <i>nyila-wo</i> 'soon-DAT' 'until soon' in (3-100)

(b) In a few instances, *-bi-L* is added to a verb root plus the stem-forming suffix *-l*; see 3.11.1.6-[2], -[6]. Examples: *wanba-l-bi-L* Vi 'be frightened' (cf. *wanba-L* Vi 'be frightened') and *wombi-l-bi-L* Vi 'have a rest' (cf. *wombi-L* Vi 'have a rest'). Also, in a few instances, *-bi-L* is added to a verb root plus the stem-forming suffix *-rr*; see 3.11.1.7-[2], -[5]. Examples: *yimi-rr-bi-L* 'be glad' (cf. *yimi-rr-i-ZERO* 'be glad') and *yamo-rr-bi-L* 'hurry' (cf. *yamo-rr-i-ZERO* 'hurry').

(c) *-bi-L* may be added to a reduplication of a verb root plus *-l* (3.11.1.6-[6]), e.g. *gobi-l-gobi-l-bi-L* 'whistle' (cf. *gobi-L* 'whistle'). *-bi-L* may be added to a reduplication of a verb root plus *-rr* (3.11.1.7-[5]), e.g. *yimi-rr-yimi-rr-bi-L* 'be glad' (cf. the noun *yimi-rr-yimi-rr* 'glad').

(d) *-bi-L* is added to a verb root plus *-l* plus the noun *goman* 'different': *binyji-l-goman-bi-L* Vi 'feel funny, be afraid/annoyed' (cf. *binyji-L* Vi 'feel fine/well/good'). See 3.11.1.6-[2].

[5] The etymology of the form to which *-bi-L* is added, is sometimes uncertain or unknown. For example, the root in the following verbs is not attested elsewhere in Warrongo: *dalay-bi-L* 'be/become dry', *minda-bi-L* 'be(come) weak', *ngalnyi-bi-L* 'be kind', *warrgara-bi-L* '[all] go away', *yambal-bi-L* 'become young again, be attractive (?)', and *mira-bi-L* 'be made/formed, [baby] is born (or perhaps, conceived)'. For *mira* there is a corresponding transitive verb *mira-nga-L* 'make' See 4.7.2-[7]-(c).

Warrongo has *baja-bi-L* Vi '[nose] is blocked up', and also *baja~baja-nga-L* Vt 'finish up' (4.7.2-[7]-(b)). *Baja* is not attested by itself in Warrongo, but it is found outside Warrongo: (i) *baja* 'shut, blocked' in Warrgamay (Dixon 1981: 112), and (ii) *baja* 'shut, blocked, finished' in Nyawaygi (Dixon 1983: 504).

The suffix *-bi-L* 'INTR' or its cognate is common in the region. It occurs in Warrongo's genetically closest neighbour, i.e. Gugu-Badhun (Sutton 1973: 143), and also other neighbours: Dyirbal (Dixon 1972: 86), Warrgamay (Dixon 1981: 80) and Nyawaygi (Dixon 1983: 498).

4.7.2. Transitive-stem-forming suffix *-nga-L* 'make', etc. (causation, creation, etc.)

-nga-L occurs both in Alf Palmer's and Alec Collins' Warrongo. It is very productive. It is attested with (i) nouns, including adjective-like nouns and the interrogative member *ngani* 'what', (ii) adverbs, including interrogative members and demonstrative members, (iii) an interjection, and perhaps less productively, (iv) pronouns, and (v) verb roots and stems. The use of (i) is particularly productive. *-nga-L* forms transitive verbs, and the resultant stems belong to L-class. Those which contain a demonstrative member are referred to as demonstrative verbs, and

those which contain an interrogative member are referred to as interrogative verbs. They were listed in 3.9.2. They will be repeated below.

Nouns and adverbs to which *-nga-L* is added, exhibit a very wide range of meaning, including quality, health, dimension, size, number, human classification, human propensity, knowledge, emotion, body secretion, speech, temperature, geology, fire, smoke, manner, direction/destination, and time.

Verbs formed with *-nga-L* often indicate change: (i) causation (e.g. *jarribara-nga-L* 'good-TR', '[ERG] make [ACC] good'), e.g. (4-184), (4-185), or (ii) creation (e.g. *yalga-nga-L* 'road-TR', '[ERG] make a road'), e.g. (4-52). They are translated with *make* of English. (The case of an NP that accompanies a given verb is sometimes, though not always, indicated.) But their meanings are not confined to causation and creation. They can have other meanings, such as manner, direction/destination, time, etc. (e.g. *nyon.go-do-nga-L* 'one-ERG-TR', '[ERG] do once'; see (4-141)). They may also specify something, e.g. number, about the patient of the action, (e.g. *bolari-nga-L* '[ERG] do something to/with two [persons/things/etc.-ACC]', such as '[ERG] make two [boomerangs-ACC], [ERG] take two [women-ACC, helper-ACC]'; see (4-143)). Sometimes, *-nga-L* seems to have no clear meaning, being used simply to form transitive stems (e.g. *yama-nga-L* 'so-TR', '[ERG] do so', e.g. (4-135)).

There are many pairs of verbs in which one member involves *-nga-L* 'TR' and the other contains *-bi-L* 'INTR', e.g. *jarribara-bi-L* 'be/become good/well' and *jarribara-nga-L* '[ERG] make [ACC] good/well'.

Verbs formed with *-bi-L* 'INTR' may describe state or change, e.g. *jawoy-bi-L* 'hot-INTR': 'be hot' (state) or 'become hot' (change). Verbs with *-nga-L* 'TR', too, can express change, e.g. *jawoy-nga-L* 'hot-TR', '[ERG] make [ACC] hot'. But they do not seem to denote state, such as '[ERG] keep [ACC] hot'. In this respect, *-bi-L* 'INTR' and *-nga-L* 'TR' do not seem parallel.

We shall now look at the verbs formed with *-nga-L* in terms of the type of the roots/stems to which *-nga-L* is added.

[1] *-nga-L* attached to nouns

(a) When added to nouns, it is generally affixed to roots, e.g.

<i>jarribara</i> 'good, well'	<i>jarribara-nga-L</i> '[ERG] make [ACC] good/well, [ERG] do in a good way', e.g. (4-184), (4-185)
<i>wamay</i> 'good' (attested in Alec Collins' data only)	<i>wamay-nga-L</i> 'make [ACC] good', e.g. Text 3, Line 31 (AP)
<i>walwa</i> 'bad, ill, sick'	<i>walwa-nga-L</i> 'make [ACC] bad/ill/sick, e.g. (4-881) (first A), [ERG] do in a bad way', e.g. (4-137)
<i>wama</i> 'mad'	<i>wama-nga-L</i> 'make [ACC] mad'
<i>jora</i> 'alive, well, safe'	<i>jora-nga-L</i> Vt 'cure'

<i>morran</i> 'illness, ill, sick'	<i>morran-nga-L</i> 'make [ACC] sick'
<i>marrnyja</i> 'a sore'	<i>marrnyja-nga-L</i> Vt 'hurt'
<i>ngarrgon</i> 'blood'	<i>ngarrgon-nga-L</i> 'make [ACC] bleed'
<i>bonbara</i> 'wound, wounded person'	<i>bonbara-nga-L</i> 'wound, hurt, spear [ACC] through', e.g. Text 3, Lines 22 to 24
<i>mamon</i> 'mouth piece'	<i>mamon-nga-L</i> 'make a mouth piece, change [ACC] into a mouth piece'
<i>jolbiriny</i> 'with no skin (e.g. cooked animal)'	<i>jolbiriny-nga-L</i> '[ERG] peel the skin of [animal-ACC]'
<i>jilbay</i> 'knowing'	<i>jilbay-nga-L</i> 'make [ACC] knowing, teach, inform', e.g. (4-32)
<i>borrmo</i> 'deaf'	<i>borrmo-nga-L</i> 'make [ACC] forget'
<i>nyilamo</i> 'new, young'	<i>nyilamo-nga-L</i> 'make [ACC] new', e.g. (4-1019)
<i>magan</i> 'dishonest, not true'	<i>magan-nga-L</i> 'tell [ACC] a lie, pretend', e.g. (4-136), (4-747)
<i>mori</i> 'tight, hard, quiet'	<i>mori-nga-L</i> 'keep, [ERG] hold [ACC] in a greedy way', e.g. (4-104), (4-144), (4-716-b)
<i>rilga</i> 'lust'	<i>rilga-nga-L</i> 'make [ACC] lustful'
<i>gagal</i> 'big, hard (not soft)'	<i>gagal-nga-L</i> 'make [ACC] big, raise [a child]', e.g. (3-229)
<i>yangabara</i> 'long'	<i>yangabara-nga-L</i> 'make [ACC] long(er)'
(Yangabara may contain the suffix <i>-bara</i> (3.7.1-[8]).)	
<i>jangarago</i> 'small'	<i>jangarago-nga-L</i> 'make [ACC] small'
<i>ngamba</i> 'half'	<i>ngamba-nga-L</i> 'break/cut/split [ACC] into halves', e.g. (3-9-c), Text 2, Line 9
<i>jon.gal</i> 'narrow'	<i>jon.gal-nga-L</i> 'make [ACC] narrow'
<i>yabala</i> 'flat'	<i>yabala-nga-L</i> 'make [ACC] flat/smooth'
<i>marrgal</i> 'clean'	<i>marrgal-nga-L</i> 'make [ACC] clean'
<i>marinya</i> 'wet'	<i>marinya-nga-L</i> 'make [ACC] wet'
<i>gadala</i> 'dry'	<i>gadala-nga-L</i> Vt 'dry'
<i>jawoy</i> 'hot'	<i>jawoy-nga-L</i> 'make [ACC] hot'
<i>binggir</i> 'hot'	<i>binggir-nga-L</i> 'make [ACC] hot, boil'
<i>gido</i> 'cold'	<i>gido-nga-L</i> 'make [ACC] cold'
<i>birgo</i> 'wife'	<i>birgo-nga-L</i> 'make [ACC] [someone's] wife', e.g. (4-188-b)

<i>jolbon</i> ‘married person’	<i>jolbon-nga-L</i> ‘marry’ (X make Y X’s spouse), e.g. (4-714-b)
<i>mijirray</i> ‘promised wife’	<i>mijirray-nga-L</i> ‘promise [someone-ACC as a promised wife ?]’
<i>gowoy</i> ‘male ghost’	<i>gowoy-nga-L</i> ‘make [man-ACC] a male ghost’, i.e. ‘kill [a man]’, e.g. (4-142), (4-187), (4-761)
<i>barrawo</i> ‘bark water-container’	<i>barrawo-nga-L</i> ‘make a bark water-container’
<i>nyara</i> ‘flame, light’	<i>nyara-nga-L</i> ‘light up, blaze up, burn [wood-ACC] without smoke’
<i>joga</i> ‘smoke’	<i>joga-nga-L</i> ‘make smoke, make [ACC] smoky’, (4-909)
<i>jorba</i> ‘white clay’	<i>jorba-nga-L</i> ‘make [ACC] white’
<i>yalga</i> ‘road’	<i>yalga-nga-L</i> ‘make a road’, e.g. (4-52)
<i>jabo</i> ‘hole’	<i>jabo-nga-L</i> ‘bury’
<i>rimbo</i> ‘heap, big mob’	<i>rimbo-nga-L</i> ‘heap up, collect’
<i>jano</i> ‘half’	<i>jano-nga-L</i> ‘cut [ACC] into halves’
<i>gomon</i> ‘a place that is closed up’	<i>gomon-nga-L</i> ‘shut’
<i>mongga</i> ‘sound’	<i>mongga-nga-L</i> ‘startle’
<i>nyon.gol</i> ‘one’	<i>nyon.gol-nga-L</i> ‘do once, do once more, do for the first time’
<i>bolari</i> ‘two’	<i>bolari-nga-L</i> ‘do twice, do [something] with/to [ACC, e.g. two persons]’, e.g. (4-143), (4-922), Text 3, Line 24
<i>gorrbara</i> ‘three’	<i>gorrbara-nga-L</i> ‘do three times, do [something] to/with [ACC, e.g. three persons]’
<i>ngani</i> ‘what’	<i>ngani-nga-L</i> ‘ERG do what to/with ACC’, e.g. (3-300), (4-138), (4-189), (4-225-B), (4-903) (second F), (4-905), (4-906), (4-982-M)

As for the case frames that verbs with *-nga-L* take, at least the following may be recognized. (There may be more.)

- (i) *-nga-L* ‘causation’.
 (i-1) ERG ACC X(adjective)-*nga-L*: ‘ERG makes ACC X(adjective).’
 (i-2) ERG ACC X(noun)-*nga-L*: ‘ERG makes ACC X(noun).’
- (ii) *-nga-L* ‘creation’.
 ERG X-*nga-L*: ‘ERG makes X.’

- (iii) *-nga-L* 'other meaning'
 (iii-1) ERG ACC *X-nga-L*.
 (iii-2) ERG ACC Vt *X-nga-L*.

As an example of (i-1), consider (4-184). Compare it with (4-183).

- (4-183) *yarro-Ø yamba-Ø jarribara-Ø*. (TT)
 this-NOM house-NOM good-NOM
 'This house [is] good.'
 (4-184) *bama-nggo yarro-Ø yamba-Ø jarribara-nga-n*. (TT)
 man-ERG this-ACC house-ACC good-TR-NF
 'The man made this house good.'

Other examples of (i-1) include (3-229), (4-32), (4-481) (first A), (4-1019), and (4-185).

- (4-185) (In a text, this sentence immediately follows (3-260). 'They are intending to kill me, so shoot them.')
- jarribara-nga-Ø yalga-Ø ngaygo*. (AP)
 good-TR-IMP road-ACC 1SG.GEN
 'Make the road good for me', i.e. 'Clear the road for me.'

For (ii-2), compare (4-186) and (4-187).

- (4-186) *nyola gowoy-Ø*. (TT)
 3SG.NOM male.ghost-NOM
 'He [is] a male ghost, i.e. dead.'
 (4-187) *ngaya nyonya gowoy-nga-n*. (TT)
 1SG.ERG 3SG.ACC male.ghost-TR-NF
 'I made him a male ghost', i.e. 'I killed him'

Another example of (ii-2) is (4-188-b).

- (4-188) ('My uncle sent me a woman, and he said to me:')
 a. *yinda ganyji-ya birgo-Ø ngona-Ø*.
 2SG.ERG carry-IMP wife-ACC that-ACC
 'Take that wife [with you].'
 b. *birgo-nga-Ø [nyonya TT] yino*. (AP)
 wife-TR-IMP [3SG.ACC] 2SG.GEN
 'Make [her] your wife.'

Compare (4-188-b) with (4-175). As is the case with *birgo* and *ngaygo* '1SG.GEN' of (4-175), in (4-188-b) semantically *birgo* can be regarded as modified by *yino*.

<i>jabo-ngga</i> 'hole-LOC'	<i>jabo-ngga-nga-L</i> 'bury' cf. <i>jabo-nga-L</i> 'bury' (This verb, without the locative suffix, means 'bury'.)
<i>bolo-yi</i> 'belly-COM', 'satiated with food' (3.6.8-[5])	<i>bolo-yi-nga-L</i> 'satisfy [ACC] with food'
<i>walngga-yi</i> 'breath/eager-COM' (3.6.8-[5])	<i>walngga-yi-nga-L</i> 'make [ACC] eager'
<i>wara-yi</i> 'one's own-COM' (cf. 3.6.8)	<i>wara-yi-nga-L</i> 'do something to [one's.own.thing-ACC], carry [one's.own.thing-ACC]', e.g. (4-146)

Verbs with *-bi-L* 'INTR' can mean 'do until'. Some of them involve the DAT suffix, e.g. (4-181), (4-182), and others do not, e.g. (4-131). In contrast, there is no example of verb involving *-nga-L* 'TR' – with or without the DAT suffix – that means 'until'.

[2] *-nga-L* attached to pronouns

-nga-L is attested with the following pronouns, two in the DAT and the other two in the GEN (see Table 3-6):

<i>ngaygo-n-go</i> '1SG-LINK-DAT'	<i>ngaygo-n-go-nga-L</i> 'send/bring/give [ACC] to me', e.g. (4-190)
<i>yino-ngo-n-go</i> '2SG-LINK-LINK-DAT'	<i>yino-ngo-n-go-nga-L</i> 'send/bring/give [ACC] to you'
<i>yino</i> '2SG.GEN'	<i>yino-nga-L</i> 'make [ACC] yours', (4-192)
<i>nyongo</i> '3SG.GEN'	<i>nyongo-nga-L</i> 'make [ACC] his/hers'

(4-190) *nyola manyja-Ø ngaygo-n-go-nga-n.* (TT)
3SG.ERG food-ACC 1SG-LINK-DAT-TR-NF
'He/she sent/brought/gave me food.'

Another example is (4-192). Compare it with (4-191).

(4-191) *ngona-Ø warrngo-Ø yino.* (TT)
that-NOM woman-NOM 2SG.GEN
'That woman [is] yours.'

(4-192) (An example adapted from a sentence from a text. An old man advises a young man about a woman.)

ngona-Ø warrngo-Ø yino-nga-Ø. (TT)
that-ACC woman-ACC 2SG.GEN-TR-IMP
'Make that woman yours.'

It is interesting to compare (4-192) with (4-175) and (4-188-b). In (4-175) and (4-188-b), semantically a GEN form modifies a noun that is a part of a verb. In contrast, in (4-192) a GEN form that is a part of a verb modifies a noun (which is not a part of any verb). What is common to all of these three examples is that syntactically the noun and the GEN form do not constitute an NP, although semantically the GEN form modifies the noun.

[3] *-nga-L* attached to adverbs

(a) *-nga-L* is added to roots of adverbs.

<i>birri</i> ‘close’	<i>birri-nga-L</i> ‘bring [ACC], gather up [ACC], e.g. wood], fetch’
<i>ngarra</i> ‘up, above’	<i>ngarra-nga-L</i> ‘lift up’
<i>golmi</i> ‘back’ (direction, destination)	<i>golmi-nga-L</i> Vt ‘return’
<i>jaymbay</i> ‘towards the speaker (?)’	<i>jaymbay-nga-L</i> ‘give/send [ACC] to the speaker (?)’
<i>golbila</i> ‘in/to the south’	<i>golbila-nga-L</i> ‘send/look/etc. to the south’
<i>gonggarri</i> ‘to/in south’	<i>gonggarri-nga-L</i> ‘send/look/etc. to the north’
<i>gowa</i> ‘in/to the west’	<i>gowa-nga-L</i> ‘send/look/etc. to the west’
<i>wanggarri</i> ‘in/to the east’	<i>wanggarri-nga-L</i> ‘send/look/etc. to the east’
<i>yama</i> ‘thus, so’	<i>yama-nga-L</i> Vt ‘do so, [ERG] tell [person-ACC]’, e.g. (4-135), (4-204)
<i>yawa</i> ‘like that, now’	<i>yawa-nga-L</i> ‘make [ACC] like that, rumour, evaluate’
<i>yarro</i> ‘this, here’	<i>yarro-nga-L</i> ‘send/bring [ACC] here/hither’
<i>nyawa</i> ‘negation’	<i>nyawa-nga-L</i> ‘get nothing from [ACC], cannot get/find’, e.g. (4-193)
<i>wanyja</i> ‘where’	<i>wanyja-nga-L</i> ‘take [ACC] to where, do how, do what’, e.g. (3-299), (4-139), (4-140), (4-194), Text 2, Lines 24, 30

(4-193) (‘The girls like you.’)

rayili-nggo nyawa-nga-n yina. (AP)
 girls-ERG NEG-TR-NF 2SG.ACC
 ‘The girls tried to get you, but could not.’

(4-194) *wanyja-nga-lgo ngaya?* (AP)

where-TR-PURP 1SG.ERG
 ‘What shall I do with [this]?’

(b) *-nga-L* occurs with adverbs that contain an adverb-stem-forming suffix (3.8.1).

gana-mali 'underneath/
below-side' *gana-mali-nga-L* 'turn over, upset [e.g. a boat]'

ngarra-mali 'up/above-side' *ngarra-mali-nga-L* 'turn over [e.g. a boat]'

wanyja-rri 'which way'
(direction), 'how' (manner), etc.
cf. *wanyja* 'where'

(4-195) (Person A heard Person B say something.)

A: *yowo, ngaya ngawa-n.* (AP)
yes 1SG.ERG hear-NF
'Yes, I heard [it].'

B: *wanyjarri-nga-n?*
how-TR-NF
Lit. 'How did [you hear it]?'

(4-195-B) seems to mean 'What did you hear?'

(c) *-nga-L* is added to the GEN form of one adverb.

yarro-ngo 'this, here-GEN' *yarro-ngo-nga-L* 'send [ACC] here, pull'
(Table 3-5)

(d) The following verb is unusual.

nyila=gol 'soon, justnow,
for the first time'
cf. *nyila* Adv 'today, soon', *=gol* 'only'

=gol 'only' is an enclitic (4.25-[4]). In Warrongo, enclitics generally occur word-finally. See (2-78). *Nyila=gol-nga-L* is the only instance in the entire corpus in which a stem-forming-suffix follows an enclitic. It is possible that, in *nyila=gol* 'soon, just now, for the first time', *=gol* has lost the status of clitic and has turned into a suffix. See 4.25-[4].

[4] *-nga-L* attached to an interjection

The only attested example is the following delocutive verb.

yagay 'Ouch!' *yagay-nga-L* 'make [ACC] scream'

There is also the applicative verb based on *yagay-nga-L*. It is *yagay-nga-ri-L* 'make [someone] scream with [something]'. See (4-674).

- (4-198) *bori-Ø wola-n* (TT)
 fire-NOM(S) die-NF
 Lit. 'The fire died', i.e. 'The fire went out.'
- (4-199) *bama-nggo bori-Ø wola-nga-n* (TT)
 man-ERG(A) fire-ACC(O) die-TR-NF
 'The man extinguished the fire.'

The S of (196) corresponds to the O of (4-197). Similarly for (4-198) and (4-199).

- (a-2) *-nga-L* attached to an intransitive root followed by a nonfuture suffix: *-n* 'nonfuture-1' or *-l* 'nonfuture-2'

(It is possible to say that *-l* in *jago-l* and *wanba-l* (both L-class) is a stem-forming suffix (3.11.1.6), and not the nonfuture-2 suffix.)

- wola-n* Vi 'die-NF' *wola-n-nga-L* Vt 'extinguish [a fire]'
Cf. *wola-nga-L* 'extinguish'
- wanba-l* Vi 'fear-NF' (L-class) *wanba-l-nga-L* Vt 'frighten', e.g. (4-201)
- jago-l* Vi 'be/feel sorry-NF' (L-class) *jago-l-nga-L* Vt '[ERG] be/feel sorry for [ACC]', e.g. (4-203)

- (4-200) *galbin-Ø wanba-l* (TT)
 child-NOM(S) fear-NF
 'The child is frightened.'
- (4-201) *bama-nggo galbin-Ø wanba-l-nga-n* (TT)
 man-ERG(A) child-ACC(O) fear-NF-TR-NF
 'The man frightens the child.'
- (4-202) *galbin-Ø jago-l bama-wo* (TT)
 child-NOM(S) be.sorry-N man-DAT
 'The child feels sorry for the man.'
- (4-203) *galbin-do bama-Ø jago-l-nga-n* (AP)
 child-ERG(A) man-ACC(O) be.sorry-NF-TR-NF
 'The child feels sorry for the man.'

Wanba-l-nga-n 'frighten' is a causative verb (S O), and so is *wola-n-nga-L* 'extinguish'. *Jago-l-nga-L* 'be sorry for' is an applicative verb (S A).

- (a-3) *-nga-L* following the verb-stem-forming suffixes *-l* and *-i* (3.11.1.6)

wada-l-i- ZERO Vi 'run, escape' *wada-l-i-nga-L* Vt 'take/steal [a woman]'

Wadali-nga-L is a causative verb (S O). (It is possible to say that *-nga-L* is added to the nonfuture-2 form, i.e. *wadali-Ø* ‘run-NF’, since the nonfuture-2 suffix for ZERO-class is zero (see Table 3-14).)

(b) *-nga-L* attached to transitive verbs

As seen above, when *-nga-L* is attached to an intransitive verb, the resultant stem is either a causative verb or an applicative verb. In contrast, when *-nga-L* is added to transitive verbs, it is difficult to determine its effect, either semantic or syntactic. The resultant stems generally appear to have a causative meaning or something similar. Their transitivity does not change.

(b-1) *-nga-L* attached to transitive roots

<i>bari-L</i> Vt ‘twist, turn’	<i>bari-nga-L</i> Vt ‘twist’
<i>baygo-L</i> Vt ‘bash’	<i>baygo-nga-L</i> Vt ‘bash, kill’
<i>wanda-L</i> Vt ‘leave [a person, a place]’	<i>wanda-nga-L</i> Vt ‘lose’
<i>woda-L</i> Vt ‘take out, pull out’	<i>woda-nga-L</i> Vt ‘extinguish [a fire]’

(b-2) *-nga-L* attached to a transitive root followed by a nonfuture suffix: *-n* ‘nonfuture-1’ or *-l* ‘nonfuture-2’

(It is possible to say that *-l* is a stem-forming suffix (3.11.1.6), and not the nonfuture-2 suffix.)

<i>gonba-L</i> Vt ‘cut’	<i>gonba-n-nga-L</i> Vt ‘cut up’
<i>goyba-L</i> Vt ‘give’	<i>goyba-l-nga-L</i> Vt ‘send, let [someone] go’, e.g. (4-44-a, -b)

(c) *-nga-L* following another verb-stem-forming suffix

goyba-ra-L Vt ‘give out [presents, etc.]’ (See 3.11.1.4 for *-ra*) *goyba-ra-nga-L* Vt ‘knock over, push over’

[6] Diachronic notes on verbs with *-nga-L*: L-class and Y-class

Some of the verbs with *-nga-L* possibly provide information on diachronic changes, regarding the conjugational class membership, although the evidence is not conclusive.

(a) Transitive roots of Y-class (?). As noted in 3.9.3, all the transitive roots are of L-class, with at least one exception: *woyji-ZERO* Vt ‘burn’. However, there is slight evidence that Warrongo used to have at least two transitive roots of Y-class. (In Dyirbal (Dixon 1972: 54), about 90% of transitive roots are of L-class, but the remainder is of Y-class.) Consider the following pairs.

<i>ngonba-L</i> Vt 'point, show'	<i>ngonba-y-nga-L</i> Vt 'show, guide, tell', e.g. (4-27) to (4-30)
<i>wanda-L</i> Vt 'leave [a person, a place]'	<i>wanda-y-nga-L</i> Vt 'let [someone] go' cf. <i>wanda-nga-L</i> Vt 'lose'

Ngonba- is of L-class. Alf Palmer approved the purposive-1 form *ngonba-lgo*, and he himself said *ngonba-lgo*. (The purposive-1 *-lgo* is characteristic of L-class (3.9.3).) The form *ngonba-y-nga-L* 'show, guide' suggests that *ngonba-* Vt 'point, show' belonged to Y-class at an earlier stage of the language. That is, *ngonba-* has undergone a change in class membership, from Y-class to L-class (to which the majority of transitive roots belonged, i.e. from a minority class to the majority class). It is not certain whether *wanda-L* 'leave' and *wanda-y-nga-L* 'let [someone] go' are related. But if they are related at all, then *wanda-* Vt 'leave', too, used to belong to Y-class, and it, too, has undergone a change in class membership, from Y-class to L-class. (I note in passing that there is a reciprocal verb based on *ngonba-L*, viz. *ngonba-wa-Y* 'tell/show to each other' See 4.12.3-[3]-(d).) (Gugu-Badhun (Sutton 1973: 223, cf. p. 141) has *wanda-* 'leave something behind', but its class membership is not known. Dyrirbal (Dixon 1972: 407) has *wanda-L* Vt 'hang up, scoop up' It belongs to L-class.)

(b) Intransitive roots of Y-class (?). Consider the following pairs.

<i>banda-L</i> Vi 'go/come out, crack (of chaps), chap', cf. <i>bandali-ZERO</i> Vi 'come out, crack, burst, explode' (3.11.1.6-[3])	<i>banda-y-nga-L</i> Vt 'make [fingers] crack'
--	--

As noted in 3.9.3, most intransitive roots are of Y-class or ZERO-class, but there are a small number of intransitive roots that belong to L-class. In modern Warrongo, *banda-L* is of L-class. However, the form *banda-y-nga-L* suggests that it was of Y-class and subsequently has shifted to L-class – this time, from the majority class to a minority class. (Gugu-Badhun (Sutton 1973: 207) has *banda-*, but its class membership is not known. Dyrirbal has *banda-Y* Vi 'burst (out)'. Note that it is of Y-class.)

Also, consider:

<i>binda-L</i> Vt 'stand up'	<i>binda-y-nga-L</i> Vt 'let [ACC] go, pass [wind]', e.g. (3-84), (3-286), (3-307)
<i>binda-Y</i> Vi 'stand up'	

Since *binda-y-nga-L* Vt 'let go' has a causative meaning, it is more likely to be related to the intransitive *binda-Y* Vi 'stand up' than to the transitive *binda-L* Vt 'stand up' (if they are related at all). Indeed, the intransitive *binda-Y* Vi 'stand up' is of Y-class, as is expected on the basis of the form *binda-y-nga-L*.

Furthermore, consider:

yobarri-ZERO Vi ‘escape’

yoba-y-nga-L Vt ‘steal’, e.g. (4-154)

If these verbs are related at all (although this is not certain), then *yobarri-ZERO* ‘escape’ consists of the root *yoba-* and the stem-forming suffixes *-rr* and *-i* (3.11.1.7), and *yoba-* used to belong to Y-class. (Warrgamay (Dixon 1981: 121) has *yubay* ‘be away’ (adjective), *yubay-bi-* Vi ‘run away’, and *yubay-ma-* Vt ‘steal, take’. *-bi* and *-ma* are, respectively, intransitive- and transitive-stem-forming suffixes (Dixon 1981: 80–81).)

Note in passing that *banda-y-nga-L* Vt ‘make [finger] crack’ is clearly a causative verb. *Binda-y-nga-L* Vt ‘let [ACC] go, pass [wind]’ appears to be one. *Yoba-y-nga-L* Vt ‘steal’ may possibly be one.

(c) There are other sets of examples that may involve the same *y*.

ngonja- (not attested in Warrongo)

cf. *ngonja-nga-L* Vt ‘blame’

cf. Dyirbal: *ngunja-Y* Vt ‘blame’

(Dixon 1972: 406)

bonja- (not attested in Warrongo)

bonja-y-nga-L Vt ‘smash, crash’

cf. Warrgamay: *bunja-*Vt, Vi ‘shoot’

(Dixon 1981: 114), cf. Nyawaygi: *bunja-L*

Vt ‘shoot’ (Dixon 1983: 506)

garo- (not attested in any language)

garo-y-nga-L Vt ‘hide’

[7] Uncertain or unknown etymology

In a fair number of instances, the etymology of the form to which *-nga-L* is added, is uncertain or unknown.

(a) In certain instances, it is not certain if a verb and the same form affixed with *-nga-L* are related, e.g. (i) *wanda-L* ‘leave’ and *wanda-y-nga-L* ‘let go’, (ii) *binda-Y* Vi ‘stand up’, and *binda-y-nga-L* ‘let go’ (both listed in [6]) and:

jago-L Vi ‘be sorry’

jago-nga-L Vt ‘tie up’

jolba-L, jolba-Y Vi ‘jump’,

jolba-nga-L Vt ‘bury’

cf. (1-4), (1-5)

cf. *jolba-mba-L* Vt ‘bury’ (4.7.3)

(b) The root to which *-nga-L* is added is not attested in Warrongo, e.g. *garo-y-nga-L* ‘hide’ (mentioned in [6]-(c)), *golmborr-nga-L* ‘set up [a fence], do neatly’, *gonyja-bara-nga-L* ‘split in the middle part of the belly of [ACC, e.g. kangaroo]’, *maywa-nga-L* ‘never make a mistake’, and *yawara-nga-L* Vt ‘spread’. It seems that these roots have survived in these verbs only.

A cognate, or a possible cognate, of the root in question may be found outside Warrongo. See *ngonja-* and *bonja-* (mentioned in [6]-(c)), and:

Warrgamay (Dixon 1981: 116): <i>garrgiri</i> Adj 'finished'	<i>garrgiri-nga-L</i> Vt 'finish'
Nyawaygi (Dixon 1983: 504): <i>baja</i> 'shut, blocked, finished' (3-150)	<i>baja-nga-L</i> Vt 'finish' <i>baja~baja-nga-L</i> Vt 'finish up', e.g.
Warrgamay (Dixon 1981: 112): <i>baja</i> 'shut, blocked'	cf. <i>baja-bi-L</i> Vi '[nose] be blocked up'

(c) *Mira-nga-L* Vt 'make' is used very frequently, despite the fact that the root *mira-* is not attested anywhere else in the language, except for the intransitive counterpart *mira-bi-L*:

<i>mira-</i> (not attested in Warrongo)	<i>mira-nga-L</i> Vt 'make', e.g. (3-244), (3-301), (4-256), Text 1, Line 49 cf. <i>mira-bi-L</i> Vi 'be made/formed, [baby] be born [or perhaps, conceived]' (4.7.1-[5])
---	--

Gugu-Badhun (Sutton 1973: 141, 218) has the verb *miranga-L/Y* 'make' But *mira-* by itself does not seem attested.

[8] *Yama-nga-L* 'so-TR', 'do so' and *yama-bi-L* 'so-INTR' 'be/become so'

As noted in 3.1.2-[6], 'speech act verbs', 'mental state verbs' or the like abound in languages such as English, but this is not the case in Warrongo. In view of this, *yama-nga-L* Vt 'so-TR' (listed in [3]-(a) above), involving the demonstrative adverb *yama* 'so, in such a way, like this, like that', is interesting. It seems to have the following uses.

- (a) Used by itself: 'do so', e.g. (3-270), (4-204), (4-608), (4-771), (4-812-B), Text 2, Line 36.
- (b) Modifying another verb: 'do so', e.g. (4-205).
- (c) Modifying the verb *mayga-L* 'tell, say' jointly 'tell/say so', e.g. (4-135).
- (d) Used by itself: 'tell/say so', e.g. (4-206-b), Text 2, Line 27, Text 3, Line 9.
- (e) Used by itself: 'tell, say', without indicating 'so', e.g. (4-123), (4-162), (4-207-a), (4-208-a), (4-1009-A).
- (f) Used by itself: 'X call/name Y Z', e.g. (4-209) (second A), (4-210) (second W).
- (g) Used by itself: 'think' (or 'hope'?). Cf. (4-211).

(4-204) (An example cited from a text. A man shows his wife how to clean a possum for cooking. Then, he says to her as follows.)

yama-nga-Ø yinda. (AP)
so-TR-IMP 2SG.ERG
'Do like this.'

(4-205) *yama-nga-n balga-n.* (AP)

so-TR-NF hit-NF

‘[They] did so, hit [him]’, i.e. ‘They hit him like that.’

(4-206) (An example cited from a text.)

a. *ngaygo.*

1SG.GEN

‘[My wife said to me] “[You are] my [husband]”’

b. *nganya yama-nga-n birgo-nggo.* (AP)

1SG.ACC so-TR-NF wife-ERG

‘[My] wife said so to me.’

(4-207) (An example cited from a text. ‘You want to kill that man.’)

a. *bama-goman-Ø yinda yama-nga-n.*

man-other-ACC 2SG.ERG so-TR-NF

‘You said to other men.’

b. *ngona-Ø ngana-Ø nyon.gol-Ø balga-Ø* (AP)

that-ACC 1PL-ERG one-ACC kill-IMP

‘Let’s kill that, one [man].’

(4-208) (An example cited from a text.)

a. *warrngo-nggo yama-nga-n.*

woman-ERG so-TR-NF

‘The woman said to [me]’

b. *ngaya gambilbarra-Ø warrngo-Ø.* (AP)

1SG.NOM westerner-NOM woman-NOM

Lit. ‘I [am] a westerner, a woman.’

(The second sentence contains an instance of ‘proper noun + common noun’. See 4.5.2.1.2.)

(4-209) (A conversation cited from a text.)

A. *ngani-Ø boron-Ø?*

what-NOM fighting ground-NOM

‘What [is] *boron*?’

B. *ngona-n-da balga-wa-yal.*

that,there-LINK-LOC hit-RECP-PURP

‘[People] hit each other there’, i.e. ‘People fight there.’

A. *ngona-Ø jana-nggo yama-nga-n boron.*

that-ACC 3PL-ERG so-TR-NF fighting ground-ACC

‘They call that [place] *boron*.’

A. *myarri-Ø binda-n* (fall)/ *boron-Ø* (rise). (AP)

name-ACC stand.up-NF fighting ground-ACC

‘[They] stood up [i.e. gave] the name *boron*.’

(In B, the purposive-2 seems to describe a habit, practice or the like. In the second A, it is not known whom 'they' refers to. It is not certain if the third A consists of one sentence. In view of the intonation contour, as shown above, it may consist of two sentences, in which case the *boron-Ø* may be in the NOM and the sentence can be translated '[They] set up [i.e. gave] the name. It is *boron*' In the third A, *binda-L* Vt 'stand up' means 'give [a name].')

(4-210) (A conversation between a husband (H) and his wife (W), cited from a text. He gives her a piece of *gobonbara* palm to eat. According to Alf Palmer, this palm is edible and tasty.)

H. *yinda moja-Ø*.
2SG.ERG eat-IMP
'Eat [this food].'

W. *ngani-Ø nyarri-Ø?*
what-NOM name-NOM
'What [is] its name?'

H. *gobonbara-Ø*.
(palm sp.)-NOM
'[This is] a *gobonbara* palm.'

W. *wanyo-lo yama-nga-n gobonbara-Ø?*
who-ERG so-TR-NF (palm sp.)-ACC
'Who named/called [it] *gobonbara-Ø*?'

H. *ngana-Ø*.
1PL-ERG
'We [did].'

H. *nyarri-Ø goyba-n ngana-Ø gobonbara-Ø*.
name-ACC give-NF 1PL-ERG (palm sp.)-ACC
'We gave the name *gobonbara*.'

H. *yowo yarro-Ø=wa*.
yes this-NOM=FOC
'Yes, indeed this [is] *gobonbara*.'

H. *yamanyon-Ø moja-lgo yinda gobonbara-Ø*. (AP)
similar-ACC eat-PURP 2SG.ERG (palm sp.)-ACC
'You should eat a similar [piece of] *gobonbara*', or 'You should eat [piece of] *gobonbara* like this.'

(In the third A of (4-209), *binda-L* Vt 'stand up' means 'give [a name]' In contrast, in the fourth H above, *goyba-L* 'give' is used to express 'give [a name]' It is difficult to set up the recipient NP. The last sentence contains *yamanyon* 'similar' It exhibits an interesting behaviour. See 4.23.)

- (4-211) *ngaya yama-nga-n* (AP)
 1SG.ERG so-TR-NF
 'I think (or hope?) that

Regarding (f), there is no suitable example at hand; cf. (4-211). But when asked to translate sentences such as 'I think that ' (also 'hope' (?)), Alf Palmer used *yama-nga-L* 'so-TR', followed by a subordinate clause. This is probably not a traditional use of *yama-nga-L*. And I suspect that there was no verb for 'think', and that this new use of *yama-nga-L* 'think' started when the Warrongo language encountered a new culture (i.e. involvement in linguistic field work).

The sentences 'X names/calls Y Z' (e.g. (4-209) (second A); cf. also (4-210) (second W; elliptical)) have 'ERG ACC ACC', and they may appear to be of three-place. However, in the present work they are not regarded as three-place. This is because Z is not referential. With other three-place verbs (4.3.3.2), all of the arguments are referential.

Yama-bi-L Vi 'be/become so' exhibits the following uses. No example has been which will be parallel to the use (e), (f) or (g) of *yama-nga-L* 'so-TR'.

- (a) Used by itself: 'be/do so', e.g. (4-685).
- (b) Modifying another verb: 'do so', e.g. (4-127).
- (c) Modifying the verb *mayga-gali-ZERO* 'tell-ANTIP': jointly 'tell/say so', e.g. (3-264).
- (d) Used by itself: 'tell/say so', e.g. (4-179).

[9] Cognates or possible cognates of *-nga-L* occur: *-nga-* 'transitive-stem-forming' of Gugu-Badhun (Sutton 1973: 141, 144), *-nga-L* 'applicative, causative' of Yidiny (Dixon 1977b: 293, 364), and *-nga-L* 'verbalizing formative' of Gugu Yimidhirr (Haviland 1979: 80, Dixon 1980: 405)

4.7.3. Transitive-stem-forming suffix *-(m)ba-L*

This suffix (glossed 'TR', like *-nga-L*) occurs in Alf Palmer's Warrongo, but it does not seem attested in Alec Collins'. Its allomorphy is as follows.

- mba-L* following a vowel or a liquid (*l*, *r* or *rr*)
- ba-L* following the nasal *n*

There are two examples in which *-ba-L* follows the nasal *n*: (i) *ngorrmbon-ba-L* 'make a noise' (see [1] below), and (ii) *goynbon~goymbon-ba-L* 'feel sorry for' ([4] below).

In the distribution of these two allomorphs, the liquids (though not the nasal *n*) are grouped together with vowels. In this respect, the liquids are more 'vowel-like' than the nasal *n*, and this is in keeping with the sonority hierarchy as shown in (2-93), where liquids are considered more sonorous (i.e. more vowel-like) than nasals.

In my data, *n* is the only nasal that is followed by *-ba-L*, and there is no example of any other nasal that is followed by *-ba-L*.

It is possible to derive *-ba-L* from *-mba-L*: *m* is deleted when *-mba-L* follows a nasal; this will be an instance of dissimilation. Alternatively, it is possible to derive *-mba-L* from *-ba-L*: *m* is inserted when the preceding phoneme is not a nasal; see 2.6-[2] for nasal insertion.

The verbs with *-(m)ba-L* are all transitive, and they belong to L-class. All the attested verbs are listed below.

-(m)ba-L is not so productive as *-bi-L* 'INTR' or *-nga-L* 'TR'. It is attested with (i) nouns, including adjective-like nouns, (ii) adverbs, and (iii) verbs. It is almost always added to a root, but there is at least one instance in which it follows another stem-forming suffix: *goyba-ra-mba-L* 'knock over' (see [3]-(b) below).

Like verbs with *-bi-L* and those with *-nga-L*, verbs with *-(m)ba-L* may modify another verb, e.g. (4-213), though not as frequently.

[1] *-(m)ba-L* added to nouns (a root in every example)

The resultant stems sometimes (though not always) describe causation or creation.

<i>jabo</i> 'hole'	<i>jabo-mba-L</i> 'bury', e.g. (4-212)
<i>ganyji</i> 'shoulders (as means of carrying (?))	<i>ganyji-mba-L</i> 'carry on the shoulders'

(This may be accidental, but there is the verb *ganyji-L* Vt 'carry'.)

<i>ngami</i> 'lap' (also 'belly' (?))	<i>ngami-mba-L</i> 'hold/carry on the lap or the belly'
---------------------------------------	---

(The meaning 'belly' is not attested for the noun *ngami*.)

<i>ngorrmbon</i> 'noise which one would not like other people to hear'	<i>ngorrmbon-ba-L</i> 'inadvertently make a noise which one would not like other people to hear'
<i>jora</i> 'alive'	<i>jora-mba-L</i> 'cure [a sick person]'
<i>gon.ga</i> 'raw, alive'	<i>gon.ga-mba-L</i> 'cure [a sick person]'

(4-212) (An example cited from a text. 'My wife died.')

ngoni ngaya jabo-mba-n. (AP)
there 1SG.ERG hole-TR-NF
'I buried [her] there.'

[2] *-(m)ba-L* added to adverbs

Here, its function seems to be simply formation of transitive stems, without indicating causation or creation.

ngarro ‘in vain,
unsuccessfully’

ngarro-mba-L ‘try to get [someone, something]
unsuccessfully’, e.g. (3-237-c), (4-213), (4-777)

gaji ‘maybe’ (4.24-[7])

gaji-mba-L ‘fool, deceive’

(4-213) (‘I wanted to make love to her, but.’)

ngarro-mba-n ngaya banjo-n. (AP)

in.vain-TR-NF 1SG.ERG ask-NF

‘I asked [her] unsuccessfully’, i.e. ‘I asked her, but I failed’.

[3] *-(m)ba-L* added to verbs

(a) *-(m)ba-L* added to intransitive verbs

(a-1) *-(m)ba-L* added to intransitive roots. The resultant stems are causative verbs (S O), although the semantic correspondence between the two verbs in each pair is not perfect.

waga-L Vi ‘rise, get up’

waga-mba-L ‘lift, pick up; wake up; choose;
adopt [a child]’, e.g. (4-215), (4-632)

jarga-L Vi ‘enter, go in’

jarga-mba-L ‘take in’

(There is the transitive verb *jarga-L* Vt ‘enter, insert, put in’; see 4.9.3. Therefore, it is possible to say that *-mba-L* is added to the transitive *jarga-L*, resulting in Vt *jarga-mba-L* ‘take in’.)

(4-214) *galbin-Ø waga-n.* (TT)

child-NOM(S) rise-NF

‘The child got up.’

(4-215) *bama-nggo galbin-Ø waga-mba-n.* (TT)

man-ERG(A) child-ACC(O) rise-TR-NF

‘The man lifted/adopted the child.’

(a-2) *-(m)ba-L* added to an intransitive root followed by the stem-forming suffix *-l*

boji-L (not attested)

boji-l-mba-L Vt ‘take no notice of’

cf. *boji-l-boji-l* noun

‘taking no notice’ (3.11.1.6-[5]),

boji-l-boji-l-i-ZERO Vi ‘take no

notice, do not care’ (3.11.1.6-[7])

(-l is identical with the nonfuture-2 suffix of L-class (see Table 3-14), but it is best considered a stem-forming suffix (3.11.1.6). This is because the intransitive verb *boji-L* is not attested, and consequently the nonfuture-2 *boji-l* is not attested.) Semantically, *boji-l-mba-L* Vt 'take no notice of' is rather like an applicative verb (S : A). Thus, compare:

(4-216) *galbin-Ø boji-l~boji-l-i-n*. (TT)
 child-NOM(S) take.no.notice-NF
 'The child took no notice.'

(4-217) *galbin-do bama-Ø boji-l-mba-n*. (TT)
 child-ERG(A) man-ACC(O) take.no.notice.of-NF
 'The child took no notice of the man.'

(b) *-(m)ba-L* added to a transitive verb. In the only instance, it is attached to a transitive stem that already contains a verb-stem-forming suffix.

goyba-ra-L Vt 'give out' *goyba-ra-mba-L* 'knock over, heap up',
 (See 3.11.1.4 for *-rV-L*) e.g. (4-905)
 cf. *goyba-L* Vt 'give'

[4] *-(m)ba-L* added to roots that are not attested by themselves

goynbon~goynbon-ba-L, *goynbor-mba-L* '[ERG] feel sorry for [ACC]'
 cf. *goynbon-bi-L* Vi 'feel sorry', *goynbon~goynbon-bi-L* Vi 'feel sorry, be sad'
golmborr-mba-L 'set up [a fence]'
jolba-mba-L 'bury'

Note that *goynbon* ends with *n* (followed by *-ba-L*), while *goynbor* ends with *r* (followed by *-mba-L*). This is an instance of the alternation /i/-/in/ (see the paragraph that follows 2.4-[7]). (Warrgamay (Dixon 1981: 115) has *julbamba-* Vt 'bury (deeply)', but *julba* by itself does not seem attested.) Semantically, *goynbon~goynbon-ba-L* and *goynbor-mba-L* Vt '[ERG] feel sorry for [ACC]' are applicative verbs (S : A). Thus, compare:

(4-218) *galbin-Ø goynbon-bi-n bama-wo*. (TT)
 child-NOM(S) feel.sorry-INTR-NF man-DAT
 'The child felt sorry for the man.'

(4-219) *galbin-do bama-Ø goynbon~goynbon-ba-n*. (TT)
 child-ERG man-ACC feel.sorry.for-NF
 'The child felt sorry for the man.'

[5] In a few pairs, *-nga-L* and *-(m)ba-L* appear to be interchangeable, and no semantic difference between the two verbs is known.

<i>jabo</i> ‘hole’	<i>jabo-nga-L, jabo-mba-L</i> ‘bury’
<i>jora</i> ‘alive, well’	<i>jora-nga-L, jora-mba-L</i> ‘cure’
<i>jolba</i> (not attested)	<i>jolba-nga-L, jolba-mba-L</i> ‘bury’
cf. Warrgamay <i>julbamba-</i> ‘bury (deeply)’ (Dixon 1981: 115)	
<i>golmborr</i> (not attested)	<i>golmborr-nga-L, golmborr-mba-L</i> ‘set up [a fence]’
<i>goyba-ra-L</i> Vt ‘give out’	<i>goyba-ra-nga-L</i> ‘knock over’
	<i>goyba-ra-mba-L</i> ‘knock over, heap up’

[6] Cognate suffixes occur in neighbouring languages, e.g. *-mba-* ‘causative (?)’ of Gugu-Badhun (Sutton 1973: 142), *-ma-L/- (m)ba-L* ‘causative, applicative’ of Dyirbal (which includes Jirrbal, Girramay and Mamu) (Dixon 1972: 86, 95), *-ma-l* ‘applicative, causative’ of Warrgamay (Dixon 1981: 77, 81), and *-yma-L/ba-L* ‘applicative’ and *-ma-L* ‘causative’ of Nyawaygi (Dixon 1983: 495, 499). In Australian languages, ‘Both *-nga-l* and *-ma-l* occur quite widely as transitive verbalisers’ (Dixon 1980: 435).

Alf Palmer used *-ma-?* (class unknown) to form a few transitive stems. However, later he stated to the effect that *-ma-* is a Jirrbal form and that the Warrongo counterpart is *-nga-L*, and he gave the following pairs of correspondences.

	Jirrbal	Warrongo
<i>jano</i> ‘half’	<i>jano-ma-</i>	<i>jano-nga-L</i> ‘cut into halves’
<i>jago</i> (not attested)	<i>jago-ma-</i>	<i>jago-nga-L</i> ‘tie up’
<i>golmborr</i> (not attested)	<i>golmborr-ma-</i>	<i>golmborr-nga-L</i> ‘set up [a fence]’

The above shows that Alf Palmer was conscious of the differences between Warrongo and other languages – although he may have used the non-Warrongo suffix *-ma-?* by mistake. (This paragraph has been included in view of the criticism targeted at Alf Palmer’s data; see 1.8.4.1-[2].)

4.8. Complex sentences involving purposive subordination

4.8.1. Introductory notes

The use of purposive verbs is a common way to form subordination in many Australian languages (Dixon 1980: 458, 2002: 71, 87, 211). In Warrongo, too, the purposive-1 (*-lgo*) and the purposive-2 (*-yal*) have two functions.

- (a) Finite use: used as the predicate of a simple sentence, or as the predicate of the main clause of a complex sentence.
- (b) Non-finite use: used as the predicate of the subordinate clause of a complex sentence.

In their finite use, the two purposives express intention, volition, etc. (3.10.13). The following discussion will look at their non-finite use. In Warrongo, too, the use of the purposive-1, -2 is the most common way to form subordination, and it is utilized very frequently. The purposive-3 (3.10.14) and the purposive-4 (3.10.15) do not seem to be used to form the kind of subordination discussed below. The two purposives in their non-finite use generally express the following.

- (i) Purpose, e.g. (4-220), (4-221).
- (ii) Result/consequence or successive action, e.g. (4-222).

Subordinate clauses involving one of these two purposives parallel the English *so that* clauses. The latter, too, may express (i) purpose (*so that may*) or (ii) result/consequence (*, so that*). Additional remarks on the semantics of purposive subordination will be given in 4.8.5-[1].

4.8.2. Combination of clauses

In complex sentences involving purposive subordination (though not in every type of complex sentences) the main clause and the subordinate clause can be either transitive or intransitive, independently of each other, so that there are four possibilities. See Table 4-12.

Table 4-12. Combination of clauses involving purposive subordination

	main clause	subordinate clause	the verb of the subordinate clause with <i>-lgo</i>	with <i>-yal</i>
(a)	intransitive	intransitive	(4-232)	(4-220), (4-237)
(b)	intransitive	transitive	(4-228), (4-229)	(4-230)
(c)	transitive	intransitive	(4-221)	(4-222), (4-231)
(d)	transitive	transitive	(4-234) to (4-236)	(4-235), (4-238)

(4-220) (Advice to a man who is feeling dizzy.)

yinda nyina-ya bori-ngga gagal-bi-yal jili-Ø. (AP)
 2SG.NOM(S) sit-IMP fire-LOC big-INTR-PURP eye-NOM(S) [S=S]
 'Sit by the fire so that [your] eyes will become sober ([lit. big].'

(4-221) (A man teased a woman, and he was accused by her. He said:)

jamo ngaya yina yama-nga-n
 just 1SG.ERG(A) 2SG.ACC(O) so-TR-NF
goli-yi-Ø waga-lgo yinda. (AP)
 angry-COM-NOM rise-PURP 2SG.NOM(S) [O=S]
 ‘I said so to you just [for fun] so that you would get angry.’

(4-222) *ngaya nyonya jingga-n*
 1SG.ERG(A) 3SG.ACC(O) punch-NF
nyola yagay-bi-yal. (AP)
 3SG.NOM(S) Ouch!-INTR-PURP [O=S]
 ‘I punched him, so that he screamed.’

‘[S=S]’ indicates that the S of the first clause and the S of the second clause are coreferential. Similarly for ‘[O=S]’, etc. (In (4-220), to be strict, *yinda* ‘2SG.NOM(S)’ and *jili-Ø* ‘eye-NOM(S)’ are not perfectly coreferential. They form the ‘whole-part’ relationship (4.20.1).)

As noted in 4.6.4-(a-2), the purposive subordinate clause almost always follows the main clause. See 4.8.5-[4] for details.

There appears to be no difference in subordination regarding semantics or syntax between the *-lgo* purposive and the *-yal* purposive. But there is possibly one morphological difference; see 4.8.5-[3].

Purposive subordination may contain two (or possibly more) purposive verbs. See 4.9.7-[5].

4.8.3. Coreference and syntactic ergativity

As noted in 1.1 and 4.1, the most prominent feature of Warrongo is syntactic ergativity. A phenomenon which treats the S and the O in the same way and the A differently (i.e. S/O vs. A) is ergativity, and one which treats the S and the A in the same way and the O differently (i.e. S/A vs. O) is accusativity. They can be shown as in Figure 4-1.

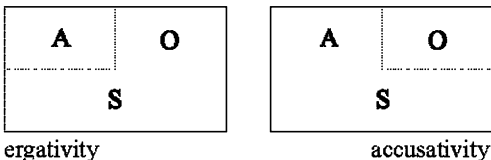


Figure 4-1. Ergativity and accusativity

Ergativity and accusativity may occur within clauses, i.e. intra-clausal ergativity and accusativity, respectively. They may involve case inflections, adposi-

tions, cross-reference, etc. Furthermore, ergativity and accusativity may occur at the inter-clausal level, i.e. syntactic (or inter-clausal) ergativity and accusativity, respectively. (See Comrie (1978b) and Dixon (1979, 1994). Syntactic ergativity was first reported by Dixon (1972) for Dyirbal.)

Warrongo exhibits split ergativity at the intra-clausal level, and this involves case marking. Roughly speaking, at this level, nouns show ergativity, and pronouns accusativity. See Table 3-1. Furthermore, it has syntactic (or inter-clausal) ergativity.

The terms 'ergativity' and 'accusativity' as used in the present work will be characterized. (They are not used in exactly the same way as, for instance, in Dixon (1994).) Tsunoda (1986, 1987, 1988a, 1988b) proposed to classify coreference patterns involving the A, O and S as follows.

- (a) S/O patterns: S=O, O=S
- (b) S/A patterns: S=A, A=S
- (c) neutral patterns: S=S, A=A, O=O
- (d) aberrant patterns: A=O, O=A

Ergativity and accusativity are characterized as follows.

(4-223) Ergativity and accusativity

- (a) Ergativity (S/O vs. A) is manifested by:
 - (a-1) S/O patterns (S=O, O=S), and;
 - (a-2) neutral patterns (S=S, A=A, O=O).
- (b) Accusativity (S/A vs. O) is manifested by:
 - (b-1) S/A patterns (S=A, A=S), and;
 - (b-2) neutral patterns (S=S, A=A, O=O)

The neutral patterns are neutral as to the dichotomy between ergativity and accusativity. It is in view of this that Tsunoda (1986: 190, 1987: 684, 1988a: 10, 1988b: 609) applied the label 'neutral' to them. In contrast, the aberrant patterns are incompatible with either of ergativity and accusativity. 'Aberrant patterns' are termed as such by Tsunoda (1986: 190, 1987: 684, 1988a: 10, 1988b: 609) because they appear to be universally disfavoured or prohibited in coreferential deletion, irrespective of a given language's preference in deletion patterns. Indeed, coreferential deletion involving an aberrant pattern appears to be prohibited in Warrongo, as we shall see in 4.8.4.

4.8.4. Coreferential deletion in purposive subordination

[1] Ellipsis in Warrongo discourse

Before discussing coreferential deletion, it is important to reiterate that Warrongo discourse is highly elliptical (1.1, 4.1). For example, consider (4-224-c) and (4-225-A),

each of which contains a purposive subordinate clause. (A square bracket indicates deletion. The deleted words have been supplied by me, and indicated by means of ‘[TT]’.)

(4-224) (‘I had an erection.’)

- a. *ngarro-mba-gali-n ngaya.*
 in.vain-TR-ANTIP-NF 1SG.NOM
 ‘I tried to [hide my erection] in vain’, i.e. ‘I tried to hide my erection, but I could not.’
- b. *gamo-nggo ngaya [jombi-∅ TT] jilngga-n.*
 water-ERG 1SG.ERG [penis-ACC] pour.water-NF
 Lit. ‘I watered [my penis] with water.’
- c. *gido-nggo ngaya [jombi-∅ TT] jilngga-n*
 cold-ERG 1SG.ERG [penis-ACC(O)] pour.water-NF
 [jombi-∅ TT] *wona-yal.*
 [penis-NOM(S)] lie,sleep-PURP ([O]=[S])
 Lit. ‘I watered [my penis] with cold [water] so that [it] would sleep.’
- d. *nyawa, nyola waga-n.* (AP)
 NEG 3SG.NOM rise-NF
 ‘No. It got up [again].’

(The last sentence contains one of the two instances in which the pronoun ‘3SG’ refers to a body part (3.1.2-[2].)

(4-225) (A conversation cited from a text. A: ‘That white man is looking for an Aboriginal man.’)

- B. *ngani-nga-lgo nyola bama-∅?*
 what-TR-PURP 3SG.ERG man-ACC(O)
 ‘What will he do to/with an [Aboriginal] man?’
- A. [*nyola bama-∅ TT*] *ganyji-lgo [bama-∅ TT] magoli-yal*
 [3SG.ERG man-ACC(O)] carry-PURP [man-NOM(S)] work-PURP
nyongo nyongo-n nyongo-n nyongo-n-da. (AP)
 (error) (error) (error) 3SG-LINK-LOC
 ‘He will take [an Aboriginal man] so that [the Aboriginal man] would work with/for him.’ ([O]=[S])

(The locative in (4-225-A) seems to indicate ‘in the employment of’ (3.6.3-[4].) In (4-224-c), both occurrences of *jombi-∅* are understood. In (4-225-A), both occurrences of *bama-∅* are elliptical. See Texts 1 and 2 for more examples.

Also, consider (4-246). According to the analysis adopted, the first occurrence of the two NPs for the A, and not the second occurrence, is understood. Also, the first occurrence of the two NPs for the O, and not the second occurrence, is understood.

Regarding instances such as (4-224-c) ([O]=[O]), (4-225-A) ([O]=[S]) and (4-246) ([A]=A, [O]=O), it does not seem meaningful to discuss coreferential deletion. In the following, we shall look at instances in which at least the first occurrence of the coreferential NPs is not elliptical.

[2] 'Postcedent'· its retention, pronominalization, and deletion

When a sentence contains two coreferential NPs, the one that precedes will be called 'antecedent', and the one that follows will be called 'postcedent'. (The term 'antecedent' is a usual linguistic term, while the term 'postcedent' has been coined by me.) We shall look at a hypothetical language, employing English words. In a given coreference situation, the antecedent may be a noun, as in (4-226), or a pronoun, as in (4-227). In (4-226), the postcedent may be the same noun, as in (4-226-a) (i.e. retention of the noun), a pronoun (i.e. pronominalization), as in (4-226-b), or a 'zero pronoun' (i.e. deletion of the noun), as in (4-226-c). In (4-227), the postcedent may be the same pronoun (i.e. retention of the pronoun), as in (4-227-a), or a 'zero pronoun' (i.e. deletion of the pronoun), as in (4-227-b).

- | | | | |
|------------|---------|---------|---------------------|
| (4-226) a. | The man | the man | (retention) |
| b. | The man | he | (pronominalization) |
| c. | The man | ∅ | (deletion) |

- | | | |
|------------|-----------------------------------|-------------|
| (4-227) a. | I/you/he/etc. ... , I/you/he/etc. | (retention) |
| b. | I/you/he/etc. ... , ∅ | (deletion) |

In Warrongo, the most frequent method is deletion: (4-226-c) and (4-227-b). However, deletion does not seem always obligatory. There are instances in which the expected deletion does not take place. This will be discussed below in 4.8.4 and in 4.9.11.2.

Warrongo has pronouns (Table 3-6), but it does not employ pronominalization commonly, in contrast with languages such as English. ((4-676) contains a rare instance of pronominalization. The antecedent is the noun *yori-∅* 'kangaroo-NOM(S)' and the postcedent is the pronoun *nyonya* '3SG.ACC(O)'. (4-676) involves subordination; the subordinate clause involves the participle-1 and it follows the main clause.)

[3] Deletion: ideal patterns and actual patterns

When discussing possible patterns in coreferential deletion in Warrongo (and no doubt in many other languages as well), it is important to distinguish between the following.

- (a) Ideal patterns: they are most clearly observed in, e.g., (i) in sentences given in elicitation, and (ii) a speaker's acceptability judgement of sentences cited out of context.
- (b) Actual patterns: they are observed in the texts.

As seen in Table 3-1 and 4.8.3, in case-marking, nouns show ergativity (S/O vs. A), while pronouns exhibit accusativity (S/A vs. O) (Table 3-1). In view of this, it is sometimes necessary to distinguish nouns and pronouns when discussing coreferential deletion patterns.

Ideal patterns (not actual patterns) in coreferential deletion involving purposive subordination regarding the A, O and S are shown in Table 4-13. This applies to both nouns and pronouns, although they have different case marking patterns. (Coreferential deletion involving other arguments and adjuncts does not seem to be syntactically governed, and it has not been possible to set up any syntactic condition for it.) Table 4-13 is concerned with purposive subordination, but this principle of coreferential deletion has a much broader relevance and is very important in Warrongo syntax.

Table 4-13. Ideal coreferential deletion patterns involving purposive subordination

	main clause	purposive clause	Is deletion possible ?	examples
S/O patterns	S	O	yes	(4-228) to (4-230)
	O	S	yes	(4-231)
neutral patterns	S	S	yes	(4-232), (4-233)
	A	A	yes	(4-234)
	O	O	yes	(4-235), (4-236)
S/A patterns	S	A	no	
	A	S	no	
aberrant patterns	A	O	no	
	O	A	no	

As Table 4-13 shows, where ideal patterns (not actual patterns) are concerned, coreferential deletion is possible:

- (a) if the coreference is in one of the S/O patterns (S=O, O=S), or;
- (b) if it is in one of the neutral patterns (S=S, A=A, O=O).

But coreferential deletion is not possible:

- (c) if the coreference is in one of the S/A patterns (S=A, A=S), or;
- (d) if it is in one of the aberrant patterns (A=O, O=A).

This shows that ideal patterns of coreferential deletion manifest ergativity (i.e. S/O vs. A), and not accusativity (S/A vs. O). They are in keeping of the case marking pattern of nouns (S/O vs., A), and not that of pronouns (S/A vs. O). For pronouns, too, the ideal deletion patterns are as shown in Table 4-13, despite the accusativity in their case marking. Examples include (4-228) and (4-230).

The possibilities/impossibilities shown in Table 4-13 are ideal patterns, as reflected in Alf Palmer's introspection. In the texts, deviations from the ideal patterns do occur, as shown in 4.9.4.1 and 4.9.4.2. Nonetheless, clearly they are impossible patterns in Alf Palmer's introspection. A good example to show this is (4-240) in 4.9.8.2.1, cited from a text. It involves a pronoun, and the deletion pattern is 'S=[A]' However, it is ungrammatical in Alf Palmer's introspection, and consequently it is best considered 'a performance error'

Examples of deletion in an ideal pattern follow.

First, examples of the S/O patterns (S=O, O=S).

S=[O]

(4-228) (A kangaroo was speared.)

nyola wadali-n ngoni-n-da
 3SG.NOM(S) run-NF there-LINK-LOC
gando-nggo [nyonya TT] baja-lgo. (AP)
 dog-ERG(A) [3SG.ACC(O)] bite-PURP
 'It hopped [lit. ran] [away], and the dog bit [it] there.' (S=[O])

(4-229) (Alf Palmer described an old house that was going to be pulled down soon.)

yamba-Ø jana-n [bama-nggo yamba-Ø TT] woda-lgo. (AP)
 house-NOM(S) stand-NF [man-ERG(A) house-ACC(O)] pull.down-PURP
 Lit. 'The house is standing and [the men] will pull [the house] down', i.e.
 'The house is standing to be pulled down.' (S=[O])

(4-230) *nyola gawali-Ø yinda [nyonya TT] ngawa-yal. (AP)*

3SG.NOM(S) call.out-NF 2SG.ERG(A) [3SG.ACC(O)] hear-PURP
 'He called out [to you] so that you could hear [him].' (S=[O])

O=[S]

(4-231) *gajarra-nggo gando-Ø baja-n [gajarra-Ø TT] gawali-yal. (AP)*
 possum-ERG(A) dog-ACC(O) bite-NF [possum-ACC(O)] call.out-PURP
 'A possum bit a dog and [consequently] the dog [not the possum] yelped.'
 (O=[S])

Examples of the neutral patterns (S=S, A=A, O=O).

S=[S]

(4-232) *bama yani-Ø [bama-Ø TT] yamba-ngga banda-lgo. (AP)*
 man-NOM(S) go-NF [man-NOM(S)] camp-LOC emerge-PURP
 'The man went and [the man] came out to a camp.' S=[S]

(4-233) *bama-Ø yani-Ø [bama-Ø TT] nyina-yal. (AP)*

man-NOM(S) go-NF [man-NOM(S)] sit-PURP
 'The man went and [the man] sat [down].' S=[S]

A=[A]

(4-234) (Alf Palmer described my work as a linguist as follows.)

yinda *ngana-ngo* *gogo-Ø* *moga-n*
 2SG.ERG(A) 1PL-GEN language-ACC(O) get-NF
 [*yinda* *ngana-ngo* *gogo-Ø* TT] *ganyji-lgo.* (AP)
 [2SG.ERG(A) 1PL-GEN language-ACC(O)] take-PURP
 ‘You are getting [i.e. studying] our language so that [you] can take [our language to Japan].’ (A=[A], O=[O])

O=[O]

(4-235) (The context is the same as that for (4-178).)

yinda *ngana-ngo* *gogo-Ø* *moga-lgo*
 2SG.ERG(A) 1PL-GEN language-ACC(O) get-PURP
yinda [*ngana-ngo* *gogo-Ø*] *ganyji-lgo*
 2SG.ERG(A) [1PL-GEN language-ACC(O)] take-PURP
 [or, *ganyji-ya!*]. (AP)
 [or, take-PURP]
 ‘You will get [i.e. learn] our language so that you can take [our language to Japan].’ (A=A, O=[O])

(In (4-235), the second occurrence of *yinda* is not deleted. However, a version in which it is deleted is preferred; see (4-234).)

(4-236) (Alf Palmer described his language work as follows.)

yino *yarro-Ø* *gogo-Ø* *ngaya* *goyba-n*
 1SG.GEN this-ACC language-ACC(O) 1SG.ERG(A) give-NF
yinda [*yarro-Ø* *gogo-Ø* TT] *yarro-ngomay-Ø*
 2SG.ERG(A) [this-ACC language-ACC(O)] this-ABL-ACC(O)
ganyji-lgo. (AP)
 take-PURP
 ‘I give [i.e. teach] you this language so that you can take [this language] from here [to Japan].’ (O=[O])

To be exact, (4-236) is not a good example of ‘O=[O]’, for the word *yarro-ngomay-Ø* is part of the O NP, and consequently the O NP is not completely deleted. Deletion of *yarro-ngomay-Ø* will yield a perfect example of ‘O=[O]’ (Note that (4-236) shows Alf Palmer’s dedicated efforts to have his language documented. It is in view this that I cite this sentence, despite the fact that it is not a perfect example of ‘O=[O]’.)

[4] Obligatoriness/non-obligatoriness of deletion

We shall examine whether or not the deletion of the second occurrence of the co-referential NP (hereafter, 'NP2') is obligatory when the pattern is one of the S/O patterns or of the neutral patterns (cf. Table 4-13). We need to take the following two factors into consideration.

- (a) The second occurrence of the coreferential NP: pronoun vs. noun.
- (b) Tightness of clause-linkage.

We shall discuss the factor (b) in 4.9.6.1. In the following we shall consider the factor (a).

When the NP2 is a pronoun, this deletion is not obligatory. It is retained in a fair number of examples, e.g. *yinda* '2SG.NOM(S)' in (4-221) (cited from a text), *nyola* '3SG.NOM(S)' in (4-222) (cited from a text), and *yinda* '2SG.ERG(A)' in (4-235) (spontaneously given during our conversation).

When the NP is a noun, it is almost always deleted – as far as spontaneous examples (given in a text or during our conversation) are concerned. However, this deletion does not seem obligatory. First, there is at least one example (and possibly more) in which the second occurrence of the coreferential NPs is not deleted. See (4-626) (second *bolari-Ø* 'two-ACC'). Second, Alf Palmer approved a fair number of sentences which I had composed and in which the NP2 is left un-deleted, e.g. (4-37) and (4-238). Another example is (4-637) (*giya-Ø* 'hook-ACC').

(4-237) *bama-Ø yami-n bama-Ø nyina-yal.* (TT, AP)
 man-NOM(S) go-NF man-NOM(S) sit-PURP
 Intended meaning: 'The man went and the same man sat [down].' (S=S)

(4-238) *bama-nggo yori-Ø baba-n*
 man-ERG(A) kangaroo-ACC(O) stab-NF
bama-nggo [yori-Ø] ganyji-yal. (TT, AP)
 man-ERG(A) [kangaroo-ACC(O)] carry-PURP
 Intended meaning: 'The man speared a kangaroo and the same man carried it.' (A=A, O=[O])

In (4-237), the second occurrence of *bama-Ø* 'man-NOM(S)' is not deleted. In (4-238), the second occurrence of *yori-Ø* 'kangaroo-ACC(O)' is deleted, but that of *bama-nggo* 'man-ERG(A)' is left un-deleted. If sentences such as these – where the NP2 is a noun and it is retained – are acceptable at all, they are almost certainly artificial and stilted. They are not attested in spontaneously given data. No doubt, (4-233) (in which the NP2 *bama-Ø* 'man-NOM(S)' is deleted) would be preferred to (4-237). Similarly, (4-239) (in which the NP2 *bama-nggo* 'man-ERG(A)' and the NP2 *yori-Ø* 'kangaroo-ACC(O)' are deleted) would be preferred to (4-238).

- (4-239) *bama-nggo yori-Ø baba-n*
 man-ERG(A) kangaroo-ACC stab-NF
 [*bama-nggo yori-Ø*] *ganyji-yal.* (TT)
 [man-ERG(A) kangaroo-ACC(O)] carry-PURP
 ‘The man speared a kangaroo and [the man] carried it.’ (A=[A], O=[O])

Deletion/retention of nouns vs. pronouns as NP2 will be further discussed in 4.9.8.2.2, in particular, in [1] and [5].

4.8.5. More on purposive subordination

Additional remarks on the semantics, syntax, and verb morphology of purposive subordination are provided.

[1] Semantics

(a) Purpose, and result/consequence or successive action

As seen above, when used in subordinate clauses, purposives generally express (i) purpose, or (ii) result/consequence or successive action. (There are at least two exceptions; see below.) However, this classification is not straightforward. Which reading a given instance has depends on the context. For example, (4-220), (4-221), (4-234) to (4-236) each indicate purpose in the context in which they were uttered.

In contrast, (4-228), cited from a text, describes a result/consequence. First, it was not the kangaroo’s intention to be bitten by the dog, so the sentence would not have a purpose reading. Second, in that story the kangaroo was actually bitten by the dog, so the sentence should have a result/consequence reading. Similarly for (4-222).

In the case of purpose reading, the sentence itself does not specify whether the intended purpose is realized or not. It is realized in most instances. For example, this is the case with (4-234) through (4-236), for I brought the Warrongo language (to be precise, the Warrongo language materials) to Japan. (However, I have started returning the language to Warrongo people (1.9).) But there are also instances in which it is not known whether the intended purpose is realized or not. For example, concerning (4-220) it is not known if ‘your eyes’ actually became sober.

There are at least two exceptions to the generalization that, when used in subordinate clauses, purposives generally express (i) purpose, or (ii) result/consequence or successive action: (4-240) and (4-653).

(4-240) (An example cited from a text.)

- ngaya wadali-n bama-nggo nganya balga-lgo.* (AP)
 1SG.NOM(S) run-NF man-ERG(A) 1SG.ACC(O) kill-PURP
 ‘I ran [away, for] a man was going to kill me.’ (S=O)

In this sentence, the purposive does not indicate purpose or consequence, i.e. this sentence does not mean ‘I ran so that a man could kill me’ or ‘I ran, so that a man killed me’ This is despite the fact that this sentence has the same structure as that of (4-228) to (4-230): intransitive clause + transitive clause (S=O). One way – admittedly an ad hoc way – to deal with these exceptions is to say that (4-240) and (4-653) do not involve subordination. That is, they each consist of two sentences.

(b) Causative

‘Any causative situation involves two component situations, the cause and its effect (result)’ (Comrie 1981a: 158). As seen above, the Warrongo purposive subordination can express result/consequence, and therefore some of the instances can have a causative reading. For example, (4-231) can be paraphrased as follows: ‘A possum bit a dog, and made it yelp’ The same applies, for instance, to (4-225-A): ‘The white man will take an Aboriginal man to make him work for him’

Warrongo does not have any constructions that are dedicated to causatives. Nonetheless, causative situations can be expressed by (i) transitive verbs involving *-nga-L* (4.7.2), e.g. (4-184), (4-185), (4-187), (4-188-b), (4-197), (4-199), (4-201), (4-203), or those involving *-(m)ba-L*, e.g. (4-215), (ii) purposive subordination, and also (iii) subordination involving the participle-1 (*-nyo*) (4.15.1), and (iv) subordination involving the participle-2 (*-nji*) (4.15.2).

[2] Syntax (1): ‘jussives’ and complementation

There are many instances of purposive subordination of uses other than purpose, result/consequence, and causative. They are (i) ‘jussive’ use and (ii) complementation use. The purposive verb employed is intransitive. There is no example involving a transitive verb. (Antipassives, for instance, can be used in ‘jussives’ and complementation (4.9.7-[2], [-3]). They are surface-intransitive.) The purposive clause follows the main clause, as is the case with purposive subordination generally.

(a) ‘Jussive use’

In the instances of the ‘jussive use’ or the like (‘tell someone to do’), the main clause involves a transitive verb: *mayga-L* ‘tell’ (‘tell X to do’), e.g. (4-241), (4-990-a), Text 3, Lines 5, 6, *ngonbaynga-L* ‘show, teach’ (‘show/teach X how to do’), or *banjo-L* ‘ask’ (‘ask X to do’), e.g. (4-242). In the jussive use, the main clause is transitive. As noted above, the purposive subordinate clause is intransitive. The coreference pattern is ‘O=S’.

(4-241) *bama-nggo warrngo-Ø mayga-n [warrngo-Ø TT] yani-yal.* (AP)
 man-ERG(A) woman-ACC(O) tell-NF [woman-NOM(S)] go-PURP
 ‘The man told the woman to go.’ (O=[S])

(4-242) *bama-nggo warrngo-Ø banjo-n [warrngo-Ø TT] yani-yal.* (TT)
 man-ERG(A) woman-ACC(O) tell-NF [woman-NOM(S)] go-PURP
 ‘The man asked the woman to go.’ (O=[S])

(b) Complementation use

In the instances of the complementation use, purposive verbs are used rather like infinitives of English, as shown in the translations given below. (As stated above, both in the jussive use and the complementation use, the purposive verb is intransitive.) As seen above, in the jussive use, the main clause is transitive. In contrast, in the complementation use, the main clause is intransitive. As noted above, the purposive subordinate clause is intransitive. The coreference pattern is 'S=S'. The main clause may contain an intransitive verb, e.g. (4-243), but it may also be a 'verbless clause', e.g. (4-244), and also (4-918), (4-919) (they contain *jarribara-Ø* 'good-NOM').

(4-243) (In a text, Alf Palmer narrates his (imaginary?) visits to many places. After these visits, at long last he comes to Cashmere Station, where he grew up; see 1.8.4.1-[1]. He says as follows.)

ngaya borrmō-bi-n [*ngaya* TT] *yarro-wo yani-yal.* (AP)
 1SG.NOM(S) deaf-INTR-NF [1SG.NOM(S)] this-DAT come-PURP
 'I have forgotten to come here.' (S=[S])

(See 1.5.8-[2] and 4.7.1-[1]-(a) for *borrmō-bi-L* 'forget'.)

(4-244) *ngaya walngga-yi-Ø* [*ngaya* TT] *yani-yal.* (AP)
 1SG.NOM(S) breath-COM-NOM [1SG.NOM(S)] go-PURP
 'I want to go.' (S=[S])

(See 3.6.8-[5] for *walngga-yi-Ø* 'eager, keen'.)

The following, too, can be used in the main clause for complementation.

ngorga-L 'be embarrassed': 'be embarrassed to do'

jilbay 'knowing': 'know how to'

birra-wa-Y 'tell-RECP', 'tell each other': 'tell each other about doing', i.e. 'discuss doing' The same applies to *mayga-wa-n* 'tell-RECP-NF' in (4-529). (Reciprocal verbs (4.12) are surface-intransitive.)

Semantically, all the uses of purposive subordination (i.e. (i) purpose, (ii) result, consequence, successive action, (iii) causative, (iv) jussive and (v) complementation) share a common denominator: they describe a situation that did/will/may happen after the situation denoted by the main clause, i.e., a situation that is posterior to the event of the main clause. They may be considered as 'relative future'.

In contrast, as will be shown in 4.15.3, the participles-1, -2 may be regarded as 'relative nonfuture' That is, the purposives-1, -2 and the participles-1, -2 exhibit a complementary distribution.

[3] Verb morphology

As seen in 3.10.12, very roughly speaking, verbs of L-class have the purposive-1 (*-lgo*) as well as the purposive-2 (*-yal*) (e.g. *banda-L* Vi 'emerge': *banda-yal*, *banda-lgo*), while verbs of Y-class and those of ZERO-class have the purposive-2 (*-yal*), but not the purposive-1 (cf. *nyina-Y* Vi 'sit' *nyina-yal*, **nyina-lgo*). This applies to derived verbs of Y-class, and those of ZERO-class (cf. *balga-gali-ZERO* 'hit-ANTIP' (surface-intransitive): *balga-gali-yal*, **balga-gali-lgo*).

Now, when purposive subordination indicates (i) purpose, (ii) result, consequence, successive action, or (iii) causative, both purposives are used. (The purposive verbs may either intransitive or transitive.) Examples are in 4.8.2 and 4.8.4. In this respect, there is no difference between the two purposives.

In contrast, in (iv) jussive and (v) complementation (where the purposive verb is intransitive), there may possibly be a difference between the two purposives. That is, the purposive-2 (*-yal*) is attested; see (4-241) to (4-244). (Examples involving an antipassive verb are given in 4.9.7-[2], -[3].) In contrast, the purposive-1 (*-lgo*) is not attested. That is, there is no example such as (4-245). The purposive-1 form (*banda-yal*) is no doubt perfectly acceptable.

- (4-245) ?*bama-nggo warrngo-Ø mayga-n*
 man-ERG(A) woman-ACC(O) tell-NF
 [*warrngo-Ø*] *banda-lgo* *yamba-ngga*. (TT)
 [woman-NOM(S)] emerge-PURP camp-LOC
 Intended meaning: 'The man told the woman to come out to the camp.'

The absence of the purposive-1 (*-lgo*) in the jussive and the complementation uses may be due to the incompleteness of the data. However it is also possible that the purposive-1 is unacceptable in these uses, in contrast with the purposive-2 (*-yal*).

[4] Syntax (2): constituent order

As stated in 4.6.4-(a-2) and 4.8.2, the purposive clause almost always follows the main clause. (This is in conformity with Greenberg's (1978: 84, 111) Universal 15: 'In expressions of volition and purpose, a subordinate verbal form always follows the main verb as the normal order except in those languages in which the nominal object always precedes the verb'.) However, there are just a few exceptions, in which the purposive clause precedes the main clause, e.g. (3-9-b), (4-641) (*baba-ri-lgo* 'stab-APPL-PURP'), (4-720).

Furthermore, there are a very few instances in which the purposive subordinate clause contains an interrogative word and the interrogative word occurs sentence-initially. That is, it precedes the main clause, e.g. (4-246), (4-982-M). (In (4-246), the main clause is underlined with a double line, and the subordinate clause with a single line.)

(4-246) ('I grabbed her buttocks to tease her, and she got angry. She said to me:')

<i>ngani-nga-lgo</i>	[<i>yinda</i>	<i>gombo-Ø</i>	TT]	
what-TR-PURP	[2SG.ERG(A)	buttocks-ACC(O)]		(subordinate)
<i>yinda</i>	<i>gombo-Ø</i>	<i>moga-n?</i>	(AP)	
2SG.ERG(A)	buttocks-ACC(O)	grab-NF		(main)
Lit. 'So that [you] could do what with [my buttocks] you				
grabbed [my] buttocks?' ([A]=A, [O]=O)				

In passing I note that it might be argued that [*yinda gombo-Ø* TT] should be supplied in the main clause, as in (4-247), and not in the subordinate clause, as in (4-246).

(4-247) <i>ngani-nga-lgo</i>	<i>yinda</i>	<i>gombo-Ø</i>	
what-TR-PURP	2SG.ERG(A)	buttocks-ACC(O)	(subordinate)
[<i>yinda</i>	<i>gombo-Ø</i>	TT]	<i>moga-n?</i> (AP)
[2SG.ERG(A)	buttocks-ACC(O)]	grab-NF	(main)
Lit. 'So that you could do what with [my] buttocks [you]			
grabbed [my buttocks]?' (A=[A], O=[O])			

That is, the deletion of [*yinda gombo-Ø* TT] takes place in the subordinate clause according to the analysis shown in (4-246), and in the main clause according to the analysis shown in (4-247). I prefer the analysis shown in (4-246). There are two reasons. First, in terms of intonation, *ngani-nga-lgo* has a fall (though very slight) towards the end. Second, there is a pause (though very brief) after *ngani-nga-lgo*. That is, the intonation contour and the pause suggest that there is a clause boundary after *ngani-nga-lgo*. This is reflected in (4-246); the clause boundary is placed after *ngani-nga-lgo* (with the deleted [*yinda gombo-Ø* TT] intervening). In contrast, according to the analysis shown in (4-247) the clause boundary is not after *ngani-nga-lgo*. But this analysis does not reflect the intonation contour or the pause.

The preceding paragraph has been included to show that, when dealing with deletion in complex sentences, it is not always easy to decide whether the deletion took place in the main clause or the subordinate clause. (According to this adopted analysis, the antecedents are deleted, and the postcedents are not. This does not fit in any of the 'ideal patterns' shown in Table 4-13.) Incidentally, the preceding paragraph also shows that syntactic analysis should not neglect phonetic factors, such as intonation contour and pause.

[5] Syntax (3): negation

See 4.9.7-[8].

4.9. Antipassive construction

4.9.1. Case frames and verbal morphology

The antipassive construction occurs frequently in Alf Palmer's Warrongo. As mentioned in 4.1, it plays a crucial role in effecting syntactic ergativity. It appears to occur in Alec Collins' Warrongo, too, although the relevant data are severely limited. We shall mainly look at the antipassive construction in Alf Palmer's Warrongo. Brief notes on that in Alec Collins' Warrongo are added at the end of 4.9.1.

Many (though not all; see below) transitive verbs can have an antipassive form. (A full list of antipassive verbs is in 4.9.9.1.) Antipassive verbs contain the stem-forming suffix *-gali-ZERO*. The correspondence between (basic, non-derived) transitive clauses and their antipassive counterparts is shown in Table 4-14. 'Actor' and 'undergoer', taken from Foley and Van Valin (1984: 30), are semantic roles, rather than cases (e.g. ERG, NOM, ACC) or syntactic functions (e.g. A, S, O). To be more specific, they are macro-roles. 'Actor' includes roles such as 'agent' and 'experiencer', and 'undergoer' includes roles such as 'patient' and 'theme'.

Table 4-14. Basic transitive clauses and antipassive clauses

	actor	undergoer	verb	example
transitive	ERG (A)	ACC (O)	Vt	
antipassive-(a)	NOM (d-S)	ERG	Vt- <i>gali-ZERO</i>	(4-249), (4-258)
antipassive-(b)	NOM (d-S)	DAT	Vt- <i>gali-ZERO</i>	(4-252), (4-253)
antipassive-(c)	NOM (d-S)	GEN	Vt- <i>gali-ZERO</i>	(4-351), (4-352)
antipassive-(d)	NOM (d-S)	ACC	Vt- <i>gali-ZERO</i>	(4-354), (3-355)

The actor is the A ('transitive subject') in transitive clauses, but it is changed into the S ('intransitive subject') in antipassive counterparts. The antipassive construction is surface-intransitive; see 4.9.2. The S of the antipassive construction (and also of a few other types of surface-intransitive constructions) will be referred to as 'derived S' ('d-S'), as against the 'basic S' of basic intransitive clauses. (See 4.3.2 for basic and derived clauses.)

The case frames (a) and (b) are the most common. Among more than one thousand examples of the antipassive construction, the ACC is generally turned into the ERG (i.e. (a) NOM-ERG) or the DAT (i.e. (b) NOM-DAT). Exceptionally, in about five examples, it is turned into the GEN (i.e. (c) NOM-GEN). Also, in about fifteen examples the ACC remains unchanged (i.e. (d) NOM-ACC). The following discussion is in the main concerned with the two common types: (a) and (b). The GEN of (c) and the ACC of (d) will be discussed in 4.9.9.4.

An example of (a) is (4-249). Compare it with the transitive (4-248). An example of (b) is (4-251). Compare it with the transitive (4-1250).

- (4-248) *bama-nggo gamo-Ø bija-n.* (AP)
 man-ERG(A) water-ACC(O) drink-NF
 ‘The man drank/drinks water.’ (ERG-ACC)
- (4-249) *bama-Ø gamo-nggo bija-gali-n.* (AP)
 man-NOM(d-S) water-ERG drink-ANTIP-NF
 ‘(As above.)’ (NOM-ERG)
- (4-250) *bama-nggo gamo-Ø yangga-n.* (AP)
 man-ERG(A) water-ACC(O) search.for-NF
 ‘The man looked/looks for water.’ (ERG-ACC)
- (4-251) *bama-Ø gamo-wo yangga-gali-n.* (AP)
 man-NOM(d-S) water-DAT search.for-ANTIP-NF
 ‘(As above.)’ (NOM-DAT)

Strictly speaking, there appear to be semantic differences between transitive clauses and their antipassive counterparts. See 4.9.10. Furthermore, there is possibly a pragmatic difference, too. See 4.9.11.2.

Nouns have an ERG form distinct from the NOM form (Table 3-2), and the change in the actor NP from the ERG to the NOM is explicit; see (4-248) through (4-251). However, with pronouns (except for ‘3DU’, ‘3PL’, and ‘who’), the ERG and the NOM forms are identical (Table 3-6), and the change from the A to the S is not reflected in their form. Thus, compare (4-252) (cited from a text) and (4-253) (composed by me).

- (4-252) *yowo ngali-nya yangga-n nyola=wa.* (AP)
 yes 1DU-ACC(O) search.for-NF 3SG.ERG(A)=FOC
 ‘Yes, indeed he is looking for us.’ (ERG-ACC)

(The enclitic =*wa* seems to indicate focus or the like. See 4.25-[6].)

- (4-253) *ngali-ngo-n-go yangga-gali-n nyola.* (TT)
 1DU-LINK-LINK-DAT search.for-ANTIP-NF 3SG.NOM(d-S)
 ‘He is looking for us.’ (NOM-DAT)

Despite this, there is syntactic evidence to show that the function has changed from the A to the S. See 4.9.2 and 4.9.4.2. (This clearly indicates that it is important to distinguish between form and function.)

We turn now to the undergoer NP. Where nouns are involved, the ERG undergoer NP of antipassive-(a) (NOM-ERG) has the same form as the A of transitive clauses (also ERG). Thus, compare *gamo-nggo* ‘water-ERG’ of (4-249) and *bama-nggo* ‘man-ERG’(A) of (4-248). However, the ERG undergoer NP is best considered as distinct from the A. The main reason is that it does not participate in coreferential deletion in the way the A NP does. (Coreferential deletion involving the antipassive construction will be discussed in 4.9.4 and 4.9.5.) It is best regarded

as a member of 'other arguments' in terms of the classification of constituents of clauses set up in 4.4. (In my earlier writings on Warrongo, e.g. Tsunoda 1988b, I distinguished the instrumental case and the ergative case, and considered an ERG undergoer NP of the present work to be in the instrumental case.)

The DAT undergoer NP of antipassive-(b) (NOM-DAT), too, is best regarded as a member of 'other arguments'.

As mentioned at the beginning of 4.9.1, not all transitive verbs can have an antipassive form. (A full list of antipassive verbs is in 4.9.9.1) First, transitive roots can be classified into certain semantic types. Some roots can have an antipassive form, but others seem unable to. This will be discussed in 4.9.9.1. Second, there are three suffixes that form transitive stems: *-nga-L* (4.7.2), *-(m)ba-L* (4.7.3), and *-ri-L* 'applicative' (4.14). The stems formed with *-nga-L* or *-(m)ba-L* can be followed by *-gali-ZERO*, becoming antipassive verbs. In contrast, applicative verbs cannot be followed by *-gali-ZERO*, and they cannot have an antipassive form.

The paradigm of antipassive verbs is given in Table 3-15. Antipassive verbs belong to ZERO-class. The apprehensional form involves *-ng-ga* (ZERO-class); there is only one example.

(4-254) *ngaya* *yarro-n-da* *ngawa-gali-ngga*. (AP)
 1SG.NOM(d-S) here-LINK-LOC hear,listen.to-ANTIP-APPR
 Alf Palmer's translation: 'I gonna listen [here TT]'

(This particular apprehensional verb seems to imply intention (3.10.11-[2]-(b).) The purposive form involves *-yal*, and not *-l-go*. The inflectional possibilities of antipassive verbs are limited, compared with those of some other verbs (Table 3-14). For example, they lack participles.

Also, their derivational possibilities seem non-existent. That is, they seem unable to be followed by any other stem-forming suffix.

Alec Collins' Warrongo (recorded by Peter Sutton), too, has the antipassive construction. The data are limited, but the following verbs are found.

- (a) Antipassive verbs: the transitive counterparts are attested in Alec Collins' Warrongo.
- (a-1) *wajo-li-Ø* 'cook-ANTIP-NF' (NOM-ERG), e.g. (4-255).
 - (a-2) *mira-nga-li-Ø* 'make-ANTIP-NF' (NOM-ERG), e.g. (4-256). (See 4.7.2-[7]-(c) for the transitive verb *mira-nga-L* 'make')
 - (a-3) *woja-li-go* 'eat-ANTIP-PURP' (Its case frame is not known.) According to Alec Collins, *woja-li-go* and *woja-lgo* are Jalngoy words (cf. 1.6.1).
- (b) Putative antipassive verbs: the transitive counterparts are not attested in Alec Collins' Warrongo.
- (b-1) *yangga-li-go* 'search.for-ANTIP-PURP' (NOM-DAT), e.g. (4-257).
 - (b-2) *birra-li-go* 'talk-ANTIP-PURP' (Its case frame is not known.)
 - (b-3) *baya-li-ya* 'sing-ANTIP-IMP' (Its case frame is not known.)

In the antipassive verbs of Alec Collins, the suffix employed is *-li-ZERO*, and not *-gali-ZERO*. The case frame NOM-ERG occurs. NOM-DAT, too, seems to be employed. Clearly the verbs listed in (a) are antipassive verbs. For each of them, the transitive counterpart is attested in Alec Collins' Warrongo. But it is not certain if those listed in (b) are antipassive verbs; the transitive counterpart is not attested for any of them in Alec Collins' Warrongo. Regarding conjugational categories, these verbs are attested with *-Ø* 'nonfuture', *-go* 'purposive', and *-ya* 'imperative'

Alf Palmer's Warrongo has *woja-L* Vt 'eat'; cf. (a-3) above. Alf Palmer said that this is a Jalngoy word. It is not attested in the antipassive form. All the other verbs listed in (a) and (b) are attested as transitive verbs and also as antipassive verbs, with *-gali-ZERO* in place of *-li-ZERO*.

Examples from Alec Collins' Warrongo:

(4-255) *ngaygo warrngo-Ø wajo-li-Ø manyja-nggo.*

1SG.GEN woman-NOM(d-S) cook-ANTIP-NF food-ERG

Peter Sutton's translation: 'My wife is cooking food.' (AC)

(4-256) *ngaya mira-nga-li-Ø wangal-do.* (AC)

1SG.NOM(d-S) make-ANTIP-NF boomerang-ERG

Peter Sutton's translation: 'I'm making a boomerang.'

(4-257) *galnga-na-Ø minya-wo yangga-li-Ø.* (AC)

MB-KIN-NOM(d-S) meat-DAT search.for-ANTIP-NF

Peter Sutton's translation: 'My uncle looks for meat (game).'

4.9.2. Transitivity

The antipassive construction and antipassive verbs (or, simply and jointly, antipassives) are surface-intransitive, and not transitive. This is shown by the following facts.

[1] As noted in 4.9.1, with nouns (which have a distinct ERG form), the case of the actor NP of antipassives is the NOM (which is used for the S, and not for the A), and not the ERG (which may be used for the A).

[2] As seen in 4.5.4.1-[1], an intransitive verb formed with the intransitive-stem-forming suffix *-bi-L* 'INTR' (4.7.1) may co-occur with, and modify, another intransitive verb. Similarly (4.5.4.1-[2]), a transitive verb formed with the transitive-stem-forming suffix *-ngal-L* (4.7.2) or *-(m)ba-L* (4.7.3) may co-occur with, and modify, another transitive verb. Now, antipassive verbs are qualified by an intransitive verb with *-bi-L*, but not by a transitive verb with *-nga-L* or *-(m)ba-L*. (In Dyirbal, too, antipassive verbs co-occur with an intransitive verb, but not a transitive verb (Dixon 1972: 150).) Examples include (3-263), (3-264), and:

(4-258) *bama-Ø nyorrngo~nyorrngo-bi-n jojam-bo balga-gali-n.* (AP)
 man-NOM(d-S) busy~busy-INTR-NF locust-ERG hit-ANTIP-NF
 ‘The man is busy hitting the locust’.

[3] As noted in 4.9.1, with most of the pronouns, the change from the ERG (for the A) to the NOM (for the S) is not reflected in their form. However, in coreferential deletion involving antipassives, the pronoun actor NP (in the NOM) generally behaves identically with the (non-derived) S NP. That is, although the change from the A to the S is not reflected in their form, it is reflected in syntax. This will be discussed below, and in 4.9.4.2 in particular. (There are a small number of exceptions to this generalization. See 4.9.8.2.1.)

This may not constitute evidence, but it is relevant to mention that antipassive verbs (*-gali-ZERO*), together with middle/reflexive verbs (*-gali-ZERO*, *-li-ZERO*; cf. 4.11), belong to ZERO-class, all the other members of which are intransitive (see 3.9.4.1).

4.9.3. Coreference: antipassives and syntactic ergativity

The antipassive construction plays a crucial role in effecting syntactic ergativity, the most outstanding feature of Warronggo. This will be examined in each of the following levels of clause linkage (adapted from Silverstein (1976: 163); cf. also Foley and Van Valin (1984: 269–270)).

- (a) Subordination (4.9.4): the linkage is strongest.
- (b) Coordination (4.9.5).
- (c) Sentence-sequence (again 4.9.5): the linkage is weakest.

We shall provide some statistical data. For subordination, we shall look at the purposive subordination. This is because, while the purposive subordination is used very frequently (cf. 4.8.1), the other types of subordination (4.10, 4.15, 4.17, 4.18, 4.20.7) are either very infrequent or do not involve an antipassive verb, and consequently they are irrelevant for this quantitative comparison.

The following discussion of coreference – with a focus on coreferential deletion – will be confined to the three arguments: S, O, and A. These arguments show a systematic behaviour in coreferential deletion. However, coreferential deletion involving other arguments or adjuncts does not seem to be syntactically governed, and it has not been possible to set up any syntactic condition for it.

Also, the following discussion of coreferential deletion will be restricted to those instances in which the antecedent in deletion is explicitly mentioned and it is in the immediately preceding clause. Ellipsis with no explicit antecedent does occur and is indeed common in Warronggo discourse (see the attached texts), but

the conditions under which this occurs have proved to be extremely difficult to investigate, and it has not been possible to set up factors that may govern such ellipsis.

The statistics given below (in 4.9.4 and 4.9.5) is based on the texts in Tapes 7/31 to 72/34 – approximately 100 minutes, close to one third of the Warrongo texts of six hours.

Examples given below include those cited from outside Tapes 72/31 to 72/34, such as those from Text 1 (Tape 72/26) and Text 2 (Tape 72/28).

4.9.4. Purposive subordination

We shall first look at the purposive subordination that does not involve an antipassive (4.9.4.1), followed by that involving an antipassive (4.9.4.2).

4.9.4.1. Purposive subordination without an antipassive

Table 4-15 shows the numbers of the relevant examples (in the texts of Tapes 72/31 through 72/34) of purposive subordination that does not involve an antipassive. Note that the deletion patterns shown in Table 4-15 are actual patterns, and not ideal patterns (Table 4-12).

Table 4-15. Purposive subordination without an antipassive

		postcedent		deletion
		deleted	retained	
S/O patterns	S=O	1	2	16 (17%)
	O=S	15	5	
neutral patterns	S=S	16	0	74 (78%)
	A=A	27	2	
	O=O	31	5	
S/A patterns	S=A	5	3	5 (5%)
	A=S	0	0	
aberrant patterns	A=O	0	3	0 (0%)
	O=A	0	1	
total		95 (82%)	21 (18%)	95 (100%)
116 (100%)				

There are 116 instances of pairs of coreferential NPs. That is, there are 116 instances (100%) of the postcedent. Among them:

- (a) in 95 instances (82%), the postcedent is deleted, cf. (4-228) to (4-236), and;
 (b) in 21 instances (18%), the postcedent is retained, cf. (4-221) (*yinda* '2SG. NOM'), (4-222) (*nyola* '3SG. NOM').

Deletion of coreferential NPs (82%) is far more frequent than their retention (18%).

As for deletion (see the column 'deletion'), the neutral patterns (74 examples, 78%) are by far the most frequent. The S/O patterns (16 examples, 17%) are far more frequent than the S/A patterns (5 examples, 5%). Since the neutral patterns are neutral as to the dichotomy between ergativity (S/O vs. A) and accusativity (S/A vs. O) (see (4-223)), ergativity is strongly favoured over accusativity in Table 4-15. (As expected (cf. 4.8.3), there is no example of deletion in either of the aberrant patterns.)

Examples of deletion include the following. (i) S/O patterns: (4-228) to (4-231), (ii) neutral patterns: (4-232) to (4-236), Text 1, Lines 15 (S=[S]), 59 (S=[S]), Text 2, Line 5 (O=[O]), and (iii) S/A patterns: (4-300) (S=[A]) and (4-303) (S=[A]).

(Examples of retention include the following: (4-221) (O=S), (4-222) (O=S), (4-235) (A=A).)

Recall that the deletion patterns shown in Table 4-15 are actual patterns, and not ideal patterns. Indeed, deletion in the 'S=[A]' pattern is attested, despite the fact that it is impossible where ideal patterns are concerned. However, it is clear that the instances of this deletion are 'performance errors' See the comments on (4-300) and (4-303).

4.9.4.2. Purposive subordination with an antipassive

Table 4-16 concerns purposive subordination (in Tapes 72/31 to 72/34) in which the main and/or the subordinate clause(s) contain(s) an antipassive verb.

In the relevant examples, antipassivization has one of the following four kinds of effect, regarding patterns of coreference. (Recall that the patterns shown in Table 4-16 are actual patterns, and not ideal patterns.)

- | | | |
|------------------------|---------------|-------------|
| [1] S/A → neutral: | S=A → S=d-S; | A=S → d-S=S |
| [2] aberrant → S/O: | O=A → O=d-S; | A=O → d-S=O |
| [3] neutral → neutral: | A=A → d-S=d-S | |
| [4] neutral → S/A: | A=A → d-S=A; | A=A → A=d-S |

We shall examine each of these effects. As will be shown below, the changes of [1] and [2] are, so to speak, 'normal', while those of [3] and [4] are 'non-normal' Recall that antipassivization changes the function of the NP concerned, i.e. from the A to the S, to be precise, the d-S.

[1] S/A patterns → neutral patterns

- (i) S=A → S=d-S, and (ii) A=S → d-S=S

The changes of [1] are by far the most frequent (70 instances, 90%, of deletion). They turn an S/A pattern (S=A or A=S) into a neutral pattern (S=d-S or d-S=S). That is, they help to avoid a coreferential deletion that would otherwise have an S/A pattern. (Recall that, in terms of ideal patterns, deletion in an S/A pattern is impossible.)

Table 4-16. Purposive subordination with an antipassive

effect of antipassivization		postcedent		deletion
		deleted	retained	
[1]	S=A → S=d-S	68	0	70 (90%)
	A=S → d-S=S	2	0	
[2]	O=A → O=d-S	5	0	5 (6%)
	A=O → d-S=O	0	1	
[3]	A=A → d-S=d-S	1	0	1 (1%)
[4]	A=A → d-S=A	1	0	2 (3%)
	A=A → A=d-S	1	0	
total		78 (99%)	1 (1%)	78 (100%)
		79 (100%)		

When either of these two changes ((i) S=A → S=d-S, and (ii) A=S → d-S=S) takes place, the postcedent is always deleted (in all of the 70 instances). There is no instance of retention.

Of these two changes, the first (S=A → S=d-S) is by far the more common. Indeed, this particular change is the most common function that antipassivization has regarding coreferential deletion. As an example, consider (4-260). It may be considered derived from (4-259). That is, the second clause of (4-259) is antipassivized, and subsequently the second occurrence of *ngaya* in (4-260) (now, in the d-S function, and not the A function) is deleted. That is: S=A → S=[d-S]. (As the translation for (4-202) shows, a Warrongo sentence may be translated into English in more than one way. In such a case, often only one translation will be given.)

(4-259) *ngaya yani-Ø ngaya baba-lgo yori-Ø*. (TT)
 1SG.NOM(S) go-NF 1SG.ERG(A) stab-PURP kangaroo-ACC(O)
 Intended meaning: 'I went so that I could spear a kangaroo' or, 'I went to spear a kangaroo.' (S=A)

(4-260) *ngaya yani-Ø [ngaya TT] baba-gali-yal yori-wo*. (AP)
 1SG.NOM(S) go-NF [1SG.NOM(d-S)] stab-ANTIP-PURP kangaroo-DAT
 'I went to spear a kangaroo.' (S=[d-S])

(The examples such as (4-259) and (4-261), which I composed for the purpose of exposition, are most probably grammatical, although they may sound stilted and

unnatural.) The original pattern in (4-259) is S=A (an S/A pattern), and the resultant pattern in (4-260) is S=[d-S] (a neutral pattern). Note that, in antipassivization, the function of *ngaya* changes from the A to the d-S, although this is not reflected in the case form itself. Recall that most of the pronouns have the same form for the ERG and the NOM (Table 3-6) and a separate form for ACC (i.e. S/A vs. O). The ex. (4-260) shows that pronouns, too, conform to syntactic ergativity, although their case forms exhibit accusativity.

Other examples of deletion involving one of the changes of [1] include Text 1, Lines 44, 54', 63-a, Text 2, Line 13. All of them exhibit 'S=A → S=[d-S]'

[2] Aberrant patterns → S/O patterns

(i) O=A → O=d-S, and (ii) A=O → d-S=O

First recall that, in terms of ideal patterns, deletion in an aberrant pattern is impossible (Table 4-13). Now, the changes of [2] are much less frequent than those of [1]. Nonetheless, they, too, play an important role in effecting syntactic ergativity. That is, they turn an aberrant pattern to an S/O pattern. That is, they positively bring about an S/O pattern. (In contrast, the changes of [1] do not create an S/O pattern, although they help to avoid an S/A pattern.) As an example, consider (4-262). It may be considered as derived from (4-261). That is, the second clause of (4-261) is antipassivized, and subsequently the second occurrence of *bama* in (4-262) (now, in the d-S function (NOM), and not the A function (ERG)) is deleted. That is: O=A → O=[d-S].

(4-261) *ngaya bama-∅ moga-lgo*
 1SG.ERG(A) man-ACC(O) get-PURP
bama-nggo bori-∅ gonma-lgo. (TT)
 man-ERG(A) wood-ACC(O) cut-PURP
 Intended meaning: 'I will get a man so that the man will cut wood.' (O=A)

(4-262) *ngaya bama-∅ moga-lgo*
 1SG.ERG(A) man-ACC(O) get-PURP
 [*bama-∅ TT*] *bori-wo gonma-gali-yal. (AP)*
 [man-NOM(d-S)] wood-DAT cut-ANTIP-PURP
 'I will get a man so that [the man] will cut wood.' (O=[d-S])

So far, we have looked at 'normal' changes. We turn now to 'non-normal' changes.

[3] Neutral patterns → neutral patterns

A=A → d-S=d-S

There is only one example in Tapes 72/31 to 72/34, i.e. (4-264), and the postcedent is deleted. (4-264) may be considered as derived from (4-263).

- (4-263) *yina* *nyola* *yangga-n*
 2SG.ACC(O) 3SG.ERG(A) search.for-NF
nyola *yina* *nyaga-lgo.* (TT)
 3SG.ERG(A) 2SG.ACC(O) see-PURP (A=A)
 Intended meaning: 'He is looking for you so that he can see you.'

- (4-264) *yino-n-go* *nyola* *yangga-gali-n*
 2SG-LINK-DAT 3SG.NOM(d-S) search.for-ANTIP-NF
 [*nyola* *yino-n-go* TT] *nyaga-gali-yal.* (AP)
 [3SG.NOM(d-S) 2SG-LINK-DAT] see-ANTIP-PURP
 'He is looking for you so that he can see you.' (d-S=[d-S])

The original pattern in (4-263) is A=A (a neutral pattern), and the resultant pattern in (4-264) is d-S=[d-S] (again, a neutral pattern). Since neutral patterns, including A=A, are perfectly acceptable in terms of ideal patterns (Table 4-13) (e.g. (4-234) (A=[A])), the two uses of antipassivization in (4-264) would seem unnecessary. In (4-306) (from outside Tapes 72/31 to 72/34), too, two clauses are antipassivized 'unnecessarily'

(The exx. (4-264) and (4-306) involve purposive subordination. There is one example of coordination in which two clauses are antipassivized 'unnecessarily': Text 1, Line 35.)

As far as (4-264) and (3-306) are concerned, there is a possible reason for these two 'unnecessary' uses of antipassivization. As will be noted in 4.9.9.1-[2], the verb *yangga-L* Vt 'search' almost always (though not always) appears in the antipassivized form, i.e. *yangga-gali-ZERO*. This is indeed the case in the first clause of (4-264). If the second clause of (4-264) were not antipassivized, the resultant pattern would be d-S=A:

- (4-265) *yino-n-go* *nyola* *yangga-gali-n*
 2SG-LINK-DAT 3SG.NOM(d-S) search.for-ANTIP-NF
nyola *yina* *nyaga-lgo.* (TT)
 3SG.ERG(A) 2SG.ACC see-ANTI-PURP
 Intended meaning: '(As above)' (d-S=A)

This is an S/A pattern, and the S/A patterns are impossible in terms of ideal patterns. Consequently, the second clause, too, is antipassivized, resulting in d-S=d-S. This is a neutral pattern, and, as seen above, the neutral patterns are perfectly acceptable in terms of ideal patterns. Hence, the deletion in the pattern of d-S=[d-S]. The same applies to (4-306); here again the first clause contains *yangga-gali-n* 'search.for-ANTIP-NF'

The above is a possible explanation for the two 'unnecessary' uses of antipassivization in (4-264) and (4-306). However, there is no explanation forthcoming for the two 'unnecessary' uses of antipassivization in Text 1, Line 35. This sentence does not contain *yangga-gali-ZERO* 'search for-ANTIP'

It is in view of the 'unnecessary' uses of antipassivization that the change of [3] is considered 'non-normal', as against the 'normal' changes of [1] and [2].

[4] Neutral patterns → S/A patterns

(i) A=A → d-S=A, and (ii) A=A → A=d-S

There are only two examples in Tapes 72/31 to 72/34. Contrary to what will be expected in view of ideal patterns, the postcedent is deleted, and not retained, in each of them. One of the two examples is (4-267). It may be considered as derived from (4-266).

