

A Grammar of Irabu, a Southern Ryukyuan Language

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Except where it is otherwise acknowledged in the text, this thesis is my original written work.

Michinori Shimoji

Date_____

Signature_____

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Abstract

This thesis is a descriptive grammar of Irabu Ryukyuan (Irabu henceforth), a Southern Ryukyuan language spoken on Irabu, which is one of the Miyako Islands, Okinawa, Japan. Irabu is an endangered Japonic language, with approximately 2,000 to 2,500 native speakers. This thesis serves as the first descriptive grammar of this language and of any particular Miyako Ryukyuan language. The grammar attempts to describe all major areas of this language, covering the phonological system to the complex clause structures. It clarifies a number of phonological and morphosyntactic features that have been little known but are highly noteworthy typologically. Among these are foot-based alternating rhythm of tone features, non-canonical object marking that helps distinguish between narrative and non-narrative uses of non-finite clauses of clause chaining, and word class assignment of property concept words, where a given property concept stem is transformed into a nominal, a verb, an adjective, or an adverb, thus demonstrating a ‘switch-adjectival’ system in the sense of Wetzer’s (1996) typology.

Chapter 1 introduces the Irabu language and its speakers, providing such information as geographical and genealogical classification, socio-linguistic situations, and typological features. Chapter 2 treats the phonological system. Chapter 3 introduces basic descriptive units and categories employed in subsequent chapters. Chapter 4 describes nominal phrase structure. Chapter 5 examines nominal morphology. Chapter 6 deals with the verb morphology. Chapter 7 describes the predicate phrase, treating both nominal and verbal predicates. Chapter 8 investigates property concepts and related issues, and includes a description of the adjective word class. Chapter 9 describes clitics. Chapter 10 addresses various functional-typological issues that crosscut several morphosyntactic structures. Chapter 11 describes complex clause structure. These chapters are followed by Appendix, which lists two text materials.

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Abbreviations

ABL:	ablative	CSL:	causal	ONM:	onomatopoeia
ACC:	accusative	CVB:	converb	OPT:	optative
ACC2	second accusative	DAT:	dative	PASS:	passive
AD.ASR	addressive assertive	DIM:	diminutive	PC:	property concept
ADV:	adverb	ECHO:	echo element	PL:	plural
ALL:	allative	EMO:	emotional	POT:	potential
ANT:	immediate anterior	EMP:	emphatic	PRF:	perfect
ANTC:	anticipated future	EXP:	experiential	PRH:	prohibitive
APPR:	approximative	FIL:	filler	PROG:	progressive
ASC:	associative	FOC:	focus	PROS:	prospective
ASR:	assertive	GEN:	genitive	PST:	past
AVLZ:	adverbialiser	HON:	honorific	PUR:	purposive
AVR:	aversive	HS:	hearsay	RED:	reduplication
BEN:	benefactive	IMP:	imperative	Q:	question
CAUS:	causative	INST:	instrumental	QT:	quotative
CLF:	classifier	INT:	intentional	RFL:	reflexive
CMP:	comparative	INTJ:	interjection	RLS:	realis
CND	conditional	LMT:	limitative	RSL:	resultative
CNF:	confirmative	MAL:	malefactive	SG:	singular
CNT:	continuous	MED:	medial verb	SIM:	simultaneous
COMP:	complementiser	NEG:	negative	THM:	thematic vowel
COP:	copula	NLZ:	nominaliser	TOP:	topic
COR:	corrective	NOM:	nominative	VLZ:	verbaliser
CRCM:	circumstantial	NPST:	non-past		
CRTN:	certainty	OBL:	obligative	-:	affix boundary
				=:	clitic boundary
				+:	stem boundary
				/H/:	high tone
				/Ø/:	toneless
				μ:	mora

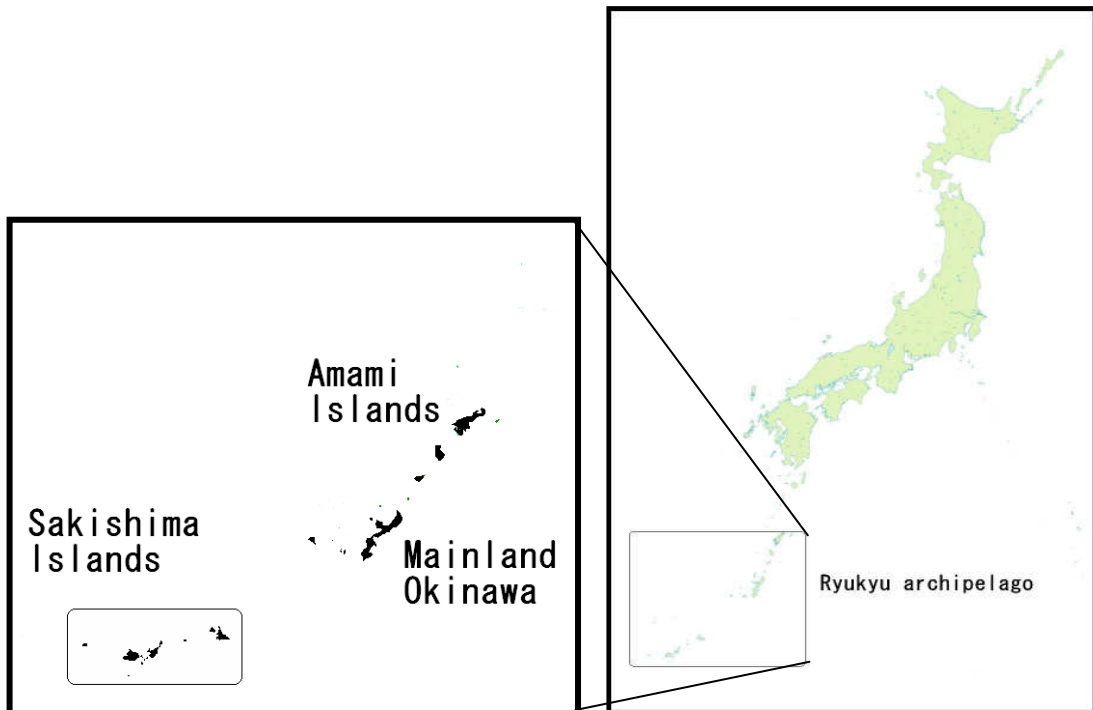
Chapter 1

The Irabu language and its speakers

This chapter introduces the language described in this thesis, Irabu Ryukyuan (henceforth Irabu). The chapter gives information about the genealogical and geographical affiliations of the language together with the settlement and political history of the Ryukus. This chapter also addresses the sociolinguistic situation, literature review, and a brief sketch of important features of phonology and grammar, with a particular focus on typological characteristics.

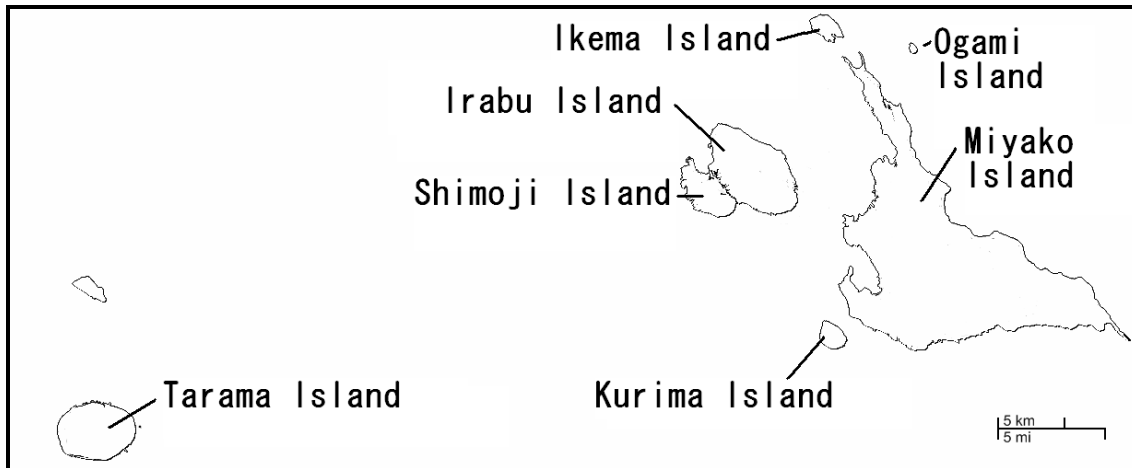
1.1. Geography

Irabu is spoken on Irabu, which is one of the Sakishima Islands within the Ryukyu archipelago, an island chain situated in the extreme south of the Japan archipelago.



MAP 1 The Ryukyu archipelago

The Sakishima Islands consist of two groups: the Miyako Islands and the Yaeyama Islands. Irabu is the second largest island in the Miyako Islands (MAP 2).



MAP 2 The location of Irabu within the Miyako Islands¹

Next to Irabu lies Shimoji, which has no permanent inhabitants and there is a very large airfield for training pilots and a small residential area of these pilots and associated people, surrounded by scattered fields of local people living in Irabu. However, this island used to be inhabited by Irabu people, and was called *macinaka* [matsinaka] ‘in-the-woods’. The previous importance of this island as a living place is evidenced in the fact that it is the setting of a lot of stories and legends (see Appendix (1)).

The distance between the Sakishima Islands and Mainland Okinawa is approximately 300 km, the greatest between any two adjacent islands in Japan. Moreover, this distance is the greatest between any two adjacent islands in the Western Pacific Rim (Kamchatka Peninsula through to Papua New Guinea, Uemura 1997: 319). As will be noted in the following section, this conspicuous geographic separation between the Sakishima Islands and Mainland Okinawa has significant consequences for

¹ The use of this map and MAPS 3 and 4 below is by courtesy of Mr. Thomas Pellard (EHESS, Paris).

the historical development of the languages of the Sakishima Islands.

1.2. Genealogy

Ryukyuan is a group of languages that forms a branch of the Japonic family, coordinate with Japanese.² Ryukyuan falls into two primary subgroups, Northern Ryukyuan and Southern Ryukyuan. These two subgroups in turn have a number of subdivisions.

FIGURE 1-1 shows a genealogical classification of the Japonic family, based on Uemura (1997). The major subclassification of Yaeyama is based on Lawrence (2008).³

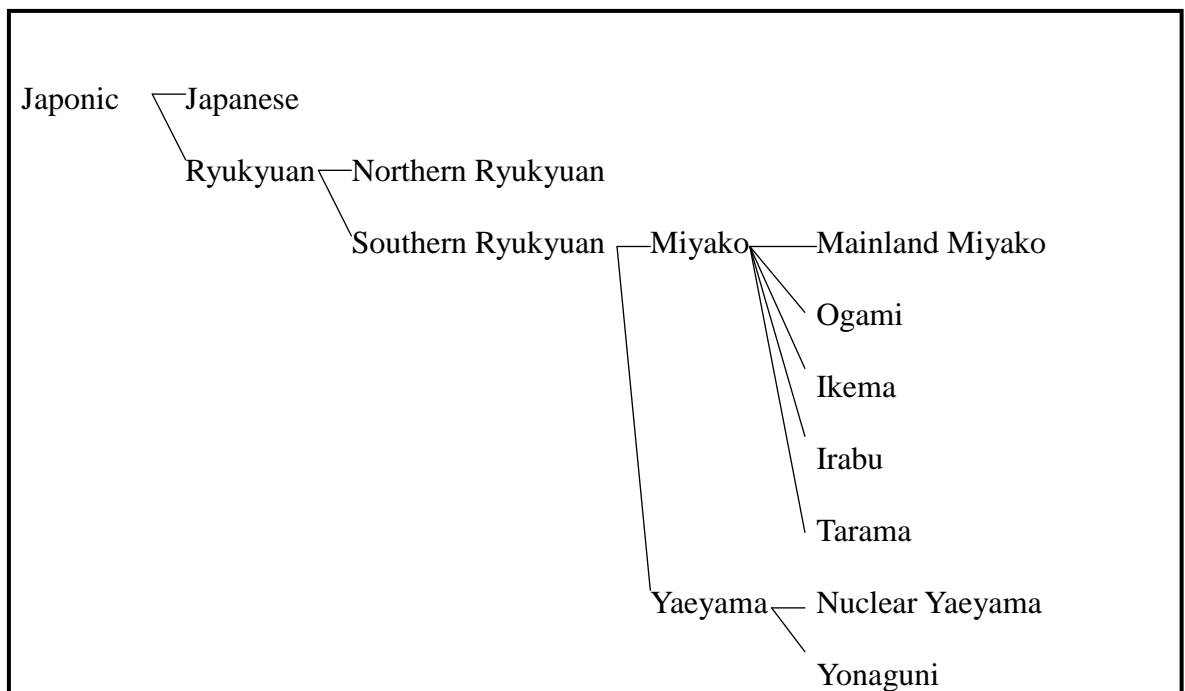


FIGURE 1-1 Genealogical classification of the Japonic family

Here I use the term ‘language’ to refer to the speech varieties listed in FIGURE 1-1, thus including Irabu, and ‘dialect’ to the subvarieties of each language. Dialectal variation in

² The term ‘Japonic’ is employed in diachronic studies such as Erickson (2003) and Serafim (2003), though a more traditional term would be Japanese (Osada 2003: 10).

³ There are ongoing debates as to whether Japonic itself is a subgroup of another language family (see Osada 2003 for discussion). This grammar does not go into detail about this debate.

Irabu is discussed in §1.4.2.

Irabu belongs to the Miyako group, which consists of Mainland Miyako (including Kurima), Ogami, Ikema, Irabu, Kurima, and possibly Tarama (it is controversial whether Tarama should be included as part of the Miyako group (Karimata 1997)). The precise internal relationships of the Miyako languages are yet to be established, partly due to a lack of reliable synchronic data from each major variety of this group. Accordingly, FIGURE 1-1 gives a simplified account, in which the Miyako group has only one node from which stem all the subvarieties. It is likely that future research will show this simple classification to be false, and that the Miyako branch has a more complex structure..

Generally speaking, the genealogical classification of Southern Ryukyuan roughly corresponds to the geographic grouping of the Sakishima Islands. That is, (A) a language (group) corresponds to each island (group).

There is no mutual intelligibility between Japanese and Ryukyuan (Uemura 1997: 312). There is no mutual intelligibility between Northern and Southern Ryukyuan either (Uemura 1997: 313). Moreover, there is almost no mutual intelligibility between the Miyako group and the Yaeyama group of Southern Ryukyuan.

1.3. Notes on the settlement and political history of the Ryukyu Islands

Early Japonic speakers from Mainland Japan are believed to have come southward to the north parts of the Ryukyu archipelago (Amami and Mainland Okinawa) sometime between the 2nd and 6th centuries (Uemura 1997). After that, particularly after the 8th century, there was almost no socio-cultural contact between the Ryukyu Islands and Mainland Japan until the 17th century, when the Ryukyu Islands were conquered by the Satsuma Domain from Kyusyu, the southernmost large island of Japan. That is to say,

for about 1,000 years Japanese and Ryukyuan developed independently.

Recent archaeological and anthropological studies have revealed that there had been no major population movement from Okinawa to the Sakishima Islands until the 13th century (Asato 1999).⁴ Eventually the Ryukyuan Dynasty, which had been established on Mainland Okinawa in 1429, colonised the Sakashimas, even though it is unclear how the actual colonisation was carried out, and it is also unclear how massive the population movement was.

1.4. Sociolinguistic overview

1.4.1. The name of the language

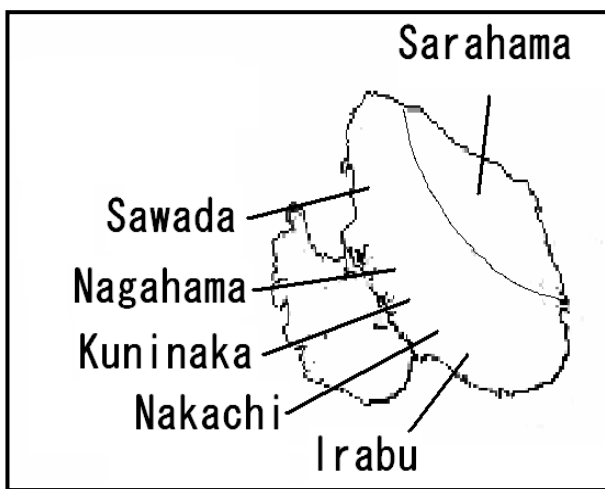
The term ‘Irabu’ is a Japanese version of the local pronunciation *irav* [irav]. The noun *irav* simply designates the place name of the island. The local people call their language by a nominal compound: *irav+(v)ci* [irav(v)tsi] (Irabu+mouth). Thus in a strict sense this grammar should be ‘A Grammar of *Iravci*’. However, I will continue to refer to Irabu rather than *irav* or *iravci*, because the term ‘Irabu’ has gained considerable currency in Japan and even in the local society, and because ‘Irabu’ is now internationally recognised as the standard name of the language (e.g. Grimes 1996).

1.4.2. Dialects

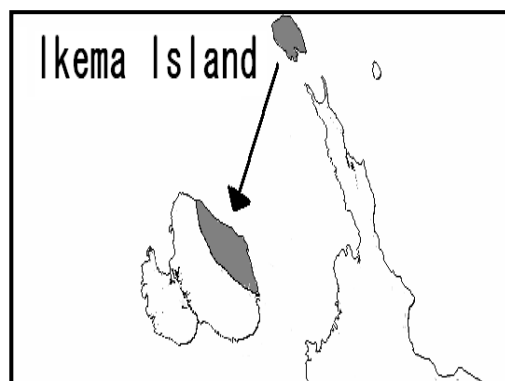
Based on differences in segmental phonology, four distinct dialects spoken on Irabu are

⁴ Until the 13th century, there must have been some indigenous people on the Sakishima Islands, who were decimated by the Ryukyuan newcomers, or gradually assimilated by them to become Southern Ryukyuan speakers. The question of exactly who the indigenous people were is controversial. Some researchers assert that they came from Indonesia or the Philippines (Asato 1999; Kanaseki 1976). Linguistically speaking, a different prediction is made, as an anonymous reviewer pointed out: all evidence is that Amami-Okinawan and Southern Ryukyuan are in sister relationship, both branching off from Proto-Ryukyuan. It is noted here that it is an established fact that Amami-Okinawas speakers settled by at least the 7th century. Given this, then, we cannot say that Southern Ryukyuan speakers arrived in Sakishima in the 13th century, since one branch in sister relationship cannot be 5 centuries or so younger than the other.

identified: (1) the Sawada-Nagahama dialect spoken in the Sawada and Nagahama areas, (2) the Kuninaka dialect spoken in the Kuninaka area, (3) the Irabu-Nakachi dialect spoken in Irabu area and Nakachi area, and (4) the Sarahama dialect spoken in the Sarahama area (MAP 3). Genealogically, (4) belongs to Ikema (Motonaga 1982: 78), another Miyako Ryukyuan variety (FIGURE 1-1). In 1766 there was a massive migration from Ikema to the Northern district of Irabu (Ooi 1984: 618-621) (MAP 4).