(4-266) *nyola win.gar-Ø baba-n*
 3SG.ERG(A) fish-ACC(O) stab-NF
nyola win.gar-Ø boramo-wo ganyji-lgo. (TT)
 3SG.ERG(A) fish-ACC(O) ceremonial.ground-DAT carry-PURP
 Intended meaning: 'He caught [some] fish and carried them to the ceremonial ground.' (A=A)

(4-267) *nyola [win.gar-Ø TT] baba-n*
 3SG.ERG(A) [fish-ACC(O)] stab-NF
[nyola win.gar-go TT] boramo-wo
 [3SG.NOM(d-S) fish-DAT] ceremonial.ground-DAT
ganyji-gali-yal. (AP)
 carry-ANTIP-PURP (A=[d-S])
 'He caught [some] fish and carried them to the ceremonial ground.'

The original pattern in (4-266) is A=A (a neutral pattern), and the resultant pattern in (4-267) is A=[d-S] (an S/A pattern). The use of antipassivization in (4-267) seems totally unnecessary, for two reasons. First, neutral patterns are perfectly acceptable in terms of ideal patterns. Second, S/A patterns are impossible in terms of ideal patterns. Despite all these, there are examples such as (4-267), although they are very infrequent.

It is in view of the 'unnecessary' use of antipassivization that the changes of [4] are considered 'non-normal', as against the 'normal' changes of [1] and [2]. They may be simply errors. Unfortunately I did not ask Alf Palmer if sentences such as (4-267) were correct.

Regarding deletion in Table 4-15, the S/O patterns (16 examples) are preferred over the S/A patterns (5 examples). Indeed, this preference is even stronger in Table 4-16. At first glance, this is not obvious, for there are two examples of the S/A patterns (d-S=[A], A=[d-S]) as against only five examples of an S/O pattern (O=[d-S]), while the vast majority of examples (70 examples) involve a neutral pattern (S=[d-S], d-S=[S], or d-S=[d-S]). However, such a comparison of figures is not revealing at all. What is crucial about antipassivization is the change it creates in a coreference pattern, and not the resultant pattern itself.

Thus, consider [1] S/A patterns \rightarrow neutral patterns ((i) S=A \rightarrow S=d-S, and (ii) A=S \rightarrow d-S=S). As seen above, here antipassivization functions to avoid an S/A pattern. This function is observed in as many as 70 examples (90%) of deletion. Also, consider [2] Aberrant patterns \rightarrow S/O patterns ((i) O=A \rightarrow O=d-S, (ii) A=O \rightarrow d-S=O). Here antipassivization positively creates an S/O pattern (in five examples, 6%). We shall refer to the effects of antipassivization in [1] and [2] as ‘ergativizing effect’.

In sharp contrast, there is no example in which antipassivization functions to avoid an S/O pattern. Also, it is only in two examples of [4] Neutral patterns \rightarrow S/A patterns ((i) A=A \rightarrow d-S=A, and (ii) A=A \rightarrow A=d-S) that antipassivization creates an S/A pattern. We shall refer to the effect in [4] as ‘accusativizing effect’.

That is, in coreferential deletion in Table 4-16, S/O patterns are overwhelmingly preferred to S/A patterns – even more strongly than in Table 4-15 – and antipassivization effects this preference, manifesting a classic example of syntactic ergativity.

Finally note that, in Table 4-16, antipassivization is used almost always in the second clause (75 instances), rather than in the first clause (4 instances). Furthermore, note that, if antipassivization is used, the postcedent is almost always deleted (in 78 out of 79 instances, i.e. 99%). (We shall return to this point in 4.9.6.1.) That is, the most common patterns in Table 4-16 are those in which the second clause is antipassivized and subsequently the postcedent is deleted. (A similar situation seems to obtain in the use of antipassives in syntactic ergativity of Dyirbal (Dixon 1972: 66, 74, 80).)

We have discussed purposive subordination – without an antipassive (4.9.4.1) and with an antipassive (4.9.4.2). We turn now to coordination and sentence-sequence.

4.9.5. Coordination and sentence-sequence

Warrongo lacks conjunctions (except for the conjunction-like enclitic =*ngomay* ‘after’, discussed in 4.10). Now, for the purpose of presenting statistical information, I have tentatively characterized coordination and sentence-sequence as follows. Roughly speaking, the flow of discourse is smooth in coordination, but it is interrupted in sentence-sequence. The linkage of clauses in coordination is tighter than that of sentences in sentence-sequence. Their more specific properties are as follows.

(a) Coordination

An instance of coordination has all of the following three properties.

- (a-1) It employs parataxis, i.e. juxtaposition of two (or more) clauses.
- (a-2) The verbs involved share an identical conjugational category, e.g. (i) ‘I go-NF. I sit-NF’, and (ii) ‘Go-IMP. Spear-IMP a kangaroo’. In almost all instances, the verbs are both nonfuture forms.

(a-3) It has one single intonation contour. If a putative instance of coordination has two (or more) separate intonation contours, it is assigned to sentence-sequence.

(b) Sentence-sequence

This includes all the types of clause linkage that do not belong to subordination or coordination. They include the following.

- (b-1) A sequence of clauses that has the properties of (a-1) and (a-2), but that has two (or more) separate intonation contours.
- (b-2) Two (or more) successive clauses whose verbs have different conjugational categories, e.g. 'I eat-PURP a fish. I catch-NF it yesterday'
- (b-3) Two (or more) successive clauses whose second clause starts with the adverb *ngona-ngomay* 'and then' (3.8.1-[9]).
- (b-4) Two (or more) successive clauses, such as:
 - (b-4-1) narration and quotation (the quoted part may be a conversation);
 - (b-4-2) within a conversation:
 - (b-4-2-1) statement and response;
 - (b-4-2-2) statement and question, and;
 - (b-4-2-3) question and answer.

The classification of clause linkage into subordination, coordination and sentence-sequence (originally proposed in Tsunoda 1986: 188–190, 1988a: 9–10, 1988b: 608) is a modification and simplification of Silverstein's (1976: 163) hierarchy of clause linkage. (The term 'sentence-sequence' was coined by me.) Silverstein's hierarchy concerns the tightness of clause linkage and it predicts that syntactic ergativity (effected by means of antipassivization) will be more likely to occur where the linkage is tighter and that it will be less likely to occur where the linkage is weaker. This is exactly the case in Warrongo, as will be shown in 4.9.6.1.

The results of investigation of coreference in coordination and in sentence-sequence are summarized in Table 4-17, together with those regarding subordination. They will be discussed in 4.9.6.1.

We shall consider Text 1 and Text 2 for examples of coordination and sentence-sequence. Examples of purposive subordination, too, will be referred to. Texts 1 and 2 yield the following examples.

(a) Subordination without an antipassive

(a-1) deletion:

Text 1 Line 15: *ngaya* '1SG.NOM(S)' = [*ngaya* '1SG.NOM(S)']. (S=[S])

Line 59: *jana-Ø* '3PL-NOM(S)' = [*jana-Ø* '3PL-NOM(S)']. (S=[S])

Text 2 Line 5: *marra-Ø* 'vine.poison-ACC(O)' = [*marra-Ø* vine.poison-ACC(O)]. (O=[O])

(a-2) retention: no example in Texts 1 and 2.

(But see, e.g. (4-221) (O=S), (4-222) (O=S), and (4-235) (A=A).)

(b) Subordination with an antipassive

(b-1) deletion:

Text 1 Line 44: *jana-Ø* '3PL-NOM(S)' = [*jana-Ø* '3PL-NOM(d-S)']. (S=[d-S])Line 54': *jana-Ø* '3PL-NOM(S)' = [*jana-Ø* '3PL-NOM(d-S)']. (S=[d-S])Line 63a: *yorra-Ø* '2PL-NOM(S)' = [*yorra-Ø* '2PL-NOM(d-S)'].

(S=[d-S])

Text 2 Line 13: *yinda* '2SG.NOM(S)' = [*yinda* '2SG.NOM(d-S)']. (S=[d-S])

(b-2) retention: no example.

(c) Coordination without an antipassive

(c-1) deletion:

Text 1 Line 42: *galo-Ø* 'mouse-NOM(S)' = [*galo-Ø* 'mouse-NOM(S)']. (S=[S])Line 55: *jana-Ø* '3PL-NOM(S)' = [*jana-Ø* '3PL-NOM(S)']. (S=[S])Text 2 Line 2: *ngana-Ø* '1PL-NOM(S)' = [*ngana-Ø* '1PL-NOM(S)']. (S=[S])

(c-2) retention:

Text 1 Line 63b-63c: *ngana-Ø* '1PL-ERG(A)' = *ngana-Ø* '1PL-ERG(A)'. (A=A)

(d) Coordination with an antipassive

(d-1) deletion:

Text 1 Line 35: *jana-Ø* '3PL-NOM(d-S)' = [*jana-Ø* '3PL-NOM(d-S)'].

(d-S=[d-S])

Line 41: *nyola* '3SG.NOM(S)' = [*nyola* '3SG.NOM(d-S)']. (S=[d-S])

(d-2) retention:

Text 1 Line 41: *nyonya* '3SG.ACC(O)' = *nyola* '3SG.NOM(S)' (O=d-S).

Text 2 no example.

(e) Sentence-sequence without an antipassive

(e-1) deletion:

Text 1 Lines 48-49: *ngana-Ø* '1PL-ERG(A)' = [*ngana-Ø* '1PL-ERG(A)'].

(A=[A])

Lines 48-49: *banggarra-Ø* 'B.T.L.-ACC(O)' =[*banggarra-Ø* 'B.T.L.-ACC(O)']. (O=[O])Lines 64-65a: *gamo-Ø* 'water-ACC(O)' = [*gamo-Ø* 'water-ACC(O)'].

(O=[O])

Lines 69-70: *banggarra-Ø* 'B.T.L.-ACC(O)' =[*nyola* '3SG.NOM(S)']. (O=[S])Text 2 Lines 3-4: *win.gar-Ø* 'fish-ACC(O)' = [*win.gar-Ø* 'fish-ACC(O)'].

(O=[O])

Lines 29-30: *ngana-Ø* '1PL-ERG(A)' = [*ngana-Ø* '1PL-ERG(A)'].

(A=[A])

(e-2) retention:

Text 1 Lines 1-2: *ngaya* '1SG.NOM(S)' = *ngaya* '1SG.NOM(d-S)'. (S=d-S)Lines 2-3: *nganya* '1SG.ACC(O)' = *yinda* '2SG.ERG(A)' (O=A)Lines 12-13: *ngaya* '1SG.NOM(S)' = *ngaya* '1SG.NOM(S)' (S=S)Lines 28-29: *ngaya* '1SG.NOM(S)' = *ngaya* '1SG.ERG(A)'. (S=A)

- Lines 38–39: *nyola* ‘3SG.NOM(S)’ = *nyola* ‘3SG.ERG(A)’ (S=A)
 Lines 39–40: *nyola* ‘3SG.ERG(A)’ = *nyonya* ‘3SG.ACC(O)’ (A=O)
 Lines 40–41: *galo-nggo* ‘mouse-ERG(A)’ =
galo-nggo ‘mouse-ERG(A)’ (A=A)
 Lines 40–41: *nyonya* ‘3SG.ACC(O)’ = *nyonya* ‘3SG.ACC(O)’.
 (O=O)
 Lines 53–54: *jana-∅* ‘3PL-NOM(S)’ = *jana-∅* ‘3PL-NOM(S)’
 (S=S)
 Lines 56–57: *gamo-∅* ‘water-ACC(O)’ = *gamo-∅* ‘water-ACC(O)’.
 (O=O)
 Lines 57–58: *gamo-∅* ‘water-ACC(O)’ = *gamo-∅* ‘water-ACC(O)’.
 (O=O)
 Lines 58–59: *bimgga-yi-do* ‘grey.hair-COM-ERG(A)’ =
jana-∅ ‘3PL-NOM(S)’ (A=S)
 Lines 62–63a: *rayi-nba-∅* ‘girl-many-ACC(O)’ =
yorra-∅ ‘2PL-NOM(S)’ (O=S)
 Lines 65d–66: *gamo-∅* ‘water-ACC(O)’ = *gamo-∅* ‘water-ACC(O)’.
 (O=O)
 Text 2 Lines 1-2: *ngana-∅* ‘1PL-NOM(S)’ = *ngana-∅* ‘1PL-NOM(S)’.
 (S=S)

(f) Sentence-sequence with an antipassive

(f-1) deletion: no example.

(f-2) retention:

- Text 1 Lines 3–4: *yinda* ‘2SG.ERG(A)’ = *ngaya* ‘1SG.NOM(d-S)’ (A=d-S)
 Lines 32–33: *ngana-∅* ‘1PL-ERG(A)’ = *ngana-∅* ‘1PL-NOM(d-S)’.
 (A=d-S)

Additional examples of sentence-sequence, cited from outside Texts 1 and 2, include the following.

(e) Sentence-sequence without an antipassive

(e-i) deletion: (4-268) (S=[O]).

(f) Sentence-sequence with an antipassive

(f-i) deletion: (4-269) (S=[d-S]), (4-270) (S=[d-S]).

(f-ii) retention: (4-271) (S=d-S), (4-272) (A=d-S).

(4-268) a. *ngali-∅* *banda-n*
 1DU-NOM(S) emerge-NF
 ‘We came out [to the camp].’

b. *ngona-ngomay banjo-n* [*jana-nggo ngali-nya* TT] (AP)
 that-after ask-NF [3PL-ERG(A) 1DU-ACC(O)]
 ‘Then, [they, i.e. the people there] asked [us].’ (S=[O])

(The A of the second sentence is elliptical, with no explicit antecedent.)

(4-269) ('A group of men are trying to catch me and spear me.')

- a. *yayi yarro-n-da jana-Ø bama-Ø yani-Ø*
 (fright) here-LINK-LOC 3PL-NOM(S) man-NOM(S) walk-NF
 'Oh, they, the men, walked [around] here.'
- b. [*jana-Ø* TT] *ngaygo-n-go yangga-gali-n* (AP)
 [3PL-NOM(d-S)] 1SG-LINK-DAT search.for-ANTIP-NF
 '[I think] [they] were/are looking for me.' (S=[d-S])

(The interjection *yayi* expresses fright or surprise (4.26).) The two clauses of (4-269) share the same conjugational category (i.e. nonfuture), as in coordination. Nonetheless, they have separate intonation contours, and consequently they are considered as an instance of sentence-sequence.)

(4-270) (A conversation cited from a text.)

- A: *wanyja-rro yorra-Ø*
 where-to 2PL-NOM(S)
 'Where [are] you going to?'
- B: *jamo* (hesitation) [*ngana-Ø*] *yangga-gali-n* (AP)
 just [1PL-NOM(d-S)] search.for-ANTIP-NF
 '[We] are just searching.' (S=[d-S])

(In the tape Alf Palmer said *jamo*. But when the tape was replayed, he replaced it with the adverb *jamo* 'just; for no particular purpose'.) The sentence A does not contain a verb. Nonetheless, (4-270) is a clear instance of sentence-sequence. It consists of a question and an answer.)

(4-271) (A conversation cited from a text)

- A: *wanyja-ngal ngali-Ø yani-yal?*
 where-to 1DU-NOM(S) go-PURP
 'Where shall we go to?'
- B: *yarro-n-da worriba-wo ngali-Ø yangga-gali-Ø*. (AP)
 here-LINK-LOC bee-DAT 1DU-NOM(d-S) search.for-ANTIP-NF
 '[No,] we are looking for bees here.' (S=d-S)

(4-272) (A conversation cited from a text.)

- A: *bama-nggo nganya balga-lgo*
 man-ERG(A) 1SG-ACC(O) kill-PURP
 'The men are going to kill me.'
- B: *wanyja bama-Ø balga-gali-n*
 where man-NOM(d-S) hit-ANTI-NF
 'Where are the men hitting/killing [other men]?' (A=d-S)

4.9.6. Summary of coreference

4.9.6.1. Comparison of purposive subordination, coordination, and sentence-sequence

The relevant figures on coreference in purposive subordination, coordination, and sentence-sequence (in Tapes 72/31 through 72/34) are provided in Table 4-17. Not all of the figures in Table 4-17 were given in the main text above.

There is a close correlation among the following:

- (a) the frequency of antipassivization;
- (b) the frequency of the ergativizing effect of antipassivization, and;
- (c) the frequency of the deletion of the postcedent.

They are all highest in purposive subordination and lowest in sentence-sequence, each showing an intermediate figure in coordination. (These figures were not given in the main text above.) (There is, however, just one minor deviation from this general tendency. That is, antipassives are slightly less frequent in coordination (8%) than in sentence-sequence (9%.) (As noted in 4.9.4.2, the ergativizing effect of antipassivization refers to the following types of changes: [1] (i) S=A → S=d-S, and (ii) A=S → d-S=S, and [2] (i) O=A → O=d-S, and (ii) A=O → d-S=O.)

Table 4-17. Summary of coreference

	purposive subordination	coordination	sentence- sequence
frequency of antipassivization	highest (41%)	lowest (8%)	(9%)
effect of antipassivization			
ergativizing effect	highest (96%)	(78%)	lowest (55%)
accusativizing effect	lowest (2%)	(7%)	highest (43%)
deletion/retention of postcedent			
deletion	highest (88%)	(55%)	lowest (30%)
retention	lowest (11%)	(43%)	highest (69%)
deletion probability	most obligatory/ most automatic		least obligatory/ least automatic
clause linkage	strongest		weakest
syntactic ergativity	strongest		weakest

Examples of the ergativizing effect-plus-deletion include the following. (i) Purposive subordination: (4-260) (S=[d-S]), (4-262) (O=[d-S]), Text 1, Lines 44, 54', 63a, Text 2, Line 13 (all involving 'S=[d-S]'). (ii) Coordination: Text 1, Line 35 (S=[d-S]). (iii) Sentence-sequence: (4-269) (S=[d-S]), (4-270) (S=[d-S]).

Conversely, there is a close correlation between the following:

- (d) the frequency of the accusativizing effect of antipassivization, and;
- (e) the frequency of the retention of the postcedent.

They are all lowest in subordination and highest in sentence-sequence. (The accusativizing effect of antipassivization refers to the changes in [4] in 4.9.4.2: (i) $A=A \rightarrow A=d-S$, and (ii) $A=A \rightarrow d-S=A$.)

That is, in purposive subordination, the effect of antipassivization is almost obligatorily ergativizing (95%). (See Table 4-16. Out of the total of 79 instances, [1] (68+2 instances, i.e. 70 instances) and [2] (5+1 instances) (i.e. 76 instances in all) constitute 95% ($76/79=0.95$).)

Also, deletion is very frequent in purposive subordination on the whole: 88%. (This figure was not given in the main text above.) The figure is 82% when no antipassive is used (Table 4-15). Furthermore, as Table 4-16 shows, if antipassivization is used, the postcedent is almost always deleted (99%, in 78 out of 79 instances). That is, deletion is virtually compulsory in purposive subordination.

The above shows that, in purposive subordination, antipassivization effects the preference to ergativity in coreferential deletion.

In contrast, in sentence-sequence, antipassivization is not nearly as effective in maintaining this preference. Indeed, even without an antipassive, sentence-sequence yields instances of deletion that fit in ergativity, e.g. (4-268) ($S=[O]$). In addition, while antipassivization has the ergativizing effect in 55% of the examples, cf. (4-269) to (4-271), also it has the accusativizing effect in as many as 43% of the examples, cf. (4-272). (These figures were not given in the main text above.)

Furthermore, in sentence-sequence, deletion rate is very low (30%). (This figure was not given in the main text above.) Even where antipassivization is involved, the postcedent is often retained, rather than deleted. In (4-271) and (4-272), the postcedent is deleted. Furthermore in (4-272) the postcedent is retained despite the fact that an antipassive is used and that it has the ergativizing effect. In (4-272), the antipassivization has the accusativizing effect, and (as expected?) the postcedent is retained.

That is, deletion is more obligatory/more automatic in subordination, but is less obligatory/less automatic in sentence-sequence.

To sum up, in purposive subordination, where clause linkage is strongest, syntactic ergativity, too, is strongest. The preference for the use of antipassivization and deletion is strongest. In sentence sequence, where clause linkage is weakest, syntactic ergativity, too, is weakest. The preference for the use of antipassivization and deletion is weakest. This is in effect exactly as Silverstein (1976) predicted.

4.9.6.2. Crosslinguistic comparison of syntactic ergativity

Syntactic ergativity, coupled with the use of antipassives, is rare among the world's languages. It mainly occurs in Australia, in particular, in Dyirbal (which includes Jirrbal, Girramay and Mamu) (Dixon 1972) and its neighbouring languages in north Queensland, i.e. Warrongo, Warrgamay (Dixon 1981), Yidiny (Dixon 1977b), and Djaabugay (Hale 1976). It also occurs in three languages from elsewhere in Australia: Kalkatungu (Blake 1979) and Yalarnnga (western Queensland) (Breen and Blake 2007), and Bandjalang (New South Wales) (Crowley 1978).

Although the sources do not always mention this explicitly, in these languages, syntactic ergativity appears generally to occur in subordination only (almost always purposive subordination), and rarely to reach coordination and sentence-sequence (Tsunoda 1988a: 43, 1988b: 619, 2004: 292). It is (or, appears to be) confined to subordination in Warrgamay, Djaabugay Kalkatungu, Yalarnnga, and Bandjalang. It extends to coordination in Yidiny, but it reaches sentence-sequence in Dyirbal and Warrongo only. See Figure 4-2.

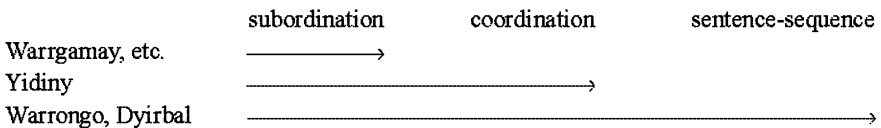


Figure 4-2. Intra-linguistic distribution of syntactic ergativity

Syntactic ergativity seems to be attested in a small number of languages outside Australia as well; see Dixon (1994: 175–180). In these languages, too, syntactic ergativity seems to be in the main confined to subordination, and at most, it reaches coordination. But it does not seem to occur in sentence-sequence. Warrongo and Dyirbal appear to be truly unique among the world's languages in that not only they have syntactic ergativity, but also that their syntactic ergativity extends to sentence-sequence.

4.9.7. More on antipassives in purposive subordination

Like purposive subordination in general (4.8.5), purposive subordination with an antipassive can:

- (a) express purpose or result/consequence/successive action (examples were given in 4.9.4.2);
- (b) have a causative use (see [1] below);
- (c) have a jussive use (see [2] below), and;
- (d) have a complementation use (see [3] below).

Additional comments on the use of antipassives will be provided: [4] switch function and voice distinction, and [5] double expansion by purposive verbs. The deletion in all the examples cited fits in ergativity (cf. (4-223)), except for (4-275).

[1] Causative use

Instances such as (4-262) can have a causative reading: 'I will get a man to make him cut wood'. Other examples include (4-293) to (4-296). The coreference pattern is 'O=d-S'

[2] Jussive use

The main clause involves a transitive verb: *mayga-L* 'tell' ('tell X to do'), *ngonbaynga-L* 'show, teach' ('show/teach X how to do'), or *banjo-L* 'ask' ('ask X to do'). The purposive subordinate clause contains an antipassive verb (surface-intransitive). The coreference pattern is 'O=d-S'

(4-273) *gornग्ga-do* *birgo-Ø* *mayga-n*
 husband-ERG(A) wife-ACC(O) tell-NF
 [*birgo-Ø* TT] *wajo-gali-yal*. (AP)
 [wife-NOM[d-S]] cook-ANTIP-PURP (O=[d-S])
 '[The] husband told [his] wife to cook.'

(4-274) (An example cited from a text. A woman wants to know how to cook a possum nicely, and asks her husband as follows.)

yinda *nganya* *ngonbaynga-Ø*
 2SG.ERG(A) 1SG.ACC(O) show-IMP
 [*ngaya* TT] *wajo-gali-yal* (AP)
 [1SG.NOM(d-S)] cook-ANTIP-PURP
 'Show/teach me [how] to cook [a possum].' (O=[d-S])

Recall in passing that the verb *ngonbaynga-L* 'show, teach' has two case frames (Table 4-2): (a) show-er/teacher-ERG topic/subject-ACC learner-DAT, and (b) show-er/teacher-ERG topic/subject-DAT learner-ACC. In (4-274), the learner is in the accusative. Alf Palmer approved (4-275), which I suggested.

(4-275) *?yinda* *ngaygo-n-go* *ngonbaynga-Ø*
 2SG.ERG(A) 1SG-LINK-DAT show-IMP
 [*ngaya* TT] *wajo-gali-yal*
 [1SG.NOM(d-S)] cook-ANTIP-PURP
 Show me [how] to cook [a possum]. (TT) (DAT=[d-S])

In (4-275), the learner is in the DAT, and not in the ACC. It is not certain if (4-275) is really acceptable. If it is acceptable at all, *ngaya* '1SG.NOM(d-S)' is deleted under identity with the DAT *ngaygo-n-go*. This deletion pattern (DAT=[d-S]) does not fit in any of the patterns listed in 4.8.3.

[3] Complementation use

In the jussive use, the main clause is transitive. In contrast, in the complementation use, the main clause is intransitive. The purposive subordinate clause contains an antipassive verb (surface-intransitive). The coreference pattern is ‘S=d-S’. The main clause may contain an intransitive verb, e.g. (4-276). In (4-529), the verb of the main clause is *mayga-wa-n* ‘tell-RECP-NF’; it is a reciprocal verb and it is surface-intransitive (4.12). (To be precise, in (4-529), the coreference pattern is ‘d-S=d-S’.) But it may also be a ‘verbless clause’, e.g. (4-278) through (4-283).

(4-276) *ngaya borrmō-bi-n*
 1SG.NOM(S) deaf-INTR-NF
 [*ngaya* TT] *banggay-go ganyji-gali-yal*. (TT)
 [1SG.NOM(d-S)] spear-DAT carry-ANTIP-PURP
 ‘I forgot [literally, was deaf] to carry a spear.’ (S=[d-S])

(4-277) *ngaya walngga-yi-∅ warrngo-wo*
 1SG.NOM(S) breath-COM-NOM woman-DAT
 [*ngaya* TT] *ganyji-gali-yal yarro-ngomay* (AP)
 [1SG.NOM(d-S)] carry-ANTIP-PURP here-ABL
 ‘I want to take a woman from here.’ (S=[d-S])

(Here, *walngga-yi* ‘breath-COM’ means ‘eager, keen, fond’. See 3.6.8-[5]. *Yarro-ngomay* ‘this-ABL’ would be expected to be followed by the DAT suffix, i.e. *yarro-ngomay-ng-go* ‘this-ABL-LINK-DAT’, in agreement with the dative *warrngo-wo*. See 3.6.7.)

(4-278) (A woman is looking for her mother, and finds her tracks on the grass. A man says to the woman as follows.)

wowo jilbay-∅ yinda
 Oh knowing-NOM 2SG.NOM(S)
 [*yinda* TT] *borgal-go yangga-gali-yal* (AP)
 [2SG.NOM(d-S)] tracks-DAT search.for-ANTIP-PURP
 ‘Oh, you know how to look for tracks [on grass].’ (S=[d-S])

(4-279) (An example cited from a text.)

yinda jilbay-∅ [yinda TT] ngawa-gali-yal (AP)
 2SG.NOM(S) knowing-NOM [2SG.NOM(d-S)] hear-ANTIP-PURP (S=[d-S])

In this context, (4-279) literally means ‘Do you know how to hear/listen to [our language]?’ It seems to mean ‘Do you understand [our language]?’

(4-280) *nyola nyando-∅ [nyola TT] wajo-gali-yal gajarra-wo* (AP)
 3SG.NOM ignorant-NOM [3SG.NOM(d-S)] cook-ANTIP-PURP possum-DAT
 ‘She does not know how to cook a possum.’ (S=[d-S])

- (4-281) *gornnggal-Ø yino jarribara-Ø*
 husband-NOM(d-S) 2SG.GEN good-NOM
 [*gornnggal-Ø yino TT*] *minya-wo ganyji-gali-yal.* (AP)
 [husband-NOM(d-S) 2SG.GEN] game-DAT carry-ANTIP-PURP
 Tentative translation: 'Your husband is good at bringing game.' (S=[d-S])
- (4-282) (Alf Palmer made a flattering comment on my ability as a linguist.)
gaja-Ø yino jarribara-Ø
 head-NOM(d-S) 2SG.GEN good-NOM
 [*gaja-Ø yino TT*] *moga-gali-yal gogo-wo.* (AP)
 [head-NOM(d-S) 2SG.GEN] catch-ANTIP-PURP language-DAT
 Tentative translation: 'Your head is good at catching a language. (S=[d-S])
- (4-283) (One day Alf Palmer was not feeling well. He said as follows.)
nyawa nyawa ngaya walwandan-Ø /
 NEG NEG 1SG.NOM(S) ill,not.well-NOM
 [*ngaya TT*] *birra-gali-yal.* (AP)
 [1SG.NOM(d-S)] tell,talk-ANTIP-PURP
 'No, no. I am too ill/weak/tired to talk.' (S=[d-S])

Alf Palmer's translation for (4-283) is 'No good. I'm sick. I can't talk to anyone'.

[4] Switch function and voice distinction

As seen above, antipassivization turns the A into the d-S. That is, it effects what Foley and Van Valin (1984: 354–360) refer to as 'switch-function'. As a result, it can create a voice distinction, rather like the active-passive distinction. Compare (4-284) and (4-285).

- (4-284) *bama-Ø yani-Ø [bama-Ø TT] balga-lgo.* (TT, AP)
 man-NOM(S) go-NF [man-ACC(O)] kill-PURP (S=[O])
 'The man went to be killed' or 'The man went and was killed'.
- (4-285) *bama-Ø yani-Ø [bama-Ø TT] balga-gali-yal.* (TT, AP)
 man-NOM(S) go-NF [man-NOM(d-S)] kill-ANTIP-PURP
 'The man went to kill [someone]' or 'The man went and killed [someone].'
 (S=[d-S])

(4-284) was composed by me and approved by Alf Palmer. (It is parallel to (4-229): 'The house is standing to be pulled down' (S=[O]).) His reaction to (4-284) is 'i [i.e. he – TT] want to get killed'. Note that (4-284) has a passive-like reading. In contrast, (4-285) (approved by Alf Palmer) has an active-like reading. (4-284) can in no way have an active-like reading. Alf Palmer stated to the effect that (4-285) needs to be used to express the active-like reading 'He went and killed'.

As another pair of examples, consider (4-286) and (4-287).

(4-286) *molgongorro-Ø jarribara-Ø moja-lgo.* (TT, AP)
 squatter.pigeon-ACC(O) good-ACC(O) eat-PURP
 Tentative translation: 'Squatter pigeons are nice to eat.'

(4-287) *molgongorro-Ø jarribara-Ø*
 squatter.pigeon-NOM(S) good-NOM
 [*molgongorro-Ø*] *moja-gali-yal.* (TT, AP)
 [squatter.pigeon-NOM(d-S)] eat-ANTIP-PURP
 Tentative translation: 'Squatter pigeons are good at eating', 'Squatter pigeons eat a lot', etc.'

(These two sentences were composed by me and approved by Alf Palmer. They are used for the expository purpose only, and they do not necessarily describe squatter pigeons' nature correctly.) The nouns *molgongorro-Ø jarribara-Ø* have the same form (i.e. with a zero suffix) in (4-286) and (4-287). They are ACC (and the O) in (4-286), since the sentence contains a transitive verb (its case frame is ERG-ACC), while in (4-287) they are NOM (and the S), since the sentence contains an antipassive verb (its case frame is NOM-ERG or NOM-DAT).

[5] 'ADJECTIVE to VERB' construction

It may look as if (4-286) is an elliptical version of a transitive clause such as the following. (It is not significant that the A NP is '1PL'. Its choice is arbitrary.)

(4-288) *ngana-Ø molgongorro-Ø jarribara-Ø moja-lgo.* (TT)
 1PL-ERG squatter.pigeon-ACC(O) good-ACC(O) eat-PURP
 'We will eat nice squatter pigeons.'

However, the meaning of (4-286) is rather different from that of (4-288). (4-286) describes the nature, characteristic, property or the like of the O NP. In contrast, (4-288) describes an action by the A NP. Probably (4-286) should not be considered as an elliptical version of a clause such as (4-288). (It should be noted, however, that, depending on the context, (2-286) can have a meaning parallel to that of (4-288): '[Someone] will eat nice squatter pigeons'.) There are several examples like (4-286). An example cited from a text is (4-289-W, -H).

(4-289) (A conversation between a husband (H) and his wife (W).)

H. *goyjarri-Ø moga-lgo ngoni-ngomay-Ø jana-nggo.*
 scrub.turkey.ACC catch-PURP there-ABL-ACC 3PL-ERG
 'They will catch scrub turkeys from there.'

W. *yowo, [goyjarri-Ø TT] jarribara-Ø moja-lgo?*
 yes [scrub.turkey-ACC] good-ACC eat-PURP
 'I see. [Are scrub turkeys] nice to eat?'

- H. *yowo*, [goyjarri-Ø TT] *jarrribara-Ø* [*moja-lgo* TT].
 yes [scrub.turkey-ACC] good-ACC [eat-PURP]
 ‘Yes. [Scrub turkeys are] nice [to eat].’

The following, which I composed too late to check with Alf Palmer, too, may be acceptable.

- (4-290) *yarro-Ø jarrribara-Ø bija-lgo* (or *nyaga-lgo*). (TT)
 this-ACC good-ACC drink-PURP (or see-PURP)
 ‘This is nice to drink (or to look at).’

Sentences such as (4-286) and (4-289) (second H) are reminiscent of the *tough*-construction of English. We should probably recognize the following construction for Warrongo.

- (4-291) ‘ADJECTIVE to VERB’ construction:
 Noun-ACC Adjective-ACC Vt-*lgo*

This may or may not be accidental, but the transitive verb in (4-291) has the purposive-1 (*-lgo*), and not the purposive-2 (*-yal*), in the examples available. The following words are attested in the ‘ADJECTIVE’ slot: (i) *jarrribara* ‘good’, e.g. (4-286), (4-289-H), (4-631), and (ii) *gido* ‘cold’, e.g. (4-632) (‘This camp is cold to stay in’).

[6] ‘Good at VERB-ing’/‘Good enough to VERB’ construction

Similarly, for sentences such as (4-287), (4-918) and (4-919), we can set up the following construction type:

- (4-292) ‘Good at VERB-ing’/‘Good enough to VERB’ construction:
 Noun-NOM good-NOM Vi-*yal*

In this construction, the verb is intransitive. The verb may be a derived, surface-intransitive verb, e.g. (4-287). The intransitive verb in (4-291) has the purposive-2 (*-yal*), and not the purposive-1 (*-lgo*), in the examples available.

[7] Double expansion by purposive verbs

As seen above, a clause can be expanded by means of a purposive verb. The examples given above contain just one purposive verb each. But each of (4-293) and (4-294) contains two purposive verbs: an intransitive verb and an antipassive verb.

- (4-293) *jana birri-n nyonya* [*nyola* TT] *yani-yal*
 3PL.ERG(A) send-NF 3SG.ACC(O) [3SG.NOM(S)] go-PURP
 [*nyola* TT] *goman-go mayga-gali-yal*. (AP)
 [3SG.NOM(d-S)] other-DAT tell-ANTIP-PURP
 ‘They sent him to go to tell other [people].’ (O=[S]=[d-S])

- (4-294) *ngaya nyonya bindaynga-n [nyola TT] yamba-wo*
 1SG.ERG(A) 3SG.ACC(O) let.go-NF [3SG.NOM(S)] camp-DAT
yani-yal [nyola TT] birgo-wo nyaga-gali-yal. (AP)
 go-PURP [3SG.NOM(d-S)] wife-DAT see-ANTIP-PURP
 ‘I let him go to go to [his] camp to see [his] wife.’ (O=[S]=[d-S])

Also, this ‘purposive expansion’ may involve two antipassive verbs.

- (4-295) *nyola ganyji-lgo nyongo [warrngo-Ø TT]*
 3SG.ERG(A) take-PURP 3SG.GEN [woman-ACC(O)]
[nyongo warrngo-Ø TT] manyja-wo wajo-gali-yal
 [3SG.GEN woman-NOM(d-S)] food-DAT cook-ANTIP-PURP
[nyongo warrngo-Ø TT] gambi-wo baba-gali-yal. (AP)
 [3SG.GEN woman-NOM(d-S)] clothes-DAT sew-ANTIP-PURP
 ‘He will take his [woman to get her] to cook food and sew clothes.’
 ([O]=[d-S]=[d-S])

- (4-296) *nyola [warrngo-Ø TT] ganyji-lgo*
 3SG.ERG(A) [woman-ACC(O)] take-PURP
[warrngo-Ø TT] gajarra-wo ganyji-gali-yal
 [woman-NOM(d-S)] possum-DAT carry-ANTIP-PURP
[warrngo-Ø TT] wajo-gali-yal gajarra-wo. (AP)
 [woman-NOM(d-S)] cook-ANTIP-PURP possum-DAT
 ‘He will take [a woman to get her] to carry a possum to cook the possum.’
 ([O]=[d-S]=[d-S])

In passing there is possibly a slight semantic difference between (4-295) and (4-296). In (4-296), the event described by the first clause (i.e. the carrying of the possum) must precede the event described by the second clause (i.e. the cooking of the possum). In contrast, this is not necessarily the case in (4-295); the cooking of the food need not precede the sewing of clothes.

[8] Negation

As noted in 4.2.2, the scope of negation has not been investigated. Nonetheless, there are at least six examples of partial negation: (4-297), (4-719) to (4-721), (4-925), (4-991-a). In each of them, only the subordinate clause/clauses is/are negated, and the main clause is not negated. Negation is achieved by *nyawa* ‘general negation’ or *ngarro* ‘in vain, unsuccessfully’. This may not be significant, but in these examples each subordinate clause contains a purposive verb: a transitive verb in the purposive-1 (Vt-*lgo*) or an intransitive verb in the purposive-2 (Vi-*yal*). In (4-297), the second purposive-2 verb is an antipassive verb (*nyaga-gali-yal* ‘see-ANTIP-PURP’). Needless to say, an antipassive verb is surface-intransitive.

(4-297) ('I am scared of Gandaro' (1.5.8-[8]).)

yinda [*gandaro-Ø* TT] *mayga-Ø* (flat)/
 2SG.ERG(A) [Gandaro-ACC(O)] tell-IMP
nyawa [*gandaro-Ø* TT] *yarro-wo yani-yal*
 NEG [Gandaro-NOM(S)] here-DAT come-PURP
 [*gandaro-Ø* TT] *ngali-n ngali-nyan* [*ngali-ngo-n-go* AP]
 [Gandaro-NOM(d-S)] (error) (error) [IDU-LINK-LINK-DAT]
nyaga-gali-yal (AP)
 see-ANTIP-PURP
 'Tell [Gandaro] not to come here to see us.' ([O]=[S]=[d-S])

(When the tape was replayed, Alf Palmer supplied *ngali-ngo-n-go*.) This sentence has the meaning given above, and it does not mean 'Don't tell [Gandaro] to come here to see us'. Alf Palmer provided the gloss 'not to come' (and not 'Don't tell'). The scope of the negation is over the two purposive clauses, and not just the first purposive clause.

In the examples mentioned above, only the purposive subordinate clause is negated. But it is possible to negate the main clause only, e.g. (4-729-a). This may be irrelevant, but this sentence, too, contain a purposive subordinate clause.

4.9.8. Behaviour of pronouns

Recall that, roughly speaking, with nouns, the NOM(S) and the ACC(O) share the same form, distinct from the ERG(A) form (i.e. S/O vs. A), while, with pronouns, the NOM(S) and the ERG(A) share the same form, distinct from the ACC(O) (i.e. S/A vs. O) (Tables 3-2, 3-6). Due to this difference, pronouns behave differently from nouns in the following two respects: voice distinction (4.9.8.1), and coreferential deletion and retention (4.9.8.2).

4.9.8.1. Voice distinction

Again, compare (4-286) and (4-287). Both sentences contain nouns only, and no pronoun. Now, consider (4-298) and (4-299), which I have composed for the expository purpose. Both contain the pronoun *yinda* '2SG. NOM(S)/ERG(A)'.

(4-298) *yinda jarribara-Ø moja-lgo.* (TT)
 2SG.ERG(A) good-ACC(O) eat-PURP
 'You will eat nice [food].'

(4-299) *yinda jarribara-Ø [yinda] moja-gali-yal.* (TT)
 2SG.NOM(S) good-NOM [2SG.NOM(d-S)] eat-ANTIP-PURP
 'You are good at eating.' (S=[d-S])

Unlike (4-286), (4-298) can in no way mean ‘[Someone] will eat nice you’, since *yinda* ‘2SG’ can only be ‘NOM’ (for the S) or ‘ERG’ (for the A), and never ‘ACC’ (for the O). The form for ‘2SG.ACC’ is *yina*. That is, unlike (4-286), (4-298) does not mean ‘You are nice to eat’. This is one of the two respects in which pronouns behave differently from nouns.

In contrast, (4-299) can have the meaning as given above – like (4-287) – since *yinda* ‘2SG’ can be ‘NOM’ (i.e. S).

4.9.8.2. Coreferential deletion and retention

The other respect in which pronouns behave differently from nouns, concerns coreferential deletion and retention, including performance errors.

4.9.8.2.1. Performance errors

As seen in 4.9.6.1, clause linkage is tightest and syntactic ergativity is strongest in purposive subordination, as against coordination and sentence-sequence. As stated in 4.8.4, like nouns, pronouns generally conform to ergativity (S/O vs. A) in coreferential deletion in purposive subordination; this is despite their case-marking pattern (S/A vs. O). Examples include the following.

- (a) S=[O]: (4-228) and (4-230) (*nyola* ‘3SG.NOM(S) = [*nyonya* ‘3SG: ACC’(O)]).
- (b) O=[d-S]: (4-274) (*nganya* ‘1SG.ACC(O) = [*ngaya* ‘1SG.NOM (d-S)']).
- (c) S=[d-S]:
 - (c-1) (4-260), (4-277), and (4-283) (*ngaya* ‘1SG.NOM(S) = [*ngaya* ‘1SG.NOM(d-S)']).
 - (c-2) (4-278) and (4-279) (*yinda* ‘2SG.NOM(S) = [*yinda* ‘2SG.NOM(d-S)']).
 - (c-3) (4-280) (*nyola* ‘3SG.NOM(S) = [*nyola* ‘3SG.NOM (d-S)']).

This discrepancy, observed in pronouns, between the deletion patterns (S/O vs. A) and the case-marking pattern (S/A vs. O) is clearly seen in (a), (b), and (c). In each of them, the postcedent is deleted, although its form is different from that of the antecedent.

However, again as noted in 4.8.4, in texts there are exceptions involving a pronoun where coreferential deletion in purposive subordination conforms to accusativity (S/A vs. O). One example is (4-300). In the context in which it was uttered, it has the reading ‘He(S) went and [he(A)] got [food]’ (S=[A]). However, a discussion with Alf Palmer during the replay of the tape indicates clearly that (4-300) is a performance error, and that, in his introspection, it means ‘He(S) went and [someone(A)] caught [him(O)]’ (S=[O]), i.e. ‘He went and was caught’. Specifically, when (4-300) was presented to him, he rejected it for the reading of ‘He went and [he] got/caught [someone/something]’. He replaced it with (4-301) (S=[d-S]). This

shows clearly that, in his introspection, (4-300) means ‘He went and was caught’ (i.e. S=[O], and not S=[A]).

(4-300) *nyola* *yani-∅* [*nyola* TT] *moga-lgo*. (AP)
 3SG.NOM(S) go-NF [3SG.ERG(A)] get,catch-PURP
 ‘He went and [he] got [food].’ (S=[A])

(3-301) *nyola* *yani-∅* [*nyola* TT] *moga-gali-ya*. (AP)
 3SG.NOM go-NF [3SG.NOM(d-S)] get-ANTIP-PURP
 ‘He went and [he] got [food].’ (S=[d-S])

The above shows that these few exceptions such as (2-300) are performance errors. And that in Alf Palmer’s introspection, where purposive subordination is concerned, even with pronouns, deletion conforming to ergativity is clearly the norm. (This is shown in Table 4-13.)

Compare the following:

- (a) involving a pronoun: (4-300) (S=[A]) and (4-301) (S=[d-S]), and;
 (b) involving a noun: with (4-284) (S=[O]) and (4-285) (S=[d-S]).

A comparison of (4-300) and (4-284) suggests that these errors were triggered by the case-marking pattern of the pronouns (S/A vs. O). Recall that, roughly speaking, the case-marking pattern of pronouns is ‘S/A vs. O’, while that of nouns is ‘S/O vs. A’.

Another example of the deletion of a pronoun postcedent in the ‘S=[A]’ pattern is in (4-303).

So far, we have looked at ‘performance errors’ in purposive subordination. As seen in 4.9.6.1, the requirement on coreferential deletion is weaker in coordination and sentence-sequence than in purposive subordination, and investigation of Alf Palmer’s (or any speaker’s, for that matter) introspection regarding this issue at the levels of coordination and sentence-sequence would be difficult, although I did not attempt this.

In this connection, it is relevant to refer to Yidiny, about 150 km north of Warrongo. Recall that this language has syntactic ergativity, which occurs in subordination and extends to coordination (see Figure 4-2). According to Dixon (1977b: 388–392), the situation seems to be as follows.

Preferred deletion patterns in coordination (but not in subordination) mirror the case-marking pattern. That is, nouns (case-marking: S/O vs. A) have deletions of S/O patterns, while pronouns (case-marking: S/A vs. O) have deletions of S/A patterns. With each of nouns and pronouns, there is congruence between the preferred deletion patterns and the case-marking pattern. Subordination, where the clause-linkage is tighter, seems to exhibit no such difference between nouns and pronouns; pronouns, too, seem to conform to syntactic ergativity.

That is, in the coordination of Yidiny, deletions of pronouns in an S/A pattern are not performance errors, but they are well-formed, in contrast with Warrongo.

4.9.8.2.2. *Deletion and retention*

Table 4-15 concerns coreferential retention and deletion in purposive subordination without an antipassive (in Tapes 72/31 to 72/34). Table 4-18 deals with the same data. But it distinguishes between the instances where the antecedent is a noun and those where the antecedent is a pronoun.

Table 4-18 shows that the postcedent is more likely to be deleted when it is a noun (39 out of 42 instances; 93%) than when it is a pronoun (58 out of 76 instances; 76%). In other words, the postcedent is more likely to be retained when it is a pronoun (24%) than when it is a noun (7%). (This tendency was mentioned in 4.8.4.) There is a functional motivation for this difference, as shown below. We shall look at each of these four groups of coreference patterns. Examples (not necessarily from Tapes 72/31 to 72/34) will be cited or referred to.

[1] S/O patterns (S=O, O=S)

The difference between nouns and pronouns is most clearly seen in the S/O patterns. A noun postcedent is retained in 14% of the instances (in 1 out of 7). In sharp contrast, a pronoun postcedent is retained in 38% (6 out of 16 instances) – almost three times as frequently.

Table 4-18. Coreferential deletion and retention in purposive subordination

	noun antecedent		coreference pattern	pronoun antecedent	
	retention	deletion		retention	deletion
S/O patterns	0	1	S=O	2	0
	1	5	O=S	4	10
neutral patterns	0	1	A=A	2	26
	2	32	O=O	1	0
	0	0	S=S	1	16
S/A patterns	0	0	S=A	3	5
	0	0	A=S	0	0
aberrant patterns	0	0	A=O	3	1
	0	0	O=A	1	0
subtotal	3	39		18	58
	7%	93%		24%	76%
total	42			76	
	100%			100%	

(a) Relevant examples of a noun postcedent include the following.

(a-1) Deletion

(a-1-1) S=[O]: (4-229).

(a-1-2) O=[S]: (4-231).

(a-2) Retention. There is no example. See the comment on (4-302).

(b) Relevant examples of a pronoun postcedent include the following.

(b-1) Deletion

(b-1-1) S=[O]: (4-228), (4-230), (4-630).

(b-2) Retention

(b-2-1) O=S: (4-221), (4-222).

Compare (4-231) (O=[S]), an example cited from a text, and (4-302), to which I added the second occurrence of *gando-Ø* 'dog-NOM' and which was approved by Alf Palmer.

(4-302) *gajarra-nggo gando-Ø baja-n gando-Ø gawali-yal.* (TT, AP)
 possum-ERG(A) dog-ACC(O) bite-NF dog-NOM(S) call.out-PURP
 'A possum bit a dog and the dog yelped.' (O=S)

Both (4-231) and (4-302) involve a noun postcedent. Indeed, (4-301) was approved by Alf Palmer. However, in the actual examples involving an S/O pattern a noun postcedent is always (?) deleted, e.g. (4-231). There is no example of an S/O pattern, at hand from the texts, that involves retention of a noun postcedent in an S/O pattern.

Now, consider (4-221) (O=S; *yina* '2SG.ACC(O)' = *yinda* '2SG.NOM(S)') and (4-222) (O=S; *nyonya* '3SG.ACC(O)' = *nyola* '2SG.NOM(S)'). They each exhibit the pattern O=S. Furthermore, they each involve a pronoun postcedent. The postcedent is retained. This is in contrast with (4-231) (O=[S]; *gando-Ø* 'dog-ACC(O)' = [*gando-Ø* 'dog-NOM(S)']), where the postcedent is a noun and is deleted.

The tendency for the pronoun postcedent to be more likely to be retained than the noun postcedent is puzzling, since pronouns – particularly, first and second person pronouns, which refer to speech act participants – are contextually given and easily recoverable, and indeed they are often understood in languages such as Japanese. Even in English, where a sentence strongly requires the subject, the pronouns *I* and *we* are often deleted in diaries, letters to close family members, and so on.

There is, however, a functional motivation behind this puzzle. This higher rate of retention of pronouns than that of nouns seems to be a device for facilitating the comprehension of the sentence in the presence of the discrepancy in pronouns between the ideal deletion patterns (i.e. S/O vs. A; see Table 4-13) and the case-marking pattern (i.e. S/A vs. O; see Table 3-6).

With most of the nouns, the NOM(S) and the ACC(O) forms are identical, and in a deletion of a S/O pattern, the recovery of the deleted postcedent is straight-

forward, e.g. (4-231) (O=[S]; *gando-Ø* 'dog-ACC(O) = [*gando-Ø* 'dog-NOM(S)']. In contrast, with most of the pronouns, the ACC(O) and the NOM(S) forms are different, e.g. (4-221) (O=S; *yina* '2SG.ACC(O)' = *yinda* '2SG.NOM(S)'). Here, if the postcedent were deleted, its recovery would not be so straightforward as is the case with nouns. That is, retention of the pronoun postcedent facilitates the comprehension of the sentence.

[2] Neutral patterns (S=S, A=A, O=O)

As Table 4-18 shows, the noun postcedent is retained in 6% (2/35), while the pronoun postcedent is retained in 9% (4/46). There seems to be no significant difference between nouns and pronouns. Again, there is a functional motivation for this. The neutral patterns are compatible with both the case-marking pattern of nouns (S/O vs. A) and that of pronouns (S/A vs. O). (See (4-223).)

(a) Relevant examples of a noun postcedent include the following.

(a-1) Deletion

(a-1-1) S=[S]: (4-232), (4-233).

(a-1-2) O=[O]: (4-235), (4-236), (4-627).

(a-2) Retention:

(a-2-1) O=O: (4-626).

(b) Relevant examples of a pronoun postcedent include the following.

(b-1) Deletion

(b-1-1) S=[S]: (4-243), (4-244).

(b-1-2) A=[A]: (4-234), (4-627).

(b-2) Retention

(b-2-1) A=A: (4-235), (4-626).

[3] S/A patterns (S/A, A/S)

In Table 4-18, there is no example involving a noun. There are 8 examples involving a pronoun. The pronoun postcedent is deleted in 62.5% (5/8), and retained in 37.5% (3/8). Since there is no example involving a noun, it is impossible to compare nouns and pronouns in terms of deletion and retention.

(b) Relevant examples of a pronoun postcedent include the following.

(b-1) Deletion

(b-1-1) S=[A]: (4-300), (4-303).

(b-2) Retention

(b-2-1) S=[A]=A: (4-303).

(4-303) ('I wanted to make love to her.')

wara-n ngaya ngarra-mali
 jump-NF 1SG.NOM(S) above-side
jaynyja-lgo [ngaya nyonya]
 copulate.with-PURP [1SG.ERG(A) 3SG.ACC(O)]
jaynyja-lgo ngaya [nyonya]. (AP)
 copulate.with-PURP 1SG.ERG(A) [3SG.ACC(O)]
 'I jumped on top [of her] so that [I] could copulate with [her], so that I could
 copulate with [her].' (S=[A]=A)

The first occurrence of [*ngaya*] '1SG.ERG(A)' is deleted, resulting in the deletion of 'S=[A]' This deletion pattern deviates from the ideal patterns of deletion (Table 4-13). Nonetheless, the second occurrence of *ngaya* '1SG.ERG(A)' is retained (or, perhaps added). This is probably in order to compensate for the deletion that deviates from ideal patterns of deletion.

[4] Aberrant patterns (A=O, O=A)

In Table 4-18, there is no example involving a noun. The pronoun postcedent is deleted in 20% (1/5). It is retained in as many as 80% (4/5), e.g. (4-282). This shows that aberrant patterns strongly prefer retention to deletion. Deletion in aberrant patterns seems to be disfavoured or prohibited cross-linguistically (4.8.4). This is indeed the case in Warrongo, too. See also 4.9.4.1 and 4.9.4.2-[2]. Needless to say, deletion will become acceptable if the A is turned into the d-S by means of anti-passivization (4.9.4.2-[2]). Since there is no example involving a noun, it is impossible to compare nouns and pronouns in terms of deletion and retention.

(4-304) ('This food is nice. I would like to see you eat it.')

yarro-Ø yinda moja-Ø
 this-ACC(O) 2SG.ERG(A) eat-IMP
ngaya yina nyaga-lgo. (AP)
 1SG.ERG(A) 2SG.ACC(O) watch-PURP
 'Eat this [food] so that I can watch you [eating it].' (A=O)

[5] Additional notes on pronouns

We saw in [1] above that, in the S/O patterns, a pronoun postcedent is often retained; there is a discrepancy between its case-marking (S/A vs. A) (Table 3-6) and the ideal deletion patterns (Table 4-13).

Apart from the S/O patterns, pronouns are sometime retained even when they fit in one of the ideal patterns, as noted in [2] concerning neutral patterns. As an example, we shall compare pronouns and nouns involving the same coreference pattern: A=A. Consider (4-235) (a sentence spontaneously uttered by Alf Palmer). It involves a pronoun: *yinda* '2SG.ERG(A)' = *yinda* '2SG.ERG(A)' The postcedent is retained. That is, here, deletion seems optional. In contrast, where nouns are

concerned, there is no example available in which the second occurrence of the A NP is retained. It will be almost certainly deleted. Consider (4-238) (*bama-nggo* ‘man-ERG(A)’ = *bama-nggo* ‘man-ERG(A)’). This sentence was composed by me and approved by Alf Palmer. The postcedent is not deleted. However, in natural speech, it will be almost certainly deleted (as in (4-239) (*bama-nggo* ‘man-ERG(A)’ = [*bama-nggo* ‘man-ERG(A)’]). That is, pronouns are more likely to be retained than nouns even when the same coreference pattern (A=A) is involved.

This difference between pronouns and nouns – at least regarding the coreference pattern ‘A=A’ – is intriguing since pronouns tend to mark given/old information, and they would be expected to be more likely to be deleted than nouns. There are languages that have both free pronouns and clitic pronouns, e.g. Djaru (Tsunoda 1981a: 124–163). In Djaru, clitic pronouns occur in virtually every clause with a finite verb, but this is not the case with free pronouns. In view of this, the situation in Warrongo is even more intriguing; its pronouns are free pronouns, and not clitic pronouns.

4.9.9. Case frames and semantics

We shall now look at further details of the case frames of antipassives. This requires careful attention to their semantic aspects.

4.9.9.1. Semantic types of antipassive verbs

It is useful to introduce the hierarchy of two-place predicates proposed in Tsunoda (1981b, 1985). See Table 4-19. Crosslinguistically, transitive case frames (e.g. ERG-ACC of Warrongo) occur in Type 1, but as we go down the hierarchy, they are less likely to occur, and they tend to be absent or to co-exist with some other case frames (e.g. NOM-DAT and NOM-LOC of Warrongo). Similarly, voice expressions, such as passives, antipassives, reflexives, and reciprocals, are easily acceptable in Type 1, but they are less likely to be acceptable as we move towards the right end (Tsunoda 1981b: 397, 1985: 390–391). These cross-linguistic tendencies are observed in Warrongo as well; see Table 4-20.

Table 4-19. Hierarchy of two-place predicates

Type	1	2	3	4	5	6	7
Meaning	direct effect	perception	pursuit	knowledge	feeling, emotion	relationship	ability
Examples	kill, break, hit, shoot, eat	see, hear, find, look, listen, smell	search, wait	know, understand, remember, forget	love, like, want, fear, angry	have, lack, resemble, correspond	capable, proficient, good

Roughly speaking, Warrongo has transitive verbs (ERG-ACC) from Type 1 to Type 4, and also in Type 6. Type 1 is by far the largest group, followed by Type 2, which is much smaller. Transitive verbs in Types 3, 4, and 6 are very few – just one or two in each type.

The verb *ganyji-L* can mean (i) ‘carry’, e.g. (3-32), (4-296), (ii) ‘have [body parts]’, e.g. (3-228), (4-889) to (4-893), or (iii) ‘be pregnant with [a baby]’, e.g. (3-175) (third W). When it means ‘carry’, it is classified as a three-place verb (4.3.3.2-[11]). Semantically, it is similar to Type 1 ‘direct effect’ When it means ‘have [body parts]’/‘be pregnant with [a baby]’, it is allocated to Type 6 ‘relationship’. It appears to be the only transitive verb in Type 6.

Type 5 ‘feeling’ and Type 7 ‘ability’ appear to contain no transitive verb. They consist of intransitive verbs and adjective-like nouns. Type 5 ‘feeling, emotion’ consists of (i) intransitive verbs, e.g. *wanbali-ZERO Vi* ‘fear’ in (3-68), and (ii) adjective-like nouns, e.g. *walnnga-yi* ‘fond [of]’ in (3-89), (3-90). Type 7 ‘ability’ consists of adjective-like nouns only, e.g. *miramira* ‘smart, good [at]’ in (3-97). There is no example of an intransitive verb.

Table 4-20. Transitive verbs and voice expressions

Type	1	2	3	4	5	6	7
Meaning	direct effect	perception	pursuit	knowledge	feeling, emotion	relationship	ability
ERG-ACC	—————→					—————→	
two-place							
antipassive	—————→						
NOM-ERG	—————			—————→			
NOM-DAT	—————→						
true reflexive	—————→						
(4.11.2.1, 4.11.3.1)							
anticausative	————→						
(4.11.2.2, 4.11.3.2)							
reciprocal	—————→						
(4.12.2)							
iterative (4.13.1)	—————→						
instrumental	—————→						
verbs (4.14.3.1)							
participle-1	—————→						
(4.15.1.1)							
participle-2	————→						
(4.15.2.1)							

The distribution of transitive verbs, i.e. that of the transitive case-frame ERG-ACC, is shown in Table 4-20.

In terms of valency and semantics, antipassive verbs can be classified as follows: [1] three-place antipassives, and [2] two-place antipassives.

[1] Three-place antipassive verbs

(See 4.3.3.2 for three-place verbs.) Three-place antipassive verbs include *goyba-gali-ZERO* 'give' and 'throw', *mayga-gali-ZERO* 'tell', *ganyji-gali-ZERO* 'carry', *banjo-gali-ZERO* 'ask', and *birra-gali-ZERO* 'tell, talk'.

When *ganyji-L* Vt means 'have [body parts]'/ 'be pregnant with [a baby]', it is assigned to Type 6 'relationship'. It appears to be the only transitive verb of Type 6 'relationship'. Its antipassive counterpart is not attested and it seems likely not to exist. If it exists at all, its frequency is extremely low. This seems to confirm the observation mentioned in 4.9.9.1 that voice expressions, such as antipassives, are less likely to be acceptable as we move towards the right end of Table 4-20.

[2] Two-place antipassive verbs

It appears that transitive verbs from Type 1 to Type 4 can be antipassivized. The distribution of two-place antipassive verbs is shown in Table 4-20.

Two-place antipassive verbs can be classified into four groups: (a) action antipassives, (b) perception antipassives, (c) pursuit antipassives, and (d) one knowledge antipassive. The semantic differences among these four groups of verbs are as follows. They mainly concern the affectedness of the undergoer. (See Tsunoda (1981b: 396, 1985: 389).)

With action antipassives, the undergoer may have been affected by the action (cf. 'I caught a kangaroo') or may not have been affected by it as yet (cf. 'I will catch a kangaroo').

With pursuit antipassives (cf. 'I looked for a kangaroo', 'I will look for a kangaroo'), the undergoer is never affected by the action.

Perception antipassives are intermediate between action and pursuit antipassives. The undergoer of pursuit is never perceived. (Once it is perceived, the verb to be employed is one of perception, such as 'see' and 'find'.) In contrast, the undergoer of perception may be said to be affected in that it was/is/will be perceived: 'I saw/see/will see a kangaroo' (perception), as against 'I looked/look/will look for a kangaroo' (pursuit). However, it is not affected to the extent that the undergoer of action is. Thus, the act of catching can impinge on the undergoer, but the act of seeing never does.

The situation described by the only antipassive of knowledge (i.e. 'understand [a language]') does not involve any action, and it does not affect the undergoer.

A list of antipassive verbs in terms of this classification is given.

(a) Action antipassives

This is by far the largest group. It includes the verbs of Type 1 'direct effect'. Examples are the following.

balga-gali-ZERO ‘kill, hit’, *galga-gali-ZERO* ‘put down’, *woda-gali-ZERO* ‘pull down, take off [clothes]’, *giba-gali-ZERO* ‘dig’, *gamba-gali-ZERO* ‘cover’, *gonba-gali-ZERO* ‘cut’, *gonma-gali-ZERO* ‘cut’, *moga-gali-ZERO* ‘catch, get’, *baba-gali-ZERO* ‘stab, sew’, *wajo-gali-ZERO* ‘cook’, *moja-gali-ZERO* ‘eat’, *bija-gali-ZERO* ‘drink’, *baja-gali-ZERO* ‘bite, chew’, *baya-gali-ZERO* ‘sing’, *jaymyja-gali-ZERO* ‘copulate with’, *nyawo-gali-ZERO* ‘go round [a place, e.g. in a fight]’, and *wanda-gali-ZERO* ‘leave [a place]; leave [something in a place]; leave [someone in a place]; forget to take/bring’.

Strictly speaking, *wanda-gali-ZERO* Vt ‘leave’ may not describe an action, but it is conveniently assigned to the group of action antipassives. Examples include (4-400). There is a transitive verb that is semantically somewhat similar to *wanda-L* ‘leave’. It is *nyawo-L* ‘go round [a place, e.g. in a fight]’, e.g. Text 3, Line 17. It has the antipassive form: *nyawo-gali-ZERO*, e.g. Text 3, Line 16.

There is at least one transitive verb that describes an action but that, despite this, is not attested in the antipassive form. The verb is *garrogaja-L* Vt ‘go past [someone] without noticing’ (mentioned in 3.9.1).

(4-305) *nyola garrogaja-n ngali-nya.* (AP)
 3SG.ERG(A) go.past-NF 1DU-ACC(O)
 ‘He went past us, without noticing us.’

Therefore, there are at least two transitive verbs whose antipassive form is not attested: *ganyji-L* ‘have [body parts]’/‘be pregnant with [a baby]’ and *garrogaja-L* Vt ‘go past [someone] without noticing’ (Dixon (1972: 65) states regarding Dyirbal that any transitive simple sentence can be antipassivized. However, as can be seen, this does not seem to apply to Warrongo.)

(b) Perception antipassives (Type 2)

This group is very small. It contains only six verbs: *nyaga-gali-ZERO* ‘see, watch, look at, etc.’, *nyaga~nyaga-gali-ZERO* ‘watch, look at, look after’, *jolnyjo-gali-ZERO* ‘watch, stare’, *ngawa-gali-ZERO* ‘hear, listen to [e.g. a person, voice, noise]’, *jaymba-gali-ZERO* ‘find’, and *balmbi-gali-ZERO* ‘smell’. Perception antipassives will be discussed in 4.9.9.3.

(c) Pursuit antipassives (Type 3)

There is only one basic, non-derived transitive verb of pursuit: *yangga-L* ‘search for’ Its antipassive counterpart is *yangga-gali-ZERO* ‘search for, look for’ There is one verb of pursuit that is derived by means of the transitive-stem-forming suffix *-(m)ba-L* (4.7.3-[2]): *ngarro-mba-L* ‘try to get, but cannot’, e.g. (3-237-c). Its antipassive counterpart is *ngarro-mba-gali-ZERO*, e.g. Text 1, Line 35. (*Ngarro* is an adverb that means ‘in vain, unsuccessfully’ (4.24-[9]).) Two of the perception antipassives can mean ‘search for, look for’: *nyaga-gali-ZERO* ‘see’ (4.9.9.3.2), and *jaymba-gali-ZERO* ‘find’ (4.9.9.3.4).

(d) One knowledge verb (Type 4)

The perception verb *ngawa-L* Vt ‘hear, listen to [e.g. a person, voice, noise]’ (Type 2) can also mean ‘understand [a language]’ (Type 4). Its antipassive counterpart *ngawa-gali-ZERO*, too, can mean (i) ‘hear, listen to’ and (ii) ‘understand [a language]’ They will be discussed in 4.9.9.3.5.

According to Evans and Wilkins (2000: 567–568), it is very common in Australian languages for the verb ‘hear, listen to’ to also mean ‘to understand [a language]’ In Warrongo, *ngawa-L* and *ngawa-gali-ZERO* with the meaning ‘understand’ appear to be used regarding language only, and do not seem to be used, say, as in ‘understand an idea, a concept, a person, etc.’ According to Shiho Ebihara (p.c.), the Amdo dialect of Tibetan, spoken in northwest China, has the verb *ko* ‘hear’ and ‘understand’ and the verb *nyen* ‘listen to’ *Ko* ‘hear’ can mean not only ‘understand [a language]’, but also ‘understand [a concept, idea, the content of a talk]’. In contrast, *nyen* ‘listen to’ does not mean ‘understand’.

As noted above, the antipassive version of *ngarro-mba-L* ‘try in vain to get’ is attested. As mentioned in 4.9.1, other transitive verbs with *-(m)ba-L* and also those with *-nga-L* (4.7.2) can have the antipassive form, although this does not occur often. Examples include *mira-nga-gali-ZERO* ‘make-ANTIP’ in Text 1, Line 49.

In each pair of a transitive verb and its antipassive counterpart, the antipassive counterpart is generally much less frequently used than the transitive verb. However, there is just one exception: *yangga-L* and *yangga-gali-ZERO* ‘search for, look for’ This verb is almost always used in the antipassivized form, e.g. (4-251), (4-264), (4-269-b), (4-270-B), (4-271-B), (4-278). Recall that, in (4-264), it is because of this idiosyncratic nature of *yangga-L* (to occur in the antipassive form almost always) that the second clause is antipassivized, resulting in the deletion of d-S=[d-S]. This phenomenon does not seem uncommon. Another example is (4-306).

(4-306) *warrngo-wo ngaya yangga-gali-n*
 woman-DAT 1SG.NOM(d-S) search.for-ANTIP-NF
 [*warrngo-wo ngaya TT*] *ganyji-gali-yal.* (AP)
 [woman-DAT 1SG.NOM(d-S)] carry-ANTIP-PURP
 ‘I am looking for a woman to take [with me].’ (d-S=[d-S])

In contrast, there are just a few example of the transitive *yangga-L*. Indeed, for several months after I had started working with Alf Palmer, I was under the impression that this verb was used in the antipassivized form only until one day when I came across an instance of the transitive version in a text. Examples of the transitive *yangga-L* cited from the texts include (4-252), (4-780).

4.9.9.2. *Case of the undergoer NP*4.9.9.2.1. *Introductory notes*

The case of the undergoer NP of antipassives is generally the ERG or the DAT. (It is the GEN or the ACC in a very small number of examples; see 4.9.9.4.) There are at least three factors that condition this case-marking of ERG versus DAT. They operate jointly.

- (a) Animacy of the undergoer in terms of Silverstein's NP hierarchy (4.9.9.2.2).
- (b) Affectedness of the undergoer in terms of verb semantics (4.9.9.2.3).
- (c) Regarding action antipassive verbs: affectedness of the undergoer in terms of the conjugational category (4.9.9.2.4).

4.9.9.2.2. *Animacy of the undergoer in terms of Silverstein's NP hierarchy*

Consider Table 4-21, which incorporates a modification of Silverstein's (1976: 122) NP hierarchy. For the case of the undergoer NP, when it is a pronoun, almost certainly only the DAT is possible for the undergoer. With kin and proper nouns, the DAT is possible, but it is not known if the ERG is possible. With human nouns and non-human animate nouns (simply, animate nouns), the DAT marking is possible and common, and the ERG marking is possible, but not common. With inanimate nouns, both of the DAT and the ERG are possible and common. (A somewhat similar tendency is observed in the DAT vs. LOC marking of the undergoer NP of antipassives of Yidiny; see Dixon (1977b: 277).) Examples and comments follow.

[1] Pronouns

With pronouns, for the undergoer NP, only the DAT seems acceptable, e.g. (i) '1SG-DAT' in (4-269-b), (4-326), (4-330), (ii) '1DU-DAT' in (4-297), (4-417), (iii) '2SG-DAT' in (4-264), (4-338), (4-343), (4-390).

Table 4-21. Case of undergoer NP (1): animacy hierarchy

pronoun	kin, proper	human, animate	inanimate
DAT only	DAT ?	DAT (common) ERG (not common)	DAT (common) ERG (common)

The ERG seems unacceptable with pronouns (including the interrogative member *wanyo-lo* 'who-ERG'). (In Dyrbal, too, what is equivalent to the ERG form of a Warrongo pronoun cannot occur as the undergoer of any antipassive at all. See Dixon (1972: 66).) Thus, compare:

- (4-307) *bama-nggo yina balga-n.* (TT)
 man-ERG(A) ACC(O) hit-NF
 'The man hit you.'
- (4-308) **bama-Ø yinda balga-gali-n.* (TT)
 man-NOM(d-S) 2SG.ERG hit-ANTIP-NF
 Intended meaning: '(As above.)'
- (4-309) *bama-Ø yinda balga-gali-n.* (TT)
 man-NOM(d-S) 2SG.NOM(d-S) hit-ANTIP-NF
 'You, a man, hit [someone/something].'

(4-308) does not mean 'The man hit you'. But this sentence is no doubt acceptable in the reading shown in (2-309). The noun phrase *bama-Ø yinda* 'you, a man' is an instance of apposition (4.5.2.1.2-[3]).

With most of the pronouns, the ERG and the NOM forms are identical. Now, with '3DU' and '3PL', the ERG form can be identical with the NOM. It can also have a distinct ergative suffix. (See Table 3-6.) Now, compare:

- (4-310) *bama-nggo jana-nya balga-n.* (TT)
 man-ERG(A) 3PL-ACC(O) hit-NF
 'The man hit them.'
- (4-311) **bama-Ø jana-Ø balga-gali-n.* (TT)
 man-NOM(d-S) 3PL-ERG hit-ANTIP-NF
 Intended meaning: '(As above.)'
- (4-312) **bama-Ø jana-nggo balga-gali-n.* (TT)
 man-NOM(d-S) 3PL-ERG hit-ANTIP-NF
 Intended meaning: '(As above.)'
- (4-313) *bama-Ø jana-Ø balga-gali-n.* (TT)
 man-NOM(d-S) 3PL-NOM(d-S) hit-ANTIP-NF
 'They, the men [or, they, including the men] hit [someone/something].'

It seems certain that (4-311) and (4-312) do not mean 'The man hit them'. The ex. (4-311) (where the pronoun undergoer does not have a distinct ergative suffix) will be acceptable in the reading shown in (4-313), as is the case with (4-309). However, there seems no way in which (4-312) (where the pronoun undergoer NP has a distinct ergative suffix) can be acceptable. (If *jana-nggo* is deleted from (4-312), the sentence will be perfectly acceptable. See (4-272-B).)

[2] Kin nouns and proper nouns

For the undergoer NP, the DAT is attested, e.g. (4-294) ('wife'), and (4-336) ('mother'). But it is not known if the ERG is possible. There is no example of the ERG. On one occasion, the ERG *yanga-na-nggo* 'mother-KIN-ERG' for the under-

goer NP of an antipassive was rejected by Alf Palmer. That is, it is possible that, as is the case with pronouns, the ERG of kin and proper nouns cannot occur as the undergoer of any antipassive.

Recall that the ergative suffix has an irregular allomorph *-lo*. It occurs in the interrogative pronoun *wanyo-lo* ‘who-ERG’ (Table 3-6) and at least four vowel-final kinship terms, e.g. *gaya-na-lo* ‘father-KIN-ERG’ (Table 3-3). As mentioned in [1] above, *wanyo-lo* ‘who-ERG’ seems unacceptable as the undergoer NP. Also as just noted, there is no example of a kin noun in the ERG occurring as the undergoer. It then seems that the allomorph *-lo* of the ergative never occurs as the undergoer NP of the antipassive construction at all. In contrast, other allomorphs are attested in the undergoer NP of antipassives, e.g. *-nggo* in (4-49) (*-nggo* in *gamo-nggo*) and *-bo* in (4-258) (*-bo* in *fojam-bo*).

[3] Human nouns

Both the DAT and the ERG are attested. The DAT is common, but the ERG is not. Examples of the DAT include (4-306) (woman), (4-293) (other people), (4-331) (white man), and (4-367) (young girl). Examples of the ERG include (4-315) (young girl), and (4-324) (woman).

[4] Animate nouns

As is the case with human nouns, both the DAT and the ERG are attested, and the DAT is common, but the ERG is not. Examples of the DAT include (4-260) (kangaroo); (4-271-B), (4-335) and (4-375) (bee); (4-280) and (4-296) (possum: probably dead, but possibly alive); (4-282) (meat, game: probably dead, but possibly alive); (4-335) (possum: probably alive, but possibly dead). Examples of the ERG include (4-258) (locust), (4-314) (‘possum’) (probably dead, but possibly alive), and (4-322) (‘horse’).

[5] Inanimate nouns

Here again, both the DAT and the ERG are attested. Both are common, but in contrast with human nouns and animate nouns, the ERG is more common than the DAT. Examples of the DAT include (4-262) (wood); (4-278) (tracks); (4-280) and (4-296) (possum: probably dead, but possibly alive); (4-282) (meat, game: probably dead); (4-295) (‘clothes’); (4-317) (‘scrub turkey’s egg’, ‘egg’); (4-335) (possum: probably alive, but possibly dead); (4-342) (‘camp’); and (4-358) (‘what’). Examples of the ERG include (4-332) (‘foot’ (body part)); (4-348) (‘Wamin language’); (4-360) (‘trousers’); (4-361) (‘Gogolo song’); (4-394) (‘grass’); (4-400) (‘penis’ (body part)); and Text 3, Line 16 (‘camp’).

One and the same noun is attested in both the ERG and the DAT, e.g. (i) ‘water’: DAT in (4-251), (4-387) and ERG in (4-249), (ii) ‘language’: DAT in (4-282), (4-405) and ERG in (4-344), (4-349), (4-415); (iii) ‘food’: DAT in (4-320), (4-396), (4-403) and ERG in (4-255), (4-321), (4-402), (4-414); (iv) ‘fishing net’: DAT in (4-318)

and ERG in (4-319), (4-370); (v) ‘faeces’ DAT in (4-328), and ERG in (4-327); and (vi) ‘road’ DAT in (4-333), (4-339), and ERG in (4-334), (4-340). (For a possible semantic difference between the DAT and the ERG for the undergoer, see 4.9.9.2.4, in particular, [2] and [5].)

Animate beings, e.g. possums, will be considered animate if they are still alive. If they are dead, they will be regarded as inanimate. See, for instance, (4-280), (4-296) and (4-335) regarding possums.

(4-314) (‘He is a good husband.’)

gajarra-nggo ganyji-gali-n. (AP)
 possum-ERG carry-ANTIP-NF
 ‘[He] brought a possum [for us].’

Body parts are best considered inanimate; cf. ‘foot-ERG’ in (4-332), and ‘penis-ERG’ in (4-400).

The undergoer NP is attested with each of the three persons (i.e. first, second, and third), and so is the actor NP. Every logically possible combination of persons of the actor and the undergoer is attested in the texts. That is, there is no restriction on the person of the actor NP or on that of the undergoer NP of antipassives, unlike antipassives in languages such as Halkomelem of British Columbia (Gerds 1980: 304–305).

4.9.9.2.3. *Affectedness of the undergoer in terms of verb semantics*

See Table 4-20. In terms of the verb types, NOM-DAT is attested in Types 1 ‘direct effect’, 2 ‘perception’, and 3 ‘pursuit’, while NOM-ERG is attested in Types 1, 2, and also Type 4 ‘knowledge’ Type 3 does not seem to allow NOM-ERG.

Table 4-22. Case of undergoer NP (2): verb semantics

verb type	knowledge (Type 4)	pursuit (Type 3)	perception (Type 2)	action (Type 1)
affectedness of undergoer	never affected	never affected	less affected	more affected
case of undergoer NP		DAT only	DAT ERG	DAT ERG
pronoun		DAT only	DAT only	DAT only
kin, proper		DAT only	DAT	?
human, animate		DAT only	DAT	DAT, ERG
inanimate	ERG	DAT only	DAT, ERG	DAT, ERG

The case-marking of the undergoer NP of antipassives in terms of the animacy of the undergoer (4.9.9.2.2) and the verb semantics are jointly shown in Table 4-22. Note that, roughly speaking, the DAT is more closely associated with the non-affectedness of the undergoer, while the ERG is more closely associated with its affectedness. The ERG undergoer of the knowledge antipassive is the only exception. The undergoer is always (?) ERG, although it is never affected by any action.

As noted in 4.9.9.2.2, with pronouns, the undergoer NP is always DAT. Consequently it cannot be ERG, irrespective of the semantics of the verb concerned. Possibly (though by no means certainly) the same applies to kin and proper nouns.

Examples are as follows.

(a) Action antipassives: DAT and ERG

(a-1) Pronoun: DAT only: (4-326) ('1SG'), (4-390) ('2SG').

(a-2) Kin, proper: no example.

(a-3) Human: no example.

(a-4) Animate

(a-4-1) DAT: (4-260) ('kangaroo'), (4-280) ('possum'), (4-281) ('game'), (4-296) ('possum').

(a-4-2) ERG: (4-258) ('locust').

(a-5) Inanimate

(a-4-1) DAT: (4-262) ('wood'), (4-282) ('language'), (4-233) ('food', 'clothes').

(a-4-2) ERG: (4-249) ('water').

(b) Perception antipassives: DAT and ERG

(b-1) Pronoun: DAT only: (4-330) ('1SG'); (4-297), (4-417) ('1DU'); (4-264), (4-338), (4-343) ('2SG').

(b-2) Kin, proper: DAT only (?): (4-294) ('wife').

(b-3) Human DAT only (?): (4-331) ('white man').

(b-4) Animate: no example.

(b-4) Inanimate:

(b-4-1) DAT: (4-333) ('road').

(b-4-2) ERG: (4-334) ('road').

(c) Pursuit antipassives: DAT only

(c-1) Pronoun: (4-269-b) ('1SG'), (4-264) ('2SG').

(c-2) Kin, proper: no example.

(c-3) Human: no example.

(c-4) Animate: (4-271-B) ('bee').

(c-4) Inanimate: (4-251) ('water'), (4-278) ('tracks').

(d) Knowledge antipassive: ERG only?: (4-348) ('the Wamin language'), (4-349) ('language').

The knowledge antipassive (i.e. *ngawa-gali*-ZERO 'understand [a language]') has yielded very few examples. The undergoer is always (?) ERG. See (4-348) and (4-349).

The undergoer of pursuit antipassives, e.g. *yangga-gali-ZERO* ‘search for’, and *ngarro-mba-gali-ZERO* ‘try to get, but cannot’, is always DAT, and never ERG. There is no relevant example involving a kin noun or a proper noun, but I feel confident that only the DAT is acceptable, and the ERG is not.

With action antipassives, the undergoer NP is ERG or DAT depending on the conjugational category employed; see 4.9.9.2.4.

Perception antipassives exhibit a somewhat complicated and irregular situation in terms of semantics and case. This will be discussed in 4.9.9.3, together with the knowledge antipassive.

Text 1, Line 35 nicely illustrates the contrast between the ERG undergoer NP of an action antipassive (*baja-gali-n* ‘bite’) and the DAT undergoer NP of a pursuit antipassive (*ngarro-mba-gali-n* ‘try to get, but cannot’). The main points are as follows.

- (a) 3PL-NOM(d-S) grass-ERG bite-ANTIP-NF
 (b) 3PL-NOM(d-S) water-DAT try.to.get.but.cannot-ANTIP-NF

As expected, Alf Palmer rejected the ergative *gamo-nggo* ‘water-ERG’ that I suggested for (b) above. For another contrasting pair, see (4-249) (*bija-gali-ZERO* ‘drink’, an action antipassive, with *gamo-nggo* ‘water-ERG’) and (4-251) (*yangga-gali-ZERO* ‘search’, a pursuit antipassive, with *gamo-wo* ‘water-DAT’).

4.9.9.2.4. *Affectedness of the undergoer of action antipassives in terms of the conjugational category*

As noted in 4.9.9.2.3, the undergoer NP of the knowledge antipassive is always (?) ERG. That of pursuit antipassives is always DAT. This is irrespective of the conjugational category employed. The case-marking of the undergoer NP of perception antipassives will be discussed separately, together with the knowledge antipassive (4.9.9.3). We shall look at action antipassives in the following. See Table 4-23.

Table 4-23. Case of undergoer NP (3): conjugational category of action antipassives

	imperative	purposive	nonfuture	= <i>ngomay</i> ‘after’
affectedness of undergoer	not affected	affected or not affected	affected	affected
case of undergoer				
pronoun	?	DAT only	impossible	?
kin, proper	?	?	?	?
human	ERG	DAT	DAT, ERG	?
animate	?	DAT	ERG	?
inanimate	DAT, ERG	DAT, ERG	ERG	ERG

With antipassives, the conjugational category of apprehensional (Table 3-15) is attested with just one verb. But it is not listed in Table 4-23, for there is no example of any apprehensional antipassive with an undergoer NP. As we shall see in 4.10, antipassive verbs can be combined with the enclitic =*ngomay* ‘after’. It may not really be a conjugational category, but the case of the undergoer NP of =*ngomay* antipassives is conveniently discussed here. We shall look at each of these categories.

We shall look at the affectedness of the undergoer of each category. Recall that here we are dealing with action antipassives only.

[1] With the imperative, the action concerned will happen in the future (except for instances such as (3-263), (3-264) and (4-864-M), which expresses consent/approval to what someone else has already done). Consequently, the undergoer is not affected by the action as yet.

[2] The purposive has the uses and meanings shown below. The undergoer may be affected by the action, or may not be affected by it.

- (a) The finite use: in a simple sentence or in the main clause of a complex sentence (3.10.13): intention, volition, future, etc.
- (b) The non-finite use: in purposive subordination (4.8.5, 4.9.7):
 - (b-1) result, consequence, successive action;
 - (b-2) purpose, and;
 - (b-3) ‘jussive’, complementation, causative.

In (b-1), if the action occurred in the past (cf. ‘The man went and caught a kangaroo’), the undergoer was affected by the action. If the action is occurring in the present or will occur in the future (cf. ‘The man is going/will go and will catch a kangaroo’), the sentence does not say whether the undergoer will be affected by the action. Similarly, (a), (b-2) and (b-3) do not state whether the undergoer was/is/will be affected by the action. To sum up, when a purposive verb is employed, the undergoer may be affected or not affected by the action.

[3] With the nonfuture (cf. ‘I drank water’ and ‘I am drinking water’), the undergoer was/is affected by the action.

[4] When an action antipassive is combined with =*ngomay* ‘after’, the undergoer was/is affected by the action.

Examples of action antipassives follow.

[1] Imperative

There are very few examples of imperative antipassives. The attested examples are as follows.

- (a) Pronoun: no example.
- (b) Kin, proper: no example.
- (c) Human, e.g. (4-315) ('girl-ERG').
- (d) Animate: no example.
- (e) Inanimate, e.g. (4-316) ('food-ERG'), (4-317) ('egg-DAT'), (4-360) ('trousers-ERG').

For the undergoer, the ERG is attested; see (4-315) and (4-316). The DAT, too, seems possible; see (4-317).

(4-315) *yinda=goli* *jaynyja-gali-ya* *rayi-nggo nyila*. (AP)
 2SG.NOM(d-S)=only copulate.with-ANTIP-IMP girl-ERG soon
 'Have sex with the girl by yourself immediately.'

(4-316) *manyja-nggo moja-gali-ya* *yinda*. (AP)
 food-ERG eat-ANTIP-IMP 2SG.NOM(d-S)
 'Eat the food.'

(4-317) *yinda* *ngona-gomay giba-gali-ya*
 2SG.NOM(d-S) that-after dig-ANTIP-IMP
 [*jarrogan-go* or *bambo-wo* TT, AP] (AP)
 scrub.turkey's egg-DAT egg-DAT
 'After that, dig [scrub turkey's eggs or eggs].'

With human and animate nouns, the ERG for the undergoer NP is not common (4.9.9.2.2-[3], -[4]). (4-315) is uncommon in that the human undergoer NP is ERG. For (4-317), Alf Palmer approved the DAT *jarrogan-go* and *bambo-wo* I suggested. That is, the DAT seems possible here. However, he rejected the ERG forms I suggested: *jarrogan-do* 'scrub turkey's egg-ERG' and *bambo-nggo* 'egg-ERG' This is puzzling given the tendency for inanimate undergoer NPs to be more likely than human undergoer NPs to be ERG (see Table 4-21).

(Warrongo has two verbs that can be translated 'dig': *giba-L* and *baba-L*. *Giba-L* seems to mean 'dig [something from/out of something, e.g. an egg, from/out of the nest]', as in (4-317), while *baba-L* seems to mean 'dig [e.g. the ground]', as in (4-398).)

[2] Purposive

There are many examples of inanimate undergoer, but very few of pronoun, human or animate undergoer, and no example of kin or proper noun undergoer. Examples include the following.

- (a) Pronoun, e.g. (4-326) ('1SG-DAT'), (4-297) ('1DU-DAT'), (4-390) ('2SG-DAT').
 (b) Kin, proper: no example.
 (c) Human: no example.
 (d) Animate, e.g. (4-260) ('kangaroo-DAT').
 (e) Inanimate:
 (e-1) DAT: (4-262) ('wood'); (4-280) and (4-296) ('possum' (dead?)); (4-281) ('game' (dead?)); (4-282) ('language'); (4-297) ('food', 'clothes'); (4-318) ('fishing net'); (4-320) ('food'); (4-328) ('faeces').
 (e-2) ERG: (4-319) ('fishing net'), (4-321) ('food').

With purposive antipassives on the whole, both the DAT and the ERG are attested, but the DAT is more common than the ERG.

If the undergoer is inanimate, both ERG and DAT are common (although the DAT is more common than the ERG). One and the same noun is sometimes attested with both the DAT and the ERG. For example, the noun *mogarro-wo* 'fishing net' is DAT in (4-318), and ERG in (4-319).

- (4-318) (As noted regarding (3-242), even when he was in his eighties, Alf Palmer used to go fishing to provide for his family and friends. He was very concerned with the maintenance of his fishing net.)

ngaya *baba-gali-yal* *mogarro-wo*. (AP)
 1SG.NOM(d-S) sew-ANTIP-PURP fishing.net-DAT
 'I will sew [and mend the] fishing net.'

- (4-319) *mogarro-nggo* *ngaya* *baba-gali-yal*. (AP)
 fishing.net-ERG 1SG.NOM(d-S) sew-ANTIP-PURP
 '(As above.)'

The semantic difference between the DAT undergoer and the ERG undergoer, if there is any, is not understood well. Consider:

- (4-320) *moja-gali-yal* *ngali-Ø* *manyja-wo*. (TT, AP)
 eat-ANTIP-PURP 1DU-NOM(d-S) food-DAT
 Alf Palmer's translation: 'We will go and get food to eat.'

- (4-321) *moja-gali-yal* *ngali-Ø* *manyja-nggo*. (AP)
 eat-ANTIP-PURP 1DU-NOM(d-S) food-ERG
 'We will eat food.'

Alf Palmer approved the DAT *manyja-wo* 'food-DAT' I suggested for (4-321); see (4-320). He stated to the effect that the DAT form meant 'We will go and get food to eat'. On another occasion, he made the same comment ('go and get') on a sentence from a text that is almost identical with (4-320). This suggests that the DAT undergoer, as against the ERG undergoer, indicates pursuit or goal.

In contrast, there is some indication that the ERG for the undergoer implies that, when the antipassive verb concerned is in nonfuture, the undergoer has already been affected by the action. Compare (4-327) and (4-328).

[3] Nonfuture

In the nonfuture, there are many examples of inanimate undergoer, but very few of human or animate undergoer, and no example of kin/proper noun or pronoun undergoer. It is convenient to start this discussion from inanimate nouns, followed by animate nouns and human nouns. Kin and proper nouns will be discussed last.

(a) For inanimate undergoers (of which there are many examples), the case is always ERG (and never DAT), e.g. (4-249) ('water'), (4-394) ('grass'), (4-327) ('faeces'), (4-361) ('Gogolo song'), (4-400) ('penis'), Text 3, Line 16 ('camp'). The DAT seems unacceptable. As expected, Alf Palmer rejected the DAT *gona-wo* 'faeces-DAT' that I suggested for (4-327).

(b) For animate undergoers, the case is ERG in the very few examples available, e.g. (4-258) ('locust'), (4-322) ('horse'), (4-382) ('dog'). The DAT seems unacceptable; see the comment on (4-322).

(4-322) *gorrbara-Ø jana-Ø ganyji-gali-n [yarraman-do TT, AP]. (AP)*
 three-NOM 3PL-NOM(d-S) carry-ANTIP-NF [horse-ERG]
 'They, three [men], are carrying/taking [horses].'

Alf Palmer approved the ERG *yarraman-do* that I suggested for (4-322). However, he rejected the DAT *yarraman-go* 'horse-DAT' I suggested for it.

(c) For human undergoers, the ERG seems possible (see (4-324); the only (?) example), and the DAT is possible (see (4-323); the only (?) example).

(The ERG in (4-315) and (4-324) is unusual. As noted in 4.9.9.2.2, the ERG for the undergoer NP is not common with human or animate nouns.)

(4-323) is the only example of the DAT for the undergoer NP of an action antipassive in nonfuture. Alf Palmer approved the ergative *warrngo-nggo* 'woman-ERG', which I suggested, in place of the dative *warrngo-wo* 'woman-DAT' of (4-323). See (4-324).

(4-323) (In a text, Person A says to Person B, 'You stole this woman', to which Person B replies, saying 'No, I did not steal her. My father sent her to me'. Person A says, 'Your father sent her to you!', and continues as follows.)

jarribara-Ø gaya-na-Ø yino moga-gali-n
 good-NOM father-KIN-NOM(d-S) 2SG.GEN get-ANTIP-NF
warrngo-wo. (AP)
 woman-DAT
 Lit. 'Your good father obtained a woman [for you].'

- (4-324) *jarribara-Ø gaya-na-Ø yino moga-gali-n*
 good-NOM father-KIN-NOM(d-S) 2SG.GEN get-ANTIP-NF
warrngo-nggo. (TT, AP)
 woman-ERG
 ‘(As above.)’

(d) Kin noun and proper noun. There is no example. It is not known if they can occur as the undergoer NP of an action antipassive in nonfuture.

(e) Pronoun. There is no example. Also, it seems that, when action antipassives are in nonfuture, there is no way a pronoun can occur as the undergoer NP. The pronoun undergoer seems to be unacceptable either in ERG or DAT. First, the ERG. As seen in 4.9.9.2.2-[1], pronouns seem unable to occur as the ERG undergoer. (Possibly the same applies to kin and proper nouns as well; see 4.9.9.2.2-[2].) Second, the DAT. Consider:

- (4-325) **bama-Ø ngaygo-n-go balga-gali-n.* (TT)
 man-NOM(d-S) 1SG-LINK-DAT hit-ANTIP-NF
 Intended meaning: ‘The man hit/hits me.’

- (4-326) *bama-Ø yani-Ø*
 man-NOM(S) come-NF
 [*bama-Ø* TT] *ngaygo-n-go balga-gali-yal.* (AP)
 [man-NOM(d-S)] 1SG-LINK-DAT hit-ANTIP-PURP
 ‘The man came to hit me.’ (S=[d-S])

(4-325) was composed by me. It contains a DAT pronoun for the undergoer NP. Alf Palmer rejected (4-325), and he gave (4-326) instead. This indicates that the DAT of a pronoun is unacceptable as the undergoer of an action antipassive in nonfuture.

To sum up, pronouns seem unacceptable as the undergoer of an action antipassive in the nonfuture – either in the ERG or the DAT.

It should be noted that the antipassive construction with a suppressed undergoer NP are common, irrespective of (i) whether the undergoer is a pronoun or a noun, (ii) the semantic type of the verb, and (iii) conjugational category of the verb. See (4-254), (4-270-B), (4-272-B), (4-317), (4-322), (4-400), (4-401). This applies to action antipassives in nonfuture as well. Therefore, deletion of the DAT NP from (4-325) produces a perfectly natural sentence. Such sentences (i.e. with an action antipassive verb in nonfuture and with a suppressed undergoer NP) are common. See (4-272-B), (4-322), (4-400), (4-401).

[4] Action antipassives with =*ngomay* ‘after,’

The undergoer is ERG in the relevant example: (4-414) (‘food’).

[5] Summary

We have seen the three factors that jointly condition the choice of the DAT versus the ERG for the undergoer NP of antipassives: animacy of the undergoer (4.9.9.2.2), affectedness of the undergoer in terms of verb semantics (4.9.9.2.3), and affectedness of the undergoer of action antipassives in terms of the conjugational category (4.9.9.2.4).

Regarding animacy (Table 4-20), only the DAT is possible with pronouns, but both the DAT and the ERG are possible – and also common – with inanimate nouns. Concerning affectedness (Tables 4-21 and 4-22), as a general tendency the DAT is associated with non-affectedness, while the ERG is related to affectedness.

Alf Palmer gave a near-minimal pair of sentences to show this semantic difference between a DAT undergoer NP and an ERG undergoer NP (4-327) and (4-328). (4-327) involves an action antipassive in nonfuture with an ERG undergoer ('faeces-ERG'), while (4-328) involves the same antipassive verb in the purposive with a DAT undergoer ('faeces-DAT'). For (4-327) (ERG undergoer), Alf Palmer gave a translation to the following effect: 'Now I am in the toilet and defecating'. That is, the undergoer is being affected.

(4-327) *ngaya gona-nggo galga-gali-n.* (AP)
 1SG.NOM(d-S) faeces-ERG put.down-ANTIP-NF
 Lit. 'I am releasing faeces', i.e. 'I am defecating.'

(4-328) *ngaya gona-wo yani-Ø [ngaya TT] galga-gali-ya.* (AP)
 1SG.NOM(S) faeces-DAT go-NF [1SG.NOM(d-S) put.down-ANTIP-PURP
 'I am going to the toilet to defecate.' (S=[d-S])

(In passing I note that the ability to provide a pair of sentences like these illustrates how ingenious Alf Palmer was as a linguistic consultant.) Also, regarding (4-320), which has a DAT undergoer, Alf Palmer stated to the effect that the DAT undergoer implies 'go and get'. Alf Palmer's comments on (4-327) (ERG) and (4-320) (DAT) nicely illustrate the difference: ERG for affectedness, and DAT for non-affectedness or pursuit/goal.

There are just two deviations from the general tendencies shown in Tables 4-20 to 4-22. First, concerning animacy, for (4-317), the inanimate ERG (i.e. 'egg-ERG') was rejected by Alf Palmer. This is despite the fact that the ERG is common for inanimate undergoer NPs (Table 4-20). Second, regarding affectedness, the ERG undergoer is attested with the knowledge antipassive (Table 4-21; see (4-348) and (4-349)), and with the imperative (Table 4-22; see (4-315) and (4-316)). This is despite the fact that the undergoer is not affected in either of them.

The differentiation of the case of the undergoer NP in terms of the conjugational category or the like is reminiscent of split case-marking conditioned by tense/aspect/mood (Dixon 1979: 93–98, 1994: 97–101, Tsunoda 1981b: 411–423).

4.9.9.3. *Perception and knowledge antipassives*4.9.9.3.1. *Semantics and case of the undergoer NP*

As mentioned in 4.9.9.2.3, perception antipassives show a somewhat complicated and irregular situation in terms of semantics and case. A perception antipassive may have more than one reading. For example, *nyaga-gali-ZERO* has readings such as ‘see, look at, watch, watch out, meet, search for, look after, take care of’ (Here, ‘watch out’ (not just ‘watch’) means ‘watch, e.g., the road for when (also, in case (?)) someone comes’.) Which reading a given perception antipassive has, seems to depend on the following three factors.

- (a) The conjugational category or the like of the verb (i.e. imperative, purposive, nonfuture, =*ngomay* ‘after’).
- (b) The case of the undergoer NP (i.e. DAT or ERG).
- (c) The animacy of the undergoer NP (i.e. pronoun, human, animate, inanimate).

This complexity and irregularity is possibly due to the incompleteness of the data. Nonetheless, it is also possible that this situation obtained even when the language was thriving. Furthermore, the data are not entirely irregular. For example, when *nyaga-gali-ZERO* has the reading of ‘search for’, the undergoer NP is always DAT, and never ERG; see Table 4-24.

All the attested instances of perception antipassives are listed in Table 4-24. (The number of each of the relevant examples is indicated.) The knowledge antipassive *ngawa-gali-ZERO* ‘understand [a language]’ is included in Table 4-24.

We shall look at each pair of the transitive verb and its antipassive counterpart. Among the perception antipassives, the most frequently used are *nyaga-gali-ZERO* ‘see, look at, etc.’ and *ngawa-gali-ZERO* ‘hear, listen to’ and ‘understand [a language]’

Table 4-24. Perception antipassives

	imperative	purposive	nonfuture	=ngomay 'after'
when used as a transitive verb	when used as an antipassive (with <i>-gali-ZERO</i>)			
<i>nyaga-L</i> 'see, look at, watch, meet, find'	inan-ERG 'watch out'	pron-DAT 'see, look at, meet' (4-296) hum-DAT 'see, meet, search for, look after' (4-294) anim-DAT 'look at, search for'	pron, kin, hum-DAT 'look at, watch' (4-330), (4-331), (4-336) anim-DAT 'search for' (4-35)	pron-DAT 'see' (4-417)
<i>nyaga-nyaga-L</i> 'look at, look after, watch out'	inan-ERG 'watch out' (4-340) inan-DAT 'watch out' (4-339)	inan-ERG 'watch out'	pron-DAT (meaning unknown) (4-338) inan-ERG 'look at, watch out'	
<i>jaymba-L</i> 'find'	inan-DAT 'find, search for' (4-342)	pron, hum, anim, inan-DAT 'find, search for'		
<i>ngawa-L</i> 'hear, listen to', 'understand [language]'		pron, language, inan-DAT 'listen to' (4-405)	pron-DAT 'listen to' (4-343)	language-ERG 'listen to' (4-415)
				language-DAT 'listen to', See the comments on (4-415)
			'language'-ERG 'listen to, understand' (4-344), (4-348), (4-349)	
<i>balmbi-L</i> 'smell'	hum, inan-DAT 'smell'			

4.9.9.3.2. *Nyaga-L and nyaga-gali-ZERO 'see, look at, etc.'*

The transitive verb *nyaga-L* means 'see, look at, watch, meet', e.g. (i) mainly 'see': (3-191), (3-193), (4-5), (4-58), (4-153), (4-91), (4-304), (ii) mainly 'look at': (4-171), and (iii) mainly 'watch': (3-102), (3-110). It may also mean 'find'; see (4-86) and (4-329).

- (4-329) *nyola nyaga-n worriba-Ø*. (AP)
 3SG.ERG(A) see-NF bee-ACC(O)
 'He saw [or found] bees.' (ERG-ACC)

The antipassive *nyaga-gali-ZERO*, too, may mean 'see, look at, watch, meet'. It may also mean 'watch out [for when or in case someone comes]' (The meaning 'watch out' does not seem attested with the transitive *nyaga-L*, although this meaning is possibly acceptable.) For the undergoer NP, both DAT and ERG are attested. As might be expected, the ERG is attested with inanimate undergoers only. Examples include (4-264), (4-294), (4-297) (they all mean 'see/meet [someone]'), and:

- (4-330) *ngaygo-n-go nyola nyaga-gali-n*. (AP)
 1SG-LINK-DAT 3SG.NOM(d-S) see-ANTIP-NF
 'He is looking at/watching me.' (pronoun-DAT)

- (4-331) ('I stood behind a tree, and:')
ngaya nyaga-gali-n waybala-wo. (AP)
 1SG.NOM(d-S) see-ANTIP-NF white.man-DAT
 'I looked at/watched the white man.' (human-DAT)

- (4-332) (Alf Palmer saw a man who was sitting (on the beach?) and watching his own feet, and he said as follows.)

jina-nggo nyola nyaga-gali-n. (AP)
 foot-ERG 3SG.NOM(d-S) see-ANTIP-NF
 'He is looking at [his own] foot.' (inanimate-ERG)

- (4-333) *ngaya nyaga-gali-n yalga-wo*. (AP)
 1SG.NOM(d-S) see-ANTIP-NF road-DAT
 'I was watching the road [for when (or in case) someone comes].'
 (inanimate-DAT)

- (4-334) *yalga-nggo nyola nyaga-gali-n*. (AP)
 road-ERG 3SG.NOM(d-S) see-ANTIP-NF
 'She is watching the road [for when/in case ...].' (inanimate-ERG)

Note that the undergoer 'road' is DAT in (4-333), but ERG in (4-334). Alf Palmer approved the DAT *yalga-wo* that I suggested for (4-334). Regarding (4-333) and (4-334), it is not known if there is any semantic difference between the DAT and the ERG. (There appears to be a semantic difference between an ERG undergoer and a

DAT undergoer when an action antipassive is involved. Compare (4-320) and (4-321), and also (4-327) and (4-328).)

The transitive *nyaga-L* may mean ‘watch [someone, something]’ For example, (4-329) may mean ‘I watched the bees’.

When the antipassive *nyaga-gali-ZERO* occurs with *yalga-wo* ‘road-DAT’ or *yalga-nggo* ‘road-ERG’, it always (?) implies ‘watch out for when (or in case) someone comes’, e.g. (4-333) and (4-34). This is reflected in the gloss ‘watch out’ in Table 4-23. The same applies to the gloss ‘watch out’ for the antipassive of the reduplicated *nyaga-nyaga-gali-ZERO*.

Furthermore, the antipassive *nyaga-gali-ZERO* may mean ‘search for’, e.g. (4-335), and ‘look after, take care of, mind’, e.g. (4-336). In the examples available, the undergoer NP is DAT (i.e. NOM-DAT). These meanings are not attested in the transitive *nyaga-L* means ‘see, look at, watch, meet’

(4-335) *ngaya nyaga-gali-Ø worriba-wo gajarra-wo.* (AP)
 1SG.NOM(d-S) see-ANTIP-NF bee-DAT possum-DAT
 ‘I looked for bees and possums.’ (animate-DAT)

(4-336) *yanga-na-ngo-n-go ngaya nyaga-gali-yal.* (AP)
 mother-KIN-LINK-LINK-DAT 1SG.NOM(d-S) see-ANTIP-PURP
 ‘I will look after [my] mother.’ (human-DAT)

4.9.9.3.3. *Nyaga-nyaga-L* ‘look at, look after, mind, watch out’ and *nyaga-nyaga-gali-ZERO* ‘look at, watch out’

The reduplicated form *nyaga-nyaga-L* ‘look at, look after, mind, watch, watch out [for when/in case ...]’ and its antipassive counterpart *nyaga-nyaga-gali-ZERO* ‘look at, watch, watch out [for when/in case ...]’ show a semantic asymmetry, like most other perception verbs. The reading ‘look after, mind’ is not attested with the antipassive *nyaga-nyaga-gali-ZERO*. Examples of *nyaga-nyaga-L* include (4-170) (‘watch the road’, i.e. ‘watch out’), (4-337), and Text 3, Line 32 (‘mind [a wounded person]’). Those of *nyaga-nyaga-gali-ZERO* are (4-338) to (4-340). Again, the ERG is attested with inanimate undergoers only. Note that (4-339) and (4-340) imply ‘watch out’.

(4-337) (‘The people there are cannibals. So, a friend of mine came to help me.’)
nyola nyaga-nyaga-lgo nganya
 3SG.ERG(A) see~see-PURP 1SG.ACC(O)
bama-nggo [nganya TT] balga-lga. (AP)
 man-ERG [1SG.ACC(O)] kill-APPR
 ‘He will look after [i.e. guard] me in case the men kill [me].’ (O=[O])

(This is an example of the apprehensional constructions (4.17).)

(4-338) (The meaning of this example is not known.)

yino-n-go nyaga~nyaga-gali-n. (AP)
2SG-LINK-DAT see~see-ANTIP-NF

A tentative translation: '[She] is looking at/watching you.' (pronoun-DAT)

(4-339) *yalga-wo nyaga~nyaga-gali-ya.* (AP)

road-DAT see~see-ANTIP-IMP

'Watch the road [for when/in case ...].' (inanimate-DAT)

(4-340) *nyaga~nyaga-gali-ya yalga-nggo.* (AP)

see~see-ANTI-IMP road-ERG

'Watch the road [for when/in case ...].' (inanimate-ERG)

4.9.9.3.4. Jaymba-L 'find' and jaymba-gali-ZERO 'find, search for'

This pair, too, exhibits a semantic asymmetry. The transitive *jaymba-L* means 'find', e.g. (4-87), (4-341), but the antipassive *jaymba-gali-ZERO* may mean (i) 'find', and also (ii), at least when it is in the imperative or the purposive, 'search for', e.g. (4-342). The antipassive *jaymba-gali-ZERO* is attested with NOM-DAT only, and not with NOM-ERG.

(4-341) *nyola jaymba-n gajarra-Ø.* (AP)

3SG.ERG(A) find-NF possum-ACC(O)

'He found a possum.' (ERG-ACC)

(4-342) *yinda jaymba-gali-ya yamba-wo.* (AP)

2SG.NOM(d-S) find-ANTIP-IMP camp-DAT

'Look for the camp.' (NOM inanimate-DAT)

Consider Table 4-24. The transitive *nyaga-L* 'see, find, look at' and *jaymba-L* 'find' always take the ERG-ACC frame. When the antipassive *nyaga-gali-ZERO* means 'search for', it takes NOM-DAT. (*Nyaga-gali-ZERO* does not seem to mean 'search for' when it has NOM-ERG. See Table 4-23.) The antipassive *jaymba-gali-ZERO* is attested with NOM-DAT only, and it can mean 'search for' (or 'find'). The transitive *yangga-L* 'search for', too, always take ERG-ACC. The antipassive *yangga-gali-ZERO* can only take NOM-DAT. It means 'search for' That is, with antipassives, the meaning 'search for' seems to be compatible with NOM-DAT only, and not with NOM-ERG.

Table 4-25. 'See, look at', 'find', and 'search for'

	transitive ERG-ACC	example	antipassive NOM-DAT	example
<i>nyaga-L</i>	'see, find, look at'	(4-329)	'search for'	(4-335)
<i>jaymba-L</i>	'find'	(4-341)	'search for'	(4-342)
<i>yangga-L</i>	'search for'	(4-250)	'search for'	(4-251)

4.9.9.3.5. Ngawa-L and ngawa-gali-ZERO ‘hear, listen to’ and ‘understand’

Both the transitive *ngawa-L* and the antipassive counterpart have two readings: (i) ‘hear, listen to’ and (ii) ‘understand [a language]’ This pair does not exhibit a semantic asymmetry

[1] ‘Hear, listen to’

Examples of the transitive *ngawa-L* ‘hear, listen to’ include (3-230), (3-305), (4-195-A), (4-350-b), (4-419). Examples of the antipassive *ngawa-gali-ZERO* ‘hear, listen to’ include (4-405) and the following. Again, the ERG is attested with inanimate undergoers only, e.g. (4-344).

(4-343) *ngaya ngawa-gali-n yino-n-go.* (AP)
 1SG.NOM(d-S) hear-ANTIP-NF 2SG-LINK-DAT
 ‘I am listening to you.’ (pronoun-DAT)

(4-344) (I used to make efforts to talk to Alf Palmer in Warrongo. One day Alf Palmer commented on the people who were listening to our conversation in Warrongo.)

jana-Ø gogo-nggo ngawa-gali-n. (AP)
 3PL-NOM(d-S) language/talk-ERG hear-ANTIP-NF
 ‘They are listening to [our] language/talk.’ (language-ERG)

The suffix *-gali-ZERO* has the reflexive function in addition to the antipassive function. The reflexive version of the perception verb *ngawa-L* Vt ‘hear, listen to’ – i.e. *ngawa-gali-ZERO*, literally ‘hear oneself, listen to oneself’ – means ‘think about’ (NOM-DAT). See 4.11.2.1-[2].

[2] ‘Understand [a language]’

Examples of the transitive *ngawa-L* ‘understand [a language]’ include (4-345) to (4-347), (4-799), (4-960). When the antipassive *ngawa-gali-ZERO* has this meaning, only the ERG is attested for undergoers. Examples of *ngawa-gali-ZERO* ‘understand [a language]’ include (4-279), (the undergoer NP is suppressed), (4-348), and (4-349).

(4-345) *ngaya gogo-Ø ngawa-n.* (AP)
 1SG.ERG(A) language-ACC(O) hear-NF
 ‘I understand [their] language.’

(4-346) *yorra-Ø ngawa-n ngali-ngo gogo-Ø?* (AP)
 2PL.ERG(A) hear-NF 1DU-GEN language-ACC(O)
 ‘Do you understand our language?’ (ERG-ACC)

(4-347) *yinda ngaygo nyawa gogo-Ø ngawa-n.* (AP)
 2SG.ERG(A) 1SG.GEN NEG language-ACC hear-NF
 ‘You don’t understand my language.’

(4-348) *yinda wamin-do ngawa-gali-Ø?* (AP)
 2SG.NOM(d-S) Wamin-ERG hear-ANTIP-NF
 ‘Do you understand the Wamin language?’ (language-ERG)

(4-349) *nyola ngarro ngawa-gali-n gogo-nggo ngali-ngo.* (AP)
 3SG.NOM(d-S) cannot hear-ANTIP-NF language-ERG 1DU-GEN
 ‘He does not understand our language.’ (language-ERG)

(See 1.4.2.2 for the Wamin language.)

The verb in (4-279) is in the purposive, while that in (4-348) and (4-349) is in nonfuture.

As noted in 4.9.9.1-[2]-(d), *ngawa-L* Vt and *ngawa-gali-ZERO* ‘understand’ appear to be used regarding language only, and do not seem to be used, say, as in ‘understand an idea, understand a person’.

During the fieldwork in the early 1970s in north Queensland, I sometimes heard expressions such as ‘I don’t hear-im’ and ‘I no more hear-im’ These expressions mean ‘I don’t understand the language’. This use of the English word *hear* in the sense of ‘to understand [a language]’ no doubt reflects the fact that the relevant word of Warrongo (and other Aboriginal languages of the region) means ‘understand [a language]’ as well as ‘hear’. A similar observation was made by Evans and Wilkins (2000: 568).

For the pair of the transitive *balmbi-L* (ERG-ACC) and the antipassive *balmbi-gali-ZERO* (NOM-DAT, imperative) ‘smell’, there are no suitable examples at hand. Probably the transitive verb means ‘smell at something’ and the antipassive counterpart means ‘smell at something’ or ‘smell for something [trying to find out where it is]’

In passing I furnish an additional comment on the semantics of *ngawa-L* ‘hear, listen to’. In languages such as Japanese and Cebuano (my own data), the O NP of the respective verbs for ‘hear, listen to’ can be a noun for ‘sound’, ‘voice’, ‘noise’, etc. But it cannot refer to humans. That is, sentences such as ‘I heard the man’ or ‘I heard him’ are not acceptable. In contrast, in languages such as Warrongo and English, this O NP can be not only ‘sound’, ‘voice’, ‘noise’, etc., e.g. (3-230), but also human, e.g. (3-305) (‘man’), and (4-350-b).

(4-350) a. *ngaya gawali-n nyongo-n-go.*
 1SG.NOM call.out-NF 3SG-LINK-DAT
 ‘I called out to him.’

b. *nyola nganya ngawa-n* (AP)
 3SG.ERG 1SG.ACC hear-PP
 ‘He heard me.’

4.9.9.3.6. *Additional observations on perception and knowledge antipassives*

We saw that the affectedness of the undergoer influences its case-marking – in terms of verb semantics (4.9.9.2.3) and conjugational categories (4.9.9.2.4). The undergoer NP tends to be DAT, and not ERG, when it is not affected. In this respect, perception antipassives are interesting. As noted in 4.9.9.2.3, their undergoer is not affected to the extent that the undergoer of action antipassives is. Despite this, the undergoer is ERG in some (though not all) perception antipassives, e.g. (4-332), (4-334), (4-340), (4-344).

The knowledge antipassive *ngawa-gali-ZERO* ‘understand [a language]’ is even more unusual. The undergoer, i.e. the language, is not affected. Despite this, only the ERG is attested for the undergoer; see (4-348) and (4-349). Alf Palmer rejected the DAT that I suggested for them.

Also, compare (4-348) and (4-349). (4-349) is in the negative, while (4-348) is in the affirmative. Despite this difference, both have NOM-ERG. This suggests that – unlike verb semantics and conjugational categories – polarity (i.e. affirmative vs. negative) does not influence the choice of DAT/ERG for the undergoer NP.

4.9.9.4. *NOM-GEN and NOM-ACC for antipassives*

As noted in 4.9.1 and as amply exemplified above, the undergoer of an antipassive is generally ERG (resulting in NOM-ERG) or DAT (resulting in NOM-DAT). However, the undergoer is GEN (i.e. NOM-GEN) in about five examples and it remains ACC (i.e. NOM-ACC) in about fifteen examples (out of more than one thousand examples of antipassives). They will be discussed in the following.

[1] NOM-GEN

The GEN marking of the undergoer NP is attested with pronouns only, e.g. *ngali-ngo* ‘1DU-GEN’ and *jana-ngo* ‘3PL-GEN’. Example include (4-351) and (4-352). For comparison, (4-353) (‘1DU-DAT’, not GEN) is added.

(4-351) *ngona-Ø bama-Ø yani-Ø ngali*
 that-NOM man-NOM(S) come-NF (error)
 [*bama-Ø* TT] *ngali-ngo balga-gali-yal*. (AP)
 [man-NOM(d-S)] 1DU-GEN hit-ANTIP-PURP
 ‘That man came to hit us-two.’ (S=[d-S])

(4-352) *ngona-ngomay jana-Ø yani-Ø*
 that-after 3PL-NOM(S) come-NF
 [*jana-Ø* TT] *mayga-gali-yal ngali-ngo*. (AP)
 [3PL-NOM(d-S)] tell-ANTIP-PURP 1DU-GEN
 ‘Then, they came to tell us.’ (S=[d-S])

- (4-353) *ngona-ngomay jana-Ø yani-Ø*
 that-after 3PL-NOM(S) come-NF
 [*jana-Ø* TT] *mayga-gali-yal ngali-ngo-n-go.*
 [3PL-NOM(d-S)] tell-ANTIP-PURP 1DU-LINK-LINK-DAT
 ‘Then, they came to tell us.’ (S=[d-S]) (TT, AP)

The DAT form of a pronoun is built on its GEN form, involving the linking interfix *-n* (see Table 3-6). Compare, for example:

- ngali-ngo ngali-ngo-n-go*
 ‘1DU-GEN’ ‘1DU-LINK-LINK-DAT’
jana-ngo jana-ngo-n-go
 ‘3PL-GEN’ ‘3PL-LINK-LINK-DAT’

(*-ngo* is a case suffix in the GEN forms; see Table 3-6. But it is considered a linking interfix in the DAT forms.)

In all the instances of the GEN marking of the undergoer NP that I checked, the DAT form (involving *-n-go*) was approved. For example, (4-353) was approved by Alf Palmer. This omission of *-n-go* is probably an instance of ‘fast speech phenomena’ (2.9.2-[4]-(c)). (See 3.6.5-[5] for additional possible instances of the omission of *-n-go* from the dative forms of pronouns.) Then, the GEN marking of the undergoer NP does not seem to have a semantic motivation, in contrast with the choice of DAT/ERG for the undergoer NP, which definitely has a semantic motivation, as seen in 4.9.9.2.2 through 4.9.9.2.4.

[2] NOM-ACC

The ACC marking of the undergoer NP is found in about fifteen examples. In all of these examples, the undergoer NP is a noun (i.e. the ACC has a zero suffix, like the NOM). It is not changed into ERG or DAT, but remains in the ACC. Examples include:

- (4-354) *ngani-Ø nyaga-gali-yal yinda?* (AP)
 what-ACC see-ANTIP-PURP 2SG.NOM(d-S)
 ‘What are you going to look at?’ (NOM-ACC)
- (4-355) *win.gar-Ø nyaga-gali-yal.* (AP)
 fish-ACC see-ANTIP-PURP
 ‘[I] want to see a fish.’
- (4-356) *yinda jarroja-Ø woda-gali-ya.* (AP)
 2SG.NOM(d-S) trousers-ACC take.off-ANTIP-IMP
 ‘Take off [your] trousers.’ (NOM-ACC)
- (4-357) *gogolo-Ø ngana-Ø baya-gali-Ø.* (AP)
 Gogolo.song-ACC 1PL-NOM(d-S) sing-ANTIP-NF
 ‘We were singing the Gogolo song.’ (NOM-ACC)

(*Jarroja* is a loan from the English *trousers* (2.13.2-[1]-(c)).)

When used as transitive verbs, these verbs naturally take ERG-ACC. See, for example, (4-329) (*nyaga-L* ‘see’), (4-155) (*woda-L* ‘pull down’), and (4-550) (*baya-L* ‘sing’).

In all the examples of the ACC marking of the undergoer NP that I checked, the ERG or DAT was approved by Alf Palmer. Then, it may look as if the ACC marking of the undergoer NP is a performance error. (The antipassive verbs concerned take NOM-DAT or NOM-ERG in other examples, as expected.) For example, Alf Palmer approved *ngani-wo* ‘what-DAT’ for (4-354), *win.gar-go* ‘fish-DAT’ for (4-355), *jarroja-nggo* ‘trousers-ERG’ for (4-356), and *gogolo-nggo* ‘Gogolo song-ERG’ for (4-357). See the following examples.

- (4-358) *ngani-wo nyaga-gali-yal yinda?* (TT, AP)
 what-DAT see-ANTIP-PURP 2SG.NOM(d-S)
 ‘What are you going to look at?’ (NOM-DAT)
- (4-359) *win.gar-go nyaga-gali-yal.* (TT, AP)
 fish-DAT see-ANTIP-PURP
 ‘[I] want to see a fish.’
- (4-360) *yinda jarroja-nggo woda-gali-ya.* (TT, AP)
 2SG.NOM(d-S) trousers-ERG take.off-ANTIP-IMP
 ‘Take off [your] trousers.’ (NOM-ERG)
- (4-361) *gogolo-nggo ngana baya-gali-Ø.* (TT, AP)
 Gogolo.song-ERG 1PL.NOM(d-S) sing-ANTIP-NF
 ‘We were singing the Gogolo song.’ (NOM-ERG)

However, at the same time Alf Palmer stated to the effect that *gogolo-Ø* ‘Gogolo.song-ACC’, too, was acceptable, as in (4-357). This suggests that at least some of the instances of the antipassive NOM-ACC may not be errors. Then, there seems to be an alternation between NOM-ERG and NOM-ACC for *baya-gali-ZERO* ‘sing-ANTIP’ (and also possibly an alternation between NOM-DAT and NOM-ACC for some antipassive verbs).

The factor that may condition the ACC marking of the undergoer of antipassives is not known, if there is any.

So far we have looked at the case frames of two-place antipassives. We turn now to those of three-place antipassives.

4.9.9.5. Case frames of three-place antipassives

There is a fair amount of data on the case frames of three-place verbs as used as transitive verbs (4.3.3.2). However, the data on their three-place antipassive counterparts are severely limited. Examples available are often elliptical. Consequently, their case frames are very difficult to ascertain. We shall consider *goyba-gali-*

ZERO ‘give’ and ‘throw’, *mayga-gali-ZERO* ‘tell’, *ganyji-gali-ZERO* ‘carry, take, bring’, and *birra-gali-ZERO* ‘tell’

[1] *Goyba-gali-ZERO* ‘give’ and ‘throw’

When the transitive *goyba-L* means ‘give’, it can have three different case frames, as shown in Table 4-1; they are repeated in Table 4-26. However, with its antipassive counterparts, only two case frames are attested. Furthermore, the evidence for this is not always conclusive. See Table 4-26.

Table 4-26. *Goyba-L* ‘give’ and ‘throw’: transitive and antipassive

‘give’		donor	gift	recipient	example
(a-1)	transitive	ERG	ACC	DAT	(4-362), (4-363)
(a-2)	antipassive	?NOM	DAT	DAT	?(4-364)
(a-3)	antipassive	?MOM	ERG	DAT	
(b-1)	transitive	ERG	ACC	GEN	(4-15), (4-236)
(b-2)	antipassive	?NOM	DAT/ERG	GEN	
(c-1)	transitive	ERG	ERG	ACC	(4-21), (4-365)
(c-2)	antipassive	NOM	COM-NOM	DAT	(4-366), (4-367)
(c-3)	antipassive	?NOM	COM-NOM	ERG	
‘throw’		thrower	object	thrown	goal
(d-1)	transitive	ERG	ACC	DAT	(3-82), (4-369)
(d-2)	antipassive	NOM	ERG	DAT	(4-370)

(a-1) transitive: donor-ERG gift-ACC recipient-DAT

Examples include the second clause of each of (4-362) and (4-363).

(4-362) *ngaya* *yani-Ø*
 1SG.NOM(S) go-NF
ngaya *manyja-Ø* *goyba-lgo* *gaya-na-wo*. (AP)
 1SG.ERG(A) food-ACC(O) give-PURP father-KIN-DAT
 ‘I went so that I could give [my] father food.’ (S=A)

(4-363) ‘I am going to give tucker [i.e. food] to the brother’ was translated by Alf Palmer as follows.

ngaya *yani-Ø*
 1SG.NOM(S) go-NF
yaboja-na-wo *mogi-na-wo* *manyja-Ø* *ngaya* *goyba-lgo*. (AP)
 YB-KIN-DAT EB-KIN-DAT food-ACC(O) 1SG.ERG(A) give-PURP
 ‘I am going so that I can give food to [my] younger brother and elder brother.’ (S=A)

(c-2) antipassive: donor-NOM gift-COM-NOM recipient-DAT

This case frame can be considered corresponding to (c-1). Compare (4-365) (composed by me), a transitive clause, and (4-366) and (4-367), antipassive clauses.

(4-365) *bama-nggo win.ga-do yina goyba-lgo.* (TT)
 man-ERG(A) fish-ERG 2SG.ACC(O) give-PURP
 ‘The man will give you a fish.’

(4-366) [*bama-Ø* TT] *win.gar-ji-Ø yino-n-go goyba-gali-yal.* (AP)
 [man-NOM(d-S)] fish-COM-NOM 2SG-LINK-DAT give-ANTIP-PURP
 ‘[The man] will give you a fish.’

(4-367) *yinda jombi-yi-Ø rayi-wo goyba-gali-yal.* (AP)
 2SG.NOM penis-COM-NOM girl-DAT give-ANTIP-PURP
 ‘You will give the girl [your] penis.’

(Probably, (4-367) means ‘You will copulate with the girl.’)

Note that (4-366) and (4-367) have ‘donor-NOM gift-COM-NOM recipient-DAT’, i.e. (c-2). It is possible to say that the ‘gift-COM-NOM’ of an antipassive clause corresponds to the ‘gift-ERG’ of a transitive clause. There is supporting evidence for this view; see 4.9.9.6.1-[2]. If this analysis is adopted, the gift NP changed from ERG to COM-NOM. The recipient NP changed from ACC to DAT. This is shown in (c-2).

(c-3) antipassive: ?donor-NOM gift-COM-NOM recipient-ERG

(The recipient is in ERG, and not DAT.) It is not known if this case frame is acceptable.

The transitive *goyba-L* can also mean ‘throw’ When it means ‘throw’, it has the case frame of (d-1) (thrower-ERG object-ACC goal-DAT), e.g. (3-80), (4-369). Its antipassive counterpart has the case frame of (d-2) (thrower-NOM object-ERG goal-DAT), e.g. (4-370).

(4-368) (‘She took her clothes off.’)

nyola gambi-Ø goyba-n gamo-wo. (AP)
 3SG.ERG(A) clothes-ACC(O) throw-NF water-DAT
 ‘She threw [her] clothes to the water.’

(4-369) *ngaya yarro-n-da warogay-Ø goyba-n*
 1SG.ERG(A) here-LINK-LOC fishing.net-ACC(O) throw-NF
goman-go (TT)
 other-DAT
 ‘I threw the fishing net to other [fish] here.’

- (4-370) ('I was fishing.')
- ngaya yarro-n-da waroga-jo goyba-gali-n*
 1SG.NOM(d-S) here-LINK-LOC fishing.net-ERG throw-ANTIP-NF
goman-go. (AP)
 other-DAT
 'I threw the fishing net to other [fish].'

The object changed from ACC to ERG, and the goal has remained in DAT.

Table 4-27. *Mayga-L* 'tell': transitive and antipassive

	teller	topic	listener	example
(a-1) transitive	ERG	DAT	ACC	(4-10), (4-33)
(a-2) antipassive	NOM	?	DAT	(4-353), (4-371), (4-372)
(b-1) transitive	ERG	ACC	DAT	(4-35), (4-36)
(b-2) antipassive	NOM	DAT	?	(4-373)

[2] *Mayga-gali-ZERO* 'tell'

The transitive *mayga-L* 'tell' has two case frames, as shown in Table 4-3; they are reproduced in Table 4-27. (As noted in 4.3.3.2-[3], (a-1) is often used, e.g. (4-10), but (b-1) is used only infrequently, e.g. (4-35).) All the examples of the antipassive *mayga-gali-ZERO* 'tell' are elliptical, e.g..

- (4-371) *nyola ngaygo-n-go mayga-gali-Ø.* (AP)
 3SG.NOM(d-S) 1SG-LINK-DAT tell-ANTIP-NF
 'He told me [about something].'
- (4-372) *ngona-ngomay ngaya golmi yani-Ø nyongo-n-go*
 that-ABL 1SG.NOM(d-S) back go-NF 3SG-LINK-DAT
mayga-gali-yal (AP)
 tell-ANTIP-PURP
 'Then, I went back to tell her.'
- (4-373) ('I do not want them to know about me.')
- ngalnga yinda mayga-gali-Ø yarro-ngomay-nggo*
 PROH 2SG.NOM(d-S) tell-ANTIP-NF here-ABL-DAT
ngaygo-n-go. (AP)
 1SG-LINK-DAT
 'Don't tell [them] about me, [who went away] from here.'

(Alf Palmer's translation for (4-373) is 'Don't tell on me'.) Given the correspondence regarding the undergoer between the ACC(O) of a transitive clauses and the DAT of its antipassive counterparts, the antipassive (4-371) and (4-372) may be

considered corresponding to the transitive (a-1) (teller-ERG topic-DAT listener-ACC), and (4-373) may be regarded as an antipassive counterpart to the transitive (b-1) (teller-ERG topic-ACC listener-DAT).

It is not known what case the topic NP in (a-2) takes. Nor is it known what case the listener NP in (b-2) takes. Consequently, it is not known if doubling of two DAT NPs is allowed here.

Furthermore, it is not known if the antipassive *mayga-gali-ZERO* can occur with any ERG NP at all, either for the listener or the topic.

[3] *Ganyji-gali-ZERO* ‘carry, bring, take’

The transitive *ganyji-L* ‘carry, bring, take’ has two case frames, as shown in Table 4-4. The one relevant to the present discussion (ERG ACC DAT) is reproduced in Table 4-28. The DAT may refer to destination or recipient.

Table 4-28. *Ganyji-L* ‘carry, bring, take’: transitive and antipassive

	carrier	person/thing carried	destination	example
(a-1) transitive	ERG	ACC	DAT	(4-45), (4-374), Text 3, Lines 28, 32
(a-2) antipassive	NOM	DAT	DAT	(4-375)
(a-3) antipassive	NOM	ERG	DAT	cf. (4-376)
	carrier	person/thing carried	recipient	example
(b-1) transitive	ERG	ACC	DAT	(4-46-a), Text 1, Line 57
(b-2) antipassive	NOM	DAT	DAT	no example
(b-3) antipassive	NOM	ERG	DAT	no example

(4-374) *ngana-∅ worriba-∅ ganyji-yal yarro-wo.* (TT)
 IPL-ERG(A) bee-ACC(O) bring-PURP here-DAT
 ‘We will bring bees here.’

(4-375) [*ngana-∅ TT*] *worriba-wo ganyji-gali-yal yarro-wo.* (AP)
 [IPL-NOM(d-S)] bee-DAT bring-ANTIP-PURP here-DAT
 ‘(As above.)’

(4-376) *ngana-∅ worriba-nggo ganyji-gali-yal yarro-wo.*
 IPL-NOM(d-S) bee-ERG bring-ANTIP-PURP here-DAT
 ‘(As above.)’ (TT)

(a-2) is attested; see (4-375). (a-3) is not attested, but it is probably acceptable, cf. (4-376). (b-2) and (b-3) are not attested, but they may be acceptable.

[4] *Birra-gali-ZERO* ‘tell, talk’

The case frames of the transitive *birra-L* ‘tell, talk’ will be discussed in 4.13.3-[3]-(c). The relevant portion of Table 4-40 is reproduced in Table 4-29.

Table 4-29. *Birra-L* ‘tell, talk’: transitive and antipassive

	speaker	topic	hearer	possible example
(a-1) transitive	ERG	DAT	ACC	(4-512), (4-513)
(a-2) transitive	ERG	ACC	DAT	(4-514)
(b) antipassive	NOM	DAT	?	(4-377)

(4-377) (This is the first sentence in Tape 72/27, recorded on the 25th August 1972. At that time, I was recording texts from Alf Palmer almost everyday. At the beginning of Tape 27/27, Alf Palmer thought to himself as follows.)

ngaya / *ngani*(pause)-*wo ngaya* *birra-gali-yal?* (AP)
 1SG.NOM(d-S) what-DAT 1SG.NOM(d-S) tell-ANTIP-PURP
 ‘What shall I tell/talk about [today]?’

(Incidentally, this sentence immediately precedes (4-283).) It is not known if (b) corresponds to (a-1) or (a-2).

4.9.9.6. Case of NPs for instrument, location, and destination

We shall consider the case of the NPs describing an instrument, of those denoting a location, and of those expressing a destination.

4.9.9.6.1. Case of NPs for instrument

An instrument or the like may be described by the following cases.

- (a) In basic intransitive clauses: COM-NOM, e.g. (3-155), (3-157).
- (b) In transitive clauses: ERG, LOC.
- (c) In antipassive clauses: ERG (possibly), LOC, COM-NOM.

We shall examine (b) and (c) in the following.

[1] ERG and LOC

In transitive clauses, an instrument or the like can be expressed as follows.

- (a) The ergative case; see (a-1) of Table 4-30.
- (b) The locative case; see (b-1) of Table 4-30.

Evidence indicates that, in certain instances, the ERG instrument of a transitive clause cannot remain in the ERG in antipassivization, and that it may be expressed by COM-NOM instead. In contrast, the LOC instrument of a transitive clause is not affected by antipassivization, and it remains in the LOC.

Now, consider Table 4-30.

(a-1) transitive: actor-ERG undergoer-ACC instrument-ERG

This involves the doubling of the actor ERG and the instrument-ERG. It is acceptable, and it is very common, e.g. (4-378).

(a-2) antipassive: actor-NOM undergoer-ERG

The undergoer NP is ERG, and the instrument NP is not overtly expressed. This case frame is acceptable, and it is very common, e.g. (4-249), (4-258), (4-314) to (4-316), (4-321), (4-327).

(a-3) antipassive: ?actor-NOM instrument-ERG

This contains the instrument ERG, but the undergoer NP is not overtly expressed. It may possibly be acceptable. However, there is only one example, namely (4-306), and it is not definitely certain that (a-3) is acceptable.

Table 4-30. Case of NPs for instrument

	actor	undergoer	instrument	example
(a-1) transitive	ERG	ACC	ERG	(3-35) to (3-38), (4-378)
(a-2) antipassive	NOM	ERG		(4-249), (4-258), (4-314)
(a-3) antipassive	?NOM		ERG	See (4-379).
(a-4) antipassive	*NOM	ERG	ERG	See (4-381) and (4-384).
(a-5) antipassive	?NOM	DAT	ERG	See (4-387).
(a-6) antipassive	NOM	DAT	COM-NOM	(4-390)
(a-7) antipassive	NOM	ERG	COM-NOM	See (4-392).
(b-1) transitive	ERG	ACC	LOC	(3-56), (3-57), (4-393)
(b-2) antipassive	NOM	ERG	LOC	(4-394)
(b-3) antipassive	NOM	DAT	LOC	See (4-396).

(4-378) *bama-nggo bangga-n nganya jorba-nggo.* (TT)
 man-ERG(A) paint-NF 1SG.ACC(O) white.ochre-ERG
 ‘The man painted me [e.g. in preparation for a dance].’

(4-379) *bama-Ø bangga-gali-n jorba-nggo.* (TT, AP)
 man-NOM(d-S) paint-ANTIP-NF white.ochre-ERG
 ‘The man is painting [someone] with white ochre.’

(Alf Palmer approved (4-379), which had been composed by me. He stated to the effect that this sentence means that the man is painting someone else. The suffix

-gali-ZERO can produce reflexive verbs (4.11) as well as antipassive verbs. If *bangga-gali-n* in (4-379) were a reflexive verb, the translation would be ‘The man is painting himself with white ochre’ Alf Palmer’s comment indicates that this verb is an antipassive verb, and not a reflexive verb.)

(a-4) antipassive: *actor-NOM undergoer-ERG instrument-ERG

This case frames seems unacceptable. That is, the doubling of the undergoer ERG and the instrument ERG seems unacceptable. This is shown by the following two sets of examples.

The first set of examples. (4-380) and (4-381) were composed by me. Alf Palmer approved (4-380). Regarding (4-381), he stated to the effect that it does not mean ‘The man washed a dog with the water.’ This indicates that the doubling of the undergoer ERG and the instrument ERG is unacceptable. Instead, he gave (4-382), which is an antipassive construction and contains a LOC NP in place of an ERG NP. See (b-2) of Table 4-30 (actor-NOM undergoer-ERG instrument-LOC). (The LOC can denote means or instrument in transitive clauses. See (b-1) of Table 4-30 (actor-ERG undergoer-ACC instrument-LOC).)

(4-380) *bama-nggo gamo-nggo gando-∅ baba-n.*
 man-ERG(A) water-ERG dog-ACC(O) wash-NF
 ‘The man washed a dog with the water.’ (TT, AP)

(4-381) **bama-∅ gamo-nggo gando-nggo baba-gali-n.*
 man-NOM(d-S) water-ERG dog-ERG wash-ANTIP-NF (TT)
 Intended meaning: ‘The man washed a dog with the water.’

(4-382) *bama-∅ gamo-ngga gando-nggo baba-gali-n.*
 man-NOM(d-S) water-LOC dog-ERG wash-ANTIP-NF (AP)
 ‘The man washed a dog in the water.’

Note that (4-382) indicates that the LOC instrument is not affected by antipassivization, and that it remains in the LOC.

The second set of examples. (4-383) has been composed by me for the present work. (4-384), which had been composed by me, was approved by Alf Palmer. However, he stated to the effect that this sentence does not mean that the man drank water with a leaf, but that it means that the man drank BOTH a leaf and water. That is, both the ERG nouns refer to the undergoers, and not an instrument. This, too, indicates that the doubling of the undergoer ERG and the instrument ERG is not acceptable.

In order to describe the leaf as an instrument, Alf Palmer gave (4-385) and (4-386). Neither of them contains an antipassive verb. (4-385) involves the ablative-1 case (3.6.7). (4-386) contains an applicative verb. The applicative construction will be discussed in 4.14.

- (4-383) *bama-nggo gobo-nggo gamo-Ø bija-n.* (TT)
 man-ERG(A) leaf-ERG(O) water-ACC drink-NF
 ‘The man drank water with a leaf.’
- (4-384) *bama-Ø gobo-nggo gamo-nggo bija-gali-n.* (TT, AP)
 man-NOM(d-S) leaf-ERG water-ERG drink-ANTIP-NF
 Intended meaning: ‘The man drank water with a leaf.’
 Alf Palmer’s reading: ‘The the man drank a leaf and water.’
- (4-385) *gobo-ngomay-Ø bama-nggo gamo-Ø bija-n.* (AP)
 leaf-ABL-ACC man-ERG(A) water-ACC(O) drink-NF
 ‘The man drank water from a leaf.’
- (4-386) *bama-nggo gobo-Ø ganyji-n [bama-nggo gobo-Ø TT]*
 man-ERG(A) leaf-ACC(O) carry-NF [man-ERG(A) leaf-ACC]
bija-ri-lgo gamo-wo.
 drink-APPL-PURP water-DAT (AP)
 ‘The man carried a leaf so that [he] could drink water with/from it’, or,
 ‘The man carried a leaf to drink water with/from.’

(a-5) antipassive: actor-NOM undergoer-DAT instrument-ERG

The undergoer NP is DAT, rather than ERG. This case frame is not attested. See (4-387), which I composed. Its acceptability is not certain. This is because, as noted regarding (a-3), cf. (4-379), it is not definitely certain if the instrument ERG can occur in an antipassive clause.

- (4-387) *bama-Ø gobo-nggo gamo-wo bija-gali-yal.*
 man-NOM(d-S) leaf-ERG water-DAT drink-ANTIP-PURP (TT)
 Intended reading: ‘The man will drink water with a leaf.’

(b-1) transitive: actor-ERG undergoer-ACC instrument-LOC

This was commented on above. It is acceptable.

(b-2) antipassive: actor-NOM undergoer-ERG instrument-LOC

This, too, was commented on above. It is acceptable. Note in particular that the LOC instrument is not affected by antipassivization, and that it remains in the LOC.

(b-3) antipassive: actor-NOM undergoer-DAT instrument-LOC

The undergoer NP is DAT, rather than ERG. This case frame is not attested. See (4-388) (which I have composed). It is probably acceptable – at least when the verb is in the purposive form. As shown in Table 4-23, when the antipassive verb is in the purposive, the undergoer is more likely to be DAT than ERG.

- (4-388) *bama-∅ gamo-ngga gando-wo baba-gali-yal.* (TT)
 man-NOM(d-S) water-LOC dog-DAT wash-ANTIP-NF
 Intended meaning: 'The man will wash a dog in the water.'

[2] COM-NOM

- (a-6) antipassive: actor-NOM undergoer-DAT instrument-COM-NOM

The COM-NOM forms, with no overt case suffix, can mark means or instrument in intransitive clauses, e.g. (3-155), (3-157). In antipassives, too, the COM case is used to mark the instrument in many instances. It is always in the form of COM-NOM (the NOM suffix being zero), and the undergoer NP is DAT (if it is not elliptical), i.e. (a-6) of Table 4-30 (actor-NOM undergoer-DAT instrument-COM-NOM). Examples include (4-389) and (4-390).

It is possible to say that here the COM-NOM corresponds to the ERG of the transitive counterparts, i.e. the instrument ERG of (a-1) of Table 4-30 (actor-ERG undergoer-ACC instrument-ERG). Recall that, regarding (c-2) of Table 4-26 on the three-place verb *goyba-L* 'give' (donor-NOM gift-COM-NOM recipient-DAT), we suggested that the 'gift-COM-NOM' of the antipassive version may be considered corresponding to the 'gift-ERG' of the transitive counterpart: (c-1) (donor-ERG gift-ERG recipient-ACC). This indicates that it is possible to say that we have a correspondence of 'COM-NOM ~ ERG' regarding not only instrument NPs but also gift NPs. According to this analysis, the second clause of (4-390), for example, will correspond to the transitive version (4-391).

- (4-389) *ngaya banggany-ji-∅ baba-gali-yal.* (AP)
 1SG.NOM(d-S) spear-COM-NOM(d-S) stab-ANTIP-PURP
 Lit. 'I, with a spear, will stab [it]', i.e. 'I will stab [it] with a spear.'

- (4-390) *bama-∅ yani-∅ [bama-∅ TT] banggany-ji-∅*
 man-NOM(S) come-NF [man-NOM(d-S)] spear-COM-NOM(d-S)
yino-n-go baba-gali-yal. (AP)
 2SG-LINK-DAT stab-ANTIP-PURP
 'The man came to stab you with a spear.' (S=[d-S])

- (4-391) *bama-nggo banggany-jo yina baba-lgo.* (TT)
 man-ERG(A) spear-ERG 2SG.ACC(O) stab-PURP
 'for the man to stab you with a spear'

(Needless to say, (4-391) can be used as an independent clause, like (4-389). In this case, its translation will be 'The man will stab you with a spear'.)

- (a-7) antipassive: actor-NOM undergoer-ERG instrument-COM-NOM

The instrument NP is COM-NOM and the undergoer NP is ERG. This case frame is not attested. A possible example is (4-392) (composed by me). It is probably acceptable. If this is the case, (4-392) may be considered an antipassive counterpart of (a-1) (actor-ERG undergoer-ACC instrument-ERG), e.g. (4-383).

- (4-392) *bama-Ø gobo-yi-Ø gamo-nggo bija-gali-n.* (TT)
 man-NOM(d-S) leaf-COM-NOM(d-S) water-ERG drink-ANTIP-NF
 ‘The man drank water with a leaf.’

4.9.9.6.2. Case of NPs for location

Location can be indicated by the LOC case, e.g. (3-42) (an intransitive clause) and (4-393) (a transitive clause). Now, consider Table 4-31.

Table 4-31. Case of NPs for location

	actor	undergoer	location	example
(a-1) transitive	ERG	ACC	LOC	(4-393), (4-395)
(a-2) antipassive	NOM	ERG	LOC	(4-394)
(a-3) antipassive	NOM	DAT	LOC	See (4-96).

(a-1) transitive: actor-ERG undergoer-ACC location-LOC

An example is (4-393) (which I composed).

(a-2) antipassive: actor-NOM undergoer-ERG location-LOC

An example is (4-394) (repeated from Text 1, Line 33).

- (4-393) *yago-Ø ngana-Ø moja-n yarro-n-da.* (TT)
 grass-ACC(O) 1PL-ERG(A) eat-NF here-LINK-LOC
 ‘We eat grass here.’

- (4-394) *yago-nggo ngana-Ø moja-gali-n yarro-n-da.* (AP)
 grass-ERG 1PL-NOM(d-S) eat-ANTIP-NF here-LINK-LOC
 ‘(As above.)’

In (4-394), the undergoer NP changed from ACC to ERG, but the location NP has remained in LOC.

See the antipassive (4-370): ‘actor-NOM location-LOC undergoer-ERG goal-DAT’ Here, too, the case of the LOC NP for location is left intact.

(4-395) and (4-396) indicate that the case of a LOC NP for location, is left intact, as is the case with the LOC instrument ((b-2) of Table 4-30: actor-NOM undergoer-ERG instrument-LOC).

(a-3) antipassive: NOM-actor undergoer-DAT location-LOC

The undergoer is DAT (not ERG) and the location NP has remained in LOC. This case frame is probably acceptable, although there is no example. Compare the following examples, which I composed.

- (4-395) *bama-nggo manyja-Ø moja-lgo yamba-ngga.* (TT)
 man-ERG(A) food-ACC(O) eat-PURP camp-LOC
 'The man will eat food in the camp.'
- (4-396) *bama-Ø manyja-wo moja-gali-yal yamba-ngga.* (TT)
 man-NOM(d-S) food-DAT eat-ANTIP-PURP camp-LOC
 '(As above.)'

4.9.9.6.3. Case of NPs for destination

The only relevant example of any antipassive is (4-375) (cf. (a-2) of Table 4-28) (carrier-NOM person/thing carried-DAT (i.e. undergoer-DAT) destination-DAT). Both the undergoer NP and the destination NP are in DAT. The undergoer NP changed from ACC to DAT, but the destination NP has remained in DAT. Here, doubling of two DAT NPs (one for the undergoer and the other for the destination) is allowed.

4.9.9.6.4. Case of NPs: discussion

[1] Doubling of NPs

Doubling of two NPs in the same case is (or seems) acceptable in the following.

- (a) In transitive clauses:
 (a-1) Table 4-30, (a-1) (actor-ERG undergoer-ACC instrument-ERG):
 ERG for actor and instrument.
- (b) In antipassive clauses:
 (b-1) Table 4-26, (a-2) (?donor-NOM gift-DAT recipient-DAT):
 DAT for gift and recipient (not certain).
 (b-2) Table 4-28, (a-2) (carrier-NOM undergoer-DAT destination-DAT):
 DAT for undergoer and destination.

Doubling is not acceptable in the following.

- (c) In transitive clauses:
 No example.
- (d) In antipassives:
 (d-1) Table 4-30, (a-4) (*actor-NOM undergoer-ERG instrument-ERG):
 ERG for undergoer and instrument.

It is interesting to note that the doubling of ERG is acceptable in Table 4-30, (a-1) (transitive; actor and instrument), while on the other hand it is not allowed in Table 4-30, (a-4) (antipassive; undergoer and instrument).

[2] Change of case in antipassivization

The following changes of case in antipassivization can be postulated. These changes seem to be obligatory.

- (a) Actor: ERG > NOM.
- (b) Gift: ERG > COM-NOM (Table 4-26, (c-2)).
- (c) Instrument: ERG > COM-NOM (Table 4-30, (a-6)).
- (d) Undergoer: ACC > DAT or ERG (or GEN).

The following NPs are left intact in antipassivization.

- (e) Undergoer: ACC (4.9.9.4-[2]) (but this is exceptional).
- (f) Instrument: ERG (not certain) (Table 4-30, (a-3)).
- (g) Instrument LOC (Table 4-30, (b-2)).
- (h) Location: LOC (Table 4-31, (a-2)).
- (i) Recipient: DAT (Table 4-26, (c-2)).
- (j) Goal: DAT (Table 4-26, (d-2)).
- (k) Destination: DAT (Table 4-28, (a-2)).

In terms of the obligatoriness of the change of the case in antipassivization, very roughly speaking it is possible to point out the following general tendency.

- (l) Case change in antipassivization
 - (l-1) Change is always or almost always obligatory: ERG, ACC.
 - (l-2) Change hardly ever happens: DAT.
 - (l-3) Change never happens: LOC.

The above can be shown as follows.

- (4-397) Obligatoriness of case change in antipassivization
 ERG, ACC > DAT > LOC.

4.9.10. Aspectual and modal meanings

Antipassives may exhibit aspectual or modal differences from the corresponding transitive clauses, at least in the nonfuture and the purposive. However, it is difficult to pinpoint any conditioning factor, and the following accounts are inevitably impressionistic.

[1] Nonfuture: continuative or progressive (?)

Alf Palmer's translations often, though not always, indicated that antipassives emphasize a continuative or progressive meaning in the nonfuture. Thus, for (4-327) Alf Palmer gave a translation to the following effect: 'Now I am in the toilet and defecating' However, transitive clauses, too, can have a continuative or progres-

sive meaning. An example is (4-252). The context clearly indicates that this sentence has a continuative or progressive meaning. Furthermore, there are spontaneously given instances in which a sequence of a transitive clause and its antipassive counterpart, or a sequence of an antipassive and its transitive counterpart, describe the same situation. For example, consider (4-398). The first clause is an antipassive, while the last clause is transitive. These two clauses describe the same situation, and it is difficult to discern any aspectual difference.

(4-398) (Alf Palmer asked me about a man who was working near by.)

- a. *ngani-nggo baba-gali-n?*
 what-ERG dig-ANTIP-NF
 ‘What is [he] digging?’
- b. *galba-Ø? galba-Ø baba-n?*
 sand-ACC(O) sand-ACC(O) dig-NF
 ‘Sand? Is [he] digging the sand?’

As another example, consider Text 1, Lines 32, 33. Line 32 is transitive (*moja-n* ‘eat-NF’), and Line 33 is its antipassive counterpart (*moja-gali-n* ‘eat-ANTI-NF’). Again, these two clauses describe the same situation, and it is difficult to discern any aspectual difference.

To sum up, in the nonfuture both transitive and antipassive clauses can have a continuative or progressive meaning. It may be that antipassives emphasize this meaning.

[2] Nonfuture and purposive: habit, tendency, nature, propensity, inclination, job or the like.

Antipassives sometimes describe habit, tendency, nature, propensity, inclination, job or the like. The undergoer appears to be always generic or non-specific. Examples involving nonfuture include (4-399) (NOM-ERG). Those involving purposive include (4-402) (NOM-ERG) and (4-403) (NOM-DAT). Possibly due to its generic or non-specific meaning, the undergoer NP is sometimes absent, e.g. (4-400), (4-401). ((4-400) can have NOM-ERG. See the comment on it.)

(4-399) (Alf Palmer described a certain drunkard as follows.)

- gamogamo-nggo nyola bija-gali-n.* (AP)
 grog-ERG 3SG.NOM(d-S) drink-ANTIP-NF
 ‘He drinks grog all the time.’

(See 3.7.2-[2] for the etymology of *gamogamo* ‘grog’.)

(4-400) (Alf Palmer described a certain chaste woman as follows.)

- warrngo-Ø jarribara-Ø wanda-gali-n [jombi-nggo].* (AP)
 woman-NOM(d-S) good-NOM(d-S) leave-ANTIP-NF [penis-ERG]
 ‘[That] chaste woman leaves [i.e. does not seek] a penis.’

(The word *jombi-nggo* was not in the original sentence as uttered by Alf Palmer, but it was added by him when I asked him what the woman left, i.e. what the woman did not seek.)

(4-401) (In a text, a man says to another person, who is afraid of Gandaro, the imaginary hairy being (1.5.8-[8]): ‘Don’t be afraid.’)

[*gandaro-Ø* TT] *nyawa balga-gali-n.* (AP)
 [Gandaro-NOM(d-S)] NEG kill-ANTIP-NF
 ‘[Gandaro] does not kill [human beings].’

(The undergoer NP of (4-401) may be *bama* ‘man’. It is not certain whether it should be DAT *bama-wo* or ERG *bama-nggo*. See 4.9.9.2.4-[3]-(c).)

(4-402) *nyola manyja-nggo wajo-gali-yal.* (AP)
 3SG.NOM(d-S) food-ERG cook-ANTIP-PURP

Lit. ‘She cooks food.’

Alf Palmer’s translation: ‘She’s a cook.’

(4-403) *nyola manyja-wo wajo-gali-yal.* (AP)
 3SG.NOM(d-S) food-DAT cook-ANTIP-PURP

Lit. ‘She cooks food.’

Alf Palmer’s translation: ‘She’s a cook.’

Alf Palmer’s translation of (4-402) and (4-403) clearly shows that these two sentences describe that person’s job, rather than what she was doing at the time of speaking.

We have seen examples of antipassives that describe habit, tendency, nature, propensity, inclination, job or the like. It seems possible that transitive clauses, too, can have such a meaning. However, it is difficult to find an unequivocal example. I have found only two examples. One is (3-228): ‘Small men tend to have a big penis. Big men tend to have a small penis’. The other example is Text 2, Line 47: ‘Whenever fish and possum meat get rotten, we throw them away’ In this sentence, the transitive ‘we throw them away’ has a habitual meaning.

The meanings of antipassives considered in [1], i.e. continuative, progressive, and those examined in [2], i.e. habit, tendency, nature, propensity, inclination, job or the like, may be summarized as imperfective (Comrie 1976: 25). That is, Warrongo antipassives seem to show a lower degree of transitivity than transitive clauses in terms of aspect, as predicted by Hopper and Thompson (1980: 257, 268).

Specifically, *nyaga-gali-ZERO* ‘search for’ (e.g. (4-335)) and *jaymba-gali-ZERO* ‘search for’ (e.g. (4-342)) are imperfective (to be precise, continuative and progressive – and also uncompleted) as against *ngaya-L* ‘see, look at’ and *jaymba-L* ‘find’. (The meaning of ‘search for’ is not attested with the transitive *nyaga-L* or the transitive *jaymba-L*.) Also, *nyaga-gali-ZERO* ‘look after, mind, take care of [someone]’ is imperfective (to be precise, habitual), as against the actual seeing/

looking denoted by *nyaga-L* 'see, look at'. (The meaning of 'look after, take care of, mind' is not attested with the transitive *nyaga-L* 'see, look at'.) (Cooreman (1988: 584) notes regarding Chamorro of Guam and Saipan that the transitive verb *atani* means 'look at', and its antipassive counterpart means 'take care of', and that the difference between these two meanings is aspectual.)

[3] Purposive only (?): careful attention

Antipassives sometimes express careful attention or the like – at least when both (i) and (ii) are fulfilled: (i) the verb is a perception verb: *ngawa-gali-ZERO* 'hear, listen to-ANTI' or *nyaga-gali-ZEEO* 'see, look at-ANTI', and (ii) the undergoer NP is DAT (i.e. NOM-DAT). For example, Alf Palmer contrasted the following pair of purposives and translated them as shown. Note the inclusion of the word *properly* in Alf Palmer's translation of (3-405). (The words in a square bracket have been supplied by me.)

(4-404) *gogo-Ø* *ngawa-yal*. (AP)
 language/talk-ACC(O) hear-PURP
 Alf Palmer's translation: '[I] sit and listen [to the language/talk].'

(4-405) *gogo-wo* *ngawa-gali-yal*. (AP)
 language/talk-DAT hear-ANTIP-PURP
 Alf Palmer's translation: '[I] want to listen [to the language/talk] properly.'

Both (4-404) and (4-405) involve purposive. It is not known if these antipassives can express careful attention or the like when some other conjugational category (i.e. nonfuture or imperative) is employed.

The meaning 'look after, take care of, mind' of the antipassive *nyaga-gali-ZERO*, e.g. (4-336), may be considered as an instance of careful attention or the like.

Now, when in the purposive form, all antipassive verbs can be used in subordinate clauses, and they function to effect syntactic ergativity (cf. 4.9.4.2). When purposive antipassives are used in subordinate clauses:

- (a) the following meanings seem to be absent: [1] continuative or progressive, [2] habit, tendency, nature, propensity, inclination, job, etc., [3] careful attention, but:
- (b) the following meanings appear to be retained:
- (b-1) *nyaga-gali-ZERO* 'search for', e.g. (4-335), 'look after, take care of, mind', e.g. (4-336), and
- (b-2) *jaymba-gali-ZERO* 'search for', e.g. (4-342).

Since the meanings of (b) appear to be retained in subordinate clauses, they may be regarded 'lexicalized'. They have become (so to speak) part of the meanings of the antipassive verbs concerned. In contrast, the meanings of (a) are not 'lexicalized'.

since they seem to disappear in subordinate clauses. That is, they have not become part of the meanings of the antipassive verbs concerned.

4.9.11. Pragmatics and discourse

4.9.11.1. *Introductory notes*

As seen above, antipassives differ drastically from transitive clauses in terms of case frame (i.e. NOM-DAT/ERG vs. ERG-ACC). Furthermore, they play a crucial role in effecting syntactic ergativity (4.9.4.2). Therefore, they will be expected to exhibit a pragmatic function different from that of transitive clauses. However, it has proved extremely difficult to ascertain any pragmatic difference between antipassives and transitive clauses. We shall look at this issue, in terms of continuous mentions of referents (4.9.11.1.2) and focus (4.9.11.1.2).

4.9.11.2. *Continuous mentions of referents*

Givón (1983) claims that the more continuous/more repeated mentions of a referent correlate with its higher topicality/higher prominence in discourse. In order to see if there is any such difference between transitive clauses and antipassives of Warrongo, we shall look at Text 1. The number of the mention(s) of a given referent is shown in parentheses.

(a) Transitive clauses

(a-1) Starting with an ERG(A) NP for the actor.

- (a-1-1) Line 2 *jana-nggo* '3PL-ERG(A)'. (once)
- (a-1-2) Line 3 *yinda* '2SG.ERG(A)', Line 4 *ngaya* '1SG.NOM(d-S)'. (twice)
- (a-1-3) Line 29 *ngaya* '1SG.ERG(A)'. (once)
- (a-1-4) Line 30 *yorra* '2PL-ERG(A)'. (once)
- (a-1-5) Line 32 *ngana-Ø* '1PL-ERG(A)', Line 33 *ngana-Ø* '1PL-NOM(d-S)'. (twice)
- (a-1-6) Line 34 *yinda* '2SG.ERG(A)'. (once)
- (a-1-7) Line 39 *nyola* '3SG.ERG(A)', Line 40 *nyonya* '3SG.ACC(O)', Line 41 *nyonya* '3SG.ACC(O)', *nyola* '3SG.NOM(S)', [*nyola* '3SG.NOM(d-S)']. (five times)
- (a-1-8) Line 40 *galo-nggo* 'mouse-ERG(A)', Line 41 [*galo-nggo* 'mouse-ERG(A)']. (twice)
- (a-1-9) Line 46 *yinda* '2SG.ERG(A)'. (once)
- (a-1-10) Line 46 *banggarra-nggo* 'B.T.L.-ERG(A)', Line 47 *nyola* '3SG.NOM(S)', Line 48 *banggarra-Ø* 'B.T.L.-ACC(O)', Line 49 [*banggarra-Ø* 'B.T.L.-ACC(O)'], [*banggarra-Ø* 'B.T.L.-NOM(S)'], [*banggarra-Ø* 'B.T.L.-NOM(d-S)'], Line 50 *nyola* '3SG.ERG(A)' (seven times)

- (a-1-11) Line 48 *ngana-Ø* '1PL-ERG(A)', Line 49 [*ngana-Ø* '1PL-ERG(A)']. (twice)
- (a-1-12) Line 58 *bama-nggo* 'man-ERG(A)', Line 59 *jana-Ø* '3PL-NOM(S)', [*jana-Ø* '3PL-NOM(S)'], Line 60 [*jana-Ø* '3PL-NOM(S)'], Line 61 [*jana-Ø* '3PL-NOM(S)'], Line 62 *jana-Ø* '3PL-ERG(A)'. (six times)
- (a-1-13) Line 63 *ngana-Ø* '1PL-ERG(A)', *ngana-Ø* '1PL-ERG(A)', Line 64 *ngana-nggo* '1PL-GEN' (three times)
- (a-1-14) Line 67. *banggarra-nggo* 'B.T.L.-ERG(A)'. (once)
- (a-1-15) Line 69. *ngana-Ø* '1PL-ERG(A)'. (once)
- (a-2) Starting with an ACC(O) NP for the undergoer.
- (a-2-1) Line 2 *nganya* '1SG.ACC(O)', Line 3 *yinda* '2SG.ERG(A)', Line 4 *ngaya* '1SG.NOM(d-S)' (three times)
- (a-2-2) Line 3 *gogo-Ø* 'language-ACC(O)', Line 4 *gogo-nggo* 'language-ERG', Line 5 *gogo-Ø* 'language-NOM(S)'. (three times)
- (a-2-3) Line 29 *banggarra-Ø* 'B.T.L.-ACC(O)', Line 30 *yorra-Ø* '2PL-ERG(A)'. (twice)
- (a-2-4) Line 30 *gamo-Ø* 'water-ACC(O)' (once)
- (a-2-5) Line 32 *yago-Ø* 'grass-ACC(O)', Line 33 *yago-nggo* 'grass-ERG' (twice)
- (a-2-6) Line 34 *yori-Ø* 'kangaroo-ACC(O)' (once)
- (a-2-7) Line 39 *gamo-Ø* 'water-ACC(O)' (once)
- (a-2-8) Line 40 *nyonya* '3SG.ACC(O)', Line 41 *nyonya* '3SG.ACC(O)', *nyola* '3SG.NOM(S)', [*nyola* '3SG.NOM(d-S)']. (four times)
- (a-2-9) Line 43 *banggarra-Ø* 'B.T.L.-ACC(O)'. (once)
- (a-2-10) Line 46 *gamo-Ø* 'water-ACC(O)', [*gamo-Ø* 'water-ACC(O)']. (twice)
- (a-2-11) Line 48 *banggarra-Ø* 'B.T.L.-ACC(O)', Line 49 [*banggarra-Ø* 'B.T.L.-ACC(O)', [*banggarra-Ø* 'B.T.L.-NOM(S)', [*banggarra-Ø* 'B.T.L.-NOM(d-S)'], Line 50 *nyola* '3SG.ERG(A)'. (five times)
- (a-2-12) Line 56 *gamo-Ø* 'water-ACC(O)', Line 57 *gamo-Ø* 'water-ACC(O)', Line 58 *gamo-Ø* 'water-ACC(O)' (three times)
- (a-2-13) Line 62 *rayi-nba-Ø* 'girls-ACC(O)', Line 63 *yorra-Ø* '2PL-NOM(S)', [*yorra-Ø* '2PL-NOM(d-S)']. (three times)
- (a-2-14) Line 64 *gamo-Ø* 'water-ACC(O)', Line 65 [*gamo-Ø* 'water-ACC(O)'], [*gamo-Ø* 'water-ACC(O)'], [*gamo-Ø* 'water-ACC(O)']. (five times)
- (a-2-15) Line 66 *gamo-Ø* 'water-ACC(O)', Line 67 [*gamo-Ø* 'water-ACC(O)']. (twice)
- (a-2-16) Line 69. *banggarra-Ø* 'B.T.L.-ACC(O)', Line 70 [*banggarra-Ø* 'B.T.L.-NOM(S)'], Line 71 [*banggarra-Ø* 'B.T.L.-ACC(O)']. (three times)
- (b) Antipassives
- (b-1) Starting with a NOM(d-S) NP for the actor.
- (b-1-1) Line 4 *ngaya* '1SG.NOM(d-S)'. (once)

- (b-1-2) Line 33 *ngana-Ø* '1PL-NOM(s-S)'. (once)
- (b-1-3) Line 35 *jana-Ø* '3PL-NOM(d-S)', [*jana-Ø* '3PL-NOM(d-S)'],
Line 36 [*jana-Ø* '3PL-NOM(S)']. (three times)
- (b-1-4) Line 37 *galo-Ø* 'mouse-NOM(d-S)'. (once)
- (b-2) Starting with a DAT or ERG NP for the undergoer.
 - (b-2-1) Line 4 *gogo-nggo* 'language-ERG' (once)
 - (b-2-2) Line 35 *yago-nggo* 'grass-ERG' (once)
 - (b-2-3) Line 35 *gamo-wo* 'water-DAT' (once)
 - (b-2-4) Line 37 *gamo-wo* 'water-DAT' (once)
 - (b-2-5) Line 41 *gamo-nggo* 'water-ERG' (once)
 - (b-2-6) Line 44 *gamo-wo* 'water-DAT' (once)
 - (b-2-7) Line 49 *gamo-wo* 'water-DAT' (once)
 - (b-2-8) Line 50 *gamo-Ø* 'water-ACC(O)', Line 51 *gamo-ngga* 'water-LOC',
Line 52 *gamo-Ø* 'water-NOM(S)'. (three times)
 - (b-2-9) Line 54' *gamo-wo* 'water-DAT' (once)
 - (b-2-10) Line 63 *gamo-wo* 'water-DAT', [*gamo-Ø* 'water-ACC(O)'], *gamo-Ø*
'water-ACC(O)'. (three times)

The number of continuous mention(s) is counted as follows. (This counting method is essentially the same as Givón's (1983).)

- (i) The counting starts with an explicit mention (e.g. Line 35, *jana-Ø* '3PL-NOM(d-S)'), and not with an elliptical/deleted NP (e.g. Line 35 [*jana-Ø* '3PL-NOM(d-S)']).
- (ii) After an explicit mention, any reference to it is counted as a continuous mention, irrespective of whether it is explicitly mentioned (e.g. Line 33 *ngana-Ø* '1PL-NOM(d-S)') or elliptical/deleted (e.g. g. Line 35 [*jana-Ø* '3PL-NOM(d-S)']).
- (iii) After an explicit mention, any reference to it is counted as a continuous mention, even when the NPs do not occur in the same case or the same syntactic function, e.g. Line 32 *yago-Ø* 'grass-ACC(O)') and Line 33 *yago-nggo* 'grass-ERG'
- (iv) After an explicit mention, any reference to it is counted as a continuous mention, even when the NPs are not of the same person, e.g. Line 2 *nganya* '1SG. ACC(O)') and Line 3 *yinda* '2SG.ERG(A)'.
(v) Note, however that 'water' mentioned in Line 49 is different from the water mentioned in Lines 50 to 52. Therefore, these lines are divided into two stretches of continuous mentions: Line 49 (once) and Lines 50 to 52 (three times). The same applies to the mention of 'water' in Lines 64, 65 (five times) and Lines 66, 67 (twice).

The relevant figures are shown in Table 4-32.

Table 4-32. Continuous mentions of referents

	number of instances	average number of mentions
transitive clauses		
actor (ERG(A))	15	2.40
undergoer (ACC(O))	16	2.56
antipassives		
actor (NOM(d-S))	4	1.50
undergoer (DAT or ERG)	10	1.40

If these figures are indicative of the degree of the topicality of these referents at all, there is a very small difference in terms of topicality between the actor and the undergoer in each of transitive clauses and antipassive clauses. However, the actor and the undergoer are respectively more topical in transitive clauses than in antipassive clauses.

4.9.11.3. Focus

The focus of a sentence concerns 'the essential new information that is presented or asked about in that sentence' (Comrie 1984: 1). Regarding Warrongo, it has proved impossible to find any difference regarding focus between transitive and antipassive clauses.

First, as Comrie (1984: 2) notes, 'Perhaps the clearest instance of focus is the interrogative pronoun in a question'. In Warrongo, an interrogative word is attested in the texts for all of the A, O, and undergoer-DAT/ERG – except that there is no example available involving the d-S.

- (a) A, e.g. (4-8), (4-153) (*wanyo-lo* 'who-ERG'); (4-481-A) (*ngani-nggo* 'what-ERG').
- (b) O, e.g. (2-129), (4-37) (*ngani-Ø* 'what-ACC').
- (c) d-S: no example.
- (d) undergoer-DAT/ERG, e.g. (4-358), (4-377) (*ngani-wo* 'what-DAT'); (4-398-a) (*ngani-nggo* 'what-ERG').

As noted in (c), there is no example of the d-S involving an interrogative word. It is not known if sentences such as (4-406) are acceptable. If they are, the d-S can indicate focus, like the A. If they are not acceptable, the d-S cannot mark focus, unlike the A, and this will constitute a difference between transitive and intransitive clauses in terms of focus.

- (4-406) *wanyo-Ø* *gamo-nggo* *bija-gali-n?*
 who-NOM(d-S) water-ERG drink-ANTIP-NF (TT)
 'Who is drinking water?'

Second, consider (4-398), for example. Both the undergoer of the antipassive (*ngani-nggo* ‘what-ERG’) and that of the transitive clause (*galba-Ø* ‘sand-ACC(O)’) mark focus.

4.10. Subordination with the enclitic =*ngomay* ‘after, if, because’

4.10.1. Introductory notes

The suffix *-ngomay* ‘from, after’ is generally used to form the ablative-1 forms (3.6.7). It is also used to form the adverb *ngona-ngomay* ‘that-after’, i.e. ‘after that’, ‘and then’ (3.8.1-[9]).

This form has a second use. In about twenty examples, it is used to form a subordinate clause, that is, it functions like a conjunction. In two examples, it does not involve any subordinate clause, and consequently it does not function as a conjunction.

There is some evidence to regard this form in its second use as an enclitic, rather than a suffix. This was discussed in 2.2.2. (Suffixes are indicated by a preceding hyphen, and enclitics by a preceding equal symbol.)

A clause combined with the enclitic =*ngomay* generally indicates anteriority, i.e. it generally describes a situation that precedes the situation denoted by the main clause, and it may be translated with ‘after’ or ‘because’. There is one example of ‘if’ (4-405). But it may also be translated like a relative clause-like; see (4-410) and (4-420).

The enclitic =*ngomay* is attached to the following. (See Tables 3-14 and 3-15 for verbal paradigms.)

(a) An adjective-like noun (4.10.2) in two examples: (4-411), (4-412).

(b) A verb.

(b-1) A basic (non-derived) verb

(b-1-1) An intransitive verb (4.10.2)

(b-1-1-1) A root of Y-class: *nyina=ngomay* ‘sit=after’ in (1-10-a).

(b-1-1-2) Either a root or the nonfuture-2 form (-Ø) of ZERO-class: *yaji=ngomay* ‘laugh=after’ or *yaji-Ø=ngomay* ‘laugh-NF=after’ in (4-309).

(b-1-1-3) Either a root or the nonfuture-3 form (-Ø): *yani=ngomay* ‘come=after’ or *yani-Ø=ngomay* ‘come-NF=after’ in (4-410).

(b-1-1-4) The nonfuture-1 form (-*n*) in (4-413).

(b-1-1-5) The nonfuture-2 form of Y-class (-*y*): (4-407).

(b-1-2) A transitive verb (4.10.4)

(b-1-2-1) A root: (4-420), (4-421), (4-423).

(b-2) A derived verb

(b-2-1) Either a stem or the nonfuture-2 (-Ø) form of the intransitive *magoli*-ZERO: *magoli=ngomay* ‘work=after’ or *magoli-Ø=ngomay* ‘work-NF=after’ in (4-408).

- (b-2-2) An antipassive verb (surface-intransitive) (4.10.3): either a stem or the nonfuture-1 form (-Ø), e.g. *moja-gali=ngomay* 'eat-ANTIP=after' or *moja-gali-Ø=ngomay* 'eat-ANTIP-NF=after' in (4-414) to (4-419).
- (b-2-2) An applicative verb (surface-transitive):
a stem: *wona-ri=ngomay* 'lie-APPL=after' (see 4.14.2.1).

As shown above, in certain instances, a given verb with =ngomay may be considered as the root or stem, or as a nonfuture-form with the -Ø suffix. 'NF' will not be included in the glosses for the relevant examples.

When the suffix -ngomay is used for the ablative-1 case, it can be followed by a case suffix: -ngomay-Ø 'ABL-NOM/ACC', -ngomany-jo 'ABL-ERG', -ngomany-ja 'ABL-LOC', -ngomay-ng-go 'ABL-LINK-DAT' (Table 3-10). In the data available, the enclitic =ngomay is attested in the following combinations: =ngomay-Ø (NOM/ACC) and =ngomay-ng-go (LINK-DAT). There is at least one example of =ngomay-ng-go. It is added to a verb root; see (4-420). (To be precise, -ng- and -go in =ngomay-ng-go may have to be considered as enclitics, and not as suffixes, since they follow an enclitic (=ngomay). Then, they will have to be written as '=ng=' and '=go'.)

We shall first look at =ngomay clauses involving an intransitive verb or an adjective-like noun (4.10.2), followed by those involving an antipassive verb (4.10.3) and those involving a transitive verb (4.10.4).

In the examples the main clause is underlined with a double line, while the subordinate clause is indicated with a single line.

4.10.2. Involving an intransitive verb or an adjective-like noun

There are several examples involving an intransitive verb, e.g. (1-10-a), and:

- (4-407) *ngaya* *waga-n*
1SG.NOM(S) rise-NF
-
- [*ngaya* TT] *nyina-y=ngomay-Ø*. (AP)
[1SG.NOM(S)] sit-NF=after-NOM
-
- 'I got up after [I had been] sitting.' (S=[S])

- (4-408) *ngaya* *walwandan-Ø*
1SG.NOM(S) ill-NOM
-
- [*ngaya* TT] *magoli=ngomay-Ø*. (AP)
[1SG.NOM(S)] work=after-NOM
-
- 'I [am] tired after/because [I] worked.' (S=[S])

- (4-409) (The English sentence ‘If I laugh, he will hit me’ was translated by Alf Palmer as follows.)

ngaya *yaji=ngomay-Ø*
 1SG.NOM(S) laugh=after-NOM

bama-nggo *nganya* *balga-l.* (AP)
 man-ERG(A) 1SG.ACC(O) hit-NF

‘If I laugh, the man [will] hit me.’ (S=O)

(In this sentence the nonfuture-2 form has a future reference (3.10.2-[1].))

- (4-410) (‘There is a man coming here behind us. Don’t tell it to him.’)

ngalnga [*yinda* (TT, AP)] *bama-Ø* *mayga-Ø*
 PROH [2SG.ERG(A)] man-ACC(O) tell-IMP

[*bama-Ø*] *golma-mali* *yani=ngomay-Ø.* (AP)
 [man-NOM(S)] behind-side come=after-NOM

‘Don’t tell the man who is coming behind.’ (O=[S])

(*Yinda* was supplied by me and approved by Alf Palmer.)

There are two examples in which =*ngomay* is added to an adjective-like noun: *walwa* ‘bad, ill’.

- (4-411) (Alf Palmer, being in his advanced age – more than 80 years old – often had a headache.)

ngaya *gaja-Ø* *walwa=ngomay-Ø*
 1SG.NOM(S) head-NOM(S) bad=after-NOM

ngaya *jarribara-bi-n.* (AP)
 1SG.NOM(S) good-INTR-NF

‘After my head was ill [i.e. after I had a headache] I feel well [now].’ (S=S)

- (4-412) *ngaygo* [*gaja-Ø* TT] *jarribara-bi-yal*
 1SG.GEN [head-NOM(S)] good-INTR-PURP

gaja-Ø *walwa=ngomay-Ø.* (AP)
 head-NOM(S) bad=after-NOM

‘My [head will be] well after [my] head was ill.’ (S=S)

(Both (4-411) and (4-412) contain an expression of the whole (i.e. ‘I’) and a part (i.e. ‘head’). In (4-411), the whole and the part are in apposition, both being in the NOM. But they are not in (4-412), in which the whole is in the GEN. Expression

of the whole-part relationship will be discussed in 4.20. (4-412) is considered as an instance of S=S, rather than [S]=S. This is because *ngaygo* '1SG.GEN' is best regarded as part of the S NP. That is, the NP *ngaygo gaja-Ø* is not entirely elliptical.)

In the examples involving an intransitive verb or an adjective-like noun, the coreference pattern and deletion/ellipsis vs. retention of the relevant NP are as follows.

- (a) S=S: (1-10-a), (4-411), (4-412).
- (b) S=[S]: (4-407), (4-408).
- (c) S=O: (4-409).
- (d) O=[S]: (4-410).

Now, consider (4-413).

(4-413) (As noted regarding (4-52), I used to be a middle distance runner, and, even while carrying out fieldwork on Palm Island, I used to go for a run almost every afternoon. One evening, when Alf Palmer saw me, he asked me as follows.)

yinda wadali-n=ngomay-Ø? (AP)

2SG.NOM(S) run-NF=after-NOM

'Are you after running?', 'Have you finished running?', or maybe

'Have you been running?'

Note that (4-413) is a simple sentence, and does not involve subordination. That is, here =*ngomay* does not function as a conjunction. ((4-413) is reminiscent of the so-called 'after perfect' of Irish and Scottish English.)

4.10.3. Involving an antipassive verb

Among more than one thousand examples of antipassives, there are only about two dozen examples that involve the enclitic =*ngomay*. Nonetheless, the formation of =*ngomay* antipassives is probably (though not certainly) not fossilized, but productive.

In terms of the semantic types of antipassive verbs (4.9.9.1), there are examples of action antipassives (e.g. *moja-gali=ngomay* 'eat' in (4-414) and *baba-gali-* 'stab' in (4-416)) and perception antipassives (e.g. *ngawa-gali=ngomay* 'hear' in (4-415) and *nyaga-gali=ngomay* 'see' in (4-417)). But there is no example involving an antipassive of any other type. Nonetheless, probably (though not certainly) there is no restriction in terms of the semantic type of antipassives.

We shall now look at =*ngomay* antipassives in terms of the coreference patterns.

[1] S/A patterns → neutral patterns

(a) S=[d-S]: six examples, e.g. (4-414), (4-907-b)

(b) [S]=[d-S]: one example, i.e. (4-416)

(c) d-S=[S]: seven examples, i.e. (4-415)

(d) [d-S]=S: one example, i.e. (4-416)

(e) [d-S]=[S]: three examples, e.g. (4-417)

(4-414) *ngaya jarribara-bi-n [ngaya TT]*
 1SG.NOM(S) good-INTR-NF [1SG.NOM(d-S)]

yarro-n-do manyja-nggo moja-gali=ngomay-Ø. (AP)
 this-LINK-ERG food-ERG eat-ANTIP=after-NOM

 ‘I feel well after after/because [I] ate this food.’ (S=[d-S])

(Note that the undergoer of this antipassive is ERG. See the column for ‘=ngomay “after”’ in Table 4-23.)

(4-415) (Alf Palmer described my work as a linguistic field worker.)

yarro-n-da yinda ngawa-gali=ngomay-Ø
 here-LINK-LOC 2SG.NOM(d-S) hear-ANTIP=after-NOM

[yinda TT] jilbay-bi-n gogo-nggo. (AP)
 [2SG.NOM(S)] knowing-INTR-NF language-ERG

Lit. ‘After you listen to [my] language here, you become knowing’, i.e. ‘Because you listen to [my] language, you know [it].’ (d-S=[S])

(Alf Palmer’s translation of (4-415) is ‘While you are here, you learn language’. The undergoer of this antipassive is ERG. In addition, Alf Palmer accepted the dative *gogo-wo* ‘language-DAT’ See the column ‘=ngomay “after”’ for *ngawa-L* ‘hear, listen to; understand [language]’ in Table 4-24.)

(4-416) *[jana-Ø TT] yani-Ø [jana-Ø TT]*
 [3PL-NOM(d-S)] go-NF [3PL-NOM(d-S)]

baba-gali=ngomay-Ø yani-Ø jana-Ø. (AP)
 stab-ANTIP=after-NOM go-NF 3PL-NOM(S)

a. ‘[They] went after [they] stabbed [someone]. They went.’

b. ‘[They] went. After [they] stabbed [someone], they went.’ ([S]=[d-S]=S)

(4-417) (A man was laughing, so I asked Alf Palmer why the man was laughing. Alf Palmer replied as follows.)

jamo [*nyola* TT] *ngali-ngo-n-go*
 just [3SG.NOM(d-S)] IDU-LINK-LINK-DAT

nyaga-gali=ngomay-Ø [*nyola* TT] *yaji-garra-n.* (AP)
 see-ANTIP=after-NOM [3SG.NOM(S)] laugh-ITER-NF
 '[He] is just laughing because [he] saw [us].' ([d-S]=[S])

(The adverb *jamo* means 'just, for no reason' (4.24-[8]).)

[2] Aberrant patterns → S/O patterns

- (a) O=[d-S]: two examples, e.g. (4-418)
 (b) [O]=d-S: one example: (4-419).
 (c) [O]=[d-S]: one example.

(4-418) (The young men are watching the dance now.)

jana-Ø *goymbinba-Ø* [*goymbinba-Ø* TT]
 3PL-ERG(A) young.man-ACC(O) [young.man-NOM(d-S)]

nyaga-gali=ngomay-Ø *ganyji-lgo.*
 see-ANTIP=after-ACC carry-PURP (AP)

'They [i.e. the senior men] will take the young men [to the camp] after [the young men] have seen [the dance].' (O=[d-S])

(4-419) ('When you cut a tree to get bees, be careful.')

yarro-ngomay-Ø *ngali-nya* *bama-nggo*
 here-ABL-ACC(O) IDU-ACC(O) man-ERG(A)

jaymba-lga [*bama-nggo* *ngali-nya*] *ngawa-lga*
 find-APPR [man-ERG(A) IDU-ACC(O)] hear-APPR

ngali-Ø *gonba-gali=ngomay-Ø.*
 IDU-NOM(d-S) cut-ANTIP=after-ACC

'The men might find [us] and [the men] might hear us, [who are] here, if we cut [a tree].' (O=[O]=d-S)

(In (4-419), the ablative-1 *-ngomay* in *yarro-ngomay-Ø* 'this-ABL-ACC' seems to indicate location (3.6.7-[2]. It has the zero suffix, and it could be considered NOM or ACC. In this sentence, it modifies the pronoun *ngali-nya* 'IDU-ACC(O)', and these two words constitute an NP, functioning as the O of the transitive verb *jaymba-lga* 'find-APPR'. Therefore, *yarro-ngomay-Ø* should be considered ACC, and not NOM. The same applies to *gonba-gali=ngomay-Ø* 'cut-ANTIP=after' It,

too, has the zero suffix, and it could be considered NOM or ACC. In this sentence, it functions as the O of the transitive *ngawa-lga* ‘hear-APPR’, and consequently it should be regarded as ACC, and not NOM. The same applies to *nyaga-gali=ngomay-Ø* ‘see-ANTIP=after-’ in (4-418). Note that *ngali-Ø* ‘1DU-NOM’ is NOM, and not ACC (the ACC form is *ngali-nya*). This is despite the fact that *ngali-Ø* ‘1DU-NOM’, too, presumably functions as the O of the transitive verb *ngawa-lga* ‘hear-APPR’. That is, the d-S in a \Rightarrow *ngomay* clause remains in the NOM even when it is part of the O NP.

4.10.4. Involving a transitive verb

\Rightarrow *ngomay* is attested with three transitive verb roots. The first example is:

(4-420) (‘We forgot to bring our swag. We left it behind.’)

golmi yani-Ø ngali-Ø golgorra-wo
back go-NF 1DU-NOM(S) swag-DAT

[*ngali-Ø* TT] *wanda=ngomay-ng-go*. (AP)
[1DU-ERG(A)] leave=after-LINK-DAT

‘We went back to the swag that [we] had left.’ (S=[A])

Note the DAT form of *wanda=ngomay-ng-go*. It modifies *golgorra-wo* ‘swag-DAT’, and agrees with it in terms of case. Note also that the coreferential deletion involves S=[A] (an S/A pattern). We shall return to this in 4.10.5-[1].) The second example is:

(4-421) *ngaya jagoli-n yino-n-go*
1SG.NOM(S) be.sorry-NF 2SG-LINK-DAT

[*ngaya* TT] *balga=ngomay-Ø*. (AP)
[1SG.ERG(A)] hit=after-NOM

‘I am sorry for you because I hit [you].’ (S=[A])

This sentence is probably an error. (The coreference pattern is ‘S=[A]’, i.e. an S/A pattern.) In view of examples such as (4-414) to (4-417), it should probably be as follows, involving an antipassive verb. (The coreference pattern is ‘S=[d-S]’, i.e. a neutral pattern.)

(4-422) *ngaya jagoli-n yino-n-go*
1SG.NOM(S) be.sorry-NF 2SG-LINK-DAT

[*ngaya*] *balga-gali-ngomay-Ø*. (TT)
[1SG.NOM(d-S)] hit-ANTIP=after-NOM

Intended meaning: ‘(As above).’ (S=[d-S])

that a performance error can occur even in a tight clause linkage like =*ngomay* subordination.) It should probably be as in (4-422) (S=[d-S], a neutral pattern), involving an antipassive verb. (Note that (4-422) conforms to ergativity.) Now, like (4-421), (4-420) has the coreference pattern ‘S=[A]’ and involves a transitive verb. However, unlike (4-421), (4-420) is probably not an error. This is despite the fact that its coreference pattern is ‘S=[A]’, an S/A pattern. It does not conform to ergativity. However, there appears to be no way that this sentence can involve an antipassive. Consider:

(4-426)	<i>golmi</i>	<i>yani-∅</i>	<i>ngali-∅</i>	<i>golgorra-wo</i>	
	back	go-NF	1DU-NOM(S)	swag-DAT	
	<u>[ngali-∅]</u>	<i>wanda-gali=ngomay-ng-go.</i>	(TT)		
	<u>[1DU-NOM(d-S)]</u>	leave-ANTIP=after-LINK-DAT	(S=[d-S])		

The deletion pattern is S=[d-S], conforming to ergativity. However, this sentence would have to mean something like ‘We went back to the swag, to us who had left something’. That is, this sentence does not seem to make sense. That is, (4-420) seems to be exempt from the requirement of ergativity.

[2] Configurationality

In terms of the two criteria proposed in 4.5.1, sentences involving a =*ngomay* subordinate clause are non-configurational.

(a) Criterion 1: Contiguity of the constituents. In sentences involving a =*ngomay* subordinate clause, the members of a given clause are generally contiguous. However, this is not always the case. In (4-415), the main clause is embedded in the subordinate clause, and one constituent of the subordinate clause (*gogo-nggo* ‘language-ERG’) is separated from the other constituents of the clause. In contrast, in (4-417), the subordinate clause is embedded in the main clause, and one constituent of the main clause (*jamo* ‘just’) is separated from the other constituents of the clause. Similarly for (4-418). Therefore, in terms of the contiguity of the constituents, (4-415), (4-417) and (4-418) (which all involve an antipassive verb) are non-configurational.

(b) Criterion 2: Fixed relative order of the constituents. The relative order of a =*ngomay* subordinate clause and the main clause is not fixed. Therefore, in terms of the fixed relative order of the constituents, these sentences are non-configurational. A =*ngomay* subordinate clause precedes the main clause roughly as frequently as it follows.

4.11. Reflexive and middle constructions

4.11.1. Introductory notes

Warrongo has the following, two related verb-stem-forming suffixes: *-gali-ZERO* and *-li-ZERO*. The former is attested in Alf Palmer's Warrongo only, while the latter is attested in both Alf Palmer's Warrongo and Alec Collins' (the latter recorded by Peter Sutton). Their uses can be classified as follows. Regarding the use of a colon, 'A d-S', for instance, indicates that the A of the transitive clause corresponds to the d-S of the derived clause.

- (a) *-gali-ZERO* (AP only)
 - (a-1) *Vt-gali-ZERO*
 - (a-1-1) antipassive (A d-S) (4.9)
 - (a-1-2) reflexive
 - (a-1-2-1) true reflexive (A&O d-S) (4.11.2.1)
 - (a-1-2-2) anticausative (O d-S) (4.11.2.2)
 - (a-2) *Vi-gali-ZERO*: middle (4.11.4)
 - (a-3) *Noun-gali-ZERO*: middle (4.11.4)
- (b) *-li-ZERO* (AP, AC)
 - (b-1) *Vt-li-ZERO*
 - (b-1-1) antipassive (A d-S) (AC only) (4.9.1)
 - (b-1-2) reflexive
 - (b-1-2-1) true reflexive (A&O d-S) (AP, AC) (4.11.3.1)
 - (b-1-2-2) anticausative (O d-S) (AP, AC) (4.11.3.2)
 - (b-2) *Vi-li-ZERO*: middle (AP, AC) (4.11.5)
 - (b-3) *Vi-l-Vi-li-ZERO*: middle (AP only) (4.11.5)
 - (b-4) *Noun-li-ZERO*: middle (AP only) (4.11.5)
 - (b-5) *Adverb-li-ZERO*: middle (AP only) (4.11.5)

Both *-gali-ZERO* and *-li-ZERO* are attested with verb roots. In addition, Alf Palmer's (a-1-1) *Vt-gali-ZERO* 'antipassive' is attested with stems formed with the transitive-stem-forming suffix *-nga-L* (4.7.2) or *-(m)ba-L* (4.7.3). His *-gali-ZERO* 'middle' may follow a noun (i.e. (a-3)). His *-li-ZERO* 'middle' may follow a noun (i.e. (b-4)) or an adverb (i.e. (b-5)).

All of the stems listed above belong to ZERO-class. The paradigm of verbs involving *-gali-ZERO* is given in Table 3-15, and that of the verbs involving *-li-ZERO* is given in Table 3-14. They are (surface-)intransitive. They take the S (NOM), and not the A (ERG).

Alf Palmer's *Vt-gali-ZERO* 'antipassive' was discussed in detail in 4.9. Alec Collins' (b-1-1) *Vt-li-ZERO* 'antipassive' was illustrated in 4.9.1. Antipassives will not be considered in the following, except for (4-443). Other uses will be discussed below.

4.11.2. *Vt-gali-ZERO* ‘reflexive’ (AP)

This occurs in Alf Palmer’s Warrongo only, and not in Alec Collins’. It has two uses: true reflexive (4.11.2.1) and anticausative (4.11.2.2).

4.11.2.1. *Vt-gali-ZERO* ‘true reflexive’ (A&O : d-S) (AP)

[1] Initial illustration

Compare the following pair of a transitive clause and a reflexive clause.

(4-427) *gaya-nggo bama-Ø giba-n.* (TT, AP)
 father-ERG(A) man-ACC(O) shave-NF
 ‘Father shaved the man.’

(4-428) *gaya-Ø giba-gali-Ø.* (AP)
 father-NOM(d-S) shave-REFL-NF
 ‘Father shaved himself.’

It is possible to say – although it is not definitely certain if this analysis is adequate (see the comments on (4-431), (4-432) and (4-440)) – that a reflexive clause corresponds to a transitive clause. That is, if the A and the O of a transitive clause are coreferential, this will result in a reflexive clause. Hence, ‘A&O d-S’. We shall tentatively adopt this analysis, and regard reflexive clauses as derived clauses and their S as derived S (‘d-S’). This can be shown as in Table 4-33. Two additional examples:

(4-429) *bama-Ø ngonj jingga-gali-n.* (AP)
 man-NOM(d-S) there punch-REFL-NF
 ‘The man is punching himself there.’

(4-430) (Alf Palmer described someone’s suicide as follows.)
 [*bama-Ø* TT] *bambo-gali-n.* (AP)
 [man-NOM(d-S)] shoot-REFL-NF
 ‘[A man] shot himself [with a rifle].’

(As it was given by Alf Palmer, (3-430) contained a kin noun that referred to a particular person. I replaced that noun with *bama* ‘man’, a noun that has generic reference. Accordingly, I inserted ‘TT’ to indicate this.)

All of the reflexive verbs describe a situation of ‘A&O d-S’, i.e. a situation where the A of the corresponding transitive clause is coreferential with the O. They are labeled ‘true reflexive’. There is no example where the A is coreferential with some other NP, such as ‘He cooked food for himself’, ‘He put a hat on himself’, ‘He hunted the dog away from himself’, etc. The same applies to the other reflexive, i.e. *Vt-li-ZERO* (4.11.3.1).

[2] Reflexive verbs

The following reflexive verbs were spontaneously given by Alf Palmer. Many examples are highly elliptical, and it is not always known if a given Vt-*gali*-ZERO is a reflexive verb or an antipassive verb.

(a) Based on two-place verbs

In terms of the classification of two-place verbs shown in Table 4-19, most of these reflexive verbs are based on verbs of Type 1 'direct effect', and one (*nyaga-gali*-ZERO 'look at oneself') is based on the verb of Type 2 'perception'. There is no example of any other type. In the list below, the gloss for -*gali*-ZERO, i.e. 'REFL' or 'oneself' is generally omitted.

Type 1 'direct effect': *giba-gali*-ZERO 'shave', *baba-gali*-ZERO 'spear, wash', *baga-gali*-ZERO 'wash', *jorra-gali*-ZERO 'wash', *bangga-gali*-ZERO 'paint' [i.e. 'apply paint to one's body', and not 'draw a picture of oneself'], *nyamba-gali*-ZERO 'paint', *gamba-gali*-ZERO 'cover', *garba-gali*-ZERO 'cover', *garbi-gali*-ZERO 'hide' (or antipassive (?)), *bari-gali*-ZERO 'twist one's body [e.g. upper arm]', *binba-gali*-ZERO '[dog, for instance] scratch oneself', *moja-gali*-ZERO 'eat [i.e. chew or bite] oneself [e.g. finger]', *jingga-gali*-ZERO 'punch', *jilwa-gali*-ZERO 'kick', *gonba-gali*-ZERO 'cut', *bambo-gali*-ZERO 'shoot'

Type 2 'perception': *nyaga-gali*-ZERO 'look at'

(Alf Palmer later said that *baga-L* 'dig, wash' is not a Warrongo word. Indeed, Dyirbal has *baga-L* 'pierce, dig, spear' (Dixon 1972: 398). Therefore, *baga-L* and *baga-gali*-ZERO may not be Warrongo words.)

In addition to the reflexive verbs listed above, the following reflexive verbs, which I suggested, were approved by Alf Palmer: *baja-gali*-ZERO '[dog] bite oneself', *boybo-gali*-ZERO 'spit on', and *gonma-gali*-ZERO 'cut', cf. (4-464). They belong to Type 1 'direct effect'.

As seen in 4.9.9.3.5, the transitive *ngawa-L* can mean (i) 'hear, listen to' (Type 2 'perception') and (ii) 'understand [a language]' (Type 4 'knowledge'). The antipassive counterpart *ngawa-gali*-ZERO, too, can mean (i) 'hear, listen to' (NOM-DAT, NOM-ERG) and (ii) 'understand [a language]' (NOM-ERG). Now, *ngawa-gali*-ZERO can take NOM-DAT and mean 'think [about]', e.g. (4-431). Similarly for the reduplicated form *ngawa-ngawa-gali*-ZERO, e.g. (4-432). (The transitive *ngawa-ngawa-L* is not attested.)

- (4-431) *ngani-wo yinda ngawa-gali-n?* (AP)
 what-DAT 2SG.NOM(d-S) hear-REFL(?)-NF
 'What are you thinking about?'

- (4-432) *wowo, ngaya ngona-wo walngga-yi-Ø / wanja-wo /*
 Oh! 1SG.NOM(d-S) that-DAT breath-COM-NOM hole-DAT
ngawa ngawa ngawa-ngawa-gali-n / (AP)
 (error) (error) hear-hear-REFL(?) -NF
 ‘Oh, I like that [vagina]. [I] am thinking about the hole [i.e. vagina].’

(See 3.6.8-[5] for *walngga-yi* ‘breath-COM’, ‘eager, fond’.) It is difficult to decide whether *ngawa-gali-ZERO* and *ngawa-ngawa-gali-ZERO*, both ‘think [about]’, are antipassives or reflexives. Dixon (1972: 90, 92) states that, in Dyirbal, *ngamba-yirri-* ‘hear, listen-REFL’ means ‘think’. In Djaru (Tsunoda 1981a: 155), *bura-nyang-* ‘hear, listen to’ means ‘think [about]’ when it co-occurs with the reflexive/reciprocal clitic pronoun =*nynu*. In view of this external evidence, I tentatively consider *ngawa-gali-ZERO* and *ngawa-ngawa-gali-ZERO* ‘think [about]’ to be reflexive verbs.

If we regard (4-431) and (4-432) as ‘true reflexive’, they are exceptional in two respects. First, I am unable to set up any corresponding transitive clause for (4-431) or (4-432).) Second, they have the NOM-DAT case frame. Other instances of ‘true reflexive’ have the NOM case frame.

The distribution of these reflexive verbs in terms of the verb types given in Table 4-19 is shown in Table 4-20.

(b) Based on a three-place verb

There is one Vt-*gali-ZERO* verb with a reflexive meaning that is based on a three-place verb: *banjo-gali-ZERO* ‘ask one oneself’ (?). (The transitive *banjo-L* means ‘ask’, ‘enquire’ and ‘request’.)

- (4-433) *nyola=goli banjo-gali-n. (AP)*
 3SG.NOM(d-S)=only ask-REFL-NF
 Tentative translation: ‘He asked himself.’

Alf Palmer provided the gloss ‘himself’ for (4-433).

[3] Instrument ERG

A noun in the ERG referring to an instrument (or simply ‘instrument ERG’) can occur in (basic) transitive clauses, but it cannot occur in (basic) intransitive clauses (3.6.2). As for the antipassive construction, the acceptability of the instrument ERG is, at best, not certain (see (a-3) and (a-5) of Table 4-30). In contrast, the instrument ERG is perfectly acceptable in reflexive clauses. This can be shown as in Table 4-33. Compare (4-434) and (4-435). Another example is (4-436).

Table 4-33. Transitive and reflexive clauses (1): instrument ERG

transitive	Actor-ERG(A)	Undergoer-ACC(O)	Instrument-ERG
reflexive	Actor/Undergoer-NOM(d-S)		Instrument-ERG

- (4-434) *bama-nggo gamo-nggo gando-Ø baba-n.* (TT, AP)
 man-ERG(A) water-ERG dog-ACC(O) wash-NF
 ‘The man washed a dog with water.’
- (4-435) *bama-Ø gamo-nggo baba-gali-n.* (AP)
 man-NOM(d-S) water-ERG wash-REFL-NF
 ‘The man washed himself with water.’
- (4-436) *yarro-n-do ngali-Ø gamba-gali-yal*
 this-LINK-ERG 1DU-NOM(d-S) cover-REFL-PURP
gido-ngga yamba-ngga. (AP)
 cold-LOC camp-LOC
 ‘We will cover ourselves with this [blanket] in [this] cold camp.’

[4] Body part noun

In Warrongo, as in many other Australian languages, expressions of a whole-part relationship (typically involving body parts) generally employ the juxtaposition of the noun (or pronoun) for the whole and the noun for the part, and the whole and the part agree in terms of case (4.20.5), e.g. (4-437) (‘woman-ACC upper arm-ACC’). Now, compare (4-437) and (4-438).

- (4-437) *bama-nggo warrngo-Ø jorro-Ø bari-n.* (TT, AP)
 man-ERG(A) woman-ACC(O) upper.arm-ACC(O) twist-NF
 ‘The man twisted a woman’s upper arm.’
- (4-438) *bama-Ø jorro-Ø* [TT, AP] *bari-gali-n.* (AP)
 man-NOM(d-S) upper.arm-? twist-REFL-NF
 ‘The man twisted his own upper arm.’

(In (4-438), I started the sentence, saying *bama-Ø jorro-Ø*. Alf Palmer approved it, and added *bari-gali-n*, to complete the sentence. It is not clear what situation this sentence describes.)

In reflexive clauses, the part noun can occur; see (4-438). The part noun *jorro-Ø* may be considered ACC(O), since it corresponds to *jorro-Ø* ‘upper arm-ACC(O)’ of the transitive clause (4-437). It may also be considered NOM(d-S), since it (the part) and *bama-Ø* ‘man-NOM(d-S)’ (the whole) may be taken to be in juxtaposition. This situation can be shown as in Table 4-34. Another example is (4-439). (There is no example of a reflexive clause which contains both the instrument ERG and a body part noun.)

Table 4-34. Transitive and reflexive clauses (2): body part noun

transitive	Actor-ERG(A)	Undergoer-ACC(O)	body part-ACC(O)
reflexive	Actor/Undergoer-NOM(d-S)		body part-ACC(O) or -NOM(d-S)

- (4-439) *nyola=goli* *mara-Ø moja-gali-n.* (AP)
 3SG.NOM(d-S)=alone hand-? eat-REFL-NF
 ‘He is eating [i.e. biting] [his] hand [i.e. finger] by himself.’

(4-438) and (4-439) contain a body part noun. There is no example (involving a reflexive Vt-*gali*-ZERO) that contains a possession other than a body part (as in ‘He is carrying his own hat’ or ‘He is eating his own food.’) The same applies to the reflexive Vt-*li*-ZERO (4.11.3.1). (That is, these expressions involving a possession are confined to ‘body part’, which occupies the highest position on the possession cline. This is shown in Table 4-45.)

The following is an interesting example:

- (4-440) (A group of men are preparing for a corroboree and painting themselves to look like crows.)
wajagan-Ø jana-Ø bangga-gali-n. (AP)
 crow-NOM(d-S) 3PL-NOM(d-S) paint-REFL-NF
 Tentative translation: ‘They, crows, are painting themselves.’

Unlike (4-428), I am unable to set up any transitive counterpart for (4-440).

[5] The enclitic =*goli* ‘alone, by oneself’

The enclitic =*goli* ‘alone, only, by oneself’ (4.25-[3]) may occur in basic intransitive and transitive clauses. Furthermore, in the examples of the reflexive Vt-*gali*-Ø that were given spontaneously by Alf Palmer (in texts, during elicitation or during our conversations), the enclitic =*goli* is sometimes attached to the NOM(d-S), e.g. (4-333), (4-439). Generally =*goli* does not seem obligatory for reflexive clauses. See (4-428), (4-435), (4-436), (4-438), (4-440). However, consider the following examples.

- (4-441) *jorba-nggo* *ngaya* *bangga-gali-n.* (AP)
 white.ochre-ERG 1SG.NOM(d-S) paint-REFL-NF
 ‘I am painting myself with white ochre.’
- (4-442) *bama-Ø* *bangga-gali-n* *jorba-nggo.* (TT, AP)
 man-NOM(d-S) paint-REFL-NF white.ochre-ERG
 ‘The man is painting himself with white ochre.’
- (4-443) *bama-Ø* *bangga-gali-n* *jorba-nggo.* (TT, AP)
 man-NOM(d-S) paint-ANTIP-NF white.ochre-ERG
 ‘The man is painting someone else with white ochre.’
- (4-444) *nyola=goli* *jorba-nggo* *bangga-gali-n.* (AP)
 3SG.NOM(d-S)=alone white.ochre-ERG paint-REFL-NF
 ‘He is painting himself by himself.’

On the basis of spontaneously given examples such as (4-440) and (4-441), I suggested (4-442) to Alf Palmer, which he seemed to accept with a reflexive reading.

However, on the following day, when confronted with (4-443) (same as (4-442)), he stated that it meant that the man was painting someone else. That is, he indicated that it was an antipassive clause, and not a reflexive clause. He then produced (4-444) and stated that it meant that the man was painting himself. ((4-443) was cited as (4-379), as an instance of the antipassive construction. Cf. (a-3) of Table 4-30 (?actor-NOM instrument-ERG). But I stated there that its acceptability is not certain.) This suggests that the enclitic =*goli* ‘alone, by oneself’ is necessary for a reflexive (not antipassive) reading under certain circumstances. However, the conditioning factors are not known. One possible factor is the type of the verb involved, and another is the use of a pronoun (not a noun) for the d-S. We shall examine these two factors.

(a) Verbs

There are 10 examples of *nyaga-gali*-ZERO ‘see, look at-REFL’ (with a reflexive reading), and in all of them the d-S is combined with the enclitic =*goli* ‘only, alone, by oneself’, e.g.:

- (4-445) *yorra-∅=goli nyaga-gali-n.* (AP)
 2PL-NOM(d-S)=only see-REFL-NF
 ‘You-all are looking at yourselves.’

(b) Pronouns

For the reflexive Vt-*gali*-ZERO, only pronouns are combined with =*goli* ‘only, alone, by oneself’, e.g. (4-433), (4-439), (4-444), (4-445). There is no example involving a noun. (Nonetheless, a pronoun is not always combined with =*goli*, e.g. (4-436), (4-440).)

It is interesting to note that in all of the 10 examples of *nyaga-gali*-ZERO ‘see, look at-REFL’ (cf. (a) Verbs), the d-S is a pronoun and that it is combined with =*goli* (cf. (b) Pronouns).

It seems then that, at least under certain instances, the presence of =*goli* ‘alone, by oneself’ facilitates the selection of a reflexive reading, rather than an antipassive reading.

[6] *Warayi* ‘one’s own’ and *warayi-bi-L* ‘one’s.own-INTR’

Warayi ‘one’s own’ (see 3.6.8 for its formation) occurs in two examples of the reflexive Vt-*gali*-ZERO.

- (4-446) *warayi-∅ yinda jingga-gali-n.* (AP)
 one’s.own-? 2DG.NOM(d-S) punch-REFL-NF
 ‘You are punching yourself.’

- (4-447) *nyola=goli warayi-∅ baba-gali-n.* (AP)
 3SG.NOM(d-S)=only one’s.own-? wash-REFL-NF
 ‘He is washing himself.’

Alf Palmer's translation of (4-447) is 'wash just himself'. It is clear that (4-446) and (4-447) have a reflexive reading (and not antipassive). Two analyses of the word *warayi* 'one's own' have presented themselves.

First analysis. *Warayi* 'one's own' modifies a body part noun that is understood; cf. *jorro-Ø* 'upper arm' in (4-437) and *mara-Ø* 'hand' in (4-438). In this case, a more literal translation of, for example, (4-446) is 'You are punching your own [body part]'. As is the case with *jorro-Ø* 'upper arm' and *mara-Ø* 'hand', *warayi* 'one's own' may be regarded as either ACC(O) or NOM(d-S).

Second analysis. In (4-446) and (4-447), *warayi* may be considered to be something like an adverb with the meaning 'alone, by oneself'.

In (4-447) the co-presence of both the enclitic=*goli* 'by oneself' and the word *warayi-Ø* 'one's own' presumably reinforces the reflexive reading.

Warayi 'one's own' can be turned into an intransitive verb by means of the intransitive-stem-forming suffix *-bi-L* (4.7.1): *warayi-bi-L* 'be one's own, do to one's own'. It is attested in two examples involving the reflexive Vt-*gali-ZERO*, e.g..

- (4-448) *bama-Ø* (TT, AP) *warayi-bi-n* *baba-gali-n* *banggany-jo*. (AP)
 man-NOM(d-S) one's.own-INTR-NF stab-REFL-NF spear-ERG
 Lit. 'The man did to his own, stabbed himself with a spear',
 i.e. 'The man stabbed himself with a spear.'

In (4-448), I said the first word *bama-Ø*, and Alf Palmer said the rest of the sentence. In this sentence, *warayi-bi-n* modifies *baba-gali-n* (see 4.5.4.1-[1]). This shows that the reflexive Vt-*gali-ZERO* is intransitive (cf. 4.9.2 in connection of the intransitive status of antipassives).

Inclusion of *warayi* 'one's own' or its verbalized form *warayi-bi-L* seems to facilitate the selection of the reflexive reading, rather than the antipassive reading, as is the case with the enclitic =*goli* 'by oneself'. But its use is not obligatory for the reflexive reading. Compare (4-448) with (4-435); both involve *baba-gali-ZERO* 'wash, stab-REFL', and yet (4-435) lacks *warayi* and *warayi-bi-L*.

[7] Syntactic ergativity

It seems clear that all of the reflexive verbs and also middle verbs conform to syntactic ergativity (4.8.3, 4.9.3) (at least when they occur in purposive subordination, where the clause linkage is tightest; cf. Table 4-17), although there are not many relevant examples. There is only one example involving a reflexive Vt-*gali-ZERO*:

- (4-449) *jorba-nggo* *ngaya* *bangga-gali-n*
 white.ochre-ERG 1SG.NOM(d-S) paint-REFL-NF
 [*ngaya*] *nyamba-yal*. (AP)
 [1SG.NOM(S)] dance-PURP
 'I am painting myself in order to dance.' (d-S=[S])

[8] Semantics

The d-S is almost always human (see the examples above), but there are two examples of a non-human animate: dog. An example:

- (4-450) *gando-Ø binba-gali-n.* (AP)
 dog-NOM(d-S) scratch-REFL-NF
 ‘The dog is scratching itself.’

The event described by the reflexive *Vt-gali-ZERO* is generally volitional, as seen above. However, there are two possible exceptions: *ngawa-gali-ZERO* in (4-431) and *ngawa-ngawa-gali-ZERO* in (4-432), both ‘think’. It is not clear if thinking is volitional. Furthermore, as noted above, it is not certain if these verbs can be considered ‘true reflexive’

4.11.2.2. *Vt-gali-ZERO* ‘anticausative’ (O : d-S) (AP)

(See Comrie (1985: 325) for ‘anticausative’.) Only one *Vt-gali-ZERO* verb is attested with an anticausative meaning: *wajo-gali-ZERO* ‘[food] be/get cooked’. The transitive counterpart is *wajo-L* Vt ‘burn, cook’. Compare the following examples. (The meaning of ‘burn’ is not attested for the anticausative *wajo-gali-ZERO*.) Both *wajo-gali-ZERO* and *wajo-L* belong to Type 1 ‘direct effect’. There is no example of any other type. This is shown in Table 4-20.

- (4-451) *bama-nggo manyja-Ø wajo-n.* (TT)
 man-ERG(A) food-ACC(O) cook-NF
 ‘The man cooked food.’
- (4-452) (‘I am waiting for the food to be cooked.’)
manyja-Ø ngona-Ø wajo-gali-n? (AP)
 food-NOM(d-S) that-NOM(d-S) cook-REFL-NF
 ‘Is that food cooked [yet]?’
- (4-453) *yorì-Ø wajo-gali-n.* (AP)
 kangaroo-NOM(d-S) cook-REFL-NF
 ‘The kangaroo was/is cooked.’

(Alf Palmer’s translation for (4-453) is ‘Kangaroo cook imself’.) The d-S of the reflexive (4-452) corresponds to the O (but not the A) of the transitive (4-451). The food does not do the cooking. Hence ‘O d-S’. The same applies to (4-453). This situation can be shown as in Table 4-35.

Table 4-35. Transitive and anticausative clauses

transitive	Actor-ERG(A)	Undergoer-ACC(O)
anticausative		Undergoer-NOM(d-S)

In the examples available, the d-S is inanimate, referring to food or a dead animal (e.g. a kangaroo). The event described is non-volitional.

We have seen above that the anticausative *wajo-gali-ZERO* means ‘[food] be/get cooked’. As noted above, the meaning of ‘burn’ is not attested for the anticausative *wajo-gali-ZERO*. Furthermore, *wajo-gali-ZERO* is not attested with a true reflexive meaning: ‘[someone] burn oneself’

(The anticausative was labeled ‘spontaneous’ in Tsunoda (2006: 306). The meaning of (4-452) and (4-453) is very similar to passive. Crosslinguistically it is common for reflexive (or anticausative) constructions to have a passive meaning when they have a non-agentive reading (Lyons 1968: 375, Shibatani 1985: 840, Tsunoda 1988b: 738, 2006: 304, 306, 313, 315).)

It seems clear that the anticausative *Vt-gali-ZERO*, too, conforms to syntactic ergativity (at least when it occurs in purposive subordination; cf. Table 4-17), although there are only two examples, e.g.:

- (4-454) *ngaya wanda-n bori-ngga yori-Ø*
 1SG.ERG(A) leave-NF fire-LOC kangaroo-ACC(O)
 [*yori-Ø*] *wajo-gali-ya!* (AP)
 [kangaroo-NOM(d-S)] cook-REFL-PURP (O=[d-S])
 ‘I left the kangaroo on the fire so that it would be cooked.’

There is one unusual example of *Vt-gali-ZERO* ‘REFL’.

- (4-455) (‘I was cooking a turtle, and waiting for it to be cooked.’)
ngaya nyina-n wajo-gali-wo (AP)
 1SG.NOM(S) sit-NF cook-REFL-DAT

A literal translation will be ‘I sat [and waited] for the being-cooked (or getting-cooked)’. (The dative suffix is *-go* following a consonant, and *-wo* following a vowel; cf. 3.2.1.1-[5].) This example is unusual. First, *wajo-gali-wo* is the only example in which the dative suffix follows a verb. Second, it is possible to say that *-wo* is attached to the nonfuture-2 form (i.e. *wajo-gali-Ø* ‘cook-REFL-NF’), and not to the stem (as shown in (4-455)). If this view is adopted, *-wo* is not a suffix, but an enclitic (i.e. =*wo*) here, since it follows an inflectional suffix. See 2.2.2-(b-1). (There is possibly another instance in which a form identical with a dative allomorph is used as an enclitic. See 4.10.1.)

4.11.3. *Vt-li-ZERO* ‘reflexive’ (AP, AC)

This has two uses: true reflexive (4.11.3.1) and anticausative (4.11.3.2). Between the two reflexives, *Vt-li-ZERO* is attested with a much smaller number of verbs than is *Vt-gali-ZERO* (4.11.2). But in the main their syntactic behaviours seem to be the same.

4.11.3.1. *Vt-li-ZERO* 'true reflexive' (A&O : d-S) (AP, AC)

This occurs in both Alf Palmer's and Alec Collins' Warrongo.

[1] Initial illustration: A&O d-S (true reflexive)

Compare the following pair of a transitive clause and a reflexive clause.

(4-456) *bama-nggo manyja-Ø garbi-n.* (TT, AP)
 man-RRG(A) food-ACC(O) hide-NF
 'The man hid food.'

(4-457) *ngoni bama-Ø garbi-li-n yamba-ngga.* (AP)
 there man-NOM(d-S) hide-REFL-NF camp-LOC
 'There the man is hiding himself in the camp.'

The A and the O of the transitive clause may be considered as jointly corresponding to the d-S of the reflexive clause. Hence, 'A&O d-S'

[2] Reflexive verbs

The following are attested. They are all based on a two-place verb. There is no example that is based on a three-place verb.

(a) Alf Palmer's Warrongo: *bangga-li-ZERO* 'paint', *balba-li-ZERO* 'roll', *balga-li-ZERO* 'hit', *garba-li-ZERO* 'cover', *garbi-li-ZERO* 'cover oneself; [person, dog, kangaroo] hide oneself', *boybo-li-ZERO* 'spit on', *baba-li-ZERO* 'stab or spear', *baja-li-ZERO* '[dog] bite oneself'

Also, there are the following doublets (see (2-56)):

bari-li-ZERO, e.g. (4-467), (4-479), *bayi-li-ZERO* both Vi 'turn around'
 Cf. *bari-L*, *bayi-L* both Vt 'turn, twist'

Alf Palmer approved the following: *jilwa-li-ZERO* 'kick oneself'

In addition, there is the compound *bibi-baba-li-ZERO* '[man, not woman (?)] masturbate' (lit. 'clitoris-stab-REFL'), e.g.:

(4-458) *yowo, ngana-Ø bibi-baba-li-ya mara-nggo.* (AP)
 yes 1PL-NOM(d-S) clitoris-stab-REFL-IMP hand-ERG
 'Yes, let's masturbate with hand.'

Alf Palmer's translation is 'man pull himself' The etymology of this reflexive verb seems to be as follows. On the basis of the reflexive *bibi-baba-li-ZERO*, I made up the compound transitive verb *bibi-baba-L*, and it was approved by Alf Palmer. His translation is 'poke a woman'. See (3-339). In turn, (3-339) is probably related to a version that does not contain a compound verb; see (3-338).

(b) Alec Collins' Warrongo: *gonma-li-ZERO* 'cut', *ngawa-li-ZERO* 'think' (lit. 'hear-REFL', but it is not certain if this is a reflexive verb; see the comments on (4-431) and (4-432).) In Alf Palmer's Warrongo, *ngawa-gali-ZERO* and *ngawa-ngawa-gali-ZERO* 'think' take NOM-DAT; see (4-431) and (4-432). But the three examples of *ngawa-li-ZERO* 'think' in Alec Collins' data do not indicate what case frame it takes.

- (4-459) *nyawa gara ngawa-li-Ø bama-Ø.* (AC)
 NEG NEG hear-REFL-NF man-NOM(d-S)
 Peter Sutton's translation: 'They don't think (i.e. about tribal lore).'

I tentatively consider Alec Collins' *ngawa-li-ZERO* 'think' to be a reflexive verb of Type 2 'perception', as is the case with *ngawa-gali-ZERO* and *ngawa-ngawa-gali-ZERO* 'think [about]' (4.11.2.1-[2]). All the other reflexive verbs given by Alec Collins and/or by Alf Palmer belong to Type 1 'direct effect' This is shown in Table 4-20.

[3] Instrument ERG

This can occur with the reflexive *Vt-li-ZERO*, as is the case with the reflexive *Vt-gali-ZERO* (4.11.2.1-[3]). See Table 4-33. Compare:

- (4-460) *yanga-na-nggo galbin-Ø garbi-n gambila-nggo.* (TT, AP)
 mother-KIN-ERG(A) child-ACC(O) cover-NF bark.blanket-ERG
 'The mother covered [her] child with a bark blanket.'

- (4-461) *galbin-Ø garbi-li-n gambila-nggo.* (TT, AP)
 child-NOM(d-S) cover-REFL-NF bark.blanket-ERG
 'The child covered himself/herself with a bark blanket.'

Other examples include (4-435) and (4-436). The instrument ERG may be a body part noun, e.g. 'hand' in (4-458).

[4] Body part noun

See Table 4-34. There is no example in Alf Palmer's data, but there are a few examples in Alec Collins' data. Compare:

- (4-462) *bama-nggo nganya mara-Ø gonma-n.* (TT, AP)
 man-ERG(A) 1SG.ACC(O) hand-ACC(O) cut-NF
 'The man cut my hand.'

- (4-463) *ngaya gonma-li-n warayi-Ø mara-Ø.* (AC)
 1SG.NOM(d-S) cut-REFL-NF one's.own-? hand-?
 Peter Sutton's translation: 'I cut my hand.'

Alf Palmer initially rejected (4-4632), but later he approved it and also a couple of analogous examples I composed. Furthermore, there are examples in Alf Palmer's data in which a body part noun occurs with an anticausative Vt-*li*-ZERO verb. See (4-481) to (4-483).

Also, on the basis of (4-463), I composed (4-464), which involves Vt-*gali*-ZERO, rather than Vt-*li*-ZERO.

(4-464) *bama-Ø* *gonma-gali-n mara-Ø*. (TT, AP)
 man-NOM(d-S) cut-REFL-NF hand-?
 'The man cut [his own] hand.'

Alf Palmer approved (4-464), and provided the translation 'cut his hand'.

[5] The enclitic =*goli* 'only, alone, by oneself'

In Alf Palmer's Warrongo, as is the case with Vt-*gali*-ZERO 'true reflexive' (4.11.2.1-[5]), =*goli* 'only, alone, by oneself' is attested with a pronoun, but not with any noun. There is one example:

(4-465) *nyola=goli* *bangga-li-n*. (AP)
 3SG.NOM(d-S)=only paint-REFL-NF
 'He is painting himself.'

[6] *Warayi-?* 'one's own' and *warayi-bi-L* 'one's.own-INTR'

There is one example of *warayi-?* 'one's own' in Alec Collins' data: (4-463). There is one example of *warayi-bi-L* 'one's own-INTR' in Alf Palmer's data:

(4-466) [*bama-Ø* TT] *warayi-bi-n* *baba-li-n* *banggamy-jo*. (AP)
 [man-NOM(d-S)] one's.own-INTR-NF stab-REFL-NF spear-ERG
 'The man stabbed himself with a spear.'

(*Warayi-bi-n* modifies *baba-li-n*. See 4.5.4.1-[1].)

In Alec Collins' Warrongo, Vt-*li*-ZERO may have an antipassive use or a reflexive use (4.11.1). Therefore, inclusion of *warayi* 'one's own' in (4-394) facilitates the selection of the reflexive reading. In contrast, in Alf Palmer's Warrongo Vt-*li*-ZERO does not have an antipassive use. Therefore, inclusion of the enclitic =*goli* 'alone, by oneself' or *warayi-bi-L* 'one's own-INTR' does not help to select the reflexive reading. Presumably it reinforces the reflexive reading.

[7] Syntactic ergativity

It seems clear that the reflexive Vt-*li*-ZERO, too, conforms to syntactic ergativity (at least when they occur in purposive subordination; cf. Table 4-17), although there are only three examples: one example involving *garbi-li*-ZERO 'hide-REFL' and two examples involving *bari-li*-ZERO 'turn-REFL', e.g.:

(4-467) *ngaya bari-li-n [ngaya TT] nyaga-gali-yal.* (AP)
 1SG.NOM((d-S) turn-REFL-NF [1SG.NOM(d-S)] see-ANTIP-PURP
 ‘I turned around in order to look.’ (d-S=[d-S])

[8] Semantics

The d-S is almost always human, but Alf Palmer approved three examples that I composed and that contain a non-human animate: ‘[kangaroo, dog] hide oneself’, and ‘[dog] bit oneself’:

(4-468) *gando-Ø rirra-nggo baja-li-n.* (TT, AP)
 dog-NOM(d-S) tooth-ERG bite-REFL-NF
 ‘The dog bit itself with [its] teeth.’