MAP 3. Irabu and its districts



MAP 4. Immigration to Sarahama

The following table briefly illustrates the differences among the three dialects of Irabu in segmental phonology. For comparative purposes, I also list the corresponding word forms in the Sarahama dialect.

TABLE 1-1. The dialectal variation of Irabu

	Irabu			Ikema
	Sawada-Nagahama	Kuninaka	Irabu-Nakachi	Sarahama
‘stick’	[bau]	[bau]	[bo:]	[bau]
‘needle’	[pa]	[pa]	[paʔ]	[hai]
‘red’	[aka]	[aka]	[axa]	[aka]
‘1PL’	[banti]	[bantʃi]	[banti]	[banti]

The major division within Irabu is between the Irabu-Nakachi dialect (IN) on one hand and the Sawada-Nagahama dialect (SN) and the Kuninaka dialect (K) on the other. First, the diphthong /au/ in SN and K corresponds to the long vowel /o:/ in IN. Second, the retroflex lateral [ɺ] (written /r/ in phonemic orthography) in SN and K corresponds to the [z]-like approximant (or [z] with a less friction) [z̥] in IN. Third, [k] within V₁+ k + V₂ (where V₁ and V₂ are /a/) in SN and K corresponds to [x] or [ʔ] in IN. The only distinction between SN and K is that [ti] in SN corresponds to [tʃi] in K.

The higher-order distinction between the three dialects of Irabu and the Sarahama dialect is based on the fact that /p/ in all Irabu dialects corresponds to /h/ in the Sarahama dialect, and that [ɺ]/[z̥] in the Irabu dialects corresponds to /i/ in Ikema.

As mentioned in §1.2, it is impossible at this stage to refer to a precise genealogical classification, which is another matter than showing dialectal variation (isoglosses) as above. For a historical classification the proper question is which features are shared retentions from Proto Okinawan and which are shared innovations. The latter is difficult to answer at this stage, and I leave it for future research.

There are also certain lexical differences among SN, K, and IN, especially between SN/K and IN. For example, ‘in a hurry’ is expressed by *pucci* in SN/K and *garamicci* in IN.

In terms of prosody, all dialects of Irabu have no lexical prosody, and have been referred to as ‘accentless’ dialects (Hirayama 1967). However, as will be demonstrated in §2.9 in this grammar, the Nagahama dialect has a rigid tonal pattern characterised by a regular alternation of tones (/H/ and toneless). Based on this feature, the Nagahama dialect can be distinguished from the Sawada dialect, which does not show this rigid

tonal pattern.⁵

The focus in this grammar is exclusively on the Nagahama dialect, unless otherwise noted. In spite of all the phonetic/phonological differences noted above, the major grammatical aspects of each dialect are strikingly similar, and most of the morphosyntactic generalisations made in this grammar hold true or just require minor modifications for other dialects of Irabu. For example, as described in §4.3.2.2, there is non-canonical object marking in the Nagahama dialect, which is almost restricted to clause chaining constructions. This same generalisation largely holds true for the Nakachi dialect (Lawrence *forthcoming*).⁶

1.4.3. The number of speakers

There are about 6,660 people on Irabu, according to the 2004 census.⁷ The Sarahama area has the majority of the population, with 3,690 residents. The population of the three dialect areas of Irabu is 2,970.

However, the actual numbers of speakers are much lower than these figures. My fieldwork observations indicate that fluent speakers of Irabu and Sarahama are almost all over sixty years old,. Given this, the estimated number of speakers of Irabu together with the Sarahama dialect of Ikema is approximately 2,000 to 2,500 (about one third of the island population is over sixty years old).

1.5. Previous works on Irabu and other Southern Ryukyuan languages

In what follows I present a brief summary of published and unpublished works that deal

⁵ This requires further research, however.

⁶ On the other hand, there seem to be a lot of grammatical differences between Irabu and Ikema. For example, Irabu makes extensive use of reduplication of property concept stems (Chapter 8) but , Ikema does not use this strategy (Yuka Hayashi, p.c.).

⁷ http://www.rik.ne.jp/town-irabu/pages/ko_jinko.html (last cited date: 25/10/2005)

with Irabu phonology and grammar. I also refer to works on other Miyako Ryukyuan varieties and on Southern Ryukyuan in general.

1.5.1. Detailed grammars

There has been no descriptive grammar published for Irabu or for any of the Miyako Ryukyuan languages. There is one detailed grammar describing Ishigaki, a Southern Ryukyuan language of the Yaeyama group (Miyara 1995).

Thus the present grammar is the first detailed grammar of Irabu as well as of any particular variety of the Miyako Ryukyuan languages, and the second detailed grammar of a Southern Ryukyuan language.

1.5.2. Grammatical sketches

There is one grammatical sketch of Irabu (Shimoji 2006). Lawrence (*forthcoming*) is a grammatical sketch of Southern Ryukyuan, where frequent reference is made to Irabu (the Nakachi dialect), and which addresses several important morphosyntactic features of Irabu that had not received attention in the literature (e.g. non-canonical object marking; see §4.2.3.3 in this grammar).

There are several grammatical sketches of other Miyako Ryukyuan varieties. Karimata (1997) and Izuyama (2002) describe Hirara, a dialect of Mainland Miyako. Hirayama (1967) gives a series of short grammatical sketches of Miyako Ryukyuan varieties including Irabu, especially noting basic verb and nominal morphology. In her MA thesis, Hayashi (2007) describes the tense-mood system of Ikema, a neighbouring Miyako Ryukyuan variety spoken on Ikema and in the Northern district of Irabu, where she gives a grammatical sketch of this language.

1.5.3. Works on specific topics

1.5.3.1. Phonological studies

Segmental phonology is a relatively well studied area in the literature of Irapu and other Miyako varieties, with several important contributions to segmental and supersegmental phonology. Four works exclusively refer to Irapu segmental phonology: Nakama (1983), Ryukyudaigaku Hoogenkenkyuu Kurabu (2005), Shimoji (2006, 2007). The following works deal with dialectal comparisons, referring to Irapu segmental phonology to varying degrees: Hirayama (1964), Hirayama, Oshima, and Nakamoto (1966), and Hirayama (1967). Sawaki (2000) and a series of works by Karimata (1982, 1986, 2005, among others) address general characteristics of Miyako segmental phonology, and refer to Irapu phonology with a particular focus on syllable structure. Pellard (2007) is a useful summary of the theoretical issues of Miyako segmental phonology.

Supersegmental phonology has been much less studied, partly because the prosody of Irapu and many other Miyako Ryukyuan varieties is not lexical prosody (Hirayama 1964, Hirayama, Oshima, and Nakamoto 1966, Hirayama 1967). The prosody of Irapu has been one of the least studied among Miyako varieties.

In summary, no previous work provided a comprehensive description of the synchronic phonological system of Irapu, dealing both with segmental and supersegmental phonology. This is extensively dealt with in Chapter 2 of this grammar.

1.5.3.2. Morphosyntactic studies

Compared with phonology, the grammatical aspects of Irapu and other Miyako Ryukyuan varieties have been much less studied. There are only a handful of studies specifically dealing with Irapu, all of which are by the present author except for

Motonaga (1983), which deals with verb morphology and dialectal variation. Shimoji (2008a) gives a brief description of verb inflection. Shimoji (2008b) deals with non-canonical object marking and its discourse function (see also §4.3.3.1). Shimoji (2008c) gives a description of basic grammatical units and categories such as word, affix, clitic, grammatical relations, etc (see also Chapter 3).

Turning to grammatical studies dealing with Miyako Ryukyuan in general, Nakama (1992) reports a cross-dialectal survey on Miyako Ryukyuan morphology, with a particular focus on the historical comparison of Miyako Ryukyuan varieties. Motonaga (1978) and Karimata (2002) describe the adjectival morphology of Miyako Ryukyuan in general. Nakasone (1976) describes honorific expressions of Miyako Ryukyuan. Shimajiri (1983) describes case morphology in Miyako Ryukyuan (with a particular focus on the Nohara dialect). Karimata (1999) is a study of the historical morphology of Miyako Ryukyuan verbs. Hayashi (2007) gives an analysis of the tense-mood system of Ikema. Kawada, Hayashi, Iwasaki, and Ono (2008) is a study of the discourse function of an interjection *mmja*, a word characteristic of Miyako Ryukyuan. Koloskova and Ohori (2008) is a typological study of the adjectival system of Hirara, addressing various striking features of the adjectival system of this dialect (see Chapter 8 of this grammar for the Irabu adjectival system).

1.5.4. Dictionaries, texts, and unpublished materials

Many dictionaries of Ryukyuan varieties have been published both by linguists and native speaker authors who are not linguists. All are bilingual Ryukyuan-Japanese. Karimata (2004: 66) gives a list of the dictionaries published for Miyako and other Ryukyuan varieties. An extensive dictionary of the Nakachi dialect of Irabu is expected to be published by Sadayoshi Tomihama, who is a native speaker of the Nakachi dialect.

This dictionary will include a grammatical sketch by the author. There are a number of dictionaries of other Miyako Ryukyuan varieties, e.g. Shimoji (1979).

Some text materials, song lyrics and fieldnote data are available for Irabu. A series of text materials collected and transcribed by Nikolai A. Nevski (1971; 1998) is extremely important in that it records the speech of Irabu and other Miyako Ryukyuan varieties nearly one hundred years ago, and that it records the linguistic data with IPA symbols. Shibata (1972) lists two conversational texts of Irabu. Nakasone (n.d. a-h) is a collection of his unpublished fieldnotes, which include a lot of information about Irabu phonology and grammar.

1.6. A typological overview of Irabu

1.6.1. Phonology

Irabu segmental phonology is typologically noteworthy in a number of respects. First, there are a lot of moraic consonants functioning either as syllabic consonants (e.g. /m.na/ [m̩na] ‘shellfish’, /n.za/ [n̩za] ‘where’, etc.) or as part of onset (e.g. the first /f/ in /ffa/ [ffa] ‘child’), and there are even words consisting only of moraic consonants (e.g. /m:/ [m̩:] ‘potato’, /r:/ [r̩:] ‘enter’, etc.). Second, a length distinction is made in consonants as well as in vowels (/m.na/ ‘shellfish’ vs. /m:.na/ ‘all’). Third, two resonants, i.e. /ž/ which covers a range of sounds including [z]-like approximant ([z̠], and a [z] with less friction, and their voiceless counterparts) and the retroflex lateral allophone of /r/ ([ɭ]) can serve as a nucleus of regular syllables, and can even carry certain (labial) onsets. (Thus we have such words as /bž.da/ [bžda] ‘low’ (CV.CV), /mž:/ [mž:] ‘flesh’ (CVV), /pr.ma/ [pɭ:ma] ‘daytime’ (CVV.CV), /br.br.gas.sa/ [bɭbɭ:gassa] ‘alocasia odora’ (CV.CVV.CVC.CV).

Prosodically, Irabu is a pitch language in which two tones, i.e. the marked High

and the default Low (or zero) are distinguished. The tone system is not lexical but rhythmic, characterised by the alternation of the two tone features based on bi- or trimoraic foot structure within the phonological word. Thus a quadrimoraic phonological word has the metrical structure $(\mu\mu)(\mu\mu)$, onto which tone is assigned $(\mu\mu)_H (\mu\mu)_L$. The rhythmic tone assignment is explained as follows: one to three adjacent feet form a single higher rhythmic unit, or a foot group, in which the first foot is assigned High tone $((\mu\mu)_H (\mu\mu)_L (\mu\mu)_L)$. If a phonological word is extended by affixation and cliticisation so that it contains four feet, then the foot group is broken down into two foot groups $\langle(\mu\mu)_H (\mu\mu)_L \rangle \langle(\mu\mu)_H (\mu\mu)_L \rangle$. This break-down process is iteratively applied, so that a phonological word with twelve morae have three foot groups, with the prosodic pattern $\langle(H)(L)\rangle \langle(H)(L)\rangle \langle(H)(L)\rangle$. This rhythmic organisation is precisely an instantiation of the Principle of Rhythmic Alternation (Selkirk 1984, Kubozono 1993). This kind of alternating rhythm is not commonly known in pitch languages, making Irabu particularly noteworthy in terms of prosodic typology.

1.6.2. Morphosyntax

Irabu is a verb-final language with a modifier-head order and a dependent-marking system. It prefers SV as an unmarked word order for intransitive clauses, and AOV as an unmarked word order for transitive clauses, and AEOV in the case of extended transitive clauses (where E(xtended core argument; see §3.5.1) represents an indirect object). However, since Irabu is a pro-drop language like Japanese, where a pragmatically recoverable argument or arguments may be unexpressed, it is extremely rare to find clauses with A, O, and E.

Irabu distinguishes seven word classes: nominals, verbs, adjectives, adnominals,

adverbs, conjunctions, and interjections. A given property concept is expressed by a bound stem, from which an adjective, a nominal, a verb, or an adverb is formed. This flexibility in the formation of property concept words is typologically noteworthy, and Wetzer (1996) classifies such a flexible system as ‘switch-adjectival’ where a property concept may be encoded either nominally or verbally.

Irabu is largely characterised by agglutinative morphology, though verbs have a lot of morphophonemic alternations and portmanteau affixes. Affixation and cliticisation are exclusively suffixal and enclitic. There is no agreement morphology. In addition to affixation, there are also compounding and reduplication. I recorded some words consisting of as many as nine morphemes, as in *puri+munu+mmsa-kar-as-ai+u-i-ba* ‘Because (I) am being made to behave like a crazy person’ (get.mad+man+similar-VLZ-CAUS-PASS+PROG-THM-CVB.CSL).

Nominal morphology is only derivational, and the case relation is marked by a case clitic whose syntactic host is an NP. Verb morphology consists of both derivational and inflectional morphology. Inflection may be finite (inflecting for tense/mood/polarity) or non-finite (not inflecting for tense/mood but for dependency relations such as subordination).

Irabu clauses display a nominative-accusative case system with some typologically interesting peculiarities: nominative case forms and genitive case forms are syncretised, and accusative case forms fall into the (unmarked) accusative =*u* and the second accusative =*a*, the latter being used for a low transitivity direct object. Thus the second accusative is analogous to the so-called ‘indefinite accusative’ (alternatively partitive case) found in Altaic languages (e.g. Kuribayashi 1989; Kazama 1997). However, the second accusative is not like the indefinite accusative in that the former is almost always restricted to clause chaining constructions. See §4.3.2.2 and §11.3 for more detail.

Irabu and many other Ryukyuan varieties have a rich inventory of focus markers and topic markers, and a typologically remarkable syntactic construction, called *kakarimusubi* (literally governing-and-concordance) in Japanese linguistics, in which the presence of a focus marker within a clause restricts the choice of verb inflection. See §11.5 for more detail.

1.7. Method and data

This grammar is based on inductive generalisations made from text materials collected by the present author and deductive analyses based on elicited materials. Even though this grammar does not employ one particular theoretical model, it occasionally makes reference to theoretical issues where the Irabu fact deserves attention. For example, in §2.9 I note the Principle of Rhythmic Alternation suggested in generative phonology, as this principle is directly manifested in rhythmic alternation of tone features in Irabu, thus further supporting the universality of this principle, and demonstrating that this principle is not restricted to stress rhythm as previously assumed, but extensible to tonal rhythm as in Irabu.

The main data for this grammar were collected during two periods of fieldwork (six months in 2005-2006, six months in 2007). In the first spell of fieldwork I mostly focused on phonology, mainly because this area is one of the most difficult parts of Irabu. I also collected various text materials (7 hours in total). The second spell consisted of two kinds of tasks: one focused on making thorough transcriptions of selected texts (four hours of texts which have a good quality in length, cohesion, and cultural information, etc.) with the help of two consultants, Setsuko Sugama and Junji Shimoji, and the other on intense elicitations with various consultants including these two persons.

Twenty one native speakers of Irabu (nine males, twelve females; twelve speakers from Nagahama, six speakers from Sawada, two from Irabu, one from Kuninaka) gave text data and elicitation data, as well as helping me transcribe texts. All consultants were over sixty five years old, as it was very difficult to find younger consultants who are fluent enough to sustain a discourse in Irabu, to construct example sentences freely, and to give subtle grammaticality judgements in elicitation sessions.

1.8. Organisation of this grammar

This grammar consists of 11 chapters and a set of text materials as an appendix. In terms of their approach, the chapters fall into two major parts: Chapters 2 to 9 have a form-to-function orientation and Chapters 10 and 11 have a function-to-form orientation. In particular, each section of Chapter 10 commences with a particular functional-typological issue such as speech act, negation, voice, tense-aspect-mood, etc., which often crosscut different structures each of which is thoroughly described in Chapters 2 to 9.

Chapter 2 Phonology

Irabu phonology is characterised by rather complex syllable structures which are dependent on their position in words, gemination and length contrast sensitive to the notion mora, and a non-contrastive and rhythmic tone system where the High tone appears iteratively based on foot structure. Several major phonological rules are effectively described by referring to the underlying and the surface levels of the phonological system.⁸ Thus this chapter employs the following symbols for different representational levels:

- Square brackets ‘[]’: phonetic representation
- Slashes ‘//’: surface phonemic representation
- Double slashes ‘///’ underlying phonemic representation (where necessary)

2.1. Segmentation

A frequent reference will be made to the notion ‘word’ in describing both the phonology and the grammar. There are two kinds of word, i.e. grammatical word and phonological word. The grammatical word will be described in Chapter 3 in detail, and it is sufficient here to note the basic definition and terminology of the grammatical word and its related units, i.e. the affix and the clitic.

⁸ An anonymous reviewer pointed out that the distinction between the surface phonological system and the underlying phonological system is controversial. He considers that only the former system is sufficient. However, as will be noted in §2.7.2, there are motivations for the current analysis. The issue raised by the examiner is theoretical in nature, and I would like to leave this issue as future research topic.