The event described is generally volitional. However, it is not clear if *ngawa-li-ZERO* ‘think’ (cf. (4-359)) describes a volitional event.

[9] Non-obligatoriness of the use of a reflexive suffix

The use of the reflexive suffix *-gali-ZERO* or *-li-ZERO* does not seem obligatory for describing reflexive situations. These situations are often expressed by means of basic transitive clauses, rather than a clause with *Vt-gali-ZERO* or *Vt-li-ZERO*. Examples include (4-769) (‘Scratch [your] head!’), (4-984-A) (‘Hit [your] penis!’), and:

(4-469) (Alf Palmer described one of my habits as follows.)
gada-nga-n yinda mara-Ø yino. (AP)
 crack-TR-NF 2SG.ERG finger-ACC 2SG.GEN
 ‘You crack your fingers.’

(For the formation of *gada-nga-L Vt* ‘crack’, see 3.11.1.6-[3] and 4.7.2-[5]-(a-1).)

(4-470) (‘I crossed my legs’ was translated as follows.)

jarra-Ø ngaya binda-n ngoni=rro ngoni=rro.
 upper.leg-ACC(O) 1SG.ERG(A) put.down-NF there=again there=again
 Lit. ‘I put down [my] upper legs here and there.’ (AP)

(*Ngoni=rro ngoni=rro* means ‘here and there’ (4.25-[5]).)

(4-471) *jarga-lgo yinda yino jombi-Ø.* (AP)
 insert-PURP 2SG.ERG(A) 2SG.GEN penis-ACC(O)
 ‘You will insert your penis.’

(4-472) (‘He cut his own finger’ was translated as follows.)

nyongo warayi-Ø mara-Ø gonma-n. (AP)
 3SG.GEN one’s.own-ACC hand-ACC cut-NF

(4-469) to (4-472), and also (4-769) and (4-984-A) contain a transitive clause. They do not involve either Vt-*gali*-ZERO or Vt-*li*-ZERO. This is despite the fact that a relevant reflexive verb is sometimes (though not always) available. Compare (4-472) (*gonma-L* Vt 'cut') with (4-464) (*gonma-gali-ZERO* 'cut-REFL'), and (4-769) (*giba-L* Vt 'scratch') with (4-428) (*giba-gali-ZERO* 'shave-REFL').

In my Warrongo data, descriptions of reflexive situations involve a transitive verb much more frequently than a reflexive verb. The conditioning factors are not known, but the following points are worth mentioning.

(a) Some (or most?) of the transitive clauses with a reflexive reading describe situations that are inherently reflexive. For example, regarding (4-470) one is unlikely to cross someone else's legs. Concerning (4-471) one is unlikely to insert someone else's penis.

(Some of the reflexive verbs listed in 4.11.2.1-[2] and 4.11.3.1-[2] describe situations that are inherently reflexive, e.g. (4-428) (*giba-gali-ZERO* 'shave-REFL') and (4-435) (*baba-gali-ZERO* 'wash-REFL'). The use of a reflexive verb to describe an inherently reflexive situation would seem redundant.)

(b) Transitive clauses describing a reflexive situation always (?) contain a body part noun in ACC (O), e.g. (4-469) to (4-472), (4-769), (4-984-A). (Reflexive clauses, too, can contain such a noun, e.g. (4-438), (4-439), (4-463), (4-464), but such examples are very few.)

(c) (4-469) and (4-471) contain a pronoun in the genitive, and this reinforces a reflexive reading.

(d) (4-472) contains *warayi-Ø* 'one's own', and this further reinforces a reflexive reading.

(e) In most instances, the reflexive reading is clear. This is no doubt largely due to the factors listed above. Furthermore, the context may point to the reflexive reading, e.g. (4-769).

(f) The antipassive Vt-*gali*-ZERO (4.9) is highly productive. For instance, for each of (4-470) to (4-472), (4-769) and (4-984-A) the corresponding antipassive involving the same verb is attested. In contrast, the reflexive Vt-*gali*-ZERO and Vt-*li*-ZERO are much less productive. For example, *balga-gali-ZERO* 'hit-ANTI' was often used by Alf Palmer, e.g. (4-258), (4-272-B), (4-285). However, the reflexive *balga-gali-ZERO* 'hit-REFL' was rejected by him.

4.11.3.2. *Vt-li-ZERO* 'anticausative' (*O : d-S*) (*AP, AC*)

This occurs in Alf Palmer's Warrongo. Also, there is one example in Alec Collins' that is tentatively regarded as anticausative.

[1] Anticausative verbs

(a) Alf Palmer's Warrongo: *wajo-li-ZERO* '[fire, tree] burn, [food] get cooked', *balba-li-ZERO* '[round object, e.g. a ball] roll'; *bari-li-ZERO* 'twist, turn-REFL' '[tape of a tape recorder] rotate, [rope] get stuck [around someone's foot], [stone] turn over (?)', [person] feel no good, be mad'.

As seen above, *wajo-li-ZERO* means '[fire, tree] burn, [food] get cooked'. In contrast, for *wajo-gali-ZERO* 'burn, cook-REFL' 'get cooked', e.g. (4-475), the meaning of '[fire, tree] burn' is not attested; this may be due to the incompleteness of the data.

There is also *gada-li-ZERO Vi* 'crack' (mentioned in 3.11.1.6-[3]). This, too, may be an anticausative verb. There are also *gada-bi-L Vi* '[a finger] crack' and *gada-nga-L Vt* 'crack' (4.7.2-[5]-(a-1)).

(b) Alec Collins' Warrongo: *balga-li-ZERO* 'hit-REFL': tentatively regarded as anticausative, cf. (4-484).

All of these anticausative verbs are based on verbs of Type 1 'direct effect'. There is no example of any other type. This is shown in Table 4-20.

Examples involving the transitive *wajo-L* 'burn, cook' and the anticausative *wajo-li-ZERO* 'burn, get cooked' follow.

(4-473) *bama-nggo bori-Ø gagal-Ø wajo-n.* (TT, AP)
man-ERG(A) fire-ACC(O) big-ACC(O) burn-NF
'The man made a big fire.'

(4-474) *bori-Ø gagal-Ø wajo-li-Ø.* (AP)
fire-NOM(d-S) big-NOM(d-S) burn-REFL-NF
'A big fire is burning.'

(4-475) [*manyja-Ø TT*] *garbo nyawa wajo-li-Ø.* (AP)
[food-NOM(d-S)] yet NEG cook-REFL-NF
'[The food] is not cooked yet.'

((4-474) is a description of a big bush fire. The first word in (4-475) was supplied by me, for the purpose of clarification. Like the Japanese adverb *mada*, the Warrongo adverb *garbo* may be translated as 'still' in an affirmative sentence, and as 'yet' in a negative sentence.)

[2] True reflexive reading and anticausative reading of the same verb

In Alf Palmer's Warrongo, the following two verbs each have these two readings. (There is no example in Alec Collins' data.)

(a) *balba-li-ZERO*:

(a-1) true reflexive '[person] roll oneself', e.g. (4-477).

(a-2) anticausative '[round object] roll', e.g. (4-478).

(b) *bari-li-ZERO*

(b-1) true reflexive '[person] turn around', e.g. (4-467), (4-479).

(b-2) anticausative [tape of a tape recorder] rotate, [rope] get stuck [around some one's foot], e.g. (4-480), [stone] turn over (?), [person] feel no good, be mad', e.g. (4-481-B, -A, -B), (4-482), (4-483).

As examples of (a), compare the following.

(4-476) *bama-nggo barri-Ø balba-n.* (TT, AP)

man-ERG(A) stone-ACC(O) roll-NF

'The man rolled a stone.'

(4-477) (Alf Palmer pretended to speak to a man who had been lying on top of a woman.)

yinda ngarra-ngomay-Ø balba-li-n. (AP)

2SG.NOM(d-S) on.top-ABL-NOM roll-REFL-NF

'You rolled yourself [down] from on top [of the woman].'

Alf Palmer's translation for (4-408) is 'From top you roll off'

(4-478) *barri-Ø mirgan-da balba-li-Ø.* (AP)

stone-NOM(d-S) hill-LOC roll-REFL-NF

'The stone rolled down a hill.'

As examples of (b), compare (4-437) (*bari-L* Vt 'twist') and:

(4-479) ('I went on, and:')

ngaya bari-li-n. (AP)

1SG.NOM(d-S) turn-REFL-NF

'I turned around.'

(4-480) *morr-gorr-Ø ngaygo-n-da jina-ngga bari-li-n.* (AP)

rope-NOM(d-S) 1SG-LINK-LOC foot-LOC twist-REFL-NF

'The rope got entangled around my foot.'

There are two idiomatic expressions involving *bari-li-ZERO* 'twist, turn-REFL'. They contain a body part noun *jili* 'eye' or *gaja* 'head'. The expression containing *jili bari-li-ZERO* means 'feel no good, feel dizzy'. The following exchange between Speaker A and Speaker B is cited from a text.

- (4-481) A: *ngani-nggo yina-Ø walwa-nga-n?*
 what-ERG 2SG.ACC no.good-TR-NF
 ‘What has made you feel no good?’
- B: *jamo ngaya=goli jili-Ø bari-li-n.*
 for.no.reason 1SG.NOM(d-S) eye-? twist-REFL-NF
 Lit. ‘For no reason my eyes are twisted’, i.e. ‘I feel no good for no reason.’
- A: *wowo jili-Ø yinda bari-li-n.*
 Oh! eye-? 2SG.NOM(d-S) twist-REFL-NF
 ‘Oh, you feel no good?’
- B: *yowo ngaya bari-li-n.* (AP)
 yes 1SG.NOM(d-S) twist-REFL-NF
 ‘Yes, I feel no good.’

(Note that *jili-Ø* is elliptical in the last sentence.) The other expression contains the noun *gaja* ‘head’. *gaja bari-li-ZERO*. It means ‘have a head ache’, or ‘be mad, be insane’. Examples include (4-482), (4-483), and (4-542) (last B: *nyola* ‘3SG.NOM’ is elided.)

- (4-482) *ngaya gaja-Ø bari-li-n.* (AP)
 1SG.NOM(d-S) head-? twist-REFL-NF
 Lit. ‘My head is twisted’, i.e. ‘I have a headache.’
- (4-483) *gaja-Ø yinda bari-li-n warrngo-ngga.* (AP)
 head-? 2SG.NOM(d-S) twist-REFL-NF woman-LOC
 ‘You are mad/insane because of (or, over) women.’

(Here, the locative case indicates a cause. See 3.6.3-[5].) There is one idiom-like expression involving *Vt-li-ZERO* ‘REFL’ in Alec Collins’ data (recorded by Peter Sutton).

- (4-484) *ngaya gido-Ø balga-li-n.* (AC)
 1SG.NOM(d-S) cold-NOM(d-S) hit-REFL-NF
 Peter Sutton’s translation: ‘I’m feeling cold.’

(4-481-B, -A, -B), (4-482) to (4-484) are tentatively regarded as anticausatives, rather than as true reflexives. But it is difficult to set up a corresponding transitive clause for any of them.

[3] Semantics

When the d-S is inanimate, the correspondence ‘A&O d-S’ (true reflexive) is unlikely to obtain. For example, regarding (4-478), it is unlikely for the stone to roll itself. Such instances are considered anticausative (O d-S). The event described is non-volitional.

When the d-S is human or animate, ‘A&O d-S’ is possible. Examples of ‘A&O d-S’ include (4-477) and (4-479). (The event described is volitional.) ‘O d-S’,

too, may be possible, and the event described will be non-volitional. For example, (4-477) and (4-479) may be considered anticausatives if the event described is non-volitional.

Now, even when the d-S is inanimate, the anticausative reading is not always available. As a set of examples, recall that (4-457) and (4-461), which involve *garbi-li-ZERO* ‘hide-REF’, are true reflexives. Now, consider:

- (4-485) **manyja-Ø garbi-li-n.* (AP)
 food-NOM(d-S) hide-REFL-NF
 Intended meaning: ‘The food was hidden.’

Alf Palmer rejected this sentence, saying ‘i (i.e. food) can’t hide imself’. As additional examples, recall that (4-463), which involves *gonma-li-ZERO* ‘cut-REFL’ (supplied by Alec Collins) is a true reflexive. Now, consider:

- (4-486) **jolay-Ø gonma-li-n.* (TT)
 tree-NOM(d-S) break-REFL-NF
 Intended meaning: ‘A tree broke.’

Alf Palmer rejected this sentence. That is, it is not known under what conditions a *Vt-li-ZERO* can have an anticausative reading. The same applies to *Vt-gali-ZERO*, examined in 4.11.2.2.

[4] Syntactic ergativity

It seems clear that the anticausative *Vt-li-ZERO*, too, conforms to syntactic ergativity (at least when it occurs in purposive subordination; cf. Table 4-17), although there are only two examples. They involve *balba-li-ZERO* ‘roll-REFL’, e.g.

- (4-487) *bama-nggo balmo-Ø goyba-n [balmo-Ø TT] balba-li-yal.* (AP)
 man-ERG(A) ball-ACC(O) throw-NF [ball-NOM(d-S)] roll-REFL-PURP
 ‘The man threw a ball [and it] rolled.’ (O=[d-S])

4.11.4. *Vi-gali-ZERO* and *Noun-gali-ZERO* ‘middle’ (AP)

(Kemmer (1993) includes a wide range of meanings under the rubric of ‘middle’ (What are labelled ‘middle verbs’ below constitute only a portion of Kemmer’s middle verbs.) Middle verbs with *-gali-ZERO* are attested in Alf Palmer’s Warrongo only. There are only three such verbs: *wada-gali-ZERO* ‘play’, *gawa-gali-ZERO* ‘vomit’, and *woga-gali-ZERO* ‘sleep’.

[1] *Wada-gali-ZERO* ‘play’

This verb is related to the intransitive verb (root) *wada-L* ‘[person] play’, e.g. (4-488) (and possibly ‘[river] overflow’).

There is also the intransitive verb *wadali*-ZERO ‘run, flee’ (see 3.11.1.6-[3]), e.g. (3-189), (3-277) (second H), (4-228), Text 3, Line 44. It is a middle verb of the type discussed in 4.11.5.

(4-488) (A description of a corroboree)

gondolo-Ø nyamba-garra-n wada-n. (AP)

emu-NOM(S) dance-ITER-NF play-NF

‘[The people who are decorated as] emus are dancing [and] playing around.’

The middle *wada-gali*-ZERO ‘play’ means ‘[child] play, [person] play (e.g. tennis), [person] have fun (e.g. a man with a woman at night)’, e.g.:

(4-489) *ngoni galbiri-Ø wada-gali-n.* (AP)

there children-NOM(S) play-MID-NF

‘There children are playing.’

(4-490) (Alf Palmer pretended to address two tennis players.)

yobala-Ø=goli wada-gali-ya. (AP)

2DU-NOM(S)=only play-MID-NF

‘You-two play by yourselves.’

(4-491) *gonda-ngga yinda nyila gonda-ngga wada-gali-yal*

night-LOC 2SG.NOM(S) today night-LOC play-MID-PURP

rayi-li-yi-Ø. (AP)

girl-PL-COM-NOM

‘Today at night [i.e. tonight] you, with girls, will have fun.’

(See 4.5.3-[2] for ‘today at night’, i.e. ‘tonight’.)

There are only a dozen examples of *wada-gali*-ZERO. In all of them, the S is human, and the event described is volitional.

[2] *Gawa-gali*-ZERO ‘vomit’

This middle verb is related to the intransitive *gawa*-Y Vi ‘vomit’, e.g. (4-493), and the noun *gawa* ‘stuff vomited’. (*Gawa*- Vi ‘vomit’ is of Y-class; Alf Palmer approved the Y-class apprehensional form *gawa-y-ng-ga* I suggested. The locative form of *gawa* is attested: *gawa-ngga* ‘vomit-LOC’. Clearly *gawa* is used as a noun as well.) There is only one example of the middle *gawa-gali-yal*: (4-493).

(4-492) *bama-Ø gawa-yal.* (AP)

man-NOM(S) vomit-PURP

‘The man is going to vomit.’

(4-493) *ngoni=wa nyola gawa-gali-n.* (AP)

there=FOC 3SG.NOM(S) vomit-MID-NF

‘The man is vomiting there.’

There is another group of words that may be related to the middle *gawa-gali-yal* ‘vomit’: *gawa-L* Vi ‘call out’; the noun *gawal* ‘voice’, e.g. (3-334); and *gawali-ZERO* Vi ‘call out’, e.g. (3-122); *gawal-gawali-ZERO* Vi ‘call out’. The latter two are middle verbs of the type discussed in 4.11.5. (See 3.11.1.6-[1], -[3], -[7] for these words. *Gawa-* Vi ‘call out’ is of L-class; Alf Palmer approved the L-class purposive form *gawa-lgo* I suggested.)

[3] *Woga-gali-ZERO* ‘sleep’

This verb is based on the noun *woga* ‘asleep’. *-gali-ZERO* is generally added to verb roots. Its affixation to a noun is unusual. For examples of this noun, see (3-1) and (3-2). There is only one example of *woga-gali-ZERO* ‘sleep’:

(4-494) *yarro-Ø* *gando-Ø* *woga-gali-n.* (AP)
 this/here-NOM dog-NOM(S) asleep-MID-NF
 ‘This dog is sleeping’ or ‘The/a dog is sleeping here.’

4.11.5. *Vi-li-ZERO*, *Vi-l-Vi-li-ZERO*, *Noun-li-ZERO* and *Adverb-li-ZERO*
 ‘middle’ (AP)

[1] List of these middle verbs

They are listed in 3.11.1.6-[3], -[7], together with some of their examples. All of the three types occur in Alf Palmer’s Warrongo, while only *Vi-li-ZERO* is attested in Alec Collins’ data. There are a large number of middle verbs in which *-li-ZERO* is added to intransitive roots. But its affixation to a noun (i.e. *gido* ‘cold’, resulting in *gido-li-ZERO* ‘get cold’) and to an adverb (i.e. *wonaja* ‘camping out’, resulting in *wonaja-li-ZERO* ‘sleep’) is unusual. In once instance, i.e. *gaga-li-ZERO* ‘get strong, be hard’, e.g. (4-495), *-li-ZERO* is added to a root that is not used by itself: *gaga*. (There are, for instance, *gagal* (*l* present), and *gaga-bara* (*l* absent), both ‘big’. See 2.6-[3] for this *l*.)

(4-495) (‘I drank medicine to make me strong’ was translated as follows.)

ngaya *yarro-Ø* *gamo-Ø* *bija-n*
 1SG.ERG(A) this-ACC water-ACC(O) drink-NF
ngaya *gagali-yal.* (AP)
 1SG.NOM(S) become.strong-PURP
 Lit. ‘I drank this water so that I would become strong.’

The method of hyphenation and glossing of the middle verbs discussed in 4.11.5 was shown in 3.11.1.7-[10].

[2] Syntax

As is the case with basic intransitive verbs, instrument ERG does not occur, and almost certainly cannot occur, with middle verbs. (See 3.6.2-[2].)

Sentences analogous to (4-482), with a body part noun in NOM, are no doubt perfectly acceptable, although there is no example.

These middle verbs, too, conform to syntactic ergativity (at least when they occur in purposive subordination; cf. Table 4-17). There are many examples, e.g. (4-502) (first A) and:

- (4-496) *gowa-ngomay-Ø ngaya yani-Ø [ngaya TT] magoli-yal.* (AP)
 west-ABL-NOM 1SG.NOM(S) come-NF [1SG.NOM(S)] work-PURP
 ‘I came from the west in order to work.’ (S=[S])

[3] Semantics

(a) The S is generally human, e.g. (4-495), (4-496), (4-501), or a non-human animate, e.g. (3-201) (cattle) and (4-228) (a kangaroo). But there are examples of an inanimate S, e.g. (4-498).

(4-497) (Alf Palmer described a torpedo as follows.)

- ngona-Ø nyola bandali-yal.* (AP)
 that-NOM 3SG.NOM(S) explode-PURP
 Lit. ‘That he will explode.’

(4-498) (‘The water reflects the light’ was translated as follows.)

- gamo-Ø bandali-n nyara-Ø.* (AP)
 water-NOM(S) explode-NF light-NOM(S)

By means of (4-497), Alf Palmer described a Japanese suicide torpedo used during Word War II; each torpedo contained a soldier inside. Probably the pronoun *nyola* ‘3SG.NOM’ refers to the soldier, and not the torpedo. The structure of (4-498) is difficult to analyze. The two nouns may be considered constituting one single NP (a discontinuous NP) or they may be just two separate NPs.

(b) In the examples available, the event described is volitional if the S is human or a non-human animate, and non-volitional if the S is inanimate.

(c) In some instances, the middle verb seems to have much the same meaning as that of the related basic intransitive verb. Thus, compare the following sentences. The basic intransitive *banda-L*, e.g. (4-499) and (4-500) and the middle *bandali-ZERO*, e.g. (4-500), seem have much the same meaning: ‘emerge, go out, come out’.

(4-499) (The kangaroo was cooked.)

- banda-n jami-Ø bamba-ngomay-Ø.* (AP)
 emerge-NF fat-NOM(S) guts-ABL-NOM
 ‘[Some] fat came out [i.e. dripped] from the guts.’

(4-500) *jolgi-ngomay-Ø ngali-Ø banda-n.* (AP)
 scrub-ABL-NOM 1DU-NOM(S) emerge-NF
 ‘We came/went out of the scrub.’

(4-501) *ngaya yamba-ngomay-Ø bandali-n.* (AP)
 1SG.NOM(S) camp-ABL-NOM emerge-NF
 ‘I came/went out from the camp.’

Unlike *banda-L* ‘emerge’, there is no example of *bandali-ZERO* ‘emerge’ with an inanimate S. But this may be due to the incompleteness of the data.

(d) Where a reduplicated form and the non-reduplicated form are available, no semantic difference between them is known, although the reduplicated form would be expected to mean ‘repeatedly’ or ‘intensely’. For example, see (4-502) (cited from a text; an exchange between Speaker A and Speaker B). It contains *gawali-ZERO* and *gawal~gawali-ZERO*. No semantic difference between them is known.

(4-502) A: *yino-n-go jilbay-Ø nyola*
 2SG-LINK-DAT knowing-NOM 3SG.NOM(S)
 [*nyola* TT] *gawali-n.*
 [3SG.NOM(S)] call.out-NF
 ‘He knows you [and he] is calling out.’ (S=[S])

(B: Where is he from?)

A: *gonggarri-ngomay-Ø nyola gawal~gawali-n*
 north-ABL-NOM 3SG.NOM(S) call.out-call.out-NF
yino-n-go. (AP)
 2SG-LINK-DAT
 ‘He [is] from the north [and he] is calling out to you.’

4.12. Reciprocal construction

4.12.1. Introductory notes

The reciprocal construction is attested in Alf Palmer’s Warrongo only. It probably existed, but is not attested, in Alec Collins’ Warrongo. Reciprocal verbs are formed by means of the reciprocal suffix *-wa-Y*. It is generally added to transitive roots, and turns them into intransitive verbs. That is, the reciprocal construction is surface-intransitive. Compare the following pair of a transitive clause and a reciprocal clause.

(4-503) *gando-nggo bama-Ø baja-n.* (AP)
 dog-ERG(A) man-ACC(O) bite-NF
 ‘The dog bit a man.’

- (4-504) *gando-Ø* *baja-wa-n.* (AP)
 dog-NOM(d-S) bite-RECP-NF
 ‘The dogs bit each other.’

Reciprocal verbs belong to Y-class. Their paradigm is in Table 3-15. Among the forms listed there, the nonfuture-2 and the apprehensional were obtained in elicitation only, and they are not attested in texts.

- (a) Nonfuture-2 (-y): *balga-wa-y* ‘hit-RECP-NF’, e.g. (4-505-b), *birra-wa-y* ‘tell, talk-RECP-NF’, e.g. (4-544), *jingga-wa-y* ‘punch-RECP-NF’
 (b) Apprehensional (-yngga): *baba-wa-y-ngga* ‘stab-RECP-APPR’, e.g. (4-506), *balga-wa-y-ngga* ‘hit-RECP-APPR’.

(4-505) (‘I stopped you-two from fighting’ was translated by Alf Palmer as follows.)

- a. *ngaya* *yarro-n-da* *jana-y.*
 1SG.NOM(S) this-LINK-LOC stand-NF
 ‘I am standing here.’

- b. *jana-Ø* *balga-wa-y.* (AP)
 3PL-NOM(d-S) hit-RECP-NF
 ‘They are hitting [i.e. fighting] each other.’

- (4-506) *bola-Ø* *bama-Ø* *baba-wa-yngga.* (AP)
 3DU-NOM(d-S) man-NOM(d-S) spear-RECP-APPR
 ‘They-two, the men, might spear each other.’

Reciprocal verbs have yielded two examples of the participle-2 (-*nji*). (One of them occurs in a text; see (4-700).) (In this respect, they differ from iterative verbs (-*garra-Y*) and antipassive/middle verbs with -*gali-ZERO*.) In contrast, all of these three groups of verbs have produced no example of the participle-1 (-*nyo*) (Table 3-15).

The central meaning of -*wa-Y* is ‘reciprocal’, but it also has a few other non-productive meanings, such as ‘sociative’

4.12.2. Reciprocal verbs

The reciprocal suffix -*wa-Y* is generally added to transitive roots; this use is productive. Also, it is (non-productively) attached to two intransitive roots. All the roots to which -*wa-Y* is added (including the two intransitive roots) belong to L-class, with one possible exception (see 4.12.3-[3]-(d)). Furthermore, -*wa-Y* is added to one noun. It seems that -*wa-Y* cannot be added to another stem-forming suffix (or to any inflectional suffix). (See 4.12.9.1.) A full list of attested reciprocal verbs is given below. The gloss ‘RECP’ is omitted.

[1] Based on a two-place transitive root

(a) Type 1 'direct effect': *balga-wa-Y* 'kill, hit', *goni-wa-Y* 'fight, kill', *baba-wa-Y* 'stab, spear', *moga-wa-Y* 'hold, grab', *jingga-wa-Y* 'punch', *baygo-wa-Y* 'bash', *bambo-wa-Y* 'shoot', *balba-wa-Y* 'roll', *gamba-wa-Y* 'cover', *binda-wa-Y* 'put down', *wanda-wa-Y* 'leave', *moja-wa-Y* 'eat', *baja-wa-Y* 'bite', *jonda-wa-Y* 'kiss', *jaynyja-wa-Y* 'copulate with', *bangga-wa-Y* 'paint', *wajo-wa-Y* 'burn', *baya-wa-Y* 'sing'.

(b) Type 2 'perception': *nyaga-wa-Y* 'see, look at', *jolnyjo-wa-Y* 'watch, stare', *jaymba-wa-Y* 'find'.

These verbs are confined to Type 1 'direct effect' and Type 2 'perception' of two-place verbs, and there is no example of any other type. This is shown in Table 4-20.

[2] There are two compound reciprocal verbs based on compound transitive verbs. Compare the following verbs.

(a) Transitive verbs: *bari-L* and *bayi-L* 'twist, turn'. (As shown in (2-56), *bari-L* alternates with *bayi-L*.)

(b) Compound transitive verbs: *gogo-bayi-L* 'argue/quarrel with'. (Lit. 'twist speech'. The noun *gogo* means 'speech'.) *Gogo-bari-L* (with *bari-L*) is not attested.

(c) Compound reciprocal verbs: *gogo-bayi-wa-Y* and *gogo-bayo-wa-Y* 'argue/quarrel with each other'. See 4.12.4.2-[1]-(b). (Clearly, *-bayi-L* changed into *-bayo-L*, resulting in *gogo-bayo-L*.) The reciprocal versions are more common than the transitive counterparts.

[3] Based on a three-place transitive root

goyba-wa-Y 'give', *birra-wa-Y* 'talk, tell', *mayga-wa-Y* 'tell', *ngonba-wa-Y* 'tell, show', *banjo-wa-Y* 'ask'. (See 4.12.3-[3].)

[4] Based on a one-place intransitive root

jarga-wa-Y 'go in, enter' (See 4.12.6.1-[2] and 4.12.6.2.)

[5] Involving the intransitive verb *waga-L* Vi 'rise, get up'

Compare the following verb phrases.

(a) Intransitive verb phrases: *goli-Ø waga-L* and *goli-yi-Ø waga-L* 'get angry [with someone]'

(b) Reciprocal verb phrases: *goli-Ø waga-wa-Y* and *goli-yi-Ø waga-wa-Y* 'get angry with each other' (See 4.12.3-[2].)

(*Goli-Ø* 'angry-NOM', *goli-yi-Ø* 'angry-COM-NOM. The meaning of the comitative case in *goli-yi-Ø* is not known (3.6.8-[4]).)

[6] Based on the noun *gogo* ‘speech, language’
gogo-wa-Y tentative gloss: ‘scold, growl at’. (See 4.12.9.2.)

4.12.3. Syntax

As noted in 4.12.1, *-wa-Y* has the central meaning of ‘reciprocal’, and also a few other non-productive meanings. The syntax of reciprocal verbs with a reciprocal meaning will be examined below. Non-reciprocal uses will be dealt with in 4.12.6.

Table 4-36. Two-place transitive and corresponding reciprocal clauses

transitive	Actor-ERG(A)	Undergoer-ACC(O)	e.g. (4-503)
reciprocal	Actor/Undergoer-NOM(d-S)		e.g. (4-504)

[1] Based on two-place transitive roots

The correspondence between a two-place transitive clause and the corresponding reciprocal clause is shown in Table 4-36.

[2] Involving the intransitive verb *waga-L* Vi ‘rise, get up’

Goli-Ø waga-L generally takes the NOM-DAT frame, e.g. (3-8), and exceptionally the NOM-GEN frame in one example, e.g. (3-121). The reciprocal counterpart takes the NOM frame, e.g. (4-507). See Table 4-37.

Table 4-37. *Goli waga-L* ‘get angry’ and *goli waga-wa-Y* ‘get angry-RECP’

intransitive	(a)	NOM	DAT	e.g. (3-8)
	(b)	NOM	GEN	e.g. (3-121)
reciprocal		NOM		e.g. (4-507)

(4-507) *ngali-Ø yinda goli-Ø waga-wa-n.* (AP)
 1DU-NOM(S) 2SG.NOM(S) angry-NOM rise-RECP-NF
 ‘We-two, including you, [i.e. you and I] got angry with each other.’

(See 4.5.2.1.2-[2] for the NPs of the type ‘A including B’.)

[3] Based on three place verbs

(a) *Goyba-wa-Y* 'give-RECP'

Table 4-38. *Goyba-L* 'give' and *goyba-wa-Y* 'give-RECP'

transitive	donor	gift	recipient	example
(a)	ERG(A)	ACC(O)	DAT	(4-15), (4-16)
(b)	ERG(A)	ACC(O)	GEN	(4-17), (4-18-b)
(c)	ERG(A)	ERG	ACC(O)	(4-21), (4-22)
reciprocal	donor/recipient	gift	recipient	
(a/b-1)	NOM(d-S)	ACC		(4-508)
(c-1)	NOM(d-S)	ERG		(4-509)

(4-508) *bama-Ø manyja-Ø goyba-wa-n.* (AP)
 man-NOM(d-S) food-ACC give-RECP-NF
 'The men gave food to each other.'

(4-509) *bama-Ø manyja-nggo goyba-wa-n.* (AP)
 man-NOM(d-S) food-ERG give-RECP-NF
 '(As above.)'

The transitive *goyba-L* 'give' has the three case frames shown in Table 4-1: (a), (b), (c). Two corresponding reciprocal clauses are attested: (a/b-1) and (c-1). See Table 4-38. (a/b-1) corresponds to (a) and (b), while (c-1) corresponds to (c). In each of (a/b-1) and (c-1), the gift NP (ACC or ERG) can occur.

In (a/b-1) and (c-1), the donor and the recipient are coreferential. There is no example of a reciprocal clause in which the donor and the gift are coreferential (as in 'They gave themselves to each other'), although this is presumably possible.

(b) *Mayga-wa-Y* 'tell-RECP'

This transitive verb has the two case frames shown in Table 4-3: (a) and (b). See Table 4-39.

Table 4-39. *Mayga-L* 'tell' and *mayga-wa-Y* 'tell-RECP'

transitive	speaker	topic	hearer	example
(a)	ERG(A)	DAT	ACC(O)	(4-33), (4-34)
(b)	ERG(A)	ACC(O)	DAT	(4-35)
reciprocal	speaker/hearer	topic	hearer	
(a-1)	NOM(d-S)	DAT		(4-511)
(b-1)	NOM(d-S)	ACC		(4-510) (?)

In all of the examples of the reciprocal *mayga-wa-Y*, the topic NP and the hearer NP are elliptical, with one exception: (4-510). It was given by Alf Palmer spontaneously. It would be an example of (b-1). However, when the tape was replayed, Alf Palmer replaced *ngani-Ø* with the dative *ngani-wo*, resulting in (4-511). It is an example of (a-1). That is, it is not certain if (4-510) is acceptable. It is in view of this that it is accompanied by a question mark.

(4-510) ?*ngani-Ø ngali-Ø mayga-wa-yal?* (AP)
 what-ACC 1DU-NOM(d-S) tell-RECP-PURP
 ‘What shall we-two tell each other?’

(4-511) *ngani-wo ngali-Ø mayga-wa-yal?* (AP)
 what-DAT 1DU-NOM(d-S) tell-RECP-PURP
 ‘What shall we-two tell each other about?’

(c) *Birra-wa-Y* ‘tell, talk, speak-RECP’

This verb is almost always used in the reciprocal form (about 240 examples), e.g. (4-515) to (4-518), although it can occur in the antipassive form (9 examples), e.g. (4-377), and also can be used as a transitive verb by itself (4 or possibly 6 examples), e.g. (4-512) to (4-514). The examples are highly elliptical, and their case frames are difficult to determine. Nonetheless, the data suggest that the transitive *birra-L* and the reciprocal *birra-wa-Y* may have the case frames shown in Table 4-40. The attested case frame of the antipassive *birra-gali-ZERO* is included in the table.

Table 4-40. *Birra-L* ‘tell’ and *birra-wa-Y* ‘tell-RECP’

transitive	speaker	speech or language	topic	hearer	possible example
(a)	ERG(A)	?	DAT	ACC(O)	(4-512), (4-513)
(b)	ERG(A)	?	ACC(O)	DAT	(4-514)
(c)	ERG(A)	ACC(O)	DAT	?	no example
antipassive	NOM(d-S)	?	DAT	?	(4-377)
reciprocal	speaker/hearer	speech or language	topic	hearer	
(a-1)	NOM(d-S)	?	DAT		(4-515)
(b-1)	NOM(d-S)	?	ACC		(4-516)
(c-1)	NOM(d-S)	ACC	DAT		(4-517), (4-518)

If we ignore the noun denoting speech or a language (and also if we leave the antipassive out of consideration), (a) and (b) of Table 4-40 are the same as (a) and (b) of *mayga-L* ‘tell’, respectively (Table 4-39). However, (c) and (c-1) of Table 4-40, each

of which contains an NP in the ACC referring to speech or a language, are not attested in Table 4-40. It is not known if (a), (b), (a-1) and (b-1) of Table 4-40 can contain an NP in the ACC referring to speech or a language. Nor is it known if (c) can contain an NP denoting the hearer. If any of (a) to (c) can contain such an additional NP, then *birra-L* ‘tell, talk, speak’ will be not three-place, but four-place, and it will be the only four-place verb in the entire language. *Birra-wa-Y* in (c-1) is three-place, and it is the only three-place reciprocal verb in the entire language. All the other reciprocal verbs are at most two-place. Examples follow. (4-517) contains the noun *gogo* ‘speech, a language’, and (4-518) a language name (*Jirrbal*).

- (4-512) *ngani-wo birra-lgo?* (AP)
 what-DAT tell-PURP
 ‘What shall [he] tell [her] about?’
- (4-513) *wanyo-lo yina birra-n?* (AP)
 who-ERG(A) 2SG.ACC(O) tell-NF
 ‘Who told you [about it]?’
- (4-514) *bama-nggo warrngo-wo birra-n.* (AP)
 man-ERG(A) woman-DAT tell-NF
 ‘The man told [something] to a woman.’
- (4-515) *warrngo-wo ngali-Ø birra-wa-ya.* (AP)
 woman-DAT 1DU-NOM(d-S) tell-RECP-IMP
 ‘Let’s tell each other [i.e. talk] about women.’
- (4-516) *birra-wa-yal ngali-Ø ngani-Ø birra-wa-yal?*
 tell-RECP-PURP 1DU-NOM(d-S) what-ACC(O) tell-RECP-PURP
 ‘What shall we-two tell each other?’
- (4-517) *gogo-Ø ngali-Ø birra-wa-yal*
 speech, language-ACC(O) 1DU-NOM(d-S) tell-RECP-PURP
warrngo-wo. (AP)
 woman-DAT
 Lit. ‘We will tell speech to each other about women’, i.e. ‘We will talk about women.’
- (4-518) (‘You think I don’t understand the Jirrbal language, and:’)
jirrbal-Ø yorra-Ø birra-wa-n ngaygo-n-go. (AP)
 Jirrbal-ACC(O) 2PL-NOM(d-S) tell-RECP-NF 1SG-LINK-DAT
 ‘You (PL) are speaking [in] Jirrbal to each other about me.’

Alec Collins’ data contain *birra-li-go* ‘talk-?-PURP’. In his Warrongo, *-li-* may be ‘antipassive’ (4.9.1), ‘reflexive’ (4.11.3.1), or ‘middle’ (4.11.5). *Birra-li-go* ‘talk-?-PURP’ appears to be an antipassive verb, but the transitive *birra-* is not attested. Nor is the reciprocal *birra-wa-Y* attested.

(d) *Ngonba-wa-Y* ‘tell, show-RECP’

Like *birra-L* ‘tell, talk, speak’, the transitive *ngonba-L* ‘tell, show’ is hardly ever used as a verb by itself. It generally occurs in the reciprocal form *ngonba-wa-Y* ‘tell, show-RECP’ or in the transitive form *ngonbaynga-L* ‘show, teach’. (See 4.7.2-[6]-(a) for the formation of *ngonbaynga-L*.) There is only one example of *ngonba-L* ‘tell, show’ *ngonba-n* ‘tell, show-NF’. This only example is highly elliptical, and the case frame of *ngonba-L* is not known. Similarly, in all of the examples of *ngonba-wa-Y* ‘tell, show-RECP’, the topic and the hearer are elliptical, and its case frame is not known. An example:

(4-519) (‘We intended to kill our enemies.’)

ngana-Ø *jili-nggo ngonba-wa-n*. (AP)
 1PL-NOM(d-S) eye-ERG tell-RECP-NF
 ‘We told each other [about this intention] with [our] eyes.’

(e) *Banjo-wa-Y* ‘ask-RECP’

The case frame of the transitive *banjo-L* ‘ask [i.e. enquire or request]’ is discussed in 4.3.3.2-[12]. The case frame of the reciprocal *banjo-wa-Y* is not known.

[4] Instrument ERG

As is the case with reflexive clauses (see Table 4-33), an instrument ERG can occur in reciprocal clauses, to be precise, those reciprocal clauses corresponding to transitive clauses. Compare (4-520) and (4-521). The instrument may be a body part, e.g. (4-519).

(4-520) *bama-nggo gando-Ø balga-n jola-nggo*. (AP)
 man-ERG(A) dog-ACC(O) hit-NF stick-ERG
 ‘The man hit a dog with a stick.’

(4-521) *bama-Ø balga-wa-n jola-nggo*. (AP)
 man-NOM(d-S) hit-RECP-NF stick-ERG
 ‘The men hit each other with sticks.’

Almost certainly, an instrument ERG cannot occur in non-derived intransitive clauses (3.6.2-[2]). Consequently, the same applies to reciprocal clauses that correspond to intransitive clauses.

[5] Body part noun

A whole-part relationship (typically involving body parts) can be expressed by the juxtaposition of the whole and the part, in the same case (4.20.5), e.g. (4-437), (4-522). Furthermore, the whole may be expressed by the genitive, e.g. (4-523). As is the case with reflexive clauses (Table 4-33), a body part noun (ACC(O))(?) or

NOM(d-S)(?) can occur in reciprocal clauses (to be precise, reciprocal clauses corresponding to transitive clauses), e.g. (4-524). The correspondence can be shown as in Table 4-41.

Table 4-41. Transitive and reciprocal clauses involving a body part noun

transitive	Actor-ERG(A) Actor-ERG(A)	whole-ACC(O) whole-GEN	body part-ACC(O) body part-ACC(O)	(4-522), (4-525) (4-523)
reciprocal	Actor/whole-NOM(d-S)		body part-?	(4-524), (4-526)

(4-522) *ngaya nyonya mano-Ø moga-n.* (AP)
1SG.ERG(A) 3SG.ACC(O) neck-ACC(O) grab,hold-NF
'I grabbed his neck.'

(4-523) *ngaya bolo-Ø nyongo moga-n.* (AP)
1SG.ERG(A) belly-ACC(O) 3SG.GEN grab,hold-NF
'I grabbed his belly.'

(4-524) ('The men were being silly.')

bama-Ø=goli mano-Ø moga-wa-n. (AP)
man-NOM(d-S)=only neck-? grab,hold-RECP-NF
'The men grabbed each other's neck for no reason.'

(The enclitic =*goli* means 'only, alone, by oneself, for no reason'. See 4.25-[2].) Another pair of examples:

(4-525) *ngaya warrngo-Ø mara-Ø moga-n.* (AP)
1SG.ERG(A) woman-ACC(O) hand-ACC(O) hold-NF
'I held the woman's hand.'

(4-526) *ngali-Ø mara-Ø moga-wa-n.* (AP)
1DU-NOM(d-S) hand-? hold-RECP-NF
'We-two held each other's hand', i.e. 'We shook hands.'

(The expression *mara-Ø moga-wa-Y* generally means 'shake hands'. Alf Palmer used this sentence to describe our shaking hands on my return to Palm Island in June 1972.) A further example:

(4-527) (Alf Palmer described homosexual men as follows.)
[*bama-Ø TT*] *gombo-Ø baba-wa-n.* (AP)
[man-NOM(d-S)] anus-? stab-RECP-NF
Lit. '[The men] stab each other's anus.'

The exx. (4-524), (4-526) and (4-527) each contain a body part noun. There is no example of a reciprocal clause containing a possession other than a body part (as in ‘They took each other’s hat’). (That is, these expressions involving a possession are confined to ‘body part’, which occupies the highest position on the possession cline. This is shown in Table 4-45.)

[6] Syntactic ergativity

All the attested instances of reciprocal verbs conform to syntactic ergativity (at least when they occur in purposive subordination: cf. Table 4-17), e.g. Text 3, Line 20, and:

(4-528) *jana-nya* *ngona-n-da* *ngaya* *wanda-n*
 3PL-ACC(O) that-LINK-LOC 1SG.ERG(A) leave-NF
 [*jana-∅* TT] *balga-wa-yal.* (AP)
 [3PL-NOM(d-S)] hit-RECP-PURP (O=[d-S])
 ‘I left them there so that [they] would hit each other.’

(4-529) *jana-∅* *mayga-wa-n*
 3PL-NOM(d-S) tell-RECP-NF
 [*jana-∅* TT] *ngaygo-n-go* *balga-gali-yal.* (AP)
 [3PL-NOM(d-S)] 1SG-LINK-DAT kill-ANTIP-PURP
 ‘They are telling each other [that they] will kill me’, i.e. ‘They are talking about killing me.’ (d-S=[d-S])

The ex. (4-529) is an example of complementation (4.8.5-[2]-(b), 4.9.7-[3]).

4.12.4. Semantics

There are many examples of the reciprocal construction. But there is no example of a ‘beneficiary’ reading, e.g. ‘They cooked food for each other’ It is not known if this reading is possible.

Now, the meanings of the reciprocal construction can be classified as follows.

- (a) True reciprocal: an action (or the like) is reciprocated between/among the participants.
- (b) Non-reciprocal: there is no such action (or the like).

Reciprocals of (a) are productive, and their semantics will be examined in 4.12.4.1 and 4.12.4.2. Those of (b) are not productive, and their semantics will be discussed separately, together with their morphosyntax, in 4.12.5.1 and 4.12.6.

4.12.4.1. *Completely coreferential and partly coreferential*

True reciprocals can be classified as follows, although admittedly it is not always easy to assign a given instance to one type rather than the other.

- (a) Completely coreferential: the participant(s) who perform(s) the action and the one/those who receive(s) it are completely coreferential.
 (b) Partly coreferential: the two sets of participants are only partly coreferential.

If the d-S has plural (not dual) referents, then out of context a given reciprocal clause may be either completely coreferential or partly coreferential. For example, (4-504) may have plural referents. If each of the dogs did the biting and also got bitten, then (4-504) is completely coreferential. But if dog A bit some other dog(s) but did not get bitten, or, if dog B got bitten but did not bite any other dog, and so on, then (4-504) is partly coreferential. Another example is Text 3, Line 21. It seems that a ‘partly coreferential’ reading is more plausible when the number of the participants is fairly large than when it is small. Clear examples of a ‘partly coreferential’ reading include the following.

(4-530) (‘They had a (inter-tribal?) fight.’)

jana-Ø *ngoni balga-wa-n* *moja-wa-n*. (AP)
 3PL-NOM(d-S) there kill, hit-RECP-NF eat-RECP-NF
 ‘They killed each other [and] ate each other there.’

(4-531) *boron-da* *jana-Ø* *balga-wa-n* *balga-wa-n*
 fighting.ground-LOC 3PL-NOM(d-S) kill-RECP-NF kill-RECP-NF
balba-wa-n *balba-wa-n* *jingga-wa-n*. (AP)
 roll-RECP-NF roll-RECP-NF punch-RECP-NF

‘At the fighting ground, they killed each other, killed each other, rolled each other, rolled each other [i.e. rolled dead bodies], [and] punched each other.’

Regarding (4-530), for instance, obviously it is not the case that each participant did the killing and also was killed. Rather, some did the killing only without being killed, while some others were killed possibly without doing the killing. There may also be some who did the killing and also were killed. Similarly for the situation concerning the eating.

Where the d-S has dual (not plural) referents, all the examples are ‘completely coreferential’, e.g. (4-506), (4-515) to (4-517), (4-526). When the d-S is dual, the ‘partially coreferential’ reading (as in ‘I painted you and me’ and ‘You painted you and me’) is plausible, but there is no such example. (There are such examples in Djaru (Tsunoda 1981a: 157–159).)

4.12.4.2. *Simultaneous and alternate*

True reciprocals can also be classified as follows (Takahashi 1988: 52–53).

- (a) Simultaneous: reciprocation of the action is done simultaneously.
 (b) Alternate: reciprocation is done alternately.

This classification and that in 4.12.2.1 (completely coreferential vs. partly coreferential) are mutually compatible.

[1] Simultaneous

Out of context, most instances of true reciprocals may be either ‘simultaneous’ or ‘alternate’. For instance, in (4-504), the dogs may have bitten each other simultaneously or alternately.

There are verbs which may be termed ‘symmetrical verbs’, e.g. the transitive roots *jonda-L* ‘kiss’, *jaymyja-L* ‘copulate with’, *goni-L* ‘fight’, and the compound transitive verbs *gogo-bayi-L* and *gogo-bayo-L* ‘quarrel with, argue with’. The reciprocal versions of such verbs naturally describe simultaneous reciprocal situations. Examples follow.

- (a) The transitive *jaymyja-L* ‘copulate with’ generally takes a man for the A and a woman for the O, e.g. (4-532) and (4-534-A). In addition, the reverse is possible, and the A can be a woman, and the O a man, as in (4-533); this was confirmed by Alf Palmer. An example of a reciprocal version is (4-534-B). All of these examples are cited from texts.

- (4-532) (‘He likes women.’)

ngoni=rro ngoni=rro jaymyja-n nyola warrngo-Ø. (AP)
 there=again there=again copulate.with-NF 3SG.ERG(A) woman-ACC(O)
 ‘He has sex with women here and there.’

(*Ngoni=rro ngoni=rro* means ‘here and there’ (4.25-[5]).

- (4-533) (An example cited from a text.)

nyola nganya jaymyja-n. (AP)
 3SG.ERG(A) 1SG.ACC(O) copulate.with-NF
 ‘She had sex with me [a man].’

- (4-534) (A man says to a woman, ‘You are my woman.’)

A: *ngaya=goli yina jaymyja-lgo.* (AP)
 1SG.ERG(A)=only 2SG.ACC(O) copulate.with-PURP
 ‘I will have sex with you by myself.’

(She replies as follows.)

B: *ngali-Ø yarro-n-da jaymyja-wa-ya.* (AP)
 1DU-NOM(d-S) this-LINK-LOC copulate.with-RECP-IMP
 Lit. ‘Let’s copulate with each other here.’

(Alf Palmer's tone of voice suggests that the speaker of B is intended to be the woman, and not the man.)

(b) The transitive verbs *gogo-bayi-L* and *gogo-bayo-L* 'quarrel with, argue with' and their reciprocal counterparts *gogo-bayi-wa-Y* and *gogo-bayo-wa-Y* (4.12.2-[1]). Examples:

(4-535) *nganya nyola gogo-bayi-n.* (AP)
1SG.ACC(O) 3SG.ERG(A) speech-twist-NF
'He argued/quarreled with me.'

(4-536) *ngali-Ø gogo-bayi-wa-n.* (AP)
1DU-NOM(d-S) speech-twist-RECP-NF
'We argued/quarreled with each other.'

(c) 'Symmetrical verbs', listed above, describe situations that are naturally reciprocal. The use of the reciprocal suffix seems redundant. Despite this, they seem to require the reciprocal suffix in order to have a reciprocal reading. Compare, for instance:

(4-537) *ngali-Ø jonda-wa-n.* (AP)
1DU-NOM(d-S) kiss-RECP-NF
'We kissed each other.'

(4-538) *ngali-Ø jonda-n.* (TT)
1DU-ERG(A) kiss-NF
Tentative translation: 'We kissed [someone else].'

It seems certain that (4-538) means 'We kissed [someone else]', and not 'We kissed each other'. Almost certainly it cannot have the reciprocal reading. It has to be considered as an elliptical sentence, with the O NP understood. That is, the reciprocal suffix appears to be required even when the situation described is naturally reciprocal. This is in sharp contrast with reflexives suffix *-gali-ZERO* and *-li-ZERO*. Reflexive situations are often expressed by means of transitive clauses, rather than a clause with a reflexive suffix. See 4.11.3.1-[8].

(d) Transitive verbs such as *jaymba-L* 'find' and expressions such as 'hold someone's hand' are not symmetrical. However, their reciprocal counterparts will normally be considered symmetrical, and also simultaneous. For example, compare the transitive *jaymba-L* 'find' in (4-87) and (4-341) with the reciprocal *jaymba-wa-Y* literally 'find each other', i.e. 'meet [by arrangement?]' in (3-232) and (4-539).

(4-539) ('He and I decided to have a fight.')

ngona-ngomay ngali-Ø boron-da jaymba-wa-n. (AP)
that-after 1DU-NOM(d-S) fighting.ground-LOC find-RECP-NF
'After that [i.e. and then] we met at the fighting ground.'

(See 3.8.1-[9] for *ngona-ngomay* ‘after that; and then’.) As an additional pair of examples, compare the transitive ‘hold someone’s hand’ in (4-525) and the reciprocal ‘shake hands’ in (4-526).

[2] Alternate

Certain reciprocal verbs are ‘alternate’ due to their semantics, e.g. ‘tell each other/talk with each other’ in (4-511), (4-515) to (4-518), (4-529). People do not normally talk simultaneously; they take turns (hence the need for turn-taking rules). Another example is (4-527); it will be impossible for the men to stab each other simultaneously (with their penis).

There are adverbs *baya* ‘in one’s turn’ and *baya~baya* ‘in one’s turn, in return, in turn, reciprocally’ (3.8.2-[1]). (The reduplicated form is almost always used, and the non-reduplicated form is hardly ever used.) The use of either of these adverbs in a reciprocal clause is not obligatory. Nor is it common; I have found only four examples. Nonetheless, inclusion of either of them necessarily selects an ‘alternate’ reading. The following, cited from a text, nicely illustrates the meaning ‘in turn’.

- (4-540) a. *gajarra-Ø nyola balga-n goyba-lgo ngaygo-n-go.*
 possum-ACC(O) 3SG.ERG(A) kill-NF give-PURP 1SG-LINK-DAT
 ‘He killed a possum [and he] gave [it] to me.’
- b. *ngaya balga-n nyongo-n-go goyba-lgo.*
 1SG.ERG(A) kill-NF 3SG-LINK-DAT give-PURP
 ‘I killed [a possum and I] gave [it] to him.’
- c. *ngali-Ø baya~baya goyba-wa-n. (AP)*
 1DU-NOM(d-S) in.turn~in.turn give-RECP-NF
 ‘We gave [a possum] to each other in turn.’

4.12.5. Lexicalization

Certain reciprocal verbs exhibit irregularities in their formation, use and/or meaning. They will be dealt with below.

4.12.5.1. Reciprocals with a singular d-S

The four reciprocal verbs listed below generally have a ‘true reciprocal’ meaning. (The gloss ‘RECP’ is omitted.)

birra-wa-Y ‘tell, talk, speak’ (10 examples), *jaynyja-wa-Y* ‘copulate with’ (2 examples), *goni-wa-Y* ‘fight’ (1 example), *goyba-wa-Y* ‘give’ (1 example)

(They each correspond to a transitive (and not an intransitive) root.) However, in a very small number of examples they occur with a singular d-S, despite the use of

the reciprocal suffix *-wa-Y* on the verb. (The number of the examples is shown in a parenthesis.) We shall look at each of these reciprocal verbs.

[1] *Birra-wa-Y* ‘tell, talk, speak-RECP’

As noted in 4.12.3-[3]-(c), *birra-L* Vt ‘tell, speak, talk’ is almost always used in the reciprocal form *birra-wa-Y* (of which there are 240 examples). Among them, there are perhaps 10 examples with a singular d-S. At least two of them may be considered possessing the ‘talk by oneself’ reading. Note that this is not really the reflexive reading as characterized in 4.12.3. This is because the actor is not coreferential with (the referent of) any NP.

(4-541) (‘I am lying here and listening to you, so.’)

yinda=goli birra-wa-ya ngaygo-n-go. (AP)
 2SG.NOM(d-S)=only tell-RECP-IMP 1SG-LINK-DAT
 ‘Talk to me by yourself.’

(4-542) (A conversation cited from a text.)

A. *ngani-wo nyola jana-garra-n?*
 what-DAT 3SG.NOM(S) stand-ITER-NF
 ‘What is he standing there for?’

B. *nyawa=bajon*
 NEG=DNK
 ‘I do not know [what he is standing there for].’

B. *ngani-wo=bajon.*
 what-DAT=DNK
 ‘I do not know what [he is standing there] for.’

B. *nyola=goli jana-garra-n.*
 3SG.NOM=only stand-ITER-NF
 ‘He is standing [there] by himself.’

B. *nyola=goli birra-wa-n.* (AP)
 3SG.NOM(d-S)=only tell-RECP-NF
 ‘He is talking by himself.’

A. *wanyo-ngo-n-ji?*
 who-LINK-LINK-COM
 ‘Who [is he] with?’

B. *nyawa nyola=goli*
 NEG 3SG.NOM=only
 ‘No. He [is] alone, by himself.’

B. *gaja-Ø bari-li-n.* (AP)
 head-? twist-REFL-NF
 ‘[His] head is twisted’, i.e. ‘He is mad’.

(For the enclitics =*bajon* ‘I do not know’ and =*goli* ‘only, alone, by oneself’, see 4.25-[2] and -[3], respectively. For *gaja-Ø bari-li-n* ‘be mad’, see 4.11.3.2-[2].) In (4-541), the context indicates that this sentence means ‘talk by oneself’ The same applies to (4-542) (fourth B). Therefore, in each of them, *birra-wa-Y* ‘talk-RECP’ can in no way have the reciprocal reading. (In (4-542) (fourth B), *birra-wa-Y* may possibly have the reflexive reading ‘He is talking to himself’.)

However, in most of the examples with a singular d-S (about 8 examples), the reciprocal verb does not seem to have the ‘talk by oneself’ reading (or ‘talk to oneself’ reading), e.g.

(4-543) (‘I spoke yesterday’ was translated as follows.)

ngaya birra-wa-n gonda-gonda. (AP)
 1SG.NOM(d-S) tell-RECP-NF night~night
 Tentative translation: ‘I [and someone] talked [with each other] yesterday.’

(The adverb *gonda-gonda* means ‘yesterday’ (AP) and ‘last night’ (AC). See 3.8.2-[2].)

(4-544) (‘He must not talk to mother-in-law’ was translated by Alf Palmer as follows.)

nganlga nyola gogo-yi-Ø birra-wa-y
 PROH 3SG.NOM(d-S) speech-COM-NOM tell-RECP-NF
bimo-na-ngga. (AP)
 WM-KIN-LOC
 ‘He, with [ordinary] speech, should not tell each other near wife’s mother’,
 i.e. ‘He should not speak with ordinary speech near his WM’, i.e. ‘He
 should speak Jalngoy near his WM’.

(See 1.6.1 for Jalngoy, the avoidance style of speech.)

[2] *Jaynyja-wa-Y* ‘copulate with-REC’

Jaynyja-L ‘copulate with’ is transitive (with the ERG-ACC case frame), e.g. (4-532) to (4-534-A). Its reciprocal version generally has a ‘true reciprocal’ meaning, e.g. (4-534-B). However, it has a singular d-S in:

(4-545) *yarro-n-da yinda jaynyja-wa-ya*
 this-LINK-LOC 2SG.NOM(d-S) copulate.with-RECP-IMP
gido-ngga. (AP)
 cold-LOC

Tentative translation: ‘You [and someone] copulate with each other here on a cold [night].’

[3] *Goni-wa-Y* ‘fight, kill-RECP’

Goni-L ‘fight, kill (also punch?)’ seems to be transitive. Its reciprocal version appears to be in the main ‘true reciprocal’, e.g.:

(4-546) (One day Alf Palmer described as follows a big fight that had occurred early in the morning.)

jana-Ø *goni-wa-n.* (AP)
 3PL-NOM(d-S) fight-RECP-NF
 ‘They fought one each other.’

(Alf Palmer provided the gloss ‘punch.’) However, consider (4-547), in which the d-S is singular.

(4-547) (Alf Palmer had an uncle whose name is *Gonira* (1.5.4.2-[2] and 3.7.1-[11]). He explained how this uncle had been named so.)

ganba-mara nyola *goni-wa-n.* (AP)
 before-very 3SG.NOM(d-S) fight-RECP-NF
 Tentative translation: ‘Long ago he [and someone] fought each other.’

[4] *Goyba-wa-Y* ‘give-RECP’

The transitive *goyba-L* ‘give’ is three-place (4.3.3.2-[1]). Its reciprocal version is generally ‘true reciprocal’, e.g. (4-508), (4-509). However, the following example does not seem to be ‘true reciprocal’:

(4-548) (‘I found a woman. I wanted to have sex with her, so I asked her.’)

yinda *goyba-wa-n?* (AP)
 2SG.NOM(d-S) give-RECP-NF
 Tentative translation: ‘Do you [and someone else] give [yourselves?] to each other?’

The exx. (4-541) to (4-545) and (4-547) are unusual in that the d-S is singular. This puzzle may be accounted for as follows (V. P. Nedjalkov, p.c.). Verbs such as ‘copulate with’, ‘fight’ and ‘talk’ describe situations which may be considered inherently reciprocal. Due to this inherent reciprocity, these verbs have acquired a close association with the reciprocal suffix *-wa-Y*, and now they may occur with *-wa-Y* even when the d-S is singular. The person who exchanges the action with the d-S no longer needs to be expressed. (That person appears to be expressed overtly in (4-473): *ngaygo-n-go* ‘1SG-LINK-DAT’) (Naturally, these reciprocal verbs can be used as ‘true reciprocal’ as well.) In particular, this association in *birra-wa-Y* ‘tell, talk-RECP’ is so strong that *-wa-Y* has become semantically vacuous in certain instances and *birra-wa-Y* is ousting the transitive *birra-L* out of use. This strong association also explains the use of *-wa-Y* in *jaynyja-wa-Y* ‘copulate.with-RECP’ and *goni-wa-Y* ‘fight-RECP’; they each correspond to a transitive verb that

describes an inherently reciprocal situation. Subsequently, this use of *-wa-Y* has extended to a transitive verb that is not inherently reciprocal: *goyba-L* ‘give’.

Furthermore, the above scenario (suggested by V.P. Nedjalkov) also explains the fact (4.12.2-[2]-(c)) that the reciprocal *gogo-bayi-wa-Y* and *gogo-bayo-wa-Y* ‘argue/quarrel with-RECP’ are more common than the transitive *gogo-bay-L* and *gogo-bayo-L*. These transitive verbs seem to have acquired a close association with *-wa-Y*, due to their inherent reciprocity.

Reciprocal verbs with a singular subject are possible in Norwegian (Kemmer 1993: 107), Icelandic (Irie 1996), and Bantu languages (Yasutoshi Yukawa, p.c.). In Icelandic, reciprocal verbs such as ‘fight-RECP’ and ‘marry-RECP’ can occur with a singular subject, with the partner unexpressed. Note that verbs such as ‘fight’ and ‘marry’ are inherently reciprocal. (Naturally, these reciprocal verbs can occur with a plural subject as well.)

4.12.5.2. *Higher frequency of reciprocal verbs*

There are reciprocal verbs that are more common than their transitive counterparts – due to the latter’s inherent reciprocity.

(a) *Birra-L* ‘tell, speak, talk’ is almost always used in the reciprocal form (4.12.3-[3]-(c), 4.12.5.1-[1]).

(b) The reciprocal *gogo-bayi-wa-Y* and *gogo-bayo-wa-Y* ‘argue/quarrel with-REC’ are more common than the transitive *gogo-bay-L* and *gogo-bayo-L* (4.12.2-[2]-(c), 4.12.5.1).

(c) The transitive root *ngonba-L* ‘tell, show’ is hardly ever used by itself. It generally occurs in the reciprocal form *ngonba-wa-Y*, e.g. (4-519), or *ngonba-y-nga-L* ‘show, teach’ (4.3.3.2-[3]). It seems that the reciprocal form has almost ousted the transitive counterpart.

4.12.5.3. *Idiom-like expressions*

There are a small number of examples of idiom-like expressions. One example is ‘shake hands’; see (4-526). As another example, while the transitive *jaymba-L* means ‘find’ (either intentionally or accidentally), the reciprocal *jaymba-wa-Y* (always?) means ‘meet (by arrangement?)’, e.g. (3-232), (4-539). Other examples of idiomatic expressions include (4-1024-e) (‘Leave each other!’, i.e. ‘Stop fighting!’) and:

(4-549) *ngalnga yinda ngali-Ø binda-wa-yal.* (AP)
 PROH 2SG-NOM(d-S) 1DU-NOM(d-S) stand.up-RECP-PURP
 Lit. ‘We-two, including you, should not stand up each other.’

The transitive *binda-L* means ‘stand up [something, e.g. a fence]’ (4-549) means ‘We should not go separately’ or ‘We should travel together’

4.12.6. Non-reciprocal uses

In true reciprocals, the action is reciprocated between/among the participants, whereas in non-reciprocals there is no such reciprocation. The non-reciprocals are not productive, with only a very small number of examples, and this makes it difficult to determine their meaning.

4.12.6.1. Sociative ‘together’

There are two reciprocal verbs which possibly have the sociative meaning ‘together’: *baya-wa-Y* ‘sing-RECP’ and *jarga-wa-Y* ‘go in-RECP’

[1] *Baya-wa-Y* ‘sing-RECP’

Baya-L ‘sing’ is transitive, with the ERG-ACC case frame:

(4-550) *bama-nggo gama-Ø baya-n.* (AP)
 man-ERG(A) Gama-ACC(P) sing-NF
 ‘The man sang the Gama song.’

My word list contains *baya-wa-Y* ‘sing-RECP’ and Alf Palmer’s gloss for it is ‘everyone sing’. This suggests that this reciprocal verb has the sociative meaning. There are only two examples of *baya-wa-Y* ‘sing-RECP’. One is:

(4-551) *bama-Ø baya-wa-yal.* (AP)
 man-NOM(d-S) sing-RECP-PURP
 Tentative translation: ‘The men are going to sing together.’

Alf Palmer’s translation of this sentence is ‘i gonna sing’, i.e. ‘He is going to sing’. Note that the noun *bama* is in the NOM, and not the ERG. This shows that this clause is intransitive, like true reciprocals.

[2] *Jarga-wa-Y* ‘go.in-RECP’

An example of the intransitive *jarga-L* ‘enter, go in’ is (4-552), and an example of the reciprocal *jarga-wa-Y* is (4-553).

(4-552) *bama-Ø yamba-ngga jarga-n.* (TT)
 man-NOM camp-LOC go.in-NF
 ‘The man went into the camp.’

- (4-553) *ngana-Ø yinda jarga-wa-yal*. (AP)
 1PL-NOM(S) 2SG.NOM(S) go.in-RECP-PURP
 ‘We, including you, will go in.’

For (4-553), Alf Palmer provided the following comments/translations: ‘We all go in’, and ‘Everyone go in, no matter how many, hundred or more’ This suggests that (4-553) has the sociative meaning.

Beside the intransitive *jarga-L* ‘enter, go in’, there is the transitive *jarga-L* ‘insert, put in’, e.g. (3-44), (4-471), (4-656). Therefore, it is possible to say that *jarga-wa-Y* in (4-553) is the reciprocal version of the transitive counterpart: ‘We put each other in’.

4.12.6.2. *Participating in a group action*

The only example is the reciprocal verb *jarga-wa-Y* ‘go in-REC’. It can have the sociative meaning (‘together’); see (4-553). In addition, it seems able to have the meaning ‘a singular S participates in a group action’. (Hereafter, simply ‘group action’.) Thus, in an elicitation session, Alf Palmer gave the following two sentences successively.

- (4-554) a. *ngaya jarga-wa-yal jarga-wa-yal jarga-wa-yal*.
 1SG.NOM(S) go.in-RECP-PURP go.in-RECP-PURP go.in-RECP-PURP
 Tentative translation: ‘I [and other people] will go in.’
 b. *ngana-Ø yinda jarga-wa-yal*. (AP)
 1PL-MOM(S) 2SG.NOM(S) go.in-RECP-PURP
 Tentative translation: ‘We, including you, will go in.’

Since Alf Palmer gave these two sentences successively, he seems to have indicated that they describe the same situation (or similar situations). (4-554-a) seems to have the ‘group action’ meaning. This is shown by the inclusion of ‘[and other people]’. (4-554-b) seems to be sociative. (In fact, (4-553) is cited from this sequence of two sentences; it is the same as (4-554-b).)

The ‘participating in a group action’ is very similar to ‘sociative’. The difference is that the S of ‘participating in a group action’ is singular (see (4-554-a)), while the S of ‘sociative’ is plural in all the examples available (see (4-554-b)). (The dual, too, may be possible, although there is no example.)

Since there is the transitive *jarga-L* ‘insert, put in’, it is possible to say that *jarga-wa-Y* corresponds to this transitive verb, in which case all the instances of *jarga-wa-Y* in (4-554-a) are reflexive: ‘I will enter myself’

4.12.6.3. Reflexive

The reciprocal verbs *bangga-wa-Y* ‘paint-RECP’, *jingga-wa-Y* ‘punch-RECP’, and *moga-wa-Y* ‘hold-RECP’ seem to have the reflexive meaning in a few instances, although they are true reciprocals in the other instances. Similarly for *birra-wa-Y* ‘tell, speak, talk-RECP’

[1] *Jingga-wa-Y* ‘punch-RECP’

An example of the transitive *jingga-L* ‘punch’ is (4-555). Its reciprocal version is generally a true reciprocal, e.g. (4-531). However, it seems to have the reflexive meaning in (4-556). Alf Palmer’s gloss for it is ‘hit myself’, suggesting that it has the reflexive meaning. (Unfortunately, my field notes do not indicate the context for (4-556).)

(4-555) *bama-nggo nganya jingga-n.* (TT)
man-ERG(A) 1SG.ACC(O) punch-NF
‘The man punched me.’

(4-556) *manyja-nggo nyola=goli jingga-wa-n.* (AP)
food-ERG 3SG.NOM(d-S)=only punch-REC-NF
Tentative translation: ‘He punched himself with the food.’

(There is a reflexive verb *jingga-gali-ZERO* ‘punch-REFL’; see (4-428).)

[2] *Bangga-wa-Y* ‘paint-REC’

An example of the transitive *bangga-L* ‘paint’ is (4-557). For the reflexive (?) *bangga-wa-Y*, see (4-558).

(4-557) *jorba-nggo bama-nggo nganya bangga-n.* (TT)
white.ochre-ERG man-ERG(A) 1SG.ACC(O) paint-NF
‘The man painted me with white ochre.’

(4-558) *jorba-nggo ngaya bangga-wa-n.* (AP)
white.ochre-ERG 1SG.NOM(d-S) paint-RECP-NF
Tentative translation: ‘I painted myself with white ochre.’

(There is a reflexive verb *bangga-gali-ZERO* ‘paint-REFL’; see (4-440).)

[3] *Moga-wa-Y* ‘grab-RECP’

Examples of the transitive *moga-L* ‘grab, hold’ include (4-522), (4-523), (4-525). For the reflexive (?) *moga-wa-Y*, see (4-559).

(4-559) *ngaya=goli mara-Ø moga-wa-n.* (AP)
1SG.NOM(d-S)=only hand-? hold-RECP-NF
Tentative translation: ‘I held my hand.’

Here, *mara-Ø* may be either ‘-ACC(O)’ or ‘-NOM(d-S)’. See 4.11.2.1-[4].

[4] *Birra-wa-Y* ‘tell, speak, talk-RECP’

The reciprocal *birra-wa-Y* ‘tell, speak, talk’ is generally a true reciprocal (4.12.3-[3]-(c)) (although it may occur with a singular subject (4.12.5.1-[1])). However, it possibly has the reflexive meaning in (4-542) (the fourth B): ‘talk to oneself’

The main reason why I suspect that these examples have the reflexive reading is the fact that the number of the d-S is singular.

4.12.6.4. *Anticausative*

There is only one possible example: *wajo-wa-Y* ‘burn, cook-RECP’ It should be noted first that *wajo-L* ‘burn, cook’ (L-class) is generally used as a transitive verb (with ERG-ACC), e.g. (4-8), (4-473), (4-973-A, -B). There are also the anticausative *wajo-gali-ZERO* ‘get cooked’ (the meaning ‘[something] burn’ is not attested) (4.11.2.2) and *wajo-li-ZERO* ‘get cooked, [something] burn’ (4.11.3.2-[1]). Furthermore, there are three examples in which *wajo-?* ‘burn’ (not ‘cook’) appears to be used as an intransitive verb, e.g. (4-560), (4-561). (In this use, its class membership is not known. Hence the question mark.) In one of the three examples, *wajo-?* ‘burn’ occurs with the iterative suffix *-garra-Y* ‘[do] repeatedly or continuously’ (4-561).

(4-560) (Alf Palmer described a big bush fire on the hill as follows.)

jolgi-Ø *ngoni ngarra wajo-n.* (AP)
 scrub-NOM(S) there up burn(Vi)-NF
 ‘The scrub is burning up there.’

(4-561) *bori-Ø* *wajo-garra-n* *ngogala-mali.* (AP)
 fire-NOM(S) burn(Vi)-ITER-NF other.side-side
 ‘The bushfire is burning on the other side [of the hill].’

(It may be thought that *wajo-* in (4-560) and (4-561) is a transitive verb. However, this does not seem plausible. First, it is difficult supply a suitable A NP for either of these two sentences. Second, the iterative suffix *-garra-Y* is generally added to intransitive roots, although it is attested with transitive roots as well (4.13.1). This suggests that *wajo-?* ‘burn’ in these examples is intransitive.)

Now, there is the reciprocal verb *wajo-wa-Y* ‘burn, cook-REC’ This might be expected to be a true reciprocal: ‘burn/cook each other’ However, in the only example available, it seems to have the anticausative meaning.

(4-562) (‘Is the fire burning well?’ was translated as follows.)

bori-Ø *ngona-Ø* *wajo-wa-n.* (AP)
 fire-NOM(d-S) that-NOM(d-S) burn-RECP-NF

Since there are many examples of the transitive *wajo-L* ‘burn, cook’ and only three possible examples of the intransitive *wajo-?* ‘burn’, it will be reasonable to

say that *wajo-wa-Y* corresponds to the transitive *wajo-L* ‘burn, cook’, in which case *wajo-wa-Y* is anticausative. However, it is also possible to say that *wajo-wa-Y* corresponds to the intransitive *wajo-?* ‘burn’, in which case the use of *-wa-Y* seems unnecessary.

4.12.7. Expressions of the d-S and the S

With true reciprocals, the d-S always has dual or plural referents, and is expressed by a dual or a plural pronoun and/or by a noun with dual or plural referents. With non-reciprocals, the d-S or the S is:

- (a) (always?) plural and possibly dual, but never singular, in ‘sociative’ (4.12.6.1), and;
- (b) (at least in the examples available) always singular in ‘group action’ (4.12.6.2), ‘reflexive’ (4.12.6.3) and ‘anticausative’ (4.12.6.4).

There are also four reciprocal verbs whose d-S may be singular (4.12.5.1).

In Warrongo in general, the A or the S may be of the ‘inclusion’ type, i.e. ‘A includes B’ (4.5.2.1.2-[2]). Warrongo lacks conjunctions such as *and*. But NPs of the inclusion type in effect can express ‘and’. They can also express ‘with’. This applies to reciprocals as well, e.g. (4-507) and:

- (4-563) *ngali-Ø majowarrgi-Ø ngaygo birra-wa-n.* (AP)
 1DU-NOM(d-S) friend-NOM(d-S) 1SG.GEN tell-RECP-NF
 ‘We-two, including my friend, talked with each other’, i.e. ‘My friend and I talked with each other.’

In this connection, a comment on the comitative ‘with, having’ (3.6.8) is in order. Consider, for example, *birgo-yi* ‘wife-COM’, lit. ‘[someone] with a wife’ This word often means ‘a married man’. Now, examine:

- (4-564) *bola-Ø yarro-n-da birgo-yi-Ø birra-wa-n.* (AP)
 3DU-NOM(d-S) this-LINK-LOC wife-COM-NOM(d-S) tell-RECP-NF
 ‘They-two, including the one with a wife, talked with each other here’, i.e. ‘He/She and the married man talked with each other here.’

Note that (4-564) does not mean ‘They-two talked with the wife’. (In a different context, it may have an ‘apposition’ reading, i.e. ‘A, namely B’ (4.5.2.1.2-[3]): ‘They-two, married men, talked with each other’)

4.12.8. More on the semantics of reciprocals

The d-S or the S is human in almost all of the examples. However, it has non-human animate referents in just two or three examples, e.g. ‘dogs’ in (4-504), and ‘fish’ in:

(4-565) (The fish caught in a net were trying to get out.)

jana-Ø *jingga-wa-n.* (AP)
3PL-NOM(d-S) punch-RECP-NF

Lit. 'They were punching each other', i.e. 'They were bumping into each other.'

There is only one example of an inanimate d-S: 'fire' in (4-562). But fire may not be a typical instance of an inanimate entity (V. P. Nedjalkov, p.c.).

When the d-S (or the S) is human or non-human animate, the action described seems to be always volitional. For example, in all of the examples available, the reciprocal *jaymba-wa-Y* seems to mean 'meet by arrangement' (i.e. volitionally) (e.g. (3-232), (4-539)), and not 'meet accidentally'. This is despite the fact that the transitive *jaymba-L* 'find' seems to have two readings: 'find after search' (i.e. volitionally) and 'find accidentally'. See (4-87) and (4-341).

All the attested reciprocals describe an action, and not a state.

In view of the above, reciprocals such as 'The two houses face each other' seem unlikely in Warrongo. In such expressions, the d-S is inanimate, and the situation described is non-volitional and it is a state.

4.12.9. More on the formation of reciprocal verbs

4.12.9.1. Morphological restrictions

As seen in 4.12.5.1-[1], in certain instances of *birra-wa-Y* 'tell-RECP', the reciprocal suffix *-wa-Y* is present but appears to be semantically empty. There are at least two examples that seem to show the reverse situation: the sentences have a reciprocal meaning and *-wa-Y* would be expected but it cannot occur. This non-occurrence is due to the morphological restriction (mentioned in 4.12.2) that *-wa-Y* cannot be added to another stem-forming suffix (or to any inflectional suffix). The two examples are given below.

(a) *-wa-Y* cannot follow the applicative suffix *-ri-L* 'lie-APPL'. See 4.14.4.1-(a).

(b) The suffix *-rV-* (3.11.1.4) is added to verb roots, producing verbs that may mean, for instance, 'many actors do something to one' or 'one actor does something to many'. 'V' copies the preceding vowel. For example, compare *goyba-L* Vt 'give' and *goyba-ra-L* Vt 'give out to many'. Now, consider:

(4-566) ('The boys shared out food' was translated as follows.)

galbiri-nggo *goyba-ra-n* *manyja-Ø.* (AP)
children-ERG(A) give-many-NF food-ACC(O).

Since (4-566) is a translation of 'share out', its meaning would be reciprocal: 'The children gave food to each other'. The reciprocal **goyba-ra-wa-Y* would be

expected, but it cannot occur, for *goyba-ra-L* already contains a stem-forming suffix (*-ra-L*).

4.12.9.2. Reciprocal verb based on a noun

There is just one example in which *-wa-Y* is added to a noun: *gogo* ‘language, speech’.

(4-567) (‘Mother scolded/growled at the child’ was translated as follows.)

<i>yanga-na-Ø</i>	<i>gogo-wa-n</i>	<i>galbiri-wo.</i> (AP)
mother-KIN-NOM(S)	speech-RECP-NF	children-DAT

It is not certain if this is a *bona fide* Warrongo sentence. If it is, it is unusual. First, *-wa-Y* ‘RECP’ is added to a noun, and not a verb root. Second, consequently, there is no corresponding, non-derived clause. Third, the meaning of *-wa-Y* is not clear. In view of examples such as (4-511), (4-515), (4-517) and (4-518), all of which contain a DAT NP indicating the topic, the expected reading of (4-567) would be something like the following: ‘The mothers argued with each other about the children’. But this is different from the English sentence for which a Warrongo translation was requested.

V. P. Nedjalkov (p.c.) points out that it is significant that the noun involved denotes a speech activity, i.e. an action which implies mutual exchange of information. As seen 4.12.5.1 and 4.12.5.2, verbs of speech activity seem inherently to have the reciprocal meaning and have a close tie with *-wa-Y* ‘RECP’. Therefore it is likely that *gogo-wa-n* was used by analogy with the reciprocal versions of those speech verbs. Specifically, it was probably used by analogy with the compound reciprocal verbs *gogo-bayi-wa-Y* (e.g. (4-467)) and *gogo-bayo-wa-Y* ‘argue/quarrel with-RECP’, both of which contain the noun *gogo* ‘speech, language’.

4.12.9.3. Etymology

-wa-Y ‘RECP’ has unequivocal cognates in neighbouring or nearby languages.

-wa- ‘RECP’ of Gugu-Badhun (Sutton 1973: 144–145).

-ba- ‘RECP’ of Warrgamay (Dixon 1981: 74–75).

-ba- ‘RECP’ of Nyawaygi (Dixon 1983: 489).

-(n)barri-Y ‘RECP’ of Jirrbal, Girramay and Mamu (Dixon 1972: 92).

-wa-Y ‘RECP’ of Kuku Yalanji (Patz 2002: 103–104).

We can tentatively postulate **ba-* ‘RECP’. Its *b* lenited to *w* in Warrongo and Gugu-Badhun. (See 2.10.2 in this connection.)

Furthermore, there is a noun-stem-forming suffix that may possibly related to **ba-* ‘RECP’: *-nba* ‘many’ (3.7.1-[15]).

4.13. Iterative construction

4.13.1. Iterative verbs

The iterative construction is attested in Alf Palmer's data only, and not in Alec Collins'. Iterative verbs are formed by means of the stem-forming suffix *-garra-Y* (Y-class) 'ITER'. They have typically imperfective meanings (cf. Comrie 1978a: 24–40). Also, they have a strong tie with intransitive verbs. This shows a close association between imperfectivity (rather than perfectivity) and low transitivity (rather than high transitivity) (cf. Hopper and Thompson 1980). (For a further discussion of this and other issues regarding the iterative construction, see Tsunoda 1999.)

Specifically, in terms of aspect, iterative verbs have meanings such as the following: iterative ('repeatedly'), distributive ('here and there'), continuous (including progressive), and habitual. (The term 'distributive' was suggested by Peter Austin and Bernard Comrie.) The distributive reading is spatial, while the other three readings are temporal. K. L. Hale (p.c.) suggests that the distributive reading is the spatial equivalent to the temporal iterative.

In terms of transitivity, the iterative suffix *-garra-Y* is most commonly used with intransitive verb roots. It is also attested with intransitive stems (containing a stem-forming suffix), transitive roots, and exceptionally with one transitive stem and one adverb and possibly one noun.

-garra-Y differs from certain stem-forming suffixes such as the reciprocal *-warra-Y* (4.13) in that it can be added to a stem-forming suffix.

A full list of the iterative verbs is given below. Only those uttered by Alf Palmer are listed below, and those which were made up by me and approved by Alf Palmer, are excluded. The gloss 'ITER' is omitted. The conjugational class of some of the roots is not known.

[1] Based on intransitive verbs

(a) Based on intransitive roots

(a-1) Based on intransitive roots of L-class

wombi-garra-Y 'have a rest', *boni-garra-Y* 'be dizzy', *ngaba-garra-Y* 'bathe', *wara-garra-Y* and also *wara-n-garra-Y* (see 4.13.4.2) 'jump', *waga-garra-Y* 'rise, get up', *walngga-garra-Y* 'float', *wada-garra-Y* 'play about', *wandi-garra-Y* 'rest [on something], live', *woji-garra-Y* 'grow up', *yambi-garra-Y* 'fly', *dodi-garra-Y* 'swing', *banda-garra-Y* '[skin] crack', *goyi-garra-Y* 'cry', *wajo-garra-Y* 'burn' (L-class? transitive?; see (4-493)).

(a-2) Based on intransitive roots of Y-class

nyina-garra-Y 'sit', *jana-garra-Y* 'stand', e.g. (4-542) (first A), *waymba-garra-Y* 'walk about', *nyamba-garra-Y* 'dance', e.g. (4-488), *wona-garra-Y* 'lie, sleep', *bonba-garra-Y* 'cry', e.g. (4-682), *gawa-garra-Y* 'vomit', *ralmba-garra-Y* 'be

crippled', *wama-garra-Y* 'get lost', *joyma-garra-Y* 'crawl', *galngga-garra-Y* 'fall', *janda-garra-Y* 'wade', *nyida-garra-Y* 'sneeze'

(a-3) Based on intransitive roots of ZERO-class

badi-garra-Y 'cry', *yaji-garra-Y* 'laugh', *yodi-garra-Y* 'swim', *ragi-garra-Y* 'hide'.

(a-4) Based on the irregular *yani-L/Y* 'go, come'

yani-garra-Y.

(a-5) Based on intransitive roots whose conjugational class is not known

jamba-garra-Y 'leap', *worri-garra-Y* 'dance', *goda-garra-Y* 'cough'.

(b) Based on intransitive stems

(b-1) Based intransitive stems of L-class: no example.

(b-2) Based intransitive stems of Y-class: no example.

(b-3) Based intransitive stems of ZERO-class

wadali-garra-Y and also *wadali-n-garra-Y* (see 4.13.4.2) 'run', *gawali-garra-Y* 'call out', *magoli-garra-Y* 'work', *jagoli-n-garra-Y* 'be sorry, be sad' (see 4.13.4.2), *yimirri-n-garra-Y* 'be glad' (see 4.13.4.2).

(See 3.11.1.6 and 3.11.1.7 for the formation of verbs involving *-li-ZERO* and *-rri-ZERO*, respectively.)

[2] Based on transitive verbs

(a) Based on transitive roots

(a-1) Based on transitive roots of L-class

(a-1-1) Based on two-place transitive roots of L-class

(a-1-1-1) Type 1 'direct effect' or the like (cf. Table 4-19)

baja-garra-Y 'bite', *worrnggo-garra-Y* 'bark at', *yaymi-garra-Y* 'spread', *boybo-garra-Y* 'spit on', *yimba-garra-Y* 'wear', *yilmbo-garra-Y* 'pull', *woda-garra-Y* 'take out', *boya-garra-Y* 'blow [with mouth]', *baya-garra-Y* 'sing', *jingga-garra-Y* 'punch', *baba-garra-Y* 'stab', *yorrmbi-garra-Y* 'suck', *balga-garra-Y* 'hit', *jaynyja-garra-Y* 'copulate with', *ganyji-garra-Y* 'carry', *gambi-garra-Y* '[wind] blow'

(a-1-1-2) Type 2 'perception'

nyaga-garra-Y 'see, look at', *balmbi-garra-Y* 'smell'.

(a-1-1-3) Type 3 'pursuit'

waba-garra-Y 'look for [honey?]'

(a-1-2) Based on a three-place transitive root of L-class

banjo-garra-Y 'ask'.

(a-2) Based on transitive roots of Y-class

There is no transitive root of Y-class (3.9.3).

(a-3) Based on a transitive root of ZERO-class

(a-3-1) Type 1 'direct effect'

woyji-garra-Y 'burn'.

(b) Based on a transitive stem

(b-1) Based on a transitive stem of L-class

(b-1-1) Type 1 'direct effect'

mira-nga-n-garra-Y 'make' (See 4.13.4.2.) See 4.7.2 for the transitive-stem-forming suffix *-nga-L*. The bound morpheme *mira-* seems to mean 'existing' (4.7.1-[5], 4.7.2-[7]-(c)).

[3] Based on an adverb

wonaja-garra-Y 'camp about' (cf. *wonaja* 'camping out', e.g. (3-16)). See 4.13.4.1.

[4] Based on a noun

Possibly *jawa-garra-Y* 'vomit' and 'open one's mouth all the time' (cf. *jawa* 'mouth'). See 4.13.4.1.

In terms of the hierarchy of two-place predicates, iterative verbs are attested in Type 1 'direct effect' (or the like), Type 2 'perception' and Type 3 'pursuit'. This is shown in Table 4-20.

-garra-Y is attested with about 40 intransitive verbs, but it is attested with only about 20 transitive verbs. Furthermore, if we look at the examples from the texts only, it is attested with 19 intransitive verbs, but only with two transitive verbs. That is, *-garra-Y* is more commonly used with intransitive verbs than with transitive verbs.

The distribution of *-garra-Y* is almost complementary to that of *-gali-ZERO* (antipassive (4.9), true reflexive and anticausative (4.11.2) and middle (4.11.4)). *-gali-ZERO* is generally used with transitive verbs, and only with two intransitive verbs (for the middle).

The conjugation of iterative verbs is shown in Table 3-15.

The nonfuture-1 (*-n*) is by far the most frequent. Many iterative verbs are attested in the nonfuture-1 only.

The existence of the nonfuture-2 is not certain.

First, *-y* would be expected (cf. Y-class of Table 3-14). However, it is not certain if iterative verbs have *-y* for the nonfuture-2. Indeed, Alf Palmer once gave *wayamba-garra-y* 'walk about-ITER-NF', but later he rejected it.

Second, \emptyset is attested with three verbs in texts: *nyamba-garra- \emptyset* 'dance', e.g. (4-568), *yodi-garra- \emptyset* 'swim', and *wonaja-garra- \emptyset* 'camp about', e.g. (4-609). Consider (4-568), an example cited from a text.

(4-568) *jana- \emptyset* *nyamba-garra- \emptyset* *yarro-n-da*. (AP)
 3PL-NOM(S) dance-ITER-NF here-LINK-LOC
 'They danced about here.'

However, when the relevant tapes were replayed to Alf Palmer, he added the nonfuture-1 suffix *-n* to all of *nyamba-garra- \emptyset* 'dance', *yodi-garra- \emptyset* 'swim', and

wonaja-garra-Ø ‘camp about’, producing *nyamba-garra-n* ‘dance’, *yodi-garra-n* ‘swim’, and *wonaja-garra-n*. Again, it is not certain if iterative verbs have *-Ø* for a nonfuture-2.

The apprehensional has yielded two forms: *-y-ngga* and *-ngga*. An example obtained in elicitation is (4-569). It involves *-y-ngga*. The only example from the texts is (4-570). It involves *-ngga* (the form that is used for ZERO-class; cf. Table 3-14).

(5-569) *galbin-Ø* (TT) *badi-garra-y-ngga*. (AP)
 child-NOM(S) cry-ITER-APPR
 ‘The child might cry.’

(The above sentence was started by me, and completed by Alf Palmer.)

(4-570) *yaji-garra-ngga jana-Ø*. (AP)
 laugh-ITER-APPR 3PL-NOM(S)
 ‘They might laugh [at us].’

If iterative verbs are of Y-class at all, for the apprehensional, *-y-ngga* would be expected (cf. Table 3-14). Indeed, for (4-570) Alf Palmer approved *yaji-garra-y-ngga*, which I suggested when the tape was replayed. Furthermore, several days later, Alf Palmer himself said *yaji-garra-y-ngga* spontaneously. This suggests that the apprehensional employs *-y-ngga* (the form for Y-class), and that it may employ *-ngga* (the form used for the ZERO-class) as well.

The general imperative-2 (*-ya*) is attested, but it is used very infrequently e.g. (4-571), (4-572). Furthermore, there is just one example of what appears to be an imperative use of *-Ø*, i.e. (4-573). I tentatively assign it to ‘general imperative-2’. Both (4-571) and (4-573) involve *waymba-garra-Y* ‘walk about’.

(4-571) *yobala-Ø=goli waymba-garra-ya*. (AP)
 2DU-NOMN=only walk.about-ITER-IMP
 ‘You-two walk about by yourselves.’

(4-572) *ngali-Ø yarro-n-da jolgi-ngga nyina-garra-ya*. (AP)
 1DU-NOM(S) this-LINK-LOC scrub-LOC sit-ITER-IMP
 ‘Let’s sit [or stay] in this scrub.’

(4-573) *yinda=goli waymba-garra-Ø*. (AP)
 2SG.NOM=only walk.about-ITER-IMP
 ‘Walk about by yourself.’

The purposive (*-yal*) is attested, but it is used very infrequently, e.g. (4-574), (5-575).

(5-574) *yobala-Ø yodi-garra-yal?* (AP)
 2DU-NOM(S) swim-ITER-PURP
 ‘Will you-two swim about?’

- (5-575) *jana-Ø nyamba-garra-yaI.* (AP)
 3PL-NOM(S) dance-ITER-PURP
 ‘They are going to dance.’

Finally, Alf Palmer used three iterative verbs whose verb root seems to be non-Warrongo. (i) *birba-garra-Y*; the verb *birba-* ‘jump’ is Warrgamay (Dixon 1981: 113). (ii) *warrombil-garra-Y*; the noun *warrombil* ‘whistle’ is Warrgamay (Dixon 1981: 120). (iii) *worrba-garra-Y*; the verb *worrba-* ‘say, speak, talk’ is Dyirbal (Dixon 1972: 408). Text 1, Line 6 contains *worrba-garra-n* ‘talk-ITER-NF’ The use of these forms is no doubt an error. For example, when the tape of Text 1 was replayed, Alf Palmer replaced *worrba-garra-n* ‘talk-ITER-NF’ with the Warrongo word *birra-wa-n* ‘talk-RECP-NF’ See the comment on Text 1, Line 6.

4.13.2. Syntax

Affixation of *-garra-Y* does not affect the transitivity of intransitive verbs, but it affects that of some of the transitive verbs, producing intransitive verbs.

4.13.2.1. Intransitive-garra-Y

As mentioned above, the resultant stems remain intransitive. As a pair of examples, compare (3-4), (3-42) (*nyina-Y* ‘sit’) and (3-5), (4-576) (*nyina-garra-Y* ‘sit-ITER’). Another pair of examples are (3-52) (*jana-Y* ‘stand’) and (3-6), (4-577) (*jana-garra-Y* ‘stand-ITER’). An additional pair of examples are (3-189), (4-228) (*wadali-ZERO* ‘run’) and (4-578) (*wadali-garra-Y* ‘run-ITER’).

- (4-576) *nyola nyina-garra-n.* (AP)
 3SG.NOM(S) sit-ITER-NF
 ‘He sat here and there.’

(Alf Palmer’s translation is ‘just sit here and there’.)

- (4-577) *birgo-Ø yino jana-garra-n.* (AP)
 wife-NOM(S) 2SG.GEN stand-ITER-NF
 ‘Your wife stood about.’

(Alf Palmer’s translation is ‘stand about’.)

- (4-578) *rayi-wo yinda wadali-garra-n.* (AP)
 young.girl-DAT 2SG.NOM(S) run-ITER-NF
 ‘You run for [i.e. run after] young girls here and there.’

4.13.2.2. Transitive-garra-Y

The transitivity changes involved can be classified as follows.

- (a) ERG-ACC → NOM-DAT
- (b) ERG-ACC → ERG-ACC, NOM-ERG
- (c) ERG-ACC → ERG-ACC

Type (c) involves no change in transitivity. Only three verbs are attested for the type (a), and only one for the type (b). Some others do, and the rest seem to, belong to the type (c).

The change 'ERG-ACC → NOM-DAT' and the change 'ERG-ACC → NOM-ERG' intransitivize transitive clauses. That is, NOM-DAT and NOM-ERG above may be considered varieties of the antipassive construction.

[1] ERG-ACC → NOM-DAT

The following verbs are attested (the gloss 'ITER' is omitted): *balmbi-garra-Y* 'smell', *waba-garra-Y* 'look for [honey?]', and *worrnggo-garra-Y* 'bark at'.

A pair of examples involving the root *balmbi-L* Vt 'smell': (4-579) (ERG-ACC *balmbi-L*) and (4-580) (NOM-DAT *balmbi-garra-Y*).

(4-579) ('I have washed myself before going hunting, so:')

gabora-∅ nyawa balmbi-n yori-nggo. (AP)
 body.smell-ACC(O) NEG smell-NF kangaroo-ERG(A)
 'Kangaroos don't smell [my] body smell.' (ERG-ACC)

(4-580) ('He is trying to find out where the smoke is coming from.')

gando-∅=yamanyon nyola [or *bama-∅* TT,AP]
 dog-NOM=like 3SG.NOM(d-S) [man-NOM(d-S)]
balmbi-garra-n joga-wo. (AP)
 smell-ITER-NF smell-DAT (NOM-DAT)
 'He [or the man] is smelling for the smoke like a dog.'

(See 4.23 for the enclitic =*yamanyon* 'like'. *Bama-∅* was suggested by me, and approved by Alf Palmer. As seen in Table 3-6, *nyola* '3SG' may be either NOM or ERG. But the approval of *bama-∅* 'man-NOM' shows that here *nyola* is NOM, and not ERG.)

A set of examples involving *waba-L* Vt 'look for [honey?]' (4-581) (ERG-ACC *waba-L*) and (4-582), (4-583) (NOM-DAT *waba-garra-Y*).

(4-581) *yinda ngoni ngarra waba-∅ gorja-∅.* (AP)
 2SG.ERG(A) there up,above look.for-IMP native.bee-ACC(O)
 'Look for native bees [or their honey?] up there.' (ERG-ACC)

(4-582) *ngaya gorja-wo waba-garra-n.* (AP)
 1SG.NOM(d-S) native.bee-DAT look.for-ITER-NF
 ‘I am looking for native bees [or their honey?].’ (NOM-DAT)

(4-583) *bama-∅ waba-garra-n.* (AP)
 man-NOM(d-S) look.for-ITER-NF
 ‘The man is looking for [native bees or their honey?].’

(The nominative marking of *bama-∅* in (4-583) shows that *ngaya* ‘1SG’ in (4-582) is NOM, and not ERG.)

A pair of examples involving *wormnggo-L* ‘bark at’:

(4-584) *gando-nggo worrnggo-n ngali-nya.* (AP)
 dog-ERG(A) bark.at-NF 1DU-ACC(O)
 ‘The dog is barking at us.’ (ERG-ACC)

(4-585) *gando-∅ worrnggo-garra-n [ngali-ngo-n-go TT,AP].*
 dog-NOM(d-S) bark.at-ITER-NF [1DU-LINK-LINK-DAT]
 ‘(As above.)’ (AP) (NOM-DAT)

(*Ngali-ngo-n-go* was suggested by me, and approved by Alf Palmer.)

[2] ERG-ACC → ERG-ACC, NOM-ERG

Only *yaymi-garra-Y* ‘spread’ is attested. It may remain transitive (ERG-ACC), e.g. (4-587), and it may become intransitive (NOM-ERG), e.g. (4-588). Compare them with the transitive counterpart: (4-586).

(4-586) *bama-nggo bilanggirr-∅ yaymi-yal.* (TT)
 man-ERG(A) blanket-ACC(O) spread-PURP
 ‘The man will spread a blanket.’ (ERG-ACC)

(4-587) *nyola* [or *warrngo-nggo* TT,AP] *raba-∅*
 3SG.ERG(A) [woman-ERG(A)] fork-ACC(O)
yaymi-garra-n. (AP)
 spread-ITER-NF
 ‘She [or the woman] spread [her] fork.’ (ERG-ACC)

(*Warrngo-nggo* was suggested by me, and approved by Alf Palmer. The approval of *warrngo-nggo* shows that here *nyola* ‘3SG’ is ERG, and not NOM.)

(4-588) *yinda=goli raba-nggo yaymi-garra-n.* (AP)
 2SG.NOM(d-S)=alone fork-ERG spread-ITER-NF
 ‘You [a man] spread [her] fork by yourself.’ (NOM-ERG)

(*Raba* generally means ‘a fork-shaped part of a branch of a tree’, but in (4-587) and (4-588) it refers to the fork-shaped part of a woman’s body, i.e. crotch. In (4-588) *yinda* may possibly be ERG(A), and in that case, (4-588) would have the case

frame of 'actor-ERG undergoer-ERG' But this case frame is not attested elsewhere in the language, and the case frame of (4-588) is considered 'actor-NOM undergoer-ERG', i.e. NOM-ERG.)

As noted above, (4-580), (4-582), (4-585) (NOM-DAT) and (4-588) (NOM-ERG) may be considered varieties of the antipassive construction. As seen in 4.9.9.2.3 and 4.9.9.2.4, between the two case frames of *-gali-ZERO* antipassives (NOM-DAT and NOMN-ERG), roughly speaking, NOM-ERG tends to be used when the undergoer is affected by the action, and NOM-DAT when the undergoer is not affected. The same applies to the *-garra-Y* antipassives. The ERG undergoer in (4-588) is affected, while the DAT undergoer in (4-580), (4-582) and (4-585) is not affected.

[3] ERG-ACC → ERG-ACC

Here there is no change in transitivity, and ERG-ACC remains intact. The following verbs are attested: *yimba-garra-Y* 'wear', *boybo-garra-Y* 'spit on', and *woda-garra-Y* 'take off' The following verbs, too, seem to belong here: *yilmbo-garra-Y* 'pull', *baja-garra-Y* 'bite', *baba-garra-Y* 'stab', *nyaga-garra-Y* 'see, look at', *baya-garra-Y* 'sing', *ganyji-garra-Y* 'carry', *gimbi-garra-Y* 'blow [of wind]'

A pair of examples involving *yimba-L* 'wear':

(4-589) *yarro-Ø yinda yimba-n.* (AP)
 this-ACC(O) 2SG.ERG(A) wear-NF
 'You wear this.' (ERG-ACC)

(4-590) *jana-nggo ngaygo balgobalگو-Ø yimba-garra-n.* (AP)
 3PL-ERG(A) 1SG.GEN hat-ACC(O) wear-ITER-NF
 'They wear my hat.' (ERG-ACC)

A pair of examples involving *boybo-L* 'spit on' are (3-38) (ERG-ACC) and:

(4-591) *bama-goman-do boybo-garra-n bama-Ø.* (TT,AP)
 man-another-ERG(A) spit.on-ITER-NF man-ACC(O)
 'Another man spat on the man.' (ERG-ACC)

(This sentence was approved by Alf Palmer. However, in retrospect, the attachment of *-goman* 'another' to the first occurrence of *bama* may not be perfectly adequate. The sentence would probably sound better if *-goman* is added to the second occurrence of *bama* instead, resulting in the sentence with the meaning of 'The man spat on another man'.)

Additional examples of *Vt-garra-Y* with ERG-ACC:

(4-592) (A group of workers were carrying cartons of food from a barge onto the jetty, at Palm Island. Alf Palmer said as follows.)
woda-garra-n jana-nggo [manyja-Ø TT,AP] (AP).
 take.out-ITER-NF 3PL-ERG(A) [food-ACC(O)]
 'They are taking [the food] [off the barge to the jetty].'

- (4-593) [*gando-nggo* TT] *nganya* *baja-garra-n*. (AP)
 [dog-ERG(A)] 1SG.ACC(O) bite-ITER-NF
 ‘The dog kept biting me.’

(This sentence describes a dog’s gesture of affection. *Gando-nggo* was added by me, too late to be checked by Alf Palmer.)

We have seen the case frame of *yimba-garra-Y* ‘wear’, *boybo-garra-Y* ‘spit on’, *woda-garra-Y* ‘take off’, and also (though the example is not complete) *baja-garra-Y* ‘bite’. The case frame of the other iterative verbs listed above is not known for certain. But the relevant examples approved by Alf Palmer suggest that they take ERG-ACC, with no change in transitivity.

[4] Syntactic ergativity

Vi-garra-Y conforms to syntactic ergativity, e.g. (4-594). The ‘antipassive’ *Vt-garra-Y* (NOM-DAT, NOM-ERG), too, probably conforms to syntactic ergativity. Consider (4-595), which was composed by me.

- (4-594) (‘Many men of my tribe are waiting to kill their enemies.’)

yalnyjabara-Ø *ngaygo* *bama-Ø* *yindo* *jolgin-gga*
 crowd-NOM(S) 1SG.GEN man-NOM(S) somewhere.here scrub-LOC
nyina-garra-n [*bama-Ø* TT] *balga-gali-yal* *bama-wo*. (AP)
 sit-ITER-NF [man-NOM(d-S)] kill-ANTI-PURP man-DAT

Lit. ‘My men, a crowd, are sitting somewhere here in the scrub to kill [other] men.’ (S=[d-S])

- (4-595) *bama-Ø* *yani-Ø* [*bama-Ø*] *balmbi-garra-yal* *joga-wo*. (TT)
 man-NOM(S) go-NF [man-NOM(d-S)] smell-ITER-PURP smoke-DAT
 ‘The man went to smell for the smoke.’ (S=[d-S])

4.13.3. Semantics

4.13.3.1. Aspectual meanings: the imperfective

As seen above, iterative verbs have typically imperfective interpretations such as (i) iterative (‘repeatedly’), (ii) distributive (‘here and there’), (iii) continuous (including progressive), and (iv) habitual.

A pair of examples of the iterative reading: Alf Palmer used the following minimal pair and explained the meaning of *-garra-Y*.

- (4-596) a. *wona-n*
 lie, sleep, stay-NF
 Alf Palmer’s gloss: ‘one night’

- b. *wona-garra-n*
 lie, sleep, stay-ITER-NF
 Alf Palmer's gloss: 'every night'

An example of *wona-garra-Y* is (4-597). Another example of the iterative reading is (4-598).

- (4-597) *yarro-n-da* *ngaya* *wona-garra-n*. (AP)
 this-LINK-LOC 1SG.NOM(S) lie-ITER-NF
 'I stay/camp here repeatedly.'

(Alf Palmer's translation is 'sleep every night'.)

- (4-598) ('That boy is clumsy' was translated as follows.)
galbiri-Ø *ngona-Ø* *galngga-garra-n*. (AP)
 children-NOM(S) that-NOM fall-ITER-NF
 'Those children fall over repeatedly.'

(Alf Palmer's translation is 'fall down again'. *Galbiri* contains the noun-stem-forming suffix *-rV* 'plural (?)' (3.7.1-[16]).)

A pair of examples of the distributive reading: Alf Palmer used the following minimal pair and explained the meaning of *-garra-Y*.

- (4-599) a. *yodi-Ø*
 swim-NF
 Alf Palmer's gloss: 'just swim'
 b. *yodi-garra-n*
 swim-ITER-NF
 Alf Palmer's gloss: 'swim about'

Examples of *yodi-garra-Y* are in Text 1, Lines 51 and 53. Other examples of the distributive reading include (4-576) to (4-578), (4-568), (4-574).

Examples of the continuous reading (including progressive) include (4-580), (4-582), (4-583), (4-585), (4-52), (4-593), and:

- (4-600) ('I found a kangaroo, and fetched a spear from the camp.')
- yarro-Ø* *nyola* *garbo wona-garra-n*. (AP)
 this,here-NOM 3SG.NOM(S) still lie-ITER-NF
 'It [i.e. the kangaroo] was still lying here.'

- (4-601) ('I am dancing' was translated as follows.)
ngaya *nyamba-garra-n*. (AP)
 1SG.NOM(S) dance-ITER-NF
 'I am dancing.'

An example of the habitual reading:

- (4-602) *yarro-n-da jana-Ø wona-garra-n ganba-mara.* (AP)
 here-LINK-LOC 3PL-NOM(S) live-ITER-NF ago-very
 ‘They used to live here a long time ago.’

Perhaps as a subtype of the distributive reading, when the S (or A?) has plural referents, the sentence can mean ‘many actors do here and there simultaneously’, e.g.

- (4-603) (‘You have women everywhere, and:’)
ngoni=rro ngoni=rro galbiri-Ø yino wona-garra-n
 there=again there=again children-NOM(S) 2SG.GEN live-ITER-NF
golbila gonggarri gowa wanggarri. (AP)
 in.south in.north in.west in.east
 ‘Here and there your children stay/live in the south, in the north, in the west[, and] in the east.’

(*Ngoni=rro ngoni=rro* means ‘here and there’ (4.25-[5]). It is interesting to note the relative order of the mention of the cardinal directions: south → north → west → east.)

One and the same iterative verb may have more than one reading. For example, *wona-garra-Y* ‘lie, sleep, stay, live’ is iterative in (4-596-b), (4-597), continuous in (4-600), habitual in (4-602), and distributive in (4-603).

The verb-stem-forming suffix *-rV* ‘many, all’ (3.11.1.4) means ‘many do together’ or ‘one does something to many’ (Its affixation does not affect the transitivity of the verbs.) It seems that Alf Palmer recognized a semantic similarity between an iterative verb with a plural S (at least, and possibly A as well) and the corresponding verb with *-rV*. For example, when requested to give a Warrongo translation of ‘many stand’, he said as follows. (The glosses are by me.)

- (4-604) *bama-Ø jana-Ø jana-garra-n* or *jana-ra-n.* (AP)
 (man-NOM(S) 3PL-NOM(S) stand-ITER-NF TT) (stand-many-NF TT)
 Stand around, you know.

(This sentence can be translated as follows: ‘They, the men, stood around’.) Similarly, Alf Palmer gave the following.

- (a) Both *nyina-garra-n* (‘sit-ITER-NF’) and *nyina-ra-n* (‘sit-many-NF’) for ‘many people sit’.
 (b) Both *wona-garra-n* (‘stay-ITER-NF’) and *wona-ra-n* (‘stay-many-NF’) for ‘many people live’.

4.13.3.2. *Obligatory vs. non-obligatory use of -garra-Y*

In terms of the obligatory as against non-obligatory use of *-garra-Y*, the verbs listed in 4.13.1 can be classified as follows, as far as the verbs for which relevant data are available, are concerned.

[1] Intransitive verbs

(a) In spontaneously produced data, the following roots are not used by themselves as verbs, and they are always combined with *-garra-Y*. Furthermore, they are attested in the nonfuture form *-garra-n* only. (The class membership of the following roots was examined in elicitation.)

ralmba-Y 'be crippled', *walngga-L* 'float', *joyma-Y* 'crawl', *nyida-Y* 'sneeze', *boni-L* 'feel dizzy', *dodi-L* 'swing', *goyi-L* 'cry', *badi-ZERO* 'cry', *worri-?* 'dance', *goda-?* 'cough'.

(b) The following roots generally or almost always occur with *-garra-Y*. Some of them are attested in the nonfuture form *-garra-n* only.

waymba-Y 'walk about', *nyamba-Y* 'dance', *bonba-Y* 'cry', *wama-Y* 'get lost', *woji-L* 'grow up', *yaji-ZERO* 'laugh', *yodi-ZERO* 'swim'

(c) Other intransitive roots are generally or more frequently attested without *-garra-Y*.

[2] Transitive verbs

They are only rarely attested with *-garra-Y*.

It may be thought that there is a semantic basis for this close association between the intransitive roots of (a) (they always occur with *-garra-Y*) and *-garra-Y*. However, no such semantic basis has been ascertained. These roots are not homogenous in terms of their inherent aspectual properties, such as punctual, durative, dynamic, and static.

For the intransitive roots of (a), *-garra-Y* appears to be semantically empty, since they are always attested with it. An example:

(4-605) *ngaya boni-garra-n*. (AP)
 1SG.NOM feel.dizzy-ITER-NF
 'I feel dizzy.'