2.1.1. Grammatical word

A grammatical word (henceforth simply ‘word’ unless an explicit distinction between a grammatical word and a phonological word is necessary) is a free form that centres on a root, and heads a phrase or functions as a member of a phrase (as a modifier, complement, auxiliary, etc.). A word may be a bare root or may be morphologically complex with compounding and/or affixation. A clitic is not a word, since it does not head a phrase or functions as an internal member of a phrase. Rather, it is attached syntactically to a phrase, and attached phonologically to a word that is a member of a phrase.⁹ An affix is morphologically attached to a stem, and thus may attach to a bound stem. See §3.1 for a fuller account of word, clitic, and affix. A word-plus is a morphosyntactic unit that consists of a word and a whole number of clitics that attach to the host word. A phrase consists of one or more word(-plus)es. Below are illustrative examples of word and word-plus.

(2-1) a. Word (root)	b. Word (with affixes)	c. Word-plus
<i>jarabi</i>	<i>jarabi-gama-mmi</i>	<i>jarabi-gama-mmi=kara=mai</i>
child	child-DIM-PL	child-DIM-PL=from=even
‘child’	‘little children’	‘even from little children’

⁹ An anonymous reviewer pointed out that a standard view on clitics is that a clitic is a grammatical word, so that a discussion is required whether a clitic in Irabu is actually a grammatical word or not. The recent typological literature recognises two ways of characterising clitics: as a bound word (like adpositions in many languages which govern the case of the noun), and as a categorically unrestricted (or phrasal) affix (Bickel and Nichols 2007). Probably the reviewer assumes that every clitic is a bound word. However, Irabu clitics belong to the second type, and it is impossible to analyse it as a word, as it lacks such characteristics as found in adpositions as noted above. Rather, Irabu clitics align with affixes, and the difference is syntactic vs morphological distribution (see §3.2.2). The bound word type is actually recognised in Irabu, and I described it in §3.2.3.1, where I distinguished bound words from clitics.

An affix boundary and a clitic boundary are represented by a hyphen ‘-’ and equal sign ‘=’ respectively. Plus sign ‘+’ represents a root boundary as in compounding and full reduplication (e.g. *biki+jarabi* ‘male child’; *jarabii+jarabi* ‘childish’). A word-plus is the orthographic word throughout this grammar.

2.1.2. Phonological word

A word-plus is in most cases a phonologically coherent unit, or a phonological word in terms of (1) syllable structure, (2) the applicability of phonological rules, and (3) prosody. Most compound stems are separate phonological words in (1) and (3), and the compound structure will be described in §2.11 after introducing all these relevant phonological criteria for the phonological wordhood (§2.4, §2.5, §2.7, and §2.9). There are more complex cases where the different phonological criteria yield different phonological word boundaries. That is, certain affixes and clitics are separate phonological words in terms of (1) and (2) but not of (3), and certain phrases may be phonological words in terms of (3) but not of (1) and (2). These specific cases will be noted where necessary.

2.2. Classes of phonemes

Irabu phonemes can be divided into three classes based on their distribution in larger phonological structures and their behaviour in (morpho-)phonological processes:

Consonants, Glides, and Vowels.

2.2.1. Consonants

TABLE 2-1 below shows the inventory of consonant phonemes. There are three phonemic places of articulation (labial, alveolar, velar(/glottal)) and three phonemic

manners of articulation (stop, fricative, resonant).

TABLE 2-1. Inventory of consonant phonemes

		LABIAL	ALVEOLAR	VELAR /GLOTTAL
STOPS	voiceless	p	t	k
	voiced	b	d	g
FRICATIVES	voiceless	f	s, c	h
	voiced		z	
RESONANTS (short/long)	nasal	m/m:	n/n:	
	approximant	v/v:	ʒ/ʒ:	
	flap		r/r:	

Note: (A) Stops and fricatives have voice opposition.

(B) /c/ [ts] and /z/ [dz] are phonemically classified as fricatives because of their phonotactic and morphophonemic behaviours. See below.

(C) Resonants may be syllabic. For example, a resonant is syllabic in a special type of syllable, or the presyllable (e.g. /m.ta/ [m̩ta] ‘mud’; see §2.4.1).

(D) The phonetic symbol [z̥], the major allophone of /ʒ/, is meant to cover a range of sounds from [z] with less friction to a [z]-like approximant.

(E) The phoneme /r/ is pronounced as [r] as an open syllable single onset, as in /kuri/ [kuri] ‘this’ (CV.CV), and [l] otherwise.

Among the five fricative consonants, /h/ is not systemic: its lexical distribution is mostly restricted to non-native words, and it is the only phoneme whose place of articulation does not form a natural class with other phonemes. The other ‘regular’ fricatives, /f/, /s/, /c/, and /z/, share the phonotactic patterns summarised below, which

justifies classifying the phonetic affricates phonemically as fricatives, except that /z/ cannot form geminates initially.

- There is a phonological rule that applies only to fricatives (§2.6.2).
- Only fricatives can serve as the onset of /i/ and /i:/ (§2.7.2).

2.2.2. Glides

Glide phonemes consist of /w/ and /j/. /j/ plays a major role in the syllable G slot. /w/ is peripheral in Irabu phonology, occurring syllable-initially only in the syllable /wa(V)/ (e.g. /wai.si/ [waiʃi] ‘onomatopaeic expression’, /ni.wa:/ [niwa:] ‘garden’), and, only occasionally, between the stops /k/ and /g/ and a vowel, e.g. /kwa:.si/ [k^wa:si] ‘snack’. The CG sequence (e.g. /pj/ as in /pja:/ (CGVV) [pja:] ‘early’) is phonetically realised as a single palatalised phone (e.g. [pʲ]) rather than a consonant plus glide phone ([pj]). There is some evidence that G is not an onset (i.e. it is treated differently from onset C; see §2.5.1.4). The justification for assuming a sequence CG rather than a single palatal consonant is noted in §2.8.3.

2.2.3. Vowel

The inventory of vowel phonemes is given in **TABLE 2-2** below.

TABLE 2-2. Inventory of vowel phonemes (short/long)

	FRONT	CENTRAL	BACK
HIGH	i/i:	ɨ/ɨ:	u/u:
MID	(e)/(e:)		(o)/(o:)
LOW		a/a:	

- short mid vowels are rare, and long mid vowels rarer still.
- /u/ is phonetically [ʊ] or [ɯ], i.e. a slightly lower and/or front version of cardinal [u]. Since these phonetic realisations are largely free variation, they are simply represented as [u] henceforth.
- /i/ ([i]) and /i:/ ([i:]) only combine with fricative onsets. Short /i/ is underlyingly absent, and is predictably inserted as an epenthetic segment to break up prohibited phonotactic patterns of word-plus (e.g. */st/, as in //sta// > /sīta/ [sita] ‘tongue’; */s/#, as in //pus// > /pusī/ [pusi] ‘star’). See §2.7.2 for detail.

2.2.4. Orthography

In the rest of this grammar, I double the same letter in order to represent long segments. Otherwise I will use the same symbols that I used for representing the phonemes above.

2.3. Minimal or quasi-minimal contrasts

Here I list minimal or quasi-minimal pairs for short segments.¹⁰ Long segments are collectively noted in §2.6.3.1.

2.3.1. Consonants (stops, fricatives, and resonants)

- /p/ vs. /t/ vs. /k/: /pusī/ [pusi] ‘star’, /tusī/ [tusi] ‘year’, /kusī/ [kusi] ‘belly’
- /p/ vs. /b/: /puu/ [pu:] ‘spike’, /buu/ [bu:] ‘thread’
- /t/ vs. /d/: /tusī/ [tusi] ‘year’, /dusī/ [dusi] ‘friend’

¹⁰ As will be described in §2.9 below, there is no lexically contrastive prosody in Irabu. Irabu has a foot-based rhythmic tone system where /H/ and /Ø/ (phonetically [L]) alternates.

- /k/ vs. /g/: /kuu/ [ku:] ‘powder’, /guu/ [gu:] ‘cave’
- /f/ vs. /s/ vs. /z/: /fau/ [fau] ‘eat’, /sau/ [sau] ‘pole’, /zau/ [dzau] ‘gate’
- /c/ vs. /z/: /aca/ [atsa] ‘tomorrow’, /aza/ [adza] ‘elder brother’
- /p/ vs. /h/: /pira/ [pira] ‘tailcutter’, /hira/ [çira] ‘hey’
- /m/ vs. /n/: /kam/ [kam] ‘god’, /kan/ [kaŋ] ‘crab’
- /v/ vs. /ž/ vs. /r/: /pav/ [pav] ‘snake’, /paž/ [paž] ‘fly’, /par/ [pa] ‘needle’
- /r/ vs. /n/: /sira/ [fira] ‘after birth’, /sina/ [fina] ‘commodity’

2.3.2. Glides

- /j/ vs. /w/: /jaa/ [ja:] ‘house’, /waa/ [wa:] ‘pig’

2.3.3. Vowels

- /a/ vs. /i/ vs. /u/: /par/ [pa] ‘needle’, /pir/ [pi] ‘garlic’, /pur/ [pu] ‘dig’
- /i/ vs. /e/: /=i/ [i] (confirmative), /=e/ [e] (question)
- /u/ vs. /o/: /kuma/ [kuma] ‘here’, /koma/ [koma] ‘spinning top’ (< Japanese)
- /a/ vs. /i/: /sata/ [sata] ‘sugar’, /sita/ [sita] ‘tongue’

2.4. The structure of the root word

In this section I give an overview of the syllable structure of the root word. The generalisations here mostly apply to morphologically complex words and word-pluses as well. This general syllable structure and phonotactic constraints serves as the definition of a phonological word in terms of syllable structure and phonotactics. That is, most word(-plus)es are phonological words in these respects. Some divergences are noted in §2.5.

2.4.1. Word template

For descriptive purposes it is convenient to divide the structure of root words into three portions, i.e. presyllable, initial syllable, and non-initial syllable(s):

(2-2) WORD TEMPLATE

(presyllable +) initial syllable (+ non-initial syllable_{1...n})

The term presyllable is meant to represent a minor syllable in terms of phonotactics and structure, which deserves a different descriptive treatment than ordinary syllables (initial syllable and non-initial syllable).

The following generalisations, followed by exceptions to them, obtain as to the structure of the root word:

(2-3) A presyllable is a syllabic resonant (abbreviated as R):

- a. /m.ta/ [m̩ta] ‘mud’ (R.CV)
- b. /mm.ta/ [m̩:ta] ‘k.o.tree’ (RR.CV)
- c. /n.si/ [n̩si] ‘north’ (R.CV)
- d. /v.cca/ [v̩ttsa] ‘quail’ (R.CCV)

(2-4) An initial syllable has an optional onset and coda. The initial cluster CC must be a geminate voiceless fricative or resonant.

- a. ((C_i) C_i) (G) V₁ (V₂) (C_{coda})
- b. /ma.cja/ [matʃa] ‘little bird’ (CV.CGV)
- c. /maa.da/ [ma:da] ‘very’ (CVV.CV)
- d. /mai.cja/ [maitʃa] ‘sleeve’ (CVV.CGV)

e. /maž/ [maz̩] ‘rice’ (CVC)

f. /mma/ [mma] ‘mother’ (CCV)

(2-5) A non-initial syllable has an obligatory onset and optional coda.

a. **C (G) V₁ (V₂) (C_{coda}) or G V₁ (V₂) (C_{coda})**

b. /ma.ju/ [maju] ‘cat’ (CV.GV)

c. /ni.sjai/ [nijai] ‘young man’ (CV.CGV)

d. /bu.dur/ [budu] ‘dance’ (CV.CVC)

(2-6) A presyllable + initial syllable produces consonant clusters R.C, RR.C, or in very rare cases R.CC, but not RR.CC in roots.

a. /m.ci/ [m̩tsi] ‘road’ (R.CV)

b. /nn.di/ [n̩:di] ‘Yes’ (RR.CV)

c. /v.cca/ [v̩ttsa] ‘quail’ (R.CCV)

(2-7) In polysyllabic words, the structure of a final syllable is as for a non-initial syllable as in (2-5), i.e. with an obligatory onset and optional coda, except in cases where the final syllable is an initial syllable (as in disyllabic words consisting of a presyllable + an initial syllable). The final coda is a resonant.

a. /pa.sam/ [pasam] ‘clow’ (CV.CVC)

b. /gu.sjan/ [gufan] ‘stick’ (CV.CGVC)

c. /ni.niv/ [nijiv] ‘snooze’ (CV.CVC)

d. /ju.baž/ [jubaz̩] ‘the act of visiting a woman’s house at night’ (GV.CVC)

e. /ku.par/ [kupa] ‘stammerer’

f. /n.kum/ [ŋkum] ‘strain’ (R.CVC)

(2-8) There are occasions when the nucleus of an ordinary syllable is filled by an alveolar non-nasal resonant /z(ž)/ or /r(r)/, or a nucleic resonant (Rn). The onset is always a bilabial stop or nasal /p/, /b/ and /m/. See also §2.4.2 below.

- a. /pž.tu/ [pʂtu] ‘man’ (CRn.CV)
- b. /pžž/ [pʂ:] ‘day’ (CRnRn)
- c. /bž.da/ [bʂda] ‘low’ (CRn.CV)
- d. /ju.bžž/ [jubʂ:] ‘suck’ (GV.CRnRn)
- e. /mžž/ [mʂ:] ‘flesh’ (CRnRn)
- f. /prr.ma/ [p[:ma] ‘daytime’ (CRnRn.CV)
- g. /na.brr/ [nab[:] ‘slippery’ (CV.CRnRn)
- h. /mrr.na/ [m[:.na] ‘green chive’ (CRnRn.CV)

(2-9) Exceptions

- a. Exception to (2-2): though an initial syllable is obligatory by definition, a very few presyllable-only words do exist.
 - i. /mm/ [m:] ‘potato’ (RR)
 - ii. /žž/ [ʂ:] ‘rice ball’ (RR)
- b. Exception to (2-4): /t/ may be exceptionally geminated in initial clusters, though there are very few attested examples.
 - i. /ttjaa/ [ʔtʂa:] ‘then’ (CCGVV)
 - ii. /tti.gaa/ [ʔttiga:] ‘then’ (CCV.CVV)
- c. Exception to (2-5): there are very rare instances of /VV.V/ in roots, i.e. cases where the onset of the non-initial syllable is missing (such

instances always involve /aa.i/ or /uu.i/).

- i. /aa.i/ [a:i] ‘No’ (VV.V)
- ii. /juu.i/ [ju:.i] ‘preparation’ (GVV.V)

2.4.2. Nucleic resonants

Alveolar non-nasal resonants /ž(ž)/ and /r(r)/ may appear in V slots of initial syllables and of non-initial syllables, serving as nucleic resonants. The onset must be a labial, and mostly the labial stops /p/ and /b/, and only in rare cases the labial nasal /m/. This indicates that there is a tendency towards maximising the feature difference between the onset phoneme (labial and stop) and the nucleus phoneme (alveolar and resonant).

/ž(ž)/ Initial syllable

/pž.tu/ [pʂtu] ‘man’ CRn.CV

/pžž/ [p^sž:] ‘day’ CRnRn

/bž.da/ [bžda] ‘low’ CRn.CV

/bžž/ [bž:] ‘sit’ CRnRn

/mžž/ [mž:] ‘flesh’ CRnRn

Non-initial syllable

/su.ku.bž/ [sukubž] ‘belt’ CV.CV.CRn

/ka.bžž/ [kabž:] ‘paper’ CV.CRnRn

/r(r)/ Initial syllable

/pr.r.ma/ [p]:ma] ‘daytime’ CRnRn.CV

/br.brr/ [b].b:] ‘alocasia odora’ CRn.CRnRn

/mrr.na/ [m]:na] ‘green chive’ CRnRn.CV

Non-initial syllable

/na.brr/ [nab]:] ‘slippery’ CV.CRnRn

The tendency towards maximising feature difference also holds in presyllable plus initial syllable non-geminate clusters (such as /m.ta/ [m̩ta] ‘mud’ R.CV), where the

cluster consists of a labial nasal resonant plus an alveolar non-resonant (see 2.5.6.3).

2.4.3. Heavy structures

Monosyllables of the structure $((C_i)C_i)(G)V_1V_2C_{coda}$ are rare in roots: among the attested words are /aur/ [au] ‘still’, /saar/ [sa:] ‘take (someone to somewhere)’, /daav/ [da:v] ‘tool’, etc. The ‘fully-loaded’ monosyllable $C_iC_iGV_1V_2C_{coda}$ is not attested in the root word. The codaless but otherwise fully-loaded monosyllable structure is attested though rare: $C_iC_iGV_1V_2$ (e.g. /ttjaa/ [²ttja:] ‘then’).

2.4.4. Examples of root word structures

In this section I give some examples illustrating root word structure step by step. The focus is first on the initial syllable (§2.4.4.1 and §2.4.4.2), then non-initial syllable (§2.4.4.3), and finally the presyllable (§2.4.4.4 and §2.4.4.5). The phonotactic details involved in each structural position will be covered in depth in §2.5.

2.4.4.1. Examples of words with an initial syllable only

Here, an onset consisting of a single C may be filled by a stop (**S**), fricative (**F**), or a resonant (**R**), while an onset of two consonants CC is filled by identical segments, either a fricative or a resonant (exceptionally a geminate stop cluster /tt/). The coda is a resonant.

	#	((C _i)	C _i)	(G)	V ₁	(V ₂)	(C _{coda}) #
	R		R				R
	F		F				
	(S)		S				
/aa/ [a:] ‘foxtail millet’					a	a	
/ai/ [ai] ‘like that’					a	i	
/jaa/ [ja:] ‘house’				j	a	a	
/am/ [am] ‘net’					a		m
/jam/ [jam] ‘disease’				j	a		m
/kam/ [kam] ‘god’			k		a		m
/maž/ [maž] ‘rice’			m		a		ž
/aur/ [au] ‘still’					a	u	r
/pjar/ [pja/r] ‘leave’			p	j	a		r
/ffa/ [ffa] ‘child’	f	f			a		
/ssam/ [ssam] ‘lice’	s	s			a		m
/ccir/ [ʔtʃi] ‘pipe’	c	c			i		r
/ttjaa/ [ʔtʃa:] ‘then’	t	t	j		a	a	
/mmja/ [mmja] ‘well’	m	m	j		a		
/vva/ [vva] ‘you’	v	v			a		
/žža/ [žza] ‘father’	ž	ž			a		
/rra/ [[a] ‘placenta’	r	r			a		
/pžž/ [pʒ:] ‘day’		p			ž	ž	

2.4.4.2. Examples of words with an initial and a non-initial syllable, showing the structure of the initial syllable

Here, it is noted that the set of consonants which may fill the coda of the word medial position is larger than for the word final coda (cf. §2.4.4.1). Word-medial codas allow fricatives and stops in addition to resonants. However, a coda fricative or stop must be identical with the onset of the following syllable.