Admittedly, however, it is difficult to prove that *-garra-Y* is semantically vacuous, and it may be possible to assign one of the readings, for instance, a continuous reading for (4-605): 'I am feeling dizzy'

For the intransitive roots of (b), *-garra-Y* also seems semantically somewhat vacuous, since they generally or almost always occur with it. (It may appear that

this contradicts Alf Palmer's comment cited in (4-599) that *yodi-garra-n* means 'swim about'. Probably he was emphasizing the meaning of *-garra-Y*. When these roots occur without *-garra-Y*, they generally take the nonfuture-1 form *-n*, and furthermore the nonfuture form is repeated. (Naturally, an iterative verb, too, can be repeated.) An example involving *bonba-Y* 'cry' and *bonba-garra-Y*, cited from a text, is (4-606). An example involving *yodi-ZERO* and *yodi-garra-Y*, cited from a text, is (4-607).

- (4-606) a. *ngona-ngomay ngaya bonba-garra-n*
 that-after 1SG.NOM cry-ITER-NF
 'Then I cried continuously.'
- b. *ngaya bonba-n bonba-n bonba-n bonba-n* (AP)
 1SG.NOM cry-NF cry-NF cry-NF cry-NF
 'I kept crying.'
- (4-607) a. *ngali-Ø malan-da yodi-garra-n goyay-ngal*
 1DU-NOM creek-LOC swim-ITER-NF across-to
 'We kept swimming across the creek, to the other side.'
- b. *ngali-Ø yodi-n yodi-n* (AP)
 1DU-NOM swim-NF swim-NF
 'We kept swimming on and on.'

Another example of repetition of *yodi-n* is in Text 1, Line 55 (repeated twice).

For the intransitive roots of (c) and transitive verbs, *-garra-Y* no doubt has a meaning.

It seems that the use of *-garra-Y* is not obligatory for expressing the aspectual meanings listed above. First, depending on the context these aspectual meanings can be expressed without *-garra-y*, e.g. (3-43) ('used to walk around') and:

- (4-608) *yowo ngana-Ø yama-nga-n yamba-angga warayi-da* (AP)
 yes 1PL-ERG so-TR-NF camp,country-LOC one's.own-LOC
 'Yes, we used to do so in our own camp/country.'

Second, there appear to be ways to make a given aspectual meaning clear (without using an iterative verb). (i) Repetition of the same verb produces the continuous (or possibly) iterative reading, e.g. (4-606) and (4-607). (ii) Reduplication of a verb root may yield the continuous or iterative reading (such as 'eat again and again' and 'jump about'); see 3.11.2. (iii) Addition of the adverb *woga-goman-goman* 'for many nights, day after day' ('asleep-another-another') selects the iterative reading, e.g. (3-222). (iv) Addition of the adverb *garbo* 'still' favours the continuous reading, e.g. (4-600). (v) Addition of *ngoni=rro ngoni=rro* 'here and there' (literally 'there=again there=again'; cf. 4.25-[5])) yields the distributive reading ('here and there'), e.g. (3-108) and (4-603).

4.13.4. More on the formation of iterative verbs

4.13.4.1. Iterative verbs based on an adverb and a noun

There is one iterative verb that is based on an adverb. *Wonaja-garra-Y* Vi ‘camp about’, e.g. (4-609), is based on the adverb *wonaja* ‘camping out’ (cf. (3-16)). There is possibly one iterative verb that is based on a noun. The putative iterative verb *jawa-garra-Y* Vi ‘vomit, open the mouth all the time’, e.g. (4-610), is based on the noun *jawa* ‘mouth’.

(4-609) (An example cited from a text)

ngali-Ø wonaja-garra-Ø. (AP)
 1DU-NOM camping.out-ITER-NF
 ‘We camped about.’

(4-610) *bama-Ø jawa-garra-n.* (AP)

man-NOM mouth-ITER-NF
 ‘The man vomited.’

These verbs cannot be used as verbs without *-garra-Y*. No doubt, *wonaja-garra-Y* ‘camp about’ was used on the analogy of *wona-garra-Y* ‘lie-ITER-NF’, e.g. (4-600). Alf Palmer uttered three examples of *jawa-garra-n*, but later he denied the existence of this verb. It is not certain if *jawa-garra-n* is a bona fide Warrongo word. (This may not be significant, but they are attested in the nonfuture-1 form *-garra-n* only, with one exception: in (4-609) the iterative verb occurs in the nonfuture-2 form *-garra-Ø*.)

4.13.4.2. *-n-garra-n*

In a small number of examples, the nonfuture-1 *-garra-n* is added to what appears to be the nonfuture-1 form (*-n*) of a verb, and not to its root or stem. Thus, for ‘jump again and again’ (cf. *wara-L* Vi ‘jump’), in succession on one occasion Alf Palmer gave both *wara-garra-n* and *wara-n-garra-n*, and said the latter form about three times. Similarly, involving *wadali-ZERO* ‘run’, Alf Palmer gave both *wadali-garra-n* and *wadali-n-garra-n* (in succession on one occasion). (See (4-578) for an example of *wadali-garra-n*.) For the following verbs, Alf Palmer gave only the forms that involve *-n*.

(a) *jagoli-n-garra-n*. Alf Palmer’s gloss is ‘very sad, everybody, here and there’. (*jagoli-ZERO* ‘be sorry, sad’)

(b) *yimirri-n-garra-n*. Alf Palmer’s gloss is ‘very glad’. (*yimirri-ZERO* ‘be glad’)

(c) *mira-nga-n-garra-n*. Alf Palmer said this verb twice on one occasion. (*mira-nga-L* ‘make’ (4.7.2-[7]-(c)))

All the iterative verbs that involve *-n-garra-n* are listed in 4.13.1.

Etymologically, this *-n* is probably the nonfuture-1 suffix *-n*. However, synchronically it will have to be analyzed as a linking interfix, although elsewhere *garra-Y* - and, for that matter, all other verbal inflectional and derivational suffixes – is not preceded by *-n*. (The linking interfix occurs in certain nouns, pronouns, and certain adverbs. It precedes a case suffix. See Tables 3-3, 3-5, and 3-6.)

4.14. Applicative construction

4.14.1. Introductory notes

Warrongo has the verb-stem-forming suffix *-ri-L* ‘applicative’, which is added to – intransitive or transitive – verb roots. The resultant stems are transitive. They belong to L-class. (Virtually, all the transitive roots and stems belong to L-class; cf. 3.9.3.)

Virtually all the verb roots are disyllabic, and all the verb roots are vowel-final (3.9.3). Likewise, in all the applicative verbs, the elements to which *-ri-L* is added are disyllabic and vowel-final.

Applicative verbs are of two types. Suffixation of *-ri-L* to intransitive roots produces locative verbs: verbal locative construction (4.14.2). Their valence increases by one. They often have a locative-like meaning. Suffixation of *-ri-L* to transitive roots creates instrumental verbs: verbal instrumental construction (4.14.3). They generally have an instrumental-like meaning. It is not clear whether or not their valence increases.

It seems that *-ri-L* cannot be added to a derivational suffix. In this respect, it resembles derivational suffixes such as *-wa-Y* ‘reciprocal’ (see 4.12.9.1), and differs from those such as *-gali-ZERO* ‘antipassive’ (4.9.1) and *-garra-Y* ‘iterative’ (4.13.1). It also seems that *-ri-L* cannot be followed by any derivational suffix.

The applicative construction is highly marked as against corresponding clauses in terms of verb morphology, semantics, pragmatics, and frequency.

4.14.2. Verbal locative construction: Vi-*ri-L*

4.14.2.1. Locative verbs

A full list of attested locative verbs, together with their meaning, is given below. (The gloss ‘APPL’ is omitted.) They can often be translated by means of *in*, *on*, *into*, or *with*. Note that the meaning of a locative verb is not always predictable on the basis of the intransitive verb. With locative verbs, *-ri-L* is not productive. It is attested only with fifteen intransitive roots.

(a) L-class:

banda-ri-L ‘come out, emerge-’: ‘come out with [someone?]
jarga-ri-L ‘go in, enter-’: ‘go into [a house]’
waga-ri-L ‘get up-’: ‘get up with [something in a hand]’
wara-ri-L ‘jump-’: ‘jump with [something in a hand]’
wada-ri-L ‘play-’: ‘play in [a ground]’
wada-ri-L ‘play-’: ‘run with [shoes on]’
mago-ri-L ‘work-’: ‘work together with [a co-worker]’
wandi-ri-L ‘rest [on something]-’: ‘lie on top of [a woman].’

(b) Y-class:

nyina-ri-L ‘sit (down), stay-’: ‘sit/stay with [someone]’, ‘sleep with [a man, a woman]’, ‘mind, look after [someone, e.g. a patient]’, ‘be married to [a man, a woman]’, ‘sit on [a saddle, a swag, a ground sheet]’, ‘sit/stay in [a camp, a house, a shade]’, ‘sit/be with [clothes on]’

jana-ri-L ‘stand (up)-’: ‘stand by [a fire]’, ‘stand on [a road]’, ‘stand with [one’s own feet]’, ‘stand near [someone]’, ‘mind, look after, keep an eye on [someone]’, ‘look after, keep [cattle, goats]’, ‘hold in arms and soothe [a crying baby]’

wona-ri-L ‘lie (down), sleep-’: ‘sleep with [a man, a woman]’, ‘sleep on [a blanket]’, ‘sleep in [a camp, a house]’

nyamba-ri-L ‘dance-’: ‘dance with [someone]’, ‘dance with [ornaments on]’, ‘dance to [a song, a beating rhythm]’

janda-ri-L ‘wade-’: ‘carry [a child on the shoulders] and wade’ (It is not certain if *janda-* belongs to Y-class.)

(c) ZERO-class:

yodi-ri-L ‘swim-’: ‘swim with [someone]’, ‘swim with [clothes on]’, ‘carry [something] and swim’

(d) Irregular:

yani-L/Y ‘go, come, walk-’: ‘go/walk with [someone]’, ‘carry [a swag]’, ‘take away, steal [a swag]’, ‘go into [a scrub]’, ‘walk on [a road]’

The intransitive verb *wada-L* ‘play about’ is attested; see (4-488), and also *wada-garra-Y* ‘play about-ITER’ (4.13.1) and *wada-gali-ZERO* ‘play-MID’ in (4-489) to (4-491). The intransitive verb *wada-li-ZERO* ‘run’ is attested (3.11.1.6-[3]), e.g. (4-228), (4-578), but the root *wada-L* with the meaning ‘run’ is not. The intransitive verb *mago-* ‘work’ is not attested, but, if this verb root exists, it is probably of L-class (3.11.1.6-[1], -[3]).

Locative verbs are attested with the following conjugational suffixes: *-n* ‘non-future-1’, *-l* ‘nonfuture-2’, *-lgo* ‘purposive-1’, *-yal* ‘purposive-2’, *-ya* ‘general im-

perative-2', and *-nyo* 'participle-1' They are not attested with any other conjugational suffix, such as *-lga* 'apprehensional' and *-nji* 'participle-2'. That is, they seem to have a somewhat defective paradigm.

There is one example with the zero suffix, possibly a third nonfuture form: *wona-ri-Ø* 'lie/sleep-APPL-NF(?)' (cf. the nonfuture-3 *yani-Ø* (Table 3-14). There is also one instance of a locative verb followed by what appears to be the enclitic *=ngomay* 'after, if, because' (4.10): *wona-ri-Ø=ngomay* 'lie/sleep-APPL-NF(?)=after' Unfortunately, there is no sentential example of either of them.

4.14.2.2. Case frames

Locative verbs are transitive (see 4.14.2.3 for their transitivity). They take the ERG-ACC case frame. Generally, though not always, a corresponding, 'basic' intransitive clause can be set up. See Table 4-42. That is, the correspondence is generally 'S . A'. (A colon indicates 'corresponds to' See 4.11.1.)

Table 4-42. Verbal locative construction and basic clauses

verbal locative construction	ERG	ACC	<i>Vi-ri-L</i>	example
basic intransitive clause				
(a)	NOM	LOC	<i>Vi</i>	(4-611-a)
(b)	NOM	COM-NOM	<i>Vi</i>	(4-612)
(c)	NOM	LOC or COM-NOM	<i>Vi</i>	(4-619)
(d)	NOM	?	<i>Vi</i>	(4-622)

The ACC of the verbal locative construction corresponds to the LOC of the basic clause of (a), to the COM-NOM of the basic clause of (b), and to the LOC or the COM-NOM of the basic clause of (c). There are instances of the verbal locative construction for which I am unable to suggest any basic clause; see (d). Examples of each type follow.

(a) 'NOM LOC'. There are many examples. A pair of examples involving the root *nyina-Y Vi* 'sit' (4-611-a) (a basic clause; NOM LOC) and (4-611-b) (the verbal locative construction; ERG ACC).

(4-611) (A sequence of two sentences cited from a text)

a. *ngana-Ø nyina-n ngona-n-da=wa woma-ngga.*
 1PL-NOM sit-NF that-LINK-LOC=FOC shade-LOC
 'We sat in that shade.' (NOMLOC)

b. [*ngana-Ø TT*] *jarribara-Ø woma-Ø nyina-ri-n.* (AP)
 [1PL-ERG] good-ACC shade-ACC sit-APPL-NF
 '[We] sat in a good shade.' (ERG ACC)

(b) 'NOM COM-NOM'. There are very few examples of this type. Compare (5-612) and (4-613), which involve the root *nyina-Y* Vi 'sit'.

(4-612) *yarro-yi-Ø gambi-yi-Ø ngaya nyina-n.* (TT)
 this-ACC clothes-COM-NOM 1SG.NOM sit-NF
 'I am sitting with these clothes on.' (NOM COM-NOM)

(4-613) ('I am cold and shivering.')

yarro-Ø=gol gambi-Ø ngaya nyina-ri-n. (AP)
 this-ACC=only clothes-ACC 1SG.ERG sit-APPL-NF
 'I am sitting with only these clothes on.' (ERG ACC)

As another pair of examples, compare the following sentences, which involve *wona-Y* Vi 'lie, sleep'.

(4-614) *ngaya nyongo-n-ji-Ø wona-ya.* (TT)
 1SG.NOM(S) 3SG-LINK-COM-NOM lie,sleep-PURP
 'I will sleep with her.'

(4-615) *ngaya nyonya wona-ri-lgo.* (AP)
 1SG.ERG(A) 3SG.ACC(O) lie,sleep-APPL-PURP
 ('As above.')

As additional examples, compare the following, which involve the irregular *yani-Vi* 'go, come'

(4-616) *nyola yani-Ø gonggarri-ngal golgorra-yi-Ø.* (AP)
 3SG.NOM go-NF north-to swag-COM-NOM
 'He went north, with [his] swag.' (NOM COM-NOM)

(4-617) *bama-nggo yani-ri-n golgorra-Ø.* (AP)
 man-ERG go-APPL-NF swag-ACC
 'The man walked away with (or took away, or stole) a swag.' (ERG ACC)

(4-618) *bama-nggo yani-ri-n nyongo golgorra-Ø.* (AP)
 man-ERG go-APPL-NF 3SG.GEN swag-ACC
 'The man went (or carried) his swag.' (ERG ACC)

Literally, (4-617) would be expected to mean 'The man went with (or carried) a swag' However, Alf Palmer's glosses for it are 'walk away with', 'take away' and 'steal'. He stated to the effect that, in order to say that the man carried his swag, and not stole it, the genitive *nyongo* '3SG.GEN' has to be included. That is, the inclusion of the genitive selects the meaning 'carry', as against 'steal'.

(c) ‘NOM LOC’ or ‘NOM COM-NOM’. There are very few examples. As a set of examples, compare the following, which involve the root *nyina-Y* Vi ‘sit’.

(4-619) *yarro-n-da yinda gaya-ngga nyina-ya.* (AP)
 here-LINK-LOC 2SG.NOM father-LOC sit-IMP
 ‘Sit/stay with [your] father here.’ (NOM LOC)

(4-620) *yinda nyina-n warrngo-yi-Ø.* (AP)
 2SG.NOM sit-NF woman-COM-NOM
 ‘You, with a woman, are sitting.’ (NOM COM-NOM)

(4-621) *rayi-Ø nyola nyina-ri-n.* (AP)
 young.girl-ACC 3SG.ERG sit-APPL-NF
 ‘He is sitting with a young girl.’ (ERG ACC)

As another set of examples, the locative verb *nyamba-ri-L* ‘dance to (a song, etc.)’ naturally takes ERG-ACC, e.g. (4-112), (4-628). Now, *nyamba-Y* ‘dance’ (Vi) can take either ‘NOM LOC’, e.g. (3-58), or ‘NOM COM-NOM’, e.g. (3-159), to express ‘dance to (a song, etc.)’.

(d) ‘NOM ?’ For certain instances, it is difficult to set up any case that would correspond to the ACC of the verbal locative construction. The meaning of the locative verb concerned is ‘irregular’ and is different from the expected ‘literal’ meaning. Such locative verbs include *yani-ri-L* ‘steal’, e.g. (4-618), *nyina-ri-L* ‘look after’, ‘be married to’, e.g. (4-622), and *jana-ri-L* ‘look after, mind, keep an eye on’, e.g. (4-623), (4-624).

(4-622) *ngona-Ø nyola galbin-Ø nyina-ri-n ngaygo.* (AP)
 that-ACC 3SG.ERG niece-ACC sit-APPL-NF 1SG.GEN
 ‘He is married to that niece of mine.’

(4-623) *birgo-Ø ngaygo yarro-n-da jana-ri-ya.* (AP)
 wife-ACC 1SG.GEN here-LINK-LOC stand-APPL-IMP
 ‘Please watch/mind/keep an eye on my wife here.’

(4-624) (Alf Palmer described his job as a young boy at Cashmere Station as follows.)

naninani-Ø ngaya jana-ri-n. (AP)
 goat-ACC 1SG.ERG stand-APPL-NF
 ‘I used to look after goats.’

(*Naninani* ‘goat (in general, not just nanny goat)’ is a loan from the English *nanny goat* (2.13.2-[2]-(a)).

Needless to say, all of these locative verbs listed in (d) have yielded examples for which a corresponding case can be set up. For example, *nyina-ri-L* ‘sit-APPL’ can have the corresponding ‘NOM LOC’, e.g. (4-611-b), and ‘NOM COM-NOM’, e.g. (4-613).

4.14.2.3. Transitivity

Locative verbs are transitive. This can be shown as follows.

- (a) Case of the A NP. This is clearly the ERG, and not the NOM. See (4-617) and (4-618), in particular; the A NP has the ergative suffix *-nggo*.
- (b) Modification by another verb (4.5.4.1). A locative can be modified by a verb formed by means of the transitive-stem-forming suffix *-nga-L* (4.7.2), e.g. (4-141) (the only example!), and not by a verb formed by means of the intransitive-stem-forming suffix *-bi-L* (4.7.1).

The above shows that the valence of locative verbs increases, by one.

4.14.2.4. Use

4.14.2.4.1. Frequency

As noted in 4.14.2.1, the use of *-ri-L* for locative verbs is not productive. The verbal locative construction is far less frequent than the corresponding intransitive clause (if there is any corresponding one at all). As a pair of examples, we shall consider the intransitive ‘NOM LOC *nyina-Y*’ (‘sit’) and the verbal locative ‘ERG ACC *nyina-ri-L*’ (‘sit-APPL’). They can have much the same meaning: ‘sit in (a place)’. In the six hours of the running texts, there are only four instances of *nyina-ri-L* with the meaning of ‘sit in (a place)’, e.g. (4-611-b), while on the other hand there are as many as 167 instances – more than 40 times as many – of ‘NOM LOC *nyina-Y*’ with the meaning of ‘sit in a place’, e.g. (4-611-a).

Due to their low frequency, it has proved very difficult to pinpoint factors that may condition the use of locative verbs, as against the corresponding intransitive verbs. Nonetheless, there are three circumstances under which a locative verb, rather than the intransitive verb, seems to have to be used: (i) to facilitate coreferential deletion, to fit syntactic ergativity (4.14.2.4.2), (ii) when a given locative verb is lexicalized (4.14.2.4.3), and (iii) to be used in ‘ADJECTIVE to VERB’ construction (4.14.2.4.4). It is also useful to comment on word order in the verbal locative construction (4.14.2.4.5).

4.14.2.4.2. Use in purposive subordination: syntactic ergativity

All of the inflectional categories attested with locative verbs – except for the participle-1 (*-nyo*) – can be used in simple sentences and in the main clauses of complex sentences, e.g. nonfuture-1 in (4-622), general imperative-2 in (4-623), and the purposive-1 (*-lgo*) in (4-615). (Participles are generally used in subordinate clauses only; see 4.15.)

- (4-625) *ngaya nyonya yodi-ri-lgo.* (AP)
 1SG.ERG 3SG.ACC swim-APPL-PURP
 ‘I will swim with her.’

As seen in 4.8.1, the purposive-1 (*-lgo*) and the purposive-2 (*-yal*) can be used in subordinate clauses, describing result, consequence or successive action. This applies to the purposives of locative verbs as well. Examples:

- (4-626) (Two men found a group of women, and one of the men said:’)
ngaya-Ø bolari-Ø ganyji-lgo
 1SG.ERG(A) two-ACC(O) carry-PURP
wona-ri-lgo ngaya bolari-Ø. (AP)
 sleep-APPL-PURP 1SG.ERG(A) two-ACC(O) (A=A, O=O)
 ‘I will take two [women] so that I can sleep with the two [women].’

- (4-627) *ngaya yarro-Ø bama-Ø ganyji-n*
 1SG.ERG(A) this-ACC man-ACC(O) carry-NF
 [*ngaya* TT] [*mago-ri-lgo*] [*yarro-Ø bama-Ø* TT]. (AP)
 [1SG.ERG(A)] work-APPL-PURP [this-ACC man-ACC(O)]
 ‘I am taking this man so that [I] can work [together] with [this man].’
 (A=[A], O=[O])

Now, as noted in 4.8.4 and 4.9.4.1, in coreferential deletion, the ideal coreference patterns are the S/O patterns (S=[O], O=[S]) and the neutral patterns (S=[S], A=[A], O=[O]). The use of a locative verb in purposive subordination facilitates coreferential deletion. That is, this use of a locative verb has a syntactic (and not semantic or pragmatic) motivation. As a pair of examples, compare (4-628) (the purposive clause has a locative verb) and (4-629) (composed by me) (the purposive clause has an intransitive verb).

- (4-628) *ngaya yino ngaya baya-lgo gama-Ø*
 1SG.ERG(A) 2SG.GEN 1SG.ERG(A) sing-PURP Gama-ACC(O)
yinda nyamba-ri-lgo [gama-Ø TT] ngoni-n-da. (AP)
 2SG.ERG(A) dance-APPL-PURP [Gama-ACC(O)] there-LINK-LOC
 ‘I will sing the Gama song for you so that you can dance to [the Gama song] there. (O=[O])

- (4-629) *ngaya yino baya-lgo gama-Ø*
 1SG.ERG(A) 2SG.GEN sing-PURP Gama-ACC(O)
yinda nyamba-yal gama-ngga [or *gama-yi-Ø*]. (TT)
 2SG.NOM(S) dance-PURP Gama-LOC [Gama-COM-NOM]
 ‘I will sing the Gama dance for you so that you can dance to the Gama dance.’ (ACC(O)=LOC, or, ACC(O)=COM-NOM)

The coreference patterns in (4-629) do not fit any of the ideal patterns for deletion. If the LOC NP or the COM-NOM NP is deleted, the sentence will mean just ‘so that you can dance’, and not ‘so that you can dance to the Gama song’. That is, the resultant sentence will not be one in which the LOC NP or the COM-NOM NP has been deleted. The use of a locative verb creates the O=O pattern, which is one of the ideal patterns, and now deletion is perfectly acceptable: O=[O] in (4-628). (As noted 4.8.4, deletion is not obligatory even when one of the ideal patterns obtains. This applies to (4-626); it contains ‘A=A’ and ‘O=O’, but deletion did not take place.)

In each of (3-626) to (4-628), the main clause is transitive, and the coreference patterns include ‘O=S’, and deletion of ‘O=[S]’ took place in (4-627) and (4-628). Now, there is just one example in which the main clause is intransitive (a ‘verbless clause’). The coreference pattern is ‘S=O’ (one of the ideal patterns), and deletion is perfectly acceptable: ‘S=[O]’

- (4-630) *yino-n-go nyola walngga-yi-Ø*
 2SG-LINK-DAT 3SG.NOM(S) breath-COM-NOM
yinda wona-ri-lgo [nyonya TT]. (AP)
 2SG.ERG(A) sleep-APPL-PURP [3SG.ACC(O)]
 Lit. ‘She likes you so that you will sleep with [her].’ (S=[O])

A more idiomatic translation will be ‘She likes you and is keen for you to sleep with her’

4.14.2.4.3. Lexicalized locative verbs

As seen in 4.14.2.2, certain locative verbs have a meaning that is different from the expected ‘literal’ meaning. They may be considered lexicalized. Clauses with such a verb seem to lack a (corresponding) basic, intransitive clause. They would have to be used in place of a non-existent basic clause.

Sometimes, though this is decidedly uncommon, there is a transitive verb that has a very similar meaning to that of a locative verb. Examples:

- (a) *yani-ri-L* (‘go-APPL’) ‘steal’, e.g. (4-617), and *yobaynga-L* Vt ‘steal (e.g. a woman)’ (4.7.2-[6]-(b)), e.g. (4-154).
 (b) *yani-ri-L* ‘carry’, e.g. (4-618) and *ganyji-L* Vt ‘carry’, e.g. (4-45), (4-46) to (4-49).
 (c) *jana-ri-L* (‘stand-APPL’) ‘look after, mind, keep an eye on’, e.g. (4-623), (4-624), and *nyaga-nyaga-L* Vt ‘watch, mind, keep an eye on’, e.g. (4-337).

4.14.2.4.4. 'ADJECTIVE to VERB' construction

In 4.9.7-[4] we set up the 'ADJECTIVE to VERB' construction: 'Noun-ACC Adjective-Acc Vt-PURP1' (In the examples available, the transitive verb has *-lgo* 'purposive-1' There is no example involving *-yal* 'purposive-2'.) Locative verbs, too, can be used for this construction. Both of the purposives are attested: *-lgo* in (4-631), and *-yal* in (4-632). In the examples available, the 'adjective' is *jarribara* 'good' in (4-631), and *gido* 'cold' in (4-632).

(4-631) (This sentence follows (4-611-a, -b): 'We sat in that shade. We sat in a good shade.')

yamba-Ø yarro-Ø jarribara-Ø nyina-ri-lgo. (AP)
 camp-ACC this-ACC good-ACC sit-APPL-PURP
 'This camp is good to stay in.'

(4-632) ('We will sit by the fire.')

yamba-Ø yarro-Ø gido-Ø nyina-ri-yal. (AP)
 camp-ACC this-ACC cold-ACC sit-APPL-PURP
 'This camp is cold to stay in.'

If the word for the place is in the locative, the resultant sentence seems unlikely to have the meaning 'ADJECTIVE to VERB' Consider (4-633), which I have made up.

(4-633) *yarro-n-da yamba-ngga jarribara-ngga nyina-yal.* (TT)
 this-LINK-LOC camp-LOC good-LOC sit-PURP
 '[Someone] will sit in this good camp.'

This sentence seems unlikely to mean 'This camp is good to stay in'. That is, in order to express 'nice to stay in', the verbal locative construction (to be precise, its 'ADJECTIVE to VERB' construction), rather than the intransitive clause, seems to have to be used.

For the 'ADJECTIVE to VERB' construction, only *nyina-ri-L* 'sit-APPL' is attested, although presumably some other locative verbs, too, would be acceptable.

4.14.2.4.5. *Word order: topic (?)*

There are two points that need to be mentioned.

(a) As seen in 4.6.3.2-[2], in transitive clauses, the A-initial orders are the most frequent: 45% (AOVt 20%, AVt 18%, AVtO 7%). These figures include those instances in which the A is not sentence-initial. In contrast, in instances of the verbal locative construction, two thirds have the O in the sentence-initial position, e.g. (4-611-b), (4-612), (4-613), (4-621) to (4-624), (4-631), (4-632), and:

(4-634) ('My uncle and my father brought me some food. I am sitting here and eating it.')

ngaygo yarro-Ø warayi-Ø yamba-Ø nyina-ri-n ngaya. (AP)
 1SG.GEN this-ACC one's.own-ACC camp-ACC sit-APPL-NF 1SG.ERG
 'I am sitting in this camp of my own.'

(b) The tendency to place the O in the sentence-initial position in the verbal locative construction, also contrasts with the typical position of the locative or comitative NPs in basic clauses. Although locative or comitative NPs may occur sentence-initially, e.g. (3-5), (3-49), (3-53), in two thirds of the instances they do not, e.g. (3-3), (3-12), (3-16), (3-42), (3-43), (3-54). Compare (i) basic clauses: (3-42) (LOC not initial), (4-635) (LOC initial), and (ii) verbal locative construction, (4-611-a), (4-634) (O initial); they all mean 'sit/stay in a place'.

(4-635) *yamba-ngga yina-n ngaya.* (AP)
 camp-LOC sit-NF 1SG.NOM
 'I sat in the camp.'

It is tempting to view the frequent sentence-initial placement of the O in the verbal locative construction as a reflection of its topic status. Indeed, this seems to be the case with the 'ADJECTIVE to VERB' construction; see 4.14.2.4.4. However, not all other instances of such placement are amenable to this analysis. See (4-634), for instance.

4.14.2.5. Locative verbs with the causative meaning

In the instances listed below, *-ri-L* is suffixed to an intransitive root or a noun, producing verbs with the causative meaning.

(a) Intransitive root

(a-1) L-class

waga-ri-L 'get up-': make [a penis] big(?).

wanba-ri-L 'be afraid-': 'frighten'.

banda-ri-L 'crack (of noise)-': 'make [something] crack (of noise)'.

(a-2) Y-class

jana-ri-L '[someone, something] stand (up)-': 'stand [something] up'.

janda-ri-L 'wade-': 'make [someone] wade' (It is not certain if this verb really has a causative meaning.)

(b) Noun

gagal 'big': *gaga-ri-L* 'grow [something] big'

The formation of *gaga-ri-L* may be considered as involving the deletion of *l* (2.6-[3]).

The following verbs are both locative verbs (S A) and causative verbs (S O). (A colon indicates ‘corresponds to’. See 4.11.1.)

(i) *jana-ri-L*

Locative verb: ‘stand by/near [someone, something]’, ‘look after’, etc.,
e.g. (4-623), (4-624).

Causative verb: ‘stand [something up]’, e.g. (4-636-b).

(ii) *waga-ri-L*

Locative verb: ‘get up with [something]’

Causative verb: ‘make [a penis] big (?)’.

(iii) *janda-ri-L*

Locative verb: ‘wade with [something]’

Causative verb (possibly): ‘make [someone] wade’

(4-636) (An example cited from a text. A woman says to her husband:)

a. *gibagiba-Ø=gaji jombi-Ø yino.*
mushroom-NOM=CF penis-NOM 2SG.GEN

‘It looks as if your penis [were] a mushroom’, i.e. ‘Your penis looks like a mushroom.’

b. *ngona-n-da yinda jana-ri-lgo gibagiba-Ø=gaji*
that-LINK-LOC 2SG.ERG(A) stand-ri-PURP mushroom-ACC=CF
jombi-Ø. (AP)
penis-NOM

‘There [i.e. in my vagina?] you will stand up [your] penis, which looks like a mushroom.’

(Alf Palmer’s gloss for *jana-ri-lgo* is ‘stand up’. See 4.25-[1] for the enclitic =*gaji* ‘counterfactual’)

The eastern dialects of Pitta-Pitta have the causative suffix *-ri* attached to verb stems (Blake and Breen 1971: 70).

(Suffixation of the transitive-stem-forming suffix *-nga-L* (4.7.2-[5]-(a) and also that of *-(m)ba-L* (4.7.3-[3]-(a)) produce causative verbs and also verbs similar to locative verbs.)

4.14.3. Verbal instrumental construction: *Vt-ri-L*4.14.3.1. *Instrumental verbs*

When forming locative verbs, *-ri-L* is attested with intransitive roots only, and no derived stem. In contrast, when forming instrumental verbs, *-ri-L* is attested with transitive roots and also two derived stems (all L-class). A full list of instrumental verbs, together with their meaning, is given below. (The gloss ‘APPL’ is omitted.)

They typically denote an instrument, in which case their English translation involves *with* or *by means of*. They can also describe a place, a destination, etc. and they may be translated involving *in*, *into*, or *on*. They can even involve *from* or *in return for*. The total of 27 instrumental verbs are attested. In this respect, *-ri-L* for instrumental verbs is more productive than *-ri-L* for locative verbs (only 15 are attested).

[1] Based on a two-place transitive verb

(a) Based on a two-place transitive root

(a-1) Type 1 'direct effect'

balga-ri-L 'hit, kill-': 'hit/kill with [a stick, a club]', 'hit [someone] in [a fighting ground]', 'kill [cattle] in [a yard]'

jingga-ri-L 'punch-': 'punch with [something]'

jobi-ri-L 'rub-': 'rub with [a hand]'

baba-ri-L 'stab, dig, sew, wash-': 'stab with [a spear, a penis]', 'dig with [a stick]', 'sew with [a needle]', wash in [a laundry]'

giba-ri-L 'scrape-': 'scrape with [something]'

baja-ri-L 'bite-': 'bite with [teeth]'

moja-ri-L 'eat-': 'eat [food] with/from [a plate]'

bija-ri-L 'drink with [a cup]', 'drink [from a leaf]', e.g. (4-386).

balmbi-ri-L 'smell-': 'smell with [the nose]'

baya-ri-L 'sing-': 'sing with [a music stick (?)]', 'sing to [the rhythm of a stick]'

jonda-ri-L 'kiss with [the mouth]'

jaynya-ri-L 'copulate with-': 'copulate with [someone] in [a fighting ground]', 'copulate with [someone] in return for [a gift, money]'

gonba-ri-L 'cut-': 'cut with [a knife, a stone axe]'

moga-ri-L 'catch, grab-': 'catch [fish] with [a fish net]', 'grab [a woman] with [a hand]'

yilmba-ri-L 'pull-': 'pull [fish] with [a hook]', 'pull [fish] in [a fish net]'

jarga-ri-L 'put in-': 'put [meat] in [a store room]', 'put [cattle] in [a yard]', 'put [water] in [a bark container]', 'put [a penis] in [a vagina]'

binda-ri-L 'put down-': 'put [cattle] in [a yard]'

galga-ri-L 'pour-': 'pour [urine or faeces, i.e. urinate or defecate] into [something]'

ngaba-ri-L 'soak-': 'soak [honey] in [water]', i.e. 'mix honey with water'

gamba-ri-L 'cover-': 'cover with [a handkerchief, clothes, a bark blanket, sand]'

garba-ri-L 'cover-': 'cover with [a bark blanket]'

wajo-ri-L 'cook-': 'cook [on a fire, heated stones]', 'cook in [a bark container]'

(a-2) Type 2 ‘perception’

nyaga-ri-L ‘see, look at-’: ‘look at [something] with [eyes]’

(b) Based on a two-place transitive derived stem

(b-1) Type 1 ‘direct effect’

yagay-nga-ri-L ‘make [someone] scream-’: ‘make [someone] scream with [something], e.g. ‘make a woman scream with a penis’.*mira-nga-ri-L* ‘make-’: ‘make [something] with [something].’

(See 4.14.4.1 for these two verbs.)

[2] Based on a three-place transitive verb

(a) Based on a three-place transitive root

goyba-ri-L ‘throw-’: ‘throw [meat] onto [a fire]’*mayga-ri-L* ‘tell-’: ‘talk with [a microphone]’*ganyji-ri-L* ‘carry-’: ‘carry in [a vessel]’, ‘carry on [wheels]’, ‘drove [cattle] with [a whip]’*birri-ri-L* ‘send-’: ‘send [someone] away with [a weapon (?)]’

(b) Based on a three-place transitive stem: no example.

In terms of the hierarchy of two-place predicates, instrumental verbs are confined to the two highest types: Type 1 ‘direct effect’ and Type 2 ‘perception’. This is shown in Table 4-20.

Instrumental verbs are generally attested with only one conjugational category: purposive-1 (*-lgo*) used in the L-class only). That is, they have a highly defective paradigm. They do not seem to occur with any other conjugational category – possibly except for the apprehensional *-lga* (see 4.14.3.5.1-[2]) and the nonfuture-2 for the L-class: *-l* (see the next paragraph). In this respect, they are less productive than locative verbs.

My field notes contain two forms that contain what appears to be the enclitic =*ngomay* ‘after, if, because’. *baba-ri-l=ngomay* ‘bite-APPL-NF(?)=after’ and *baba-ri=ngomay* ‘bite-APPL=after’ Unfortunately, there is no sentential example.

4.14.3.2. *Case frames and valency*

The verbal instrumental construction corresponds to basic clauses as shown in Table 4-43. The DAT of the former consistently corresponds to the ACC of the latter. The ACC of the former generally corresponds to the ERG (i.e. (a) of Table 4-43), the LOC (i.e. (b)), the DAT (i.e. (c)) or the ABL-ACC (i.e. (d)) of the latter. For certain instances, however, it is difficult to set up a corresponding case frame, i.e. (e).

Table 4-43. Verbal instrumental construction and basic clauses

	actor	instrument, etc.	undergoer		
verbal instrumental construction	ERG	ACC	DAT	Vt-ri-L	example
basic transitive clauses					
(a)	ERG	ERG	ACC	Vt	(4-637)
(b)	ERG	LOC	ACC	Vt	(4-638)
(c)	ERG	DAT	ACC	Vt	(4-657)
(d)	ERG	ABL-ACC	ACC	Vt	(4-386)
(e)	ERG	?	ACC	Vt	(4-660)

We shall look at each of these case frames.

(a) 'ERG ERG ACC'

In the vast majority of the examples, the instrumental verb indicates an instrument or the like, and the ACC corresponds to the ERG (the instrument) of the basic clause, e.g. (4-637), (4-639) to (4-642).

(b) 'ERG LOC ACC'

In a fair number of instances, the ACC corresponds to the LOC 'in, on, into, etc.' The instrumental verb has a meaning such as 'carry in/on [something]', 'cook in/on [a fire]', 'hit [in a place]', 'copulate with [someone] in [a place]', or 'put in/into [something]', e.g. (4-638), (4-655).

(c) 'ERG DAT ACC'

With *goyba-ri-L* 'throw-APPL' 'throw onto [something]', the ACC corresponds to the DAT (the goal), e.g. (4-657). The dative case exhibits a wide range of meanings, such as 'to, onto' (3.6.4). However, (4-657) is the only example of this case frame (ERG DAT ACC) of any instrumental verb.

(d) 'ERG ABL-ACC ACC'

With *moja-ri-L* 'eat with/from [a plate]', e.g. (4-651), and also *bija-ri-L* 'drink with/from [a cup, a leaf]', e.g. (4-386), it is possible to say that the ACC corresponds to the ERG (the instrument), as in (a). But it is also possible to say that the ACC corresponds to the ABL-ACC, i.e. (d). See (4-385).

(e) 'ERG ? ACC'

For *jaynyja-ri-L* 'copulate with [someone] in return for [a gift, money]', e.g. (4-460), and *baya-ri-L* 'sing to [the rhythm of a stick]', e.g. (4-461), it is not known what case frame to set up.

With locative verbs, it is safe to say that their valence increases by one (4.14.2.3). In contrast, with instrumental verbs, it is not definitely certain that their valence increases at all. This is because the ACC of the basic clause corresponds to the DAT of the verbal instrumental construction, and it is not clear if this DAT is an argument.

4.14.3.3. *Use*

4.14.3.3.1. *Syntactic possibilities*

As noted in 4.14.3.1, instrumental verbs generally occur with the purposive-1 (*-lgo*) only. Note in particular that they do not occur in finite forms, such as the nonfutures. They are attested in various types of sentences, as shown in Table 4-44. The first ACC (this is O) and the second ACC (this, too, is O) have to be coreferential, and its second occurrence is always elided, except in (a) and (n). The first ERG (this is A) and the second ERG (this, too, is A) need not be coreferential. When they are, the second occurrence is elided, again except in (a). A square bracket indicates what may be considered ellipsis.

Table 4-44. Various types of the verbal instrumental construction

	main clause			subordinate clause			
(a)?	ERG	ACCi	Vt	ERG	ACCi	DAT	<i>Vt-ri-lgo</i>
(b)	ERG	ACCi	Vt	ERG	[ACCi]	DAT	<i>Vt-ri-lgo</i>
(c)	ERG	ACCi	Vt	ERG	[ACCi]	[DAT]	<i>Vt-ri-lgo</i>
(d)	ERG	ACCi	Vt	[ERG]	[ACCi]	DAT	<i>Vt-ri-lgo</i>
(e)	ERG	ACCi	Vt	[ERG]	[ACCi]	[DAT]	<i>Vt-ri-lgo</i>
(f)	[ERG]	[ACCi]	Vt	[ERG]	[ACCi]	DAT	<i>Vt-ri-lgo</i>
(g)	[ERG]	ACCi	[Vt]	ERG	[ACCi]	DAT	<i>Vt-ri-lgo</i>
(h)	[ERG]	ACCi	[Vt]	ERG	[ACCi]	[DAT]	<i>Vt-ri-lgo</i>
(i)	[ERG]	ACCi	[Vt]	[ERG]	[ACCi]	DAT	<i>Vt-ri-lgo</i>
(j)	[ERG]	ACCi	[Vt]	[ERG]	[ACCi]	[DAT]	<i>Vt-ri-lgo</i>
(k)	[ERG]	[ACCi]	[Vt]	[ERG]	[ACCi]	DAT	<i>Vt-ri-lgo</i>
(l)	[ERG]	[ACCi]	[Vt]	[ERG]	[ACCi]	[DAT]	<i>Vt-ri-lgo</i>
(m)	[ERG]	[ACCi]	[Vt]	ERG	[ACCi]	[DAT]	<i>Vt-ri-lgo</i>
(n)?	[ERG]	[ACCi]	[Vt]	ERG	ACCi	[DAT]	<i>Vt-ri-lgo</i>

We shall look at each of these patterns.

Pattern (a). The only example is:

- (4-637) *giya-Ø yinda moga-Ø*
 hook-ACC(O) 2SG.ERG(A) get-IMP
giya-Ø ngona-wo yinda yilmba-ri-lgo. (AP)
 hook-ACC(O) that-DAT 2SG.ERG(A) pull-APPL-PURP
 'Get a hook so that you can pull that with the hook.' (O=O, A=A)

Pattern (a) exhibits the full, non-elliptical pattern. However, probably (4-565) is not good stylistically. (This is indicated by the question mark in Table 4-14.) It was obtained during an elicitation session. Probably it was dictated by Alf Palmer, slowly and word by word. It contains the coreference patterns 'A=A' and 'O=O'. They are among the ideal patterns for coreferential deletion (Table 4-13). As seen in 4.8.4, even when the coreference pattern is one of the ideal patterns, the deletion of the second occurrence of the coreferential NP is not absolutely obligatory. Nonetheless, if the NPs in question are nouns, rather than pronouns, the second occurrence is elided (or deleted) in all the spontaneously given examples. In (4-637), the second occurrence of the noun *giya* is not elided. It is in view of this that I suspect that probably (4-637) is not good stylistically. In all the patterns listed in Table 4-44, the second occurrence of the ACC is elided, except in (m).

Pattern (b). The only example is:

- (4-638) *bori-Ø ngayya moga-n*
 firewood-ACC(O) 1SG.ERG(A) get-NF
 [*bori-Ø TT*] *manyja-wo wajo-ri-lgo jana-nggo.* (AP)
 [firewood-ACC(O)] food-DAT cook-APPL-PURP 3PL-ERG(A)
 'I obtained firewood so that they could cook food on [the fire].' (O=[O])

(The noun *bori* means 'firewood' and 'fire'.) As noted above, the first ERG and the second ERG need not be coreferential. They are so in (4-637), but they are not in (4-638).

In the subordinate clause, the DAT in addition to the ACC, may be elided, resulting in Pattern (c), e.g. (4-639). The ERG in addition to the ACC may be elided, resulting in Pattern (d), e.g. (4-640), (4-641). All of the ERG, the ACC and the DAT may be elided, resulting in Pattern (e), e.g. (4-642). In Pattern (f), the ERG and the ACC of each of the main clause and the subordinate clause are elided.

Pattern (c)

- (4-639) *yinda ngona-Ø ngaygo goyba-Ø*
 2SG.ERG(A) that-ACC(O) 1SG.GEN give-IMP
ngaya [ngona-Ø TT] baba-ri-lgo. (AP)
 1SG.ERG(A) [that-ACC(O)] sew-APPL-PURP
 'Give that to me so that I can sew [something] with [that].' (O=[O])

Pattern (d)

- (4-640) *bama-nggo bilgoro-Ø ganyji-n*
 man-ERG(A) knife-ACC(O) carry-NF
 [*bama-nggo bilgoro-Ø* TT] *manyja-wo gonba-ri-lgo.* (AP)
 [man-ERG(A) knife-ACC(O)] food-DAT cut-APPL-PURP
- (i) 'The man carried a knife so that [he] could cut food with [the knife].'
 (A=[A], O=[O])
- (ii) 'The man carried a knife so that [someone else] could cut food with [the knife].'
 (O=[O])

(Both readings are possible, since the first ERG and the second ERG need not be coreferential.)

- (4-641) [*ngaya ngona-Ø* TT] *banggorro-wo baba-ri-lgo*
 [1SG.ERG(A) that-ACC(O)] turtle-DAT stab-APPL-PURP
ngona-Ø ngaya miranga-lgo. (AP)
 that-ACC(O) 1SG.ERG(A) make-PURP
 'So that I can stab a turtle with [that], I will make that.' ([A]=A, [O]=O)

(In (4-641), the subordinate clause ('so that I can stab a turtle with [that]') precedes the main clause ('I will make that'). It is an exception to the general tendency for a purposive subordinate clause to follow the main clause (4.8.5-[4]. I tentatively assign (4-641) to Pattern (d).)

Pattern (e)

- (4-642) *ngaya banggay-Ø moga-n*
 1SG.ERG(A) spear-ACC(O) get-NF
 [*ngaya banggay-Ø* TT] *baba-ri-lgo.* (AP)
 [1SG.ERG(A) spear-ACC(O)] stab-APPL-PURP
 'I got a spear so that [I] could stab [something] with [the spear].'
 (A=[A], O=[O])

Pattern (f)

See Text 1, Line 65-a, -b.

It is probably reasonable to say that Patterns (b) to (f) are elliptical versions of Pattern (a). In contrast, the other patterns may not be adequately regarded as elliptical versions of Pattern (a). If, for the sake of exposition, they are regarded as elliptical versions at all, they can be shown as in Table 4-44. Examples are (4-643) for Pattern (g), (4-644) for (h), (4-645) for (i), (4-646) for (j), (4-647) for (k), and (4-648) for (l). (What may be considered elided words will not be shown.)

Pattern (g)

- (4-643) *rirra-Ø ngaya baja-ri-lgo manyja-wo.* (AP)
 tooth-ACC 1SG.ERG bite-APPL-PURP food-DAT
 Alf Palmer's translation: 'I [have - TT] got my tooth to bite tucker (i.e. food).'

Pattern (h)

- (4-644) (Alf Palmer described a fighting ground jocularly as follows.)
boron-Ø jaynyja-ri-lgo galbiri-nggo. (AP)
 f.g.-ACC copulate.with-APPL-PURP children-ERG
 'A fighting ground is for children to copulate with [someone] in.'

Pattern (i)

- (4-645) *noba-Ø gamo-wo ganyji-ri-lgo.* (AP)
 bark.container-ACC water-DAT carry-APPL-PURP
 'A bark container is to carry water in (or, is for carrying water).'

Pattern (j)

- (4-646) *bilgoro-Ø gonba-ri-lgo.* (AP)
 knife-ACC cut-APPL-PURP
 'A knife is to cut with (or, is for cutting).'

Pattern (k)

- (4-647) (Alf Palmer described a laundry as follows.)
gambi-wo baba-ri-lgo. (AP)
 clothes-ACC stab-APPL-PURP
 '[A laundry is] to wash clothes in (or, for washing clothes).'

Pattern (l)

- (4-648) (Alf Palmer described the use of a microphone as follows.)
mayga-ri-lgo. (AP)
 tell-APPL-PURP
 '[A microphone is] to talk with (or, is for talking).'

The patterns (g) to (l), just exemplified, were commonly encountered. They generally describe the use/function of a tool or the like. Probably they should not be regarded as elliptical versions of (a), and the following construction should be recognized for them. See 4.14.3.3.4 for more on this.

- (4-649) 'X is for VERBing with' construction

Examples of the remaining patterns follow: (4-650) for (m), and (4-651) for (n).

Pattern (m)

(4-650) (Alf Palmer described a fighting ground jocularly as follows.)

yinda yinda jaynyja-ri-lgo. (AP)
 2SG.ERG 2SG.ERG copulate.with-APPL-PURP
 ‘[A fighting ground is] for you to copulate with [someone] in.’

Pattern (n)

(4-651) *ngaya yarro-Ø moja-ri-lgo.* (AP)
 1SG.ERG this-ACC eat-APPL-PURP
 ‘This [plate is] for me to eat with/from’ or ‘I eat with/from this [plate]’

The ex. (4-650) was uttered by Alf Palmer. However, this pattern, i.e. (m), does not seem very well-formed (hence the question mark for (m) in Table 4-44). The reason is as follows. On the analogy of examples such as (4-650), a sentence like (4-652) would be expected.

(4-652) **bama-nggo yarro-Ø baja-ri-lgo.* (TT)
 man-ERG this-ACC bite-APPL-PURP
 Intended meaning: ‘This [plate is] for the man to eat with/from.’

However, (4-652) was rejected by Alf Palmer. Also, I suspect that Pattern (n), too, is not very well-formed. These two patterns, i.e. (m) and (n), differ from the (common and well-formed) patterns (g) to (l) in that the ERG of the instrumental verb occurs sentence-initially.

Purposive subordination in general almost always indicates (i) purpose or (ii) result, consequence or successive action (4.8.1). A clause with an instrumental verb in the purposive-1 almost always denotes purpose, e.g. (4-637) to (4-642). There is, however, just one exception:

(4-653) (When Alf Palmer and I were sitting by a fire, he advised me not to burn my fingers.)
yinda mara-Ø woyji-ngga rayi-wo moga-ri-lgo. (AP)
 2SG.ERG hand-ACC burn-APPR girl-DAT catch-APPL-PURP
 ‘You might burn [your] hand that [you] catch [a girl] with.’

This sentence does not mean ‘You might burn your hands so that you can catch a girl with’. Here, the instrumental verb is probably used to characterize the hands in a way similar to examples like Patterns (g) to (l) (William McGregor, p.c.). (As far as the structure is concerned, (4-653) is an example of (d).)

As shown by (4-637) to (4-642), the main clause is transitive. There is no example in which the main clause is intransitive (such as ‘The axe arrived for me to chop the tree with’ (William McGregor, p.c.)).

As Table 4-44 demonstrates, sentences involving an instrumental verb exhibit a continuum, from a full two-clause sentence, i.e. (4-637), to very fragmentary – one-clause and even one-word – sentences, e.g. (4-651). Since they constitute a continuum, it is difficult to draw a line between mono-clausal and bi-clausal sentences. This in turn makes it difficult to characterize subordination in Warrongo.

Now, as is the case with locative verbs, there are three circumstances under which an instrumental verb, and not a basic transitive verb, seems to have to be used: (i) to facilitate coreferential deletion, to fit in syntactic ergativity (4.14.3.3.2), (ii) when a given instrumental verb is lexicalized (4.14.3.3.3), and (iii) to express ‘X is for VERBing with’ (4.14.3.3.4).

4.14.3.3.2. Use in purposive subordination: syntactic ergativity

Like locative verbs (4.14.2.4.2), instrumental verbs may be used in subordinate clauses to facilitate coreferential deletion, turning a non-ideal coreference pattern into an ideal pattern. The relevant correspondences are as follows (cf. Table 4-44): (a) ERG (instrument): ACC(O), (b) LOC ACC(O), (c) DAT ACC(O), and (d) ABL-ACC . ACC(O).

(a) ERG (instrument) ACC(O)

For example, (4-640) may be considered as derived from (4-654). ((4-654) is probably not good stylistically.)

(4-654) *bama-nggo bilgoro-Ø ganyji-n*
 man-ERG knife-ACC(O) carry-NF
bama-nggo manyja-Ø gonba-lgo bilgoro-nggo. (TT)
 man-ERG food-ACC cut-PURP knife-ERG

Intended meaning: ‘The man carried a knife so that the man could cut food with the knife.’ (ACC(O)=ERG(instrument))

The ERG (instrument) of (4-654), the basic clause, corresponds to the ACC (O) of (4-640). The coreference pattern is ‘ACC(O)=ERG(instrument)’ (a non-ideal pattern) in (4-654), and it is ‘O=O’ (an ideal pattern) in (4-640), and the second O is deleted: O=[O]. (In (4-568), the second occurrence of the ERG (actor), too, is elided.)

(b) LOC ACC(O). Compare:

(4-655) *nyola ganyji-n barrawo-Ø*
 3SG.ERG carry-NF bark.container-ACC(O)
 [*nyola barrawo-Ø* TT] *gamo-wo jarga-ri-lgo.* (AP)
 [3SG.ERG bark.container-ACC(O)] water-DAT put.in-APPL-PURP
 ‘She carried a bark container so that [she could] put water in [the bark container].’ (O=[O])

(4-656) *nyola ganyji-n barrawo-Ø*
 3SG.ERG carry-NF bark.container-ACC(O)
nyola barrawo-ngga gamo-Ø jarga-lgo. (TT)
 3SG.ERG bark.container-LOC water-ACC put.in-PURP
 Intended meaning: ‘(As above)’ (O=LOC)

(c) DAT ACC(O). There is only example: (4-657).

(4-657) (‘I caught a kangaroo, and made a fire to cook it.’)
 [*ngaya* TT] *bori-Ø ngona-Ø gagal-Ø wajo-n*
 [1SG.ERG] fire-ACC(O) that-ACC big-ACC burn-NF
 [*ngaya yori-Ø* TT] *goyba-lgo bori-wo.* (AP)
 [1SG.ERG kangaroo-ACC(O)] throw-PURP fire-DAT
 ‘[I] made a big fire so that [I] could throw [a kangaroo] to [the fire].’ (O=[O])

(4-658) *ngaya bori-Ø ngona-Ø gagal-Ø wajo-n*
 1SG.ERG fire-ACC(O) that-ACC big-ACC cook-NF
ngaya bori-wo goyba-lgo yori-Ø. (TT)
 1SG.ERG fire-DAT throw-PURP kangaroo-ACC
 Intended meaning: ‘(As above.)’ (O=DAT)

(d) ABL-ACC ACC(O)

Compare (4-386), involving an instrumental verb (‘leaf-ACC(O)’ = [‘leaf-ACC(O)’]) and (4-659), the basic clause (‘leaf-ACC’ = ‘leaf-ABL-ACC’).

(4-659) *bama-nggo gobo-Ø ganyji-n*
 man-ERG leaf-ACC(O) carry-NF
bama-nggo bija-lgo gamo-Ø gobo-ngomay-Ø. (TT)
 man-ERG drink-PURP water-ACC leaf-ABL-ACC
 Intended meaning: ‘The man carried a leaf so that the man could drink water from the leaf.’ (O = ABL-ACC)

4.14.3.3.3. *Lexicalized instrumental verbs*

There are at least two instrumental verbs for which I am unable to set up a corresponding clause; cf. (e) of Table 4-44. They will have to be used, in place of a non-existent basic clause, and they may be considered lexicalized. One of them is *jaynyja-ri-L* with the meaning ‘copulate with [someone] in return for [a gift, money], e.g.:

(4-660) *yinda gajarra-∅ goyba-n jaynyja-ri-lgo.* (AP)
 2SG.ERG possum-ACC give-NF copulate.with-APPL-PURP
 ‘You gave [her] a possum to copulate with [her] in return for [it].’

Jaynyja-ri-L is the only instrumental verb that is attested with the meaning ‘in return for’ The other lexicalized instrumental verb is *baya-ri-L* sing [a song] to [the rhythm of a stick], e.g..

(4-661) *jalimbirri-∅ moga-∅ baya-ri-lgo.* (AP)
 music.stick-ACC get-IMP sing-APPL-PURP
 ‘Get a music stick to sing to [its rhythm].’

In intransitive clauses, ‘[dance] to [music]’ can be expressed by the LOC, e.g. (3-58), and the COM-NOM, e.g. (3-159). However, it is not known if this is possible in transitive clauses, and I am unable to set up a basic clause for (4-661).

4.14.3.3.4. *‘X is for VERBing with’ construction*

In 4.9.7-[4] and 4.14.2.4.4, I proposed to set up the ‘ADJECTIVE to VERB’ construction. It may involve either a basic transitive verb or a locative verb (it is transitive). In a similar vein, in 4.14.3.3.1, I proposed to recognize the ‘X is for VERBing with’ construction. It always involves an instrumental verb (it is transitive), and not a basic transitive verb. It is exemplified by the patterns (g) to (l) of Table 4-44. These patterns describe the use or function of a tool or the like. The ACC, which refers to a tool or the like, always occurs sentence-initially, and it seems to indicate topic.

Compare (4-645), one such example, with:

(4-662) *noba-ngga gamo-∅ ganyji-lgo.* (TT)
 bark.container-LOC water-ACC carry-PURP

This sentence will mean ‘[Someone] will carry water in a bark container’, and it is decidedly unlikely to mean ‘A bark container is for carrying water in’. That is, a basic transitive clause such as (4-662) is unlikely to describe the use or function of a tool, and the ‘X is for VERBing with’ construction will have to be used.

The ‘ADJECTIVE to VERB’ and ‘X is for VERBing with’ constructions are similar in that (i) the verb involved is transitive, (ii) the sentence characterizes (the referent of) the ACC NP, (iii) the ACC NP occurs sentence-initially, and (iv) the ACC NP seems to indicate topic. It may be relevant that in (4-652), which was rejected by Alf Palmer, the ACC NP does not occur sentence-initially.

4.14.3.4. *More on the morphology*

In the instances listed below, *-ri-L* is attached to transitive roots. Its function or meaning is not clear. At least, *woda-ri-L* Vi ‘come out’ has the anticausative meaning (O S). Compare (3-123) (3-329) (a transitive clause containing *woda-L* Vt ‘pull out, take out’) and (4-664). (4-664) is probably acceptable, although this is not certain. (There is another anticausative verb involving the same transitive root (*woda-L* ‘take out, pull out’): *woda-ra-L* ‘come out’ (3.11.1.4-[2], e.g. (3-30). It is not known if *bija-L* ‘drink’ and *bija-ri-L* Vi ‘swell up’ are related.

<i>nyaga-nyaga-L</i> ‘watch, mind’ (4.9.9.3.3)	<i>nyaga-nyaga-ri-L</i> ‘watch, mind’
<i>woda-L</i> ‘take out, pull out’, e.g. (3-123), (3-329)	<i>woda-ri-L</i> Vt ‘take away’, e.g. (4-663) <i>woda-ri-L</i> Vi ‘come out’, e.g. (4-664)
<i>bija-L</i> ‘drink’	<i>bija-ri-</i> Vi ‘swell up’ (L-class?)

(4-663) (‘I wanted a new wife, and found another man’s wife.’)

bama-ngomay-Ø ngaya woda-ri-n ganyji-lgo. (AP)
man-ABL-ACC 1SG.ERG take.out-ri-NF carry-PURP
‘I took [her] away from the man to take [her with me].’

(4-664) *jombi-Ø woda-ri-n.* (TT)
penis-NOM take.out-ri-NF
‘[My] penis came out.’

4.14.3.5. *Restrictions (?) on the use of instrumental verbs*

Here, we shall look at possible restrictions on the use of instrumental verbs. The restrictions that apply to both locative verbs and instrumental verbs are mentioned in 4.14.4.

4.14.3.5.1. *Inflectional suffixes*

As noted in 4.14.3.1, instrumental verbs almost always occur with the purposive-1 (*-lgo*). Comments on the nonfuture-1 and the apprehensional are in order.

[1] Nonfuture-1 (-n)

On the basis of examples such as (4-643), sentences such as (4-665) may be composed.

- (4-665) *rirra-Ø ngaya baja-ri-n manyja-wo.* (TT)
 tooth-ACC 1SG.ERG bite-APPL-NF food-DAT
 Intended meaning: 'I bite food with [my] teeth.'

However, such sentences were never uttered spontaneously. Furthermore, those I made up were not favourably approved by Alf Palmer. For example, (4-665) was replaced by him with:

- (4-666) *rirra-Ø ngaygo ngaya baja-ri-lgo manyja-wo.* (AP)
 tooth-ACC 1SG.GEN 1SG.ERG bite-APPL-PURP food-DAT
 'My teeth are for me to bite food with.'

(This is an instance of Pattern (g) in Table 4-44.)

[2] Apprehensional 'lest, in case'

The apprehensional suffix (-lga for L-class; Table 3-15) is hardly ever attached to instrumental verbs. Nonetheless, this suffixation may be acceptable. There are two reasons for this.

First, I made up three examples of this suffixation and they were all approved by Alf Palmer. (This was on the 10th August 1972.) Two of them:

- (4-667) *ngalnga yinda jola-Ø ganyji-ya*
 PROH 2SG.ERG stick-ACC carry-IMP
nyola gando-wo balga-ri-lga. (TT)
 3SG.ERG dog-DAT hit-APPL-APPR
 Intended meaning: 'Don't carry a stick in case he hits a dog with [it].'

- (4-668) *ngaya banggay-Ø gonba-n*
 1SG.ERG spear-ACC cut-NF
yinda gando-wo baba-ri-lga. (TT)
 2SG.ERG dog-DAT stab-APPL-APPR
 Intended meaning: 'I cut up a stick in case you stab a dog with [it].'

The third example is the same as (4-667) except that it has *banggay-Ø* 'spear-ACC' in place of *jola-Ø* 'stick-ACC'

Second, two years later (3rd September 1974), Alf Palmer himself gave the following.

- (4-669) *baba-ri-lga.* (AP)
 stab-APPL-APPR
 Alf Palmer's translation: 'By and by [he] might spear [someone]. [He is] no good.'

4.14.3.5.2. *Pronouns for the DAT*

In virtually all the examples the DAT NP for an instrumental verb is a noun or a demonstrative member of adverb, and not a pronoun. There is only one example of a pronoun for the DAT: (4-670). It appears that a pronoun is not favoured for this DAT position. For example, I suggested (4-671), but Alf Palmer did not approve it and instead he gave (4-672), which involves *yarro* ‘this, here’, a demonstrative member of adverb.

(4-670) *yino-n-go* *giba-ri-lgo*. (AP)
 2SG-LINK-DAT scrape-APPL-PURP
 ‘[This is] for scratching you with.’

(4-671) **baba-ri-lgo* *nyongo-n-go*. (TT)
 stab-APPL-PURP 3SG-LINK-DAT
 Intended meaning: ‘[This is] for stabbing him/her with.’

(4-672) *baba-ri-lgo* *yarro-wa*. (AP)
 stab-APPL-PURP this-DAT
 ‘[This is] for stabbing this [person] with.’

(Both (4-670) and (4-672) are instances of Pattern (k) of Table 4-44.)

A similar situation obtains with the ACC of locative verbs. It is almost always a noun, and there are a very small number of examples involving a pronoun, e.g. (4-625) (*nyonya* ‘3SG.ACC’).

4.14.4. Restrictions on the use of applicative verbs

There are a few restrictions or tendencies that (appear to) apply to both of locative verbs and instrumental verbs.

4.14.4.1. *Derivational suffixes*

Generally the applicative suffix (*-ri-L*) seems unable to precede or follow a derivational suffix.

(a) For example, *-ri-L* seems unable to precede the reciprocal *-wa-Y* (4.12). Consider:

(4-673) *ngali-Ø* *wona-ri-n* *birri~birri*. (AP)
 1DU-ERG(A) lie,sleep-APPL-NF close~close
 ‘We lay [i.e. slept] very close to each other.’

As the translation indicates, (4-673) has the reciprocal meaning. The reciprocal *wona-ri-wa-Y* ‘lie-APPL-RECP’ would be expect to occur. (Since reciprocal verbs

are surface-intransitive, *ngali-Ø* '1DU' would be NOM ('1DU-NOM(S), and not ERG ('1DU-ERG(A)). However, *wona-ri-wa-Y* is not used in (4-673). The verb *wona-ri-L* 'lie-APPL' is transitive, but it cannot be followed by *-wa-Y*. This is probably because *wona-ri-L* 'lie-APPL' already has the stem-forming suffix *-ri-L*. That is, in (4-673), *wona-ri-L* 'lie-APPL' appears to be used in place of the unacceptable **wona-ri-wa-Y* 'lie-APPL-RECP'

(b) There are only two instances in which *-ri-L* follows a derivational suffix, viz. the transitive-stem-forming suffix *-nga-L*: (i) *yagay-nga-ri-L* 'make [someone] scream with [something]', e.g. (4-674) (*yagay* 'Ouch!', *yagay-nga-L* 'make [someone] scream') (4.7.2-[4]), and (ii) *mira-nga-ri-L* 'make [something] with [something]' (*mira-nga-L* 'make' (4.7.2-[7])-(c)).

(4-674) *yinda jombi-Ø ganyji-n*
 2SG.ERG penis-ACC carry-NF
 [*yinda jombi-Ø* TT] *warrngo-wo yagay-nga-ri-lga*. (AP)
 [2SG.ERG penis-ACC] woman-DAT Ouch!-TR-APPL-PURP
 'You have a penis to make a woman scream with.'

(This is an instance of Pattern (d) of Table 4-44.)

4.14.4.2. Animacy of the A NP

In all the examples of the applicative construction, the A NP is human, and there is no example of a non-human animate or inanimate A NP.

The applicative construction almost always describes a volitional act. The locative verb *wona-ri-L* can mean 'sleep with [a man, a woman]', e.g. (4-615), (4-626). This act, too, may be volitional.

Locative verbs such as the following are not attested: *wola-ri-L* 'die with [someone], die in [a place]' and *galngga-ri-L* 'fall with [someone, something]' It may be significant that *wola-y* 'die' and *galngga-y* 'fall' probably describe non-volitional acts.

4.14.4.3. Meaning of the 'basic' NP

We saw that the LOC or the COM-NOM of a basic intransitive clause may correspond to the ACC of the verbal locative construction (Table 4-42), and that the ERG (for instrument), the LOC, the DAT or the ABL-ACC may correspond to the ACC of the verbal instrumental construction (Table 4-43). However, there appear to be restrictions on what NP can correspond to the ACC. In other words, certain basic clauses seem to lack a corresponding applicative construction. Probable restrictions include the following.

[1] When the following cases have any of the meanings indicated, there appears to be no corresponding applicative construction.

- (a) LOC (3.6.3): (i) time, (ii) placename, (iii) cause, reason.
- (b) DAT (3.6.4): (i) possessor, (ii) beneficiary.
- (c) ABL-ACC (3.6.7): (i) cause, reason.
- (d) COM-NOM (3.6.8): (i) cause, reason.

For example, (3-18) ('night-LOC' indicating time), involving *yani-Ø* 'go-NF', appears to have no corresponding verbal locative construction. This is despite the existence of the locative verb *yani-ri-L* 'go-APPL', e.g. (4-617), (4-618). The same applies to instrumental verbs.

[2] Abstract nouns

In all the examples, the noun in question has a concrete referent, and it is not an abstract noun. For example, consider (3-161) (*morrān-ji-Ø wona-n* 'illness-COM-NOM' lie, sleep-NF'). It seems to have no corresponding verbal locative construction, despite the existence of the locative verb *wona-ri-L* 'lie, sleep-APPL', e.g. (4-615), (4-626). The same applies to instrumental verbs.

[3] Body part nouns

Here, the situation differs between locative verbs and instrumental verbs. With locative verbs, a body part noun seems unable to occur in the ACC position. For example, (3-165) (*bolo-yi-Ø* 'belly-COM-NOM'), involving *nyina-n* 'sit-NF', seems to have no corresponding verbal locative construction, despite the existence of the locative verb *nyina-ri-L* 'sit-APPL', e.g. (4-611-b), (4-613), (4-621). In contrast, with instrumental verbs, a body part noun can occur in the ACC position. There are several examples, e.g. (4-643), (4-666) ('tooth-ACC'), and (4-674) ('penis-ACC').

4.15. Participial subordination

4.15.1. Participle-1 *-nyo*

4.15.1.1. *Introductory notes*

As noted in 3.9.4.1, the participle-1 (*-nyo*) has not yielded many examples (only 25 verbs and 63 examples in all), and it may not be productive (unlike the nonfuture-1, -2, general imperative-1, -2, and purposive-1, -2). It is attested in all of the three classes of verbs (cf. Table 3-14): L-class, Y-class, and ZERO class. Attested participle-1 verbs are the following. (The gloss 'PTCP' is omitted.)

[1] Based on transitive verbs (all L-class)

(a) Based on transitive roots

(a-1) Based on two-place transitive roots

(a-1-1) Type 1 'direct effect'

baba-nyo 'stab', *bangga-nyo* 'paint', *balga-nyo* 'hit', *jarga-nyo* 'put in', *jaynyja-nyo* 'copulate with', *gonba-nyo* 'cut', *moja-nyo* 'eat', *wanda-nyo* 'leave', *woda-nyo* 'take out', *bambo-nyo* 'shoot'.

(a-1-2) Type 2 'perception'

nyaga-nyo 'see', *jaymba-nyo* 'find'.

(a-2) Based on three-place transitive roots

goyba-nyo 'give', *mayga-nyo* 'tell', *manja-nyo* 'send', *ganyji-nyo* 'carry'

(b) Based on transitive stems

(b-1) Based on two-place transitive stems

(b-1-1) Involving *-nga-L* (4.7.2):

gowoy-nga-nyo 'make [someone] a male ghost', i.e. 'kill [a man]'

(b-1-2) Involving *-ri-L* 'applicative' (4.14.2):

wona-ri-nyo 'lie with [someone]'

[2] Based on intransitive verbs

(a) Based on intransitive roots

(a-1) Y-class

wona-nyo 'lie down'.

(b) Based on intransitive stems

(b-1) L-class: involving *-bi-L* 'INTR' (4.7.1)

jawoy-bi-nyo 'be/become hot', *jolbon-bi-nyo* 'become a spouse', i.e. 'get married', *gowoy-bi-nyo* 'become a male ghost', i.e. 'die', *ngani-bi-nyo* 'become what?', *yagay-bi-nyo* 'scream' (cf. *yagay* 'Ouch!').

(b-2) ZERO-class: involving *-li-ZERO*

gawa-li-nyo 'call out' (3.11.1.6-[3]).

Out of the 25 five verbs listed above, *-nyo* is used with 17 transitive verbs (all L-class), i.e. 68%. It is used with a transitive verb in 54 out of the 63 examples (86%). This shows that *-nyo* has a closer tie with transitive verbs than with intransitive verbs.

In terms of the hierarchy of two-place predicates, the participle-1 is limited to Type 1 'direct effect' and Type 2 'perception'. This is shown in Table 4-20.

Syntactically, the participle-1 has two uses: (i) the predicate of a subordinate clause (4.15.1.2), and (ii) apparently the predicate of a simple sentence (4.15.1.3). The use (i) is far more frequent than the use (ii), and consequently this conjugational category is considered as a participle, and not as a finite form.

4.15.1.2. *Participle-1 used in a subordinate clause*

When used in a subordinate clause, the participle-1 may express (i) anteriority, (ii) simultaneity, or (iii) purpose.

[1] Anteriority

In most of the relevant examples, the participle-1 describes an event that is anterior to the event that is denoted by the main clause. It may be translated into English involving *after*, e.g. (4-675), Text 3, Line 31. It often presents a cause/reason or a prerequisite/condition of the event shown in the main clause. It may also be translated into English involving *because*, *as*, *if* or *when*, e.g. (4-675) to (4-685). In addition, it may be translated involving a relative clause, e.g. (4-686).

(4-675) *mayjala-nggo bambo-nyo jolay-Ø*
 lightning-ERG(A) shoot-PTCP tree-ACC(O)
 [*jolay-Ø* TT] *galngga-n.* (AP)
 [tree-NOM(S)] fall-NF (O=[S])

'After/as lightning had shot [i.e. hit] a tree, [it] fell over.'

(4-676) *yorì-Ø wona-n ngaya nyonya baba-nyo.* (AP)
 kangaroo-NOM(S) lie-NF 1SG.ERG(A) 3SG.ACC(O) spear-PTCP (S=O)
 'The kangaroo lay [dead] because I had speared it.' (S=O)

(6-677) ('In a fight, I was hit and:')
ngona-ngomay nganya nyola wanja-ngga wanda-n
 that-after 1SG.ACC(O) 3SG.ERG(A) hole-LOC leave-NF

[*ngaya* TT] *gowoy-bi-nyo.* (AP)
 [1SG.NOM(S)] male.ghost-INTR-PTCP (O=[S])

Tentative translation: 'After that, he left me in a hole because [I had] fallen unconscious.'

(Literally *gowoy-bi-L* means 'become a male ghost', i.e. '[man] die'. In this context, it seems to mean 'become unconscious'. That is, this sentence seems to mean 'After that, he left me in a hole because [I had] fallen unconscious'.)

(4-678) *warrngo-nggo yina wanda-nyo*
 woman-ERG(A) 2SG.ACC(O) leave-PTCP
yinda bonba-garra-n. (AP)
 2SG.NOM(S) cry-ITER-NF

'Because the woman left you, you are crying.' (O=S)

(4-679) *yinda ngani-bi-nyo [yinda TT] walwanda-Ø?* (AP)
 2SG.NOM(S) what-INTR-PTCP [2SG.NOM(S)] sick-NOM(S)

Lit. 'Because you became what, [are you] sick?', i.e. 'Why are you sick?' (S=[S])

(Alf Palmer's translation for (4-604) is 'What's the matter with you?')

(4-680) [*nyola* TT] *galangga-n jolany-jo balga-nyo ngaya*
 [3SG.NOM(S)] fall-NF stick-ERG hit-PTCP 1SG.ERG(A)
 [*nyonya* TT]. (AP)
 [3SG.ACC(O)]
 '[He] fell over as I had hit [him] with a stick.' ([S]=[O])

(4-681) (Alf Palmer described his work as a linguistic consultant as follows.)

[*ngaya* TT] *gogo-Ø goyba-nyo yino*
 [1SG.ERG(A)] language-ACC(O) give-PTCP 2SG.GEN
yinda gogo-Ø moga-lgo. (AP)
 2SG.ERG(A) language-ACC(O) catch-PURP
 'As [I] give [i.e. teach] [my] language to you, you will catch [i.e. learn] it.'
 (O=O)

(4-682) [*nyola* TT] *bonba-garra-n ngaya* [*nyonya* TT] *wanda-nyo.* (AP)
 [3SG.NOM(S)] cry-ITER-NF 1SG.ERG(A) [3SG.ACC] leave-PTCP
 '[She] was crying as I had left [her].' ([S]=[O])

(4-683) *wanda-nyo yinda* [*warrngo-Ø* TT]
 leave-PTCP 2SG.ERG(A) [woman-ACC(O)]
bama-nggo ganyji-lga [*warrngo-Ø* TT]. (AP)
 man-ERG(A) carry-APPR [woman-ACC(O)]
 'If [you] leave [the woman], a man might take [her with him].' ([O]=[O])

(4-684) *jomoboro-Ø banda-lga* [*ngana-Ø jomoboro-Ø* TT]
 cattle-NOM(S) emerge-APPR [1PL.ERG(A) cattle-ACC(O)]
ngona-n-da jarga-nyo. (AP)
 there-LINK-LOC put-PTCP
 'The cattle might come out if [we put the cattle] there [in the paddock].'
 (S=[O])

(*Even if* might be a more suitable translation than *if*)

(4-685) (Alf Palmer was looking at a man who worked hard for his family, and he said to me as follows.)

[*yinda* TT] *jolbon-bi-nyo yama-bi-lgo yinda.* (AP)
 [2SG.NOM(S)] spouse-INTR-PTCP so-INTR-PURP 2SG.NOM(S)
 'If/when you become a spouse [i.e. if/when you get married] you will do/
 be like that [i.e. work hard for your family].' ([S]=S)

(4-686) (Alf Palmer defined the concept ‘adoption of a child’ as follows.)

mari-nggo waga-mba-n galbin-Ø
 man-ERG(A) grow-TR-NF child-ACC(O)
yanga-na-nggo [galbin-Ø TT] wanda-nyo. (AP)
 mother-KIN-ERG [child-ACC(O)] leave-PTCP
 Lit. ‘A man makes a child grow up whom [his/her] mother has left [i.e. de-
 serted].’ (O=[O])

(The Warrongo word for ‘man’ is *bama-Ø*, and *mari* is probably an ad hoc loan (see 1.4.2.1). See 4.7.3-[3]-(a)-(a-1) for the etymology *waga-mba-L*.)

In terms of the relative order of the clauses, the *-nyono* clause may either precede or follow the main clause.

Many of the examples are highly elliptical. At least, they do not deviate from syntactic ergativity (cf. (4-223)). (Recall that antipassive verbs do not have any participle form (Table 3-15), and they lack the participle-1, too.)

[2] Simultaneity

There is just one example in which the participle-1 describes an event that is simultaneous with (and not anterior to) the event described by the main clause. (In this example, the *-nyono* clause follows the main clause.)

(4-687) *yinda nganya ngawa-n [ngaya TT] gawali-nyo. (AP)*
 2SG.ERG(A) 1SG.ACC(O) hear-NF [1SG.NOM(S)] call.out-PTCP
 ‘You hear me calling out.’ (O=[S])

[3] Purpose

In a few examples, the participle-1 appears to express purpose. The verb involved is the transitive *nyaga-L* ‘see’. An example:

(4-688) *ngali-Ø yamba-wo golmi yani-Ø*
 1DU-NOM(S) camp-DAT back go-NF
[ngali-Ø TT] birgo-Ø nyaga-nyo. (AP)
 [1DU-NOM(A)] wife-ACC(O) see-PTCP
 ‘We went back to the camp to see [our] wives.’ (S=[A])

(At least in this example, the *-nyono* clause follows the main clause.) Examples such as (4-688) are unusual in two respects. First, purpose or the like is generally expressed by the purposive-1 or purposive-2 (4.8.1), and not the participle-1. Second, the deletion pattern in (4-688) is ‘S=[A]’, i.e. an S/A pattern, and deviates from syntactic ergativity (cf. (4-223)). The usual expression will be (4-689) (composed by me) in place of (4-688).

- (4-689) *ngali-Ø yamba-wo golmi yani-Ø*
 1DU-NOM(S) camp-DAT back go-NF
 [*ngali-Ø*] *birgo-wo nyaga-gali-yal.* (TT)
 [1DU-NOM(d-S)] wife-DAT see-ANTIP-PURP
 ‘We went back to the camp to see [our] wives.’ (S=[d-S])

Unfortunately I did not check (4-689) with Alf Palmer. But there is no doubt that it is a correct sentence. Note that (4-689) involves an antipassive verb (in the purposive form), and that its deletion pattern (S=[d-S]) conforms to ergativity (cf. 4.9.4.2-[1]). Another example is (4-690-B).

- (4-690) (A conversation cited from a text.)
 A. *ngana-Ø gowa-ngomay-Ø ganggarra-bara-Ø*
 1PL-NOM(S) west-ABL-NOM western.region-denizen-NOM
yarro-wo yani-Ø [ngana-Ø TT] nyaga-gali-yal yamba-wo.
 here-DAT come-NF [1PL-NOM(d-S)] see-ANTIP-PURP camp-DAT
 ‘We, westerners, from the west, came here to see the camp.’
 B. *ngani-Ø yamba-Ø nyaga-nyo?* (AP)
 what-ACC(O) camp-ACC(O) see-PTCP

Alf Palmer translated B as follows: ‘What camp [are you] gonna see?’ and ‘Where [is] the camp? [We] want to see im’ This suggests that B expresses intention or the like (like purposives). B may be a simple sentence. But it may also be regarded as a subordinate clause that is subordinate to A. In this case, (4-691) would be expected, in place of (4-690-B).

- (4-691) *ngani-wo yamba-wo nyaga-gali-yal.* (TT)
 what-DAT camp-DAT see-ANTIP-PURP
 ‘in order to see what camp’

It is possible, though by no means certain, that instances such as (4-688) and (4-690-B) are remnants of the stage of Warrongo before syntactic ergativity developed.

4.15.1.3. *Participle-1 used in a simple sentence*

In this use, what has been labeled the participle-1 is not used in a subordinate clause, and the label ‘participle’ is not really appropriate. In a very few instances, the participle-1 seems to have past reference or present reference, e.g. (5-692). In one expression (which Alf Palmer used almost everyday), the participle-1 has future reference; see (4-693).

- (4-692) *wanda-nyo ngona-n-da yamba-ngga.* (AP)
 leave-PTCP that-LINK-LOC camp-LOC
 '[We] left [a wounded man] in that camp.'

(This sentence may be regarded as an elliptical sentence in which the main clause is understood.)

- (4-693) (Almost every day, e.g. after an interview, Alf Palmer used to say to me as follows.)
garrbala nyaga-nyo. (AP)
 tomorrow see-PTCP
 Tentative translation: 'See [you] tomorrow.'

An additional example is (4-690-B) if it is regarded as a simple sentence, and not as a subordinate clause. In this case, it has future reference, indicating intention or the like.

4.15.2. Participle-2 *-nji*

4.15.2.1. *Introductory notes*

The suffix employed is *-nji* [ndʒi] and *-nyji* [ɲdʒi]. The two variants seem to be in free variation. For convenience, *-nji* is used for the practical orthography. Like the participle-1 (*-nyo*), the participle-2 may not be productive. Also like the participle-1, it is attested with all of the three classes of verbs: L-class, Y-class, and ZERO-class. Attested participle-2 verbs are the following.

[1] Based on transitive verbs (all L-class)

(a) Based on transitive roots

(a-1) Based on two-place transitive roots

(a-1-1) Type 1 'direct effect'

binda-nji 'stand up', *jingga-nji* 'punch', *gamba-nji* 'cover', *garbi-nji* 'hide', *moga-nji* 'grab', *wanda-nji* (not certain) 'leave', *woda-nji* (not certain) 'take out', *wandi-nji* 'hang up'.

(a-2) Based on three-place transitive roots

ganyji-nji 'carry'

[2] Based on intransitive verbs

(a) Based on intransitive roots

(a-1) L-class

banda-nji 'come out', *waga-nji* 'get up', *wandi-nji* 'rest'.

(a-2) Y-class

galngga-nji ‘fall down’, *wona-nji* ‘lie down’, *wola-nji* ‘die’.

(a-3) Irregular *yani-nji* ‘go, come’

(b) Based on intransitive stems

(b-1) Y-class: involving *-wa-Y* ‘reciprocal’ (4.12.2)

balga-wa-nji ‘hit-REC’

(b-2) ZERO class

gawali-nji ‘call out’, *bargoli-nji* ‘lie down, sleep’ (used in songs)

The participle-2 (*-nji*) is attested with 8 transitive verbs (including two transitive verbs whose *-nji* form may not be perfectly acceptable: marked by ‘(not certain)’ above), and with 10 intransitive verbs (including the surface-intransitive *balga-wa-nji* ‘hit-RECP’). Unlike the participle-1 (*-nyo*), *-nji* does not seem to have a closer tie with either transitive verbs or intransitive verbs.

These two participles do not exhibit complementary distribution. For example, *wona-Y* ‘lie (down)’ has both *wona-nyo* and *wona-nji*, and *gawali-ZERO* ‘call out’ has both *gawali-nyo* and *gawali-nji*.

In terms of the hierarchy of two-place predicates, the participle-2 verbs are confined to Type 1 ‘direct effect’. This is shown in Table 4-20.

Syntactically, like the participle-1, the participle-2 has the use as the predicate of a subordinate clause (4.15.2.2). However, unlike the participle-1, the participle-2 has not yielded a clear example of the use as the predicate of a simple sentence (4.15.2.3). Furthermore, the participle-2 is used in songs, but its function or meaning is not clear there (4.15.2.4).

4.15.2.2. Participle-2 used in a subordinate clause

When used in a subordinate clause, the participle-2 may express (i) anteriority or (ii) simultaneity, like the participle-1. However, there is no example expressing (iii) purpose, unlike the participle-1.

[1] Anteriority

Like the participle-1, the participle-2 may describe an event that is anterior to the event denoted by the main clause. Specifically, it may present a cause/reason or a prerequisite/condition of the event shown in the main clause. In addition, it may form something like a relative clause, e.g. (4-697), *gamba-nji* ‘cover’ in Text 1, Line 46, and *garbi-nji* ‘hide’ in Text 1, Line 67.

(4-694) *gowoy-Ø yani-nji ngaya wanbali-n.* (AP)
 ghost-NOM come-PTCP 1SG.NOM fear-NF
 ‘As the ghost was coming [towards me] I was scared.’

(4-695) (Alf Palmer said to me, ‘Your country [i.e. Japan] is cold, so’)

ngaya wola-yngga [ngaya TT] yarro-ngomay-Ø yani-nji. (AP)
 1SG.NOM(S) die-APPR [1SG.NOM] here-ABL-NOM go-PTCP
 ‘I might die if [I] went from here [to Japan].’ (S=[S])

(This is an instance of ‘counterfactual conditional’. There was no likelihood whatsoever of Alf Palmer’s visit to Japan.)

(4-696) (An example from a text. Two people are escaping from a group of people.)

bama-Ø golma-mali yani-nji bola-Ø ngali-n-go
 man-NOM behind-side come-PTCP 3DU-NOM 1DU-LINK-DAT
wadali-yal. (AP)
 run-PURP
 ‘If a man comes [from] behind, they-two will run to us-two.’

(4-697) *yarro-wo ganyji-lgo win.gar-Ø bola-nggo*
 here-DAT bring-PURP fish-ACC(O) 3DU-ERG(A)

[*win.gar-Ø bola-nggo* TT] *moga-nji.* (AP)
 [fish-ACC(O) 3DU-ERG(A)] catch-PTCP

‘They-two will bring fish here when/if [they] catch [any fish]’, or
 ‘They-two will bring the fish here that they have caught’ (O=[O], A=[A])

In terms of the relative order of the clauses, the *-nji* clause may either precede or follow the main clause.

[2] Simultaneity

There are several examples in which the participle-2 describes an event that is simultaneous with (and not anterior to) the event described by the main clause. (The participle-1 has yielded just one example of simultaneity: (4-687).)

(4-698) (Alf Palmer described how a *gobi* ‘native doctor’ (1.5.8-[6]) cured a sick person.)

[*gobi-nggo* TT] *mara-nggo jobi-n nyonya*
 [native.doctor-ERG(A)] hand-ERG rub-NF 3SG.ACC(O)
 [*nyola* TT] *wona-nji.* (AP)
 [3SG.ACC(O)] lie-PTCP

‘[The native doctor] rubbed him [i.e. a patient] while [he] was lying.’ (O=[S])

(4-699) *mojogara-Ø ngay a nyaga-n [mojogara-Ø TT] wona-nji.* (AP)

crab-ACC(O) 1SG.ERG(A) see-NF [crab-ACC(O)] lie-PTCP
 ‘I saw a crab lying [on the sand]’ (O=[S])

- (4-700) *ngona-n-da ngaya jana-nya jaymba-n*
 there-LINK-LOC 1SG.ERG(A) 3PL-ACC(O) find-NF
 [*jana-Ø* TT] *balga-wa-nji.* (AP)
 [3PL-NOM(d-S)] hit-RECP-PTCP
 ‘There I found them hitting each other [i.e. fighting].’ (O=[d-S])
- (4-701) *yinda nganya ngawa-n [ngaya TT] gawali-nji.* (AP)
 2SG.ERG(A) 1SG.ACC(O) hear-NF [1SG.NOM(S)] call.out-PTCP
 ‘You heard me calling out’. (O=[S])

Note that (4-701) and (4-687) have the same structure, and that the only difference lies in the participle involved: the participle-1 in (4-687) and the participle-2 in (4-701).

This may not be significant, but in all the examples of simultaneity cited above, the subordinate clause follows the main clause, as is the case with (4-687) (involving the participle-1; also an example of simultaneity).

Many of the examples of [1] and [2] are highly elliptical. At least, they do not deviate from syntactic ergativity (cf. (4-223)). (Recall that antipassive verbs do not have any participle form (Table 3-15), and they lack the participle-2, too.)

4.15.2.3. Participle-2 used in a simple sentence

There is no clear example of this use (in contrast with the participle-1). One possible example is the following.

- (4-702) (On a very warm day, Alf Palmer said that he felt hot. When asked by me why he felt hot, he replied jocularly, as follows.)
[ngaya TT] ngarra-mali wandi-nji. (AP)
 [1SG.NOM(S)] above-side lie.and.rest-PTCP
 Tentative translation: ‘[I feel hot] because [I] have been lying on top [of a woman].’

(See 3.8.1-[3] for the adverb-stem-forming suffix *-mali* ‘on or to the X side of’.) This sentence may be regarded as an elliptical sentence in which the main clause is understood. The same applies to Text 1, Line 67.

4.15.2.4. Participle-2 used in songs

The participle-2 is also used in songs, but its function or meaning is not clear. One example is the following.

(4-703) (A song about a man who is lying ill and groaning.)

wayi wona-nji ngaya yarro-n-da
 Q lie-PTCP 1SG.NOM(S) here-LINK-LOC
wayi [yinda TT] ngawa-la [nganya TT]? (AP)
 Q [2SG.ERG(A)] hear-PST [1SG.ACC(O)]

A literal translation will be something like ‘Did [you] hear me lying here?’ But this does not seem to make sense. Probably the intended meaning is something like ‘Did you hear me lying ill and groaning?’

4.15.3. Participle-3 *-njirra*

The suffix employed is *-njirra* [ndʒira] and *-nyjirra* [ndʒira]. The two variants seem to be in free variation. For convenience, *-njirra* is used for the practical orthography. It seems certain that the participle-3 is not productive. It occurs with three intransitive roots only: (i) Y-class: *nyina-njirra* ‘sit’, *wona-njirra* ‘lie’, and (ii) irregular: *yani-njirra* ‘go, come’ It has yielded only a few examples.

In all the examples, the participle-3 is used as the predicate of a subordinate clause. (There is no example of its use as the predicate of a simple sentence.) It describes an event that is simultaneous with the event denoted by the main clause. (There is no example of anteriority or purpose.)

(6-704) *ngaya nyina-njirra yinda magoli-ya. (AP)*
 1SG.NOM(S) sit-PTCP 2SG.NOM(S) work-IMP
 ‘Work while I am sitting [and having a rest].’

(6-705) (Alf Palmer pretended to be criticizing a man who flirted around with women.)

manyja-∅ wanyo-lo wajo-n yinda wona-njirra? (AP)
 food-ACC(O) who-ERG(A) cook-NF 2SG.NOM(S) lie-PTCP
 ‘Who cooks food [for you] while you are lying [on top of a woman]?’

(4-706) *yinda miramira-bi-ya [ngaya TT] wona-njirra. (AP)*
 2SG.NOM(S) lively-INTR-IMP [1SG.NOM(S)] lie-PTCP
 ‘You, be lively while I am lying down here.’

Alf Palmer’s translation of (4-706) is to the following effect: ‘You, be lively while I am lying down here’ That is, the intended meaning is something like ‘Work swiftly while I am lying and having a rest’. (4-706) is highly unusual. Without the word *ngaya*, this sentence would be expected to mean ‘You, be lively while you are (not I) lying down here’; the deletion pattern would be ‘S=[S]’ (See, for instance, (4-695) (S=[S])). Had it been not for Alf Palmer’s translation, I would not have known that it was ‘I’ (and not ‘you’) who was lying down. It is in view of Alf

Palmer's translation that the word *ngaya* has been supplied by me (too late to be approved by him).

As noted above, *-njirra* is attested with intransitive verbs. The main clause may be intransitive (cf. (4-704), (4-706)) or transitive (cf. (4-705)).

The *-njirra* clause may either precede (see (4-704)) or follow (see (4-705) and (4-706)) the main clause.

In all the examples at hand, the S of the *-njirra* clause and the S/A of the main clause are different. That is, it is possible, though by no means certain, that *-njirra* functions as a 'different subject' marker. (This does not seem to apply to *-nyo* or *-nji*. Thus, *-nyo* has examples of the 'same subject' ((4-679) (S=[S]), (4-685) ([S]=S), and (4-688) (S=[A])), although the 'subjects' (S/A) are different in the other examples. The same is true of *-nji*. In (4-695) (S=[S]) and (4-697) (A=[A]), the 'subjects' are the same, although they are different in the other examples.)

Regarding (4-704) to (4-706), it is not relevant to determine whether they fit ergativity or not. They each contain no coreferential NPs.

Brief notes on a semantic comparison of the participle-1, -2, and -3 and the purposive-1, -2 as used in a subordinate clause are given. In this use, the three participles describe an event that is anterior to, or, simultaneous with, the event denoted by the main clause. (Rather exceptionally, the participle-1 may indicate purpose.) In contrast, the purposive-1, -2 describe purpose, result/consequence or successive action, i.e. an event that is posterior to the event denoted by the main clause.

The participle-1, -2, and -3 and the purposive-1, -2 may be regarded as 'relative tenses'. That is, the participle-1, -2, and -3 are 'relative past' or 'relative present', i.e. 'relative nonfutures', while the purposive-1, -2 are 'relative future'. Then, when used in subordinate clauses, roughly speaking, the participle-1, -2, and -3 and the purposive-1, -2 exhibit a complementary distribution in terms of 'relative tense'

4.16. Relative clause

The verb in a relative clause involves the adnominal suffix *-ngo* (Table 3-14). There are only two examples in Alf Palmer's data, and only one example in Alec Collins' data (recorded by Peter Sutton), and the following account is fragmentary. The verb in the adnominal form seems to agree with the qualified NP in terms of case. One of Alf Palmer's examples is (4-707).

(4-707) [*ngana*-Ø TT] *nyina-n ngona-wo yinda ganyji-ngo-ro-go*. (AP)
 [IPL.NOM(S)] sit-NF that-DAT 2SG.ERG(A) bring-ADNOM-*ro*-DAT
 '[We] sat [and waited] for that [turtle] that you were bringing.'

Note that *ngona-wo* and *ganyji-ngo-ro-go* agree in terms of case: DAT. When the tape was replayed, Alf Palmer replaced *ganyji-ngo-ro-go* with *ganyji-ngo-r-go*. The function of *-ro-/r-* is not known. It may be a linking interfix. The other

example provided by Alf Palmer is (1-10-g). Note that *yani-ngo-Ø* 'go-ADNOM-NOM(S)' agrees with [*ngaya* '1SG.NOM(S)] in terms of case: NOM. The example from Alec Collins' data is the following.

- (4-708) *ngaya* [*jana-nya* TT] *nyamba-ngo-Ø* *nyaga-n.* (AC)
 1SG.ERG(A) [3PL-ACC(O)] dance-ADNOM-ACC see-NF
 Peter Sutton's translation: 'I saw them dancing.'

4.17. Apprehensional construction 'lest ... should'

4.17.1. Introductory notes

As noted in 3.10.11, verbs in the apprehensional form have two functions.

- (a) Use as the predicate of a simple sentence, or as the predicate of the main clause of a complex sentence.
 (b) Use as the predicate of the subordinate clause of a complex sentence.
 (b-1) Apprehensional construction ('lest should') (4.17).
 (b-2) Construction of 'X is afraid that ...' (4.18.1.1).

In the use of (a), they predominantly indicate that an event might happen, often implying that the event is unpleasant or undesirable. (b-1) 'apprehensional construction' is discussed below. (b-2) will be discussed in 4.18.1.1.

In (b-1), the entire sentence generally has one single intonation contour. The verb in the main clause is often in an imperative form, although it does not need to be.

Examples in which the verb of the main clause is an imperative verb include Text 2, Line 33-c, -b', and the following. The imperative verb may be accompanied by the adverb *ngalnga* 'prohibition', e.g. (4-709) to (4-711), and (4-712-f).

- (4-709) *yarro-Ø yinda wandi-ya ngarra*
 this-ACC(O) 2SG.ERG(A) hang-IMP up
gando-nggo [yarro-Ø TT] bija-lga. (AP)
 dog-ERG(A) [this-ACC(O)] drink-APPR (O=[O])
 'Hang up this [water] lest the dog should [drink this water].'

- (4-710) (When I was conducting fieldwork on Palm Island, I used to collect shells. Alf Palmer warned me against poisonous shells.)

ngalnga yinda waga-mba-Ø walwajarri-Ø
 PROH 2SG.ERG(A) rise-TR-IMP bad-ACC(O)
yinda wola-yngga. (AP)
 2SG.NOM(S) die-APPR (A=S)
 'Don't pick up bad (i.e. poisonous) [shells] lest you should die.'

- (4-711) *ngalnga yinda bori-Ø wajo-ya*
 PROH 2SG.ERG(A) fire-ACC(O) burn-IMP
joga-Ø nyaga-lga bama-nggo. (AP)
 smoke-ACC(O) see-APPR man-ERG(A)
 'Don't make a fire lest [other] men should see the smoke.'
- (4-712) a. *ngona-ngomay ngana-Ø yani-Ø yani-Ø yani-Ø yani-Ø*
 that-after 1PL-MOM(S) go-NF go-NF go-NF go-NF
yani-Ø yani-Ø yani-Ø
 go-NF go-NF go-NF
 'Then, we went on and on.'
- b. *ngona-ngomay ngawa-n waybala-Ø gawali-n.*
 that-after hear-NF white.man-NOM call.out-NF
 'Then, [we] heard a white man calling out.'
- c. *yowo ngoni=wa waybala-Ø.*
 yes there=FOC white.man-NOM
 'Yes, [there is] a white man there.'
- d. *ngalnga banda-lgo.*
 PROH emerge-PURP
 '[We] will not go out.'
- e. *balo=wa nyola=goli gawali-n.*
 NONINT=FOC 3SG.NOM=alone call.out-NF
 'Let him call out. I don't mind.'
- f. *ngalnga yinda banda-Ø*
 PROH 2SG.NOM emerge-IMP
ngali-nya ganyji-lga [ngali-Ø TT] magoli-ya.
 IDU-ACC carry-APPR IDU-NOM work-PURP
 'Don't go out lest [he] should take us to [make us] work.'

(The apprehensional in Sentence d seems to indicate intention, and not unpleasantness. See 3.1.11-[2]-(b). See 4.24-[3] for the adverb *balo* 'non-interference'.)

Examples in which the verb of the main clause is not an imperative verb include (4-337) (*nyaga-nyaga-lgo* 'see~see-PURP'), (4-989-b) (*wonaja-wonaja-bi-ya* 'camping.out~camping.out-INTR-PURP'), and also (4-713) (*waga-n* 'rise-NF') and (4-714-b) (*wanda-lgo* 'leave-PURP'). In each of (4-713) and (4-714-b), the verb in question is not an imperative verb, but the entire sentence is an imperative sentence (4.2.1.1).

- (4-713) *ngalnga yinda waga-n nyaga-lga nyola* [yina TT]. (AP)
 PROH 2SG.NOM(S) rise-NF see-APPR 3SG.ERG(A) [2SG.ACC(O)]
 'Don't get up lest he should see [you].' (S=[O])

- (4-714) a. *ngona-ngomay yinda ganyji-ya nyonya*
 that-after 2SG.ERG(A) carry-IMP 3SG.ACC(O)
wonaja-wo.
 camping.out-DAT
 ‘Then, take her for camping out.’
- b. *ngalinga yinda [nyonya TT] yamba-ngga wanda-lgo*
 PROH 2SG.ERG(A) [3SG.ACC(O)] camp-LOC leave-PURP
 ‘Don’t leave [her] in the camp’
- bama-goman-do [nyonya TT] ganyji-lga*
 man-another-ERG [3SG.ACC(O)] carry-APPR
 ‘lest another man should take her [with him]’
- [bama-goman-do TT] jolbon-nga-lga nyonya*
 [man-another-ERG] spouse-TR-APPR 3SG.ACC(O)
 ‘lest [another man] should marry her’
- [bama-goman-do nyonya TT] mara-∅ moga-lga*
 [man-another-ERG 3SG.ACC(O)] hand-ACC(O) grab-APPR
 ‘lest [another man] should grab [her] hand’
- [bama-goman-do nyonya TT] ganyji-lga gani-mara. (AP)*
 [man-another-ERG 3SG.ACC(O)] carry-APPR far-very
 ‘lest [another man] should take [her] very far.’ (O=[O]=[O]=O=O=[O])

(This sentence contains as many as four apprehensional verbs. *Jolbon-nga-L* ‘spouse, married person-TR’ means ‘X make Y one’s spouse’, i.e. ‘X marries Y’ (4.7.1-[1]-(a)).

- (4-715) (‘I caught a possum on a tree, and threw it to my wife.’)
- a. *nyola [gajarra-∅ TT] waga-mba-n*
 3SG.ERG(A) [possum-ACC(O)] rise-TR-NF
gando-nggo [gajarra-∅ TT] baja-lga. (AP)
 dog-ERG(A) [possum-ACC(O)] bite-APPR
 ‘She picked up [the possum] lest the dog should bite [it].’ ([O]=[O])
- b. *nyawa, mori-nga-n nyola [gajarra-∅ TT]. (AP)*
 NEG tight-TR-NF 3SG.ERG(A) [possum-ACC(O)]
 ‘No. She held [the possum] tight.’

- (4-716) *ngaya yarro-n-da nyina-garra-n*
 1SG.NOM(S) here-LINK-LOC sit-ITER-NF
bama-nggo nganya balga-lga. (AP)
 man-ERG(A) 1SG.ACC(O) kill-APPR (S=O)
 ‘I [did not go, but] was sitting here lest some man should kill me.’

The apprehensional clause almost always follows the main clause. There are two exceptions: (4-989-a, -b).

Deletion does not deviate from syntactic ergativity (cf. (4-223)).

4.17.2. Comparison of apprehensional construction and purposive subordination

As seen in 4.8.1, when used in a subordinate clause, a verb in a purposive form indicates (i) purpose ('so that may'), or (ii) consequence, result, successive action. As seen above, the apprehensional construction expresses 'lest should'.

When discussing these constructions, Alf Palmer gave the following pair of examples for comparison. (Again, this shows how brilliant Alf Palmer was as a linguistic consultant.)

(4-717) *ngaya yarro-Ø woda-n*
 1SG.ERG(A) this-ACC(O) take.out-NF
yinda [yarro-Ø TT] nyaga-lga. (AP)
 2SG.ERG(A) [this-ACC(O)] see-PURP
 'I took this out [of the bag] so that you might see [this].' (O=[O])

(6-718) *ngaya yarro-Ø garbi-n*
 1SG.ERG(A) this-ACC(O) hide-NF
yinda [yarro-Ø TT] nyaga-lga. (AP)
 2SG.ERG(A) [this-ACC(O)] see-APPR
 'I hid this lest you should see [this].' (O=[O])

As seen in Table 3-14, for the verbs of L-class, the purposive suffix is *-lga*, while the apprehensional suffix is *-lga*. That is, the only difference lies in the vowel.

The meaning of 'lest should' is negative purpose, and it may be paraphrased as 'so that may not'. Indeed, when a purposive subordinate clause containing an adverb with negative meaning (e.g. *nyawa* 'negation' and *ngarro* 'cannot'), the subordinate clause expresses 'so that may not', i.e. 'lest should'. Examples include (4-989-b) and:

(4-719) *ngana-Ø=goli yani-ya jolgi-ngga*
 1PL-NOM(S)=only go-IMP scrub-LOC
nyawa [jana-nggo ngana-nya TT] nyaga-lga. (AP)
 NEG [3PL-ERG(A) 1PL-ACC(O)] see-PURP
 'Let's go by ourselves in the scrub so that [they] may not see [us].' (S=[O])

(4-720) *nyawa ngaya [yarro-Ø TT] nyaga-lga*
 NEG 1SG.ERG(A) [this-ACC(O)] see-PURP
yinda [yarro-Ø TT] garbi-ya. (AP)
 2SG.ERG(A) [this-ACC(O)] hide-IMP
 'So that I may not see [this], hide [this].' ([O]=[O])

As seen in 4.8.2 and 4.8.5-[4], the subordinate clause with a purposive verb almost always follows the main clause, e.g. (4-716). The same is true when the purposive subordinate clause contains an adverb for negation: (4-719). (4-720) is an exception; the purposive subordinate clause precedes the main clause.

Now, consider:

- (4-721) *ngali-Ø golmi yani-Ø yarro-ngomay-Ø*
 1DU-NOM(S) back go-NF here-ABL-NOM
ngalnga [jana-nggo TT] nyaga-lgo ngali-nya. (AP)
 PROH [3PL-ERG(A)] see-APPR 1DU-ACC(O)
 ‘We will go back from here lest [they] should see us.’ (S=O)

(Here, the nonfuture-3 *yani-Ø* seems to have future reference, indicating express intention or the like (3.10.4-[1]).) When the tape was replayed, Alf Palmer said that the portion *ngalnga nyaga-lgo ngali-nya* is wrong, and he replaced this portion with:

- (4-722) *jana-nggo ngali-nya nyaga-lga* (AP)
 3PL-ERG(A) 1DU-ACC(O) see-APPR
 ‘lest they should see us’

This suggests that, in order to express ‘lest should’, stylistically an apprehensional verb is better than a combination of a purposive verb and *ngalnga* ‘prohibition’. It is not known if this applies to a combination of a purposive verb and *nyawa* ‘negation’.

In (4-989-b), the subordinate clause contains *nyawa* ‘negation’ in addition to an apprehensional verb (*nyaga-lga* ‘see-APPR’). This use of *nyawa* ‘negation’ seems redundant.

4.18. Subordination without any morphosyntactic marker

In all the types of subordination examined so far, the subordinate clause has an explicit, morphosyntactic marker for subordination: (i) the conjunction =*ngomay* ‘after, if, because’ (4.10), or (ii) one of the non-finite categories of verbs: purposive (4.8), participle (4.15), adnominal (4.16), and apprehensional (4.17). In addition, there are constructions that I (tentatively) consider involving subordination. Their ‘subordinate clause’ does not have any morphosyntactic marker for subordination. That is, strictly speaking, they involve parataxis. Nonetheless, their status as subordination may be (tentatively) established on the grounds of intonation contour and/or the semantic unity of the clauses. They often have one single intonation contour, see (4-738) (the first pause has a flat intonation) – although this is not always the case; see (4-735) (the first pause has a falling intonation). The ‘predicate’ of the ‘main clause’ expresses emotion ‘afraid’ (4.18.1), emotion ‘glad’ (4.18.2), knowledge ‘knowing’ (4.18.3), perception ‘see’ or ‘hear’ (4.18.4), or speech activity ‘tell, say’, ‘ask’, etc. (4.18.5). The type discussed in 4.18.6 – condition ‘if’ and future time ‘when’ – do not contain any such specific word.

4.18.1. Emotion (1): 'X is afraid that

The intransitive verbs *wanba-L* and *wanbali-ZERO* 'fear, be afraid' may be used in simple sentences, e.g. (3-67), (3-68). (See 3.11.1.6-[3] for their formation.) (What is feared may be expressed by the locative case. e.g. (3-67), (3-68).) A clause containing either of these verbs (i.e. the 'main clause') may be accompanied by a clause (i.e. the 'subordinate clause') that contains a verb in the apprehensional form, and the entire sentence means 'X is afraid that might'. The 'main clause' always precedes the 'subordinate clause'. Examples follow.

(4-723) *yinda wanbali-n gamo-wo yinda galngga-yngga.* (AP)
2SG.NOM(S) fear-NF water-DAT 2SG.NOM(S) fall-APPR
'You are afraid that you might fall into the water.' (S=S)

(4-724) *yinda wanbali-n gamo-wo [yinda TT] galngga-yngga.* (AP)
2SG.NOM(S) fear-NF water-DAT [2SG.NOM(S)] fall-APPR (S=[S])
'(As above)' (S=[S])

(4-725) ('The woman is afraid that her child might be drowned' was translated as follows.)

warrngo-Ø wanbali-n galbin-Ø jojorri-ngga. (AP)
woman-NOM(S) fear-NF child-NOM(S) be.drowned-APPR

(4-726) *ngaya wanba-l bama-nggo baba-lga nganya.* (AP)
1SG.NOM(S) fear-NF man-ERG(A) stab-APPR 1SG.ACC(O)
'I am afraid that some man might stab me.' (S=O)

The 'subordinate clause' is generally intransitive, e.g. (4-723) to (4-725), but it may be transitive, e.g. (4-726).

As noted in 4.17.1, the apprehensional ('Something unpleasant might happen') has three uses.

- (a) The predicate of a simple sentence (3.10.11).
- (b) The predicate of the subordinate clause of the:
 - (b-1) apprehensional construction ('lest should') (4.17), and;
 - (b-2) 'X is afraid that' construction (4.18.1).

It is interesting to investigate to whom the event concerned is unpleasant.

In the use (a), in most instances, the event is unpleasant to the speaker, i.e. the first person, e.g. (3-276), (4-72), (4-728-H), or the speaker and the hearer(s), i.e. the first person dual or plural, e.g. (4-71) (4-727-W, -H). But there are instances in which the event is unpleasant to the second person, e.g. (3-277) (second H), (3-278), (3-279), (4-728) (second W), or to the third person, e.g. (3-280), (3-281), (4-903) (second F, fourth S).

(4-727) (A conversation between a husband (H) and his wife (W).)

H. *jaynyja-lgo*.

copulate.with-PURP

‘[I] will copulate with [you].’

W. *bama-nggo ngali-nya nyaga-lga*.

man-ERG 1DU-ACC see-APPR

‘[Other] men might see us [copulating].’

H. *nyawa, wanyo-lo nyaga-lga?* (AP)

NEG who-ERG see-APPR

Tentative translation: ‘No. Who [do you think] might see us?’

(4-728) (A conversation cited from a text. ‘I (the husband: ‘H’) climbed up a tree. I teased my wife (‘W’). She got angry, and wanted me to come down from the tree.’)

(*nyola nganya mayga-n*.

3SG.ERG 1SG.ACC tell-NF

‘She [my wife] said to me.’)