	#	((C _i) C _i)	(G)	V ₁	(V ₂)	(C _{coda})\$	C ₁ ...
		R	R			R	
		F	F			F	
		(S)	S			S	
/an.na/ [anna] ‘mother’				a		n	na
/av.va/ [avva] ‘oil’				a		v	va
/ja.ma/ [jama] ‘mountain’			j	a			ma
/ka.gi/ [kagi] ‘beautiful’		k		a			gi
/kaa.gi/ [ka:gi] ‘smell’		k		a	a		gi
/bat.ta/ [batta] ‘armpit’		b		a		t	ta
/bas.si/ [baʃʃi] ‘forget’		b		a		s	si
/pin.za/ [pindza] ‘goat’		p		i		n	za
/kiv.si/ [kivsi] ‘haze’		k		i		v	sī
/mjaa.ku/ [mʲa:ku] ‘Miyako’		m	j	a	a		ku
/kjav.dai/ [kʲavdai] ‘brother’		k	j	a		v	dai
/nna.ma/ [nnama] ‘now’	n	n		a			ma
/pž.tu/ [pʒtu] ‘man’		p		ž			tu

2.4.4.3. Examples of words with an initial and a non-initial syllable, showing the structure of the non-initial syllable

Here the focus is on the non-initial syllable (of the word-final position below). The onset of the non-initial syllable is obligatory (exceptions being mentioned in (2-9c)), and it must be a single consonant (plus glide) or a single glide.

	\$	C _i	(G)	V ₁	(V ₂)	(C _{coda}) #
/mjaa.ku/ [mʲa:ku] ‘Miyako’	mjaa	k		u		
/an.na/ [anna] ‘mother’	an	n		a		
/av.va/ [avva] ‘oil’	av	v		a		
/kjav.dai/ [kʲavdai] ‘brother’	kjav	d		a	i	
/juu.rja/ [ju:rʲa] ‘season’	juu	r	j	a		
/tun.bjan/ [tumbʲaŋ] ‘k.o. vegetable’	tun	b	j	a		n
/ta.ja/ [taja] ‘power’	ta		j	a		
/na.brr/ [nab:ɾ] ‘slippery’	na	b		r	r	

The /nb/ found in roots, such as /tun.bjan/ [tumbʲaŋ] ‘k.o. vegetable’ should not be analysed as /mb/, nor as reflecting a neutralisation of /n/ and /m/. The /nb/ analysis is preferable in terms of the phonotactic patterns of nasal consonant clusters (see §2.8.1). In morpheme boundaries, of course, /mb/ may occur (e.g. /kam/ ‘god’ + /=bjaam/ ‘I wonder’ > /kam.bjaam/ ‘I wonder if it’s a god’)

2.4.4.4. Examples of words with a presyllable plus initial syllable

Here, the consonant clusters R.C, RR.C (where the RR is a long resonant phoneme), or in very rare cases R.CC, are attested.

	#	((R _i)	R _i)	\$(C _i)	C _i)	(G)	V ₁	(V ₂)	(C _{coda})#
		R	R	R	R				R
				F	F				
					S				
/m.ta/ [m̩ta]			m		t		a		
/m.su/ [m̩su]			m		s		u		
/m.na/ [m̩na]			m		n		a		
/v.ta/ [v̩ta]			v		t		a		
/v.cca/ [v̩ttsa]			v	c	c		a		
/n.gja/ [ŋg̩ja]			ŋ		g	j	a		
/n.bir/ [m̩bi]			n		b		i	r	
/n.fi/ [ŋfi]			n		f		ï		
/n.kum/ [ŋkum]			n		k		u	m	
/mm.ta/ [m̩:ta]	m	m			t		a		
/nn.di/ [ŋ:di]	n	n			d		i		
/nn.ku/ [ŋ:ku]	n	n			k		u		

2.4.4.5. Examples of words consisting only of a presyllable (a syllabic resonant)

There are pre-syllable-only words, which are derived from a phonological rule where an underlyingly single resonant root is obligatorily lengthened to meet a minimality

constraint of two moras (§2.6.2).

	#	R _i	R _i	#
/mm/ [m:] ‘potato’ (/m// > /m:/)	m	m	m	
/nn/ [ŋ:] ‘yes’ (/n// > /n:/)	n	n	n	
/vv/ [v:] ‘sell’ (participle stem) (/v// > /v:/)	v	v	v	
/žž/ [z:] ‘scold’ (participle stem) (/ž// > /ž:/)	ž	ž	ž	
/rr/ [r:] ‘(the sun) sets’ (participle stem) (/r// > /r:/)	r	r	r	

2.5. Phonotactics of the word-plus

This section describes the phonotactics of the word-plus domain, taking morphologically complex structures into account, and noting the phonotactic differences between root structures and morphologically complex structures.

TABLE 2-2. Basic phonotactic schema (S: stops; F: fricatives; R: resonants)

#Presyllable	Initial syllable	Non-initial syllable _{1...n} #				
((R _i) R _i)	((C _i) C _i)(G)V ₁ (V ₂) (C _{coda})	C	(G)V ₁ (V ₂)	(C _{coda})...	(C _{coda})	
R R	R R	R	R	R	R	R
	F F	F	F	F	F	
	(S) S	S	S	S	S	

(2-10) There are four primary phonotactic constraints that generally hold both in root words and polymorphemic words and word-pluses. See §2.5.1.

- a. Final coda must be a resonant.
- b. Medial clusters are heterosyllabic C.C only.
- c. The CC cluster of non-resonant consonants must be a geminate.
- d. C.(G)V is impermissible, i.e. a non-initial syllable must carry onset C.

- (2-11) V_1V_2 may be a long vowel or a (generally rising) diphthong. See §2.5.2.
- (2-12) The single onset in an initial syllable can be filled by any consonant but /v/, /ž/, and /ɾ/. See §2.5.3.
- (2-13) Initial syllable onset clusters consist of geminates only, of any resonants or of fricatives other than /z/ and /h/ (also /t/ exceptionally). See §2.5.4.
- (2-14) Non-initial clusters, i.e. coda plus onset clusters, are (a) geminates, (b) partial geminates (homorganic /n/ + C), or (c) restricted non-geminates. See §2.5.5.
- (2-15) Presyllable plus initial syllable onset clusters are generally of the type (b) and (c) above. See §2.5.6.
- (2-16) Word initial geminates are more common than geminates across syllable boundaries. See §2.5.7.

As an initial approximation, it can be said that there is an overwhelming tendency for Irabu consonant clusters to be geminates or partial geminates (involving homorganic /n/ + C) in consonant clusters within/across syllables. This generalisation holds for Miyako Ryukyuan as a whole.

2.5.1. Four primary phonotactic constraints of the word(-plus)

2.5.1.1. Final C

The final coda of a word(-plus) must be a single resonant, except in very limited cases

where an affix *-m* (realis mood) or a case clitic *=n* (dative) attaches to a consonant-final host.

(2-17) /pav/ ‘snake’ + =n (dat) > /pavn/ ‘to snake’

/paž/ ‘fly’ + =n > /pažn/ ‘to fly’

/mii-/ ‘look’ + /-r/ (non-past) + /-m/ (realis mood) > /miirm/ ‘look:NPST.RLS’

Assuming that there is a phonological word in terms of syllable structure and phonotactics, these examples are exceptions to the general syllable structure of phonological word.

2.5.1.2. Medial cluster

The medial consonant cluster in a word(-plus) is in principle restricted to a heterosyllabic C.C. However, a few affixes and clitics begin in CC or R.C, and these may give rise to such exceptional medial C.CC or C.R.C clusters.

(2-18) -ccjaaki (simultaneous converb suffix)

a. /tur-/ ‘take’ + /-ccjaaki/ > /tur.ccjaa.ki/ ‘while taking’ (CVC.CCGVV.CV)

b. /jum-/ ‘read’ + /-ccjaaki/ > /jum.ccjaa.ki/ ‘while reading’ (GVC.CCGVV.CV)

c. /kav/ ‘buy’ + /-ccjaaki/ > /kav.ccjaa.ki/ ‘while buying’ (CVC.CCGVV.CV)

(2-19) =nkai (allative clitic)

a. /paž/ ‘fly’ + /=nkai/ > /pažnkai/ ‘to fly’ (CVC.R.CVV)

b. /pav/ ‘snake’ + /=nkai/ > /pav.n.kai/ ‘to snake’ (CVC.R.CVV)

c. /kan/ ‘crab’ + /=nkai/ > /kan.(n).kai/ ‘to crab’ (CVC.(R).CVV)

d. /kam/ ‘god’ + /=*nkai*/ > /kam.(n).kai/ ‘to god’ (CVC.(R).CVV)

In (2-19c) and (2-19d) there is optional clipping of the clitic-initial /n/, due to the sequential nasal deletion rule (§2.10.2).

The above exceptional phonotactic patterns are explained by the fact that such affixes and clitics are phonological words by themselves in terms of syllable structure (e.g. *=nkai* begins in a presyllable). However, in other respects such as phonological rules and prosody, they behave as part of a phonological word. For example, as noted in §2.10.2, there is a phonological rule called the sequential nasal deletion rule, and it never applies across phonological-word boundaries (e.g. *uja=n#nkairair* (father=DAT#be.brought) ‘be brought by my father’), so that the fact that it does apply to *=nkai* in (2-19) suggests that it is part of a phonological word in terms of this particular phonological rule. Also, tone assignment does not apply separately to the host and the affix/clitic in question, but applies to a whole unit consisting of these (§2.9).

2.5.1.3. Cluster of non-resonants

A consonant cluster of non-resonants must be geminate, both in root words and morphologically complex word(-plus)es, and both in initial and medial clusters.

2.5.1.4. Ban on /C.(G)V/ sequence

A sequence consisting of a coda /C/ directly followed by a (G)V is prohibited in word(-plus)es. That is, a non-initial syllable must carry an onset C. There is one exception to this. As is shown below, comparative case /=*jarruu*/ may give rise to the prohibited /C.GV/ sequence.

(2-20) /kan=jarruu/ [kanja[u:]]

crab=CMP

‘than a crab’

(2-21) /mm=jarruu/ [m:ja[u:]]

potato=CMP

‘than a potato’

2.5.2. Long vowels and diphthongs

The table below shows the attested combinations of V_1 and V_2 in word(-plus)es. Diphthongs are mostly rising diphthongs. A falling diphthong /iu/ (phonetically [ju:]) is exceptional in roots, but is rather common in morpheme boundaries. /ia/ [ja:] is not found in roots, and only occurs in morpheme boundaries.

TABLE 2-3. Long vowels and diphthongs

	V_2	/a/	/u/	/i/	/i/	(/e/)	(/o/)
V_1							
/a/		aa	au	ai			
/u/			uu	ui			
/i/		[[ia]]	[iu]	ii			
/i/					ïï		
(/e/)						(ee)	
(/o/)							(oo)

Note: (x) x is rare in roots

[x] x is rare in roots, but common in morpheme boundaries

[[x]] x is not attested in roots, and only found in morpheme boundaries

With onset

/kaa/ [ka:] ‘skin’
 /nau/ [nau] ‘what’
 /kai/ [kai] ‘like that’
 /muu/ [mu:] ‘sea weed’
 /kui/ [kui] ‘voice’
 /kuri=a/ [kur^ha:] ‘this:TOP’
 /kiusī/ [k^hu:sī] ‘haze’ (< /kivsī/ [kivsī])
 /kuri=u/ [kur^hu:] ‘this:ACC’
 /kii/ [ki:] ‘tree’
 /sīi/ [sī:] ‘nest’
 /nauttee/ [nautte:] ‘why’
 /doo/ [do:] (emphatic)

Without onset (initial only)

/aa/ [a:] ‘foxtail millet’
 /au/ [au] ‘blue’
 /ai/ [ai] ‘like that’
 /u/ [u:] ‘Hare’
 /ui/ [ui] ‘that’
 Not attested
 Not attested
 Not attested
 /ii/ [i:] ‘stomach’
 None by definition (see §2.2.3)
 /ee/ [e:] ‘Yes’ (informal)
 /oo/ [o:] ‘Yes’ (formal)

2.5.3. Single onset of initial and non-initial syllables

All consonants but /v/, /ʒ/, /r/ may appear in the single onset of an initial syllable. All consonants but /v/ and /ʒ/ may appear in the single onset of non-initial syllables.

2.5.4. Initial syllable onset cluster

All resonants and fricatives other than /z/ and /h/ may be geminated. The cluster /tt/ is also found in a very limited number of words.

(2-22) RESONANTS

/mmi/ [mmi] ‘crowd’
 /nnuci/ [nnutsi] ‘life’

FRICATIVES

/ffa/ [ffa] ‘child’
 /ssu/ [ssu] ‘white’

STOP: /t/ only; rare

/ttjaa/ [ʔttja:] ‘then’
 /ttigaa/ [ʔttiga:] ‘then’

/vva/ [ʋva] ‘2SG’	/ccir/ [ʔttʃi] ‘pipe’	/ttar/ [ʔtta] ‘came’
/žžu/ [ʒzu] ‘fish’		(/t-tar/ ‘come-PST’)
/rra/ [ʀa] ‘placenta’		

2.5.5. Non-initial cluster

Non-initial clusters, i.e. clusters of coda plus onset across syllable boundaries (mostly C.C but may be C.CC or C.R.C in exceptional cases; §2.5.1.2), may be geminates (of any consonant other than voiced stop, voiced fricative, or /h/), partial geminates involving a homorganic nasal, phonemically /n/, plus another consonant (other than resonants), or non-geminates (a resonant plus (mostly) an alveolar consonant). Non-geminates are rare in root words.

2.5.5.1. Geminates

The examples below illustrate the possible non-initial geminates.

(2-23) RESONANTS	FRICATIVES	STOPS
/dum.ma/ [dumma] (onm.)	/maf.fa/ [maffa] ‘pillow’	/ip.pai/ [ippai] ‘many’
/an.na/ [anna] ‘mother’	/umis.si/ [umiʃʃi] ‘funny’	/bat.ta/[batta] ‘armpit’
/av.va/ [avva] ‘oil’	/ac.ca/ [attsa] ‘side’	/uk.ka/ [ukka] ‘debt’
/taž.žasi/ [tazzasi] ‘bind’	(/fiz.za/ [fuuddza] ‘whale’)	
/jur.ru/ [juʀu] ‘ <i>jurru</i> fish’		

The non-initial geminate /z.z/ seems to be on a diachronic path towards /c.c/. For example, while some very old speakers do distinguish /fiz.za/ [fuuddza] ‘whale’ and

/fic.ca/ [futtsa] ‘mouth’ (topic),¹¹ many others do not distinguish them, pronouncing both as [futtsa]. This and the strong ban on voiced stop geminates indicate that there is a clear tendency in Irabu to disfavour phonemically voiced (i.e. non-resonant /b, d, g, z/) geminates. In association with this, /z.z/ in morpheme boundaries, as in /az=za/ (//az// ‘taste’ plus //a// topic marker), involves neutralisation with /c.c/ [tts] in many speakers’ speech, where the phonetic realisation of /z.z/ as well as /c.c/ is [tts], as in /az=za/ [attsa] (~ [addza]).

2.5.5.2. Partial geminates (homorganic /n/ + C of any place of articulation)

In roots as well as in morphologically complex words, /n/ can combine with a C of any place of articulation. [mp] or [mb] in roots is treated as /np/ or /nb/ (rather than /mp/ or /mb/) as suggested in /juunpuu/ [ju:mpu:] ‘firefly’ and /unbu/ [umbu] ‘carrying on one’s back’ below. This matter is taken up in §2.8.1.

(2-24) C: LABIAL

/juun.puu/ [ju:mpu:]

‘firefly’

C: ALVEOLAR

/pin.za/ [pindza]

‘goat’

C: VELAR/GLOTTAL

/min.ku/[miŋku]

‘deaf’

/unbu/ [umbu]

‘carrying on one’s back’

¹¹ Nakama (1983) also reports that his consultant (female; born in 1922) had a phonetic [ddz] in /fizza/ ‘whale’, implying that this phonemically contrasted with [tts]. My consultants who do have this voiced geminate, and who do distinguish it phonemically from voiceless [tts], were all over 80 years old at the time of research, i.e. in 2007.

2.5.5.3. Non-geminates (resonant C_i + resonant/non-resonant C_j)

The examples in (2-25) are from root words or fossilised compounds, while those in (2-26) are from morphologically complex word(-plus)es. In roots, the overwhelming majority of examples involve a non-geminate cluster in which the second consonant is alveolar.

(2-25) /am.dir/ [amdi] ‘a fish-carrying bag’ (< *am* ‘net’ + *tir* ‘small bag’?)

/kiv.sĩ/ [kivsi] ‘haze’ (~ /kusi/ [kʷu:si])

/paž.gi/ [paʒgi] ‘rash/swelling’

/ur.zĩn/ [u|dziŋ] ‘early summer season’

(2-26) /num/ [num] ‘drink’ + /-tar/ (past unmarked) > /num.tar/ ‘drank’

/iv/ [iv] ‘heavy’ + /-sa/ [sa] (state nominaliser) > /iv.sa/ ‘heaviness’

/až/ [aʒ] ‘say’ + /=bjaam/ ‘I wonder’ > /až.bja:m/ ‘I wonder if (s/he) says’

/tur/ [tu] ‘bird’ + /-nagi/ [nagi] (approximative) > /tur.na.gi/ ‘bird, and so on’

/tur/ + /=kara/ [kara] (ablative) > /tur.ka.ra/ ‘from bird’

As is shown in (2-25), in roots /v/ often lenites to /u/. I refer to this as /v/-lenition. This occurs to avoid a consonant cluster within a root word. Note that in (2-26) /iv/ does not cause this lenition.

2.5.6. Presyllable plus initial syllable onset

This type of cluster basically follows non-initial clusters in §2.5.5.3, except that:

- (2-27) a. Geminates are rare in roots, and
 b. Non-geminates are rather common both in roots and morphologically complex words and word-pluses.

2.5.6.1. Geminates

The only kind of geminate in roots is the initial syllable onset of the $R.C_iC_i$ cluster (see (2-28) below). Geminates across presyllable and initial syllable (i.e. $R_iR_i.C_iV$) are not found in roots. From the few attested examples of type (2-28) a generalisation obtains that R is a labial resonant, and a geminate CC is alveolar.

(2-28) /v.cca/ [vtt̥sa] ‘quail’

/m.ss̥i:/ [m̥ssi:] ‘miso soup’ (< //msu// ‘miso’ + //s̥ī// ‘soup’)

In morphologically complex word(-plus)es it is common to find both $R.C_iC_i$ clusters and $R_iR_i.C_iV$, but not $R_iR_i.C_iC_iV$.

(2-29) //mc// ‘road’ + //a// (topic) > /m.cca/ [m̥tt̥sa] ‘road:TOP’ (R.CCV)

//nv// ‘pull out’ + //a// > /n.vva/ [m̥vva] ‘pulling out:TOP’ (R.CCV)

(2-30) /mm/ [m̥:] ‘potato’ + /=mai/ [mai] ‘too’ > /mm.mai/ ‘potato, too’ (RR.CVV)

/žž/ [z̥:] ‘rice ball’ + /=a/ > /žž.ža/ ‘rice ball:TOP’ (RR.CV)

/rr/ [r̥:] ‘enter’ + /=ru/ [ru](question marker) > /rr.ru/ ‘enter?’ (RR.CV)

2.5.6.2. Partial geminates (homorganic /n(n)/ + C of any place of articulation)

(2-31) C: LABIAL

C: ALVEOLAR

C: VELAR/GLOTTAL

/n.bir/ [m̥bi] ‘stretch’

/n.sĩ/ [n̥si] ‘north’

/n.kair/ [ŋkai] ‘welcome’

/nn.bu/ [m̥:bu] ‘navel’

/nn.di/ [n̥:di] ‘yes’

/nn.ku/ [ŋ:ku] ‘pus’

2.5.6.3. Non-geminates

In root words (as shown in (2-32)), there is a tendency towards labial (and in particular nasal) resonant plus an alveolar consonant.

(2-32) LABIAL: /m/

(/v/: lenition is pervasive)

/m.ta/ [m̥ta] ‘mud’

/v.ta/ [v̥ta]~ /u.ta/ [uta] ‘song’

/m.su/ [m̥su] ‘miso’

/v.da/ [v̥da]~ /u.da/ [uda] ‘thick; fat’

/m.na/ [m̥na] ‘shellfish’

/v.sĩ/ [v̥si]~ /u.sĩ/ [usi] ‘rice mortar’

/mm.ta/ [m̥:ta] ‘a kind of tree’

/v.cĩ/ [v̥ci]~ /u.cĩ/ [utsi] ‘inside’

/mm.sa/ [m̥:sa] ‘similar’

/mm.na/ [m̥:na] ‘all’

/v/-lenition (/v/ > /u/) is pervasive in roots here. As in the case of medial non-geminates (§2.5.5.3) this lenition is a cluster breaking strategy: the cluster R.CV is broken down to V.CV (e.g. /v.ta/ > /u.ta/), where the presyllable R resolves into the initial syllable V. It is an emerging phonotactic pattern, then, that in the presyllable plus initial onset clusters, the presyllable must be a nasal (short /m/ and /n/ or long /m:/ and /n:/), excluding the possibility of the other labial resonant, i.e. /v/.

The same generalization holds in morphologically complex word(-plus)es, since an R.C cluster is always contained in the root part of morphologically complex

word(-plus)es.

2.5.7. Frequency-based account of root structures

TABLE 2-4 gives a statistical account of Irabu root word structure. This shows that some structures are more frequently found than others, and so allows us to have a basic idea of what is the unmarked/marked structure/phonotactic patterns. The database here is of 600 native roots (mostly nominal and adjectival, together with some zero affix verb forms).

TABLE 2-4. Frequently occurring root structures in 600 roots

RANK	STRUCTURE	TOKENS	EXAMPLE
1.	CV.CV	180	/pu.ni/ [puni] ‘bone’
2.	CVV	66	/kaa/ [ka:] ‘skin’; /kui/ [kui] ‘voice’
3.	CV.CV.CV	54	/ka.ta.na/ [katana] ‘knife’
4.	V.CV	40	/u.tu/ [utu] ‘sound’
5.	CVC	38	/paž/ [paž] ‘fly’
6.	R.CV	32	/n.za/ [ndza] ‘where’; /m.su/ [m̥su] ‘miso’
7.	CV.CVC	30	/pa.sam/ [pasam] ‘scissors’
8.	GV.CV	16	/ju.da/ [juda] ‘branch’
9.	CCV.CV	14	/nna.ma/ [nnama] ‘now’
10.	CVC.CV	12	/kuv.va/ [kuvva] ‘calf of leg’
	CCV	12	/mma/ [mma] ‘mother’

The most important generalisations to emerge from this table are:

- (2-33) a The most frequently occurring roots are di- or trisyllabic. Next come monosyllabic structures, of RANKS 2 (CVV), 5 (CVC), and 10 (CCV).
- b. The most typical root structure is CV.CV with the open syllable CV.
- c. Neither initial clusters nor medial clusters are common in the most frequently occurring root structures. Initial clusters are more common than non-initial clusters in roots.

In association with (2-33a), we will see in §2.6.2 that Irapu phonological words must have at least two moras. Thus, the monosyllabic roots in RANKS 2, 5, and 10 have heavy syllable structures. The definition of mora is given in 6.1.

With regard to (2-33b), it is noted that the structure CV.CV.CV (RANK 3) is also built from CV syllables, showing that CV syllables constitute the most basic structural type in terms of frequency.

With regard to (2-33c), it is noted that the presyllable plus initial onset cluster R.CV (as found in RANK 6; 32 tokens) is slightly more frequent than the initial syllable onset cluster CCV (as found in RANKS 9 and 10, accounting for 26 tokens in total), and there is no R.CGV or CCGV in the most frequently occurring patterns. Also, the root structures containing non-initial clusters are rather rare in the top ten list, only appearing at RANK 10.

2.5.8. Consonant allophony

Now that we have a clear picture of the structure of the word, we can summarise the allophonic variation of consonants, which is heavily dependent on syllable structure and the position of a syllable in a word.

TABLE 2-5. Consonant allophony (S: stops; F: fricatives; R: resonants)

	Presyllable		Initial (C)CV		Medial V(C)CV		Final C	
	#RR#	#(R)R	#CCV	#CV	VC.CV	V.CV	VC#	
S	/p/	*	*	*	[p]	[pp]	[p]	*
	/t/	*	*	([² tt])	[t]	[tt]	[t]	*
	/k/	*	*	*	[k]	[kk]	[k]	*
	/b/	*	*	*	[b]	*	[b]	*
	/d/	*	*	*	[d]	*	[d]	*
	/g/	*	*	*	[g]	*	[g]	*
F	/f/	*	*	[ff]	[f]	[ff]	[f]	*
	/s/	*	*	[ʃ/ss]	[s]	[ʃ/ss]	[ʃ/s]	*
	/c/	*	*	[² ttʃ/ ² tts]	[tʃ/ts]	[ttʃ/tts]	[tʃ/ts]	*
	/z/	*	*	*	[dʒ/dz]	([ddz])	[dʒ/dz]	*
	(/h/)	*	*	*	([ç/h])	*	([ç/h])	*
R	/m/	[m̩:]	[m̩(:)]	[mm]	[m]	[mm] [mC]	[m]	[m]
	/n/	[ŋ:]	[N(:)]	[nn]	[ŋ/n]	[ŋŋ/nn] [NC]	[ŋ/n]	[ŋ]
	/v/	[v̩:]	[v̩(:)]	[vv]	*	[vv] [vC]	*	[v]
	/ž/	[ʒ:]	[ʒ(:)]	[ʒʒ]	*	[ʒʒ/zz] [ʒC]	*	[ʒ]
	/r/	[r̩:]	[r̩(:)]	[rr]	*	[rr] [rC]	[r]	[r]

NOTE: [N]: homorganic nasal; [x/y]: [x] before i / [y] elsewhere

(x): x is rare in roots

[xC]: x followed by a non-x consonant

*: non applicable (the phoneme cannot fill the slot marked by *)

2.6. Mora

This section introduces the phonological unit mora, which is important in describing segmental and supersegmental phenomena in Irabu.

2.6.1. Definition

Moras are counted as follows:

IN A SYLLABLE

C_i	C_i	G	V_1	V_2	C_{coda}
μ	—	—	μ	μ	μ

IN A PRESYLLABLE

R_i	R_i
μ	μ

2.6.2. Minimal word

A word (not word-plus; see below) is minimally bimoraic. Thus we have the following set of minimal words in terms of syllable structure:

Presyllable only

RR: /mm/ [m:] ‘potato’
 /vv/ [v:] ‘sell’
 /žž/ [z:] ‘rice ball’
 /rr/ [r:] ‘enter’

Initial syllable only

(C)(G)VV: /pjaa/ [pʲa:] ‘early; fast’	/paa/ [pa:] ‘tooth’
/jaa/ [ja:] ‘home’	/aa/ [a:] ‘foxtail millet’
(C)(G)VC: /pja/ [pʲa] ‘leave’	/par/ [pa] ‘needle’
/jar/ [ja] ‘spear’	/ar/ [a] ‘exist’
CC(G)V: /mmja/ [mmʲa] (emphasis)	/mma/ [mma] ‘mother’

Initial syllable plus non-initial syllable

(C)(G)V.C(G)V: /ma.cja/ [matʃa] ‘bird’ /ma.ta/ [mata] ‘and’
/ma.ju/ [maju] ‘cat’

Presyllable plus initial syllable

R.C(G)V: /m.ci/ [m̩tsi] ‘road’
/n.gja/ [ŋg̩ja] ‘spike’

As noted above, the minimality applies to a word rather than a word-plus. Thus if a monomoraic root is followed by a monomoraic clitic, which would give rise to a bimoraic word-plus, the host word nevertheless undergoes augmentation:

- (2-34) //v// ‘sell’ + //a// (topic) > /vv=va/ ‘selling is...’
//v// + //u// (accusative) > /vv=vu/ ‘selling:ACC’
//v// + //paz// (modal ‘maybe’) > /vv=pazi/ ‘sell, perhaps’
//v// + //i// (discourse marker clitic ‘eh?’) > /vv=i/ ‘sell, eh?’

As illustrated above, the fact that a clitic does not count towards a bimoraic phonological word applies to all clitics (as listed in Chapter 9). However, there is one exception, where the nominative case clitic =*ga* is attached to the first person singular pronoun *ban* (§5.2.2.1). This combination results in an exceptional reduction on the part of *ban*, giving rise to *ba=ga*. Here, the word is not bimoraic.

Three major strategies are taken to augment a monomoraic root.

Lengthening rule: a monomoraic root must be lengthened to appear as a word, with one of the following three strategies:

Strategy 1. Moraic resonants are lengthened ($//R// > /RR/$)

e.g. $//v//$ ‘sell’ $> /vv/$ ‘sell’ (finite unmarked verb form)

Strategy 2. Moraic fricatives undergo re-syllabification, where $/i:/$

is inserted to be a nucleus ($//C// > /CVV/$)

e.g. $//f//$ ‘(rain) fall’ $> /fii/$ ‘(rain) fall’ (finite unmarked verb form)

$//s//$ ‘know’ $> /si:/$ ‘know’ (finite unmarked verb form)

$//c//$ ‘wear’ $> /cii/$ ‘wear’ (finite unmarked verb form)

Strategy 3. $//CV//$ is lengthened ($//CV// > /CVV/$)

e.g. $//ju//$ ‘four’ $> /juu/$ ‘four’ (when reciting numbers in isolation)

(cf. $/ju-taar/$ ‘four persons’ where the numeral root $//ju//$ ‘four’ does not undergo lengthening)

In terms of minimality, then, a grammatical word rather than a word-plus is treated as a phonological word, which is defined as a phonological unit that is minimally bimoraic. A clitic is thus not simply part of a phonological word in this particular phenomenon. However, in most other respects, i.e. syllable structure/phonotactics (§2.4 and §2.5), phonological rules (§2.7 below), and prosody (§2.9), a word-plus is treated as a single phonological word, making both affixes and clitics equally part of the host phonological word.

2.6.3. Length (quantity) contrast

2.6.3.1. Short vs. long

As is illustrated below by minimal contrasts and quasi-minimal contrasts, there are both phonemically contrastive long vowels and consonants in roots. Long consonants are all resonants, and usually occur in presyllables (as noted in §2.4.2, however, /ʒʒ/ and /rr/ may appear in V slots in regular syllables).

Short vowel	Long vowel
/kagi/ [kagi] ‘beautiful’	/kaagi/ [ka:gi] ‘smell’
/kasi/ [kafi] ‘a kind of local tree’	/kasii/ [kafi:] ‘help’
/tur/ [tu] ‘bird’	/tuur/ [tu:] ‘cross’
/sisi/ [sisi] ‘grime’	/siisi/ [si:si] ‘meat’

Short consonant	Long consonant
/m.na/ [mna] ‘shellfish’	/mm.na/ [m:na] ‘all’
/n.si/ [nsi] ‘north’	/nn.sa/ [n:sa] ‘dumb’

I have not found minimal or quasi-minimal contrasts of /e/ vs. /ee/ or /o/ vs. /oo/ in roots. In fact it is difficult to find /e/ and /o/ in Irabu in the first place. This is simply because the Proto-Ryukyuan */e/ and */o/ are reflected as /i/ and /u/ in Irabu, and so the mid vowels are scarce in the Irabu lexicon.

Nasal resonants /m/ and /n/ show a length contrast in roots as demonstrated above. On the other hand, non-nasal resonants in roots do not show a length contrast, except in the cases where alveolar non-nasal resonants appear in the regular syllable V slots. In roots, long /vv/, /ʒʒ/, and /rr/ in presyllables are not underlyingly long, but result from

an obligatory lengthening of underlyingly monomoraic roots (Lengthening rule: //v// ‘sell’ > /vv/, //ž// ‘scold’ > /žž/, and //r// ‘(the sun) sets’ > /rr/).

2.6.3.2. Non-geminate vs. geminate

Irabu has geminate /C_iC_i(G)V/ in initial syllables and across syllable boundaries. Non-geminate monomoraic /C(G)V/ and geminate bimoraic /C_iC_i(G)V/ are phonemically contrastive. Thus initially /na.ma/ [nama] ‘raw’ and /nna.ma/ [nnama] ‘now’ are distinguished; likewise medially /ba.si/ [baʃi] ‘in between’ and /bas.si/ [baʃʃi] ‘forget’ are distinguished. Further examples of contrasts include:

Non-geminate	Geminate
/fau/ [fau] ‘eat’ CV	/ffau/ [ffau] ‘child’ (accusative) CCVV
/sa.gi/ [sagi] ‘k.o.bird’ CV.CV	/ssa.gi/ [ssagi] ‘bridal’ CCV.CV
/ci.bi/ [tʃibi] ‘hip’ CV.CV	/ccir/ [ʔtʃi] ‘pipe’ CCVC
/maa.su/ [ma:su] ‘salt’ CVV.CV	/mmaa/ [mma:] ‘No’ CCVV
/na.ma/ [nama] ‘raw’ CV.CV	/nna.ma/ [nnama] ‘now’ CCV.CV
/ba.ta/ [bata] ‘stomach’ CV.CV	/bat.ta/ [batta] ‘armpit’ CVC.CV
/ba.si/ [baʃi] ‘edge’ CV.CV	/bas.sir/ [baʃʃi] ‘forget’ CVC.CVC
/a.ca/ [atsa] ‘tomorrow’ V.CV	/ac.ca/ [attsa] ‘side’ VC.CV
/ga.ma/ [gama] ‘cave’ CV.CV	/gam.ma/ [gamma] (onom.) CVC.CV
/a.na/ [ana] ‘hole’ V.CV	/an.na/ [anna] ‘mother’ VC.CV

It is noted that two non-nasal resonants, /v/ and /ž/, must be geminated in surface syllable onsets (as in /vva/ [vva] ‘2SG’ and /žža/ [ʒza] ‘father’), and so do not show a length contrast in gemination at the surface level. As will be noted in §2.7.1, these

surface geminates are analysed underlyingly as single moraic //C//, and an obligatory rule operates to produce the surface /vv/ and /žž/ from underlyingly moraic //v// and //ž// respectively (thus //va// > /vva/, //ža// > /žža/ above).

2.7. Phonological alternation rules

This section notes two important phonological alternation rules, which in most cases apply in roots and morphologically complex word(-plus)es, but not across word(-plus)es. Thus, by the applicability of these phonological rules, we can define a phonological word, which usually corresponds to a word(plus).

2.7.1. Geminate copy insertion rule

This rule is sensitive to moraicity. As noted in §2.5.1.4, there is a strict constraint in the domain of word-plus that a moraic /C/ cannot directly precede a /(G)V/ at the surface level. If morphological processes produce the prohibited pattern, the following phonological rule operates to avoid it.

(2-35) Geminate copy insertion rule: if underlyingly moraic //C// and //(G)V// are adjacent in a word-plus, then a geminate copy of //C// is inserted to produce a surface /C_iC_i(G)V/.

- (2-36)**
- a. //va// ‘2SG’ > /vva/ [vva] ‘2SG’
 - b. //ža// ‘father’ > /žža/ [žža] ‘father’
 - c. //v// ‘sell’ + //-i// (thematic vowel) > /vvi/ [vvi] ‘sell:IMP’
 - d. //s// ‘know’ + //-ja// (agent nominal) > /s-sja/ [sja] ‘one who knows a lot’
 - e. //kam// ‘god’ + //=a// (topic) > /kam=ma/ [kamma] ‘god:TOP’

f. //sukubž// ‘belt’ + //a// (topic) > /sukubž=ža/ [sukubzza] ‘belt:TOP’

(2-36a) and (2-36b) are roots, whose underlying forms contain an initial moraic //C// directly followed by //V//. Given the fact that the surface /v/ and /ž/ in the onset position are always geminated, and given the phonotactic constraint in Irabu that a moraic //C// cannot directly precede //(G)V//, it is a reasonable assumption that an underlying structure //va// and //ža// (moraic //C// plus //V//) become /vva/ and /žža/ at the surface level, with an obligatory application of geminate copy insertion.

(2-36c) to (2-36f) illustrate morphophonemic processes. As defined above, the geminate copy insertion rule operates within a word-plus, but never occurs across word-pluses. Thus (2-37) below induces the geminate copy insertion rule, while in (2-38), where two word-pluses are adjacent, the rule does not operate.