W. *ragara-ya jolay-ngomay-Ø yarro-wo yinda*.

descend-IMP tree-ABL-NOM here-DAT 2SG.NOM

‘Come down here from the tree.’

H. *nyawa, balga-lga yinda nganya*.

NEG hit-APPR 2SG.ERG 1SG.ACC

‘No [, I will not go down]. You might hit me.’

W. *ngaya balga-lga yina*. (AP)

1SG.ERG hit-APPR 2SG.ACC

‘[You are worried that] I might hit you.’

The second H may be literally translated into English as follows: ‘No. Who might see us?’ However, inclusion of ‘[do you think]’ will make the intended meaning clearer.

In the use (b-1), the event is unpleasant to the S/A of the main clause, which may be any of the three persons – and maybe someone else. Examples: (4-709) (probably first person dual), (4-710) (second person), (4-711) (probably first person dual), (4-712-f) (first person dual), (4-713) (second person), (4-714-b) (second person), (4-715-a) (third person), (4-716) (first person).

In the use (b-2), again the event is unpleasant to the S of the main clause, which may be any of the three persons, e.g. (4-723) and (4-724) (second person), (4-725) (third person), (4-726) (first person).

To sum up, the unpleasantness described by the apprehensional generally concerns the first person, but it may concern the second person, and also third person.

Now, consider (4-729-c).

- (4-729) a. *ngalnga yinda jana-nya mayga-Ø* [*jana-Ø* TT]
 PROH 2SG.ERG 3PL-ACC(O) tell-IMP [3PL-NOM]
yarro-wo yani-yal [*jana-nggo* TT] *ngana-nya balga-lga.*
 here-DAT come-PURP [3PL-ERG] 1PL-ACC hit-APPR
 ‘Don’t tell them to come here lest [they] should hit us.’
- b. *ngaya*
 1SG.ERG(A)
 ‘I [said].’
- c. *nyawa* [*jana-nggo* TT] *ngana-nya balga-lga.* (AP)
 NEG [3PL-ERG(A)] 1PL-ACC(O) hit-APPR
 Tentative translation: ‘It is not the case that they might hit us.’

Sentence c may be literally translated into English as follows: ‘They might not hit us’. But this translation does not seem appropriate in this context. A more appropriate translation will be the one given above. That is, the scope of negation seems to be the entire sentence, excluding *nyawa*. (In Sentence b, a verb of speech activity may possibly be understood; see 4.18.5-[5].)

4.18.2. Emotion (2): ‘X is glad that

The noun *yimirr~yimirr* ‘glad’ and the intransitive verb *yimirr~yimirri-ZERO* ‘be glad’ (see 3.11.1.7-[4] and –[6] for their formation) may be used in simple sentences, e.g. (3-92) (*yimirr~yimirri-ZERO*). (What someone is glad about is expressed by the dative case, e.g. (3-92).) A clause containing either of *yimirr~yimirr* ‘glad’ and *yimirr~yimirri-ZERO* (i.e. the ‘main clause’) may be accompanied by a clause (i.e. the ‘subordinate clause’), and the entire sentence means ‘X is glad/pleased that ’. The ‘subordinate clause’ always (?) follows the main clause. The ‘main clause’ is intransitive, since it contains the noun *yimirr~yimirr* ‘glad’ in the nominative or the intransitive verb *yimirr~yimirri-ZERO* ‘be glad’. The ‘subordinate clause’, too, is intransitive, in the examples at hand.

(4-730) (An example from the Blue Tongue Lizard story. Cf. Text 1.)

ngona-ngomay ngaya yimirr~yimirr-Ø nyola wola-n. (AP)
 that-after 1SG.NOM(S) glad-glad-NOM 3SG.NOM(S) die-NF
 ‘After that, I [was] glad that it [Blue Tongue Lizard] had died.’

- (4-731) *ngali-Ø yimirr~yimirri-yal*
 1DU-NOM(S) glad-be.glad-PURP
yino gornngal-Ø jarribara-Ø. (AP)
 2SG.GEN husband-NOM(S) good-NOM
 ‘We-two will be glad that your husband [is] good.’

In the examples available, ‘X’ (the person who is glad) is always the first person, although presumably the second person and the third person, too, would be acceptable.

4.18.3. Knowledge: 'X knows that

The noun *jilbay* 'knowing' can be used in simple sentences. (What is known may be expressed by the dative case, e.g. (3-86).) A clause containing *jilbay* (i.e. the 'main clause') may be accompanied by a clause (i.e. the 'subordinate clause'), and the entire sentence means 'X knows that ...'. The 'subordinate clause' always (?) follows the 'main clause'. The 'main clause' is intransitive, since it contains the noun *jilbay* 'knowing' in the nominative. 'The subordinate clause', too, is intransitive, in the examples at hand.

(4-732) (A man said, 'I want to go home, for my mother is sick'. He was asked, 'How do you know that she is sick?' He replied:)

ngaya=goli jilbay-Ø
 1SG.NOM(S)=only knowing-NOM
nyola morran-ji-Ø wona-n. (AP)
 3SG.NOM(S) illness-COM-NOM lie-NF
 Lit. 'I know by myself that she is lying ill.'

In (4-649), the clitic =*goli* 'alone, by oneself' seems to mean 'with no information from other people' (see 4.25-[3]). This sentence may be translated as follows: 'Although no one told me (or, by presentment) I know that she is lying ill', or 'My sixth sense tells me that she is lying ill'.

4.18.4. Perception: 'X sees/hears Y doing

The 'main' clause contains the transitive verb *nyaga-L* 'see' or *ngawa-L* 'hear', and the entire sentence means 'X sees/hear Y doing ...'. The 'subordinate' clause always (?) follows the 'main' clause. (The verb of the 'subordinate clause' does not have a participle suffix. Clauses that contain a participle were discussed in 4.15. See (4-687) and (4-698) to (4-701).) This may not be significant, but in the examples available the 'subordinate clause' is intransitive and the coreference pattern is 'O=[S]', with the S deleted. (4-738) contains the reciprocal *baja-wa-Y* 'bite-RECP'. Reciprocal verbs are surface-intransitive (4.12.1). There is no example in which the 'subordinate clause' is transitive, as in 'I saw/heard him drinking water'

Examples involving *nyaga-L* 'sees' include Text 1, Line 41, and:

(4-733) *ngaya nyaga-n bama-Ø [bama-Ø TT] yani-Ø.* (AP)
 1SG.ERG(A) see-NF man-ACC(O) [man-NOM(S)] come-NF
 'I saw a man coming.' (O=[S])

(4-734) *ngaya nyaga-n joga-Ø [joga-Ø TT] waga-n.* (AP)
 1SG.ERG(A) see-NF smoke-ACC(O) [smoke-NOM(S)] rise-NF
 'I saw some smoke rising.' (O=[S])

- (4-735) *ngaya nyaga-n yarraman-Ø* (fall)/
 1SG.ERG(A) see-NF horse-ACC(O)
 [*yarraman-Ø* TT] *yaarr-a jana-garra-n* (fall)/ (AP)
 [horse-NOM(S)] yard-LOC stand-ITER-NF
 'I saw a horse standing in the yard.' (O=[S])

(*Yarraman* 'horse' appears to be a loan from some other Australian language (2.13.1), and *yaar* 'yard' is a loan from English (3.13.2-[2]-(e)). Its locative formation is irregular; see Table 3-4.)

Examples involving *ngawa-L* 'hear' include Text 3, Line 11, and:

- (4-736) *ngaya ngawa-n bama-Ø* [*bama-Ø* TT] *gobili-n.* (AP)
 1SG.ERG(A) hear-NF man-ACC(O) [man-NOM(S)] whistle-NF
 'I heard a man whistling.' (O=[S])
- (4-737) *ngawa-n ngali-Ø warrngo-Ø* [*warrngo-Ø* TT] *gawali-n.* (AP)
 hear-NF 1DU-ERG(A) woman-ACC(O) [woman-NOM(S)] call.out-NF
 'We-two heard a woman calling out.' (O=[S])
- (4-738) *ngawa-n ngali-Ø* (flat)/ *gando-Ø* [*gando-Ø* TT] *jana-Ø*
 hear-NF 1DU-ERG(A) dog-ACC(O) [dog-NOM(d-S)] 3PL-NOM(d-S)
baja-wa-n (fall)/ *jana-ngo yamba-ngga.* (fall) (AP)
 bite-RECP-NF 3PL-GEN camp-LOC
 'I heard the dogs biting each other in their camp.'

(This sentence contains a rare example of a pronoun (*jana-Ø* '3PL-NOM') referring to non-human animates: dogs. Alf Palmer's gloss for *baja-wa-n* is 'bite each other, fight'. Also, he stated to the effect that here *jana-ngo* '3PL-GEN' refers to men, and not dogs.)

4.18.5. Speech activity: 'X tells/asks

The 'main' clause contains one of the verbs of speech activity, such as *mayga-L* 'tell, say' (see [1] below), *banjo-L* 'ask' ([2] below), *yama-nga-L* 'so-TR', i.e. 'tell/say so' ([3]), and *magan-nga-L* 'false-TR', i.e. 'tell a lie' ([4]). They are transitive. The 'subordinate clause' may be transitive, e.g. (4-742), or intransitive, e.g. (4-739) to (4-741). In the examples available, the 'subordinate clause' always (?) follows the 'main' clause.

The distinction between direct speech and indirect speech can sometimes be recognized. But this is not a clear-cut dichotomy. Prosodic features such as intonation contour, pitch and stress would be expected to facilitate the establishment of this dichotomy. But they are not always helpful. The presence of an imperative verb in the subordinate clause selects the direct-speech reading, as against the indirect-

speech reading. However, in other examples this selection has to rely on the context. But again the context is not always helpful.

[1] *Mayga-L* ‘tell’

This verb has two case frames (Table 4-3): (a) ‘speaker-ERG topic-DAT listener-ACC’ and (b) ‘speaker-ERG topic-ACC listener-DAT’ In the examples involving a ‘subordinate clause’, the listener NP may occur, and it is always (?) ACC, e.g. (4-740), (4-741), (4-743).

Unequivocal examples of direct speech include (4-728) (the first sentence and the first W), Text 3, Lines 30–31, and:

(4-739) *nyola mayga-n yarro-n-da yobala-Ø wona-ya.* (AP)
 3SG.ERG(A) tell-NF here-LINK-LOC 2DU-NOM(S) sleep-IMP
 ‘He said [to them-two], “You-two sleep here”’

It is the use of an imperative verb (e.g. *wona-ya* ‘sleep-IMP’ in (4-739)) in the ‘subordinate clause’ that disallows the indirect-speech reading for this sentence. Another example of direct speech is the following. Both the direct-speech and the indirect-speech readings seem possible, but the prosodic features suggest that it is an instance of direct speech, and not indirect speech.

(4-740) *nganya nyola mayga-n ngali-Ø yani-ya.* (AP)
 1SG.ACC(O) 3SG.ERG(A) tell-NF 1DU-NOM(S) go-PURP
 Direct speech: ‘He said to me, “Let’s go”’
 Indirect speech: ‘He told me that we would go.’

Examples of indirect speech include the following. Both the direct-speech and the indirect-speech readings seem possible, but the context indicates that the indirect-speech reading is appropriate.

(4-741) *ngaya yino gaya-na-Ø mayga-lgo*
 1SG.ERG(A) 2SG.GEN father-KIN-ACC(O) tell-PURP
yinda jarribara-Ø. (AP)
 2SG.NOM(S) good-NOM
 Direct speech: ‘I will say to your father, “You [are] good”’
 Indirect speech: ‘I will tell your father that you [are] good.’

(4-742) *yinda mayga-Ø ngaya nyonya nyaga-lgo.* (AP)
 2SG.ERG(A) tell-IMP 1SG.ERG(A) 3SG.ACC(O) see-PURP
 Direct speech: ‘Say to him, “I will see him”’
 Indirect speech: ‘Tell [him] that I will see him.’

As alluded to above, there are many instances in which the direct-vs.-indirect speech distinction is not clear. Examples include:

- (4-743) *ngaya yina mayga-n ngaya nyando-Ø*. (AP)
 1SG.ERG(A) 2SG.ACC(O) tell-NF 1SG.NOM(S) not.knowing-NOM
 Direct speech: 'I said to you, "I do not know"' (A=S)
 Indirect speech: 'I said to you that I did not know.' (A=S)

In this example, neither the prosodic features nor the context help select either reading.

Mayga-L 'tell, say' can have a 'jussive use': 'tell X to do' (4.8.5-[2]-(a), 4.9.7-[2]). This may be considered an instance of indirect speech.

There is an example involving the reciprocal *mayga-wa-Y* 'tell-RECP': (4-460) 'tell each other that'. The main clause contains *mayga-wa-Y* 'tell-RECP', and the subordinate clause contains a purposive verb.

[2] *Banjo-L* 'ask'

Only one case frame is attested (4.3.3.2-[12]): 'speaker-ERG hearer-ACC'. In the examples involving a 'subordinate clause', the hearer NP always (?) occurs, in the accusative. Again, the distinction between direct speech and indirect speech can be sometimes ascertained, although this distinction is not always clear. Examples of direct speech include the following. Both the direct-speech and the indirect-speech readings seem possible, but the context indicates that the direct-speech reading is appropriate.

- (4-744) *nganya jana-nggo banjo-n wanyja-ngomay-Ø yinda*. (AP)
 1SG.ACC(O) 3PL-ERG(A) ask-NF where-ABL-NOM 2SG.NOM(S)
 Direct speech: 'They asked me, "Where [are] you from?"' (O=S)
 Indirect speech: 'They asked me where you [were] from.'

- (4-745) *ngaya nyonya banjo-n*
 1SG.ERG(A) 3SG.ACC(O) ask-NF
ngani-wo yinda jana-garra-n. (AP)
 what-DAT 2SG.NOM(S) stand-ITER-NF
 Direct speech: 'I asked him, "What are you standing for?"' (O=S)
 Indirect speech: 'I asked him what you were standing for.'

(Here, *jana-garra-n* seems to mean 'stand and wait' (3.6.4-[7]-(h)).) An example of indirect speech is the following. Both the direct-speech and the indirect-speech readings seem possible, but the context indicates that the indirect-speech reading is appropriate.

- (4-746) *minga-yi-Ø nyonya banjo-ya*
 vulva-COM-ACC 3SG.ACC(O) ask-IMP
yino goyba-lgo nyola. (AP)
 2SG.GEN give-PURP 3SG.ERG(A)

Direct speech: 'Ask her, who has a vulva, "Will she give you [her vulva]?"'
 Indirect speech: 'Ask her, who has a vulva, if she will give you [her vulva].'
 (O=A)

Banjo-l Vt 'ask' can have a 'jussive use': 'ask X to do' (4.8.5-[2]-(a), 4.9.7-[2]). This may be regarded as an instance of indirect speech.

[3] *Yama-nga-L* 'tell/say'

An example is (4-207). It is an instance of direct speech, for the subordinate clause contains an imperative verb (*balga-Ø* 'kill'). (4-208), too, is an instance of direct speech. An indirect-speech reading is not plausible.

Yama-nga-L can mean 'tell, say so', but in (4-207) and (4-208), it seems to mean 'tell, say', without implying 'so' (4.7.2-(8)).

[4] *Magan-nga-L* 'false-TR', i.e. 'tell a lie'

(See 4.7.2-[1]-(a) for the formation of *magan-nga-L*.)

(4-747) *ngali-Ø magan-nga-n ngali-Ø magoli-yal.* (AP)

1DU-ERG(A) false-TR-NF 1DU-NOM(S) work-PURP

Direct speech: 'I told a lie, saying "We-two will work"'

Indirect speech: 'I told a lie, saying that we-two would work.'

For this sentence, both the direct-speech reading and the indirect-speech reading seem appropriate.

[5] The texts have yielded a fair number of instances in which the verb of speech in the 'main clause' is absent. (Dixon (1972: 372) reports a similar example in Mamu.) In the examples available, the A of the main clause is either *ngaya* '1SG.ERG' or *nyola* '3SG.ERG'. There is no example involving any other pronoun or a noun. That is, there is no example involving a second person pronoun. It might be expected that *ngaya* '1SG.ERG' is frequent, whereas *nyola* '3SG.ERG' is infrequent. However, impressionistically, *nyola* '3SG.ERG' is equally frequent as *ngaya* '1SG.ERG'.

Examples involving *nyola* '3SG.ERG' include the following.

(4-748) ('I teased my wife, and:')

a. *ngaya ngoni yaji-garra-n* (fall)/

1SG.NOM(S) there laugh-ITER-NF

'I was laughing there.'

b. *nyola* (flat; no pause)

3SG.ERG(A)

'She [asked me].'

- c. *ngani-wo yinda yaji-garra-n* (fall)/
 what-DAT 2SG.NOM(S) laugh-ITER-NF
 (i) 'Why are you laughing?' (cf. 3.6.4-[2] for 'why').
 (ii) 'What are you laughing at?' (cf. 3.6.4-[6]-(f) for 'laugh at')

(4-749) ('I was sleeping with my wife.')

- a. *ngaya nyonya* (flat)/ *ngaya nyonya boji-nggo*
 1SG.ERG(A) 3SG.ACC(O) 1SG.ERG(A) 3SG.ACC(O) fart-ERG
bongga-n (fall)/
 blow.at-NF
 'I blew fart at her.'
- b. *nyola* (slight rise)/
 3SG.ERG(A)
 'She [asked me].'
- c. *ngani-Ø yarro-Ø yinda boji-boji-bi-n* (fall)/
 what-NOM this,here-NOM 2SG.NOM(S) fart-fart-INTR-NF

(*Boji* 'fart' is a noun. Reduplication in *boji-boji-bi-n* seems to indicate 'keep VERBing', i.e. 'keep farting'. It is not certain what (4-749-c) means. *Ngani-wo* 'what-DAT' would be expected, in place of *ngani-Ø* 'what-NOM'. Indeed, when the tape was replayed, Alf Palmer approved *ngani-wo* 'what-DAT' when I suggested it. This version (with *ngani-wo* 'what-DAT') may be translated as follows: 'Why do you keep farting here?' However, when the tape was first replayed and also when it was replayed for the second time, Alf Palmer confirmed that *ngani* was the intended form. Therefore, it is possible that *ngani* 'what' by itself, without the dative suffix, can mean 'why'. In this case, the same translation 'Why do you keep farting here?' will be used for (4-749-c) (with *ngani-Ø* 'what-NOM') as well.)

(4-750) ('I thought he slept with my wife, and I accused him. He said:')

- a. *ngaya nyonya nyawa jaynyja-n* (fall)/
 1SG.ERG(A) 3SG.ACC(O) NEG copulate.with-NF
 'I did not have sex with her.'
- b. *nyola* (fall)/
 3SG.ERG(A)
 'He [said to me].'
- c. *jamo ngali-Ø birra-wa-n* (fall)/
 just 1DU-NOM(d-S) talk-RECP-NF
 'We just talked.'

(4-751) a. *ngaya jaynyja-n jaynyja-n jaynyja-n* (fall)/
 1SG.ERG(A) copulate.with-NF copulate.with-NF copulate.with-NF
 'I kept copulating with [my wife].'

- b. *nyi nyo nyonya* (slight rise)/ *nyola ngaygo-n-go* (flat)/
 (error) (error) (error) 3SG.ERG(A) 1SG-LINK-DAT
 'She [said] to me.'

- c. *ngona-Ø=nyamo* (fall)/
that-NOM=enough
'That [is] enough.'

Examples involving *ngaya* '1SG.ERG(A)' include the following.

- (4-752) (This sentence follows (4-837): '[My wife (?) said to me, "Go with nothing in your hand", i.e. "Don't carry anything"].')
- a. *ngaya* /
1SG.ERG(A)
'I [said to her].'
- b. *yowo*. (AP)
OK
'OK!'
- (4-753) a. *ngaya* /
1SG.ERG(A)
'I [asked her].'
- b. *wanyja-ngomay-Ø yarro-wo yinda?* (AP)
where-ABL-NOM here-DAT 2SG.NOM(S)
'Where [did] you [come] here from?'
- (4-754) a. *ngaya nyonya* /
1SG.ERG(A) 3SG.ACC(O)
'I [said] to her.'
- b. *ngaya yori-wo yani-ya!* (AP)
1SG.NOM(S) kangaroo-DAT go-PURP
'I will go for [i.e. to obtain] a kangaroo.'
- (4-755) a. *ngaya yorra-nya* /
1SG.ERG(A) 2PL-ACC(O)
'I said to [you].'
- b. *yarro-n-da yorra-Ø nyina-Ø*. (AP)
here-LINK-LOC 2PL-NOM(S) sit-IMP
'You stay here.'

(*Nyina-Y* Vi 'sit' belongs to Y-class. For the imperative, verbs of Y-class generally have *-ya* 'general imperative-2' (e.g. *nyina-ya* 'sit-IMP'), but they lack *-Ø* 'general imperative-1'. *Nyina-Ø* in (4-664) appears to be an imperative, for Alf Palmer stated that it is the same as *nyina-ya*. In Table 4-15, *nyina-Ø* for the general imperative-1 is placed in a parenthesis.)

For the sentences in which the verb of speech is absent, the following verb may be supplied: (i) *mayga-n* 'tell-NF' or *yama-nga-n* 'tell, say-NF' for (4-750-b), (4-751-b), (4-752-a), (4-754-a), (4-755-a), and (ii) *banjo-L* 'ask-NF' for (4-748-b), (4-749-b), (4-753-a).

All the examples have past reference (cf. 'said/asked'), and not present reference (cf. 'am/is saying/asking') or future reference (cf. 'will say/ask'). That is, the verb that can be supplied has to be considered as nonfuture. There is no example in which the verb in question can be regarded as any other conjugational category (e.g. purposive, as in 'I [will tell/say]', and imperative, as in 'You [tell/say!]).

The speaker NP precedes (and not follows) the sentence that describes the content of speech.

The hearer may be first person, e.g. (4-748-b), (4-749-b), (4-750-b), (4-751-b), second person, e.g. (4-755-a), or third person, e.g. (4-752-a), (4-753-a), (4-754-a). The hearer NP is generally absent, e.g. (4-748-b), (4-749-b), (4-750-b), (4-752-a), (4-753-a), but it may be present, e.g. (4-751-b) and (4-754-a). For (4-750-b), (4-751-b), (4-752-a), (4-754-a), (4-755-a), *mayga-L* 'tell, say' may be supplied. With *mayga-L* 'tell, say', the hearer NP may be DAT or ACC (see Table 4-3). In (4-751-b), the hearer NP is DAT, while in (4-755-a), the hearer NP is ACC.

All the examples appear to involve direct speech, and not indirect speech. (4-755-b) is a clear instance of direct speech, for the verb is an imperative verb (cf. (4-739)).

4.18.6. Condition 'if' and future time 'when, while'

The 'subordinate clause' expresses the following.

- (a) With present reference: 'whenever'
- (b) With future reference: (i) conditional 'if', (ii) temporal 'when', (iii) temporal 'while'.

The 'subordinate clause' precedes the 'main clause'. (This is in agreement with Greenberg's (1978: 74) Universal 14: 'In conditional statements, the conditional clause precedes the conclusion as the normal order in all languages'.) It may contain a verb (4.18.6.1) or may not (4.18.6.2). The 'main clause' always contains a verb. The entire sentence always (?) has one single intonation contour. The 'main clause' is generally followed by a rise or a flat intonation. In particular, see (2-131) and (2-132) and the comments on them. For some of the examples, intonation and pause are indicated.

4.18.6.1. With a subordinate clause containing a verb

The verb in the 'subordinate clause' is attested in the following conjugational categories: nonfuture-1 (-n), nonfuture-3 of the irregular verb *yani-* 'go, come' (*yani-Ø*; see Table 3-14), purposive, and imperative.

[1] Nonfuture-1 (-n)

The verb in the ‘subordinate clause’ may be intransitive or transitive.

Examples in which the verb in the ‘subordinate clause’ is intransitive, include (2-131) (‘when’), (4-756-b), (4-757), and Text 2, Line 47 (‘whenever’). The verb of the ‘main clause’ is purposive in (2-131), (4-756-b), imperative in (4-757), and nonfuture in Text 2, Line 47.

- (4-756) a. *ngaya* (rise)/ *yangga-gali-Ø* *goman-go* (fall)/
 1SG.NOM(d-S) search.for-ANTIP-NF other-DAT
nyila ngali-Ø *moja-lgo* (fall)/
 soon 1DU-ERG(A) eat-PURP
 ‘I looked for other [i.e. more] [fish] so that we could eat [fish] soon.’
- b. *garri-Ø* *galngga-n* (rise)/ *ngali-Ø* (flat)/ *moja-gali-yal* (fall)/
 sun-NOM(S) fall-NF 1DU-NOM(d-S) eat-ANTIP-PURP
 (i) ‘When the sun has set, we will eat [the fish].’
 (ii) ‘As the sun has set, we will eat [the fish].’

(Alf Palmer approved both of two translations: one involving ‘when’ and the other involving ‘as’ This indicates that (4-756-b) can have the causal reading as well as the conditional reading.)

- (4-757) *nyola* *wola-n*
 3SG.NOM(S) die-NF
 [*yinda nyonya* TT] *wanda-Ø yarro-n-da*. (AP)
 [2SG.ERG(A) 3SG.ACC(O)] leave-IMP here-LINK-LOC
 ‘If/when he dies, leave [him] here.’

Examples in which the verb in the ‘subordinate clause’ is transitive, include (4-909) (‘if’) and the following. The verb of the ‘main clause’ is nonfuture (indicating intention) in (4-909), apprehensional in (4-758), purposive in (4-756-b), (4-759), (4-760), and imperative in (4-757), (4-761), (4-762).

- (4-758) (‘It is not safe to make a fire at night. They might see the fire.’)
nyara-Ø / *nyaga-n jana-nggo* (fall)/
 flame,light-ACC(O) see-NF 3PL-ERG(A)
nganya baba-lga nyara-ngga (fall)/ (AP)
 1SG.ACC(O) stab-APPR flame,light-LOC
 ‘If they see the flame/light, they might spear me in the light.’
- (4-759) (‘Don’t get a new wife.’)
yinda / *nyilamo-Ø moga-n* (slight rise) *yarro-wo*
 2SG.ERG(A) new-ACC catch-NF here-DAT
ganyji-n (slight rise)/ *ngaya nyonya balga-lgo* (fall)/ (AP)
 carry-NF 1SG.ERG(A) 3SG.ACC hit,kill-PURP
 ‘If you get a new [woman] and bring her here, I will hit/kill [her].’

(Note that here *nyonya* ‘3SG.ACC’ has a nonspecific (not specific) referent, i.e. ‘any new woman whom you might get’.)

(4-760) (Alf Palmer was planning to take me for fishing.)

[*ngaya* TT] *gamo-Ø* *jarribara-Ø* *nyaga-n*
 [1SG.ERG(A)] water-ACC(O) good-ACC(O) see-NF
ngaya *yina* *ganyji-lga.* (AP)
 1SG.ERG(A) 2SG.ACC(O) take-PURP
 ‘If/When I see good water [i.e. when the tide is good], I will take you.’

(4-761) *nganya* *nyola* *baba-n* (rise)/
 1SG.ACC(O) 3SG.ERG(A) stab-NF
balga-n *nganya* (rise)/ *gowoy-nga-n* (rise)/
 hit,kill-NF 1SG.ACC(O) male.ghost-TR-NF
yinda *wadali-ya* (fall)/
 2SG.NOM(S) run-IMP
 ‘Run away if he stabs me [and] kills me.’

(*Gowoy-nga-L* ‘make [a man] a male ghost’ means ‘kill [a man]’ (4.7.2-[1]-a). *Gowoy-nga-n* modifies *balga-n* ‘hit, kill-NF’, and they jointly mean ‘kill’ (4.5.4.1-[2]).)

(4-762) (Two people are expecting an attack from another man.)

ngaya *mano-Ø* *moga-n*
 1SG.ERG(A) neck-ACC(O) grab-NF
yinda *gaja-Ø* *balga-Ø.* (AP)
 2SG.ERG(A) head-ACC(O) hit-IMP
 ‘If/when I grab [his] neck, hit [his] head.’

[2] *Yani-Ø* ‘go, come-nonfuture-3’

Examples include (3-331) (‘when’), and the following.

(4-763) *bama-Ø* *golma-ngando* *yani-Ø*
 man-NOM(S) behind-from come-NF
yinda [*bama-Ø* TT] *balga-Ø.* (AP)
 2SG.ERG(A) [man-ACC(O)] hit-IMP
 ‘If a man comes from behind, hit [the man].’

(4-764) (A long sentence cited from a text. It is divided into five parts. This sentence describes a practice whereby, while traveling, people used to carry a deceased relative’s skull so that the skull would warn them of danger (cf. 1.5.8-[6]).)

- a. *gaja-Ø* *ganyji-n* *jana-nggo*
 skull-ACC(O) carry-NF 3PL-ERG(A)
- b. *golma-mali* *bama-Ø* *yani-Ø*
 behind-side man-NOM(S) come-NF

- c. *gaja-nggo mayga-lgo jana-nya*
 skull-ERG(A) tell-PURP 3PL-ACC(O)
- d. *yarro-Ø bama-Ø yani-Ø golma-mali*
 this-NOM(S) man-NOM(S) come-NF behind-side
- e. [*bama-Ø TT*] *balga-gali-yal yorra-ngo-n-go.* (AP)
 [man-NOM(S)] kill-ANTIP-PURP 2PL-LINK-LINK-DAT
 ‘They used to carry a skull so that, if a man came behind, the skull
 would tell them, “This man is coming behind to kill you”’

The relevant portion is Lines b and c: ‘if a man came behind, the skull would tell them’

The verb of the main clause is nonfuture (indicating future) in (3-331), imperative in (4-763), and purposive in (4-764-c).

[3] Purposive

Examples include (3-319) (‘when’), Text 3, Line 8, and:

(4-765) (Alf Palmer made an arrangement for the next interview by me.)

ngaya miranga-lgo mogarro-Ø
 1SG.ERG(A) make-PURP fishing.net-ACC(O)
ngali-Ø birra-wa-yal. (AP)
 1DU-NOM(d-S) talk-RECP-IMP
 ‘Let’s talk while I make a fishing net.’

The verb of the ‘main clause’ is purposive in all of these three examples.

[4] Imperative

There are a few examples, e.g.:

(4-766) (When (4-759) was being discussed during the playback of a tape, Alf Palmer gave the following in addition to (4-759). The subordinate clause in (4-795) contains the nonfuture *ganyji-n*, while that in (7-666) contains the imperative *ganyji-ya*.)

yinda nyilamo-Ø yarro-wo ganyji-ya
 2SG.ERG(A) new-ACC here-DAT carry-IMP
ngaya nyonya balga-lgo. (AP)
 1SG.ERG(A) 3SG.ACC hit,kill-PURP
 ‘If you bring a new [woman] here, I will hit/kill her.’

(4-767) (When I was on Palm Island, I used to collect live shells. Alf Palmer explained how to clean a shell, taking the meat out of it.)

yarro-Ø yinda binda-Ø
 this-ACC 2SG.ERG(A) stand.up-IMP

ngona-ngomay minya-Ø banda-n. (AP)

that-after meat-NOM(S) emerge-NF

‘Stand up this [shell by the fire] and after that the meat comes out’, or ‘If you stand up this [shell by the fire] the meat comes out.’

The verb of the ‘main clause’ is purposive in (4-766) and nonfuture in (4-767). In (4-767), the nonfuture-1 *banda-n* does not seem to have future reference. It seems to be an instance of ‘generic tense’ (3.10.2-[1]).

(4-766) and (4-767) are reminiscent of English sentences such as *Stir, and you will be dead*.

All of these ‘conditional clauses’ concern an event in the future. There is no example which concerns an event in the past (i.e. a conditional clause of the type ‘If I had been ...’). Also, there is no example of counterfactual conditional, irrespective of whether the reference is to the past (cf. ‘If I had been ...’) or to the present or the future (cf. ‘If I were ...’).

Participles, too, can indicate condition or future time, e.g. (4-683) to (4-685), and (4-695) to (4-697). At least the participle-2 can indicate counterfactual condition with future reference; see (4-695).

4.18.6.2. *With a subordinate clause containing no verb*

The ‘subordinate clause’ may contain not a verb but a noun, e.g. (4-768) (except for the third B) to (4-771), or the adverb *nyawa* ‘NEG’, e.g. (4-772). The noun is in the nominative case in all the available examples. Some of them involve COM-NOM, e.g. (3-171-d), (4-768) (last B), (4-771). Examples follow.

(4-768) (A conversation between two men. A: ‘Why do you want to see her *raba* ‘fork?’) (The noun *raba* means ‘fork-shaped branch of a tree’ In this conversation, *raba* refers to a crotch or maybe a vulva.)

B. *walwajarri-Ø* (slight rise) *ngaya bindaynga-n* (fall; no pause)

bad-NOM 1SG.ERG(A) let.go-NF

‘If [her crotch is] no good, I will let [her] go.’

B. *jarribara-Ø* (slight rise) *ngaygo* (fall)/

good-NOM 1SG.GEN

If [her crotch is] good, [she will be] mine.’

Alf Palmer’s translation: ‘If i got good fork, i mine’

A. *jarribara-Ø yinda* (fall)/ *ja jarribara-Ø yinda* (flat)/ *yino* (fall)/

good-NOM 2SG.NOM(S) (error) good-NOM 2SG.NOM(S) 2SG.GEN

‘If you [are] good, [she will be] yours.’

B. *yowo ngaygo=wa* (fall)/

yes 1SG.GEN=FOC

‘Yes. [She will be] mine indeed.’

B. *walwa-yi-Ø* (slight rise) *ngaya* *bindaynga-n* (fall)/
 bad-COM-NOM 1SG.ERG(A) let.go-NF
 ‘If [she] has a bad [crotch] I will let [her] go.’

(4-769) (An example cited from a text. A man is working out a plot with someone else’s wife, and he says to her as follows.)

yino *gornggal-Ø* *goli-yi-Ø*
 2SG.GEN husband-NOM angry-COM-NOM
yinda *gaja-Ø* *giba-Ø*. (AP)
 2SG.ERG(A) head-ACC(O) scratch-IMP
 ‘If your husband [is] angry, scratch [your] head [to let me know].’

(4-770) (The same context as above.)

nyola *jarribara-Ø* *ngalnga* *yinda* *giba-Ø*. (AP)
 3SG.NOM(S) good-NOM PROH 2SG.ERG(A) scratch-IMP
 ‘If he [is] good [i.e. not angry], don’t scratch [your head].’

(4-771) (When Alf Palmer was cleaning his house and yard, he said to me as follows.)

yinda *jolbon-ji-Ø*
 2SG.NOM(S) spouse-COM-NOM
yinda *yamba-Ø* *yama-nga-Ø*. (AP)
 2SG.ERG(A) house-ACC(O) so-TR-IMP
 ‘If/when you have a spouse [i.e. if/when you are married], do like this to [your] house [i.e. clean your house like this].’

(4-772) (‘We have food now. But.’)

manyja-Ø *nyawa* *yinda* *wola-n*. (AP)
 food-NOM NEG 2SG.NOM die-NF
 ‘If there were no food, you would die.’

(Judging by the context, this sentence seems to be an instance of counterfactual conditional. For the expression ‘There is no X’, see 4.20.6.)

The ‘main clause’ contains no verb in (4-768) (second B and A that follows). The verb of the ‘main clause’ is (i) purposive in (3-171-d), (ii) imperative in (4-769) to (4-771), and (iii) nonfuture (indicating intention) in (4-768) (first B, fourth B), (4-772) (counterfactual).

4.19. ‘And’, ‘but’ and ‘for’

Warrongo has no conjunction except for the enclitic =*ngomay* ‘after, if, because’ (4.10). Nonetheless, there are instances which can be best translated by means of *and*, *but* or *for*. Some of them are given below. Strictly speaking, they are instances of parataxis. Nonetheless, each of them may be (tentatively) regarded as a

single sentence, consisting of two clauses. First, they each have one single intonation contour. Second, the two clauses are semantically connected.

[1] Involving the adverbs *ganba-mali* 'front-side' and *golma-mali* 'behind-side' (See 3.8.1-[3] for the adverb-stem-forming suffix *-mali* side') These two adverbs sometimes occur together (though not always; cf. (4-696), (4-702), (4-764-b, -d), (4-903) (first S), (4-958)). When they co-occur, the sentence may express 'and'. The sentence may contain a verb, e.g. (3-213) (*yani-ya* 'go-IMP'), but more frequently it contains no verb, e.g.:

(4-773) *nyola ganba-mali ngaya golma-mali.* (AP)
 3SG.NOM(S) front-side 1SG.NOM(S) behind-side
 'She [was walking] in front [and] I [was walking] behind.'

Similarly, when a sentence contains the two adverbs *ngarra-mali* 'above-side' and *nyarrga-mali* 'below-side', the sentence may express 'and'. An example is (3-212) (the second sentence; it contains no verb).

Presumably, examples such as (3-212), (3-213) and (4-773) can also express 'but', although there is no unequivocal example at hand.

[2] There are other instances which can be best translated by means of *and*, *but* or *for*. The end of the first clause generally has a rise in pitch. When the sentence expresses 'and', the reference is generally to the past. When it indicates 'but', reference is not necessarily to the past.

(a) 'And'. Examples include (4-907-d) and:

(4-774) *garri-Ø galngga-n wona-n ngona-n-da ngali-Ø.* (AP)
 sun-NOM(S) fall-NF sleep-NF there-LINK-LOC 1DU-NOM(S)
 'The sun set [and] we slept there.'

(4-775) *ngaya jarga-n nyaga-n ngaya gambila-Ø.* (A)
 1SG.NOM(S) enter-NF see-NF 1SG.ERG(A) (tree sp.)-ACC(O) (S=A)
 'I went in [a scrub] [and] I saw a *gambila* tree.'

Sentences such as (4-774) and (4-775) ('and') are similar to those such as (2-131), (4-756) to (4-762) ('if, when') in that (i) they each have one single intonation contour, the end of the first clause having a rise in pitch, and (ii) the verb of the first clause is in the nonfuture-1 (-n). (Note that the first clauses of (2-131) and (4-774) are identical.) However, they differ in that the verb of the 'main clause' in (4-774) and (4-775) ('and') is in the nonfuture-1 (-n) and has past reference, while on the other hand the verb in the 'main clause' of (2-131), (4-756) to (4-762) ('if, when') has future reference.

(b) 'But'. Examples include (3-180-b), (3-315), and:

(4-776) *ngaya mara-nganyi-Ø nyola walwa-Ø*. (AP)
 1SG.NOM(S) hand-face-NOM 3SG.NOM(S) bad-NOM
 ‘I [am] swift[, but] he [is] no good.’

(See 3.7.3-[1] for the compound noun *mara-nganyi-Ø* ‘hand-face’, ‘person who is very swift in fighting’)

(c) ‘For’, e.g. (3-335).

[3] I note in passing that there are instances of a simple sentence (which consists of just one single clause, and not two or more) that can be best translated by means of *but*. They contain the adverb *ngarro* ‘in vain, unsuccessfully’ (4.24-[9]), the transitive verb *ngarro-mba-L* ‘do in vain’, i.e. ‘try, but cannot’ (4.7.3-[2]), or *nyawa-nga-L* ‘[try, but] cannot get’ (cf. *nyawa* ‘NEG’ (4.7.2-[3]-(a)). Examples involving *ngarra* ‘in vain, unsuccessfully’ include e.g. (4-780), (4-957) to (4-959). Examples of *ngarro-mba-L* ‘try, but fail’ include (4-224-a), and:

(4-777) *yinda ngani-Ø ngarro-mba-n?* (AP)
 2SG.ERG(A) what-ACC(O) in.vain-TR-NF
 ‘What did you try to get, but could not?’

Ngarro-mba-L may modify another verb (4.5.4.1-[2]). Examples include (4-213): ‘I did in vain, asked [her to have sex with me]’, i.e. ‘I asked her to have sex with me, but I had no success’. An example of *nyawa-nga-L* ‘[try, but] cannot get’ is (4-193).

4.20. Expression of possession and existence

4.20.1. Introductory notes

In the following discussion, ‘possession’ includes whole-part relationship. In Warrongo, possession is generally expressed by the genitive case (3.6.5; discussed in 4.20.3 again). It may be expressed by the dative case (3.6.4), the ablative-1 case (3.6.7), and the comitative case (3.6.8) (all discussed in 4.20.4 again). It can also be described by the apposition of the possessor and the possessee (4.20.5) and by the transitive verb *ganyji-L* ‘carry’ (4.20.8).

Negation of possession or existence (‘X has no Y’, ‘There is no Y in X’) will be discussed in 4.20.6.

4.20.2. Possession cline

Tsunoda (1991: 119, 1995: 576) proposes the ‘possession cline’, on which various types of possessee are placed relative to each other.

(4-778) Possession cline:

body part > inherent attribute > clothing attached to the body >
kin > pet animal/domestic animal > product > other possessee

Tsunoda (1995: 576) notes: 'This cline is a refinement of the well-known inalienable/alienable distinction. More specifically, it represents the degree of closeness/attachedness – physical and/or psychological – between the possessor and the possessee'. Often referring to this cline, Tsunoda (1997) provides a detailed discussion of various expressions of possession and existence of Warrongo, and the main points will be repeated below.

4.20.3. Genitive case

As seen in 3.6.5, the genitive case may express possessor, performer, user/consumer, beneficiary, recipient, and so on. We shall look at the following three types of possessor(/whole): human, animate, and inanimate. In terms of the possession cline, the genitive case is attested for the following.

[1] Human possessor: from 'body part' to 'other possessee'.

[2] Animate possessor: 'body part' only.

[3] Inanimate possessor: no example.

This situation is shown in Table 4-45.

[1] Human possessor

(a) Body part

This group contains body parts, and also footprints, body secretions, and the like. The genitive case is attested to mark the possessor of the following nouns: *gaja* 'head', e.g. (4-282), *jili* 'eye', e.g. (3-103), *jalany* 'tongue', *mara* 'hand', e.g. (4-472), *bolo* 'belly', e.g. (4-525), *gombo* 'buttocks', e.g. (3-102), (4-82), *jombi* 'penis', e.g. (4-471), *wambaworo* 'erect penis', *raba* 'woman's crotch' (lit. 'fork of a branch'), e.g. third A of (4-794), *bila* 'vulva (?)', *minga* 'vagina', *wanja* 'vagina' (lit. 'hole'), *jarra* 'leg', *mogo* 'shin bone', *jina* 'foot, footprint', e.g. (3-109), *jinggo* 'body hair', *balban* 'bone', *jiji* 'a sore', *gabora* 'body smell', *gona* 'faeces', e.g. (3-108), *jirga* 'semen', e.g. (4-779), *gawal* 'voice', e.g. (3-334), *borgal* 'track on grass', *ngani* 'what', meaning 'what part of your body?'

In almost all the examples, the body part or the like constitutes a whole-part relationship with the possessor. But in a few examples, it has been separated from the possessor, and they no longer constitute a whole-part relationship, e.g. (3-109) ('we' 'footprints'), (4-108) ('he' 'faeces'), and:

- (4-779) ('My wife and I had sex. Then, she urinated on me, I thought:')
nyawa, jirga-Ø ngaygo galga-n. (AP)
 NEG semen-ACC 1SG.GEN pour-NF
 'No. [She] poured my semen [onto me].'

Table 4-45. Possession cline

	body part	attribute	clothing	kin	animal	product	other
body part in reflexive (4.11.2.1-[4], 4.11.3.1)	—————>						
body part in reciprocal (4.12.3-[5])	—————>						
genitive (4.20.3)							
human	—————>						
animate	—————>						
dative (4.20.4)							
human		————		——			——
animate	————						——
ablative-1 (3.20.4)							
human							——
inanimate	————						
comitative (4.20.4)							
human	—————>						
animate	—————>						——
inanimate	————						
apposition (4.20.5)							
human	—————>						
animate	—————>						
inanimate	—————>						
'X Y <i>nyawa</i> ' (4.20.6)							
human	—————			——			——
inanimate	—————>						
subordination (4.20.7)	————			——			——
<i>ganyji-L</i> 'carry' (4.20.8)	—————>						

(b) Inherent attribute

This refers to size, height, temperature, etc. (Tsunoda 1995: 577). There are no such examples in my data. But *nyarri* 'name' and *gogo* 'language' should be considered belonging here; see the comments on (4-799). Examples: *nyarri* 'name': (3-104), (4-780), and *gogo* 'language': (2-127-A), (3-86), (4-234), (4-235), (4-346), (4-347).

- (4-780) *ngaya ngarro yangga-n nyarri-Ø nyongo.* (AP)
 1SG.ERG in.vain search.for-NF name-ACC 3SG.GEN
 'I searched for his name in vain', i.e. 'I tried to recall his name, but I could not recall it.'

(c) Clothing attached to the body

Only one noun is attested: *gambi* ‘clothes’, e.g.:

(4-781) (‘We had a fight, but let’s be good friends.’)

gambi-Ø yino goyba-Ø
 clothes-ACC 2SG.GEN give-IMP
ngaya baya-baya yino gambi-Ø goyba-lgo
 1SG.ERG in.return~in.return 2SG.GEN clothes-ACC give-PURP
yarro-ngomay-Ø. (AP)
 here-ABL-ACC

‘Give [me] your clothes [so that] I will give you [my] clothes from here.’

(The first occurrence of *yino* refers to a possessor, while its second occurrence indicates a recipient.)

(d) Kin

This group contains ‘kin’, and also ‘friend’ and ‘person of the same tribe or the like’. Many nouns are attested, including *birgo* ‘wife’, e.g. (2-134), (4-48), (4-577), *gornggal* ‘husband’, e.g. (4-43), (4-281), (4-731), (4-934), (4-943), *gaya, gaya-na* ‘father’, e.g. (3-122), (3-214), (3-192), (3-255), (4-121) to (4-123), (4-323), (4-990-a), *galbiri* ‘children’ (i.e. ‘offspring’), e.g. (4-603), (4-1006), *warrngo* ‘woman’, often referring to wife, e.g. (4-48), (4-124) (second B), *bama* ‘man’, referring to person of the same tribe or the like, e.g. (4-594), *majowarrgi* ‘friend’, e.g. (4-5), (4-563).

(e) Pet animal, domestic animal

Only two nouns are attested: *gando* ‘dog’, e.g. (3-106), and *yarraman*, e.g. (4-782).

(4-782) *yarro-Ø ngaygo yarraman-Ø nyola*. (AP)
 this-NOM 1SG.GEN horse-NOM 3SG.NOM
 ‘It, this, [is] my horse.’

(f) Product

This category concerns something that is produced by someone, e.g. an author’s writing, a craftsman’s work (Tsunoda 1995: 579). In my Warrongo data, relevant examples concerns bark paintings, dances, songs, etc. and the genitive case denotes the producer of the painting or the performer of the dance or song. Attested nouns include *marrano goga* ‘stringy bark’s bark’, referring to a painting on it, *Gama* dance, e.g. (3-110), *Malba* dance, and *Jangala* song.

(g) Other possessee

All other possesseees belong to this category, e.g. *manyja* ‘vegetable food’, *wangal* ‘boomerang’, *banggay* ‘spear’, e.g. (4-81), *bilanggirr* ‘blanket’, e.g. (3-105), *yamba* ‘camp’, e.g. (3-107), (4-84), (4-96), (4-97), *wobirri* ‘English bee’ (as food), e.g. (4-69), *gajarra* ‘possum’ (as food), e.g. (4-71), (4-72).

‘Other possessee’ includes a body part that is not one’s own: (g-1) someone else’s body part, and (g-2) an animal’s or game’s body part.

(g-1) Someone else’s body part

The following nouns are attested: *minga* ‘vulva, vagina’, (4-783), (4-784), *wanja* ‘hole’, referring to vagina, e.g. (4-785), *raba* ‘fork of a branch’, referring to a woman’s crotch, and *jombi* ‘penis’, e.g. (4-786).

(4-783) (A man, who is very possessive of his wife, says to her.)

ngaygo ngona-Ø (pause) *ngoni minga-Ø*. (AP)
1SG.GEN that-NOM there vulva-NOM
‘That vulva there [is] mine.’

(4-784) (A man, who is very possessive of his wife, says about her vulva.)

minga-Ø ngaygo nyaga-lga bama-nggo. (AP)
vulva-ACC 1SG.GEN see-APPR man-ERG
‘[The] men might see my vulva.’

(4-785) (‘Don’t’ let your wife go to other man. For they might have sex with her, and.’)

bama-goman-do yino wanja-Ø gagabara-nga-lga. (AP)
man-other-ERG 2SG.GEN hole-ACC big-TR-APPR
‘Other men might make your vagina big.’

(4-786) (A man says to his wife about his own penis as follows.)

yino yarro-Ø jombi-Ø. (AP)
2SG.GEN this-NOM penis-NOM
‘This [is] your penis.’

(g-2) An animal’s or game’s body part

The following nouns are attested: *jarra* ‘leg’, e.g. (3-9-d, -e), *jami* ‘fat’, e.g. (4-787), *giba* ‘liver’, *rolgo* ‘heart’, *gonyji* ‘kidney’, and *bambo* ‘egg’

(4-787) (‘I cooked an echidna, and cut off some fat.’)

jami-Ø yarro-Ø ngali-ngo. (AP)
fat-NOM this-NOM IDU-GEN
‘This [is] our fat.’

It may be that, in the examples of (g-1) and (g-2), the genitive denotes a beneficiary, and not a possessor. For example, (4-685): ‘That vulva [is] for me’

Examples such as (4-523) (‘belly-ACC 3SG.GEN’) describe a whole-part relationship. For example, in (4-523), the ‘belly’ is part of ‘he’. In contrast, examples (4-783) to (4-787) do not describe a whole-part relationship. For example, in (4-786), the ‘penis’ is not part of ‘you’ (a woman).

[2] Animate possessor

As noted above, the genitive case is attested with body part nouns only. The following nouns are attested: *jombi* ‘penis, tail’, e.g. (4-788), (4-789), *jalany* ‘tongue’, e.g. (4-790), *molorr* ‘(echidna’s) spikes’, e.g. (4-791), and *gona* ‘faeces’, probably referring to guts, e.g. (4-792).

(4-788) (‘My penis is big.’)

yarraman-ngo=gaji jombi-Ø. (AP)

horse-GEN=CF penis-NOM

Lit. ‘It looks as if [my penis were] a horse’s penis’, i.e. ‘[My penis is big] like a horse’s penis.’

(4-789) (‘Ah, there is a possum up on the tree.’)

ngoni jombi-Ø nyongo. (AP)

there tail-NOM 3SG.GEN

‘There [is] his tail.’

(4-790) (‘I tell a lie, so my tongue is bad. But cattle do not tell a lie.’)

jomoboro-ngo jalany-Ø nyawa. (AP)

cattle-GEN tongue-NOM NEG

‘Cattle’s tongue. No[, they do not tell a lie].’

(4-791) (‘I killed an echidna.’)

ngaya nyongo molorr-Ø woda-lgo. (AP)

1SG.ERG 3SG.GEN spike-ACC pull.off-PURP

‘I will pull off its spikes.’

(4-792) (‘I caught a fish.’)

gona-Ø nyongo-Ø goyba-lgo bori-wo. (AP)

faeces-ACC 3SG.GEN throw-PURP fire-DAT

‘[I] will throw its faeces [i.e. guts?] to the fire.’

In most of the examples, the animate possessor is alive, e.g. (4-788) to (4-790). But it is dead in (4-791) and (4-792). Also, in (4-792), the guts have already been separated from the fish, so the possessor (fish) and the possessee (guts) no longer constitute a whole-part relationship.

[3] The relative order of the genitive possessor and the possessee was discussed in 4.5.2.1.3-[3] and in the paragraphs that follow 4.5.2.1.3-[4].

4.20.4. Dative, ablative-1, and comitative cases

[1] Dative case

As noted in 3.6.4-[3], the dative case marks the possessor in a few instances.

(a) Human possessor

(a-1) Attribute: *name* ‘name’, *gogo* ‘language’, *borgal* ‘track on grass’.

(a-2) Kin: *gaya* ‘father’, e.g. (4-3-78), *gornggal* ‘husband’.

(a-3) Other: *yamba* ‘camp, house’

(b) Animate possessor

(b-1) Body part: *jombi* ‘tail’.

(b-2) Other: *yamba* ‘(bird’s) nest’, e.g. (3-79).

(c) Inanimate possessor: no example.

This situation is shown in Table 4-45.

[2] Ablative-1 case

As noted in 3.6.7-[3], the ablative-1 case may indicate a possessor.

(a) Human possessor

(a-1) Pet animal: possibly (4-411).

(a-2) Other: generally *yamba* ‘country, camp, house’, e.g. (3-138), (3-139), and ‘spear’ in one example; cf. (3-137).

(b) Animate possessor: no example.

(c) Inanimate possessor:

Strictly speaking, we are dealing with a whole-part relationship, and not body part. The whole is indicated in parentheses. (c-1) Body part: *morray* ‘head hair’, e.g. (4-793), and *raba* ‘fork (of a tree)’, e.g. (4-794) (second B), ‘fork-shaped part (of legs)’, e.g. (4-794) (last A).

This situation is shown in Table 4-45.

(4-793) (‘His moustache is long. His hair is long.’)

gaja-ngomay-Ø morray-Ø yangabara-Ø. (AP)

head-ABL-NOM head.hair-NOM long-NOM

‘The hair of [his] head [, too, is] long.’

(4-794) (A conversation cited from a text. A: ‘Let’s stab her crotch [with our penis].’)

B. *ngani-Ø baba-Iga.*

what-ACC stab-PURP

‘What [shall we] stab?’

A. *nyonya raba-Ø.*

3SG.ACC fork-ACC

‘[Let’s stab] her fork [i.e. her crotch].’

- B. *raba-Ø baba-lgo? nyawa nyawa nyawa.*
 fork-ACC stab-PURP NEG NEG NEG
 ‘[You mean we shall stab] a fork [of a tree]? No, no, no.’
jolay-ngomay-Ø yinda raba-Ø?
 tree-ABL-ACC 2SG.ERG fork-ACC
 ‘You [want to stab] a fork [of a tree]?’
- A. *nyawa. nyongo raba-Ø.*
 NEG 3SG.GEN fork-ACC
 ‘No. [I want to stab] her fork.’
nyongo raba-Ø jarra-ngomay-Ø. (AP)
 3SG.GEN fork-ACC leg-ABL-ACC
 ‘[I want to stab] her fork of the legs.’

The second A contains an instance of the apposition of the possessor and the possessee: ‘3SG.ACC fork-ACC’. See 4.20.5 for this apposition.

[3] Comitative case

The comitative case ‘with, having’ (3.6.8) may express possession. Attested nouns include the following.

(a) Human possessor

- (a-1) Body part: *bonggoro* ‘knees’, e.g. (3-158), *bolo* ‘belly’, e.g. (3-165), *jina* ‘foot’, e.g. (3-166), *gona* ‘faeces’, e.g. (3-168), *walngga* ‘breath’, e.g. (3-170), *jalbar* ‘beard’, e.g. (3-172), *jiji* ‘a sore’, e.g. (3-166), *goymbirra* ‘cicatrices on the chest’, e.g. (3-173), *boji* ‘fart’, e.g. (3-174), *jombi* ‘penis’, e.g. (3-171-c), *garrgaro* ‘shout’, e.g. Text 3, Line 12.
- (a-2) Attribute: *morrán* ‘illness’, e.g. (3-161).
- (a-3) Clothing: *gambi* ‘clothes’, cf. (4-612).
- (a-4) Kin: *birgo* ‘wife’, *gornggal* ‘husband’, e.g. (3-156), *jolbon* ‘spouse’, e.g. (3-93), (3-1176), and possibly *galbin* ‘child’, e.g. (3-175) (second W) (‘pregnant’).
- (a-5) Pet animal, domestic animal: *jayari* ‘horse’, e.g. (3-160),
- (a-6) Product: *gama* ‘Gama dance’, e.g. (3-159), (4-952).
- (a-7) Other: *woronbara* ‘coolamon’, e.g. (3-151), *gamo* ‘water’, e.g. (3-154), *manyja* ‘food’, e.g. (3-183), *yori* ‘kangaroo meat’, e.g. (4-184), (4-185).

(b) Animate possessor

- (b-1) Other: *banggay* ‘spear’, e.g. (3-177).

(c) Inanimate possessor (the whole is indicated in parentheses):

- (c-1) Part: *gamo* ‘water (in a bark container)’, e.g. (3-178), *jolgi* ‘scrub’ (in my country), *mongan* ‘hill’ (in my country), e.g. (3-182-c).

This situation is shown in Table 4-45.

Note that the comitative case can express ‘There is X in Y’, as in (3-182-c): ‘My country has [many] hills’, i.e. ‘There are [many] hills in my country’. It can also mean ‘There live X in Y’, as in (3-181): ‘This place has [many] kangaroo rats, pademelons, and kangaroos’, i.e. ‘There live [many] kangaroo rats, pademelons, and kangaroos in this place’. (Warrongo does not have any ‘existential construction’ as such. Nonetheless, the comitative case can be used rather like such a construction.)

4.20.5. Apposition of possessor/whole and possessee/part

4.20.5.1. *Introductory notes*

Possession may be expressed by the apposition of the possessor and the possessee. They agree in terms of case. This agreement is attested in the following cases: nominative, accusative, ergative, dative, locative, and ablative-1. It is not attested in other cases: genitive, ablative-2, and comitative. Apposition in the nominative case (4.20.5.3) is conveniently discussed separately from the other cases (4.20.5.2). There is an expression for ‘X has no Y’. This is similar to the apposition in the nominative, but it will be conveniently dealt with, again separately, in 4.20.6.

In terms of the possession cline, this apposition (excluding ‘X has no Y’) is confined to the two highest types on the possession cline: body part and inherent attribute. This is shown in Table 4-45.

Specifically, apposition describes the following semantic relationships, among others.

- [1] For a human possessor: possessor-possessee (including whole-part).
- [2] For an animate possessor: possessor-possessee (including whole-part), e.g. (4-800); and type of the ‘possessee’, e.g. (4-805).
- [3] For an inanimate possessor: whole-part, e.g. (4-811); type of the ‘possessee’, e.g. (4-808); and location of the ‘possessee’, e.g. (4-815).

The nouns that are attested in apposition are as follows.

[1] Human possessor

(a) Body part

yomal ‘body’, *gaja* ‘head’, *morray* ‘head hair’, *jili* ‘eye’, *mano* ‘neck’, *mara* ‘hand’, *wandola* ‘shoulders’, *goymbirra* ‘cicatrices on the chest’, *rolgo* ‘heart’, *bolo* ‘belly’, *mambo* ‘back’, *jombi* ‘penis’, *galon* ‘testicles’, *gombo* ‘buttocks’, *raba* ‘crotch’ (literally ‘fork-shaped branch of tree’), *jarra* ‘leg’, *jina* ‘foot, footprint’, *walngga* ‘breath’.

(b) Inherent attribute

nyarri ‘name’ and *gogo* ‘language’

[2] Animate possessor

(a) Body part (the possessor is indicated in parentheses)

(possum's) *mara* 'paw, arm', (possum's) *jombi* 'tail', (kangaroo's, echidna's) *jarra* 'leg', (fish's) *minyia* 'meat', (scrub turkey's, emu's) *bambo* 'egg'

(b) Inherent attribute

No example.

[3] Inanimate possessor

(a) Part (the whole is indicated in parentheses.)

goga 'bark' (of stringy bark tree), *mangga* 'flower' (of wild peanut, of *gobon-bara* (palm sp.)), *goro* 'honey' (of honey comb), *raba* 'a forked branch' (of tree), *woma* 'shade' (of tree), *jolgi* 'scrub' (of hill), *gamo* 'water' (of a western area), *jawa* 'mouth' (of penis), *wanja* 'vagina' (lit. 'hole') (of crotch), *bonbara* 'wound' (of leg).

(b) Inherent attribute (the whole is indicated)

nyarri 'name' (of place/camp, of language).

This situation is shown in Table 4-45.

Dixon (2002:138) notes regarding Australian languages as follows: 'A whole-part (inalienable) relationship is generally marked just by apposition of words referring to whole and to part. All other types of possession [i.e. alienable possession – TT] are generally marked by a genitive suffix to the possessor' This does not exactly apply to Warrongo. Indeed, apposition is confined to 'body part' and 'inherent attribute', that is, it is limited to inalienable possession. However, inalienable possession is frequently marked by the genitive case as well, as seen above.

4.20.5.2. *Apposition (1): accusative, ergative, dative, locative, and ablative-1 cases*

[1] Human possessor

(a) Body part

(a-1) Nominative: see 4.20.5.3.

(a-2) Accusative: (4-437), (4-462), (4-522), (4-525), (4-794) (second A), (4-795) to (4-797). There is a compound transitive verb that etymologically appears to be based on a transitive clause that contains a body part noun and the possessor in apposition, in the ACC. See 3.11.3.

(a-3) Dative: (4-798).

(a-4) Locative: (4-480) ('1SG-LINK-LOC foot-LOC').

(4-795) *nganya jina-Ø banja-n.* (AP)

1SG.ACC footprint-ACC follow-NF

'[They] followed my footprints.'

(4-796) ('The women were dancing naked.')

warrngo-Ø nyaga-n gombo-Ø balgoro-Ø. (AP)
 woman-ACC see-NF buttocks-ACC naked-ACC
 '[The men] were looking at the women's naked buttocks.'

(4-797) *rolgo-Ø nyonya baba-n wola-yal.* (AP)

heart-ACC(O) 3SG.ACC(O) stab-NF die-PURP
 '[I] stabbed his heart and [he] died.'

(4-798) *yino-n-go nyola gonba-gali-yal murray-nggo.* (AP)

2SG-LINK-DAT 3SG.NOM(d-S) cut-ANTIP-PURP head.hair-DAT
 'He will cut your head hair.'

(b) Inherent attribute

(b-1) Nominative: see 4.20.5.3.

(b-2) Accusative: (4-799).

(4-799) *nganya gogo-Ø nyawa ngawa-n.* (AP)

1SG.ACC language-ACC NEG understand-NF
 '[They] do not understand my language.'

Strictly speaking, someone's name and language are not his/her inherent attributes, since they are acquired after he/she was born. Nonetheless, the nouns *nyarri* 'name' and *gogo* 'language' can occur in apposition, like body part nouns, and, in this respect, someone's name and language are best regarded as inalienably (not alienably) possessed, like body parts. Since they are not body parts, they are best classified as inherent attributes.

[2] Animate possessor

(a) Body part.

(a-1) Accusative, e.g.

(4-800) ('I found a possum.')

ngaya nyonya jombi-Ø nyaga-n. (AP)
 1SG.ERG 3SG.ACC tail-ACC see-NF
 'I saw its tail.'

(4-801) ('We caught an echidna.')

barrbira-Ø nyongo jarra-Ø goyba-n. (AP)
 echidna-ACC 3SG.GEN leg-ACC give-NF
 '[We] gave him the echidna's leg.'

(4-802) *jarra-Ø ngaya ganyji-lgo yino yori-Ø.* (AP)

leg-ACC 1SG.ERG carry-PURP 2SG.GEN kangaroo-ACC
 'I will bring a kangaroo's leg for you.'

- (4-803) *win.gar-Ø jana-nggo minya-Ø woda-n.* (AP)
 fish-ACC 3PL-ERG meat-ACC take.out-NF
 ‘They took off the fish’s meat.’
- (4-804) a. *ngona-Ø ngana-Ø goyjarri-Ø bambo-Ø moga-n*
 that-ACC 1PL-ERG scrub.turkey-ACC egg-ACC get-NF
jolgi-ngomay-Ø.
 scrub-ABL-ACC
 ‘We got that scrub turkey’s egg from the scrub.’
 b. *gondolo-Ø moga-n bambo-Ø jolgi-ngomay-Ø.* (AP)
 emu-ACC get-NF egg-ACC scrub-ABL-ACC
 ‘We got an emu’s egg from the scrub.’
- (4-805) *jomoboro-Ø jalgor-Ø nyola ganyji-lgo.* (AP)
 cattle-ACC meat-ACC 3SG.ERG bring-PURP
 ‘He will bring cattle meat [i.e. beef].’
- (4-806) (‘My wife cooked a possum, cut it up into pieces, and gave me a piece.’)
ngaya mara-Ø moga-n ngona-Ø gajarra-Ø. (AP)
 1SG.ERG hand,arm-ACC grab-NF that-ACC possum-ACC
 ‘I grabbed/held that possum’s arm.’

Note that, in (4-805), *jomoboro-Ø* ‘cattle’ does not describe the possessor/whole of the meat. Rather, it specifies the type of the meat, i.e. beef (as against mutton, pork, etc.). The same applies to the two instances of apposition in (4-804-a, -b) (i.e. ‘scrub turkey egg’ and ‘emu egg’, rather than ‘scrub turkey’s egg’ and ‘emu’s egg’), and that in (4-808) (‘*gobonbara* flower’, rather than ‘flower of *gobonbara*’). In (4-806), the possum no longer constitutes a whole (since it had been cut up into pieces), and the possum and the arm no longer exhibit a whole-part relationship.

[3] Inanimate possessor

(a) Part

(a-1) Nominative case; see 4.20.5.3.

(a-2) Accusative case, e.g. (4-807) to (4-810), (4-812-B).

(a-3) Locative, e.g. (4-810), (4-811), (4-812-A), (4-814).

(a-4) Ergative, e.g. (4-813).

(a-5) Ablative-1, e.g. (4-815).

- (4-807) *marrano-Ø ngaya goga-Ø woda-n.* (AP)
 stringy.bark.tree-ACC 1SG.ERG bark-ACC pull.off-NF
 ‘I tore off [a piece of] bark of [a] stringy bark tree.’
- (4-808) *jana-nggo moja-n gobonbara-Ø mangga-Ø.* (AP)
 3PL-ERG eat-NF (palm sp.)-ACC flower-ACC
 ‘They used to eat the flowers of *gobonbara* palms.’

- (4-809) *ngali-Ø jangal-Ø goro-Ø woda-n.* (AP)
 1DU-ERG honeycomb-ACC honey-ACC take.out-NF
 ‘We took out honey from a honeycomb.’
- (4-810) *nyina-ya jolany-ja woma-ngga.* (AP)
 sit-IMP tree-LOC shade-LOC
 ‘Sit down in the shade of the tree.’
- (4-811) *ngaya jolany-ja raba-ngga nyina-n.* (AP)
 1SG.NOM tree-LOC fork-LOC sit-NF
 ‘I sat on a fork-shaped branch of a tree.’
- (4-812) (Person A says, ‘She is a penis-maniac’ Person B asks, ‘What is she going to do with a penis?’)
 A. *jombi-Ø jarga-lgo wanja-ngga raba-ngga.*
 penis-ACC insert-PURP hole-LOC fork-LOC
 ‘[She] will insert a penis in the hole [i.e. vagina] of [her] fork [i.e. crotch].’
 B. *iyi, wanja-Ø raba-Ø yama-nga-n.* (AP)
 yes hole-ACC fork-ACC so-TR-NF
 ‘Yeah! [She] does so to the hole of [her] fork!’
- (4-813) *jolany-jo ngaya nyonya baba-n raba-ngga.* (AP)
 stick-ERG 1SG.ERG 3SG.ACC stab-NF fork-ERG
 ‘I stabbed it [a fish] with the fork of a stick.’
- (4-814) *ngali-Ø=goli wona-garra-yal jolgi-ngga mongan-da.* (AP)
 1DU-NOM=only lie-ITER-PURP scrub-LOC hill-LOC
 ‘We will lie down in the scrub of/on the hill, by ourselves.’
- (4-815) (‘I speared a man in the leg.’)
banggay-Ø woda-lgo jarra-ngomay-Ø bonbara-ngomay-Ø. (AP)
 spear-ACC take.out-PURP leg-ABL-ACC wound-ABL-ACC
 ‘[He] tried to pull the spear out from the wound of the leg.’

(*Raba* ‘fork’ refers to the part in (4-811) and (4-813) (part of a tree/stick), and the whole in (4-812-A, -B) (the part is the hole).)

(b) Inherent attribute

(b-1) Nominative: see 4.20.5.3.

[4] Notes on the ergative case

The ergative case may indicate an actor or an instrument (3.6.2). The instrument is always inanimate, e.g. ‘stone’, including a body part, e.g. ‘hand’. In all the examples available, when the whole is inanimate, both of the whole and the part refer to an instrument, e.g. (4-813) (‘stick-ERG’ and ‘fork-ERG’). They constitute a whole-part relationship. This is an instance of apposition.

When the actor is human and the instrument is a body part, it might look as if they constituted a whole-part relationship; see (3-36) ('man-ERG' and 'eye-ERG'). However, these are not regarded as instances of apposition. This is because the instrument is not always a body part; cf. (3-35) ('woman-ERG' and 'stone-ERG'), (4-380) ('man-ERG' and 'water-ERG'). That is, the actor and the instrument (both in the ergative case) do not always exhibit a whole-part relationship.

[5] Restrictions on the use of apposition

There are possibly two restrictions.

(a) The genitive case can denote the possessor of 'someone else's body part' and of 'an animal's or game's body part' (4.20.3-[1]-(f-1, -2)). However, almost certainly, in such cases, apposition is not acceptable. Thus, consider (4-784): (A man says about his wife's vulva) '[The] men might see my (*ngaygo* '1SG.GEN') vulva'. If apposition were employed in place of the genitive, we would have:

(4-816) *minga-Ø nganya-Ø nyaga-lga bama-nggo.* (TT)
 vulva-ACC 1SG.ACC see-APPR man-ERG
 'The men might see my vulva.'

'I' and 'vulva' will have to be regarded as constituting a whole-part relationship. Since men do not have a vulva, this sentence will have to mean the following: (The woman says) '[The] men might see my vulva'. That is, (4-816) cannot be used in the context where (4-784) was used: (A man says about his wife's vulva) '[The] men might see my vulva'.

(b) Consider (4-469) ('You crack your fingers') and (4-471) ('You will insert your penis'), for instance. Here, the A does an action to his/her body, and the possessor is indicated by the genitive case. If the body part and the possessor were in apposition, we would obtain:

(4-817) *?gada-nga-n yinda mara-Ø yina.* (TT)
 crack-TR-NF 2SG.ERG hand-ACC 2SG.ACC

(4-818) *?jarga-lgo yinda yina jombi-Ø.* (TT)
 insert-PURP 2SG.ERG 2SG.ACC penis-ACC

Almost certainly, such sentences do not make sense. It seems that, when the A does an action to his/her body, the possessor can be indicated by the genitive case, but it cannot occur in apposition with the body part.

4.20.5.3. *Apposition (2): nominative*

Many instances of the apposition in the nominative case can be classified as follows (here, the word order does not necessarily reflect that in actual examples). There may be instances that cannot be classified in this way. See (4-832).

- (a) Possessor (X) + possessee (Y) + intransitive verb (Z).
- (b) Possessor (X) + possessee (Y) + noun (Z).
- (c) Possessor (X) + possessee (Y) + adverb (Z).

(For convenience, the possessor is indicated by 'X', the possessee by 'Y', and the third word by 'Z'.) There is just one example of (c): (4-2): '2SG.NOM' 'eye-NOM' *nyarrga* 'down': X Y Z). We shall look at (a) and (b) in the following. The word order is 'free' (as is generally the case in Warrongo), but 'X Y Z' is the most frequent order. Examples of what may be regarded as ellipsis, too, are given; see 4.20.5.4 for discussion.

[1] Human possessor

(a) Body part

Examples involving the noun *jili* 'eye' for Y and *boni-garra-Y* 'be dizzy-ITER' for Z:

(4-819) *ngaya jili-Ø boni-garra-n.* (AP)
 1SG.NOM eye-NOM be.dizzy-ITER-NF
 'I have dizzy eyes' or 'My eyes are dizzy' (X Y Z)

(4-820) (A conversation cited from a text)

A. *ngaya boni-garra-n jili-Ø.*
 1SG.NOM eye-NOM be.dizzy-ITER-NF
 'I have dizzy eyes' or 'My eyes are dizzy' (X Z Y)

B. *jili-Ø yinda boni-garra-n?*
 eye-NOM 2SG.NOM be.dizzy-ITER-NF
 'Your eyes are dizzy?' (Y X Z)

A. *yowo, ngaya boni-garra-n.* (AP)
 yes 1SG.NOM be.dizzy-ITER-NF
 'Yes, my [eyes] are dizzy' or 'I feel dizzy' (X Z)

(4-821) *boni-garra-n ngaya.* (AP)
 be.dizzy-ITER-NF 1SG.NOM
 'I feel dizzy.' (Z X)

(4-822) *jili-Ø boni-garra-n.* (AP)
 eye-NOM be.dizzy-ITER-NF
 '[My] eyes are dizzy.' (Y Z)

Examples involving *jili* ‘eye’ for Y and *bari-li-ZERO* ‘twist-REFL’ for Z include (4-481) (B: X Y Z; A: Y X Z; B: X Z), and:

- (4-823) *jili-Ø bari-li-n.* (AP)
 eye-NOM twist-REFL-NF
 ‘[My] eyes are dizzy.’ (Y Z)

Examples involving *gaja* ‘head’ for Y and *bari-li-ZERO* ‘twist-REFL’ for Z include (4-482) (X Y Z), (4-483) (Y X Z), (4-542) (last B) (YZ), and:

- (4-824) *bama-Ø gaja-Ø bari-li-n.* (AP)
 man-NOM head-NOM twist-REFL-NF
 ‘The man is mad.’ (X Y Z)

Examples involving *jombi* ‘penis’ for Y and *wola-Y* ‘die’ for Z:

- (4-825) (A. ‘My erection has gone.’)
 B. *jombi-Ø yinda wola-n?*
 penis-NOM 2SG.NOM die-NF
 Lit. ‘Your penis has died?’ (Y X Z)
 A. *yowo, ngaya wola-n.* (AP)
 yes 1SG.NOM die-NF
 Lit. ‘Yes, my [penis] has died.’ (X Z)

Examples involving *walngga* ‘breath’ for Y and the noun *walwandan* ‘sick’ for Z include (4-903) (second S: Y Y Z Z, and third S: Y X Z), and:

- (4-826) *ngaya walngga-Ø walwandan-Ø.* (AP)
 1SG.NOM breath-NOM sick-NOM
 Lit. ‘My breath is sick’, i.e. ‘I am tired’. (X Y Z)
 (4-827) *walngga-Ø ngaya walwandan-Ø.* (AP)
 breath-NOM 1SG.NOM sick-NOM
 ‘(As above)’ (Y X Z)
 (4-828) *walngga-Ø walwandan-Ø.* (AP)
 breath-NOM sick-NOM
 ‘[I am, you are, etc.] tired.’ (Y Z)

(As noted in 3.5.3, the noun *walwandan* ‘sick’ is attested in the nominative case only, and in no other case.) Another example of *walngga* ‘breath’:

(4-829) ('She kept copulating with me.')

nyola (flat)/ *walngga-Ø* (flat; hesitation)/ *walngga-Ø* (flat)/
 3SG.NOM breath-Nom breath-NOM
jodo-bi-n (fall)/
 short.winded-INTR-NF (X Y Z)
 'Her breath was short-winded.'

(Alf Palmer's gloss for *jodo-bi-n* is 'short-winded'. He said that it is a Girramay word, and instead he gave (4-865).)

Other examples involving a body part include (3-168-d) (involving *jombi-Ø* 'penis-NOM') (X Y Z), (4-991-c) (involving *jina-Ø* 'footprint-NOM') (X Y Z), and:

(4-830) *jombi-Ø* *gadala-Ø* *ngana-Ø*. (AP)
 penis-NOM dry-NOM 1PL-NOM
 Lit. 'Our penises [are] dry.' (Y Z X)

(This sentence seems to mean 'Penis is not ready for sex'. In contrast, *marinya* 'wet' seems to mean 'Penis is ready for sex'. See 4.7.1-[1]-(a).)

(4-831) *barri-na-Ø* *jina-Ø* *gagabara-Ø*. (AP)
 YZ-KIN-NOM footprint-NOM big-NOM
 '[My] younger sister's footprints [are] big.' (X Y Z)

(4-832) *yanga-na-Ø* *yarro-Ø* *jina-Ø*. (AP)
 M-KIN-NOM this-NOM footprint-NOM
 'These [are my] mother's footprints'. (X Z Y)(?)

((4-832) possibly means '[My] mother's foot are these' In this case, it is an instance of 'X Z Y')

(4-833) ('The boy goes on hands and knees' was translated by Alf Palmer as follows.)

galbiri-Ø *mara-Ø* *nyola* *joyma-garra-n*. (AP)
 children-NOM hand-NOM 3SG.NOM crawl-ITER-NF
 Lit. 'The child's hands are crawling', i.e. 'The child is crawling on his/her hands.' (X Y X Z)

(Here, the plural form *galbiri* seems to have a singular referent. See 3.7.1-[16].)

There are four examples in the texts in which the noun *mara-Ø* 'hand-NOM' combined with the enclitic =*goli* 'only, alone' means 'having/with nothing in the hand'. At least three of the instances are intransitive. The fourth instance, too, is probably intransitive. It is possible to say that these are instances of apposition, as in (4-833). It is also possible to say that, in these examples, *mara-Ø*=*goli* 'hand-NOM=only' functions rather like an adverb. Only *mara* 'hand' is used, and no other noun is used in these expressions.

- (4-834) a. *golgorra-Ø bola-nggo ganyji-n.*
 swag-ACC 3DU-ERG carry-NF
 ‘They two [two women] carried the swags.’
 b. *ngaya mara-Ø=goli yani-Ø.* (AP)
 1SG.NOM hand-NOM=only go-NF (X Y Z)
 ‘I went/walked, carrying nothing in [my] hand.’
- (4-835) (‘We left our billy cans in the camp.’)
ngana-Ø waymba-garra-n ma (hesitation) *mara-Ø=goli.* (AP)
 1PL-NOM walk.about-ITER-NF hand-NOM=only (X Z Y)
 ‘We were walking about, carrying nothing in [our] hands.’
- (4-836) *mara-Ø=goli yani-ya.* (AP)
 hand-NOM=only go-IMP
 ‘Go with nothing in [your] hand.’ (Y Z)
- (4-837) (‘We will carry the possum. But.’)
yinda mara-Ø=goli. (AP)
 2SG.NOM hand-NOM=only
 ‘You [will go] with nothing in [your] hand.’ (X Y)

(b) Inherent attribute

Examples involving *nyarri* ‘name’ for Y:

- (4-838) *bama-Ø nyarri-Ø wagaygorro-Ø.* (AP)
 man-NOM name-NOM Wagaygorro-NOM
 ‘The man’s name is Wagaygorro.’ (X Y Z)

(See 1.5.4.1-[1] for the etymology of the name *Wagaygorro*.)

- (4-839) *gonira-Ø nyola nyarri-Ø.* (AP)
 Gonira-NOM 3SG.NOM name-NOM
 ‘His name is Gonira.’ (Z X Y)

(See 1.5.4.2-[2] and 3.7.1-[11] for the etymology of the name *Gonira*. In this sentence, it refers to me, Tasaku Tsunoda.)

- (4-840) (‘The man is a stranger.’)
nyarri-Ø goman-Ø bama-Ø. (AP)
 name-NOM different-NOM man-NOM (Y Z X)
 ‘The man’s name is different [from the ones we know].’
- (4-841) *wanyo yinda nyarri-Ø?* (AP)
 who-NOM 2SG.NOM name-NOM
 ‘What is your name?’ (Z X Y)

(4-842) *wanyo-Ø nyarri-Ø bama-Ø?*
 who-NOM name-NOM man-NOM
 ‘What is the man’s name?’ (Z Y X)

(4-843) *nyarri-Ø wanyo?* (AP)
 name-NOM who-NOM
 ‘What is [the person’s] name?’ (Y Z)

(4-844) *wanyo-Ø nyarri-Ø?* (AP)
 who-NOM name-NOM
 ‘(As above)’ (Z Y)

(4-845) *wanyo-Ø bama-Ø?* (AP)
 who-NOM man-NOM
 ‘Who is the man?’ (Z X)

Examples involving *gogo* ‘language, speech’ for Y:

(4-846) *ngali-Ø gogo-Ø nyon.gol-Ø.* (AP)
 1DU-NOM language-NOM one-NOM
 ‘We have one [i.e. the same] language.’ (X Y Z)

(4-847) *ngaya gogo-Ø goman-Ø.* (AP)
 1SG.NOM language-NOM different-NOM
 ‘My language is different [from theirs].’ (X Y Z)

(4-848) *gogo-Ø goman-Ø yorra-Ø.* (AP)
 language-NOM different-NOM 2PL-NOM
 ‘Your language is different [from mine].’ (Y Z X)

(7-849) *gogo-Ø goman-Ø.* (AP)
 language-NOM different-NOM
 ‘[His] language is different [from ours].’ (Y Z)

(4-850) *yinda gogo-Ø jarribara-Ø.* (AP)
 2SG.NOM language-NOM good-NOM
 Lit. ‘Your language is good’, i.e. ‘You speak [this] language well.’ (X Y Z)

(4-851) *gogo-Ø yinda jarribara-Ø.* (AP)
 language-NOM 2SG.NOM good-NOM
 ‘(As above)’ (Y X Z)

(4-852) *yinda jarribara-Ø gogo-Ø.* (AP)
 2SG.NOM good-NOM language-NOM
 ‘(As above)’ (X Z Y)

(4-853) (A conversation cited from a text.)

A. *ngoni-Ø jana-Ø gogo-Ø jirrbal-Ø.*
 there-NOM 3PL-NOM language-NOM Jirrbal-NOM
 ‘There their language is Jirrbal.’ (X Y Z)

B. *gogo-Ø jirrbal-Ø jana-Ø?*
 language-NOM Jirrbal-NOM 3PL-NOM
 ‘Their language is Jirrbal?’ (Y Z X)

A. *yowo, gogo-Ø jirrbal-Ø.* (AP)
 yes language-NOM Jirrbal-NOM
 ‘Yes, [their] language is Jirrbal.’ (Y Z)

(4-854) (In a story from a text, the narrator (M) (no doubt, referring to Alf Palmer) met two women (W) who are *jalngarri* ‘red’. In this context, *jalngarri* refers to a person of mixed blood: Aboriginal and European. Recall that Alf Palmer was of mixed blood: his father was an Englishman (1.8.4.1-[1]). Alf Palmer’s gloss for *jalngarri* is ‘half caste’.)

W. *yinda jalngarri-Ø.*
 2SG.NOM red-NOM
 ‘You [are] of mixed blood.’

W. *ngana-Ø jalngarri-Ø wona-yal.*
 1PL-NOM red-NOM lie,sleep-PURP
 ‘We-all, [people] of mixed blood, will sleep [together].’

M. *yama-bi-ya yinda gogo-Ø jarribara-bi-ya.* (AP)
 so-INTR-IMP 2SG.NOM language-NOM good-INTR-IMP (Z X Y Z)
 Lit. ‘Your speech should be like that, should be good.’

(The intended meaning seems to be ‘Well said’. See 3.10.8-[2]-(b).)

(4-855) (‘I am listening to you.’)

a. *ngalnga yinda* (long pause; hesitation)/ *ngani-Ø walwa-Ø*
 PROH 2SG.NOM what-NOM bad-NOM
wal gogo-Ø walwandan-Ø (fall)/
 (error) language-NOM no.good-NOM
 ‘Your whatisname, speech should not be out of place.’ (X Y Z Y Z)

(Alf Palmer’s gloss for *walwandan* is ‘out of place’. See 4.21 for *ngani* ‘whatisname’ When the tape was replayed, he gave a’.)

(a) *ngalnga yinda gogo-Ø walwandan-Ø.* (AP).
 PROH 2SG.NOM language-NOM no.good-NOM
 ‘Your speech should not be out of place.’ (X Y Z)

b. *nyawa, jarribara-bi-ya yinda.* (AP)
 NEG good-INTR-IMP 2SG.NOM
 ‘[It should] not. Your [speech] should be good.’ (Y Z)

[2] Animate possessor

There is no example, although apposition in the nominative would be acceptable.

[3] Inanimate possessor

(a) Part

- (4-856) *gambilbarra-Ø gamo-Ø walwa-Ø*. (AP)
 westerner-NOM water-NOM bad-NOM
 ‘The water of the west is bad.’ (X Y Z)

(The suffix *-barra* means ‘denizen’ (3.7.1-[1]), and *gambilbarra* generally means ‘person(s) of a certain area to the west of Warrongo territory’ But in this particular context, it seems to refer to that area, and not the people.)

- (4-857) *wowo, gamo-Ø walwajarri-Ø*. (AP)
 Oh! water-NOM bad-NOM
 ‘Oh, the water is bad.’ (Y Z)

- (4-858) (Person A says ‘That woman gave a sore on my penis.’)
 A. *aa, jombi-Ø jawa-Ø bogara-n*
 ah penis-NOM mouth-NOM swell.up-NF
 ‘Ah, the mouth of [my] penis has swollen up.’ (X Y Z)
 B. *jawa-Ø bogara-n jombi-Ø*. (AP)
 mouth-NOM swell.up-NF penis-NOM
 ‘The mouth of [your] penis has swollen up?’ (Z Y X)

(b) Inherent attribute

- (4-859) *yamba-Ø nyarri-Ø bawir-Ø*. (AP)
 camp,place-NOM name-NOM Bawir-NOM
 ‘The name of [this] place [is] Bawir.’ (X Y Z)

- (4-860) *ngani-Ø ngani-Ø nyarri-Ø gogo-Ø?* (AP)
 what-NOM what-NOM name-NOM language-NOM
 ‘What [is] the name of [your] language?’ (Z Y X)

- (4-861) (Alf Palmer could not recall the name of a boiler.)
ngani-Ø nyarri-Ø ngona-Ø?
 what-NOM name-NOM that-NOM
 ‘What is the name of that [thing]?’ (Z Y X)

- (4-862) (Alf Palmer was talking about an abattoir. He could not recall the name of a freezing room or a freezer.)

ngani-Ø nyola nya ngona-Ø nyarri-Ø? (AP)
 what-NOM 3SG.NOM (error) that-NOM name-NOM
 ‘What is its name?’ (Z X Y)

(In the sentence above, the pronoun *nyola* ‘3SG.NOM’ refers to an inanimate entity (a freezing room or a freezer). This is one of the only two examples in which

a pronoun refers to an inanimate entity. The other example is (4-900-B), in which *nyola* '3SG.NOM' refers to a tree.)

- (4-863) *yamba-Ø bagor-Ø*. (AP)
 place-NOM Bagor-NOM
 '[The name of this] place is Bagor.' (X Z)

(The English name of Bagor is Sword Creek. It is near Abergowrie. See Map 3 for the location of Abergowrie. The location of Bawir (given in (4-859)) is not known.)

Other examples include (4-210) (first W) (Z Y).

In (4-841) to (4-844), *wanyo* 'who', and not *ngani* 'what', is used for asking the name of a person. In (4-210) (first W), (4-860) to (4-862), *ngani* 'what', and not *wanyo* 'who', is used to ask the name of an inanimate entity. See 3.1.2-[2].

4.20.5.4. Apposition (3): discussion

[1] Relative order of the possessor/whole and the possessee/part

Their relative order is discussed below, and the number of relevant examples found in my corpus is given. The possessor/whole and the possessee/part may be contiguous or discontinuous.

- (a) When the possessor/whole and the possessee/part are contiguous:
 (a-1) the possessor/whole precedes: 54 examples, e.g. (4-795).
 (a-2) the possessor/whole follows: 19 examples, e.g. (4-797).
 (b) When the possessor/whole and the possessee/part are discontinuous:
 (b-1) the possessor/whole precedes: 22 examples, e.g. (4-796).
 (b-2) the possessor/whole follows: 9 examples, e.g. (4-806).

That is, the possessor/whole (i) tends to be contiguous with the possessee/part (74 out of 104 examples, i.e. 70%), (ii) tends to precede (76 examples, i.e. 73%), and (iii) immediately precedes in 54 examples, i.e. 52%: see (a-1).

[2] Ellipsis

As is generally the case Warrongo, ellipsis is common in the instances of apposition. The possessor and the possessee may co-occur, e.g. (4-820) (first A and also B), (4-825-B). The possessor alone may occur, without the possessee, e.g. (4-820) (second B), (4-825) (second A). The possessee, too, may occur without the possessor, e.g. (4-822) and (4-823).

Some of the 'elliptical' examples given above do not have to be considered elliptical. For example, the second A of (4-822) may be taken to mean 'I feel dizzy', rather than '[My] eyes are dizzy'

However, ellipsis needs to be recognized in certain instances. For example, the second A of (4-825) means '[My] penis has died' and that it does not mean 'I have died'.

4.20.6. X Y *nyawa* 'NEG': 'X has no Y', 'There is no Y in X'

This pattern contains the adverb for negation *nyawa*, and it expresses 'X has no Y' or 'There is no Y in X'. It may be labelled 'non-existential construction'. In the case of apposition in the nominative, 'Y' is limited to 'Body part' and 'Inherent attribute' (4.20.5.3). In contrast, in the 'non-existential construction', 'Y' is not confined to 'Body part'. It is expressed by the following nouns, at least in the examples available.

[1] For a human possessor

- (a) Body part: *walngga* 'breath'.
- (b) Inherent attribute: *nyarri* 'name', *gogo* 'language'
- (c) Kin: *birgo* 'wife', *warrngo* 'woman', referring to 'wife'.
- (d) Other: *manyja* 'vegetable food'.

[2] For an animate possessor: no example.

[3] For an inanimate possessor.

- (a) Part: *gamo* 'water' (in a billy can').

This situation is shown in Table 4-45. The attested nouns are few. Nonetheless, it seems likely that, as far as a human possessor is concerned, all the other types of possessives will be acceptable. Examples follow, including those that may be considered elliptical.

[1] Human possessor

- (a) Body part, e.g. (4-864) to (4-867).
- (b) Inherent attribute, e.g. (4-868), (4-869).
- (c) Kin, e.g. (4-870) (first B), (4-871).
- (d) Other, e.g. (4-772) ('food NEG'; Y Z), (4-872-b, -c).

Examples involving *walngga* 'breath' (Body part) include:

(4-864) ('I danced and danced.')

ngona-ngomay ngaya walngga nyawa-Ø. (AP)
that-after 1SG.NOM breath-NOM NEG

'After that I had no breath', i.e. 'I was short-winded.' (X Y Z)

(4-865) (See (4-829) for the context.)

nyola walngga-Ø nyawa. (AP)
 3SG.NOM breath-NOM NEG
 ‘She was short-winded.’ (X Y Z)

(4-866) (‘The women are dancing. But.’)

ngaya nyawa walngga-Ø ganba-mara-ngomay-Ø. (AP)
 1SG.NOM NEG breath-NOM before-very-ABL-NOM (X Z Y)
 Tentative translation: ‘I am not keen [to watch them. I am] an old man.’

(Here, *ganba-mara-ngomay-Ø* probably means ‘[a person] from long ago’, i.e. ‘an old person’.)

(4-867) (‘I think I have killed him. I want to make sure that he is dead.’)

walngga-Ø (rise)?/ *walngga-Ø nyawa / walngga-Ø*
 breath-NOM breath-NOM NEG breath-NOM
nyawa / (AP)
 NEG (Y, Y Z, Y Z)
 ‘[He has any] breath? [He has] no breath. [He has no] breath’, i.e.
 ‘Is he breathing? He is not breathing. He is not breathing.’

Examples involving *gogo* ‘language, speech’ (Inherent attribute):

(4-868) (‘You, an Aboriginal man, speak English only. You don’t understand our language.’)

yinda gogo-Ø nyawa? (AP)
 2SG.NOM language-NOM NEG
 ‘You have no [Aboriginal] language?’, i.e. ‘You speak no [Aboriginal] language?’ (X Y Z)

(4-869) *ngaya gogo-Ø nyawa.* (AP)

1SG.NOM speech-NOM NEG
 Lit. ‘I had no speech’, i.e. ‘I did not talk’ (X Y Z)

Examples involving ‘Kin’ include:

(4-870) (A conversation cited from a text. The first A follows (3-153).)

A. *birgo-Ø wanyja?*
 wife-NOM where
 ‘Where is your wife?’

B. *nyawa, ngaya birgo-Ø nyawa.*
 NEG 1SG.NOM wife-NOM NEG
 ‘No. I have no wife.’ (X Y Z)

B. *ngaya=goli wona-garra-n.* (AP)
 1SG.NOM=only sleep-ITER-NF
 'I sleep about by myself.'

(4-871) ('Where is your wife?')
nyawa, warrngo-Ø nyawa. (AP)
 NEG woman-NOM NEG
 'No. [I have] no woman [i.e. wife].' (Y Z)

Examples involving 'Other' include:

- (4-872) a. *ngana-Ø goyi-Ø wola-n.*
 1PL-NOM hungry-NOM die-NF
 Lit. 'We are dying hungry', i.e. 'We are hungry'
 b. *banggorro-Ø nyawa.*
 freshwater.turtle-NOM NEG
 '[We have/There is] no turtle [meat].' (Y Z)
 c. *yori-Ø nyawa.* (AP)
 kangaroo-NOM NEG
 '[We have/There is] no kangaroo [meat].' (Y Z)

(*Goyi-Ø wola-n* 'hungry-NOM die-NF' is the set phrase for 'be hungry'.)

[2] Inanimate 'possessor'

(a) Part

Examples include (3-180-b) (X Z Y), and:

(4-873) *gamo-Ø nyawa gorrgara-Ø.* (AP)
 water-NOM NEG billy.can-NOM
 'The billy can has no water' or 'There is no water in the billy can.' (Y Z X)

(4-874) *nyawa, gamo-Ø nyawa.* (AP)
 NEG water-NOM NEG
 'No. [There is] no water.' (Y Z)

A sentence such as the following, in which the whole is expressed by the locative, would be expected. But there is no such example at hand.

(4-875) *gamo-Ø nyawa biro-ngga.* (TT)
 water-NOM NEG gully-LOC
 Intended meaning: 'There is no water in the gully'

The following example is interesting. In Sentence b, the whole is inanimate ('this country'), while the part is animate ('kangaroos, etc.').

- (4-876) a. *nyawa yarro-Ø / walwa-Ø yamba-Ø*,
 NEG this-NOM bad-NOM country-BOM
 ‘No. This country [is] no good.’
- b. *yori-Ø nyawa / gajarra-Ø nyawa / worriba-Ø*
 kangaroo-NOM NEG possum-NOM NEG sugar.bag.bee-NOM
nyawa / barrbira-Ø nyawa / jagay-Ø
 NEG echidna-NOM NEG sand.goanna-NOM
nyawa /
 NEG (Y Z, Y Z, Y Z, Y Z, Y Z)
 ‘There are no kangaroos, no possums, no sugar bag bees, no echidnas,
 [and] no sand goannas [in my country].’

[3] Discussion

(a) X, Y and *nyawa* ‘NEG’ almost always occur in this order, although there are at least three exceptions: (3-180-b) (X *nyawa* Z), (4-866) (X *nyawa* Y) and (4-873) (Y *nyawa* X). And *nyawa* almost always follows and immediately follows Y, even in (4-873). Furthermore, there is hardly any pause between Y and *nyawa*. This suggests that, in the ‘non-existential construction’, *nyawa* may be beginning to acquire the status of enclitic. (But there is one piece of evidence that goes against this suggestion: generally Y and *nyawa* each receive stress.)

(b) The ‘non-existential construction’ and the apposition in the nominative (4.20.5.3) may look similar. However, there are at least two differences.

First, apposition can occur in a case other than the nominative (4.20.5.2). But the ‘non-existential construction’ occurs in the nominative only.

Second, when the possessor (X) is human, apposition is confined to ‘Body part’ and ‘Inherent attribute’ (4.20.5.3). But the ‘non-existential construction’ is attested with not only ‘Body part’, e.g. (4-864), but also ‘Inherent attribute’, e.g. (4-868), ‘Kin’, e.g. (4-871), and ‘Other’, e.g. (4-872-b, -c). This is shown in Table 4-45.

4.20.7. Subordination involving a body part noun

In this type of subordination, the S of the main clause is always human (in the examples available), and the S of the subordinate clause almost always refers to a body part of the S of the main clause. That is, they form a whole-part relationship. But there are two exceptions: (4-887) (Kin) and (4-888) (Other). This situation is shown in Table 4-45. Both the main clause (underlined by a double line in the examples) and the subordinate clauses (underlined by one single line) are intransitive. The ‘predicate’ of the subordinate clause is an intransitive verb, a noun in the nominative, or an adverb. The adverb may be *nyawa* ‘NEG’. In the examples available, the ‘predicate’ of the main clause is an intransitive verb, but not a transitive verb, a noun, or an adverb. There is one example of a surface-intransitive: (4-879)

(antipassive). The subordinate clause describes the manner, etc. in which the action of the main clause is done. It may be translated involving the English preposition *with*, as in *with his eyes open*.

[1] The subordinate clause contains an intransitive verb.

(4-877) *jawa-Ø jana-n nyola nyina-n.* (AP)
mouth-NOM stand-NF 3SG.NOM sit-NF
 ‘He is sitting with his mouth open.’

(4-878) *nyola jawa-Ø jana-n nyina-n.* (AP)
3SG.NOM mouth-NOM stand-NF sit-NF
 ‘(As above)’

(4-879) *ngaya gombo-Ø ngarra-bi-n binda-gali-n.* (AP)
1SG.NOM buttocks-NOM high-INTR-NF put.down-ANTIP-NF
 ‘I am putting down [wind] [i.e. I am farting] with my buttocks high/up.’

[2] The subordinate clause contains a noun.

(4-880) *gaya-na-Ø jombi-Ø balgorro-Ø jana-garra-n.* (AP)
F-KIN-NOM penis-NOM naked-NOM stand-ITER-NF
 ‘[My] father is standing [around] with [his] penis exposed.’

(4-881) *nyola wan (hesitation) wadali-n jili-Ø (hesitation)*
3SG.NOM (error) run-NF eye-NOM
jili-Ø gagabara-Ø. (AP)
eye-NOM big-NOM
 ‘He ran [away] with [his] eyes big [i.e. with his eyes wide open].’

[3] The subordinate clause contains an adverb.

(4-882) (‘At a creek, my wife knelt down to have a drink of water.’)
gombo-Ø ngarra nyola nyina-n. (AP)
buttocks-NOM up 3SG.NOM sit-NF
 ‘She sat [i.e. knelt] with [her] buttocks up’, i.e. ‘She stooped.’

(4-883) (‘My wife said to me.’)
 a. *yinda jombi-Ø ngarra wona-ya.*
2SG.NOM penis-NOM up lie-IMP
 ‘Lie down with [your] penis up.’

(‘So’)

b. *nyaga wona-n jombi ngarra.* (AP)
 1SG.NOM lie-NF penis-NOM up

‘I lay down with [my] penis up.’

(4-884) *jili-Ø nyarrga yinda yani-ya.* (AP)
 eye-NOM down 2SG.NOM go-IMP

‘Walk with [your] eyes down’, i.e. ‘Watch your steps.’

(The ex. (4-2) may be considered an elliptical version of a sentence like (4-884).)

The adverb may be *nyawa* ‘NEG’. All the examples available are given.

(4-885) (The men washed themselves before going out for kangaroo hunting so that kangaroos could not smell their body smell.)

ngoni-ngomay-Ø jana-Ø yani-Ø gabora-Ø nyawa. (AP)
 there-ABL-NOM 3PL-NOM go-NF body.smell-NOM NEG

‘They went from there without body smell.’

(4-886) *nyola wola-n walngga-Ø nyawa.* (AP)
 3SG.NOM die-NF breath-NOM NEG

‘He died, not breathing.’

In all the examples given above, the S of the subordinate clause refers to ‘Body part’. Now, there are one example involving ‘Kin’, i.e. (4-887) (‘child’), and one involving ‘Other’, i.e. (4-888) (‘spear’).

(4-887) *yanga-na-Ø yani-Ø galbin-Ø nyawa.* (AP)
 M-KIN-NOM come-NF child-NOM NEG

‘The mother came without [her] child.’

(4-888) (‘We did not go hunting.’)
yarro jana-Ø nyina-n banggay-Ø nyawa-Ø. (AP)
 here 3PL-NOM sit-NF spear-NOM NEG

‘We are sitting here without spears.’

As for the clause order, where the subordinate clause contains *nyawa* ‘NEG’, it always precedes the main clause. Also, the two clauses are contiguous. Therefore, in terms of both contiguity and fixed order (4.5.1), these sentences are configurational.

In the other examples given above, the subordinate clause may precede the main clause, e.g. (4-877), (4-882), or follow, e.g. (4-881), (4-885). It may even occur

within the main clause, e.g. (4-878), (4-879), with the members of the main clause being discontinuous. That is, these sentences are non-configurational.

Within the main clause, the S, i.e. the possessor, occurs initially, and likewise, within the subordinate clause, the S, i.e. the body part, occupies the initial position (in all the examples).

(4-772) looks similar to (4-778) to (4-781), but there are two differences. First, in (4-674), *manyja-Ø nyawa* ‘food-NOM NEG’ precedes the main clause, in contrast with (4-885) to (4-888), in which ‘Noun *nyawa*’ follows the main clause. Second, in (4-772), *manyja-Ø nyawa* ‘food-NOM NEG’ indicates a condition, unlike (4-885) to (4-888), in which ‘Noun *nyawa*’ describes the manner or the like in which the action of the main clause is done.

Warrongo has the suffix for expressing ‘with’: the comitative case (3.6.8). But it lacks a suffix for ‘without’. Nonetheless, the adverb *nyawa* ‘NEG’ is sometimes used where English would use the preposition *without*. See (4-885). See also the examples in 4.20.6. For example, (4-870) (first B) may be translated as ‘I am without a wife’ (Djaru has the suffix *-mulungu* ‘without’ (Tsunoda 1981a: 225–226).)

4.20.8. Transitive verb *ganyji-L* ‘carry’

Warrongo does not have any verb dedicated to the expression of possession. The transitive verb *ganyji-L* generally means ‘carry, take, bring’, e.g. (3-32), (3-56), (3-293). In a small number of examples, it expresses possession.

[1] ‘Have [a body part]’

[2] ‘Have [a baby inside a woman’s body], i.e. ‘be pregnant’

There is no example involving any other type of possessees, such as ‘Inherent attribute’. This situation is shown in Table 4-45. The possessor is a human in almost all the examples, except for one example of an animate possessor. There is no example of an inanimate possessor/whole.

[1] ‘Have [a body part]’

(a) Human possessor. The attested body part nouns are *minga* ‘vulva’, *raba* ‘(woman’s) crotch’ (literally ‘fork-shaped branch’), *jalgor* ‘flesh’, and *jami* ‘fat’. Examples include (3-228) (‘penis’), and:

(4-889) (A man says about his wife’s vulva, ‘That is mine’, and asked by her, ‘What [is yours]?’ He replies as follows.)

ngona-Ø minga-Ø yinda ganyji-n. (AP)

that-ACC vulva-ACC 2SG.ERG carry-NF

Lit. ‘You have that vulva.’

(4-890) (A man talks about his woman's vulva.)

ngaygo=goli ngona-Ø minga-Ø nyola ganyji-n. (AP)
 1SG.GEN=only that-ACC vulva-ACC 3SG.ERG carry-NF
 'She has that vulva of mine only [and not any other man's].'

(4-891) (A man talks to another man about the latter's woman's crotch.)

warrngo-nggo ganyji-n raba-Ø jarribara-Ø yino. (AP)
 woman-ERG carry-NF fork-ACC good-ACC 2SG.GEN
 '[This] woman has a nice crotch of yours.'

(A more natural translation will be as follows. (4-889): 'That vulva you have is mine', (4-890): 'She has that vulva for me only', and (4-891): '[This] woman has a nice crotch for you'.) Note that (4-890) and (4-891) are instances of the use of the genitive case for referring to 'someone else's body part' (4.20.3-[1]-(f-1).

There is one example in a text which seems intermediate between 'carry' and 'have [a body part]'

(4-892) (Two men are dancing. They are dancing with their buttocks raised up.)

gombo-Ø ngarra ganyji-n balgorro-Ø. (AP)
 buttocks-ACC up,high carry-NF naked-ACC
 Tentative translation: '[They] are putting their naked buttocks high.'

(b) Animate possessor. The only example involves *jalany* 'tongue': (4-893). This sentence follows (4-790), though not immediately.

(4-893) *jarribara-Ø ngona-Ø jalany-Ø ganyji-n jomoboro-nggo.* (AP)
 good-ACC that-ACC tongue-ACC carry-NF cattle-ERG
 'Cattle have that good [i.e. honest?] tongue.'

[2] 'Have [a baby inside a woman's body]', i.e. 'be pregnant'

There is only one example: (3-175) (third W).

As noted in 4.9.9.1-[2], the transitive verb *ganyji-L* can have the antipassive form when it means 'carry, bring, take' (Type 1 'direct effect'), but it seems to lack the antipassive form when it means 'have [a body part, a baby]' (Type 6 'relationship'); at least there is no example.

4.21. Ngani 'Whatsisname'

Three interrogative members are used for this purpose. They are *ngani* 'what?', and their verbalized forms: *ngani-bi-L* Vi 'be/do what' (4.7.1-[1]-(a)), and *ngani-ngga-L* Vt 'do what' (4.7.2-[1]-(a)). No other interrogative member is attested in the

‘whatsisname’ use. The interrogative in question is generally pronounced with a hesitating intonation. For a few of the examples given below, intonation and pause are indicated.

[1] *Ngani* ‘what’

When, during the narration of a text, for example, Alf Palmer could not recall a word, he often said the interrogative word *ngani* ‘what’. Generally (though not always) he immediately recalled the word he was going to say, and supplied that word, generally (though not always) immediately after *ngani*. When used in this way, *ngani* may be translated by *whatsisname*. It generally takes the appropriate case suffix, e.g. (i) nominative: (4-855-a), Text 1, Line 35, (ii) accusative: (4-27), (4-894), (4-895-a), (iii) ergative: (4-896), (iv) locative: (4-897), Text 2, Line 15, (v) dative: (4-898), and (v) comitative: (4-899).

(4-894) *ngaya ganyji-n ngani-Ø win.gar-Ø*. (AP)
 1SG.ERG carry-NF what-ACC fish-ACC
 ‘I carried *whatsisname*, a fish.’

(4-895) a. *ngawa-n* (rise)/ *ngani-Ø* (rise)/ *baan-Ø* (fall)/
 hear-NF what-ACC whip-ACC
 ‘[We] heard *whatsisname*, a whip.’

b. *waybala-nggo baygo-n baan-Ø* (fall)/
 white.man-ERG bash-NF whip-NF
 ‘A white man bashed [i.e. cracked] a whip.’

c. (‘My wife asked me:’)
ngani-Ø baan-Ø (fall)/
 what-NOM whip-NOM
 ‘What [is] *baan*?’

(In Sentence c, *ngani* is used for a question, and not for ‘whatsisname’.)

(4-896) *ngani-nggo jolany-jo jagoma-n*. (AP)
 what-ERG stick-ERG tie.up-NF
 ‘[I] tied [it] up with *whatsisname*, with a stick.’

(*Jagoma*- may not be a Warrongo word. See 4.7.3-[6].)

(4-897) (‘I was looking for fish.’)
ngani-ngga ngaya nyaga-n jolany-ja (fall)/ *gana-ngga* (fall)/
 what-LOC 1SG.ERG see-NF tree-LOC below,inside-LOC
jana-garra-n win.gar-Ø (fall)/
 stand-ITER-NF fish-NOM
 ‘Under *whatsisname*, under a tree, I saw fish standing.’

(Here, *jana-Y* Vi ‘stand’ seems to indicate existence; see 3.1.2.)

- (4-898) *yani-Ø ngani-wo biro-wo*. (AP)
 go-NF what-DAT gully-DAT
 '[I] went to whasisname, to the gully.'
- (4-899) *ngani-yi-Ø nyola morran-ji-Ø*. (AP)
 what-COM-NOM 3SG.NOM illness-COM-NOM
 'He has whasisname, illness.'

The following example is interesting.

- (4-900) (A conversation cited from a text. A group of people are talking about a forest ti tree. Knots of this tree contain water, which Aboriginal people used for drinking (1.5.8-[12].)

A. *nyawa* (fall) *nyando-Ø ngana-Ø*
 NEG not.knowing-NOM 1PL-NOM
jolay-ngomay-nggo (slight rise)/ *gamo-wo* (slight rise)/
 tree-ABL-DAT water-DAT
 'No. We do not know about the water from a tree.'

B. *ngona-Ø ngani-Ø* (fall) *aa that's right*
 that-NOM what-NOM (hesitation) (English)
ragaraga-ngomay-Ø gamo-Ø (flat)/
 forest.ti.tree-ABL-NOM water-NOM
 'That, whasisname, water from a forest ti tree.'

B. *nyaga-Ø* (slight rise) *ngani-Ø dombil-bi-n*
 see-IMP whasisname-NOM knot-INTR-NF
nyola (slight rise)/ *jana-n* (slight rise)/
 3SG.NOM stand-NF

Lit. 'Look! Whasisname, it [i.e. a forest ti tree] has knots and is standing', i.e. 'Look! Whasisname, it is standing with knots.'

(The second B contains one of the two instances in which a pronoun (*nyola* '3SG. NOM') refers to an inanimate entity (3.1.2-[2]. The intransitive *dombil-bi-n* modifies another intransitive verb (*jana-n*) (4.5.4.1-[1]). Here, *jana-n* Vi 'stand' may describe existence: 'A forest ti tree exists with knots' (3.1.2.-[3]).

[2] *Ngani-bi-L* Vi 'be/do what' and *ngani-nga-L* Vt 'do what'

These verbs, too, can be used for 'whasisname'. Each of them is generally immediately followed by another verb. They almost always agree with the latter verb in terms of transitivity and the conjugational category. There are at least two exceptions: (4-903) (second S) and (4-904). In (4-903) (second S), the verb is followed by a noun (*walwandan* 'ill-NOM'), and not a verb. In (4-904), the intransitive verb *ngani-bi-n* 'what-INTR-NF' is followed (though not immediately) by a transitive verb (*moga-n* 'grab-NF'), and not by an intransitive verb.