(2-37) Word-plus containing a clitic //a// (topic)

a. /kam=ma/	b. /tur=ra/
//kam =a//	//tur =a//
god =TOP	bird =TOP
‘god:TOP’	‘bird:TOP’

(2-38) Adjacent words /kan/ ‘crab’ and /atar/ (copula)

/uri=a	kan	a-tar/	(cf. */kan natar/)
//uri =a	kan	a -tar//	
3SG =TOP	crab	COP-PST	
‘It was a crab’			

2.7.2. The /i/-insertion rule

The high central vowels /i/ and /i:/ cannot occur without a preceding onset and occur only with fricative onsets, e.g. /fi.sa/ [fusa] (or [f^vsa]) ‘plant’, /si.ta/ [sita] ‘tongue’, /ci.na/ [tsina] ‘rope’, /zi.mi.zi/ [dzimidzi] ‘warm’, /u.si/ [usi] ‘cattle’, /fi/ [fu:] ‘come’, /si:si/ [si:si] ‘flesh’, /ci:/ [tsi:] ‘breast’, /zi:/ [dzi:] ‘letter’.

The short /i/ is underlyingly absent and is predictably inserted at the surface level through the /i/-insertion rule, to keep the phonotactic well-formedness of a phonological word (§2.4, §2.5). Specifically, this occurs to avoid a fricative-final coda (cf. §2.5.1.1) and a fricative+C non-geminate cluster (cf. §2.5.1.2). For example, as shown in (2-39a-d), a fricative-final coda is impermissible in a phonological word.

- (2-39) a. //tauf// ‘tofu’ > /taufi/
b. //pus// ‘star’ > /pusi/
c. //umac// ‘fire’ > /umaci/
d. //muz// ‘barley’ > /muzi/

Likewise, a fricative+C is impermissible unless this cluster is a geminate, so that /i/ is inserted to syllabify an otherwise impermissible sequence, as is illustrated in (2-40).

- (2-40) a. //fsa// ‘plant’ > /fisa/
b. //sta// ‘tongue’ > /sita/
c. //cna// ‘rope’ > /cina/
d. //zmiz// ‘worm’ > /zimizi/

On the other hand, as is shown in (2-41a-d), when the underlying phonotactic structure is already well-formed, no insertion occurs. Note that in (2-41d), /i/ is inserted to syllabify */fz//, not //zz//, the latter being already well-formed.

- (2-41)** a. //ffa// ‘child’ > /ffa/
 b. //ssam// ‘louse’ > /ssam/
 c. //acca// ‘side’ > /acca/
 d. //fzza// ‘whale’ > /fizza/

The evidence that fricative geminates such as //ff// and //ss// in (2-41) do not undergo the /i/-insertion rule is seen not only in the phonetic fact that [i] is absent, but in morphophonemics as well. In Irabu, there is a morphophonemic rule, sequential voicing rule (§2.10.4), in which a non-initial stem of a compound (e.g. the Stem 2 of Stem 1+ Stem 2) may undergo the voicing of its stem-initial syllable onset. In (2-42a) below, the stem //fsa// undergoes sequential voicing rule, whereby the stem-initial syllable onset //f// is replaced by /v/ at the surface level. This means that //fsa// is //f.sa//, and sequential voicing rule applies to the syllable //f//. If //fsa// surfaces with no sequential voicing, then it must require the /i/-insertion, since */f.sa/ is impermissible (//f.sa// > /fi.sa/). On the other hand, in (2-42b), //ff// of the second stem is treated as the stem-initial syllable onset, which is evidenced in the fact that the //ff// as a whole undergoes sequential voicing rule (//ff// > /vv/). At the underlying level, then, the onset of //ffa// is //ff// (i.e. //ffa// is underlyingly syllabified as //CCV//, unlike //f.sa//).

- (2-42)** a. //imi// ‘small’ + //fsa// ‘plant’ > /imivsa/ ‘small plant’
 b. //imi// + //ffa// ‘child’ > /imivva/ ‘small child’

As is shown in (2-43) and (2-44), when there are two and only two sequential fricatives underlyingly, the insertion of /i/ occurs on both, rather than on one of them.

- (2-43) //ss// ‘grime’ > a. /sīsī/
 b. */ssī/
 c. */sīs/
- (2-44) //cc// ‘the moon’ > a. /cīcī/ ‘the moon’
 b. */ccī/
 c. */cīc/

Pattern (c) in each example is blocked because this would result in a word-final fricative coda. However, pattern (b) should be permissible in terms of the structure CCV. This avoidance of /CCi/ may result from a phonetic factor, such as avoidance of low sonority.

There are many pieces of evidence for the analysis that /i/ is best treated as being underlyingly absent, where the surface /Cī/ is underlyingly //C//. In what follows I note one major process which clearly depicts this. This process involves vowel-initial suffixes and clitics, such as the accusative case // =u//:

(2-45) The morphophonemic rule of the accusative case // =u//

- a. If a nominal stem ends in a V_1V_2 other than a //Cī// (C: /s, c, z/),

// =u// is realised as /=ju/:

- | | | | | |
|------------------|---|---------|---|----------|
| //kaa// ‘skin’ | + | // =u// | > | /kaa=ju/ |
| //kii// ‘tree’ | + | // =u// | > | /kii=ju/ |
| //kuu// ‘powder’ | + | // =u// | > | /kuu=ju/ |
| //kui// ‘voice’ | + | // =u// | > | /kui=ju/ |

//fii// ‘coming’ + //u// > /fii=ju/

b. If a nominal stem ends in a consonant C, //u// is realised as /=Cu/:

//kam// ‘god’ + //u// > /kam=mu/

//kan// ‘crab’ + //u// > /kan=nu/

//pav// ‘snake’ + //u// > /pav=vu/

//paž// ‘fly’ + //u// > /paž=žu/

//par// ‘needle’ + //u// > /par=ru/

c. Otherwise //u// is realised as /=u/:

//pana// ‘flower’ + //u// > /pana=u/

//sīi// ‘nest’ + //u// > /sīi=u/

(2-45b) is an instance where the geminate copy insertion rule (§2.7.1) applies.

Our attention now turns to such nominal stems as /taufi/ [taufu] ‘tofu’, /pusi/ [pusi] ‘star’, /umaci/ [umatsi] ‘fire’, and /muzi/ [mudzi] ‘barley’, all of which end in surface /i/. If the /i/ were underlyingly present, i.e. the nominal stems were underlyingly vowel-final (//CV//#), then (2-45c) would apply and we would get something like */taufi=u/ [taufiu], /pusi=u/ [pusiu], and so on. However, what happens is that we get the surface /tauf=fu/ [tauffu], /pus=su/ [pussu], /umac=cu/ [umattsu], and /muz=zu/ [muddzu](~[muttsu]), indicating that the underlying forms of the above nominal stems are //tauf//, //pus//, //umac//, and //muz//, and that (2-45b) applies. The short vowel /i/ at the surface is underlyingly absent and the nominal stems listed here are underlyingly consonant-final (//C//#).

Thus, as illustrated below, /taufi/ is underlyingly //tauf//, and if it surfaces with

//u// the surface form is /tauf=fu/; if //tauf// surfaces with no cliticisation/affixation, then /i/ is added word finally:

Underlying		/i/-Insertion Rule		Surface	Phonetic
//tauf// ‘tofu’	+ //u//	>	N/A	>	/tauffu/ [tauffu]
	+ none	>	applied	>	/taufi/ [taufu]

2.8. Miscellaneous segmental issues

2.8.1. Homorganic nasal clusters in roots

The phonemic treatment of phonetic partial geminates [m(:)p] and [m(:)b] occurring in *root* words requires careful discussion. Irabu has both nasal /m(:)/ and /n(:)/, both of which participate in a nasal plus consonant cluster. Note that /n(:)C/ clusters are phonetically partial geminates, where the place of articulation of homorganic /n/ assimilates to that of the following C. Thus there emerge three analytical possibilities for [m(:)p] and [m(:)b], of which the first is my current analysis: **(A)** the phonetic partial geminates are analysed as /n(:)p/ and /n(:)b/, where the homorganic /n(:)/ is realised as [m(:)]; **(B)** the phonetic partial geminates are analysed as /m(:)p/ and /m(:)b/; and **(C)** there is neutralisation of /n(:)/ and /m(:)/ before [p]/[b].¹²

The analysis **(A)** allows us to have the systematic phonotactic pattern described in §2.5.5.2 and §2.5.5.3 (non-initial cluster C.C) and in §2.5.6 (presyllable plus initial onset (R)R.C). First, aside from phonetic [m(:)p] and [m(:)b], two generalisations obtain with regard to the above mentioned clusters in roots:

¹² Of course, if the [m(:)p] or [m(:)b] results from a morphological process, there emerges no problem in identifying the underlying representation of these surface segments: //kam// ‘god’ + //pazi// ‘maybe’ > /kampazi/ ‘(That’s) a god, perhaps.’

Generalisation 1. /n(:)C/ partial geminate involves all places of articulation of C *but bilabial*.

Generalisation 2. /m(:)C/ involves /m(:)/ + *alveolar* consonant.

Now, with regard to Analysis (A), i.e. if we assume that [m(:)p] and [m(:)b] represent phonemic /n(:)p/ and /n(:)b/, we can have a full set of places of articulation in /n(:)C/ partial geminates, making **Generalisation 1** complete. Also, we do not harm **Generalisation 2** for non-geminates.

If we alternatively take Analysis (B), i.e. if we assume that [m(:)p] and [m(:)b] are /m(:)p/ and /m(:)b/ respectively, then the odd gap still occurs in **Generalisation 1**, and we even harm **Generalisation 2**, where the odd exception appears in the combinations of /m(:)C/, where /m(:)/ combines with a labial, but otherwise it only combines with alveolar consonants.

Finally, Analysis (C) just keeps the status quo, with no positive effect on either Generalisation, since this analysis only says that [m(:)p] and [m(:)b] are phonemically ambiguous. Thus it is best to take Analysis (A) (resulting in positive effects on Generalisations 1 and 2), as opposed to (B) (resulting in negative effects on Generalisations 1 and 2) and (C) (with no positive effect on either).

2.8.2. Non-nasal resonants /v/ and /ž/

Non-nasal resonants, i.e. approximants /v(v)/ and /ž(ž)/ and flap /r(r)/, show some peculiarities that are not found in nasal resonants.

First, in presyllables long /vv/, /žž/, and /rr/ do occur, but they are not underlying. That is, they are morphophonemically lengthened stem forms of underlyingly monoconsonant roots (/v/, /ž/, and /r/).

- (2-46) a. //v// ‘sell’ + //-tar// (past unmarked) > /vvtar/ (RR.CVC)
 b. //ž// ‘scold’ + //-tar// > /žžtar/ (RR.CVC)
 c. //r// ‘enter’ + //-tar// > /rrtar/ (RR.CVC)

Second, in presyllables the short resonant /v/ may appear if it is followed by an initial syllable, as in /v.ci/ [v̥tsi] (R.CV) ‘inside’, but short /ž/ and /r/ cannot fill the presyllable slot. Note also that the short /v/ in the presyllable shows instability, frequently undergoing lenition (e.g. /v.ci/ R.CV > /u.ci/ V.CV: see §2.5.6.3). Thus, the presyllable slot is not easily accessible to short non-nasal resonants.

Third, in the onset, /v/ and /ž/ only appear as a geminate, as in /vva/ ‘you’, /av.va/ ‘oil’, and so on, and this gemination is a result of a predictable rule, the geminate copy insertion rule (§2.7.1).

- (2-47) //va// ‘you’ > /vva/
 //ava// ‘oil’ > /avva/
 //ža// ‘father’ > /žža/
 //paž// ‘fly’ + //a// (topic) > /pažža/

2.8.3. The status of glides

2.8.3.1. General remarks

As is shown below, I treat labialised and palatal(ised) phones, i.e. [C^w] (e.g. [k^w]) and [C^j] (e.g. [p^j] and [ʃ]), as two phoneme sequences (non-glide consonant plus /w/ or /j/), rather than single consonant unit-phonemes. Thus [k^w] is treated as /k/ plus /w/, while [p^j] and [ʃ] are treated as /p/ plus /j/ and /s/ plus /j/ respectively.

(2-48) GENERAL TREATMENT EXAMPLE

[C ^w] > /C/ + /w/	[k ^w a:si] ‘snack’	> /kwaa.si/	
			CGVV.CV
[C ⁱ] > /C/ + /j/	[fa:ka] ‘late midnight’	> /sjaa.ka/	
			CGVV.CV

The main reasons for assuming the complex CG are trifold. First, there is evidence, as was noted in §2.5.1.4, that onset C and G behave differently (i.e. /C.CV/ is allowed but /C.GV/ is not), thus are best separated in terms of syllable structure. Second, it allows a straightforward description of such morphological processes where a sequence of C and G produces a phonetic [C^w] or [Cⁱ] (e.g. stem-final C plus suffix initial -G > C-G; as in /kak-/ [kak] ‘write’ + /-ja/ (agent nominal suffix) > /kakja/ [kaki] (CV.CGV) ‘writer’). Third, it minimises the consonant phoneme inventory. The first point was already mentioned, so the second and the third points are addressed in the following section.

The labio-velar glide /Cw/ has a low functional load in Irabu. It is only found in a handful of words and affixes. Attested examples are:

- (2-49)** a. /kwaasi/ [k^wa:si] ‘snack’
b. /kwaarja/ [k^wa:ri] (Place name)
c. /ukwaasa/ [uk^wa:sa] ‘many’
d. /jakkwan/ [jakk^waŋ] ‘kettle’
e. /jukwaara/ [juk^wa:ra] ‘side’
f. /jukwaira/ [juk^waira] ‘four times’
g. /gwatsi/ [g^watsi] ‘month’ (e.g. /sici-gwaci/ [ʃitʃig^waci] ‘7-month: July’).

In (2-49c) and (2-49e) /kw/ arguably reflects //u// + //a//: (2-49a) //uku// ‘big’ + //asa// ‘?’; (2-49e) //juku// ‘side’ + //ara// ‘left-over’. Furthermore, according to many speakers, (2-49c) to (2-49g) are in free variation with /ukaasa/, /jakkan/, /jukaara/, /jukaira/ and /gaci/ respectively, where /w/ is dropped. Thus the /Cw/ sequence is unstable, and so peripheral in Irabu phonology. The discussion that follows thus focuses on /Cj/.

2.8.3.2. Advantages in assuming a complex CG

At the phonetic level, Irabu has the full set of palatal(ised) phones corresponding to non-palatal(ised) phones which are the major allophones of the consonant phonemes. That is, a given non-palatal [C] (/C/) has its palatal counterpart [C^j]. The non-palatal and palatal phones contrast phonemically. Examples are listed below:

(2-50) Root-internal ((quasi) minimal contrasts are given)

/paa/ [pa:] ‘tooth’	vs.	/pjaa/ [p ^j ia:] ‘old days’
/unta/ [unta] ‘frog’	vs.	/untja/ [unt ^j ia] ‘3PL’
/ukugan/ [ukugan] ‘big crab’	vs.	/ukugjam/ [ukug ^j am] ‘millet’
/sabi/ [sabi] ‘rust’	vs.	/sjabi/ [s ^j abi] ‘Shabi (name)’
/ica/ [itsa] ‘board’	vs.	/icjagara/ [it ^j agara] ‘somehow’
/maaku/ [ma:ku] ‘round’	vs.	/mjaaku/ [m ^j a:ku] ‘Miyako Island’
/naa/ [na:] ‘name’	vs.	/njaan/ [n ^j a:ŋ] ‘not exist’

(2-51) a. Root-final //Ci// plus clitic-initial //a// or //u// > /Cia/ [C^jia:] or /Ciu/ [C^jiu:]

//kuri// ‘this’ + //a// (topic) > /kuri=a/ [kur^jia:] ‘this’ (topic)

//nabi// ‘pot’ + //u// (accusative) > /nabi=u/ [nab^jiu:] ‘pot’ (accusative)

b. Root-final //C// plus suffix-initial //j//

//kak-// ‘write’ + //-ja// (agent nominal) > /kak-ja/ [kaka] ‘writer’

//sadur-// ‘search’ + //-ja// > /sadur-ja/ [sadurja] ‘searcher’

As is shown above, not all the phonetic palatals are necessarily phonemic. First, palatals of the type (2-51a) are morphophonological products, which are produced by the root-final //i// plus the clitic-initial //a// or //u//, giving rise to /ia/ or /iu/ (falling diphthong; phonetically [ja:] and [ju:]). Second, the phonetic palatals of the type (2-51b) are produced by the root-final //C// plus the suffix-initial //-ja// (agent nominaliser suffix), and it is for this morphological process that our complex /CG/ approach, i.e. the separation of /C/ and /j/ for phonetic palatals, works well.

In this latter morphological process, the agent nominaliser suffix //-ja// is typically attached to a verb root, as exemplified in (2-52) and (2-53) below. If it is attached to a root which ends in a vowel, as in (2-52), there is no conspicuous morphophonological alternation observed (except in //i// final roots, where //i// tends to drop), displaying a fairly agglutinative pattern.

(2-52) Vowel-final root plus //-ja//

a. //fa-// ‘eat’ + //-ja// > /fa-ja/ [faja] ‘person who eats (a lot)’

b. //ubui-// ‘memorise’ + //-ja// > /ubu-ja/ [ubuja] ‘person who memorise (well)’

c. //mii-// ‘look’ + //-ja// > /mi-ja/ [mija] ‘person who stares a lot’

d. //kagi// ‘beautiful’ + //-ja// > /kag-ja/ [kagja] ‘beautiful person’

(2-53) Consonant-final root plus //-ja//

//kak-// ‘write’ + //-ja// > /kak-ja/ [kaka] ‘writer’

CVC-

CVC-GV

//sadur-// ‘search’ + //-ja// > /sadur-ja/ [sadur^ɰja] ‘searcher’

CVCVC-

CVCVC-GV

(2-53) illustrates consonant-final roots plus //-ja//. Here, the suffix attaches to a consonant which becomes the onset when the suffix is attached, and the consonant and the //-ja// form a syllable whose onset is a single palatalised consonant [C^ɰja]. As is suggested in (2-53), the most plausible phonemic analysis is to treat [C^ɰja] as a phonemic sequence /C/+j/: we do not need to come up with any special morphophonological alternation for such cases as (2-53), as the suffix //-ja// is agglutinatively attached to the root ending in onset //C//. If we alternatively assume that the resulting [C^ɰja] is phonemically a single segment /C^ɰja/, we would introduce an irregular morphophonological rule for such examples as (2-53): the root-final consonant //C// is replaced by the surface /C^ɰja/.

There is another obvious advantage in terms of the economy of phoneme inventory. If we analysed each [C^ɰja] as a single phoneme /C^ɰja/, we would double the consonant inventory, by having /C^ɰja/ corresponding to each of the 16 non-glide (short segment) consonant phonemes in Irabu.

2.9. Prosody

Irabu lacks lexical prosody, or is an ‘accentless’ language (Hirayama 1964, 1967, Hirayama, Oshima, and Nakamoto 1966, Nakasone n.d (b)). However, Irabu shows a strikingly rigid prosodic organisation in terms of rhythmic structure. Irabu prosody has a hierarchical structure in which the most basic structure is mora structure, which is the tone-bearing unit and which is in turn the basis of bi- or trimoraic foot structure based on which tone is assigned to produce rhythmic alternation of tones (High and toneless).

The phonological word in terms of prosody is the domain of this alternating tonal pattern. The phonological word thus defined in most cases corresponds to a word-plus. However, it may be an entire phrase if certain conditions are met (§2.9.4).

2.9.1. Prosodic patterns of root words

In this section I will demonstrate that Irabu words do not show lexically contrastive tonal patterns. Below a word-plus of n morae is optionally abbreviated as W_n .

2.9.1.1. Prosodic patterns of W_2

The prosodic patterns of W_2 are listed in TABLE 2-6.

TABLE 2-6. Prosodic patterns of W_2

	Form	Gloss	Pitch pattern	Tonal pattern
a.	<i>pa.na</i>	‘nose’	[HH] (or [HL])	/HH/
	<i>ja.ma</i>	‘mountain’	[HH] (or [HL])	/HH/
	<i>i.cu</i>	‘thread’	[HH] (or [HL])	/HH/
b.	<i>kam</i>	‘god’	[HL]	/HH/
	<i>kan</i>	‘crab’	[HL]	/HH/
	<i>paž</i>	‘fly’	[HL]	/HH/
	<i>pav</i>	‘snake’	[HL]	/HH/
	<i>par</i>	‘needle’	[HL]	/HH/
c.	<i>mii</i>	‘eye’	[HH] (or [HL])	/HH/
	<i>naa</i>	‘name’	[HH] (or [HL])	/HH/
	<i>sīī</i>	‘nest’	[HH] (or [HL])	/HH/
d.	<i>kai</i>	‘that way’	[HH] (or [HL])	/HH/
	<i>nau</i>	‘what’	[HH] (or [HL])	/HH/
	<i>kui</i>	‘voice’	[HH] (or [HL])	/HH/

There are one or two surface pitch patterns in each W_2 (which are indicated by ‘[]’), and there is one phonological tonal representation (indicated by ‘/ /’) set up from the

pitch pattern(s). The tone-bearing unit is the mora, and there are two surface pitches [H] and [L].

The coda consonant in word(-plus) final position is obligatorily lowered. Otherwise, the presence or absence of lowering of the final mora seems to be a matter of free variation, though lowering typically does *not* take place. Note here that the second member of a long vowel or a diphthong behaves like a light syllable with regard to final lowering.

TONAL PATTERN	FINAL SYLLABLE	FINAL LOWERING	PITCH PATTERN
/HH/	C#	+	[HL]
	Otherwise	±	[HH] (or [HL])

As mentioned above, final lowering is not inherent in the lexical property of each word that undergoes this lowering. Final lowering occurs either at the end of a word or of an entire word-plus, and this is induced when the word(-plus)-final mora is a coda. When such a word as *mii* ‘eye’ (typically [HH] with no final lowering in a citation form) is followed by the dative clitic =*n*, we get the word-plus *miin* [HHL], where the word-plus-final /n/ is lowered as a result of final lowering, since the word-plus ends in a coda. When such a word as *par* ‘needle’ ([HL] with an obligatory final lowering in a citation form) is followed by the dative clitic, we get *parn* [HHL], where the word-plus-final /n/, not the word-final /r/, is subject to final lowering. When *par* is followed by another clitic =*nu* (nominative) we get the word-plus *parnu*, where final lowering is typically absent ([HHH]), since the word-plus does not end in a coda. The first person singular pronoun is *ban*, with the pitch pattern [HL] in citation. However, if *ban* is followed by nominative =*ga*, the resulting word-plus is *ba=ga* (/n/ is irregularly

deleted by a minor rule), and it is typically pronounced as [HH], as *ba=ga* lacks a coda.

With regard to other examples than those ending with a coda, it is not possible to predict exactly when final lowering takes place, as it is in free variation with its absence; however, lowering is possible only if the word in question comes finally: *pana* is pronounced as [HH] (or [HL]) in citation, but *pana=nu* is typically pronounced as [HHH] where no final lowering occurs on the host word *pana*, as it is in the middle of a word-plus.

Thus we can assume that a W_2 has an underlying tonal pattern /HH/, which may be realised as [HL] if final lowering, which targets the final mora of a word(-plus), applies.

2.9.1.2. Prosodic patterns of W_3

We now turn to W_3 . Although it is still uncontroversial to analyse W_3 as showing an invariable tonal pattern, the situation is somewhat more complicated. In TABLE 2-7 below I list the prosodic patterns of W_3 .

TABLE 2-7. Prosodic patterns of W_3

	Form	Gloss	Pitch pattern		Tonal pattern
a.	<i>ka.ta.na</i>	‘knife’	[HHH]	(or [LHL])	/HHH/
	<i>ja.ra.bi</i>	‘child’	[HHH]	(or [LHL])	/HHH/
	<i>žža.ra</i>	‘tail cutter’	[HHH]	(or [LHL])	/HHH/
b.	<i>bu.dur</i>	‘dance’	[LHL]	(or [HHL])	/HHH/
	<i>pi.sir</i>	‘lunch’	[LHL]	(or [HHL])	/HHH/
	<i>mi.dum</i>	‘woman’	[LHL]	(or [HHL])	/HHH/
c.	<i>pa.siī</i>	‘bridge’	[LHL]	(or [HHL])	/HHH/
	<i>n.gii</i>	‘root of sweet potato’	[LHL]	(or [HHL])	/HHH/
	<i>ka.tai</i>	‘in-law’	[LHL]	(or [HHL])	/HHH/
d.	<i>juuž</i>	‘celebration’	[HHL]		/HHH/
	<i>pjaar</i>	‘summer’	[HHL]		/HHH/
	<i>daav</i>	‘tool’	[HHL]		/HHH/

e.	<i>av.va</i>	‘oil’	[HHH]	(or [HHL])	/HHH/
	<i>an.na</i>	‘mother’	[HHH]	(or [HHL])	/HHH/
	<i>jur.ru</i>	‘k.o.fish’	[HHH]	(or [HHL])	/HHH/
f.	<i>kaa.gi</i>	‘smell’	[HHH]	(or [HHL])	/HHH/
	<i>kai.na</i>	‘arm’	[HHH]	(or [HHL])	/HHH/
g.	<i>mm.na</i>	‘all’	[HHH]	(or [HHL])	/HHH/
	<i>nn.sa</i>	‘dumb’	[HHH]	(or [HHL])	/HHH/

A number of generalisations can be made about these patterns.

- Unlike W_2 , final lowering is regularly seen if a word in a citation form ends in any kind of heavy syllable: the lowered mora may be a coda, the second member of a long vowel or of a diphthong. See (b) to (d). Otherwise, as shown in (a) and (e-g), final lowering is possible but not typical.
- There is initial lowering, whereby the initial mora of a word is L-pitched. This is possible if a word begins in a (C_i)(C_i)(G)V, i.e. if the initial mora is a light syllable or a geminate initial C (see *žža.ra* in (a)), or a light presyllable (see *n.gii* in (c)). All other initial heavy syllables are never subject to initial lowering (see (d), (e), (f), and (g)). As is noted below, initial lowering is optional, and is heavily dependent on the presence or absence of final lowering within the same word.
- Initial lowering is present only if final lowering is present within the same word (thus [LHH] is unattested in my database). In (b) and (c) in which the initial syllable is a light syllable or a light presyllable (and thus may be subject to initial lowering) and in which final lowering is obligatory, the typical pitch pattern is [LHL], where both final and initial lowering are present. On the other hand, the parenthesised [HHL] in these examples, where there is only final lowering, is atypical but possible. Thus it seems that a phonetically ‘angular’ contour is

preferred.

TONAL PATTERN	INITIAL LOWERING	FINAL LOWERING	PITCH PATTERN
/HHH/	+	+	[LHL]
	-	+	[HHL]
	-	-	[HHH]
	+	-	*[LHH]

- In (d), there is a regular final lowering as it ends in a coda, but there is no initial lowering since the initial syllable is not (C_i)(C_i)(G)V or a light R, and therefore initial lowering is blocked.
- In (e), (f), and (g), final lowering is not typical, as the final mora is a light syllable; however, even if final lowering occurs, initial lowering is still blocked since the initial syllable here is not (C_i)(C_i)(G)V or a light presyllable.
- In (a) final lowering is not typical, as the final mora is a light syllable. When final lowering does occur in these examples, initial lowering becomes possible. The pattern [HHL] (only with final lowering) is also possible in (a), but it is almost absent in my database, and I do not consider this to be a productively attested pattern, and do not list it in the table below.

In the surface pitch pattern [LHL], the final L pitch is slightly lower than the initial L pitch. Thus a more elaborate auditory approximation of the pitch pattern of (b) *budur* ‘dance’ is [-⁻ ₋] (as opposed to (d) *juuž* ‘celebration’ [⁻ ₋]), in which straight lines represent relative pitch height per mora.

As in the case of final lowering, initial lowering in W₃ is phonetic, influenced by the syllable structure of the initial syllable of a word, and by the presence or absence of

final lowering, not by an inherent lexical tonal pattern of the word.

Thus, we can set up the underlying tonal pattern /HHH/ with exclusion of the final and initial lowering effects that can be assumed to be phonetic.

2.9.1.3. Prosodic patterns of W₄ and longer words

In TABLE 2-8 below I list the prosodic patterns of W₄ and longer words. Irabu roots are mostly bi- or trimoraic and W₄ is not common in roots. It is even more difficult to find native roots of more than four moras, so that the list below includes a proper name of Japanese origin (W₆: *koozaburoo*), and western loans (W₇).

TABLE 2-8. Prosodic patterns of W₄ and longer words

Form	Gloss	Pitch pattern	Tonal pattern
W₄			
<i>u.tu.ga.ja</i>	‘jaw’	[LHLL] (or [HHLL])	/HHLL/
<i>a.kjaa.da</i>	‘merchant’	[LHLL] (or [HHLL])	/HHLL/
<i>a.mair</i>	‘bulb’	[LHLL] (or [HHLL])	/HHLL/
<i>a.pav.ci</i>	‘chatterer’	[LHLL] (or [HHLL])	/HHLL/
<i>mmiv.ci</i>	‘chest’	[LHLL] (or [HHLL])	/HHLL/
<i>n.kjaan</i>	‘old times’	[LHLL] (or [HHLL])	/HHLL/
<i>kam.nar</i>	‘thunder’	[HHLL]	/HHLL/
<i>kuu.mu.ja</i>	‘cockroach’	[HHLL]	/HHLL/
W₅			
<i>ban.ci.ki.ra</i>	‘guava’	[HHLLL]	/HHLLL/
<i>sī.mu.juuž</i>	‘ankle’	[LHLLL] (or [HHLLL])	/HHLLL/
W₆			
<i>koo.za.bu.roo</i>	‘Kozaburo’	[HHLLLL]	/HHLLLL/
<i>kuu.sjan.guu</i>	‘fist’	[HHLLLL]	/HHLLLL/
W₇			
<i>oo.sī.to.ra.ri.a</i>	‘Australia’	[HHLLLLL]	/HHLLLLL/
<i>fa.mi.rii.maa.to</i>	‘Family Mart’	[LHLLLLL] (or [HHLLLLL])	/HHLLLLL/

Western loans such as frequently used country names (e.g. *oositoraria* ‘Australia’ [HHLLLLL], *amerika* ‘America’ [LHLL]) and common concepts in daily use (e.g. *paama* ‘perm’ [HHH], *arubaito* ‘part-time job (< German *Arbeit* via Japanese *arubaito*)’ [LHLLL], *deisaabisi* [HHLLLL] ‘day service’, *famiriimaato* ‘Family Mart (a convenience store)’ [LHLLLLL]) seem to be well integrated into Irapu prosody, given that my consultants all produced these words with the same prosodic patterns.

Unlike W_2 and W_3 , these longer words have a regular falling pitch between the second and the third moras without respect to syllable structure, i.e. without respect to whether the second mora and the third mora of a word are tauto-syllabic or not. This is exemplified in W_4 above. Also, this medial falling pitch is observed without respect to whether the word in question comes finally or is followed by a clitic. This medial falling pitch after the second mora in W_4 and longer words seems to be fairly widespread in other Miyako Ryukyuan varieties as well (e.g. Hirara; see Hirayama 1967). The underlying /L/ is toneless (i.e. unmarked for /H/), that is, Irapu tone system is privative (this will be discussed in §2.9.3).

In addition to medial falling pitch there is initial lowering as observed in W_3 . This is only observed in the initial mora when the initial syllable is a light syllable, a $C_iC_i(G)V$, or a light presyllable. There is no final lowering as the words here underlyingly end in /L/. The fact that initial lowering may occur in absence of final lowering suggests that initial lowering is induced by the simple fact that a word ends in L pitch (which may be phonetic, as in W_3 , or phonological, as in W_4 and longer words). As in the case of W_3 , we can see a preference for a phonetically ‘angular’ contour in these longer words. As the parenthesised patterns above suggest, initial lowering may be absent (e.g. *utugaja* ‘jaw’ [HHLL]), but this is not typical, just as in the case of W_3 .

The final L pitch is lower than the initial L pitch that results from initial lowering.

Also, in a sequence of L-pitched moras, a gradual lowering is observed toward word final position, before arriving at a level low after two or three moras. Thus more elaborate auditory approximations of the pitch patterns of *kam.nar* ‘thunder’ ([HHLL]) and *sī.mu.juuž* ‘ankle’ (typically [LHLLL]) are [˦ ˦ ˦] and [˦ ˦ ˦] respectively.

2.9.1.4. Summary

As described in the sections above, Irabu root words do not show lexically contrastive prosodic patterns, so that a given W_n shows an invariable underlying tonal pattern. For example, all W_4 invariably show the /HHLL/ pattern. This is true across word classes (i.e. W_4 is pronounced with /HHLL/ without respect to whether it is a noun, a verb, an adverb, etc. For example, in addition to a nominal W_4 , a verb *patarafi* ‘work’ and an adjective *aparagi* ‘beautiful’ have the same tonal pattern /HHLL/.

In sum, it is possible to set up the following underlying tonal patterns of the root words, without respect to word class. These tonal patterns are of course subject to various intonational modifications.

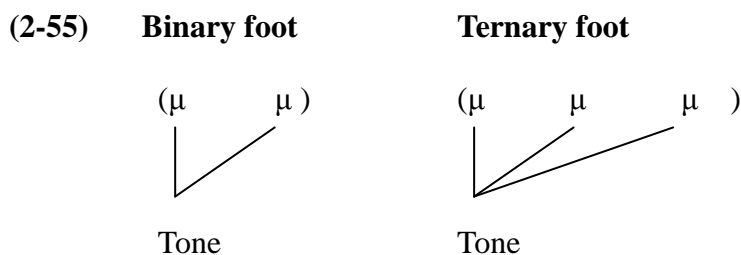
- (2-54) a. W_2 : /HH/
 b. W_3 : /HHH/
 c. W_{4-7} : /HHLL(L...)/

Irabu prosody is described by two independent (ordered) processes: (a) footing on the segmental structure and (b) tone assignment to this foot structure. I first introduce foot structure and footing principles in §2.9.2, then proceed to introduce a tone assignment rule for the existing foot structure in §2.9.3.

2.9.2. Footing

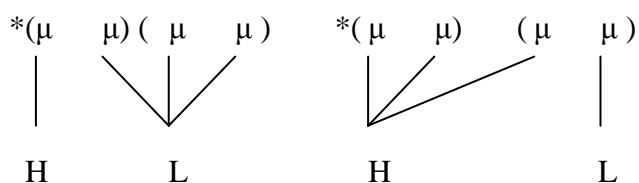
2.9.2.1. Definition of the foot

The notion foot in Irabu is defined as the bimoraic or trimoraic constituent that serves as the domain of tone assignment, as schematically shown in (2-55) below, where tone is associated with the foot structure on the segmental tier.¹³ The domain of footing is the word(-plus). Binary footing ($\mu\mu$) goes from left to right iteratively, except for two special cases to be explained in the following section, where ternary footing ($\mu\mu\mu$) may occur.



Thus the following association patterns of tone are impermissible.

(2-56) Impermissible tonal configuration: tone is associated across constituents



The word minimality is now interpreted in terms of foot structure: a word must contain at least one foot (otherwise it is impossible to assign tone), a cross-linguistically

¹³ Thus the Irabu foot is precisely the tonal foot suggested by Leben (1997) and in his other works thereafter (Leben 2002, 2003).

recurrent constraint on foot structure and word structure (McCarthy and Prince 1995).

Now it is possible to describe the root words in (2-57) below as having the underlying foot structures shown to the right of each word, with tone assigned per foot. Henceforth, (2-55) above will be represented as $(\mu\mu)_T$ or $(\mu\mu\mu)_T$, as illustrated in (2-57) (e.g. W_5 has $(\mu\mu)_H (\mu\mu\mu)_L$, which means that H tone is associated with the two moras of the first foot, and L tone is associated with the three moras of the second foot, rendering $/(HH)(LLL)/$).

(2-57)	Tonal pattern	Foot structure
a. W_2 : <i>pana</i> ‘nose’	/HH/	$(\mu\mu)_H$
b. W_3 : <i>katana</i> ‘knife’	/HHH/	$(\mu\mu\mu)_H$
c. W_4 : <i>utugaja</i> ‘jaw’	/HHLL/	$(\mu\mu)_H (\mu\mu)_L$
d. W_5 : <i>bancikira</i> ‘guava’	/HHLLL/	$(\mu\mu)_H (\mu\mu\mu)_L$
e. W_6 : <i>koozaburoo</i> ‘Kozaburo’	/HHLLLL/	$(\mu\mu)_H (\mu\mu)_L (\mu\mu)_L$
f. W_7 : <i>oositoraria</i> ‘Australia’	/HHLLLLL/	$(\mu\mu)_H (\mu\mu)_L (\mu\mu\mu)_L$

2.9.2.2. Ternary footing

If the word(-plus) has an odd number of moras, the exhaustive binary footing from left to right naturally results in one stray mora finally. Ternary footing assigns a tone to the stray mora. This is exactly what is shown in (2-57) above.