Examples involving *ngani-bi-L* Vi ‘be/do what’ include:

(4-901) (‘I was aroused.’)

ngaygo jombi-Ø ngani-bi-n yangabara-bi-n. (AP)
1SG.GEN penis-NOM what-INTR-NF long-INTR-NF
‘My penis became whasisname, became long.’

(4-902) *ngalnga yinda ngani-bi-ya walwa-bi-ya.*

PROH 2SG.NOM what-INTR-IMP bad-INTR-IMP
‘Don’t be whasisname, bad-tempered.’

(4-903) (A conversation between a man (F) and his son (S))

F. *wanyja majowarrgi-Ø* (fall)/

where mate-NOM
‘Where [is your] mate?’

S. *golma-mali yani-Ø* (fall)/

behind-side come-NF
‘[He] is coming behind.’

S. *walngga-Ø / walngga-Ø ngani-bi-n walwandan-Ø* (fall)/

breath-NOM breath-NOM what-INTR-NF ill-NOM (Y Y Z Z)
Lit. ‘[His] breath has become whasisname, ill’,
i.e. ‘He is feeling whasisname, not fine.’

S. *walngga-Ø / nyola walwandan-Ø bama-ngga* (fall)/

breath-NOM 3SG.NOM ill-NOM man-LOC
‘Because of the men, he is not feeling fine.’ (Y X Z)

(Here, the locative indicates cause (3.6.3-[5])

F. *ngani-nga-lga bama-nggo* (rise)/

what-TR-APPR man-ERG
‘What [does he think] they might do?’

S. *balga-lga* (fall)/

kill-APPR
‘[He is afraid that they] might kill [him].’

(4-904) (‘I kept copulating with her.’)

ngona-ngomay nyola ngani-bi-n (slight rise; hesitation)/

that-after 3SG.NOM what-INTR-NF

nganya nyola (hesitation)/ *galon-Ø moga-n* (fall; no pause) (AP)

1SG.ACC 3SG.ERG testicles-ACC grab-NF
‘After that, she did whasisname, grabbed [my] testicles.’

Examples involving the transitive *ngani-nga-L* ‘what-TR’ include:

(4-905) *ngaya bori-Ø ngani-nga-n goybaramba-n.* (AP)
 1SG.ERG wood-ACC what-TR-NF heap.up-NF
 ‘I did whasisname, heaped up the fire wood.’

(See 4.7.3-[3]-(b) for *goybaramba-L* ‘heap up’)

(4-906) *ngani-ngal-go gamo-ngga jobi-lgo.* (AP)
 what-TR-PURP water-LOC rub-PURP
 ‘[I] will do whasisname, rub [it] in the water.’

4.22. Sentence-topic word

In a few instances in texts, the sentence-initial word indicates the topic the narrator is going to talk about. The word indicating topic has either a flat intonation or a rising intonation, and it is followed by a brief pause. The entire sentence has a single intonation contour. One example is *bola-Ø* ‘3DU-NOM’ in (4-907-d).

(4-907) (‘My uncle (MB) and father were singing the Jangala song at a corroboree’)

- a. *ngona-n-da bola-Ø baya-gali-n*
 there-LINK-LOC 3DU-NOM sing-ANTIP-NF
baya-gali-n (flat; no pause) [*jangala-nggo* TT,AP]
 sing-ANTIP-NF [Jangala-ERG]
 ‘There they [i.e. my MB and F] kept singing [the Jangala song].’

(Alf Palmer approved *jangala-nggo* which I suggested.)

- b. *nganya ngaya woga-Ø wona-n*
 (error) 1SG.NOM asleep-NOM lie,sleep-NF
ngawa-gali=ngomay-Ø (fall)/
 hear-ANTIP=after-NOM
 ‘I slept after listening to [their Jangala song].’ (S=[d-S])
- c. *ngaya woga-Ø wona-n* (fall)/
 1SG.NOM asleep-NOM lie,sleep-NOM
 ‘I slept.’
- d. (‘While I was asleep.’)
bola-Ø (slight rise)/ *nyon-go-do baya-n* (slight rise)/
 3DU-NOM one-ERG sing-NF
go goman-Ø nyamba-garra-n (fall)/
 (error) other-NOM dance-ITER-NF
 ‘As for them-two, one was singing and the other was dancing.’

(This is an instance of a sentence that can be best translated involving *and* (4.19-[2]).)

- e. *bola-Ø=goli ngaringari-bi-n* (fall)/
 3DU-NOM=only quick,lively-INTR-NF
 ‘They were dancing very swiftly by themselves.’

(For *ngaringari-bi-n*, Alf Palmer gave the following glosses: ‘dancing’ and ‘very quick dance’.)

- f. *ngona-ngomay/ngay nganya nganya waga-mba-n*
 that-after (error) 1SG.ACC 1SG.ACC rise-TR-NF
gaya-na-lo (rise)/ *nyaga-gali-yal* (fall)/
 F-KIN-ERG see-ANTIP-PURP
 ‘After that, [my] father woke me up to [make me] see [their dance].’
- g. [‘My father said to me:’]
yarro-Ø ngaringari-Ø nyaga-lgo yinda (fall) *galnga-na-Ø*
 this-ACC swift-ACC see-PURP 2SG.ERG MB-KIN-ACC
yino (fall)/
 2SG.GEN
 ‘You should watch this uncle [lit. mother’s brother] of yours [who is] swift [in his dance].’
- h. *ngaya nyaga-n* (slight rise)/
 1SG.ERG see-NF
 ‘I watched [him].’
- i. *nyola / nyamba-garra-n nyamba-garra-n*
 3SG.NOM dance-ITER-NF dance-ITER-NF
nyamba-garra-n (no pause)
 dance-ITER-NF
 ‘He kept dancing.’
- j. *ngaya waga-n* (fall)/ *nyamba nyamba-yal* (flat) / *baya*
 1SG.NOM rise-NF (error) dance-PURP (error)
bola-ngo-n-da baya-baya
 3DU-LINK-LINK-LOC in.turn~in.turn
 ‘I got up to dance with them in [my] turn.’
- k. *nyamba-n ngaya nyamba-n* (flat; no pause)
 dance-NF 1SG.NOM dance-NF
 ‘I kept dancing.’
- l. *nyawa ngaya walwandan-Ø* (fall)/
 NEG 1SG.NOM ill-NOM
 ‘No. I [am] tired.’

(The story, which involves ‘me’, ‘my father’ and ‘my uncle’, continues.)

In Japanese, an NP marked by the topic marker *wa* may continue to be the topic for a fairly long stretch of discourse. It is not known if this applies to the ‘topic

word' of Warrongo. In (4-907), 'they-two' has already been the topic in (4-907-a). This topic is re-introduced in (4-907-d). 'They-two' is the topic at least in (4-907-e). In the subsequent sentences, 'I' as well as 'they-two' are the topic. Therefore, as far as (4-907-d) and the subsequent sentences are concerned, it is possible to say that the sentence-initial 'topic word' in Sentence d continues to be (part of) the topic.

Note, however, that an NP can continue to be the topic without being presented as the topic as in Sentence d. For example, see *ngaya* '1SG.NOM' in Text 1, Line 1.

Other examples of 'sentence-topic word' include:

(4-908) *yinda*, *wanja-ngga jabo-ngga yina wanda-n*. (AP)
 2SG.NOM hole-LOC hole-LOC 2SG.ACC leave-NF
 'As for you, [they] left you in a hole.'

(It seems that *wanja* means 'any hole', while *jabo* means 'a hole for burial'.)

(4-909) *joga-Ø* (rise) / *yinda joga-nga-n* (rise) / *bama-nggo nyaga-n* (fall). (AP)
 smoke-NOM 2SG.ERG smoke-TR-NF man-ERG see-NF
 'To talk about smoke, if you make [the fire] smoky, [other] men [will] see it.'

(This is an instance of subordination without any morphosyntactic marker: condition (4.18.6.1-[1]).)

In terms of case, these words indicating topic are in the nominative. *Bola-Ø* can be '3DU-NOM' or '3DU-ERG', and *yinda* can be '2SG.NOM' or '2SG.ERG' (Table 3-6). *Joga-Ø* can be 'smoke-NOM' or 'smoke-ACC' (Table 3-2). It is the nominative case that is common to all. It is in view of this that I have assigned these words to the nominative case.

4.23. Yamanyon 'similar, like': word and enclitic (?)

Yamanyon 'similar, like' can be used as a word. But it also seems to have acquired the status of enclitic. In either use, it receives stress, so it should not be considered a suffix. (As noted in 2.7, stress generally falls on the word-initial syllable. Hence, it generally does not fall on a suffix.) Etymologically, *yamanyon* no doubt contains the demonstrative member of adverbs *yama* 'so, in such a way' (3.1). The etymology of *-nyon* is not known. (It does not seem to be related to the participle-1 *-nyo* (4.15.1).)

In a few instances, *yamanyon* is used as a word. It seems to be used as a noun (to be precise, an adjective-like noun). It can be translated by means of *similar*, *such*, *like this*, or *like that*. Examples include (3-182-b) and:

- (4-910) *yamanyon-Ø moja-lgo yinda gobonbara-Ø*. (AP)
 similar-ACC eat-PURP 2SG.ERG (palm sp.)-ACC
 ‘You will eat a similar *gobonbara* palm’ or ‘We will eat such a *gobonbara* palm.’
- (4-911) *yamanyon-Ø ngali-Ø wona-ya!*. (AP)
 similar-NOM 1DU-NOM sleep-PURP
 Lit. ‘Similar we will sleep’, i.e. ‘We will sleep so/in such a way.’

Yamanyon is not attested with any non-zero case suffix; it is attested in the nominative and the accusative (both involving $-\emptyset$) (cf. 3.5.3).

In many instances, *yamanyon* seems to have acquired the status of enclitic. The reasons for this are as follows.

- (a) (In these examples) *yamanyon* does not occur by itself. It follows another word: (i) what may appear to the nominative form of a noun, e.g. (3-167), (4-913), (4-914), a pronoun, e.g. (4-917) to (4-919), or the interrogative member of noun *ngani* ‘what’, e.g. (4-912), (ii) what may appear to be the accusative form of the demonstrative *yarro* ‘this, here’, e.g. (4-916), and (iii) the genitive form of a pronoun, cf. (4-915).
- (b) There is virtually no pause between *yamanyon* and the word that precedes.
- (c) The two words have one single intonation contour.
- (d) Since *yamanyon* receives stress, it should not be regarded as a suffix.

In (3-167) and the examples given below, *yamanyon* is tentatively presented as an enclitic. In this use, it is conveniently translated by *like* or *as*.

- (4-912) *ngani-Ø=yamanyon?* (AP)
 what-NOM=like
 ‘What [is that] like?’
- (4-913) *wowo, jarribara-Ø yori-Ø=yamanyon*. (AP)
 Oh! good-NOM kangaroo-NOM=like
 ‘Oh! This [meat is] good like kangaroo [meat].’
- (4-914) *yarro-Ø gombo-Ø=yamanyon*. (AP)
 this-NOM buttocks-NOM=like
 ‘This [looks] like [human] buttocks.’
- (4-915) *ngaygo=yamanyon*. (TT)
 1SG.GEN=like
 ‘[His penis is big] like my [penis].’

(I recall hearing a sentence such as (4-915).)

- (4-916) *yarro-Ø=yamanyon ngaya nyaga-n*. (AP)
 this-ACC=like 1SG.ERG see-NF
 ‘I saw [something] like this.’

- (4-917) *ngaya=yamanyon nyola gawa-l.* (AP)
 1SG.NOM=like 3SG.NOM call.out-NF
 ‘He is calling out like me.’
- (4-918) *bama-Ø yinda=yamanyon jarribara-Ø jolbon-bi-yal.* (AP)
 man-NOM 2SG.NOM=like good-NOM spouse-INTR-PURP
 ‘A man like you [is] good enough to get married.’
- (4-919) *yinda=yamanyon bama-Ø jarribara-Ø jolbon-bi-yal.* (AP)
 2SG.NOM=like man-NOM good-NOM spouse-INTR-PURP
 (‘As above.’)

((4-919) means ‘A man like you [is] good enough to get married’. It does not seem to mean ‘Like you, the man is good enough to get married’.) ((4-918) and (4-919) are instances of ‘complementation’ (4.8.5-[2]-(b)). For *jolbon-bi-l* ‘get married’, see 4.7.1-[1]-(a).)

Examples such as (4-912) to (4-919) suggest that *yamanyon* may have acquired not only the status of enclitic, but also that of postposition (i.e. enclitic postposition).

Yamanyon used as a noun and the word preceding the enclitic (?) =*yamanyon* may occur in the nominative (-Ø; for the S), e.g. (4-911), (4-917), and the accusative (-Ø; for the O), e.g. (4-910), (4-916). However, there is no example involving the ergative (for the A). In relevant examples, the transitive verb occurs in a surface-intransitive form, e.g. antipassive (4.9) in (4-920), and iterative (4.13.2.2-[1]) in (4-580). (Here again, the Warrongo grammar may be operating in the ergative pattern: S/O vs. A.)

- (4-920) *yinda yani-ya yangga-gali-ya ngaya=yamanyon.* (AP)
 2SG.NOM go-IMP search.for-ANTIP-IMP 1SG.NOM=like
 ‘Go and look for [it] as I do.’

4.24. Adverbs of modality and the like

There are a fair number of adverbs that provide a modal qualification or the like.

[1] *Wayi* ‘question’

The use of *wayi*, together with the phonetic aspects, was discussed in 4.2.1.2.

[2] *Nyawa* ‘general negation’

Nyawa is most frequently used in a clause that contains a verb: nonfuture-1, -2, -3 (3.10.2, 3.10.2, 3.10.3), e.g. (3-130), (3-207), (3-226-b), (3-332), general imperative-1, -2 (3.10.8), e.g. (3-270), apprehensional (3.10.11), e.g. (3-286), purposive-1, -2 (3.10.13), e.g. (3-84), (3-306), (3-308). When *nyawa* occurs with a general imperative verb, it expresses prohibition (as does *ngalnga* ‘prohibition’; see [3] below), e.g. (3-270)

and (4-921). When it occurs with a nonfuture-1 verb, it may indicate just negation, e.g. (3-130), (3-207), or negative advice ('You had better not'), e.g. (4-922). Similarly, when it occurs with a purposive verb, it may indicate just negation, e.g. (3-306), or prohibition, e.g. (3-308). This may be or may not be significant, but there is no example of negation of a participle (4.15). *Nyawa* 'general negation' is also used in a 'verbless clause', e.g. (4-923), (4-924). *Nyawa* often, though not always, occurs clause-initially.

(4-921) *yinda nyawa nyina-ya.* (AP)
2SG.NOM NEG sit-IMP
'Don't sit down.'

(4-922) *nyawa bolari-nga-n.* (AP)
NEG two-TR-NF
'[You] had better not do twice.'

(See 4.7.2-[1]-(a) for *bolari-nga-L.*)

(4-923) *nyawa ngaya gobi-Ø.* (AP)
NEG 1SG.NOM native.doctor-NOM
'I [am] not a *gobi*.' (See 1.5.8-[7] for *gobi*.)

(4-924) *nyawa ngaya jilbay-Ø.* (AP)
NEG 1SG.NOM knowing-NOM
'I do not know.'

Nyawa can be used for 'non-existential construction' (4.20.6).

Nyawa may constitute a complete sentence, independently from the words that follow, e.g. Text 1, Lines 31, 49, 60, 70, and Text 2, Line 26.

The scope of negation is not understood well (4.2.2). But there are at least three examples in which *nyawa* negates the subordinate clause only, and not the entire sentence: (4-297), (4-719), (4-720), and:

(4-925) *yinda nyonya jabi-n [nyola TT] nyawa yani-yal.* (AP)
2SG.ERG(A) 3SG.ACC(O) stop-NF [3SG.NOM(S)] NEG go-PURP
Lit. 'You stopped her so that [she] would not go', i.e. 'You stopped her from going.' (O=[S])

(There is one example in which the adverb *ngarro* 'in vain, unsuccessfully' negates the subordinate clause only: (4-991-a).)

In some instances, *nyawa* co-occurs with a word that already has a negative meaning. Here, the use of *nyawa* seems redundant.

(4-926) *ngaya nyawa nyando-Ø.* (AP)
1SG.NOM NEG not.knowing-NOM
'I do not know.'

There are verbalized forms of *nyawa*, i.e. *nyawa-bi-L* Vi 'have/get nothing' (4.7.1-[2]-(a)), and *nyawa-nga-L* Vt 'get nothing from [ACC], cannot get/find' (4.7.2-[3]-(a)), e.g. (4-193).

In English, a reply to a negative question, say, 'Will he not go?', may be either (i) or (ii).

(i) Yes, he will go. (ii) No, he will not go.

In standard Japanese, the reply may be either (iii) or (iv) (using English words).

(iii) Yes, he will not go. (iv) No, he will go.

There is at least one example of *nyawa* 'NEG' which is a reply to a negative question. It behaves like 'No' of (ii) of English.

(4-927) (A conversation cited from a text.)

A. *birgo-nggo yina nyawa bindaynga-n* (fall; no pause)
 wife-ERG 2SG.ACC NEG let-go-NF
 'Your wife did not let you go?'

B. *nyawa* (fall)/
 NEG
 'No. [She did not let me go.]'

There is an additional discussion of *nyawa* 'NEG' in [9] below.

[3] *Ngalnga* 'prohibition'

Ngalnga generally indicates prohibition (or negative command), and sometimes, negative advice or negative request. Like *nyawa* 'general negation', it is most frequently used in a clause that contains a verb. It generally occurs with general imperative -1, -2, e.g. (3-269), (4-34), (4-928). In a few instances, it is used with a negative imperative verb, e.g. (3-274), (3-275), and (4-929); its use seems redundant. Rather surprisingly, *ngalnga* is attested with many other conjugational categories to express prohibition, etc.: nonfuture-1, 2-, -3 e.g. (3-243), (3-249), (3-253), (4-930) to (4-932), apprehensional, e.g. (3-87), (3-287), purposive-1, -2, e.g. (3-307), (3-309), (4-41), (4-43), (4-933), (4-934). In a few examples, *ngalnga* 'prohibition' occurs in a 'verbless clause', e.g. (4-2) (which contains the adverb *nyarrga* 'down'); (4-855-a, -a'), (4-935) (which contains the noun *walwandan* 'sick, not well'); and (4-936) (which contains the noun *goli-yi-Ø* 'angry-COM-DAT').

(4-928) *ngalnga nganya yinda balga-Ø*. (AP)
 PROH 1SG.ACC 2SG.ERG hit-IMP
 'Don't hit me.'

- (4-929) *ngalnga yinda baba-lmo.* (AP)
 PROH 2SG.ERG stab-NEGIMP
 ‘Don’t stab [it].’
- (4-930) *ngalnga yinda goli-Ø waga-n.* (AP)
 PROH 2SG.NOM angry-NOM rise-NF
 ‘Don’t get angry.’
- (4-931) *yinda ngalnga badi-garra-n.* (AP)
 2SG.NOM PROH cry-ITER-NF
 ‘Don’t cry.’
- (4-932) *ngalnga yinda walwa-nga-l boji-nggo.* (AP)
 PROH 2SG.ERG bad-TR-NF wind-ERG
 ‘Don’t spoil [the camp] with [your] fart.’
- (4-933) *ngalnga yinda wona-yal.* (AP)
 PROH 2SG.NOM sleep-PURP
 ‘Don’t sleep.’
- (4-934) *ngalnga yinda bindaynga-lgo yino gornggal-Ø.* (AP)
 PROH 2SG.ERG let.go-PURP 2SG.GEN husband-ACC
 ‘You had better not let your husband go.’
- (4-935) *ngalnga yinda walwandan-Ø.* (AP)
 PROH 2SG.NOM sick-NOM
 Alf Palmer’s translation: ‘Don’t get no good.’
- (4-936) *ngalnga yinda goli-yi-Ø (flat)/ nyawa (fall)/*
 PROH 2SG.NOM angry-COM-NOM NEG
warrngo-goman-go nyawa (fall; no pause)
 woman-other-DAT NEG
 ‘Don’t [be] angry with other women. No.’

There are just a few exceptional uses of *ngalnga* ‘prohibition’. First, consider (3-307) (‘I will not let my husband go’) and (4-937). They may be regarded as prohibition – directed at the speaker. However, this does not seem to apply to (4-938); *ngalnga* seems to just indicate negation, like *nyawa* ‘general negation’.

- (4-937) *ngalnga ngaygo bindaynga-lgo warrngo-goman-go.* (AP)
 PROH 1SG.GEN let.go-PURP woman-other-DAT
 ‘[I] will not let my [husband] go to other women.’
- (4-938) *ngalnga jana-nggo nyaga-n nganya.* (AP)
 PROH 3PL-ERG see-NF 1SG.ACC
 ‘They did not see me.’

Ngalnga ‘prohibition’ generally occurs initially, though not always. See (4-817).

[4] *Ngalnga* ‘counterfactual’

In addition to *ngalnga* ‘prohibition’, Warrongo has *ngalnga* ‘counterfactual’ (Etymologically, they may be related; their meanings contain negation.) *Ngalnga* ‘counterfactual’ is used far less frequently than *ngalnga* ‘prohibition’. It is almost always combined with the enclitic of modality =*gaji* ‘counterfactual’, e.g. (4-939), (4-943). Also the enclitic =*gaji* is often added to the S or the A, e.g. (4-941). That is, often both *ngalnga* and the S/A are combined with =*gaji*, e.g. (4-940). (This seems redundant.) In one example, *ngalnga* is used without =*gaji*, cf. (4-942).

Ngalnga (plus =*gaji*) means ‘Someone thought/thinks (or, it appeared/appears as if ...), but in fact that was/is not the case’. In most of the instances, it means ‘I [the speaker] thought/think’. But it can also mean ‘Someone other than the speaker thought/thinks’, e.g. (4-943).

(4-939) ‘My wife and I had sex. I thought she urinated on me afterwards.’

yarro-Ø ngalnga=gaji jojarra-Ø. (AP)
this-NOM CF=CF urine-NOM

‘I thought this was urine, but in fact it was not. [It was my semen].’

(4-940) *ngalnga=gaji jojarra-Ø=gaji banda-n.* (AP)

CF=CF urine-NOM=CF emerge-NF

‘I thought urine came out, but in fact it was not. [It was my semen].’

(4-941) *ngalnga yinda=gaji ngaygo-n-go gawali-n.* (AP)

CF 2SG.NOM=CF 1SG-LINK-DAT call.out-NF

‘I thought you called out to me, but in fact someone else called out.’

(4-942) *ngalnga gogo-Ø goman-Ø.* (AP)

CF language-NOM different-NOM

‘I thought [it was] a different language, but in fact it was not.’

(4-943) *ngalnga=gaji ngaya balga-lgo nyongo gornggal-Ø.* (AP)

CF=CF 1SG.ERG kill-PURP 3SG.GEN husband-ACC

‘She thought I was going to kill her husband, but in fact I was not going to.’

Ngalnga ‘counterfactual’ often occurs sentence-initially, e.g. (4-940) to (4-943), though not always; see (4-939).

There is no example involving a negative sentence, as in ‘I thought he was not going, but in fact he did’.

[5] *Balo* ‘non-interference’

Balo is not attested in ‘verbless clauses’. It is attested in clauses with a verb. It is attested with, for instance, nonfuture-1, e.g. (4-712-e), (4-944), nonfuture-3, e.g. (4-950), general imperative-2, e.g. (3-271), purposive-2, e.g. (3-311).

Balo is often combined with the enclitic =*wa* ‘focus’ (4.25-[6], e.g. (3-271), (4-712-e), (4-944) to (4-946), and sometimes with the enclitic =*goli* ‘only, alone, by

oneself' (4.25-[3]). The S is sometimes combined with =*goli*, e.g. (4-946) to (4-948). However, =*goli* does not seem to be added to both of *balo* and the S. In one example, *balo* is combined with what appears to be the comitative suffix; cf. (4-948); the function of this suffix is not known. (This may possibly be a non-phonemic vowel; see 2.9.2-[2].)

Balo generally indicates the speaker's attitude of non-interference or permission, and it is generally used in a clause with a third person S. Alf Palmer translated such sentences, involving 'Leave alone' or 'Let ' They can be translated as 'I don't mind if/that '

(4-944) (An example cited from a text. A man from the north died.)

balo=wa wola-n gonggarri-ngomay-Ø. (AP)
NONINT=FOC die-NF north-ABL-NOM
'I don't mind that [the man] from the north died.'

(4-945) ('Your husband has sore feet and he cannot walk fast.')

balo=wa gornngal-Ø jana-garra-n. (AP)
NONINT=FOC husband-NOM stand-ITER-NF
'Let [your] husband stand about. I don't mind.'

(4-946) *balo=wa nyola=goli gawali-n.* (AP)

NONINT=FOC 3SG.NOM=only call.out-NF
'Let him call out. I don't mind.'

(4-947) *aa, balo=wa nyola=goli galga-gali-n.* (AP)

Ah! NONINT=FOC 3SG.NOM(d-S)=only release-ANTIP-NF
'Ah, leave him alone and let him release [faeces, i.e. let him defecate].'

(4-948) *balo-yi-Ø nyola=goli yani-garra-n.* (AP)

NONINT-COM-NOM 3SG.NOM=alone walk-ITER-NF
'Let him walk about. I don't mind.'

(In examples such as (4-945) to (4-948), =*goli* seems to imply 'of one's own accord' or 'please oneself' See 4.25-[3].)

Balo generally occurs with an intransitive verb; the verb may be surface-intransitive, cf. (4-947) (antipassive). The non-interference or permission is directed at the S (third person). In a few instances the verb is a transitive verb, and the non-interference or permission seems to be directed at the O, and not the A. (This may be another manifestation of ergativity: O/S vs. A.)

(8-949) *yanga-na-nya balo wanda-Ø ngona-n-da*

M-KIN-ACC(O) NONINT leave-IMP there-LINK-LOC
[*yanga-na-Ø* TT] *nyina-yal.* (AP)
[M-KIN-NOM(S)] stay-PURP
'Leave [your] mother alone to stay there.' (O=[S])

In all the examples given above, *balo* means ‘The speaker does not mind’. There is possibly one example that means ‘Someone other than the speaker does not mind’.

(8-950) *balo yani-Ø ngali-Ø*. (AP)
NONINT go-NF 1DU-NOM

Note that the S is first person, in contrast with (4-944) to (4-949) (the S is third person). It is not certain what this sentence means, but it may possibly mean ‘We [will] go in the atmosphere in which other people do not mind our going’.

Balo almost always, though not always, occupies the initial position.

There is no example involving a negative sentence, as in ‘I don’t mind that he is not coming’.

[6] *Gada* ‘maybe, might’

There are very few examples, e.g. (3-257) (with a future verb), (3-285) (with an apprehensional verb) and (3-318) (with a purposive-4 verb).

[7] *Gaji* ‘maybe, might’ and ‘You try!’

There are only two examples of *gaji* ‘maybe, might’: (3-335) and (4-951). There is one example of the exhortative ‘You try!’: (4-952). (Dyirbal has the exhortative *gaji* ‘You try!’ (Dixon 1972: 116).)

(4-951) *gaji gama-yi-Ø nyola*. (AP)
maybe Gama-COM-NOM 3SG.NOM
‘He might have Gama dance (i.e. he may be able to dance it).’

(4-952) *gaji yinda baya-gali-ya*. (AP)
You.try 2SG.NOM sing-ANTIP-IMP
‘You try, sing!’

Gaji ‘maybe, might’ has a verbalized form: *gaji-mba-L* ‘promise, fool, deceive’ (4.7.3-[2]). Etymologically *gaji* may be related to the enclitic =*gaji* ‘counterfactual’ (4.25-[1]).

[8] *Jamo* ‘just’

Jamo (of which there are many examples) means ‘just’, e.g. (3-239), (4-271-B), (4-417), often implying ‘without any reason or cause’, e.g. (3-8), (4-481) (second B), ‘with no other purpose’, ‘with no serious intention or purpose’, e.g. (4-221), (4-953), ‘doing nothing else’, etc., e.g. (4-750-c), (4-954). It also seems to be used for emphasis or the like – of imperative in particular, e.g. (4-955). The S (also the A?) is often combined with the enclitic =*goli* ‘alone, by oneself’, e.g. (2-126-B), (4-953).

(4-953) *jamo ngaya=goli waymba-garra-n.* (AP)

just 1SG.NOM=only walk.about-ITER-NF

'I was walking by myself with no serious purpose.'

(4-954) (A woman found her husband sitting with another woman, and accused him. He replied as follows.)

jamo ngali-Ø nyina-n birra-wa-n. (AP)

just 1DU-NOM sit-NF talk-RECP-NF

'We were just sitting [and] talking [and we did nothing else].'

(4-955) *jamo yobala-Ø birra-wa-ya.* (AP)

just 2DU-NOM talk-RECP-IMP

'Do talk!'

Dyirbal has *jamu* 'just' (Dixon 1972: 120).

[9] *Ngarro* 'in vain, unsuccessfully'

Ngarro means 'in vain', 'try unsuccessfully', 'try, but do not succeed', 'try, but cannot', etc., e.g. (4-780), Text 1, Line 59 and:

(4-956) (A man was waiting for a woman.)

warrngo-wo ngarro nyola jana-garra-n. (AP)

woman-DAT in.vain 3SG.NOM stand-ITER-NF

'He stood [and waited] for a woman in vain [i.e. she did not come].'

(4-957) ('I speared a kangaroo. It was big.')

ngarro ngarro waga-mba-n ngaya binda-wo. (AP)

in.vain in.vain rise-TR-NF 1SG.ERG shoulder-DAT

'I tried to pick up [the kangaroo] to my shoulders, but could not.'

(4-958) ('I speared a kangaroo. But I had sore feet.')

ngaya ngarro wadali-n golma-mali. (AP)

1SG.NOM in.vain run-NF behind-side

'I tried to run behind [i.e. run after it], but could not.'

(4-959) ('I looked for my wife, but:')

ngarro jaymba-n. (AP)

in.vain find-NF

'I could not find [her].'

In (4-991-a), *ngarro* negates the subordinate clause only, and not the entire sentence.

The transitive verb *ngawa-L* may mean 'hear, listen to', e.g. (3-230), (3-305), (4-195-A), (4-350-b), (4-419), and also 'understand [a language]', e.g. (4-345) to (4-346). When accompanied by *ngarro*, it may mean 'cannot hear', and also 'do not understand [a language]', e.g. (4-960). The antipassive version *ngawa-gali-ZERO*,

too, may mean ‘hear, listen to’, e.g. (4-343), (4-344), and also ‘understand [a language]’, e.g. (4-348). When accompanied by *ngarro*, it generally means ‘do not understand [a language]’, e.g. (4-349).

(The same probably applies to *nyawa* ‘NEG’ At least the negation of the transitive *ngawa-L* ‘hear, listen to’ and ‘understand [a language]’ is attested, e.g. (4-799). Also, see [11] *Warra* ‘in a wrong way’, ‘cannot’.)

(4-960) *ngarro ngawa-n yinda.* (AP)
in.vain hear-NF 2SG.ERG
‘You don’t understand [my language].’

There is a verbalized form: *ngarro-mba-L* ‘try to get, but not succeed’ (4.7.3- [2]), e.g. (3-273-c), (4-213). Text 1, Line 35 contains the antipassivized version of *ngarro-mba-L*: *ngarro-mba-gali-ZERO*.

Sentences containing *ngarro*, *ngarro-mba-L* or *ngarro-mba-gali-ZERO* are best translated involving *but* (4.19).

Girramay and Mamu have *ngarru* ‘Don’t’ (Dixon 1972: 118).

[10] *Ngara* ‘not easily’

Ngara seems to mean ‘It is not easy to’. There is only one example.

(4-961) (‘I will stab him with a spear, so that.’)
ngara woda-lgo nyola
not.easily pull.out-PURP 3SG.ERG
Tentative translation: ‘He will not pull out [the spear] easily.’

Alf Palmer’s gloss for the above sentence is ‘Hard work’.

Dyirbal (Dixon 1972: 119) has *ngara* ‘the actor couldn’t do something’.

[11] *Warra* ‘in a wrong way’, ‘cannot’

Warra seems to mean ‘in a wrong manner, not properly’, ‘cannot’ or ‘in a wrong direction’.

(4-962) *ngali-Ø warra wajo-gali-n.* (AP)
1DU-NOM wrong.way cook-ANTIP-NF
‘We have been cooking [the food] in a wrong way.’

(4-963) *warra ngawa-gali-n.* (AP)
wrong.way hear-ANTIP-NF
Lit. ‘[He] is listening to [my language] in a wrong way’, i.e. ‘[He] does not understand [my language].’

- (4-964) *warra yami-Ø jana-Ø*. (AP)
 wrong.way go-NF 3PL-NOM
 ‘They went in a wrong direction.’

Warra is attested in the negation of *ngawa-gali-ZERO* ‘understand [a language]’: (4-963).

Dyirbal has *warra* with a similar meaning (Dixon 1972: 118).

4.25. Enclitics

The characterization of enclitics adopted for the present work was given in 2.2.2. Warrongo has a fair number of enclitics. Among them, =*ngomay* ‘after, if, because’ was discussed in 4.10. At least in certain examples, *nyawa* ‘negation’ (4.20.6-[3]-(a)) and *yamanyon* ‘similar, like’ (4.23) may have acquired the status of enclitic. The other enclitics provide a modal qualification or the like, but their meanings are not always understood well.

[1] =*gaji* ‘counterfactual’

The enclitic =*gaji* is attested with nouns. In one example, it is added to an interrogative member of noun: (4-972). It is found attached to the following cases: NOM, e.g. (4-636-a), (4-966); ERG, cf. (4-971); DAT, e.g. (4-972); LOC, e.g. (4-965); GEN, e.g. (4-788); ABL1-NOM, e.g. (4-965); and possibly ACC, e.g. (4-965).

=*gaji* generally means ‘I [the speaker] thought/think that ’ (or ‘It appeared/ appears as if ’). It often implies ‘but in fact that was/is not the case’ However, this is not always the case; see (4-967). In this respect, the enclitic =*gaji* differs from the adverb *ngalnga* ‘counterfactual’ (4.24-[4]). In all the examples available, *ngalnga* implies ‘but in fact that was/is not the case’. (In view of this, strictly speaking, the label ‘counterfactual’ is not appropriate for the enclitic =*gaji*.)

- (4-965) (Two men were talking about *raba* ‘fork-shaped branch of a tree’. One was talking about the fork-shaped part of a woman, i.e. the crotch. But the other mistakenly thought that the former was talking about a fork-shaped branch of a tree, and said as follows.)

wowo, ngona-Ø raba-Ø, jolany-ja=gaji raba-Ø. (AP)
 Oh! that-NOM/ACC fork-NOM/ACC tree-LOC=CF fork-NOM/ACC
 ‘Oh [, I see]. [You mean] that fork [of a woman]. I thought that [you meant] a fork on a tree.’

(It is not known whether *ngona-Ø* and *raba-Ø* are in the nominative or the accusative.)

(4-966) (A man who did not understand Warrongo was listening to Alf Palmer and me speaking in Warrongo. When we laughed, he, too, laughed. Alf Palmer made the following comment on him.)

nyola yaji-garra-n jilbay-Ø=gaji. (AP)
 3SG.NOM laugh-ITER-NF knowing-NOM=CF
 ‘He is laughing as if he knew [i.e. understood Warrongo].’

(4-967) (A. ‘Where does he come from?’)

B. *gonggarri-ngomay-Ø=gaji.* (AP)
 north-ABL-NOM=CF
 ‘It appears that he [comes] from the north.’

(Alf Palmer’s translation is ‘Just like from north, but not sure. I don’t know where he comes from’.)

Three additional examples follow.

(4-968) *yigarra-Ø=gaji* (AP)
 freshwater.lobster-NOM/ACC=CF
 ‘scorpion’ (Lit. ‘It appears as if [this] were a freshwater lobster.’)

(4-969) *goro-Ø=gaji* (AP)
 honey-NOM/ACC=CF
 ‘sweet’ (Lit. ‘It appears as if [this] were honey.’)

(4-970) *jorba-Ø=gaji* (AP)
 white.clay-NOM/ACC=CF
 ‘white (of paint)’ (Lit. ‘It appears as if [this] were white clay.’)

It may look as if =*gaji* in (4-968) to (4-969) were a derivational suffix, but in fact it is not. For example, when asked to translate ‘A scorpion bit me’, Alf Palmer gave a sentence like the following.

(4-971) *yigarra-nggo=gaji nganya baja-n.* (TT)
 freshwater.lobster-ERG=CF 1SG.ACC bite-NF
 Lit. ‘I thought a freshwater lobster bit me, but it was not.’

(I do not remember every detail of this sentence, but it is certain that this sentence contained *yigarra-nggo=gaji*.)

=*gaji* ‘counterfactual’ often occurs with *ngalnga* ‘counterfactual’ in the same sentence; see 4.24-[4].

In most of the examples, =*gaji* means ‘I [the speaker] thought/think’. There is no clear example of ‘Someone other than the speaker thought/thinks’. (In contrast, *ngalnga* ‘counterfactual’ has yielded one example of ‘She thought’ (4-943).)

There is one exceptional example of =*gaji*. It is attached to an interrogative member of noun. It seems to indicate a negative answer to the question that the speaker directed at himself.

(4-972) (See (3-207) for the context. ‘Other people are going across the sea to the mainland to see the annual show, but.’)

ngani-wo=gaji goyay yani-yal? (AP)
 what-DAT=CF across go-PURP

A tentative translation is ‘What shall I go across [to the mainland] for’, i.e. ‘It is no good for me to go there’.

Bidyara and Gungabula have the suffix *-gadhi* ‘like’ (Breen 1973: 72). It may be cognate with the Warrongo enclitic =*gaji*. The *dh* (interdental stop) of Bidyara and Gungabula corresponds to the laminal stop *j* of Warrongo (Table 1-6). Wunambal of Western Australia has *gadjin* ‘like’ (Vászolyi 1976: 283). It appears to be a word, and not a clitic or an affix. It may possibly related to the Warrongo enclitic =*gaji*.

[2] =*bajon* ‘I do not know WH ’ (glossed ‘DNK’)

=*bajon* is generally attached to an interrogative member (of noun, adverb or verb). But it is added to a non-interrogative verb in (4-976-B), and the adverb *nyawa* ‘negation’ in (4-542) (first B). It is always (?) used in a response to a question. It is translated by Alf Palmer as ‘I don’t know’ It is glossed as ‘DNK’. It is attested with the ergative case, cf. (4-973-B); the dative case, e.g. (2-79), (4-542) (third B); no case suffix, e.g. (4-975-B); nonfuture-1, cf. (4-974-B); and the purposive-2, cf. (4-976-B). Sentences that contain =*bajon* are often elliptical. Examples:

(4-973) A. *wanyo-lo wajo-n yarro-Ø bori-Ø?*
 who-ERG burn-NF this-ACC fire-ACC
 ‘Who made this fire?’

B. *wanyo-lo=bajon wajo-n yarro-Ø bori-Ø.* (AP)
 who-ERG=DNK burn-NF this-ACC fire-ACC
 ‘I do not know who made this fire.’

(4-974) A. *wanyja-rro-bi-n?*
 where-to-INTR-NF
 ‘Where has [she] gone to?’

B. *wanyja-rro-bi-n=bajon nyola.* (AP)
 where-to-INTR-NF=DNK 3SG.NOM
 ‘I do not know where she has gone to.’

(4-975) A. *wanyja bama-Ø yani-Ø?*
 where man-NOM go-NF
 ‘Where has the man gone?’

B. *wanyja=bajon.* (AP)
 where=DNK
 ‘I do not know where.’

(4-976) (A. 'Why are they going to kill us?')

B. *ngali-nya ngani-ngga balga-lgo=bajon*. (AP)

1DU-ACC what-LOC kill-PUPR=DNK

'I do not know why [they] are going to kill us.'

(Here, the locative case indicates cause (3.6.3-[5]).)

In the examples available, =*bajon* means 'I do not know' There is no example of 'Someone other than the speaker does not know'

Dyirbal has the suffix (?) -*bajun* 'very, really' (Dixon 1972: 225). It may be, or may not be, related to the Warrongo enclitic =*bajon*.

[3] =*goli* 'only, alone, by oneself'

Among the enclitics, =*goli* yielded by far the largest number of examples and it exhibits a wide of meanings. (It is consistently translated as 'only' in the following examples.) Its central meaning is 'only, alone, by oneself'; it delimits the range of referents. Examples include (3-153) (second B), (4-542) (third B, fifth B), and:

(4-977) ('That woman left me.')

nyola=goli wadali-n. (AP)

3SG.NOM=only run-NF

'She ran [away] by herself.'

(4-978) ('They sent you a bark painting.')

yino=goli jana-nggo manja-n. (AP)

2SG.GEN=only 3PL-ERG send-NF

'They sent [it] to you only.'

In some instances, =*goli* seems to not only delimit the range of referents, but also indicate contrast, e.g. (3-304) ('You should study my language only, and no one else's'), (4-991-c) ('Only (?) we-two have two footprints'), and:

(4-979) *yinda yinda=goli yani-ya*. (AP)

2SG.NOM 2SG.NOM=only go-IMP

'You, but no one else, go.'

(4-980) ('The traditional food is for us, Aboriginal Australians, and not for white people.')

ngana-ngo=goli manyja-Ø ngona-Ø ganba-mara-ngomay-Ø

1PL-GEN=only food-ACC that-ACC before-very-ABL-ACC

yarro-n-da ngana-Ø moja-lgo. (AP)

here-LINK-LOC 1PL-ERG eat-PURP

'We will eat that food from very long ago [i.e. that traditional food] of ours only, here.'

(4-981) ('We have no fish. We have no possum meat.')

manyja-∅=goli *moja-n ngana-∅ ganyo-∅*
 vegetable.food-ACC=only eat-NF 1PL-ERG round.yam-ACC
jalaba-∅. (AP)
 yam.sp.-ACC
 'We are eating vegetable food only, such as round yams and *jalaba* yams.'

In (3-304), 'my language' seems to be contrasted with 'other people's language. Similarly, (4-980): 'our' vs. 'white people's'; and (4-981): vegetable food vs. meat. Other possible examples include (3-16) ('we two' vs. 'other people'), (4-541) ('you' vs. 'I'), and also (4-977) ('she' vs. 'I'), (4-991-c) ('we two' vs. 'they').

=*goli* may occur in a reflexive clause, possibly reinforcing the reflexive meaning: 'acting on oneself', e.g. (4-433), (4-439), (4-444), (4-445), (4-447). Also, =*goli* occurs in a few sentences that appear to have a reflexive meaning: (4-542) (fourth B).

Furthermore, =*goli* seems to exhibit a wide range of meanings such as the following (obviously these meanings are closely interrelated and this classification is not clear-cut): 'by itself', 'spontaneously', e.g. (4-982-W), (4-984) (second A), 'with no information from other people', e.g. (4-732), 'for no reason/cause', (3-121), (4-524), (4-983), 'for no purpose', e.g. (4-481) (first B), 'with no weapon or help', e.g. (2-126-B), 'with no interference', e.g. (4-985), 'Leave X alone', 'Let X has his/her own way', 'as one pleases', e.g. (4-986), (4-987), 'in vain', 'with no success', e.g. (4-988), 'with no one else', 'together', e.g. (4-989-a, -b), (4-990-b), (4-991-a).

(4-982) (A man (M) and a woman (W) had sex. Some semen came out from her vagina. He asked her and she replied as follows.)

M. *ngani-nga-lgo yinda bindaynga-n?*
 what-TR-PURP 2SG.ERG let.go-NF
 Lit. 'So that you can do what [to the semen, did you] let [it] out?'

W. *ngona-∅=wa nyola=goli banda-n*. (AP)
 that-NOM=FOC 3SG.NOM=only emerge-NF
 'That, it came out by itself.'

(Here, the semen should be regarded as inanimate, and not human. This is a rare example in which a pronoun (*nyola* '3SG.NOM') refers to an inanimate entity (3.1.2.-[2]). See 4.7.2-[1]-(a) for the formation of *-ngani-nga-L*. The sentence of A involves purposive subordination 'so that may' (4.8). A purposive clause generally precedes the main clause, but, in (4-982-M) the subordinate clause (involving an interrogative verb) precedes. See 4.8.5-[4].)

(4-983) *nyola=goli wola-n*. (AP)
 3SG.NOM=only die-NF
 'He died although no one killed him.'

(4-984) (A conversation cited from a text. A: 'I cannot suppress my erection. It keeps standing.')

B. *balga-Ø gaja-Ø balga-Ø jolany-jo* (fall)/ *wola-yal* (fall; no pause)
hit-IMP head-ACC hit-IMP stick-ERG die-PURP
'Hit the head [of your penis] with a stick so that [the penis] will die.'

A. *nyawa* (fall)/ *nyola=goli jana-garra-n* (fall)/
NEG 3SG.NOM=only stand-ITER-NF
wambaworo-Ø (fall)/ *warrngo-ngomay-Ø* (fall)/
erection-NOM woman-ABL-NOM
'No. It, [my] erection, keeps standing by itself, because of women.'

(Here, =*goli* seems to imply 'uncontrollable' This sentence contains a rare instance of a pronoun referring to a body part (3.1.2-[2].)

(4-985) (A man found a herd of kangaroos, but he did not have a spear with him. He said as follows.)

yorra-Ø=goli wadali-ya. (AP)
2PL-NOM=only run-IMP
'You [kangaroos], run [i.e. hop] away if you like. [I will not spear you today.]'

(This contains the only example of a second person pronoun used to refer to animates (3.1.2-[2].)

(4-986) ('He is silly.')

nyola=goli nyina-yal ngona-n-da. (AP)
3SG.NOM=only sit-PURP there-LINK-LOC
'Leave him. Let him sit by himself [or of his own accord].'

(4-987) *nyola=goli wanda-gali-yal.* (AP)
3SG.NOM((d-S))=only leave-ANTIP-PURP
'He will leave [his wife] of his own accord [if he wants to].'

(Alf Palmer's translation is 'Please himself'.)

(4-988) ('He looked for me, but could not find me.')

nyola=goli waymba-garra-n. (AP)
3SG.NOM=only walk.about-ITER-NF
'He was walking about in vain.'

(This may also be an instance of 'with no interference': 'Let him walk about, looking for me. He will not find me'.)

- (4-989) a. *jana-nggo ngana-nya banja-lga jina-Ø ngana-ngo*
 3PL-ERG 1PL-ACC follow-APPR footprint-ACC 1PL-GEN
ngali-Ø=goli yani-ya jolgi-ngga.
 1DU-NOM=only go-IMP scrub-LOC
 ‘Let’s go together in the scrub lest they follow our footprints.’
- b. *nyawa nyaga-lga ngana-Ø=goli*
 NEG see-APPR 1PL-NOM=only
wonaja~wonaja-bi-ya. (AP)
 camping.out~camping.out-INTR-PURP
 ‘We together will camp about lest [they] see [us].’

(Here, *nyawa* ‘NEG’ seems redundant.)

- (4-990) a. *gaya-na-Ø ngaygo* (rise)/ *mayga-lgo yarro-wo yamba-wo*
 father-KIN 1SG.GEN tell-PURP this-DAT camp-DAT
jarribara-wo yani-ya! (fall; no pause)
 good-DAT come-PURP
 ‘I will tell my father to come to this good camp.’
- b. *yarro-n-da ngana-Ø* (flat)/ *ngana-Ø=goli nyina-ya!* (fall) (AP)
 here-LINK-LOC 1PL-NOM 1PL-NOM=only sit-PURP
 ‘We will stay here together.’
- (4-991) a. *ngali-Ø=goli yani-ya ngarro jana-nggo jaymba-lgo.*
 1DU-NOM=only go-PURP in.vain 3PL-ERG find-PURP
 ‘We will go together so that they cannot find us.’
- b. *mongarmbara-Ø jina-Ø jana-ngo jaymba-n.*
 many-ACC footprint-ACC 3PL-GEN find-NF
 ‘[We-two] found many footprints of theirs.’
- c. *ngali-Ø=goli jina-Ø bolari-Ø.* (AP)
 1DU-NOM=only footprint-NOM two-NOM
 ‘Only (?) we-two have two footprints.’ (XYZ)

=*goli* sometimes occurs in a sentence that contains the adverb *balo* ‘non-interference’. Jointly they seem to reinforce the effect of non-interference. See 4.24-5], e.g. (3-271). Similarly, =*goli* sometimes occurs in a sentence that contains the adverb *jamo* ‘just’. Jointly they seem to reinforce the meaning of ‘just’. See 4.24-8], e.g. (4-953).

In (4-490) (an imperative sentence), =*goli* possibly adds emphasis or the like to the meaning ‘by oneself’: ‘Do play by yourselves’

=*goli* is also used in a response, indicating strong (?) intention.

- (4-992) A. *jarribara-bi-ya yani-ya yinda.*
 good-INTR-IMP go-IMP 2SG.NOM
 Lit. ‘Be good. Go.’, i.e. ‘Take care. Have a safe trip.’

B. *yowo ngaya=goli*. (AP)
 OK 1SG.NOM=only
 'OK, I will.'

(4-993) (A. 'Do this.')

B. *yowo, ngali-Ø=goli*. (AP)
 Yes 1DU.NOM=only
 'OK, sure, we will.'

In this use, *ngaya* '1SG.NOM' and *ngali-Ø* '1DU.NOM' are attested, but no other pronoun and no noun are attested.

There are a fair number of examples in which the meaning of =*goli* is not known.

=*goli* is almost always attached to a pronoun: (i) almost always NOM ('S'), e.g. (4-977), (4-979); the S may be d-S, e.g. (4-987), and (ii) GEN in three examples: (3-304), (4-978), (4-980). It is added to a noun only in one example, i.e. (4-981): ACC (O). In contrast, there is no example in which =*goli* is attached to the A. This may possibly be another manifestation of ergativity (S/O vs. A).

Sometimes a pronoun in the NOM is repeated and has its second occurrence combined with =*goli*, e.g. (4-979) and (4-990-b).

Mara-Ø=goli 'hand-NOM=only' means 'having/with nothing in the hand'. See 4.20.5.3-[1]-(a).

In addition, there is *mara=goli* 'the next day, tomorrow'. The noun *mara* may mean 'day, week' in compound nouns (3.7.3). This *mara=goli* seems to be used as an adverb. If this is the case, here we have an adverb-stem-forming suffix (-*goli*), and not an enclitic (=goli).

[4] =*gol* 'only'

=*gol* seems to mean 'only'. In contrast with =*goli* 'only, alone, by oneself', it yielded just a few examples. Examples include (2-79), (4-613), and:

(4-994) ('I speared a kangaroo, and she chased it, but:')
nyola banggay-Ø=gol moga-n. (AP)
 3SG.ERG spear-ACC=only grab-NF
 'She grabbed the spear only [and not the kangaroo].'

(4-995) *yinda yinda=gol jilbay-bi-n*. (AP)
 2SG.NOM 2SG.NOM=only knowing-INTR-NF
 'Only you [and no one else] know.'

(4-996) *ngaya nyon.gol-Ø yangga-gali-n raba-wo=gol*. (AP)
 1SG.NOM one-NOM search.for-ANTIP-NF fork-DAT=only
 Tentative translation: 'I [am] alone [and] am looking for a fork only.'

(Here, the noun *nyon.gol-Ø* 'one-NOM' seems to mean 'alone'. In this context, *raba* 'fork' refers to the fork-shaped part of a woman's body, i.e. crotch.)

(4-997) ('They took the meat off the fish, and left the bones there. I asked, 'What are these?' They replied:')

balban-Ø=gol. (AP)

bone-NOM=only

'[They are] bones only.'

(For *balban-Ø=gol*, 'merely' may be a more appropriate translation than 'only'. '[They are] merely bones'.)

Also, =*gol* seems to indicate something like emphasis, e.g. (4-998), (4-999), and possibly (4-1000).

(4-998) *yinda=gol moja-gali-ya*. (AP)

2SG.NOM(d-S) eat-ANTIP-PURP

'Do eat.'

(4-999) *ngaya yalga-ngga=gol yami-Ø*. (AP)

1SG.NOM road-LOC=only go-NF

'I went all along the road.' Cf. (2-79).

(4-1000) (The following sentence is followed by (4-834), though not immediately.)

nganya gayngga-n bola-nggo yalga-ngga=gol. (AP)

1SG.ACC lead-NF 3DU-ERG road-LOC=only

Tentative translation: 'They led me on the road only [and not off the road].'

Alf Palmer's translation for (4-999) is 'along the road'. In (4-1000), =*gol* seems to mean 'only'

=*gol* occurs in *nyila=gol* 'just now (near past)', 'at the present time', 'at once, soon, immediately (near future)' or 'for the first time'. The adverb *nyila* means 'today' or 'soon, immediately' (*Nyila=gol* may be an adverb. In this case, =*gol* should probably be regarded as an adverb-stem-forming suffix (-*gol*), and not an enclitic (= *gol*.) Examples include (1-10-b, -g), (4-110), and:

(4-1001) ('While travelling, I have arrived a place called Godami.')

ngaya nyila=gol nyaga-n. (AP)

1SG.ERG today=only see-NF

'I have seen [the place Godami] for the first time.'

There is an verbalized form: *nyila=gol-nga-L* 'do for the first time' (4.7.2-[3]-(d)).

Other examples of =*gol* are the following. (i) *mara-Ø=gol* 'hand-NOM=only' 'with nothing in the hand, carrying nothing'. Cf. 4.20.5.3-[1]-(a). (ii) *nyawa=gol* 'NEG=only' The English word 'unnecessary' was translated by means of *nyawa=gol* 'NEG=only'

=*gol* is generally added to a pronoun: NOM (S), e.g. (4-995); the S may be derived-S, e.g. (4-998). It may be added to a noun: NOM, e.g. (4-997), ACC, e.g. (4-613), (4-994), DAT, e.g. (4-996), and LOC, e.g. (2-79), (4-999), (4-1000). But

there is no example of =*gol* attached to the A. This may be a yet further manifestation of ergativity (S/O vs. A).

As is the case with =*goli*, a pronoun in the nominative is sometimes repeated and has its second occurrence combined with =*gol*, e.g. (4-995).

All the words to which =*goli* is added are dissyllabic. All the words to which =*gol* are likewise dissyllabic, except for the trisyllabic word: *yalga-ngga=gol* ‘road-LOC-only’ in (2-79), (4-999) and (4-1000).

It seems certain that =*goli* and =*gol* are doublets. Shinjiro Muraki (p.c.) suggested that they derived from the noun *nyon.gol* ‘one’; *nyon.gol* lost its status as free word, was attached to the preceding word, and the initial *nyon* was deleted. (Later, *-i* was augmented, producing =*goli*.)

[5] =*rro* ‘too’

=*rro* occurs in Dyirbal, too. Dixon (1972: 266) notes as follows: ‘This cannot be given any effective English gloss; however, “another” and “again” covers part of some of its meanings’. This applies to the Warrongo =*rro*. In addition, it may be translated as ‘too’ Examples include (4-112) and:

(4-1002) (‘I speared a kangaroo, and:’)

ngaya baban ngonin-da=rro=wa goman-Ø. (AP)
 1SG.ERG stab-NF there-LINK-LOC=too=FOC another-ACC
 ‘I speared another [kangaroo] there again.’

(Alf Palmer’s gloss for *ngonin-da=rro=wa* is ‘in the same place’ See [6] for the enclitic =*wa* ‘focus’. =*rro=wa* is the only sequence of enclitics found in the data.)

As alluded to above, there are a number of examples, listed below, in which the meaning of =*rro* is not known. Tentative glosses are provided.

mambo-ngga=rro ‘on top of the back [of a woman]’
 back-LOC=too
golma=rro ‘behind’
 behind(Adv)=too
nyila=rro ‘now, today, soon, immediately’
 now, today, soon=too
yama=rro ‘now, just now’
 so, likewise=too

A word combined with =*rro* is generally repeated, indicating ‘again’ or ‘another’

bolayi=rro bolayi-rro ‘four’
 two=too two=too
bolayi=rro bolayi-rro bolayi=rro bolayi-rro ‘eight’
 two=too two=too two=too two=too

<i>nyila=rro</i>	<i>nyila=rro</i>	‘everyday’
today=too	today=too	
<i>yama=rro</i>	<i>yama=rro</i>	‘like this and like that, all the time’
so=too	so=too	
<i>ngona=rro</i>	<i>ngona=rro</i>	‘again and again, all the time’, e.g. (4-1003)
that,there=too	that,there=too	
<i>ngoni=rro</i>	<i>ngoni=rro</i>	‘here and there, over and over, all the time’,
there,that=too	there,that=too	e.g. (3-108),(4-470), (4-532), (4-603)
<i>ngona=rro</i>	<i>ngoni=rro</i>	‘all the time’, e.g. (4-1004)
that,there=too	there,that=too	
<i>yinda=rro</i>	<i>yinda=rro</i>	‘You keep doing’, e.g. (4-1005)
2SG.ERG=too	2SG.ERG=too	

(4-1003) *yinda wara-n ngona=rro ngona=rro*. (AP)
 2SG.NOM jump-NF that=too that=too
 ‘You are jumping all the time.’

(4-1004) *ngaya ngona=rro ngoni=rro nyonya baba-n*. (AP)
 1SG.ERG that=too there=too 3SG.ACC stab-NF
 ‘I kept stabbing him all the time.’

(4-1005) *yinda=rro yinda=rro yama-nga-n*. (AP)
 2SG.ERG=too 2SG.ERG=too so-TR-NF
 ‘You keep doing so.’

=*rro* is found attached to the following: (i) pronoun in the ERG, e.g. (4-112) (*ngali-Ø=rro* ‘1DU-ERG’), (ii) noun and adverb in the LOC (*mambo-ngga=rro* ‘back-LOC=too’ and *ngoni-n-da=rro=wa* ‘there-LINK=LOC=too=FOC’), and (iii) adverb with no case suffix.

[6] =*wa* ‘focus’ (?)

The meaning of =*wa* is not understood well. It is tentatively glossed as ‘focus’ (FOC). In some instances, it seems to indicate some kind of specification (in the absence of a better label). It may be translated as ‘indeed, really, the very’, e.g. (3-79), (3-105), (4-65-a), (4-712-c), (4-768) (third B), (4-982-W), Text 1, Line 47, and:

(4-1006) (A woman accused her husband, for he was going to desert his children.)
yino=wa yarro-Ø galbiri-Ø. (AP)
 2SG.GEN=FOC this-NOM children-NOM
 ‘These are the very children of yours.’

(4-1002) may contain another example: *ngoni-n-da=rro=wa* tentatively ‘right in that place again’.

In some other instances, =*wa* seems to indicate confirmation, approval, agreement or the like.

(4-1007) (A man wanted to take a woman with him. But his father advised him not to, for she was just a young girl. The son (S) asked his father (F) as follows.)

S. *yarro-Ø rayi-Ø?*
 this-NOM young.girl-NOM
 '[Is] this [just] a young girl?'

F. *yowo, rayi-Ø=wa.* (AP)
 yes young.girl-NOM=FOC
 'Yes, indeed [she is just] a young girl.'

(4-1008) A. *yinda gaya-Ø?*
 2SG.NOM father-NOM
 '[Are] you [there], father?'

B. *ngaya yarro-Ø=wa.* (AP)
 1SG.NOM this,here-NOM=FOC
 '[Yes,] I [am] right here.'

Other, possible examples include Text 1, Line 47.

In particular, *ngona-Ø=wa* 'that, there-NOM=FOC' and *yarro-Ø=wa* 'this, here-NOM=FOC' are often used to express agreement, approval, etc. They may be translated as 'All right', 'Yes', 'OK', etc.

(4-1009) A. *yama-nga-Ø yinda nganya.*
 so-TR-IMP 2SG.ERG 1SG.ACC
 'Tell me.'

B. *yowo, ngona-Ø=wa.* (AP)
 yes that-NOM=FOC
 'OK!'

(See 4.7.2-[4]-(b), -[8] for *yama-nga-L* 'tell' (lit. 'do so').)

=*wa* also seems to indicate consent, intention, encouragement, etc.

(4-1010) (In response to advice:)

yowo, ngali-Ø=wa.
 yes 1DU-NOM=FOC
 'Oh, sure, we will.'

(4-1011) *yowo, yobala-Ø=wa birra-wa-ya.* (AP)
 yes 2DU-NOM=FOC talk-RECP-IMP
 'Yes, do talk to each other.'

(=*wa* in (4-1010) is similar to =*goli* 'only' in (4-992-B) and (4-993-B); both are responses. The difference, if any, between them is not known.)

Table 4-46. Words combined with the enclitic =*wa* ‘focus’

	‘1SG’	‘2SG’	‘3SG’	‘1DU’	‘2DU’
NOM(/ERG?)			<i>nyola=wa</i>	<i>ngali=wa</i>	<i>yobala=wa</i>
ACC					
GEN	<i>ngaygo=wa</i>	<i>yino=wa</i>			
DAT	<i>ngaygo-n-go=wa</i>				
	‘this, here’	‘that, there’		‘there, that’	
NOM	<i>yarro=wa</i>	<i>ngona=wa</i>		<i>ngoni=wa</i>	
ERG		<i>ngona-n-do=wa</i>			
LOC	<i>yarro-n-da=wa</i>	<i>ngona-n-da=wa</i>		<i>ngoni-n-da=wa,</i> <i>ngoni-n-da=rro=wa</i>	
DAT		<i>ngona-wo=wa</i>		<i>ngoni-wo=wa</i>	
ABL-NOM		<i>ngona-ngomay=wa</i>		<i>ngoni-ngomay-wa</i>	

Yama=wa ‘so=FOC’ means ‘Indeed, it is so’. In some instances, it is used like a tag question, sometimes implying surprise.

- (4-1012) A. *ngaya yina magan-nga-n.*
 1SG.ERG 2SG.ACC false-TR-NF
 ‘I told you a lie.’
 B. *wowa, yama=wa.*
 Oh so=FOC
 ‘Did you?’

=*wa* may also form a special question such as:

- (4-1013) *yino birgo-Ø=wa?*
 2SG.GEN wife-NOM=FOC
 ‘Where is your wife?’

In most instances, the meaning of =*wa* is not known, e.g. (3-322), (4-172), (4-423), (4-493), (4-611-a).

=*wa* is found attached to the following words.

- (a) Noun in the NOM: *rayi-Ø=wa* ‘young girl’ in (4-1007-F), *birgo-Ø=wa* ‘wife’ in (4-1013), *bojala-Ø=wa* ‘soft’, *yamanyon-Ø=wa* ‘similar’
 (b) Adverb
 (b-1) The three demonstrative members. See Table 4-46.
 (b-2) The demonstrative member *yama=wa* ‘so, likewise’.
 (b-3) Other adverbs: *balo=wa* ‘non-interference’ (4-24-[5]), e.g. (3-271), (4-944) to (4-947), *yindo=wa* ‘somewhere here’, *ngondo=wa* ‘somewhere there’, e.g. Text 1, Line 37. (*Ngondo* is not attested as a free morpheme.)
 (c) Pronouns. See Table 4-46.

In particular, =*wa* is often attached to a word that indicates a place, cf. (3-322), (4-172), (4-493), (4-611-a), and Text 1, Line 37, 54.

Among the forms listed in Table 4-46, the texts have yielded many examples of *balo=wa*, *yama=wa*, *ngona=wa*, *ngoni=wa*, *yarro=wa*, *ngoni-n-da=wa*, *ngona-n-da=wa*, but not many examples of others.

[7] =*na* ‘really’ (?)

The meaning of =*na*, too, is not understood well. It seems to indicate some kind of confirmation or ‘emphasis’ It may be translated as ‘really, indeed, certainly’ It is tentatively glossed ‘really’ In many instances, it is accompanied by a higher pitch and, probably, a more prominent stress. =*na* is the only clitic in Warrongo that has a higher pitch and, probably, a more prominent stress.

(4-1014) *nyola ganyji-n, nyongo birgo-Ø=na.* (AP)
3SG.ERG carry-NF 3SG.GEN wife-NOM=really
‘He took [her with him. Now, she is] indeed his wife.’

(4-1015) *ngaya walwandan-Ø=na.* (AP)
1SG.NOM sick-NOM=really
‘I [am] really sick.’

(4-1016) (‘We had a big meal.’)
bolo-Ø bogara-n=na. (AP)
belly-NOM swell.up-NF=really
‘[Our] bellies were really full.’

(4-1017) *bajabajanga-Ø=na.* (AP)
finish.up-IMP=really
‘Eat up [the food].’

(4-1018) *yorra-Ø waga-n=na. jida-da=na.* (AP)
2PL-NOM rise-NF=really morning-LOC=really
‘Get up! [It’s] morning [now].’

(Strong stress is placed on *wa* of *waga-n*, *ji* of *jida-da*, and the two occurrences of =*na*. Note that this sentence expresses order or command, although the verb is in the nonfuture-1 form. See 3.10.2-[3].)

=*na* seems to imply surprise in (4-1019), and contrast in (4-1020).

(4-1019) (‘Long ago, this area was a scrub, but.’)
nyilamo-nga-n=na yarro-Ø waybala-nggo yalga-Ø. (AP)
new-TR-NF=really this-ACC white.man-ERG road-ACC
‘White men have made this road new.’

(4-1020) ('We ran away from a white man. He went south, looking for us.')

ngali-∅ gonggarri-ngal yarro-wo yani-n=na. (AP)
 1DU-NOM north-to here-DAT come-NF=really
 'We have come here, to the north [and not to the south].'

=*na* is attested attached to the following words.

- (a) Noun: NOM and LOC.
- (b) Adverb: one with *-ngal* 'to' (3.8.1-[2]) and one with *-mali* 'side' (3.8.1-[3]).
- (c) Verb: nonfuture-1, -2, imperative.

The meaning of =*na* seems similar to that of =*wa*. Nonetheless, there are two differences between them. First, as noted above, =*na* is often accompanied by a higher pitch, in contrast with =*wa*. Second, =*na* is attested with verbs, whereas =*wa* is not.

[8] =*gowa* 'very' (?)

The meaning of =*gowa*, too, is not understood well. It seems to intensify the meaning. It is tentatively glossed 'very'. It is attested as follows.

<i>ngoni=gowa</i>	'over there'
there, that=very	
<i>ngoni-n-da=gowa</i>	Alf Palmer's translation: 'long time ago'
there, that-LINK-LOC=very	
<i>nyalay=gowa</i>	'a long time ago'
before (of time)=very	
<i>nyilay=gowa</i>	'very soon, immediately'
immediately=very	

(Possibly *nyalay* should be analyzed as *nyalayi*, and *nyilay* as *nyilayi* (see 2.1.5.1.2). Warrongo has the adverb *nyila* 'now, today, immediately' Then, *nyilayi* seems to contain a derivational suffix: *-yi*.) It is not known if the enclitic =*gowa* is related to the adverb *gowa* 'in/to the west'.

[9] =*nyamo* 'enough'

=*nyamo* is generally attached to *ngona-∅* 'that, there-NOM/ACC' and sometimes *yarro-∅* 'this, here-NOM/ACC', and indicates that the amount or degree is sufficient.

(4-1021) *ngona-∅=nyamo gorrbara-∅ ngali-ngo.* (AP)
 that-NOM=enough three-NOM 1DU-GEN
 'Those three [fish are] sufficient for us.'

- (4-1022) *ngali-Ø yarro-Ø=nyamo ganyji-igo*. (AP)
 1DU-ERG this-ACC=enough carry-PURP
 ‘We will carry these [two scrub turkeys; they are] sufficient.’

Ngona-Ø=nyamo often makes a complete sentence: ‘That’s enough’, e.g. (4-751-c), Text 2, Lines 23 and 26.

In the following example, *=nyamo* is attached to a demonstrative word in the LOC. It seems to indicate focus or the like.

- (4-1023) *ngona-n-da=nyamo ngaya waymba-garra-n*. (AP)
 there-LINK-LOC=enough 1SG.NOM walk.about-ITER=NF
 Tentative translation: ‘I walked there.’

Alf Palmer’s gloss for *ngona-n-da=nyamo* is ‘just in that place’

In the other instances, *=nyamo* may possibly intensify the meaning.

- ganba-mara=nyamo* ‘a good while ago’ (*ganba-mara* ‘long ago’ (3.8.1-[7])
 before-very=enough
yama=nyamo ‘so’
 so=enough

The Kukatja language, far south of Djaru of Western Australia, has the word (not an enclitic or a suffix) *nyamu* ‘finish, no more’ (Tjama Freda Napanangka et al. 1997: 8, 9, 202). It may possibly be related to the Warrongo enclitic *=nyamo* ‘enough’.

[10] *=mo* ‘(cause/reason)’

=mo is always attached to a noun in the LOC that indicates cause or reason. Presumably it reinforces the meaning ‘cause, reason’. It is not attached to any other case. It is not attached to the LOC with any meaning other than cause/reason. The noun may be the interrogative member *ngani* ‘what’. Examples of *=mo* include (3-69) and:

- (4-1024) (A sequence of sentences cited from a text)
- ngali-Ø garrbala balga-wa-yal warrngo-ngga=mo*.
 1DU-NOM tomorrow hit-RECP-PURP woman-LOC=CAUSE
 ‘Tomorrow we [i.e. the man and I] will fight over the woman.’
 - ngona-ngomay jana-Ø yani-Ø mayga-gali-yal*
 that-after 3PL-NOM come-NF tell-ANTIP-PURP
ngali-n-go.
 1DU-LINK-DAT
 ‘Then [when we were fighting] they came to tell us.’

- c. *ngali-nya mayga-n.*
1DU-ACC tell-NF
'[They] told us [as follows].'
- d. *nyawa, yobala-Ø ngani-ngga=mo balga-wa-n?*
NEG 2DU-NOM what-LOC=CAUSE hit-RECP-NF
'No. Over what are you fighting?'
- e. *nyawa, wanda-wa-ya.*
NEG leave-RECP-IMP
'No. Leave each other [i.e. Stop fighting].'
- f. *ngani-ngga wanda-wa-ya!*
what-LOC leave-RECP-IMP
'[We asked them,] Shall we stop fighting over what?'
- g. *warrngo-ngga=mo warrngo-ngga=mo.*
woman-LOC=cause woman-LOC=CAUSE
'[They said,] [Stop fighting] over the woman.'

(All the LOC forms are combined with =*mo*, except for *ngani-ngga* in Line f. *Ngali-n-go* in Line b is probably not a Warrongo word. See Table 3-6.)

[11] =*jan* 'now' (?)

There is only one example of =*jan*. Its meaning is not known. It is accompanied by a high pitch. See (4-118). Alf Palmer's translation for it is 'Take him now' =*jan* may indicate emphasis or the like. (Initially, I thought that Alf Palmer said the English word *then*. But when the tape was replayed, he stated to the effect that =*jan* is Warrongo.) Dyirbal has the suffix (enclitic?) *jana* ~ *jan* 'this is the one' (Dixon 1972: 239). It may possibly be related to the Warrongo enclitic =*jan*.

4.26. Interjections

There are a fair number of interjections, some of which were discussed in Chapter 2 Phonology. A full list of attested interjections or the like follows.

- (a) *bowo* 'OK, I/we will go.'
(b) *bowoy* 'OK, you go.' See (2-73). A typical example is (3-262-B).
(c) *gana* 'Yes.'
(d) *ngayi* 'Yes', 'That's right', 'Is that so?', cf. (2-50).
(e) *yiyi* 'Yes', cf. (2-51).
(f) *yiwō* 'Yes.'
(g) *yoway* 'Yes', 'That's right.'
(h) *yowo* 'OK', 'Yes', 'That's right', e.g. (3-265), Text 2, Lines 8, 34, 39. This interjection occurs in Djaru (Tsunoda 1981a: 212).

- (i) *yowoy* 'That's right.' This word occurs in some other Australian languages (Dixon 1972: 18).
- (j) *wowo* 'OK', 'Oh!', e.g. Text 2, Lines 38, 46.
- (k) *ayi* 'Yes' (cf. (2-50)).
- (l) *gowoy* 'Hi', 'Hey' (to someone in the distance). It is a loan word from the Sydney language (2.13.1). It has a verbalized form: *gowoy-bi-L Vi* 'call out' (4.7.1-[3]).
- (m) *wowoy* 'Hi', 'Hey' (to someone in the distance) (see (2-73)).
- (n) *aa* 'Ah', 'Well', 'I see' (an exclamation of admiration, surprise, etc.), e.g. (3-108), (4-947), Text 2, Lines 41, 68, Text 2, Line 7.
- (o) *yayi* 'an exclamation of surprise, fright, etc.', e.g. (4-269-a).
- (p) [je:] 'an exclamation of surprise'. (It is not known how to phonemicize this word.)
- (q) *yaa* 'an exclamation of displeasure or surprise'.
- (r) *gawo* 'a war cry', e.g. Text 3, Line 11. (*Gawo* with an exhortative meaning 'Come on' is found in some other Australian languages (Dixon 1972: 18).)
- (s) *yagay* 'Ouch!' It has verbalized forms: *yagay-bi-L Vi* 'scream' (4.7.1-[3]) and *yagay-nga-L Vt* 'make (someone) scream' (4.7.2-[4]). This interjection is found in some other Australian languages (Dixon 1972: 18).
- (t) [ha:ha:] 'Oh', 'Well.'
- (u) [hai] 'Hi.'

(The present analysis does not set up the phoneme /h/. See 2.1.1.)

Texts

Alf Palmer produced about six hours of running texts in Warrongo. In the main they seem to be stories based on reminiscences of his younger days. They contain references to the traditional way of life, practices, beliefs, myths, etc. No doubt these texts are a rich source of information.

Alf Palmer did not seem to prepare the stories beforehand. He would narrate, say, five or ten minutes and have a break (and I turned off the tape recorder), and after the break he would resume the narration. One tape lasts about 30 minutes, so he may have had a few breaks before the tape ended.

In the stories in the texts, the narrator travels around, visiting many places and encountering many groups. The texts contain many occurrences of pronouns, e.g. *jana-Ø* '3PL-ERG/NOM' and *ngana-Ø* '1PL-NOM/ERG'. But it is often difficult to decide whom in the story the pronoun in question refers to. Also, the viewpoint of the narrator often shifts, e.g. from his own viewpoint to that of a character in the story, to that of another character, and then back to his own, and so on. This viewpoint is frequent, but it will not be commented on at every instance thereof. Due to this viewpoint shift, it is sometimes difficult to decide who uttered a particular sentence – the narrator, a character in the story, or another character, and so on.

In the texts produced below, where this is deemed useful, deletion is indicated by means of square brackets. All the instances of deletion in Texts 1 and 2 that are mentioned in 4.9.4 and 4.9.5 are indicated in this way.

All the pauses are indicated, by a slash. Intonation – rise, fall, or flat – is often indicated.

Text 1: An excerpt from Tape 72/26

Tape 72/26 was recorded on the 24th August 1972. Line 1 is the beginning of Tape 72/26. It seems to describe the continuation of the (imaginary?) travel that was narrated in Tape 72/25. In the excerpt below, Alf Palmer visits many places and then he enters the mythical world and narrates the myth about the origin of water – a story about Blue Tongue Lizard.

1. *ngona-ngomay ngaya yani-Ø* (flat/
that-after 1SG.NOM(S) go,come-NF
'After that (i.e. then) I went [on] [i.e. I resumed my travel].')
2. *gogo-Ø/ gogo-goman~goman-Ø ngaya ,*
language-ACC(O) language-different-different-ACC(O) 1SG.NOM(d-S)

birra-wa-yal jana-ngo-n-da / jana-nggo nganya
 speak-RECP-PURP 3PL-LINK-LINK-LOC 3PL-ERG(A) 1SG.ACC(O)
ngawa-yal (slight rise)/
 hear-PURP

'I intended/wanted to speak [many] different languages to/with them so that they could hear me [speaking many languages].'

(When the tape was replayed, Alf Palmer replaced the first word *gogo-Ø* with *gogo-goman-goman*. The word *jana-ngo-n-da* has a falling intonation, suggesting that the sentence ends here. Furthermore, *ngawa-yal* has a slightly rising intonation, suggesting that the sentence still continues. That is, in terms of intonation contour, Line 2 does not constitute one single unit. But semantically it may be considered a complex sentence (i.e. one single sentence, consisting of two clauses), indicating purpose 'so that could'. Here, as is often the case in these texts, it is not clear whom 'they' refer to. As noted in 1.8.4.1-[2], Alf Palmer knew many languages, and in Line 2 he is saying that he wants these people to appreciate his command of many languages.)

3. *nyi wanyja-ngomay-Ø yinda ngona-Ø gogo-Ø*
 (error) where-ABL-ACC(O) 2SG.ERG(A) that-ACC(O) language-ACC(O)
moga-n (fall)/
 catch-NF

'[They asked me] Where did you catch [i.e. learn] those languages?'

(Note that *ngona* 'that', and not *yarro* 'this', is used here, to refer to the hearer's possession, and not the speaker's possession.)

4. *jamo ngaya=goli / moga-gali-n gogo-nggo* (fall)/
 just 1SG.NOM(d-S)=only catch-ANTIP-NF language-ERG
 '[I replied] I just caught [i.e. learned] [these languages] by myself.'

5. *bama / bama-goman-go yarro-Ø gogo-Ø* (fall)/
 man man-different-DAT this-NOM(S) language-NOM(S)
 '[I said] these languages [are] different men's [i.e. I speak languages of many different groups].'

(When the tape was replayed, Alf Palmer replaced *bama* with *bama-goman-go*. That is, the resultant sentence contains two occurrences of *bama-goman-go*.)

6. *gogo-goman-Ø jana-ngo / worrba-garra-n* (fall)/
 language-different-ACC 3PL-GEN speak-ITER-NF
 'I speak their [i.e. other groups]' [many] different languages.'

(When the tape was replayed, Alf Palmer stated to the effect that *worrba-* is not Warrongo. Indeed, *wurrba-y* Vi 'say, speak, talk' occurs in Dyirbal (which

includes Jirrbal, Girramay and Mamu; Dixon 1972: 408). Alf Palmer replaced *worrba-garra-n* with the Warrongo word *birra-wa-n*, i.e. he gave 6'. *-n* occurs in Dyirbal, too: 'unmarked tense' (Dixon 1972: 55). But *birra-* and *-garra-Y* do not seem to occur in Dyirbal.)

6. *gogo-goman-Ø* *jana-ngo / birra-wa-n /*
 language-different-ACC(O) 3PL-GEN speak-RECP-NF
 'I speak their [i.e. other groups'] [many] different languages.'

(Here, *birra-wa-n* does not seem to have the reciprocal meaning. See 4.12.5-[1].)

7. *ngani-Ø* *yino* *gogo-Ø* (rise)/
 what-NOM 2SG.GEN language-NOM(S)
 '[Someone asked me] What [is] your language?'

8. *ngaygo* *warrongo* (fall)/
 1SG.GEN Warrongo-NOM
 '[I replied] My [language is] Warrongo.'

9. *ngona-Ø* *ngaygo* *gogo-Ø* (fall)/
 that-NOM(S) 1SG.GEN language-NOM
 '[I said] That [is] my language.'

(Note that *ngona* 'that', and not *yarro* 'this', is used here, to refer to the speaker's possession.)

10. *yinda /* *warayi-Ø /* *yino /* *gogo-Ø*
 2SG.NOM(d-S) one's.own-ACC(O) 2SG.GEN language-ACC(O)
yinda / *ngali-Ø* *birra-wa-ya /* [waɹajiete] (fall)/
 2SG.NOM(d-S) 1DU-NOM(d-S) speak-RECP-IMP (error)

(The first five words are pronounced with a hesitating intonation, and possibly Alf Palmer considers them as an error, but I am not certain of this. [waɹajiete] seems to be an error. I suspect that *warayi-da* 'one's.own-LOC' may have been intended. If so, the sentence can be translated as follows: 'Let's you and me speak your own language to/with each other in [your?] own [camp]' When the tape was replayed, Alf Palmer replaced [waɹajiete] with *warayi-bi* 'one's.own-INTR', i.e. 'be one's own, do one's own thing'. (See 4.7.1-[1]-(d-2-3) for *warayi-bi-L*.) Then, the last three words will be as follows.)

- 10'. *ngali-Ø* *birra-wa-ya* *warayi-bi-Ø*.
 1DU-NOM speak-RECP-IMP one's.own-INTR-NF

However, 10' does not seem to make sense. 10'' would be expected.

- 10” *ngali-Ø birra-wa-ya warayi-bi-ya*. (TT)
 1DU-NOM(d-S) speak-RECP-IMP one’s.own-INTR-IMP
 Lit. ‘Let’s speak to/with each other [and] let’s do [our?] own thing’, i.e. ‘Let’s speak [our?] own language to/with each other.’

(A verb with *-bi-L* often modifies another intransitive verb (4.5.4.1-[1]).)

11. *yowo* (fall)/
 OK
 ‘[Someone said] OK.’
12. *ngaya / ngoni-ngomay-Ø yani-Ø* (fall)/
 1SG.NOM(S) there-ABL-NOM go-NF
 ‘I went [away] from there.’
13. *malan-da ngaya wan wa / gonggarri-ngal yani-Ø*
 creek-LOC 1SG.NOM(S) (error) (error) north-to go-NF
ngaya malan-da (fall)/
 1SG.NOM(S) creek-LOC
 ‘I went north along/by a creek.’
14. *ngona-n-da ngaya / ngalwagiri-ngga ngaya ngona-n-da* (flat)/
 that-LINK-LOC 1SG.NOM Abergowrie-LOC 1SG.NOM that-LINK-LOC
 ‘There, in Abergowrie’

(This sentence does not seem completed. Abergowrie is in Warrgamay territory (1.4.1). On the tape I hear [ŋalowagiqi] for *ngalwagiri*, i.e. a vowel between *l* and *w*. In Alf Palmer’s pronunciation, this placename involves a retroflex approximant (i.e. *r̥*). According to Dixon (1981: 119), in Warrgamay this placename is *ngalwagirri* (with an alveolar trill), and not *ngalwagiri* (with a retroflex approximant).)

15. *ngona-ngomay ngaya yani-Ø / wabaja* [a:] / [*ngaya-Ø* TT]
 that-after 1SG.NOM(S) go-NF (error) er [1SG-NOM(S)]
yorroymbi-ngga wona-yal (fall)/ *wabo* /
 Yamanie.Creek-LOC lie,sleep-PURP (error)
 ‘After that, I went to sleep at Yamanie Creek.’

(There is a story about Yamanie, the gigantic eel; see 1.5.3. According to Map 2 of Dixon (1981), Yamanie Creek is in Warrgamay territory.)

16. *yorroymbi-ngomay-Ø yani-Ø / gola* (flat)/
 Yamanie.Creek-ABL-NOM(S) go-NF upstream
 ‘From Yamanie Creek [I] went upstream [along Herbert River].’
17. *banggorro-jolba-y* (fall)/
 turtle-jump-NF
 ‘Turtle Jump.’

(See 1.5.4.3-[3] for this placename.)

18. *banggorro-jolba-y-ngomay-Ø yani-Ø* (flat)/
 turtle-jump-NF-ABL-NOM(S) go-NF
 ‘From Turtle Jump [I] went [on].’
19. *wanggondila* (fall)/
 (placename)
 ‘Wanggondila’

(Alf Palmer said that Wanggondila is a place on Herbert River where there is a big cliff. It may be in Warrgamay territory or in Warrongo territory. This placename is not listed in Dixon’s (1981) Warrgamay vocabulary. This word is interesting phonologically. See 2.2.6.1.)

20. *wanggondila-ngomay-Ø jigirrijigirr* (fall)/
 Wanggondila-ABL-NOM Jigirrijigirr
 ‘From Wanggondila [to] Jigirrijigirr.’

(For *jigirrijigirr*, the dative suffix *-go* would be expected. Although it has no overt case suffix, it is probably neither in the nominative case nor in the accusative case. It is in view of this that its case is not specified. Similarly for *balabala* in Line 22, for instance. Alf Palmer stated that Jigirrijigirr is a place on Herbert River, about 4 or 5 miles below Wanggondila. The word *jigirrijigirr* also means ‘willy wagtail (bird sp.)’ (it is an ideophone; cf. 2.12). Warrgamay has *jinggirrijinggirri* ‘willy wagtail’ (Dixon 1981: 128). This suggests that the place in question may be in Warrongo territory, and not in Warrgamay territory.)

21. *jigirrijigirr-ngomay-Ø yani-Ø* (flat) (very brief pause)
 Jigirrijigirr-ABL-NOM(S) go-NF
 ‘From Jigirrijigirr [I] went.’
22. *balabala* (fall)/
 Balabala
 ‘Balabala.’

(Alf Palmer stated (in 1972) that Balabala is a place on Herbert River where there is a big hole in the river. In 1974, he stated that this place is in the Girramay country, above Wanggondila and 40 to 50 miles above Flaggy (?) Creek.)

23. *balabala-ngomay-Ø yani-Ø* (flat)/
 Balabala-ABL-NOM(S) go-NF
 ‘From Balabala [I] went [on].’

24. *wabajal* (fall)/
Smoko.Creek
'Smoko Creek.'

(On the basis of the information provided by the following two web sites (accessed on 4 March 2009), Smoko Creek is near Blencoe Falls (mentioned in 1.7), and both Smoko Creek and Blencoe Falls are in Warrongo territory.

(i) http://travelingluck.com/Oceania/Australia/Queensland/_2149250_Smoko+Creek.html#local_map, (ii) http://www.epa.qld.gov.au/parks_and_forests/great_walks/wet_tropics/juwun_and_jambal_walks/)

25. *wabajal-ngomay-Ø* *ngaya* *yani-Ø* (flat)/
Smoko.Creek-ABL-NOM 1SG.NOM(S) go-NF
'From Smoko Creek I went [on].'

26. *bajobala* (fall)/
Kirrama.Station
'Kirrama Station.'

(*Bajobala* 'Kirrama Station' plays an important role in the post-contact history of the region. It is mentioned in 1.4.1, 1.5.4.3-[10], 1.7, 1.8.4.1-[1], and 1.8.4.2.)

27. *bajobala-ngomay-Ø* *yani-Ø* (flat)/
Kirrama.Station-ABL-NOM(S) go-NF
'From Kirrama Station I went [on].'

(At this point, I turned off the tape recorder. From here, Alf Palmer pretends to visit the mythical world and narrates the blue tongue lizard story, which concerns the origin of water. Blue Tongue Lizard was the original possessor of water, monopolizing it to all itself.)

28. *banggarra-wo* / *banggarra-wo* *ngaya* *yani-Ø* (flat)/
Banggarra-DAT Banggarra-DAT 1SG.NOM(S) come-NF
'I came to [a place called] Banggarra.'

(*Banggarra* also means 'blue tongue lizard'. Alf Palmer said that the place *Banggarra* is near Cashmere Station and Tiger Mountain (presumably Tiger Hill). In 1974, he said that it is Cameron Hill. See Map 3.)

29. *ngona-ngomay* *ngaya* *banjo-n* *banggarra-Ø* (fall)/
that-after 1SG.ERG(A) ask-NF B.T.L.-ACC(O)
'Then, I asked Blue Tongue Lizard.'

30. *gamo-Ø wanyja-ngomay-Ø yorra-Ø joga-l (fall)/*
 water-ACC(O) where-ABL-ACC(O) 2PL-ERG(A) dip-NF
 Lit. 'Where do you dip [a container and get] water from?', i.e.
 'Where do you scoop water from?'
31. *nyawa / gadala (fall)/*
 NEG dry-NOM
 '[Blue Tongue Lizard replied] No. [This place is] dry [i.e. there is no water here].'

(Blue Tongue Lizard has told a lie, as the ensuing story will reveal.)

32. *ngana-Ø yago-Ø moja-n (fall)/*
 1PL-ERG(A) grass-ACC(O) eat-NF
 'We eat grass [to get moist from it].'
33. *yago-nggo ngana-Ø moja-gali-Ø yarro-n-da (fall)/*
 grass-ERG 1PL-NOM(d-S) eat-ANTIP-NF here-LINK-LOC
 'We eat grass here [to get moist from it].'
34. *ngoni yori-Ø nyaga-Ø yinda (flat; no pause)*
 there kangaroo-ACC(O) look.at-IMP 2SG.ERG(A)
 'Look at the kangaroo there.'
35. *wa ya wo / bang / ngani-Ø / gorrgija-Ø /*
 (error) (error) (error) (error) what-NOM(d-S) water.rat-NOM(d-S)
barngan-Ø / jondol-Ø / warojala-Ø /
 kangaroo.rat-NOM(d-S) pademelon-NOM(d-S) gorge.wallaby-NOM(S)
ngoni jana-Ø yago-nggo baja-gali-n / [jana-Ø TT]
 there 3PL-NOM(d-S) grass-ERG bite-ANTIP-NF [3PL-NOM(d-S)]
ngarro-mba-gali-n gamo-wo (fall)/
 in.vain-TR-ANTIP-NF water-DAT
 'They, including whatsisname the water rat, the kangaroo rat, the pademelon,
 and the gorge wallaby there, they are biting [i.e. chewing] grass [to get moist],
 and trying in vain [to get moist from it].'
36. *wanyja-ngal [jana-Ø TT] ngona-ngomay-Ø yani-Ø (fall)/*
 where-to [3PL-NOM(S)] there-ABL-NOM(S) go-NF
 '[I asked Blue Tongue Lizard, or I wondered] Where are [they] going from
 there?'
37. *galo-Ø ngon ngondo=wa ngoni=wa galo-Ø /*
 mouse-NOM(d-S) (error) over.there=FOC there=FOC mouse-NOM(d-S)
gamo-wo yangga-gali-n / biro-ngga (fall)/
 water-DAT search.for-ANTIP-NF gully-LOC
 'Over there [two mice] are looking for water in the gully.'

(In the myth, two mice look for water. This sentence happens to contain two occurrences of *galo* ‘mouse’, but a repetition of a noun is not a means to indicate a dual number. Similarly for Line 42. *Ngondo=wa* is pronounced with a hesitating intonation, and possibly Alf Palmer considered this word inappropriate in this context. Indeed he said that it belongs to Jalngoy, the avoidance style (1.6.1). The enclitic *=wa* (4.25-[6]) seems to indicate focus or the like. Then, a more precise translation of *ngondo=wa* will be ‘right over there’.)

38. *biro-ngomay biro-ngomany-ja nyola wona-n/ banggarra-Ø /*
 gully-ABL gully-ABL-LOC 3SG.NOM(S) lie-NF B.T.L.-NOM
ngarra-mali (slight rise)/
 up/above-side

Tentative translation: ‘Near the gully, Blue Tongue Lizard is lying on top [of the water, and monopolizing it].’

(The first word is probably an error. Here, the ablative-1 (*-ngomay*) seems to indicate location (3.6.7-[2]). A tentative translation is ‘near the gully’.)

39. *gamba-n nyola gamo-Ø* (fall)/
 cover-NF 3SG.ERG(A) water-ACC(O)
 ‘Blue Tongue Lizard is covering [and hiding] the water’ or ‘Blue Tongue Lizard has covered [and hidden] the water.’

40. *galo-nggo nyonya nyaga-n* (fall)/
 mouse-ERG(A) 3SG.ACC(O) see-NF
 ‘The [two] mice saw [i.e. found] it [i.e. Blue Tongue Lizard].’

41. *galo-nggo nyonya nyaga-n* (rise)/ *wona / wona-n nyola*
 mouse-ERG(A) 3SG.ACC(O) see-NF (error) lie-NF 3SG.NOM(S)
ngarra-mali [nyola TT] gamba-gali-n gamo-nggo (fall)/
 above-side [3SG.NOM(d-S)] cover-ANTIP-NF water-ERG
 Lit. ‘The [two] mice saw it, it was lying on top [of the water] and covering the water’, i.e. ‘The two mice saw Blue Tongue Lizard lying on top of the water and covering it.’

42. *galo-Ø / galo-Ø / yani-Ø [galo-Ø TT] yani-Ø /*
 mouse-NOM(S) mouse-NOM(S) go-NF [mouse-NOM(S)] go-NF
yoray~yoray-Ø (flat)/
 quiet~quiet-NOM
 ‘The two mice kept going quietly [i.e. stalked Blue Tongue Lizard].’

(Repetition of the same verb often indicates continuation or repetition of an action or the like.)

43. *banggarra-Ø / balba-n / gamo-Ø / wadali-yal malan-da* (fall)/
 B.T.L.-ACC(O) roll-NF water-NOM(S) run-PURP creek-LOC
 ‘[The two mice] rolled Blue Tongue Lizard over to let the water run out into the creek.’

(The translation ‘let the water run’ was provided by Alf Palmer.)

44. *ngona-ngomay / yori-Ø / barngan-Ø / gajarra-Ø /*
 that-after kangaroo-NOM(S) kangaroo.rat-NOM(S) possum-NOM(S)
jana-Ø wadali-Ø [jana-Ø TT] gamo-wo bija-gali-yal (fall)/
 3PL-NOM(S) run-NF [3PL-NOM(d-S)] water-DAT drink-ANTIP-PURP
 ‘Then, they, including kangaroos, kangaroo rats and possums, ran [to the creek] to drink water.’

45. *jarribara-Ø jarribara-Ø* (fall; no pause)
 good-NOM good-NOM
 ‘[These animals said] Good [on you]! Good [on you]!’

46. *yarro-Ø yinda gamo-Ø ngana-ngo mo balba-n /*
 this-ACC(O) 2SG.ERG(A) water-ACC(O) 1PL-GEN (error) roll-NF
banggarra-nggo [gamo-Ø TT] gamba-nji (fall)/
 B.T.L.-ERG(A) [water-ACC(O)] cover-PTCP
 ‘You rolled for us this water that the Blue Tongue Lizard had been covering.’

(Since two mice (and not one) are involved, the dual form *yobala-Ø* ‘2DU-ERG’, and not the singular *yinda*, would be expected.)

47. *yowo ngona-Ø=wa nyola* (fall)/
 yes that-NOM=FOC 3SG.NOM(S)

(The meaning of this sentence is not clear. Alf Palmer said that *nyola* refers to Blue Tongue Lizard. Then, a tentative translation will be ‘He is the one indeed’, i.e. ‘He is the bad one indeed’.)

48. *ngana-Ø balga-Ø ngona-Ø banggarra-Ø* (fall)/
 1PL-ERG(A) hit/kill-IMP that-ACC(O) B.T.L.-ACC(O)
 ‘[One of the animals said] Let’s kill that Blue Tongue Lizard.’

49. *nyawa [ngana-Ø banggarra-Ø TT] wanda-Ø [banggarra-Ø TT]*
 NEG [1PL-ERG(A) B.T.L.-ACC(O)] leave-IMP [B.T.L.-NOM(S)]
jago-lji [banggarra-Ø TT] ngana-ngo gamo-wo /
 be.sorry-STAT [B.T.L.-NOM(d-S)] 1PL-GEN water-DAT
mira-nga-gali-yal (fall)/
 made-TR-ANTIP-PURP

Tentative translation: ‘[Another animal said] No. Leave [Blue Tongue Lizard]. It is feeling sorry [for what it has done]. It will find water for us [in the future, when necessary].’

(See 4.7.2-[7]-(c) for *mira-nga-L* ‘make’ The meaning of Line 49 is not known for certain. Nor is it certain if it constitutes one single sentence. Alf Palmer’s translation of *gamo-wo mira-nga-gali-yal* is ‘make water, find water’)

50. *nyola ngan gamo-Ø / boyba-n / ngana / ngana-ngo-n-da* (fall) /
3SG.ERG(A) (error) water-ACC hide-NF (error) 1PL-LINK-LINK-LOC
‘[The same or another animal said] It [i.e. Blue Tongue Lizard] has been hiding
the water from us.’

(Here the locative means ‘[hide something] from [someone]’ See 3.6.3-[5].)

51. *ngona-Ø / jana-Ø / gamo-ngga yodi-garra-n* (fall) /
that,there-NOM(S) 3PL-NOM(S) water-LOC swim-ITER-NF
‘There they [i.e. the animals] are swimming in the water.’

(It seems that this sentence was not uttered by any of the animals but that it is a description by the narrator. Similarly for, e.g., Line 53 and several lines that follow.)

52. *i jarribara-Ø gamo-Ø yarro-wo wadali-n /*
(error) good-NOM(S) water-NOM(S) here-DAT run-NF
ngana-ngo (fall) (no pause) /
1PL-GEN
‘[The animals said] The good water is running here for us.’

(Phonetically, *yarro-wo* is [jaroꝝ], with a very long vowel. The lengthening of the vowel probably expresses joy.)

53. *jana-Ø yodi-garra-n* (fall) /
3PL-NOM(S) swim-ITER-NF
‘They are swimming about.’

54. *ngona-n-da=wa jada ngoni-ngomay-Ø / gani-mara-ngomay-Ø*
yarro-wo yani-Ø [jana-Ø] gamo-wo ganyji-gali-yal (fall) /

(When the tape was replayed, Alf Palmer replaced *jada* with *jana-Ø* (‘3PL-NOM’), as in 54’)

- 54’ *ngona-n-da=wa jana-Ø ngoni-ngomay-Ø /*
that-LINK-LOC=FOC 3PL-NOM(S) there-ABL-NOM(S)
gani-mara-ngomay-Ø yarro-wo yani-Ø [jana-Ø TT] gamo-wo
far-very-ABL-NOM(S) here-DAT come-NF [3PL-NOM(d-S)] water-DAT
ganyji-gali-yal (fall) /
carry-ANTIP-PURP
‘Right there, from there, from very far, they came here to carry water [from here].’

(It is not clear what *ngona-n-da=wa* ‘right there’ means in this sentence.)

55. *ngona-ngomay / jana-Ø yodi-n [jana-Ø TT] yodi-n*
 that-after 3PL-NOM(S) swim-NF [3PL-NOM(S)] swim-NF
[jana-Ø TT] yodi-n [jana-Ø TT] ngaba-garra-n [jana-Ø TT]
 [3PL-NOM(S)] swim-NF [3PL-NOM(S)] bathe-ITER-NF [3PL-NOM(S)]
ngaba-garra-n (flat)/
 bathe-ITER-NF
 ‘Then, they are swimming about and bathing about.’
56. *ngona-ngomay / gorrga ngani / woronbara-ngga gamo-Ø*
 that-after (error) what bark.container-LOC water-ACC(O)
ganyji-n (fall)/
 carry-NF
 ‘Then, [they] are carrying water – *gorrga* whatsisname in a bark container.’

(From around this sentence, Alf Palmer seems to be talking about humans, and not the animals in the mythical world. It is not clear where the narration of the blue tongue myth ends. It seems to be fading in the next episode.)

57. *goman / walwa walwajarri-wo / birngga-yi-wo birngga-yi-d-go*
 (error?) (error?) no.good-DAT (error) grey.hair-COM-LINK-DAT
gamo-Ø ganyji-n (fall)/
 water-ACC(O) carry-NF
 Lit. ‘[They] are carrying water to/for [the people who are] ill and [who] have grey hair’, i.e. ‘They are carrying water to/for the old people who are sick.’

(*Goman* ‘other, different’ and *walwa* ‘no good’ are correct words by themselves, but they seem to be errors in Line 57. *Birngga-yi* ‘grey.hair-COM’, literally ‘[someone] with grey hair’ means ‘old person’ (3.6.8-[5]). The dative form *birngga-yi-d-go* is correct, but *birngga-yi-wo* is an error. See Table 3-11.)

(At this point, I turned off the tape recorder.)

58. *birngga-yi-do gamo-Ø bija-lgo / walwajarri-nggo*
 grey.hair-COM-ERG(A) water-ACC(O) drink-PURP no.good-ERG
bama-nggo (fall)/
 man-ERG(A)
 Either (i) ‘Old and sick men want to drink water.’ or (ii) ‘so that old and sick men can drink water.’

(Line 57 may be considered a complete sentence by itself, and in this case the translation (i) is suitable. However, although the tape recorder was turned off after Line 57 was uttered, Line 58 may be considered subordinate to Line 57, and in this case the translation (ii) is suitable.)

59. *yamba-ngga / ngarro jana-Ø jana-garra-n [jana-Ø TT]*
 camp-LOC in.vain 3PL-NOM(S) stand-ITER-NF [3PL-NOM(S)]
gamo-wo / yani-yal (fall)/
 water-DAT go-PURP

‘In the camp they are trying in vain to stand up to go to/for water.’

60. *nyawa [jana-Ø TT] walwandan-Ø (fall)/*
 NEG [3PL-NOM(S)] ill,sick-NOM
 ‘No. [They are] not well.’

61. *[jana-Ø TT] bonggo-Ø jarra-Ø walwandan-Ø (fall)/*
 [3PL-NOM(S)] knee-NOM(S) leg-NOM(S) ill,sick-NOM
 ‘[Their] knees and legs [are] not well.’

(This sentence involves an expression of ‘whole and part’. Here, the whole and the part are in apposition, both being in the NOM. See 4.20.5 .3)

62. *ngona-ngomay / jana-Ø / birri-n rayi-nba-Ø (flat; no pause)*
 that-after 3PL-ERG(A) send-NF girl-many-ACC(O)
 ‘Then, they sent girls [to fetch water].’

(See 3.7.1-[15] for the human-plural suffix *-nba*.)

63. a. *yorra-Ø yani-ya (fall)/ (I turned off the tape recorder.)*
 2PL-NOM(S) go-IMP

[yorra-Ø TT] gamo-wo ganyji-gali-yal (fall)/
 [2PL-NOM(d-S)] water-DAT carry-ANTIP-PURP

b. *ngana-Ø yarro-n-da [gamo-Ø TT] bija-lgo (fall)/*
 1PL-ERG(A) here-LINK-LOC [water-ACC(O)] drink-PURP

c. *walwa walwajarri-nggo ngana-Ø yarro-n-da [gamo-Ø TT]*
 (error) no.good-ERG(A) 1PL-ERG(A) here-LINK-LOC [water-ACC(O)]
bija-lgo (flat; no pause)
 drink-PURP

‘Go to bring water so that we can drink [water] here, so that we, [who are] not well, can drink [water] here.’

64. *[yorra-Ø TT] ngana-ngo gamo-Ø jarribara-Ø ganyji-ya*
 [2PL-NOM(A)] 1PL-GEN water-ACC(O) good-ACC(O) carry-IMP
ngana (flat)/
 (error)

‘Carry [i.e. bring] good water to us.’

(*Ngana-Ø* means ‘1PL-NOM/ERG’, but it seems to be an error here.)

65. a. *[yorra-Ø TT] woronbara-ngga [gamo-Ø TT] ganyji-ya (fall)/*
 [2PL-NOM(A)] bark.container-LOC [water-ACC(O)] carry-IMP
 ‘Carry [i.e. bring] [water] in bark containers’

- b. [*ngana-Ø gamo-Ø TT*] *gorja-wo / ngaba-ri-lgo* (flat)/
[1PL-ERG(A) water-ACC(O)] native.bee.honey-DAT soak-APPL-PURP
'so that [we] can soak native bees' honey in [the water]'
- c. [*ngana-Ø gamo-Ø TT*] *bija-lgo* (flat)/
[1PL-ERG(A) water-ACC(O)] drink-PURP
'so that [we] can drink [water with honey]'
- d. [*ngana-Ø TT*] *goyba-ra-lgo gamo-Ø / goman~goman-go*
[1PL-ERG(A)] give-many-PURP water-ACC(O) other~other-DAT
jana-ngo (flat)/
3PL-GEN
'so that [we] can give out [water with honey] to them, to different people.'

(See 4.14.3.1-[1]-(a-1) for the applicative verb *ngaba-ri-L* 'soak-APPL'. See 3.11.1.4 for the verbal suffix *-ra* 'many'.)

66. *wanyja-ngomay-Ø yarro-Ø gamo-Ø joga-n* (fall)/
where-ABL-ACC(O) this-ACC(O) water-ACC(O) dip-NF
'[When the girls returned, the old men (?) asked] Where did [you] you dip [a container and get] the water from?' That is: 'Where did you scoop the water from?'
67. [*gamo-Ø TT*] *ngoni-ngomay-Ø banggarra-nggo/ garbi-nji* (fall)
[water-ACC(O)] there-ABL-ACC(O) B.T.L.-ERG(A) hide-PTCP
'[The girls answered] [We scooped the water] from there that Blue Tongue Lizard had been hiding.'

(Line 67 seems to contain elements from both the mythical world and the human world. This is another example to show that, in the texts narrated by Alf Palmer, there is no clear-cut boundary between episodes.)

68. *aa* (fall)/
I.see
[Someone said] 'I see.'
69. *ngona-Ø banggarra-Ø ngana-Ø balga-Ø* (fall)/
that-ACC(O) B.T.L.-ACC(O) 1PL-ERG(A) kill-IMP
'Let's kill that Blue Tongue Lizard.'
70. *nyawa [banggarra-Ø TT] jarribara-Ø gamo-wo* (fall)/
NEG [B.T.L.-NOM(S)] good-NOM good-DAT
Tentative translation: '[Someone else said] 'No. [Blue Tongue Lizard is] good at [finding] water.'

(Alf Palmer's translation of Line 70 is 'Banggarra good to find water'.)

71. [*ngana-Ø* *banggarra-Ø* TT] *wanda-Ø* *ngona-n-da* (fall) /
 [1PL-ERG(A) B.T.L.-ACC(O)] leave-IMP that-LINK-LOC
 ‘Let’s leave [Blue Tongue Lizard] there.’

(After Line 71 in Tape 72/26, Alf Palmer’s narration continues until the end of the tape.)

Text 2: An excerpt from Tape 72/28

Tape 72/28 was recorded on the 28th August 1972. Line 1 below is not the beginning of Tape 72/28, but it is Line 551 when counted from the beginning of the tape. The following excerpt, from Tape 72/28, describes the technique of catching fish by intoxicating them and that of smoking fish, to preserve for future consumption. (During the recording, Alf Palmer halted his narration, and I turned off the tape recorder. After I turned it on, he resumed his narration.)

1. *ngona-ngomay* / *ngona-ngomay* / *ngana-Ø* *yani-Ø* (flat) /
 that-after that-after 1PL-NOM(S) go-NF
 ‘Then, we went [on].’
2. *malan-da* *ngana-Ø* *yani-Ø* [*ngana-Ø* TT] *yani-Ø* (flat) /
 creek-LOC 1PL-NOM(S) go-NF [1PL-NOM(S)] go-NF
 ‘We went on and on along a creek.’
3. [*ngana-Ø* TT] *win.gar-Ø* *nyaga-n* (fall) /
 [1PL-ERG(A)] fish-ACC(O) see-NF
 ‘[We] saw [some] fish [in the creek].’
4. *ngani-nggo* *ngali-Ø* [*win.gar-Ø* TT] *baba-lgo* (fall) /
 what-ERG 1DU-ERG(A) [fish-ACC(O)] stab-PURP
 ‘[I (?) said] What shall we stab [the fish] with?’

(Line 1 has the plural *ngana*, but Line 2 has the dual *ngali*. Probably at this stage Alf Palmer had not decided how many people are traveling in this particular portion of the texts.)

5. *marra-Ø* *ganyji-ya* (rise) / [*marra-Ø* TT] *nga*
 vine.poison-ACC(O) carry-IMP [vine.poison-ACC(O)] (error)
ngani-nga-lgo (rise) / [kk] *gamo-ngga* *jobi-lgo* (rise) /
 what-TR-PURP (error) water-LOC rub-PUR
 ‘Carry [i.e. bring] vine poison to do whatsisname, to rub [it] in the water.’
6. *jana-Ø* *wola-n* *gamo-ngga* (fall) / *gamm* *mangga-ngomay-Ø* (fall) /
 3PL-NOM(S) die-NF water-LOC (error) fruit.poison-ABL-NOM(S)
 ‘They [i.e. fish] die in the water from/because of fruit poison.’

(In Line 6, the nonfuture seems to describe a general truth, and that it indicates ‘generic time’ See 3.10.3. *Mangga* means (i) ‘flower’ and (ii) ‘fruit poison extracted from the fruit of a certain type of a tree’.)

7. *aa* (slight rise) / *wola-n* (sharp fall) /
I.see die-NF
‘[Someone said] I see. Do [they] die [from poison]?’
8. *yowo* (fall) / *wola-n* (fall) /
yes die-NF
‘[I (?) replied] Yes, [they] die.’
9. *ngamba-nga-Ø* (slight rise) / *mangga-Ø* (slight rise) /
half-TR-IMP fruit.poison-ACC(O)
‘Divide up the fruit poison.’
10. *jingga-Ø barri-nggo jingga-Ø jingga-Ø* (flat) / *bomba-bi-yal* (fall) /
punch-IMP stone-ERG punch-IMP punch-IMP dust-INTR-PURP
‘Hit the fruit poison with a stone so that [it] will become [fine like] dust.’

(When the tape was replayed, Alf Palmer added *jara-bi-yal*, i.e. ‘froth-INTR-PURP’ See 10’.)

- 10’ *jingga-Ø barri-nggo jingga-Ø jingga-Ø bomba-bi-yal*
punch-IMP stone-ERG punch-IMP punch-IMP dust-INTR-PURP
jara-bi-yal
froth-INTR-PURP
‘Hit the fruit poison with a stone so that [it] will become [fine like] dust and become [like] froth.’
11. *gamo-wo / gamo-wo goyba-Ø* (slight rise) /
water-DAT water-DAT throw-IMP
‘Throw [the fruit poison] to the water.’
12. *nyina-y nyina-y win.gar-Ø* (fall) / *walngga-garra-n* (fall), *gamo-ngga*
sit-NF sit-NF fish-NOM(S) float-ITER-NF water-LOC
ngarra-mali (fall) /
above-side
(i) ‘[We] will sit [and wait until] the fish float on [the surface of] the water.’
(ii) ‘[We] sat [and waited, and] the fish floated.’

(Both translations seem acceptable for Line 12.)

13. *ngona-ngomay / yinda yani-ya [yinda TT]*
that-after 2SG.NOM(S) go-IMP [2SG.NOM(d-S)]
moga-gali-yal (fall) /
catch-ANTIP-PURP
‘[I (?) said] Then, go to catch [the fish].’

14. *moga-n moga-n moga-n moga-n yinda gagarra-ngga*
 catch-NF catch-NF catch-NF catch-NF 2SG.ERG(A) dilly.bag-LOC
jarga-Ø jarga-Ø (flat) /
 insert-IMP insert-IMP
 '[You] caught [fish] again and again. [I (?) said] Put [the fish] in a dilly bag.'

(Syntactically Line 14 should be divided into two sentences. However, in terms of intonation contour and pause, it is difficult to place a sentence boundary, and it is not known if *yinda* belongs to the first sentence or the second sentence.)

15. [o:] / *ngani-ngga biga-ngga ganyji-ya* (flat) /
 (error) what-LOC fork.stick-LOC carry-IMP
 'Carry [the fish] on whatsisname, on a fork-shaped stick.'

16. *biga-ngga / biga-Ø yinda moga-Ø* (slight rise) /
 (error) fork.stick-ACC 2SG.ERG(A) get-IMP
ganyji-ga-ri-lgo (fall) /
 (error)
 'Get a fork-shaped stick to carry [the fish] on.'

(The first word, *biga-ngga*, is an error here. Also, *ganyji-ga-ri-lgo* is an error. Alf Palmer replaced it with the expected form *ganyji-ri-lgo* 'carry-APPL-PURP', hence the translation given above.)

17. *biga-Ø moga-n* (slight rise) /
 fork.stick-ACC(O) get-NF
 '[Someone said] got a fork-shaped-stick.'

(Lines 14 to 16 are each purported to be uttered by a character in the story. In contrast, in Line 17, Alf Palmer, as the narrator, describes an action by the character[s]. Similarly for Lines 18 to 22.)

18. *warrngo warrngo-nggo biga-Ø moga-n* (slight rise; no pause)
 (error) woman-ERG(A) fork.stick-ACC(O) get-NF
 'A/the woman got a fork-shaped stick.'

19. [o] *bama-nggo bi biga-Ø moga-n* (rise) /
 (error) man-ERG(A) (error) fork.stick-ACC(O) get-NF
 'The/a man got a fork-stick.'

20. *biga-Ø jarga-n* (slight rise) / *biga-ngga jarga-n* (slight rise) /
 (error) insert-NF fork.stick-LOC insert-NF
 '[They] inserted [i.e. pierced] [the fish] onto the fork-shaped sticks.'

21. *biga-ngga jarga-n* (slight rise) /
 fork.stick-LOC insert-NF
 '(As above.)'

22. *biga-ngga jarga-n* (slight rise) /
fork.stick-LOC insert-NF
'(As above.)'
23. *ngona-Ø=nyamo* (fall) /
that-NOM=enough
'[Someone said] That's enough' [or 'That'll do.']

(See 4.25-[9] for the enclitic =*nyamo* 'enough'.)

24. *wanyja nga / wanyja / wanyja-nga-lgo* (fall) , *moja-lgo* (fall) /
(error) (error) (error) where-TR-PURP eat-PURP
'How shall/can [we] eat [these fish]?'

(Here, *wanyja-nga-L* means 'do how' See 4.7.2-[3]-(a).)

25. *yalnyjabara-Ø* (fall) /
many-NOM
'[There are too] many [fish].'
26. *nyawa* (fall) / *ngona-Ø=nyamo* (fall) /
NEG that-NOM=enough
'[The woman said] No. [The fish are not too many. They are] just right.'

(Alf Palmer gave the gloss 'enough, not too may' for *ngona-Ø=nyamo*. Line 27 shows that it was the woman who said Line 26. Then, Lines 23 to 25 must have been uttered by the man.)

27. *warrngo-nggo yama-nga-n* (fall) /
woman-ERG(A) so-TR-NF
'The woman said so.'
28. *bola-nggo wanda-n* (fall) / *garrabala-wo* (slight rise; no pause)
3DU-ERG(A) leave-NF next.day-DAT
'They [i.e. the man and the woman] left [the remaining fish] until the next day.'

(In Lines 27 and 28, Alf Palmer, as the narrator, describes the actions by the characters of the story. The adverb *garrabala* means (i) 'tomorrow', and (ii) '(on) the next day (in the past)').

29. *garrbala yarro-Ø moja-lgo ngana-Ø garrbala* (fall) /
tomorrow this-ACC(O) eat-PURP 1PL-ERG(A) tomorrow
'[The man or the woman said] We will eat these fish tomorrow.'
30. *wanyja-nga-lgo* (fall) / *bajabajanga-lgo* (fall) / [*ngana-Ø* TT] *nyawa* (fall) /
where-TR-PURP finish.up-PURP [1PL-ERG(A)] NEG
'[The same (?) person said] How can [we] finish up [the fish today]?
No [we cannot].'

(Alf Palmer's translation for Line 30 is 'We can't eat all'.)

31. *yarro-Ø* (fall) / *ngana-ngo* (fall) / *nyon.gol-Ø* (fall) / *win.gar-Ø*
 this-ACC(O) 1PL-GEN one-ACC(O) fish-ACC(O)
moja-lgo (fall; no pause)
 eat-PURP
 '[For today] [we] will eat this one fish of ours.'
32. *nyila* (rise) / *garrbala* (rise) / *woga-goman-da* (rise) / *wandi-ya* (fall) /
 today tomorrow asleep-another-LOC hang.up-IMP
 'Hang up [the fish] today, tomorrow and on the day after tomorrow.'
33. a. *joga-ngga wandi-ya* (fall) /
 smoke-LOC hang.up-IMP
 b. *walwa-bi-l marbal-Ø* (fall) /
 bad-INTR-NF housefly-NOM(S)
 c. *marba-do bon.go-Ø* (flat) / *galga-lga* (fall) /
 housefly-ERG(A) maggot-ACC(O) put.down-APPR
 d. *ngana-Ø jarribara-Ø moja-lgo* (fall) /
 1PL-ERG(A) good-ACC(O) eat-PURP

(Clause b literally means 'The house flies become bad', but this does not seem to make sense here. When the tape was replayed, Alf Palmer replaced it with b'.)

- b'. *walwa-bi-lga marbal-ngomay-Ø*
 bad-INTR-APPR housefly-ABL-NOM(S)

(Then, the entire sentence can be translated as follows: 'Hang up [the fish] in smoke, lest [they] become bad because of the house flies, lest the house flies lay maggots [on the fish], so that we can eat nice [fish]'.)

34. *yowo* (fall) /
 OK
 '[The other person said] OK.'
35. *joga-ngga wandi-n* (slight rise) /
 smoke-LOC hang.up-NF
 '[They] hung up [the fish] in the smoke.'

(Here, Alf Palmer, as the narrator, describes an action by the characters of the story. Similarly for Line 37.)

36. *yama-nga-Ø gana-ngga yamba-ngga gana-ngga* (rise) /
 thus-TR-IMP inside-LOC camp/house-LOC inside-LOC
 'Do so [i.e. Hang the fish like this] inside the house.'

(Alf Palmer's translation for *yama-nga-Ø* is 'Hang like this'.)

37. *ngona-ngomay / mojan-n moja-n mojan* (flat; no pause)
that-after eat-NF eat-NF eat-NF
'Then [i.e. after the fish had been smoked] [they] ate and ate [the fish].'
38. *wowo* (fall) *jarribara-Ø* (fall) / *joga-ngomay-Ø* (slight rise; no pause)
Oh good-NOM smoke-ABL-NOM(S)
'[Someone said] Oh! [The fish] from the smoke [i.e. the smoked fish] [is] tasty.'
39. *yowo* (fall) *joga-ngomay-Ø* *jarribara-Ø* (fall) /
Yes smoke-ABL-NOM(S) good-NOM
'[Another person said] Yes, smoked [fish is] tasty.'
40. *gajarra-Ø* (rise) / *win.gar-Ø* (rise) / *moja-n* (rise) *ngana-Ø* *ganba-mara* (fall) /
possum-ACC(O) fish-ACC(O) eat-NF 1PL-ERG(A) before-very
'We used to eat [smoked] possum [meat] and fish long ago.'
41. *aa / yinda* *jilbay-Ø* (sharp fall) /
I.see 2SG.NOM(S) knowing-NOM
'[Someone said] I see. You know [the smoking technique]!'
42. *ngaya* *jilbay-Ø* (fall) /
1SG.NOM(S) knowing-NOM
'[Another person said] [Yes] I know [it].'
43. *ngana-Ø* *jabon-bara-Ø* (fall) /
1PL-NOM(S) coast-denizen-NOM
'[The same person (?) said] We [are] coastal people.'
44. *yinda* *gambila-barra-Ø* (fall) /
2SG.NOM(S) western.region-denizen-NOM
'[The same person (?) said] You [are a] westerner [i.e. an inland person].'
- (See 3.7.1-[1] for *gambila-barra* 'person from the west')
45. *nyando-Ø* (fall) /
not.knowing-NOM
'[So] you do not know [the smoking technique].'
46. *wowo ngana-Ø* / *goyba-ra-n* (slight fall) /
Oh 1PL-ERG(A) give-many-NF
'[The westerner replied] We give out [food that had gone bad].'
47. *gayga-bi-n* *win.gar-Ø* (fall) / *gajarra-Ø* (slight fall) / *gani*
rotten-INTR-NF fish-NOM(S) possum-NOM(S) far
goyba-n (fall) *gando-wo* (fall) /
throw-NF dog-DAT
'Whenever fish [and] possum [meat] get rotten, [we] throw [them] away to dogs.'

(*Gani goyba-L*, literally 'far throw', often means 'throw away, discard').
(In Tape 72/28, Alf Palmer's narration continues after Line 47.)

Text 3: An excerpt from Tape 72/23

Tape 72/23 was recorded on the 26th July 1972. Line 1 is the beginning of Tape 72/23. It seems to describe the continuation of the (imaginary?) travel that was narrated in Tape 72/21, which had been recorded on the same day. The story that is presented concerns an (inter-tribal?) fight.

1. *ngona-ngomay ngaya golmi yani-Ø nyaga-gali-yal /*
that-after 1SG.NOM(S) back come-NF see-ANTIP-PURP
'Then, I went back to see [my family].'
2. *yarro-wo yinda galbin-Ø / golmi yani-Ø /*
here-DAT 2SG.NOM(S) child-NOM back come-NF
'[My uncle (MB) said to me] You, [my] child, have come back here.'

(*Galbin* seems to mean '(a male EGO's) child (i.e. a son or a daughter)' It is not known why this word was used in this context.)

3. *yarro=wa ngaya galnga-Ø /*
here=FOC 1SG.NOM(S) MB-NOM
'[I replied] I [am] right here, Uncle.'
4. *golmi yani-Ø yino-n-go /*
back come-NF 2SG-LINK-DAT
'[I] have come back to you.'
5. *yinda nganya mayga-n golmi yani-yal /*
2SG.ERG(A) 1SG.ACC(O) tell-NF back come-PURP
'You told me to come back.'
6. *yowo ngaya / mayga-n yina golmi yani-yal /*
yes 1SG.ERG(A) tell-NF 2SG.ACC(O) back come-PURP
'[My uncle said] Yes, I told you to come back.'
7. *yarro-wo yinda / yarro-n-da nyina-ya /*
here-DAT 2SG.NOM(S) here-LINK-LOC sit-IMP
'Stay here [with us].'

(The intonation indicates that Alf Palmer considers *yarro-wo* an error.)

8. (The uncle is expecting an attack from the enemies.)
jana-Ø / nyila yani-yi / ngana-Ø yarro-n-da
3PL-NOM(S) soon come-PURP 1PL-NOM(d-S) here-LINK-LOC
balga-wa-yal /
hit-RECP-PURP
Lit. 'When/if they come [here] soon, we [i.e. they and we] will hit each other.'

9. *aa / ngaya yama-nga-n aa /*
 I.see 1SG.ERG(A) so-TR-NF I.see
 ‘‘I see.’’ I said like this. ‘‘I see.’’
10. *ngona-ngomay / woma-ngga ngaya nyina-n nyina-n nyina-n /*
 that-after shade-LOC 1SG.NOM(S) sit-NF sit-NF sit-NF
 ‘Then, I kept sitting in the shade [and waited for the enemies].’
11. *ngawa-n ngaya / [kaokao] gawali-n jana-Ø /*
 hear-NF 1SG.ERG(A) (war cry) call.out-NF 3PL-NOM(S)
 ‘I heard them shouting [kaokao].’
12. *yarro jana-Ø yani-Ø / garrgaro-yi-Ø /*
 this,here 3PL-NOM(S) come-NF shout-COM-NOM
 ‘They were coming here, with the shout.’

(*Garrgaro* is a noun, and it refers to a type of shout that is used to inform other people, e.g. before a fight. Probably it refers to the war cry [kaokao].)

(At this point, I turned off the tape recorder. Then, I turned it on, too late to record the first word of the next sentence.)

13. (unrecorded word) *banda-n /*
 emerge-NF
 ‘[The enemies?] emerged [here]’, i.e. ‘They arrived.’
14. *boron-da banda-n jana-Ø /*
 fighting.ground-LOC emerge-NF 3PL-NOM(S)
 ‘They came out to (or, arrived at) the fighting ground.’
15. *ngona-n-da / nyon.gol-Ø / mara-ngarra-Ø / ganba nyola*
 there-LINK-LOC one-NOM hand-high-NOM in.front 3SG.NOM(S)
wadali-n /
 run-NF
 ‘There, one [man], the leader is running in front.’

(See 3.7.3-[1] for *mara-ngarra* ‘hand-high’, i.e. ‘leader’.)

16. *yamba-nggo nyawo-gali-n /*
 camp-ERG go.round-ANTIP-NF
 ‘[He] was going round the camp.’
17. *nyawo-n nyawo-n nyawo-n /*
 go.round-NF go.round-NF go.round-NF
 ‘[He] kept going round [the camp].’

(*Nyawo-L* is a transitive verb that means ‘go round [a place]’ Line 16 contains its antipassive form.)

18. *golmi yani-Ø /*
back go-NF
'[He] went back [to his group].'
19. *ngona-ngomay / jana-Ø jana-ra-n /*
that-after 3PL-NOM(S) stand-many-NF
'Then, they stood about.'

(See 3.11.1.4 for *jana-ra-L* Vi '[all] stand about'.) (At this point, I turned off the tape recorder.)

20. *jana-Ø / waga-n / [jana-Ø TT] baba-wa-yal /*
3PL-NOM(S) rise-NF [3PL-NOM(d-S)] stab-RECP-PURP
'They got up to spear each other.' (S=[d-S])

(This sentence, which contains a reciprocal verb, conforms to syntactic ergativity. See 4.12.3-[6].)

21. *baba-wa-n jana-Ø baba-wa-n baba-wa-n*
stab-RECP-NF 3PL-NOM(d-S) stab-RECP-NF stab-RECP-NF
baba-wa-n /
stab-RECP-NF
'They kept spearing each other.'
22. *bonbarra-nga-n nyon.gol-Ø /*
wounded.person-TR-NF one-ACC(O)
Lit. '[They] made one [man] a wounded person', i.e. 'They wounded one man.'
23. *bonbarra-nga-n goman-Ø /*
wounded.person-TR-NF another-ACC(O)
Lit. '[They] made another [man] a wounded person', i.e. 'They wounded another man.'
24. *bolari-nga-n / bonbarra-nga-n /*
two-TR-NF wounded.person-TR-NF
'[They] wounded two [men].'
25. *ngona-ngomay ganyji-n yamba-wo /*
that-after carry-NF camp-DAT
'After that, [other people?] carried [one of the wounded men] to the camp.'
26. *ngona-Ø / ngani-Ø / banggoy-Ø jana-nggo moga-n /*
that-ACC(O) what-ACC(O) green.frog-ACC(O) 3PL-ERG(A) catch-NF
goyba-lgo nyongo nyola moja-lgo /
give-PURP 3SG.GEN 3SG.ERG(A) eat-PURP
'They caught that, whatsisname, a green frog so that they could give [it] to him so that he could eat [it].'

(Alf Palmer stated that green frogs were eaten as medicine.)

27. *ngana-Ø ngona-Ø /*
1PL-ERG(A) that-ACC

(Alf Palmer could not continue the story, and I turned off the tape recorder.)

28. *ngana-Ø ngona-Ø / ganyji-n yamba-wo / morran-ji-Ø /*
that-ACC 1PL-ERG(A) carry-NF camp-DAT illness-COM-ACC(O)
'We carried that sick [man, i.e. wounded man] to the camp.'

29. *ganyji-n ganyji-n yamba-ngga wanda-n /*
carry-NF carry-NF camp-LOC leave-NF
'[We] carried [him and] left [him] in the camp.'

30. *gobi-nggo / ngana-nya mayga-n* (no pause)
native.doctor-ERG(A) 1PL-ACC(O) tell-NF
'The native doctor said to us.'

(See 1.5.8-[7] for *gobi* 'native doctor'.)

31. *yarro-n-da wanda-Ø / ngaya / wamay-nga-lgo wanda-nyo*
here-LINK-LOC leave-IMP 1SG.ERG(A) good-TR-PURP leave-PTCP
ngona-n-da yamba-ngga /
that-LINK-LOC camp-LOC
'Leave [the wounded man] so that I will cure [him] after [you] leave [him] in that camp.'

(Lines 30 and 31 constitute an instance of direct speech.)

32. *ngona-ngomay / nyola wamay-n-bi-n / ngaya ganyji-lgo /*
that-after 3SG.NOM good-LINK-INTR-NF 1SG.ERG(A) carry-PURP
yino-n-go / ngoni-n-da yinda / nyaga~nyaga-lgo /
2SG-LINK-DAT there-LINK-LOC 2SG.ERG(A) see~see-PURP
'Then, he became well [and] I brought [him] to you so that you would mind [him].'

(See 3.11.2 for *nyaga~nyaga-L* 'see-see', i.e. 'mind'.)

(The story continues until the end of Tape 72/23.)

References

- Allingham, Anne
1993 Burdekin frontier. In *Race Relations in North Queensland*, Henry Reynolds (ed.), 115–130. Townsville: James Cook University.
- Atkinson, R. L.
1979 *Northern Pioneers*. Townsville: The author.
- Austin, John L.
1975 *How to Do Things with Words*. 2d ed. Cambridge, MA: Harvard University Press. First edition, 1962.
- Austin, Peter
1981 *A Grammar of Diyari, South Australia*. Cambridge: Cambridge University Press.
- Baker, Brett
2002 ‘I’m coming to where-her-brisket-is’: Placenames in the Roper. In *The Land is a Map[.] Placenames of Indigenous Origin in Australia*, Luise Hercus, Flavia Hodges, and Jane Simpson (eds.), 103–129. Canberra: Pandanus Books.
- Benveniste, Emile
1971 Delocutive verbs. In *Problems in General Linguistics*, Emile Benveniste, 239–246. (Translated by Mary Elizabeth Meek.) Coral Gables, Florida: University of Miami Press. Paper originally published in 1966.
- Berndt, Ronald M. and Catherine H. Berndt
1968 *The World of the First Australians*. Sydney: Ure Smith. Original edition, London: Angus and Robertson, 1964.
- Blake, Barry J.
1979 *A Kalkatungu Grammar*. Canberra: Pacific Linguistics.
- Blake, Barry J.
1985 Case markers, case and grammatical relations: An addendum to Goddard. *Australian Journal of Linguistics* 5 (1): 79–84.
- Blake, Barry J.
1991 Woiwurrung, the Melbourne language. In Dixon and Blake (eds.), [30]–122.
- Blake, Barry J.
1994 Case. Cambridge: Cambridge University Press.
- Blake, Barry J. and J. Gavan Breen
1971 *The Pitta-Pitta Dialects*. (Linguistic Communications 4.) Melbourne: Monash University.
- Bolton, Geoffrey C.
1975 *A Thousand Miles Away[.] A History of North Queensland to 1920*. Canberra: Australian National University Press. First printing, 1963.
- Brayshaw, Helen
1990 *Well Beaten Paths[.] Aborigines of the Herbert Burdekin District, North Queensland[.] An Ethnographic and Anthropological Study*. Townsville: James Cook University of North Queensland.

- Breen, J. Gavan
1971 A description of the Warluwara language. M.A. thesis, Monash University.
- Breen, J. Gavan
1973 *Bidyara and Gungabula Grammar and Dictionary*. (Linguistic Communications 8.) Melbourne: Monash University.
- Breen, J. Gavan
1976 [Topic A: The derivational affix 'having'] 29. Proprietary markers and kinship terms. In Dixon (1976a: 290–297).
- Breen, J. Gavan
1981 Margany and Gunya. In Dixon and Blake (eds.), [274]–393.
- Breen, J. Gavan and Barry J. Blake
2007 *The Grammar of Yalarnnga[.] A Language of Western Queensland*. Canberra: Pacific Linguistics.
- Bynon, Theodora
1977 *Historical Linguistics*. Cambridge: Cambridge University Press.
- Capell, Arthur
1966 *A New Approach to Australian Linguistics*. (Oceania Linguistic Monographs No. 1.) Sydney: University of Sydney. First printing, 1956.
- Carron, William
1996 *William Carron's Narrative of Kennedy's Cape York Expedition*. Bundaberg, Queensland: Corkwood Press. Original edition, Sydney: Kemp and Fairfax, 1849.
- Chomsky, Noam and Morris Halle
1968 *The Sound Pattern of English*. New York: Harper & Row.
- Chvany, Catherine V.
1973 On the role of presuppositions in Russian existential sentences. In *Papers from the Ninth Regional Meeting Chicago Linguistic Society*, Claudia Corum, T. Cedric Smith-Stark, and Ann Weiser (eds.), 68–77. Chicago: Chicago Linguistic Society.
- Clarke, Philip
2003 *Where the Ancestors Walked[.] Australia as an Aboriginal Landscape*. Crows Nest, New South Wales: Allen & Unwin.
- Comrie, Bernard
1974 Causatives and universal grammar. *Transactions of the Philological Society* 1974: 1–32.
- Comrie, Bernard
1978a *Aspect*. Cambridge: Cambridge University Press. First edition, 1976.
- Comrie, Bernard
1978b Ergativity. In *Syntactic Typology[.] Studies in the Phenomenology of Languages*, Winfred P. Lehmann (ed.), 329–394. Austin and London: University of Texas Press.
- Comrie, Bernard
1981a *Language Universals and Linguistic Typology[.] Syntax and Morphology*. Oxford: Basil Blackwell.
- Comrie, Bernard
1981b *The Languages of the Soviet Union*. Cambridge: Cambridge University Press.

- Comrie, Bernard
1984 Some formal properties of focus in Modern Eastern Armenian. *Annual of Armenian Linguistics* 5: 1–21.
- Comrie, Bernard
1985 Causative verb formation and other verb-deriving morphology. In *Grammatical Categories and the Lexicon (Language Typology and Syntactic Description III)*, Timothy Shopen (ed.), 307–348. Cambridge: Cambridge University Press.
- Crowley, Terry
1978 *The Middle Clarence Dialects of Bandjalang*. Canberra: Australian Institute of Aboriginal Studies.
- Curr, Edward M.
1887 *The Australian Race: Its Origin, Languages, Customs, Place of Landing in Australia, and the Routes by Which It Spread Itself over That Continent*. Melbourne: John Ferres, Government Printer.
- Dixon, Robert M. W.
1970 Languages of the Cairns rain forest region. In Wurm and Laycock (eds.), 651–687.
- Dixon, Robert M. W.
1971 A method of semantic description. In *Semantics[.] An Interdisciplinary Reader in Philosophy, Linguistics and Psychology*, Danny D. Steinberg and Leon A. Jakobovits (eds.), 436–471. Cambridge: Cambridge University Press.
- Dixon, Robert M. W.
1972 *The Dyirbal Language of North Queensland*. Cambridge: Cambridge University Press.
- Dixon, Robert M. W.
1976b [Topic A: The derivational affix ‘having’] 9. Rapporteur’s introduction. In Dixon (1976a: 203–204).
- Dixon, Robert M. W.
1977a Delocutive verbs. In *Studies in Descriptive and Historical Linguistics[.] Festschrift for Winfred P. Lehmann*, Paul J. Hopper (ed.) with the collaboration of Harriet G. Penensick and Jerome Bunnag, 21–38. Amsterdam: John Benjamins.
- Dixon, Robert M. W.
1977b *A Grammar of Yidiñ*. Cambridge: Cambridge University Press.
- Dixon, Robert M. W.
1979 Ergativity. *Language* 55 (1): 59–138.
- Dixon, Robert M. W.
1980 *The Languages of Australia*. Cambridge: Cambridge University Press.
- Dixon, Robert M. W.
1981 Warrgamay. In Dixon and Blake (eds.), [xxiv]–144.
- Dixon, Robert M., W.
1982 Dyirbal thesaurus and dictionary. Handout for a paper presented at the Australian Linguistic Society Conference on the 23rd August 1982, at the University of Sydney.
- Dixon, Robert M. W.
1983 Nyawaygi. In Dixon and Blake (eds.), [430]–525.

- Dixon, Robert M. W.
 1989a *Searching for Aboriginal Languages*. Chicago and London: University of Chicago Press. Original edition, Brisbane: University of Queensland Press, 1984.
- Dixon, Robert M. W.
 1989b The Dyirbal kinship system. *Oceania* 59 (4): 245–268.
- Dixon, Robert M. W.
 1991a *Words of Our Country[:] Stories, Place Names and Vocabulary in Yidiny, the Aboriginal Language of the Cairns-Yarrabah Region*. St. Lucia, Brisbane: University of Queensland Press.
- Dixon, Robert M. W.
 1991b Mbabaram. In Dixon and Blake (eds.), [348]–402.
- Dixon, Robert M. W.
 1994 *Ergativity*. Cambridge: Cambridge University Press.
- Dixon, Robert M. W.
 2002 *Australian Languages*. Cambridge: Cambridge University Press.
- Dixon, Robert M. W. (ed.)
 1976a *Grammatical Categories in Australian Languages*. Canberra: Australian Institute of Aboriginal Studies, and New Jersey: Humanities Press.
- Dixon, Robert M. W. and Barry J. Blake (eds.)
 1981 *Handbook of Australian Languages* Vol. 2. Canberra: Australian National University Press.
- Dixon, Robert M. W. and Barry J. Blake (eds.)
 1983 *Handbook of Australian Languages* Vol. 3. Canberra: Australian National University Press.
- Dixon, Robert M. W. and Barry J. Blake (eds.)
 1991 *The Handbook of Australian Languages* Vol. 4. Melbourne: Oxford University Press.
- Dixon, Robert M. W., William S. Ramson, and Mandy Thomas
 1990 *Australian Aboriginal Words in English*. Melbourne: Oxford University Press.
- Donohue, Mark
 2007 *Wulguru[:] A Salvage Study of a North-eastern Australian Language from Townsville*. Muenchen: Lincom Europa.
- Donaldson, Tamsin
 1980 *Ngiyambaa[:] The language of the Wangaaybuwan*. Cambridge: Cambridge University Press.
- Dorian, Nancy C.
 1973 Grammatical change in a dying dialect. *Language* 49 (2): 413–438.
- Eades, Diana
 1976 [Topic A: The derivational affix ‘having’] 17. Gumbaynggir. In Dixon (1976a: 238–242).
- Evans, Nicholas D.
 1995 *A Grammar of Kayardild[:] With Historical-Comparative Notes on Tangkic*. Berlin/New York: Mouton de Gruyter.
- Evans, Nicholas and David Wilkins
 2000 In the mind’s ear: The semantic extensions of perception verbs in Australian languages. *Language* 76 (3): 546–592.

- Farnfield, Jean
1968 *Frontiersman[.] A Biography of George Elphinstone Dalrymple*. Melbourne: Oxford University Press.
- Flood, Josephine
1995 *Archaeology of the Dreamtime[.] The Story of Prehistoric Australia and its People*. Revised edition. Sydney: Angus and Robertson. First edition, 1983.
- Foley, William A. and Robert D. Van Valin, Jr.
1984 *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press.
- Foote, Tom and Allen Hall
1992 *Kuuk Thaayorre Dictionary*. Published by Myrtle Foote, Georgina Norman, and Allen Hall.
- Gerts, Donna B.
1980 Antipassives and causatives in Halkomelen. In *Proceedings of the Sixth Annual Meeting of the Berkeley Linguistics Society*, Bruce R. Caron, Meredith A. B. Hoffman, Marilyn Silva, Jeanne Van Oosten, Danny Keith Alford, Karen Ann Hunold, Monica Macaulay, and John Manly-Buser (eds.), 300–314. Berkeley: Berkeley Linguistics Society.
- Givón, Talmy
1983 Topic continuity in discourse: An introduction. In *Topic Continuity in Discourse: A Quantitative Cross-Language Study*, T. Givón (ed.), 1–41. Amsterdam/Philadelphia: John Benjamins.
- Goddard, Cliff
1982 Case systems and case marking in Australian languages. *Australian Journal of Linguistics* 2 (2): 167–196.
- Goddard, Cliff (compiler)
1992 *Pitjantjatjara/Yankunytjara to English Dictionary*. 2d ed. Alice Springs, Australia: Institute for Aboriginal Development.
- Goetz, Harry and Peter Sutton
1986 Conflicts with native police. In *This is What happened: Historical Narratives by Aborigines*, Luise Hercus and Peter Sutton (eds.), 205–215. Canberra: Australian Institute of Aboriginal Studies.
- Govor, Elena
2000 *My Dark Brother[.] The Story of the Illins, a Russian-Aboriginal Family*. Sydney: University of New South Wales Press.
- Greenberg, Joseph H.
1978 Some universals of grammar with particular reference to the order of meaningful elements. In *Universals of Language*, Joseph H. Greenberg (ed.), 73–113. 2d ed. Cambridge, MA: MIT Press. First edition, 1963.
- Gregory, Augustus Charles and Francis Thomas Gregory
1968 *Journals of Australian Explorations*. New York: Greenwood Press. Original edition, James C. Beale, 1884.
- Grinevald, Colette
2007 Linguistic fieldwork among speakers of endangered languages. In *The Vanishing Languages of the Pacific Rim*, Osahito Miyaoka, Osamu Sakiyama, and Michael E. Krauss (eds.), 35–76. Oxford: Oxford University Press.

- Hale, Kenneth
1967 Preliminary remarks on Warlbiri grammar, I. Typescript. Cambridge, MA: MIT.
- Hale, Kenneth
1976 [Topic B: Ergative, locative and instrumental case inflections] 34. *Dja:bugay*. In Dixon (1976a: 321–326).
- Hale, Kenneth
1983 Warlpiri and the grammar of non-configurational languages. *Natural Language and Linguistic Theory* 1 (1): 5–47.
- Hankamer, Jorge and Judith Aissen
1974 The sonority hierarchy. In *Papers from the Parasession on Natural Phonology*, Anthony Buck, Robert A. Fox, and Michael W. La Galy (eds.), 131–145. Chicago: Chicago Linguistic Society.
- Harvey, Mark
2002 *A Grammar of Gaagadju*. Berlin/New York: Mouton de Gruyter.
- Haviland, John
1979 Guugu Yimidhirr. In *Handbook of Australian Languages* Vol. 1, R. M. W. Dixon and Barry J. Blake (eds.), [26]–180. Amsterdam: John Benjamins.
- Hawkins, John A.
1983 *Word Order Universals*. New York: Academic Press.
- Heath, Jeffrey
1975 Some functional relationships in grammar. *Language* 51 (1): 89–104.
- Heath, Jeffrey
1976 77. ‘Ergative/accusative’ typologies in morphology and syntax. In Dixon (1976a: 599–611).
- Heath, Jeffrey
1978 *Linguistic Diffusion in Arnhem Land*. Canberra: Australian Institute of Aboriginal Studies.
- Henry, Gladys J.
1967 “*Girroo Gurril*” *The First Surveyor and Other Aboriginal Legends*. Brisbane: W. R. Smith & Paterson.
- Hershberger, R. and E. V. Pike
1970 Stress as related to the grammar of Gugu-Yalanji. In Wurm and Laycock (eds.), 791–810.
- Hiddins, Les (compiler)
1998 *The Complete Jardine Expedition Journals*. Adelaide: Corkwood Press. Original edition, Brisbane: J. W. Buxton, 1867, and Brisbane: G. Wight, 1867.
- Hinton, Leanne
1994 *Flutes of Fire[:] Essays on Californian Languages*. Berkeley: Heyday Books.
- Hooper, Joan B.
1976 *An Introduction to Natural Generative Phonology*. New York: Academic Press.
- Hopper, Paul J. and Sandra A. Thompson
1980 Transitivity in grammar and discourse. *Language* 56 (2): 251–299.

- Ikegami, Yoshihiko
1985 'Activity' – 'accomplishment' – 'achievement'. A language that can't say 'I burned it, but it didn't burn' and one that can. *Linguistics and Philosophy* [.] *Essays in Honor of Rulon S. Wells*, Adam Makkai and Alan K. Melby (eds.), 265–304. Amsterdam/ Philadelphia: John Benjamins.
- Irie, Koji
1996 Modern Icelandic *-st* reciprocal verbs. *Tokyo University Linguistics Papers* 15: 273–296.
- Iwamoto, Yutaka
1966 *Sansukuritto Bunpoo Kooyoo* [Compendium of Sanskrit Grammar]. 2d ed. Toyo: Sankiboo Busshorin. First edition, 1965.
- Jakobson, Roman, C. Gunnar M. Fant, and Morris Halle
1967 *Preliminaries to Speech Analysis* [.] *The Distinctive Features and their Correlates*. 7th printing. Cambridge, MA: MIT Press.
- Jakobson, Roman C.
1971 Typological studies and their contribution to historical linguistics. In *Roman Jakobson Selected Writings* 1: 523–532. The Hague: Mouton.
- Jespersen, Otto
1924 *The Philosophy of Grammar*. London: George Allen & Unwin.
- Jones, Dorothy
1970 *Cardwell Shire History*. Brisbane: Jacaranda Press. First printing, 1961.
- Kemmer, Suzanne
1993 *The Middle Voice*. Amsterdam/Philadelphia: John Benjamins.
- Kendon, Adam
1988 *Sign Language of Aboriginal Australia* [.] *Cultural, Semiotic and Communicative Perspectives*. Cambridge: Cambridge University Press.
- Kimberley Language Resource Centre
1992 *Jaru Dictionary*. Halls Creek, Australia: Kimberley Language Resource Centre.
- Labov, William
1972 *Sociolinguistic Patterns*. Oxford: Basil Blackwell.
- Ladefoged, Peter
1975 *A Course in Phonetics*. New York: Harcourt Brace Jovanovich.
- Lass, Roger
1991 *Phonology*. Cambridge: Cambridge University Press. First printing, 1984.
- Leichhardt, Ludwig
1996 *Journal of an Overland Expedition in Australia, from Moreton Bay to Port Essington, a Distance of Upward of 3000 Miles, during the Years 1844–1845*. Adelaide: Corkwood Press. Original edition, London: T. & W. Boone, 1847.
- Lumholtz, Carl
1980 *Among Cannibals: Account of Four Years Travels in Australia, and of Camp Life with the Aborigines of Queensland*. Canberra: Australian National University Press. Original edition, London: J. Murray, 1989.
- Lyons, John
1968 *Introduction to Theoretical Linguistics*. Cambridge: Cambridge University Press.

- Mallinson, Graham
1986 *Rumanian*. Beckenham, Kent: Croom Helm.
- McConvell, Patrick
2008 Grand-Daddy morphs[.] The importance of suffixes in reconstructing Pama-Nyungan. In *Morphology and Language History[.] In Honour of Harold Koch*, Claire Bower, Bethwyn Evans, and Luisa Miceli (eds.), 319–333. Amsterdam/Philadelphia: John Benjamins.
- McGregor, William
1988 On the status of the feature rhotic in some languages of the north-west of Australia. *Aboriginal Linguistics* 1: 166–187.
- McGregor, William
1990 *A Functional Grammar of Gooniyandi*. Amsterdam/Philadelphia: John Benjamins.
- McGregor, William
1998 Applicative constructions in Warrwa. In Siewierska and Song (eds.), 171–199.
- Mithun, Marianne
1988 The grammaticization of coordination. In *Clause Combining in Grammar and Discourse*, John Haiman and Sandra A. Thompson (eds.), 331–359. Amsterdam/Philadelphia: John Benjamins.
- Mithun, Marianne
2001 Who shapes the record: the speaker and the linguist. In *Linguistic Fieldwork*, Paul Newman and Martha Ratliff (eds.), 34–54. Cambridge: Cambridge University Press.
- Miyazima, Tatu
1985 ‘Doa o aketa ga, akanakatta’ – Dooshi no imi ni okeru ‘kekkaesei’ [‘I opened the door, but it did not open’: Resultativity in verbal semantics]. *Mathematical Linguistics* 14 (8): 335–353.
- Morphy, Frances
1983 Djapu, a Yolngu dialect. In Dixon and Blake (eds.), [xxiv]–188.
- Murray, Robert W. and Theo Vennemann
1983 Sound change and syllable structure in Germanic phonology. *Language* 59 (3): 514–528.
- Nichols, Johanna
1986 Head-marking and dependent-marking grammar. *Language* 62 (1): 56–119.
- Oates, William J. and Lynette Oates
1964 Gugu-Yalanji vocabulary. In *Gugu-Yalanji and Wik-Munkan Language Studies*, William and Lynette Oates, Hank Hershberger, Ruth Hershberger, Barbara Sayers and Marie Godfrey (eds.), 79–146. Canberra: Australian Institute of Aboriginal Studies.
- Oates, William J. and Lynette F. Oates
1970 *A Revised Linguistic Survey of Australia*. Canberra: Australian Institute of Aboriginal Studies.
- O’Grady, Geoffrey N. and Susan Fitzgerald
1995 Triconsonantal sequences in Proto-Pama-Nyungan. *Oceanic Linguistics* 34 (2): 454–471.
- O’Grady, Geoffrey N., Charles F. Voegelin and Florence M. Voegelin
1966 *Languages of the World: Indo-Pacific Fascicle Six*. (Anthropological Linguistics 8 (2).)

- Olson, David R.
 1994 *The World on Paper[.] The Conceptual and Cognitive Implications of Writing and Reading*. Cambridge: Cambridge University Press.
- Olson, David R. and Janet W. Astington
 1990 Talking about text: How literacy contributes to thought. *Journal of Pragmatics* 14 (5): 705–721.
- Patz, Elizabeth
 1991 Djabugay. In Dixon and Blake (eds.), [244]–347.
- Patz, Elisabeth (sic)
 2002 *A Grammar of the Kuku Yalanji Language of North Queensland*. Canberra: Pacific Linguistics.
- Pike, Glenville
 1990 *Pioneers' Country[.] The Story of the Pioneering of the Beautiful Country over the Range Inland from Cairns North Queensland*. Mareeba, Queensland: Pinevale Publications. First printing, 1976.
- Pike, Kenneth L.
 1973 Grammatical prerequisites to phonemic analysis. In *Phonology*, Erik C. Fudge (ed.), 115–135. Harmondsworth, England: Penguin Books.
- Radcliffe-Brown, A. R.
 1930 The social organization of Australian tribes. *Oceania* 1 (1): 34–63.
- Ross, E.
 1887 No. 178. – Ballina. In Curr (ed.), 290–291.
- Ross, John Robert
 1970 On declarative sentences. In *Readings in English Transformational Grammar*, Roderick A. Jacobs and Peter S. Rosenbaum (eds.), 222–272. Waltham, MA: Ginn and Company.
- Rossier, Bill
 1978 *This is Palm Island*. Canberra: Australian Institute of Aboriginal Studies.
- Ryle, Gilbert
 1951 *The concept of mind*. London: Hutchison's University Library. First printing, 1949.
- Sapir, Edward
 1949 *Language[.] An Introduction to the Study of Speech*. New York: Harcourt, Brace & World. First printing, 1921.
- Schmidt, Annette
 1985 *Young People's Dyirbal[.] An Example of Language Death from Australia*. Cambridge: Cambridge University Press.
- Searle, John R.
 2005 *Speech Acts[.] An Essay in the Philosophy of Language*. New York: Cambridge University Press. First printing 1969.
- Sharp, R. Lauriston
 1939 Tribes and teternism in north-east Australia. *Oceania* 9 (3): 245–275, 9 (4): 439–461.
- Shibatani, Masayoshi
 1985 Passives and related constructions: A prototype analysis. *Language* 61 (4): 821–848.

- Siewierska, Anna and Jae Jung Song (eds.)
1998 *Case, Typology and Grammar[.] In Honor of Barry J. Blake*. Amsterdam/Philadelphia: John Benjamins.
- Silverstein, Michael
1976 Hierarchy of features and ergativity. In Dixon (1976a: 112–171).
- Smith, Ian and Steve Johnson
2000 Kugu Nganhcara. In *The Handbook of Australian Languages*, R. M. W. Dixon and Barry J. Blake (eds.), [355]–489. Melbourne: Oxford University Press.
- Spencer, Andrew
1996 *Phonology*. Oxford: Blackwell.
- Sutton, Peter John
1973 Gugu-Badhun and its neighbours[.] A linguistic salvage study. M.A. thesis, Macquarie University.
- Sutton, Peter
1995 Notes on the Palm Island and Townsville language. Unpublished.
- Sutton, Peter and Michael Walsh
1979 *Revised Linguistic Field Work Manual for Australia*. Canberra: Australian Institute of Aboriginal Studies.
- Suzuki, Seiichi
1989 On determining the sonority value of /w/ relative to /r/ and /l/ in early West Germanic. *Folia Linguistica Historia* 10 (1/2): 21–34.
- Taplin, George
1880 Grammar of the Nyarrinyeri Tribe of Australian Aborigines. Adelaide: E. Spiller, Government Printer.
- Terrill, Angela
1998 *Biri*. Muenchen: Limcom Europa.
- Takahashi, Taro
1988 Dooshi (sono 6) [Verb (part 6)]. *Kyooiku Kokugo* 93: 47–66.
- Tindale, Norman B.
1940 Results of the Harvard-Adelaide Universities anthropological expedition, 1938–1939[.] Distribution of Australian Aboriginal tribes: A field survey. *Transactions of the Royal Society of South Australia* 64 (1): 140–231.
- Tindale, Norman B.
1974 *Aboriginal Tribes of Australia[.] Their Terrain, Environmental Controls, Distribution, Limits, and Proper Names*. Berkeley and Los Angeles: University of California Press.
- Tjama Freda Napanangka, Payi Payi Napangarti, Martingale Mudgedel Napanangka, Kuninyi Rita Nampitjin, Nanyuma Rosie Napurrula, and Millie Skeen Nampitjin
1997 *Yarrtji: Six Women's Stories from the Great Sandy Desert*. Canberra: Aboriginal Studies Press.
- Troy, Jakelin
1994 *The Sydney Language*. Canberra: (Produced with the assistance of the Australian Dictionary Projects and the Australian Institute of Aboriginal and Torres Strait Islander Studies).
- Tsunoda, Tasaku
1974a A grammar of the Waruḡu language, North Queensland. M.A. thesis, Monash University.

- Tsunoda, Tasaku
1974b A note on voice in Warrungu. In *Papers in Australian Aboriginal Languages*, Barry J. Blake (ed.), 120–125. (Linguistic Communications 14.) Melbourne: Monash University.
- Tsunoda, Tasaku
1976a [Topic A: The derivational affix ‘having’] 13. Warungu. In Dixon (1976a: 214–225).
- Tsunoda, Tasaku
1976b [Topic C: The bivalent suffix -ku] 62. Warungu. In Dixon (1976a: 456–464).
- Tsunoda, Tasaku
1981a *The Djaru language of Kimberley, Western Australia*. Canberra: Pacific Linguistics.
- Tsunoda, Tasaku
1981b Split case-marking patterns in verb-types and tense/aspect/mood. *Linguistics* 19 (5/6): 389–438.
- Tsunoda, Tasaku
1984 Verbal inflectional morphology in historical linguistics – A case study in the Herbert-Burdekin languages of North Queensland. *The Journal of the Faculty of Literature Nagoya University* 88: 21–33.
- Tsunoda, Tasaku
1985 Remarks on transitivity. *Journal of Linguistics* 21 (2): 385–396.
- Tsunoda, Tasaku
1986 Topicality in ergative and accusative languages. *Nagoya Working Papers in Linguistics* Vol. 2: 173–258. Nagoya: University of Nagoya.
- Tsunoda, Tasaku
1987 Coreference and related issues in Warrungu discourse. In *A World of Language: Papers presented to Professor S. A. Wurm*, Donald C. Laycock and Werner Winter (eds.), 683–694. Canberra: Pacific Linguistics.
- Tsunoda, Tasaku
1988a Ergativity, accusativity and topicality. *The Journal of the Faculty of Letters Nagoya University* 100: 1–71.
- Tsunoda, Tasaku
1988b Antipassives in Warrungu and other Australian languages. In *Passive and Voice*, Masayoshi Shibatani (ed.), 595–649. Amsterdam/Philadelphia: John Benjamins.
- Tsunoda, Tasaku
1990 Typological study of word order in languages of the Pacific region (5) Warrungu (Australia). *The Journal of the Faculty of Letters Nagoya University* 106: 13–47.
- Tsunoda, Tasaku
1991 *Sekai no Gengo to Nihongo* [The World’s Languages and Japanese]. Tokyo: Kurosio.
- Tsunoda, Tasaku
1992 Position of Warrungu interrogative words. In *The Language Game: Papers in Memory of Donald C. Laycock*, Tom Dutton, Malcolm Ross, and Darrell Tryon (eds.), 483–490. Canberra: Pacific Linguistics.

- Tsunoda, Tasaku
 1995 The possession cline in Japanese and other languages. In *The Grammar of Inalienability[.] A Typological Perspective on Body Part Terms and the Part-Whole Relation*, Hilary Chappell and William McGregor (eds.), 565–630. Berlin/New York: Mouton de Gruyter.
- Tsunoda, Tasaku
 1996 Notes on the languages and people of Palm and Magnetic Islands and Townsville, North Queensland, Australia. In *Gengogakurin* [Linguistics Forest], Gengogakurin Henshuuinkai (ed.), 75–92. Tokyo: Sanseido.
- Tsunoda, Tasaku
 1997 Expression of possession in Warrungu of Australia. In *Studies in Possessive Expression*, Tooru Hayasi and Peri Bhaskararao (eds.), 11–115. Tokyo: Tokyo University of Foreign Studies.
- Tsunoda, Tasaku
 1998 Applicative constructions in Warrungu of Australia. In Siewierska and Song (eds.), 343–373).
- Tsunoda, Tasaku
 1999 Aspect and transitivity of iterative constructions in Warrungu. In *Tense-Aspect, Transitivity and Causativity[.] Essays in Honour of Vladimir Nedjalkov*, Werner Abraham and Leonid Kulikov (eds.), 3–19. Amsterdam/Philadelphia: John Benjamins.
- Tsunoda, Tasaku
 2003 *A Provisional Warrungu Dictionary*. (ICHEL Linguistic Studies No. 8.) Tokyo: University of Tokyo.
- Tsunoda, Tasaku
 2004 Attempt at the revival of Warrungu (Australia): Its cultural and scientific significance. In *Linguistics Today – Facing a Greater Change*, Piet van Sterkenburg (ed.), 267–303. Amsterdam/Philadelphia: Jon Benjamins.
- Tsunoda, Tasaku
 2005 *Language Endangerment and Language Revitalization*. Berlin/New York: Mouton de Gruyter.
- Tsunoda, Tasaku
 2006 Reflexive and middle constructions in Warrungu (Australia). In *Voice and Grammatical Relations[.] In Honor of Masayoshi Shibatani*, Tasaku Tsunoda and Taro Kageyama (eds.), 299–333. Amsterdam/Philadelphia: John Benjamins.
- Tsunoda, Tasaku
 2007 Reciprocal constructions in Warrungu. In *Reciprocal Constructions* Vol. 3, Vladimir P. Nedjalkov (ed.), 1403–1434. Amsterdam/Philadelphia: John Benjamins.
- Tsunoda, Tasaku
 2008 Sonority hierarchy in Warrongo (Australia). *Gengo Kenkyu* 133: 147–161.
- Tsunoda, Tasaku and Mie Tsunoda
 2007 Study of language change: Language death and language revival – The case of the Warrongo language (Australia). In *Toonan-Ajia-Gooshuu-Ahurika no shoosuminzoku gengo no bunpoo kijutsu to gengo hen-yoo no kenkyuu* [Research into grammars of, and, language changes in, minority languages

- of Southeast Asia, Australia, and Africa], Hiroaki Kitano (ed.), 35–110, plus pictures. Kariya, Japan: Aichi University of Education.
- Tsunoda, Tasaku and Mie Tsunoda
 2010 The revival movement of the Warrongo language of northeast Australia. In *Linguapax Asia: A Retrospective Edition of Language and Human Rights Issues[.] Collected Proceedings of Linguapax Asia Symposia 2004–2009*, Jelisava Dobovsek-Sethna, Frances Fister-Stoga, and Cary Duval (eds.), 12–18. Tokyo: Linguapax Asia.
- Vászolyi, Eric
 1976 [Topic A: The derivational affix ‘having’] 26. Wunambal. In Dixon, 1976a: 282–285.
- Watkin, George and J. E. Hamilton
 1887 No. 170.—Stradbroke and Moreton Islands. In Curr (ed.), 222–230.
- Weinreich, Uriel
 1974 *Languages in Contact[.] Findings and Problems*. The Hague: Mouton. Original edition, The Linguistic Circle of New York, 1953.
- Wurm, Stephen A.
 1972 *Languages of Australia and Tasmania*. The Hague: Mouton.
- Wurm, Stephen A. and Donald C. Laycock (eds.)
 1970 *Pacific Linguistic Studies in Honour of Arthur Capell*. Canberra: Pacific Linguistics.
- Wurm, Stephen A. and Shirô Hattori (eds.)
 1981 *Language Atlas of the Pacific Area*. Canberra: Australian Academy of the Humanities in collaboration with The Japan Academy.
- Zwicky, Arnold M.
 1972 Note on a phonological hierarchy in English. *Linguistic Change and Generative Theory*, Robert P. Stockwell and Ronald K. S. Macaulay (eds.), 275–301. Bloomington: Indiana University Press.
- Zwicky, Arnold M.
 1994 Clitics. In *The Encyclopedia of Language and Linguistics* Vol. 2, R. E. Asher and J. M. Y. Simpson, 571–576. Oxford: Pergamon Press.

Index of subjects

- accusativity, 414, 415, 418, 433, 435, 453
address term, 232–235, 324 (*see also*
reference term)
adverb, 160, 176–183, 245–253, *passim*
~ of cardinal direction, 19, 160, 176–179,
245, 246, 572
compound~, 252, 253, 351
demonstrative member of~, 164, 173, 174,
177, 185, 186, 283, 342, 347, 351, 352,
405, 600, 671, 672
interrogative member of~, 156, 157, 176,
178, 185, 321–323, 384, 391, 684
~ of modality, 2, 160, 162, 177, 178, 214,
271, 272, 274, 275, 278, 283, 285, 288,
295, 614, 617, 673–682
adverb phrase, 340, 365, 366, 374, 375, 377
contiguous~, 366, 371, 375, 377
discontiguous~, 366, 375, 377
affectedness, 461, 464, 467–475, 483
affiliation, 196, 339
affricate, 54, 60, 126
agglutinating, agglutination, 1, 716
alveolar tap, 1, 2, 25, 42, 53, 59
animacy, 464, 468, 475, 476, 601
animate, 158, 160, 179, 187, 189, 194,
197, 201, 218, 244, 292, 327, 464,
466–468, 471–473, 476, 477, 479,
523, 528, 532, 536, 559–601, 623,
637, 638, 641–647, 655, 658, 660,
664, 665
human, 19, 58, 60, 165, 169–171, 179,
187, 189, 194, 197, 201, 211, 212, 218,
227, 229, 230, 243, 292, 327, 332, 384,
392, 464, 466, 468, 469, 471–473,
476, 477, 479, 482, 523, 528, 532, 534,
536, 559–601, 637, 638, 642–645,
649, 650, 658, 661, 664, 686, 711
inanimate, 159, 160, 167, 170, 179, 187,
188, 194, 197, 201, 211, 212, 218,
327, 332, 464, 466–469, 471–473,
475–481, 524, 532, 533, 536, 560,
601, 637, 638, 642–645, 647, 648,
656–658, 660, 664, 667, 686
answer, 143, 282, 322, 323, 439, 442, 683,
684, 712
antecedent, 417, 426, 431, 453–455
apical, 1, 121, 129
apico-alveolar, 53, 55, 57, 58, 68, 107, 109,
110, 112–117, 119, 122, 128, 129
aspectual meaning, 269, 270, 298, 498–501,
570–572, 574 (*see also* conjugation:
meaning)
bilabial, 26, 27, 53, 55, 57, 68, 109, 113, 119,
129
case and the like, 164–222, *passim*
ablative~, 23, 96, 154, 164, 167, 184,
205–210, 223, 250, 338–340, 358,
366, 507, 589, 596, 602, 636, 638,
642, 645, 647, 694
absolute~, 158
accusative~, 84, 157, 158, 165, 169–171,
176, 183, 184, 187, 190, 240, 316,
325–327, 330–332, 336, 338, 344,
362, 364, 394, 395, 427, 446, 449,
452, 453, 456, 459, 483, 484, 486,
487, 489–492, 494, 496–498, 503,
507, 512, 518, 519, 522, 540–543,
552, 555, 558, 567–569, 578, 580,
588–591, 596, 602, 624, 625, 645–
647, 672, 673, 689, 690, 704
comitative~, 34, 46, 74, 86, 88, 90, 91,
162, 166, 184, 189, 194, 210–222,
225, 237, 238, 340, 341, 356, 371,
388, 486, 487, 492, 495, 498, 518,
539, 578, 580, 602, 633, 636, 638,
642–644, 647, 664, 666, 678
dative~, 90, 93, 95, 96, 166, 183, 187–
190, 195–200, 229, 237, 253, 326–
328, 330–334, 336, 339, 353–357,
359, 361–365, 388–390, 427, 429,
430, 446, 447, 449, 459, 464–483,
486–487, 489–492, 494, 496, 497,
505, 507, 518, 526, 540–542, 567,
588–591, 596, 602, 613, 621, 622,

- 624, 627, 636, 638, 642, 645, 666, 684, 690, 694, 704, 710, 753
- ergative ~, 90, 99, 157, 165, 171, 174, 184, 187–190, 193, 232, 238, 239, 250, 325–330, 332, 336, 338–340, 344, 352, 353, 362, 364, 369, 374, 394–396, 427–431, 435, 446, 449, 452, 453, 459, 464–483, 486, 487, 489–498, 505, 518, 536, 540–542, 544, 552, 555, 558, 567–569, 578, 580, 581, 589–592, 595, 624, 625, 636, 645–649, 666, 671, 684, 692
- genitive ~, 170, 184, 196, 201–204, 293, 326–329, 333, 334, 336, 338, 339, 344, 347, 353–358, 360, 361, 364, 483, 498, 540, 541, 636–641, 645, 649, 665, 694
- instrumental ~, 190, 329, 429
- locative ~, 90, 91, 95, 99, 154, 160, 165, 168–170, 174, 180, 190–195, 210–212, 221, 240, 244–246, 253, 326, 327, 336–340, 353–357, 359, 361–365, 427, 459, 491, 492, 494–496, 498, 532, 578, 580, 581, 585, 586, 589, 596, 602, 619, 623, 645, 647, 666, 685, 690, 692, 694, 697, 698
- nominative ~, 157, 158, 180, 184–186, 229, 233, 240, 320, 325, 327, 331, 336–338, 344, 362, 364, 427, 428, 430, 431, 435, 449, 452, 453, 456, 486–489, 491–498, 503, 507, 512, 518, 519, 522, 526, 540, 567, 568, 578, 580, 581, 602, 627, 633, 644–657, 661, 666, 671–673, 689–691, 694, 704
- vocative use, 186, 232, 324
- case frame, 198, 203, 229, 326–338, 394–396, 427–430, 446, 449, 459–498, 502, 518, 519, 523, 526, 540–545, 552, 555, 567–570, 578–580, 588–595, 624, 625
- case-marking, 157, 158, 183, 184, 339, 418, 453, 454, 456–458, 464, 468, 469, 475, 483
- ergative-absolutive pattern in ~, 157, 158, 183, 418, 457
- nominative-accusative pattern in ~, 157, 158, 183, 418, 453, 454, 456–458
- causation, 162, 368, 391, 392, 394, 400, 409, 410, 446 (*see also* verb, causative)
- change, 162, 384, 392 (*see also* inchoation *and* inchoative)
- clause
- basic ~, 239, 325, 326, 338, 561, 578, 583, 585, 588–590, 595–597, 601
 - derived ~, 186, 239, 325, 326, 338, 427, 515, 516, 561
 - intransitive ~, 180–182, 184–186, 189, 212, 239–240, 244, 250–252, 325–327, 336, 337, 373, 375, 376, 379, 400, 423, 427, 491, 495, 496, 505, 518, 544, 578, 581–584, 597, 601
 - main ~, 259, 291, 374, 375, 377, 380, 382, 383, 413, 414, 417, 423–426, 446, 447, 451, 452, 470, 506, 507, 514, 581, 583, 590–592, 595, 604–607, 609–635, 661–664, 686
 - one-place ~, 325–327, 337, 338
 - relative ~, 506, 604, 609, 613, 614
 - subordinate ~, 259, 266, 283, 287, 291, 296, 297, 334, 336, 374, 375, 382, 383, 408, 413–417, 422–426, 432–438, 445–452, 470, 501, 502, 506, 507, 513, 514, 581–582, 590–592, 595, 603–634, 661–664, 674, 680, 686 (*see also* subordination)
 - three-place ~, 198, 325–336, 339, 408, 460, 461, 485–491, 495, 518, 539
 - transitive ~, 180, 182, 186, 187, 189, 190, 212, 239, 240, 244, 250–252, 317, 325–327, 336, 337, 373, 375–377, 379, 400, 423, 427, 428, 449, 488–502, 505, 506, 515, 516, 518–520, 525, 528, 529, 532, 537, 540–542, 544, 545, 549, 567, 578, 581, 583, 584, 589, 597, 598, 645
 - two-place ~, 325–327, 336, 337, 339, 525, 517, 518
 - verbless ~, 184, 325, 338
- clause, constituents of
- adjunct, 338–340, 366, 375–377, 386, 396, 418, 431
 - argument, 338, 339, 366, 375–377, 408, 418, 429, 431, 590
 - complement, 196, 198–200, 203

- core, 338
- nucleus, 338
- periphery, 339
- clause, juxtaposition of, *see* parataxis
- clause linkage, 421, 431–459, 507–514, 522, 527, 528, 533, 536, 546, 570, 581–583, 595–597, 604–607, 609–613 (*see also* subordination, coordination, *and* sentence-sequence)
- complementation, 423–425, 445, 447, 448, 470, 546, 673
- compounding, 19, 21, 95, 135, 141, 164, 168, 222, 241–245, 252, 253, 298, 306, 316, 317, 373, 374, 387
- configurational, 2, 318, 340, 341, 352–365, 371, 372, 377, 383, 514, 663
- conjugational class
 - L-class, 2, 23, 81, 124, 131, 149, 156, 163, 227, 228, 253, 255–260, 263, 265–267, 271, 272, 276, 278–280, 284–286, 289, 290, 299, 301–305, 315, 384, 390, 391, 401–403, 409, 411, 425, 535, 538, 558, 562–564, 576, 577, 585, 586, 588, 598, 599, 602, 603, 608, 617
 - Y-class, 2, 23, 131, 132, 149, 156, 228, 253, 255–259, 261, 265, 266, 271–273, 279, 280, 286, 287, 289–300, 303, 316, 390, 402–404, 425, 506, 534, 538, 562–565, 577, 585, 602, 603, 608, 609, 612, 628
 - ZERO-class, 2, 131, 132, 156, 228, 253, 255–257, 259, 261, 263, 264, 266, 271, 272, 275, 279, 280, 286, 289, 290, 307, 310, 312–314, 402, 403, 425, 429–431, 506, 515, 563, 565, 577, 602, 603, 608, 609
- conjugation: category
 - adnominal, 260–262, 266, 613, 614, 618
 - affirmative imperative, 255, 260–262, 278, 284, 319
 - apprehensional, 130–132, 212, 245, 255, 257, 259–266, 286–288, 300–302, 305, 315, 319, 325, 382, 429, 470, 479, 534, 538, 565, 578, 588, 598, 599, 614–620, 630, 673, 675, 679
 - finite, 259–262, 291, 296, 413, 459, 470, 590, 603, 618
 - future, 13, 255, 260–262, 276, 277, 303, 304, 424, 613, 679
 - general imperative, 259–263, 265, 278–285, 290, 319, 331, 380, 381, 565, 577, 581, 602, 628, 673, 675, 677
 - negative imperative, 255, 260–262, 278, 283–285, 319, 324, 675
 - non-finite, 259–262, 291, 296, 413, 470, 618
 - nonfuture, 36, 99, 103, 104, 149, 185, 228, 255, 258–265, 267–277, 281, 282, 294, 295, 299, 300, 303, 308, 319, 367, 378, 379, 401, 402, 411, 424, 430, 438, 442, 469, 470, 473, 474, 476, 477, 482, 498–501, 506–508, 524, 538, 564, 565, 573–578, 581, 588, 590, 598, 599, 602, 613, 618, 629–633, 635, 673, 675, 677, 684, 695, 696, 714
 - participle, 222, 228, 259, 260–263, 265, 266, 382, 400, 417, 423, 424, 429, 460, 538, 578, 581, 602–613, 618, 622, 633, 671, 674
 - past, 13, 36, 260–262, 266, 267, 277, 299
 - purposive, 2, 164, 234, 255, 259–266, 276, 279, 280, 282, 286, 288–297, 319, 325, 334, 336, 358, 382, 400, 403, 407, 412–426, 429–439, 443–455, 469–472, 475–477, 480, 482, 487, 494, 498–501, 513, 522, 524, 527, 528, 533, 535, 536, 546, 565, 577, 581–584, 588, 590–598, 602, 606, 607, 613, 617, 618, 625, 629, 630, 632–634, 673–675, 677, 679, 684–686
 - stative, 222, 255, 260–263, 269, 277, 278, 309
- conjugation: meaning
 - ability, 294, 459, 460
 - advice, 250, 273, 276, 280, 294, 319, 413, 674, 675
 - anteriority, 382, 506, 604–606, 609, 610, 612
 - approval, 280, 281, 283, 470, 693
 - command, 271, 280, 282, 675, 695
 - condition, 216, 268, 283, 297, 604, 609, 610, 618, 629, 630, 633, 634, 664, 671

- consent, 280, 281, 470, 693
 consequence, 297, 368, 382, 413, 422–425, 445, 470, 582, 594, 613, 617
 continuative/continuous, 498–501, 562, 571, 573, 574
 decision, 267, 268, 270, 281, 288
 determination, 267, 268, 270
 distributive, 562, 570–572, 574
 duty, 294
 exhortation, 274, 281, 282, 319, 679
 future time, 267, 268–270, 272–277, 281, 282, 287, 291, 294, 296, 297, 303, 424, 470, 607, 608, 613, 618, 629–635
 generic time/generic tense, 268, 295, 633, 714
 habit, 228, 245, 278, 288, 407, 499–501
 imperfective, 500, 562, 570–572
 instruction, 280
 intention, 267, 268, 270, 274, 281, 282, 287, 288, 291–297, 303, 413, 422, 429, 470, 607, 608, 615, 618, 630, 634, 679, 688, 693
 job, 499–501
 obligation, 273, 294
 optative, 282, 288
 order, 280
 perfect, 270, 509
 permission, 280, 282, 319, 678
 progressive, 269, 498–501, 562, 570, 571
 prohibition, 271, 274, 275, 283, 285, 288, 295, 319, 320, 324, 339, 365, 375, 614, 618, 673–676
 proposal, 292
 purpose, 297, 382, 413, 422–425, 445, 470, 594, 604, 606, 609, 612, 613, 617, 701
 request, 280, 675
 response, 439
 result, 270, 368, 382, 413, 422, 424, 425, 445, 470, 582, 594, 613, 617
 simultaneity, 382, 604, 606, 609–611
 state, 162, 269, 278, 392, 405, 560
 successive action, 297, 382, 413, 422, 424, 425, 445, 470, 582, 594, 613, 617
 suggestion, 280, 292
 tendency, 269, 499–501
 volition, 291, 294, 413, 425, 470, 523, 524, 528, 532–534, 536, 560, 601
 conjunction, 46, 96, 157, 209, 343, 345, 438, 506–514, 559, 618, 634
 consonant, Chapter 2, *passim*
 lowering effect of, 77–83, 88, 91, 111, 151–153
 consonant cluster
 bi-consonantal ~, 99, 101, 103, 108–113, 116–119, 135–139, 148
 heterorganic ~, 71
 homorganic ~, 71, 72, 107, 109, 110, 112, 115, 117, 128, 148, 165
 inter-morphemic ~, 108, 111–119, 154
 intra-root ~, 108, 109, 114–119, 154
 tri-consonantal ~, 99, 101–104, 108, 110, 111, 114, 115, 117, 135–138, 140, 147, 148, 314
 constituent order, 372–383, 425 (*see also* word order)
 construction
 ‘ADJECTIVE to VERB’ ~, 449, 450, 581, 584, 585, 597, 598
 antipassive ~, 2, 95, 138, 170, 186, 190, 198, 239, 256, 265, 266, 269, 279, 281, 287, 290, 294, 295, 298, 309, 316, 318, 326, 334, 358, 367, 423, 425, 427–507, 509–515, 517, 518, 521, 522, 527, 529, 538, 542, 543, 564, 567–570, 576, 606, 607, 611, 662, 665, 673, 678, 680, 720
 accusativizing effect of ~, 438, 443, 445, 513
 ergativizing effect of ~, 438, 443, 444, 513
 applicative ~, 2, 79, 198, 255, 265, 266, 298, 326, 359, 399–402, 408, 411, 412, 429, 493, 507, 560, 576–603, 712
 apprehensional ~, 130–132, 212, 245, 255–266, 286–288, 300–302, 305, 315, 319, 325, 382, 429, 470, 479, 534, 538, 565, 578, 588, 598, 599, 614–620, 630, 673, 675, 679
 iterative ~, 2, 95, 186, 198, 256, 263, 265, 266, 269, 279, 286, 290, 298, 326, 460, 538, 558, 562–576, 673
 jussive ~, 423–425, 445–447, 470, 625, 626
 middle ~, 186, 189, 256, 265, 266, 279, 290, 298, 309, 316, 326, 431, 515–538, 543, 564

- reciprocal ~, 2, 95, 149, 150, 186, 189, 230, 232, 235, 236, 239, 256, 265, 266, 279, 290, 295, 296, 298, 326, 367, 378, 403, 424, 447, 459, 460, 537–562, 576, 600, 601, 609, 622, 625, 638, 702, 721
- reflexive ~, 2, 186, 189, 239, 256, 265, 266, 279, 290, 298, 309, 316, 317, 326, 431, 459, 460, 481, 493, 515–537, 543, 544, 549, 551, 552, 556–558, 564, 638, 686
- verbal instrumental ~, 255, 265, 279, 286, 289, 298, 326, 576, 586–602
- verbal locative ~, 279, 289, 298, 305, 326, 369, 576–586, 600–602
- 'X is for VERBing with' ~, 593, 595, 597, 598
- coordination (regarding clause linkage, and not noun phrase of coordination), 431, 436, 438–440, 442–445, 453–454, 513
- coreference, 414–424, 431–444, 446, 447, 453–459, 507–514, 581–583, 591, 595, 622
- coreferential deletion, 415–422, 428, 431–444, 452–459, 507–514, 581–583, 591, 595, 622
- aberrant pattern in ~, 415, 418, 432, 433, 435, 455, 458
- actual pattern in ~, 417–419, 433
- ideal pattern in ~, 417–419, 433–437
- neutral pattern in ~, 415, 418–421, 424, 432–438, 447, 455, 457, 582
- S/A pattern in ~, 415, 418, 432–438, 455, 457
- S/O pattern in ~, 415, 418, 419, 421, 423, 432, 433, 435, 446, 455, 456, 582, 583
- coreferential retention, 417, 433, 434, 439–444, 453, 455–459
- counterfactual, 162, 216, 268, 324, 586, 610, 633, 634, 677, 679, 682–684
- creation, 162, 391, 392, 394, 409, 410
- curse, 37, 225
- denizen, 3, 16, 19, 138, 139, 149, 201, 206, 221, 223, 224, 345, 346, 607, 656, 718
- dependent, 318, 373, 374 (*see also* head)
- dialect, 3, 9, 44, 47
- discourse, 2, 142, 318, 325, 331, 338, 375, 382, 415–417, 431, 438, 502–506, 670
- Dream Time, 14
- ellipsis, elliptical, 2, 283, 284, 318, 320, 332, 338, 375, 380–382, 408, 415–417, 431, 441, 449, 485, 489, 504, 509, 517, 532, 542, 544, 549, 590–593, 606, 608, 611, 650, 657, 658, 663, 684
- enclitic, 1, 2, 24, 94–97, 99–101, 103–108, 112, 119, 123, 129, 134, 157, 161, 162, 195, 197, 204, 209, 242, 271, 283, 325, 346, 359–362, 364, 382, 399, 428, 438, 470, 506–514, 520–522, 524, 527, 545, 552, 567, 578, 586, 588, 634, 652, 661, 671–673, 677–679, 682–698, 707, 716
- epenthesis, epenthetic, 1, 130–132
- ergativity/syntactic ergativity, 1, 2, 318, 338, 414, 415, 418, 427, 431–446, 453, 454, 501, 502, 513, 514, 522, 524, 527, 528, 533, 536, 546, 570, 581–583, 595, 596, 606, 607, 611, 613, 616, 678, 689, 691, 721
- existence, 161, 162, 219, 324, 636, 637, 644, 666, 667
- feminine, 25, 31, 94, 132, 137, 151, 159, 160, 231
- focus, 161, 197, 283, 346, 377, 428, 502, 505, 506, 677, 691–695, 697, 707
- foreign word, 152–154
- fricative, 54, 59
- fusion, fusional, 1, 95, 176
- gender, 159
- head, 373, 374 (*see also* dependent)
- hierarchy of two-place predicates, 459, 460, 564, 588, 603, 609
- ideophone, 77, 94, 97, 114, 151, 152, 390, 704 (*see also* verb, delocutive)
- inchoation/inchoative, 384 (*see also* change)
- interfix, 1, 74, 114, 115, 120, 130–132, 169–171, 173–177, 183, 184, 204, 210, 222, 228, 249, 356–358, 362, 484, 576, 613
- interjection, 1, 54, 97, 100, 102, 140, 142, 145, 146, 156, 157, 160, 196, 324, 384, 390, 391, 399, 442, 698, 699

- intonation, 2, 142–145, 216, 242, 245, 268, 320, 321, 323, 371, 372, 407, 426, 439, 442, 614, 618, 623, 629, 635, 666, 669, 672, 700–702, 707, 715, 719
- Jangala song, 35, 36, 639, 669
- kinship system, 28
- laminal, 1, 9, 11–13, 45, 48, 121, 684
- lamino-palatal, 45, 53, 54, 56–58, 68, 77, 113, 119, 122
- lateral, 1, 16, 53, 59, 60, 64, 114, 129, 153
- liquid, 55–57, 62, 64, 67, 71–73, 78, 80, 105, 109, 110, 112, 114, 116–119, 120–122, 128, 129, 135, 165, 172, 408
- loan, 58, 59, 61, 63, 77, 84, 97, 98, 102, 106, 115, 120, 140, 152–154, 171, 484, 580, 606, 623, 699
- maniac, 227
- marked, 122, 129, 214–216, 318, 576 (*see also* unmarked)
- marriage rule, 27–29
- minimal pair/set, 55–59, 61, 77, 78, 89, 93, 111, 148, 295, 333, 475, 570, 571
- modality, 2, 160, 162, 177, 178, 214, 271–275, 278, 283, 285, 288, 295, 339, 673, 677 (*see also* adverb, of modality)
- modal meaning, 2, 271 (*see also* conjugation: meaning)
- modifier, 321, 340–342, 347–366, 386
- mora, *morae*, 37, 101, 154
 - bimoraic, 101, 154
 - monomoraic, 101
- morpheme boundary, 72, 87, 91, 93, 104, 110, 114, 115, 119, 167, 171, 305
- myth, 15–22, 158, 188, 227, 346, 700, 705–710, 712
- name
 - ~ of individual/person, 18, 19, 21, 32, 43, 47, 49, 80, 92, 132, 134, 140, 163, 169–171, 196, 201, 227, 228, 315, 553, 653 (*see also* noun, proper, *and* Index of Names)
 - ~ of group or language, 2, 3, 6, 7, 16, 19, 20, 41, 45, 46, 52, 54, 98, 106, 133, 146, 220, 223, 237, 248, 345, 406, 543 (*see also* Index of Languages)
 - ~ of place (i.e. placename), 19, 22–25, 33, 52, 57, 59, 62, 65, 77, 78, 82–84, 90, 91, 95, 98, 99, 102, 106, 111, 113, 120, 131, 134, 135, 140, 141, 151, 153, 154, 160, 167, 168, 171–173, 178, 207, 220, 223, 224, 231, 237, 244, 245, 258, 308, 345, 346, 602, 703–705
- nasal, 1, 6, 9, 11, 20, 26, 27, 45, 53, 55–57, 59, 62, 64, 65, 67–69, 71, 72, 80, 106, 107, 109–125, 127–132, 146–148, 153, 165, 231, 299, 408, 409
- natural class, 55, 116, 128–130
- negation, 145, 162, 222, 271, 283–285, 288, 295, 319, 320, 323, 324, 375, 384, 398, 426, 451, 452, 617, 618, 621, 636, 658, 673–677, 681–684
- nominalization, 229
- non-configurational, 2, 318, 341–353, 366, 370, 377, 514, 664
- non-interference, 282, 283, 295, 296, 319, 615, 677–679, 688, 694
- noun, 157, 158–160, 164–174, 222–245, *passim*
 - abstract ~, 159–160, 213, 602
 - adjective-like ~, 157, 159, 165, 184, 185, 210, 214, 225, 226, 238–241, 254, 309, 310, 336, 337, 340, 342, 347, 348, 350–352, 361, 370, 374, 384, 391, 409, 460, 506–509, 513, 671
 - compound ~, 241–245, 269, 351, 373, 374, 376, 377, 396, 636, 689
 - interrogative member of ~, 160, 165, 173, 321, 342, 347, 351, 672, 682–684
 - irregular ~, 165, 171–173
 - kin ~, 4, 28–34, 165, 169–173, 183, 186, 194, 231–237, 464, 465, 468, 469, 471, 472, 474, 477, 516
 - placename, *see* ‘name, of place’
 - proper ~, 165, 169–171, 345, 406, 464, 465, 468, 469, 471–474 (*see also* name, of individual/person, *and* Index of Names)
 - regular ~, 165–169, 172, 173
- noun phrase, 2, 19, 22, 24, 340–366, 374, 377
 - contiguous ~, 341, 348–364, 377, 382, 383, 514, 657

- discontiguous ~, 341–352, 375, 377, 657, 664
 ~ of apposition, 202, 320, 342, 344, 465, 519, 544
 ~ of co-ordination, 343, 345
 ~ of inclusion, 342–344, 556, 559
 ~ of modification, 342, 343
- number, 1, 130, 159, 218, 229–231, 238, 242, 281, 282, 319, 331, 355, 356, 363, 384, 387, 392, 547, 707
- numeral, 159, 230, 241–244, 252, 346, 347, 350, 351, 373, 374
- object, 157, 190, 198, 326, 337, 425, 488
- obstruent, 54
- onomatopoeia, onomatopoeic, 58, 59, 72, 100, 135, 140, 151, 152
- parataxis, 438, 618, 634
- pause, 36, 94, 96, 148, 216, 245, 313, 358, 360, 383, 426, 491, 618, 626, 629, 633, 640, 655, 661, 666–670, 672, 675, 676, 687, 688, 700, 704, 708, 709, 711, 715–718, 722
- performance error, 419, 433, 453, 454, 485, 514
- peripheral, 54, 55, 84, 110, 112, 116, 117, 121, 122, 128, 129, 299
- person
 first ~ (speaker), 1, 158, 275, 281–284, 287, 288, 292, 293, 295, 296, 319, 331, 344, 355, 456, 619–621, 678, 679
 second ~ (hearer), 1, 158, 281, 284, 288, 292, 294–296, 318, 319, 331, 344, 355, 356, 456, 619–621, 626, 629, 687
 third, 1, 158, 282–284, 287, 288, 295, 296, 319, 344, 363, 619–621, 626, 629, 678, 679
- personified, 158
- phoneme, Chapter 2, *passim*
 alternation between, 124–129
 deletion of ~, 147, 148, 305, 306, 409
 frequency of ~, 121–123
 insertion of, 115, 148, 409
 strength of, 118, 119
- phonological correspondence, 11–14, 46, 227
- phonological process, 130–133
- phonotactics, 3, 94–121, 128, 129, 154
- pitch, 1, 74, 96, 134, 141–145, 150, 321, 323, 623, 635, 695, 696, 698
- possessee, 636–665
 bodily secretion, 188, 189, 201, 214–217, 225, 316
 body part, 158, 187–189, 201, 202, 214–216, 268, 316, 382, 416, 460–462, 466, 467, 519, 520, 522, 526, 527, 529, 531, 536, 544–546, 602, 637, 638, 640–652, 658, 661–665, 687
 clothing, 165, 201, 637–639, 643
 inherent attribute, 637, 638, 642–645, 656, 658, 659
 kin (including kin not as a possessee), 4, 28–32, 34, 99, 107, 165, 169–173, 183, 186, 194, 231–237, 324, 464, 466, 468, 469, 471, 472, 474, 477, 516, 637–639, 642, 643, 658, 661 (*see also* noun, kin)
 name (as possessee), 199, 201, 202, 638, 642, 644–646, 653, 654, 656–658
 other possessee, 637–640, 642, 643
 pet animal, 201, 637–639, 642, 643
 product, 637–640, 642, 643
- possession, 196, 197, 201, 202, 208, 636–665
 alienable ~, 637, 645
 apposition of possessor and possessee, 644–658
 everyone-type ~, 214, 215
 inalienable ~, 202, 214, 637, 645
 not-everyone type ~, 214–217
- possession cline, 520, 546, 636–638, 644
- possessive compound, 244
- possessor, 196, 197, 201, 202, 208, 636–665
 animate ~, 637, 641–647, 655, 658, 664, 665
 human ~, 637–640, 642–646, 650–655, 658, 664, 665
 inanimate ~, 637, 642–648, 656–658, 660, 661, 664
- postcedent, 417, 426, 432, 433, 435, 437, 438, 443, 444, 453–459
- postposition, 192, 364, 673
- practical orthography, 1, 6, 23, 24, 35, 47, 53, 54, 59, 155, 608, 612
- pragmatics, 502–506, 576

- predicate, 184–186, 259, 291, 413, 612, 614, 618, 619, 661
- prohibition, 271, 274, 275, 283, 285, 288, 295, 319, 320, 324, 339, 365, 375, 614, 618, 673–677
- pronominalization, 417
- pronoun, 157–159, 174–176, *passim* (see also person, first, second, and third)
interrogative member of ~, 342, 347, 351
- proto-Australian, 299
- question
general ~, 144, 320–323, 375
polar ~, 2, 144
special ~, 143, 144, 320–323, 694
tag ~, 46, 97, 321, 694
- reduplication, 87, 95, 99, 134, 135, 140, 151, 164, 191, 222, 238–241, 244, 245, 248, 251–253, 298, 304, 305, 315, 316, 381, 387, 391, 574, 627
- reference term, 232–235 (see also address term)
- retroflex approximant, 1, 13, 25, 42, 53, 59, 110, 112, 113, 116, 127–129, 303, 703
- retroflex tap, 53, 59, 303
- rhotic, 1, 2, 12, 13, 16, 20, 25–27, 42, 53, 59, 60, 129, 130, 133, 151, 168, 173, 299
- root, 97–99, 102, 105, *passim* in Chapter 2
disyllabic ~, 97–99, 231, 241, 253, 254, 303, 314
monosyllabic ~, 97, 241
pentasyllabic ~, 99
quadrisyllabic ~, 98, 99
trisyllabic ~, 98, 99, 231, 254
- section, 25–27
- semantic change, 51, 52, 390
- semantic role and the like, 427
actor, 159, 188, 300, 301, 427, 428, 430, 431, 467, 492–498, 502–505, 518, 519, 523, 540, 545, 551, 560, 569, 572, 589, 595, 648, 649
addressee, 144, 146, 186
agent, 188, 211, 212
beneficiary, 195, 196, 202, 293, 334, 335, 339, 546, 602, 637, 640
cause, 194–196, 210, 249, 339, 340, 423, 532, 602, 604, 609, 668, 685, 697, 698 (see also reason)
company, 192, 194, 211, 212, 217, 218, 339, 340
destination/direction, 160, 176–182, 191, 192, 197, 204, 245–247, 254, 335, 339, 365, 367, 368, 371, 372, 384, 388, 389, 392, 398–491, 497, 498, 587
donor, 229, 327, 328, 340, 486–488, 495, 497, 541
experiencer, 186, 188, 427
gift, 229, 327–329, 339, 486–488, 495, 497, 498, 541, 587, 589, 597
goal, 190, 197, 203, 333, 339, 472, 475, 486, 488, 489, 496, 498, 589
hearer/listener, 243, 284, 292, 293, 318–320, 323, 331, 332, 339, 489–491, 541–544, 619, 624, 625, 629, 701
instrument, 188–190, 193, 212, 339, 340, 491–498, 518, 519, 526, 536, 544, 587, 589, 648, 649
learner, 330–332, 339, 446
listener, see hearer
location, 178, 180, 186, 190, 191, 207, 246, 247, 339, 491, 496–498, 511, 644, 657, 707 (see also place)
manner, 160, 177–179, 182, 189, 193, 212, 238, 245, 251, 254, 339, 340, 367, 368, 384, 389, 392, 399, 662–664, 681
material, 206
means, 193, 212, 213, 339, 495, *passim*
natural force, 188
patient, 186, 190, 392, 427
place, 176–181, 190–192, 246, 339, 493, *passim* (see also location)
purpose, 195, 339
reason, 162, 194–196, 204, 210, 245, 339, 340, *passim* (see also cause)
recipient, 190, 198, 203, 229, 327–329, 333–335, 339, 407, 486, 488, 490, 495, 497, 498, 541, 637, 639
speaker, 144, 160, 282, 288, 292, 293, 323, 331, 332, 398, 491, 541–543, 619, 624, 625, 629, 676–679, 682, 683, 685, 701, 702
time, 160, 168, 177–179, 181, 182, 193, 200, 206, 208, 221, 253, 339, 340, *passim*

- topic (as a semantic role), 331–332, 339, 446, 489–491, 541–544, 561
- undergoer, 190, 427–429, 461, 464–476, 479, 481, 483–485, 487, 489, 492–499, 501, 503–506, 510, 518, 519, 523, 540, 569, 589
- semivowel, 1, 11, 53–57, 59, 62, 64, 65, 69, 71, 72, 75, 76, 80, 84–94, 97, 101, 102, 105–110, 112–118, 120–126, 128–130, 132, 135, 301
- sentence
- affirmative ~, 318, 324, 375, 377, 530
 - complex ~, 259, 287, 291, 318, 322, 324, 325, 374, 382, 383, 412, 413, 426, 470, 581, 614, 701
 - declarative ~, 143, 268, 318, 320, 324, 375, 377
 - exclamatory ~, 318, 324
 - imperative ~, 318–320, 331, 375, 380, 381, 615, 688
 - interrogative ~, 318, 320–323, 375
 - negative ~, 318, 324, 375, 530, 677, 679
 - nominal ~, 186, 337
 - simple ~, 259, 291, 296, 297, 318, 324, 374, 413, 462, 470, 509, 513, 581, 603, 607, 608, 611, 614, 619–622, 636
- sentence-sequence, 431, 438–445, 453, 454, 513
- Silverstein's NP hierarchy, 183, 184, 464
- sociative, 538, 555, 556, 559
- song, 34–37, 147, 193, 202, 213, 241, 249, 298, 299, 484, 485, 555, 577, 580, 582, 597, 612, 639, 669
- sonorant, 106, 107, 109, 112, 116, 117, 128, 129
- sonority, 118, 119, 135, 408
- speech
- careful ~, 147–150
 - direct ~, 626
 - fast ~, 204, 484
 - indirect ~, 626
- stem (*see also* compounding and reduplication)
- derived ~, 220–259, 262, 264–266, 274, 279, 289, 298–317, 383–412, 586, 588
 - intransitive ~, *see* suffix, intransitive-stem-forming
 - transitive ~, *see* suffix, transitive-stem-forming
- stop voicing, 60–75
- stress, 1, 2, 17, 20, 24, 74, 86, 93, 96, 111, 133–142, 146, 151, 241, 242, 248, 268, 320, 321, 323, 371, 623, 661, 671, 672, 695
- stress shift, 136–139, 223
- style of speech
- avoidance ~, 33, 34, 36, 37, 45, 48, 113, 115, 120, 126, 133, 160, 206, 208, 213, 225, 226, 231, 235, 241, 298, 299, 302, 306–311, 313, 385, 388, 429, 430, 552, 707
 - ordinary ~, 34, 37, 45, 231, 267, 298, 309, 313
- subject, 283, 287, 338, 456
- derived S (d-S), 186, 302, 427, 516, 559
 - different ~, 613
 - intransitive ~ (S), 157, 185, 283, 287, 325, 338, 339, 427, 559
 - same ~, 613
 - transitive ~ (A), 157, 187, 190, 283, 287, 325, 338, 339, 427
- subordination (*see also* clause, subordinate)
- ~ involving a body part noun, 382, 661–664
 - involving the enclitic =ngomay 'after, if, because', 325, 382, 438, 470, 506–514, 578, 588, 634
- participial ~, 325, 382, 400, 602–614
- purposive ~, 164, 234, 325, 358, 382, 400, 412–426, 431–439, 443–455, 469–473, 513, 522, 524, 527, 533, 536, 546, 581–583, 594–596, 617, 618, 686
- ~ without any morphosyntactic marker, 618–634, 671
- suffix
- adverb-stem-forming ~, 177, 179, 245–250, 366–368, 389, 399, 611, 635, 689, 690
 - intransitive-stem-forming ~, 131, 133, 147, 162, 163, 181, 196, 198, 213, 222, 254, 262, 296, 315, 367, 383–391, 404, 430, 522, 581
 - noun-stem-forming ~, 131, 163, 222–237, 306, 386, 396, 561, 571
 - transitive-stem-forming ~, 110, 114, 147, 162–164, 190, 204, 254, 271, 298, 331, 337, 367, 383, 392–412, 430, 462, 515, 564, 586, 601

- verbal inflectional ~, 2, 13, 14, 227, 228, 260–262, 265, 576
- syllabification, 102–105, 119
- syllable, 97–105
 - ambisyllabic, 102, 104
 - coda, 119
 - onset, 119
- syllable boundary, 103, 104
- syllable contact, 116, 119
- syllable status, 104, 105
- syllable type, 96, 101–105, 119

- topic (in discourse), 145, 186, 250, 584, 585, 597, 598, 669–671
- totem, 25, 27, 48
- transitivity, 253, 254, 255–258, 295, 298, 300–303, 315, 326, 367, 383, 402, 430, 431, 500, 562, 566–570, 572, 578, 581, 667

- unmarked, 267, 278, 376, 377, 702 (*see also* marked)

- valence/valency, 326–338, 461, 588, 590
- velar, 11, 53, 56, 58, 77, 79, 83, 106, 109, 113, 119, 126, 129
- verb, 160–164, 253–317, 383–412, *passim*
 - action ~, 278, 461, 462, 464, 467–475
 - anticausative ~, 302, 460, 515, 516, 523, 524, 527, 530–533, 558, 559, 564, 598
 - applicative~, *see* construction, applicative
 - causative ~, 400–404, 410, 425, 530, 586, 598
 - compound ~, 2, 316, 317, 373, 525
 - copula ~, 161
 - delocutive ~, 162, 255, 390, 399
 - demonstrative member of ~, 254, 255, 389, 398
 - four-place ~, 336, 543
 - instrumental ~, *see* construction, verbal instrumental
 - interrogative member of ~, 254, 386, 389, 394, 398, 684
 - intransitive ~, *see* clause, intransitive
 - irregular ~, 160, 259, 262, 264, 267, 274, 275, 286, 287, 289, 296, 297, 301, 629
 - knowledge ~, 461, 463, 467–469, 475–477, 481–483
 - locative ~, *see* construction, verbal locative
 - mental state ~, 162, 405
 - one-place ~, *see* clause, one-place
 - perception ~, 461–463, 467–469, 476–483, 501, 539
 - performative ~, 162
 - pursuit ~, 461–463, 467–469
 - semantics of ~, 160, 467–469, 475
 - speech act ~, 162, 405
 - three-place ~, *see* clause, three place
 - transitive ~, *see* clause, transitive
 - two-place ~, *see* clause, two-place
- verbalization, 254
- verb phrase, 2, 340, 341, 366–372, 375, 377, 539
 - contiguous ~, 369, 371, 372
 - discontiguous ~, 369, 371
- vocable, 37, 105
- voice distinction, 446, 448, 449, 452, 453, 513
- voiced, 53, 59–75, 124, 150, 165, 211 (*see also* stop voicing)
- vowel, Chapter 2, *passim*
 - copying of, 130
 - length of, 7, 45, 59, 133, 145, 146
 - non-syllabic, 127, 130

- Warrongo revival activities, vii, 52, 155
- whatsisname, 330, 655, 665–669, 706, 710, 713, 715, 721
- whole-part relationship, 316, 320, 343, 509, 519, 544, 636, 637, 640–642, 647–649, 661
- women's pronunciation, 150, 151
- word
 - hexasyllabic ~, 100
 - pentasyllabic ~, 100
 - structure of ~, 94, 95, 101
- word class, 1, 156, 157, 163, 164, 298, 303, 311
- word order, 2, 242, 318, 320, 351, 369, 370, 375, 380, 381, 581, 584, 585, 650 (*see also* constituent order)

Index of languages

- Agwamin, xxvii, xxix, 5–7, 42
Aleut, 14
Amis, 264
- Bandjalang, xxv, 445
Bidyara, xxviii, 6–8, 10–12, 17, 192, 227, 249, 303, 684
Biri, xxviii, xxix, 6, 7, 10–13, 20, 42, 75, 81, 125, 127, 227, 248, 308
Biyay, xxix, 45
Buluguyban, xxix, 7, 15, 34, 42, 50, 75
- Chickasaw, 374
Choctaw, 374
- Dakota, 374
Danish, 78
Dharuk, xxv, 152
Diyari, xxv, 374
Dja:bugay (also spelt Djaabugay and Djabugay), xxix, 220, 314, 445
Djaru (also spelt Jaru), vi, xxv, 17, 37, 45, 54, 59, 60, 75, 76, 78, 84, 97, 101, 114, 115, 146, 148, 151, 156, 157, 159, 160, 165, 171, 176, 184, 188, 190, 202, 215, 222, 227, 230, 254, 323, 325, 337, 345, 353, 459, 518, 547, 664, 697, 698
Dyirbal, 4, 5, 7, 8, 34, 38, 46, 92, 102, 109, 115, 124–127, 131, 147, 150, 151, 184, 223, 226, 227–230, 248, 251, 264, 277, 285, 299, 301, 311, 315, 329, 337, 353, 385, 390, 391, 402–404, 412, 415, 430, 438, 445, 462, 464, 517, 518, 566, 679–682, 685, 691, 698, 701, 702
(in Dixon (1972), Dyirbal includes Jirrbal, Girramay, Mamu and Ngajan)
- Eastern Pomo, 374
English, vi, 15–17, 21, 22, 24–26, 34, 40, 44–46, 48, 51, 52, 58–60, 63, 75, 77, 96–98, 100, 102, 106, 121, 126, 140, 152, 154, 155, 157, 159, 162, 168, 172, 173, 177, 183, 184, 188, 189, 201, 222, 224, 227, 231, 238, 242, 259, 264, 271, 281, 285, 320, 321, 329, 336, 340, 342, 343, 346, 347, 352, 385, 392, 405, 413, 417, 424, 434, 450, 456, 482, 484, 508, 509, 561, 580, 587, 604, 620, 621, 623, 633, 657, 662, 664, 667, 675, 690, 691, 698
Irish English, 509
Scottish English, 509
- Gaagadju, xxv
Gabilgaba/Gabilgara, xxix, 19, 42, 50, 63, 70, 346
German, 264
Girramay, xxvii–xxix, 2, 4, 5, 7, 8, 10–15, 18, 25, 26, 36, 38–40, 42, 44, 47, 78, 120, 124, 151, 173, 175, 224, 228, 276, 285, 299, 412, 445, 561, 652, 681, 702, 704
Gobobarra, 3
Gooniyandi, xxv, 60, 364
Gugu-Badhun, vii, xxvii–xxix, 2–15, 17, 22–27, 38, 40, 42, 44, 45, 48, 50, 52, 125–127, 131, 150, 174, 220, 225, 226, 238, 248, 276, 277, 303, 323, 391, 403, 405, 408, 412, 561
Gugu Yalanji (also spelt Gugu-Yalanji and Kuku Yalanji), xxix, 6, 7, 54, 78, 142, 238, 242, 249, 302, 561
Gujal (also spelt as Gujala and Gurjal), vii, viii, xxviii, xxix, 3, 5, 7–18, 27, 34, 40, 42, 48, 50, 51, 125, 127, 131, 174, 249, 299
Gumbaynggir, xxv
Gungabula, xxviii, 6–8, 10–12, 17, 192, 227, 249, 303, 684
Gunya, xxviii, 6–8, 10–12, 17
Gurijal, 9, 45
Guugu Yimidhirr, xxv
- Halkomelem, 467
Hualapai, 374

- Japanese, 75, 146, 188, 230, 231, 243, 264,
 271, 323, 342, 352, 456, 482, 530, 670, 675
 Jirrbal, xxvii–xxix, 3–14, 18, 24–26, 30, 32,
 36, 38–40, 42, 44, 45, 49, 50, 124, 125,
 151, 220, 224, 228, 285, 299, 314, 357,
 412, 445, 543, 561, 654, 655, 702
 Jirru, xxix, 9, 43

 Kalkatungu, xxv, 54, 445
 Kayardild, xxv, 78
 Koa (also spelt Guwa), xxviii, 248
 Koamu (also spelt Guwamu), xxviii, 248
 Kugu Nganhcara, xxv
 Kukatja, xxv, 697
 Kuuk Thaayorre, xxv, 6, 7

 Latin, 126

 Mamu, xxix, 5, 26, 30, 42, 175, 228, 285, 299,
 357, 412, 445, 561, 626, 681, 702
 Margany, xxviii, 6–8, 10–12, 17
 Mbabaram, xxvii, xxix, 4–7, 38, 43, 45, 48,
 60, 106, 120, 133, 140
 Mbara, xxix, 2, 3, 5–7, 42
 Mizo, 374

 Narrinyeri, xxv, 357
 Navajo, 374
 Ngajan, xxix, 49
 Ngaygungu, viii, xxvii, xxix, 5–7, 39, 50
 Ngiyambaa, xxv
 Norwegian, 78, 554
 Nyawaygi, xxvii–xxix, 5, 7, 8, 10–13, 20, 26,
 38, 42, 45, 46, 125, 127, 150, 172, 173,
 225, 227, 230, 237, 285, 299, 315, 391,
 404, 405, 412, 561

 Omaha-Ponca, 374

 Pitjantjatjara/Yankunytjara, xxv, 151
 Pitta-Pitta, xxv, 586

 Q’eqchi’, 264

 Rumanian, 285
 Russian, 14

 Sanskrit, 244
 Slavey, 374

 Tibetan, 463

 Wagaman, xxvii, xxix, 4–6, 42
 Wamin, xxix, 5–7, 42, 45, 466, 468, 482
 Wanyjirra, vi, xxv, 37, 146, 151, 157, 236
 Warlbiri (also spelt Warlpiri), xxv, 364
 Warluwarra, xxv, 323
 Warrgamay, xxvii–xxix, 5–8, 10, 11, 13, 15,
 20, 24–27, 32, 36–39, 41, 44, 45, 50, 59,
 92, 110, 120, 124–127, 130, 141, 147, 150,
 151, 153, 172, 173, 224–226, 230, 237,
 269, 285, 315, 391, 404, 405, 411, 412,
 445, 561, 566, 703, 704
 Warrwa, xxv, 225
 Woiwurrung, xxv, 151
 Wulguru, viii, xxix, 7, 16, 20, 51, 52
 Wunambal, xxv, 684

 Yalarnga, xxv, 445
 Yidiny, xxix, 2, 6, 7, 45, 220, 248, 300, 314,
 408, 445, 454, 464
 Yirrgay, 220
 Yuchi, 374

Index of names

- Aguas, E. F., 41
Aissen, Judith, 118
Allingham, Anne, 38, 39
Armit, W. E., 41
Astington, Janet W., 46, 162
Atherton, John, 38, 41
Atkinson, R. S. (probably same person as R. L. Atkinson), 4, 21, 39, 47, 50, 227
Austin, J. L., 162
Austin, Peter, 60, 562
- Babino, 18, 21, 169, 227
Baker, Bret, 22
Barker, Eddy, 10, 75
Bayombirri, 18, 21, 169, 315
Benveniste, Emile, 390
Berndt, Catherine H., vii, 32
Berndt, Ronald M., vii, 32
Blake, Barry J., v, vii, 54, 60, 151, 158, 190, 195, 445, 586
Bolton, G. C., 38, 39
Boybano, 227
Brayshaw, Helen, 14, 15
Breen, John Gavan, viii, 6, 8, 10, 17, 50, 60, 192, 227, 235, 249, 303, 323, 445, 586, 684
Bunn, Harry, vii, 9, 25–27, 48, 50
Bynon, Theodora, 14
- Capell, A., 230, 304
Carron, W. M., 38
Cashmere, Ado, vii, 50
Cassidy, Mrs., vii, 49
Chalk, Alec, 43
Cheepa, 50
Chomsky, Noam, 122
Chvany, Catherine V., 214
Clarke, Kitty, 49
Clarke, Philip, 32, 33
Clumppoint, Pompy, 9
Collins, Alec, v–viii, 4, 8, 10, 21, 26, 27, 31, 34, 37, 39, 42, 43, 46–49, 51, 124, 125, 127, 168, 171, 174, 176, 177, 205, 222, 227, 231, 245, 247, 251, 258, 265–267, 271, 273–278, 284–286, 288, 296–300, 303, 305, 309, 318, 321, 362, 384, 391, 392, 408, 427, 429, 430, 515, 516, 525–527, 530–533, 535, 537, 543, 562, 613, 614
Collins, Edgar, 39
Comrie, Bernard, viii, 14, 183, 270, 302, 320, 373, 415, 423, 487, 500, 505, 523, 562
Craig, William, 2, 41, 264
Crowley, Terry, 445
Cummins, Meaghan, viii, 163
Cummins, Rachel (née Rachel Wilson), v, vii, viii, 5, 15, 16, 20, 31, 39, 43, 44, 47, 50–52, 155, 187, 292
Curr, Edward M., 40, 41, 51
- Dalrymple, George, 38, 41
Dixon, R. M. W., v, viii, 2, 4–10, 13, 17–20, 24–27, 30–34, 36–39, 41–46, 48, 50, 53, 54, 59, 60, 92, 101, 102, 105, 109, 110, 115, 121, 124–127, 129–131, 133, 141, 147, 148, 150–153, 157, 159, 162, 171–173, 175, 183, 184, 190, 210, 211, 220, 223–230, 237, 248, 251, 255, 258, 264, 269, 275–277, 285, 299–301, 311, 314, 315, 329, 337, 338, 353, 357, 385, 390, 391, 402–405, 408, 411, 412, 415, 430, 438, 445, 454, 462, 464, 475, 517, 518, 561, 566, 626, 645, 679, 680–682, 685, 691, 698, 699, 702–704
Dodd, Reggie, 10
Dolly, 236
Donahue, Mark, 20, 52
Donaldson, Tamsin, 60
Doolan, Jack, 41, 42
Dorian, Nancy C., 43
- Eades, Diana, 237
Eaton, Janet, 50
Ebihara, Shiho, 463
Evans, Nicholas D., 60, 78, 463, 482

- Fant, C. Gunnar M., 55, 127, 129
 Farnfield, Jean, 38
 Fitzgerald, Susan, 148
 Flood, Josephine, 15, 18
 Foley, William A., 188, 266, 338, 339, 371,
 427, 431, 448
 Foote, Tom, 6
 Fulford, Freddy, 7
- Gerdts, Donna B., 467
 Gertz, Eddy, 50
 Gertz, Eric, 9, 50
 Gertz, Harry (also spelt Goetz), 23, 50
 Gertz, Henry, 50
 Gertz, Margaret, 50
 Gertz, Mollie, 50
 Givón, T., 502, 504
 Goddard, Cliff, 151, 158
 Gonira, 21, 27, 47, 169, 170, 227, 553, 653
 Government of Queensland, 51
 Govor, Elena, 49
 Grant, Chloe, 18
 Greenberg, Joseph H., 345, 347, 350, 351,
 372, 375, 425, 629
 Greenwood, Evelyn, 224
 Gregory, Augustus Charles, 38
 Gregory, Francis Thomas, 38
 Grinevald, Colette, vi
- Hale, Kenneth Locke, 3, 8, 11, 318, 341, 364,
 445, 562
 Hall, Allen, 6
 Halle, Morris, 55, 122, 127, 129
 Hamilton, J. E., 17
 Hankamer, Jorge, 118
 Harvey, Mark, 53
 Hattori, Shirô, 6–8, 10
 Haviland, John, 408
 Hawkins, John A., 347, 351
 Heath, Jeffrey, 14, 338
 Henry, G. J., 32
 Hershberger, R., 142
 Hiddins, Les, 38
 Hill, W. O. K., 40, 41
 Hinton, Leanne, 37
 Hooligan, Patrick, 47, 49, 50
 Hoolihan, Bully, 50
 Hoolihan, Dennis, 50
 Hoolihan, Denny, vii, 49
 Hoolihan, Richard, 22, 48, 50
 Hooper, Joan B., 118
 Hopper, Paul J., 500, 562
 Howitt, A. W., 41
- Ikegami, Yoshihiko, 271
 Illin, Leandr, 49
 Illin, Vera Arakuen (same person as Vera
 Smallwood), 49
 Inaida, Yuki, 264
 Irie, Koji, 554
 Iwamoto, Yutaka, 244
- Jabino, 47, 169, 227
 Jakobson, Roman, 55, 85, 127, 129
 Jalbino, 18, 21
 Jardine, Alexander, 38
 Jardine, Frank, 38
 Jespersen, Otto, 186, 267, 268, 284, 320, 337
 Jilanggo, 18, 21, 169
 Johnson, Harry, 10, 75
 Johnson, Shirley, viii, 16, 20, 51
 Johnson, Steve, 364
 Jones, Dorothy, 38–40
 Jones, Philip G., 42
- Kemmer, Suzanne, 533, 554
 Kendon, Adam, 38
 Kimberley Language Resource Centre, 151
- Labov, William, 145, 147, 148
 Ladefoged, Peter, 60, 129, 133, 134, 142
 Lass, Roger, 60, 61, 91, 102, 128, 130, 145,
 147, 148, 150
 Leichhardt, Ludwig, 38, 40
 Lenoy, Edith, 21, 134
 Lucy, 39, 43, 44
 Lukin, Gresley, 41
 Lumholtz, Carl, 26, 32, 39
 Lyons, John, 524
- Mallinson, Graham, 285
 McConvell, Patrick, 235, 236
 McGregor, William, 60, 130, 225, 364, 594,
 595

- Mimura, Tatsuyuki, viii, 78
 Mithun, Marianne, vi, 46
 Miyazima, Tatuo, 271
 Morgensen, Billy, 49
 Morgenstern, Mrs., vii, 49
 Morphy, Frances, 151
 Muraki, Shinjiro, 691
 Murray, Robert W., 118, 119
 Murray, Tommy, vii, 3, 6, 9, 10, 18, 24, 49, 50, 220
- Nedjalkov, V. P., 553, 554, 560, 561
 Nichols, Johanna, 318, 373
- Oates, Lynette F., 2, 4, 6, 8, 20, 41
 Oates, William J., 2, 4, 6, 8, 20, 41
 O'Grady, Geoffrey N., 8, 148
 Olson, David R., 46, 162
- Palmer, Alf, v–viii, 3–10, 14, 15, 17–19, 21–37, 39, 42–47, 49–52, 74, 75, 92, 94, 97, 100, 106, 111, 124–129, 131, 133, 135, 142–144, 147, 149–152, 154, 159, 164, 165, 167–172, 174–176, 181, 187, 189, 200, 201, 203–206, 208, 209, 211, 216, 219–225, 227–239, 243–249, 251, 252, 257–259, 263, 265–269, 271–278, 280–282, 284–288, 291, 292, 294, 296–306, 308–311, 313–318, 337, 354, 355, 357, 358, 362, 363, 369, 370, 384, 391, 400, 403, 407, 408, 412, 419–421, 424, 427, 429, 430, 437, 442, 446, 448–450, 452–454, 456, 458, 459, 463, 466, 469, 471–475, 478, 481, 483, 485, 487, 489, 491–494, 498–501, 508–511, 515–523, 525–531, 533–538, 542, 545, 548, 549, 552, 553, 555–558, 562, 564–572, 574, 575, 579, 580, 586, 591, 593, 594, 598–600, 605, 606–608, 610–614, 617, 618, 623, 627, 628, 630, 632–634, 652, 655, 656, 666, 669, 670, 676, 678, 681, 683, 684, 687, 690, 691, 696–698, 700–705, 707–710, 712–719, 722
- Palmer, Alf, Jr., 21
 Palmer, Elizabeth, 44
 Palmer, Joyce, 21, 62, 80, 134
 Palmer, Kitty, 44
- Palmer, Maurice, 21
 Palmer, Norris, 21
 Palmer, Raymond, 31, 47
 Palmer, Roderick, 31, 47, 63, 227
 Palmer, Tom, 44
 Palm Island, Reggie, 15, 16, 20, 50, 75
 Patz, Elizabeth (also spelt Elisabeth), 54, 60, 75, 78, 142, 220, 238, 242, 249, 302, 314, 561
 Pentecost, Leigh, viii, 5, 32, 40, 49
 Pike, E. V., 142
 Pike, Glenville, 18, 38, 39
 Pike, K. L., 91
 Pope, Ranji, 10, 27, 48, 50, 127, 131, 174
- Radcliffe-Brown, A. R., 28
 Reid, George, viii, 50
 Ross, E., 17
 Ross, John Robert, 162
 Rosser, Bill, 40, 50
 Runaway Harry, 227
 Ryle, Gilbert, 271
- Santo, Willy, viii, 16, 51
 Sapir, Edward, 14
 Schmidt, Annette, 26
 Scott, Maggie, 146, 236
 Searle, John R., 162
 Sharp, R. Lauriston, 25, 27, 40
 Shibatani, Masayoshi, 524
 Shibushita, Ken, viii, 264
 Silverstein, Michael, 183, 184, 431, 439, 444, 464
 Smallwood, Vera (née Vera Arakuen Illin), vii, 17, 48, 49
 Smith, Ian, 364
 Spencer, Andrew, 102
 Springcart, Tommy, vii, 6, 10, 49, 50, 125
 Stephens, Col, 43
 Stephen, William S., 41
 Sutton, Peter John, v, vii, viii, 2–6, 8–10, 19–23, 25, 27, 34, 38, 41, 42, 47, 48, 50, 52, 125–127, 131, 150, 168, 174, 220, 225, 227, 230, 231, 238, 248, 249, 266, 271, 273, 274, 276, 277, 285, 297–299, 301, 303, 309, 323, 391, 403, 405, 408, 412, 429, 430, 515, 526, 532, 561, 613, 614
 Suzuki, Seiichi, 118

- Takahashi, Taro, 548
 Taplin, George, 357
 Terrill, Angela, 10, 42, 308
 Thompson, Sandra A., 500, 562
 Tindale, Norman B., 2–4, 6, 19, 20, 41–43, 248
 Tjama Freda Napanangka, 697
 Toomba, Freddy, 10, 34, 50, 299
 Troy, Jakelin, 152
 Tsukida, Naomi, 264
 Tsunoda, Mie, v, vii, viii, 49, 51, 52, 163
 Tsunoda, Tasaku, v–vii, 2, 8, 10, 15, 17–19, 26, 28, 29, 32–34, 38, 40–42, 45, 46, 48, 49, 51, 52, 54, 59, 60, 75, 76, 84, 97, 101, 114, 115, 121, 147, 148, 151, 155–160, 165, 171, 176, 184, 188, 190, 195, 202, 210, 214, 215, 230, 254, 322, 323, 325, 329, 337, 345, 353, 372, 374, 415, 429, 439, 445, 459, 461, 475, 518, 524, 547, 562, 636–639, 653, 664, 698
 Van Valin, Robert D., Jr., 188, 266, 338, 339, 371, 427, 431, 448
 Vászolyi, E., 684
 Vennemann, Theo, 118, 119
 Voegelin, C. F., 8
 Voegelin, F. M., 8
 Wagaygorro, 18, 21, 653
 Walsh, Michael, 3, 43
 Wambino, 4, 18, 21, 47, 49, 50, 120, 135, 227
 Watkin, George, 17
 Watson, George, 18
 Weinreich, Uriel, 14
 West, La Mont, 41
 White, Alec, Sr., 19, 20
 Whitman, John B., viii, 282
 Wilkins, David, 463, 482
 Williamson, Mr., vii, 49
 Wilson, Rachel (same person as Rachel Cummins), v, 46, 47, 51, 74, 76, 80, 81
 Wurm, S. A., 6–8, 10, 248
 Yukawa, Yasutoshi, 554
 Zwicky, Arnold M., 95, 96, 118, 148