Ternary footing results from an additional morphological factor: polymoraic affixes and clitics always commence their own footing, i.e. the left boundary of a polymoraic form always coincides with the left boundary of a foot (a few exceptions will be noted below). Thus if a root has an odd number of moras and precedes a bimoraic form, as in (2-58a) to (2-58c) below ($W_3 + \text{bimoraic form} = W_5$) and in (2-59a) to (2-59c) below

(W_7 + bimoraic form = W_9), the root receives ternary footing rather than leaving one stray medially (i.e. (ii) in each example is impermissible):

- | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(2-58) a. <i>katana-nagi</i>
 knife-and.so.on
 ‘knife, and so on’
 i. (katana)_H(nagi)_L
 *ii. (kata)na(nagi)</p> | <p>b. <i>katana=mai</i>
 knife=too
 ‘knife, too’
 i. (katana)_H(mai)_L
 *ii. (kata)na(nagi)</p> | <p>c. <i>katana=bjaam</i>
 knife=I.wonder
 ‘wonder if it’s a knife’
 i. (katana)_H(bjaam)_L
 *ii. (kata)na(bjaam)</p> |
| <p>(2-59) a. <i>oositoraria-nagi</i>
 Australia-and.so.on
 ‘Australia, and so on’
 i.(oo)_H(sīto)_L(raria)_H(nagi)_L
 *ii. (oo)(sīto)(rari)a (nagi)</p> | <p>b. <i>oositoraria=mai</i>
 Australia=too
 ‘Australia, too’
 i. (oo)_H(sīto)_L(raria)_H(mai)_L
 *ii. (oo) (sīto)(rari)a (mai)</p> | <p>c. <i>oositoraria=bjaam</i>
 Australia=I.wonder
 ‘wonder if it’s Australia’
 i.(oo)_H(sīto)_L(raria)_H(bjaam)_L
 *ii.(oo)(sīto)(rari)a(bjaam)</p> |

However, monomoraic affixes and clitics do not necessarily come at the left boundary of a foot. That is, they do not obligatorily commence a foot, but are simply treated as part of the preceding host, to which the default footing applies (bimoraic footing from left to right with an optional final ternary footing). For example, a W_2 *pana* ‘nose’ + =*u* (accusative) give rise to a W_3 (panau)_H with no special footing. Likewise, a W_3 *katana* ‘knife’ + =*u* give rise to a W_4 (kata)_H (nau)_L with no special footing (cf. (2-58)). W_7 *oositoraria* ‘Australia’ + =*u* give rise to (oo)_H (sīto)_L (rari)_H (au)_L, with no special footing (cf. (2-59)). If the default footing does allow monomoraic affixes and clitics to commence a foot, they do so accordingly (e.g. *pana* ‘nose’ + =*u* (accusative) + =*du* (focus) > (pana)(udu), where =*u* happens to commence a foot.).

(2-60) contains examples where the accusative clitic =*u* is in the middle of a word-plus. In these, the monomoraic =*u* is treated as part of the host for the footing purpose, but the clitics =*kara* and =*mai* commence their own footing since they are bimoraic. With respect to =*mai* in (2-60b), its immediately preceding host containing =*u* undergoes ternary footing since this host has an odd number of moras.

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(2-60) a. <i>bancikira=u=mai</i>
 guava=ACC=too
 ‘from guava:ACC’
 (ban)_H (ciki)_L(rau)_H (mai)_L</p> | <p>b. <i>bancikira=kara=u=mai</i>
 guava=from=ACC=too
 ‘from guava:ACC, too’
 (ban)_H (cikira)_L(karau)_H (mai)_L</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

A sequence of two monomoraic clitics such as =*u=du* (accusative + focus) below is simply treated as part of the host, to which the default footing applies. Compare (2-61a) and (2-61b) with (2-58) and (2-59) above respectively.

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(2-61) a. <i>katana=u=du</i>
 knife=ACC=FOC
 ‘knife:ACC:FOC’
 (kata)_H (naudu)_L</p> | <p>b. <i>oositoraria=u=du</i>
 Australia=ACC=FOC
 ‘Australia:ACC:FOC’
 (oo)_H (sito)_L (rari)_H (audu)_L</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Some morphemes have both monomoraic and bimoraic allomorphs, and this difference is reflected in footing. For example, quotative //=*ti*// has the variant /=*tii*/, which always commences its own footing, and /=*ti*/, which does not.

- (2-62) a. *katana=tii* b. *katana=ti*
 knife=QT knife=QT
 ‘knife:QT’ ‘knife:QT’
 (katana)_H(tii)_L (kata)_H(nati)_L

- (2-63) a. *oositoraria=tii* b. *oositoraria=ti*
 Australia=QT Australia=QT
 ‘Australia:QT’ ‘Australia:QT’
 (oo)_H(sïto)_L(raria)_H(tii)_L (oo)_H(sïto)_L(rari)_H(ati)_L

Likewise, the plural affix *//-mmi//* has two allomorphs, */-mmi/* and */-mi/*. If a stem ends in */m/*, the latter is frequently chosen (as a result of the sequential nasal deletion rule, §2.10.2), though the former may also be chosen as a less preferred option. The difference is reflected in footing.

- (2-64) a. *midum-mmi* b. *midum-mi*
 woman-PL woman-PL
 ‘women’ ‘women’
 (midum)_H(mmi)_L (midu)_H(mmi)_L

A few polymoraic verbal affixes are exceptional in footing, as they do not always commence a foot, and thus resemble monomoraic morphemes in this regard. Such verbal affixes are: *-rai* (passive) and *-tigaa* (conditional converb). Unlike other polymoraic affixes that always start their own footing (e.g. causative *-sïmi* in (2-65a) and past unmarked *-tar* in (2-66a)), these exceptional affixes do not commence a foot

unless the default footing allows them to do so, and so do not induce ternary footing on the part of the host. Thus we get (2-65b ii) and (2-66b ii) rather than (2-65b i) and (2-66b i).

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(2-65) a. <i>nkai-simi-tar=pazi</i></p> <p>pick.up-CAUS-PST=maybe</p> <p>‘may have told (someone) to pick up’</p> <p>(nkai)_H (sīmi)_L (tar)_H (pazī)_L</p> | <p>b. <i>nkai-rai-tar=pazi</i></p> <p>pick.up-PASS-PST=maybe</p> <p>‘may have been picked up’</p> <p>*i. (nkai)_H (rai)_L (tar)_H (pazī)_L</p> <p>ii. (nka)_H (irai)_L (tar)_H (pazī)_L</p> |
| <p>(2-66) a. <i>nkai-tar</i></p> <p>pick.up-PST</p> <p>‘picked up (someone)’</p> <p>(nkai)_H (tar)_L</p> | <p>b. <i>nkai-tigaa</i></p> <p>pick.up-CVB.CND</p> <p>‘if (x) picks up (someone),’</p> <p>*i. (nkai)_H (tigaa)_L</p> <p>ii. (nka)_H (iti)_L (gaa)_L</p> |

To sum up this and the preceding sections, there is a restriction on the distribution of tones so that tone assignment is conditioned by bi- or trimoraic constituency, or foot structure. Footing is sensitive to morphological structure, so that polymoraic forms commence their own footing with just a few exceptions.

2.9.3. Tone assignment

In this section I introduce a tone assignment rule on the pre-existing foot structure produced by the above mentioned strategies.

2.9.3.1. The Principle of Rhythmic Alternation

Tone assignment in Irapu prosody is an instantiation of a cross-linguistically recurrent principle of alternating rhythm ('Principle of Rhythmic Alternation' (henceforth PRA); Selkirk 1984). The PRA states that 'between two successive strong beats there intervenes at least one and at most two weak beats' (p. 12). That is, there is a strong tendency for binary organisation of linguistic rhythm, which may allow a variation in which 'one may encounter ternary beats (a strong accompanied by a sequence of two weaks), but quaternary groups seem to be felt as two binary' (*ibid*). Let us schematically show the above statement as follows (where 's' represents a strong beat, and 'w' represents a weak beat in Selkirk's terms; a square indicates a rhythmic group):

$\boxed{s\ w\ (w)}$

$\boxed{s\ w}\ \boxed{s\ w}$ but not $*\boxed{s\ w\ w\ w}$

Note that the PRA refers to 'strong' and 'weak' since Selkirk's focus was on stress languages. However, as will be shown later, this can be restated with more general terms, i.e. 'marked' (H) and 'unmarked' (L, i.e. toneless) prosodic features, whereby we can refer to the PRA in the Irapu case.

2.9.3.2. The rule

The following rule set is postulated for Irapu prosody, where the rule set applies to the word(-plus) unless in certain special cases to be noted in §2.9.4.

(2-67) Tone assignment rule

- a. Group one to three adjacent feet into a single 'foot group' (indicated by a

square in (2-68a-c) below).

- b. If a foot group is going to contain a sequence of four feet within it (e.g. when a foot is added to (2-68c) to create (2-68d)), regroup the quaternary feet into two foot groups (as in (2-68d)).
- c. Assign /H/ to the left-most foot of each foot group.

(2-68) F(oot) group formation	Tone assignment
W ₂₋₃ a. (F)	(H)
b. (F)(F)	(H)(L)
c. (F)(F)(F)	(H)(L)(L)
d. (F)(F) (F)(F)	(H)(L) (H)(L)
e. (F)(F) (F)(F)(F)	(H)(L) (H)(L)(L)
f. (F)(F) (F)(F) (F)(F)	(H)(L) (H)(L) (H)(L)

Note: (F) = (μμ) or (μμμ)
 (H) = (μμ)_H or (μμμ)_H
 (L) = (μμ)_L or (μμμ)_L

Rule (2-67b) is iteratively applicable, as shown in (2-68e) and (2-68f), where the addition of a foot to the second foot group of (2-68e) induces its division into two foot groups in (2-68f), forming three foot groups in total.

The set of examples in (2-69) below is a complete set of examples where *kan* ‘crab’ is progressively derived into longer word-pluses, from W₂ (one foot, illustrating (2-68a)) to W₁₂ (six feet, illustrating (2-68f)). Note that monomoraic =*nu* (nominative) and =*du* (focus) are treated as part of the host.

(2-69) Note: *-gama* (diminutive), *-mmi* (plural), *-nagi* (approximative ‘etc.’)
=nu (nominative), *=kara* (ablative), *=du* (focus), *=mai* ‘too’

W ₂	<i>kan</i> ‘crab’	(kan) _H
W ₃	<i>kan=nu</i>	(kannu) _H
W ₄	<i>kan-gama</i>	(kan) _H (gama) _L
W ₅	<i>kan-gama=nu</i>	(kan) _H (gamanu) _L
W ₆	<i>kan-gama-mmi</i>	(kan) _H (gama) _L (mmi) _L
W ₇	<i>kan-gama-mmi=nu</i>	(kan) _H (gama) _L (mminu) _L
W ₈	<i>kan-gama-mmi-nagi</i>	(kan) _H (gama) _L (mmi) _H (nagi) _L
W ₉	<i>kan-gama-mmi-nagi=nu</i>	(kan) _H (gama) _L (mmi) _H (naginu) _L
W ₁₀	<i>kan-gama-mmi-nagi=kara</i>	(kan) _H (gama) _L (mmi) _H (nagi) _L (kara) _L
W ₁₁	<i>kan-gama-mmi-nagi=kara=du</i>	(kan) _H (gama) _L (mmi) _H (nagi) _L (karadu) _L
W ₁₂	<i>kan-gama-mmi-nagi=kara=mai</i>	(kan) _H (gama) _L (mmi) _H (nagi) _L (kara) _H (mai) _L

Further examples follow. Examples (2-70) to (2-75) illustrate the tonal patterning of nominal word(-plus)es, and (2-76) to (2-79) illustrate the tonal patterning of verb word(-plus)es.

(2-70)	a. W ₂ : <i>pav</i> ‘snake’	(pav) _H
	b. W ₄ : <i>pav + -gama</i>	(pav) _H (gama) _L
	c. W ₆ : <i>pav + -gama + =kara</i>	(pav) _H (gama) _L (kara) _L
	d. W ₈ : <i>pav + -gama + =kara+ =mai</i>	(pav) _H (gama) _L (kara) _H (mai) _L

Note: *-gama* (diminutive), *=kara* (ablative), *=mai* ‘too’

- (2-71) a. W_3 : *jarabi* ‘child’ (jarabi)_H
 b. W_5 : *jarabi* + *-gama* (jarabi)_H (gama)_L
 c. W_7 : *jarabi* + *-gama* + *=kara* (jarabi)_H (gama)_L (kara)_L
 d. W_9 : *jarabi* + *-gama* + *=kara* + *=mai* (jarabi)_H (gama)_L (kara)_H (mai)_L

In (2-71) above there is ternary footing on the part of the host *jarabi*.

- (2-72) a. W_4 : *akjaada* ‘merchant’ (akja)_H (ada)_L
 b. W_6 : *akjaada* + *-gama* (akja)_H (ada)_L (gama)_L
 c. W_8 : *akjaada* + *-gama* + *=kara* (akja)_H (ada)_L (gama)_H (kara)_L
 d. W_{10} : *akjaada* + *-gama* + *=kara* + *=mai*
 (akja)_H (ada)_L (gama)_H (kara)_L (mai)_L

- (2-73) a. W_5 : *bancikira* ‘guava’ (ban)_H (cikira)_L
 b. W_7 : *bancikira* + *-gama* (ban)_H (cikira)_L (gama)_L
 c. W_9 : *bancikira* + *-gama* + *=kara* (ban)_H (cikira)_L (gama)_H (kara)_L
 d. W_{11} : *bancikira* + *-gama* + *=kara* + *=mai*
 (ban)_H (cikira)_L (gama)_H (kara)_L (mai)_L

In (2-73) above there is ternary footing on the part of the host *bancikira*.

- (2-74) a. W_6 : *koozaburoo* ‘Kozaburo’ (koo)_H (zabu)_L (roo)_L
 b. W_8 : *koozaburoo* + *-gama* (koo)_H (zabu)_L (roo)_H (gama)_L
 c. W_{10} : *koozaburoo* + *-gama* + *=kara*
 (koo)_H (zabu)_L (roo)_H (gama)_L (kara)_L

d. W_{12} : *koozaburoo* + *-gama* + *=kara* + *=mai*

(koo)_H(zabu)_L(roo)_H(gama)_L(kara)_H(mai)_L

(2-75) a. W_7 : *famiriimaato* ‘Family Mart’ (fami)_H(rii)_L(maato)_L

b. W_9 : *famiriimaato* + *-gama* (fami)_H(rii)_L(maato)_H(gama)_L

c. W_{11} : *famiriimaato* + *-gama* + *=kara*

(fami)_H(rii)_L(maato)_H(gama)_L(kara)_L

d. W_{13} : *famiriimaato* + *-gama* + *=kara* + *=mai*

(fami)_H(rii)_L(maato)_H(gama)_L(kara)_H(mai)_L

In (2-75) above there is ternary footing on the part of the host *famiriimaato*.

(2-76) a. W_2 : *tur-* ‘take’ (tur)_H

b. W_3 : *tur-* + *-as* (turasī)_H

c. W_4 : *tur-* + *-as* + *-rai* (tura)_H(sai)_L

d. W_6 : *tur-* + *-as* + *-rai* + *-tar* (tura)_H(sai)_L(tar)_L

e. W_8 : *tur-* + *-as* + *-rai* + *-tar* + *=pazī* (tura)_H(sai)_L(tar)_H(pazī)_L

f. W_{11} : *tur-* + *-as* + *-rai* + *-tar* + *=pazī* + *=dooi*

(tura)_H(sai)_L(tar)_H(pazī)_L(dooi)_L

Note: *-as* (causative), *-rai* (passive), *-tar* (past unmarked), *=pazī* ‘maybe’,

=dooi (emphatic)

(2-77) a. W_3 : *barau-* ‘laugh’ (barau)_H

b. W_4 : *barau-* + *-as* (bara)_H(asī)_L

c. W_5 : *barau-* + *-as* + *-rai* (bara)_H(asai)_L

- d. W₇: *barau-* + *-as* + *-rai* + *-tar* (bara)_H (asai)_L (tar)_L
- e. W₉: *barau-* + *-as* + *-rai* + *-tar* + =*pazī* (bara)_H (asai)_L (tar)_H (pazī)_L
- f. W₁₂: *barau-* + *-as* + *-rai* + *-tar* + =*pazī* + =*dooi*
(bara)_H (asai)_L (tar)_H (pazī)_L (dooi)_L

In (2-77) above, the stem-final /u/ is deleted unless the stem is word-final.

- (2-78) a. W₄: *patarak-* ‘work’ (pata)_H (rafī)_L
- b. W₅: *patarak-* + *-as* (pata)_H (rakasī)_L
- c. W₆: *patarak-* + *-as* + *-rai* (pata)_H (raka)_L (sai)_L
- d. W₈: *patarak-* + *-as* + *-rai* + *-tar* (pata)_H (raka)_L (sai)_H (tar)_L
- e. W₁₀: *patarak-* + *-as* + *-rai* + *-tar* + =*pazī*
(pata)_H (raka)_L (sai)_H (tar)_L (pazī)_L
- f. W₁₃: *patarak-* + *-as* + *-rai* + *-tar* + =*pazī* + =*dooi*
(pata)_H (raka)_L (sai)_H (tar)_L (pazī)_H (dooi)_L

- (2-79) a. W₅: *ugunaar-* ‘gather’ (ugu)_H (naar)_L
- b. W₆: *ugunaar-* + *-as* (ugu)_H (naa)_L (rasī)_L
- c. W₇: *ugunaar-* + *-as* + *-rai* (ugu)_H (naa)_L (rasai)_L
- d. W₉: *ugunaar-* + *-as* + *-rai* + *-tar* (ugu)_H (naa)_L (rasai)_H (tar)_L
- e. W₁₁: *ugunaar-* + *-as* + *-rai* + *-tar* + =*pazī*
(ugu)_H (naa)_L (rasai)_H (tar)_L (pazī)_L
- f. W₁₄: *ugunaar-* + *-as* + *-rai* + *-tar* + =*pazī* + =*dooi*
(ugu)_H (naa)_L (rasai)_H (tar)_L (pazī)_H (dooi)_L

The passive suffix *-rai* is a bimoraic affix, whose onset /r/ is deleted when attaching to hosts ending in a consonant, as shown in the examples above. As was noted in §2.9.2.2, it behaves like a monomoraic affix, in that it does not necessarily commence a foot, i.e. is treated simply as part of the host to which the default footing applies. Thus in (2-77c) *baraasai* is parsed into (bara)(asai) rather than (baraa)(sai), and in (2-79d) *ugunaarasaitar* is parsed into (ugu)(naa)(rasai)(tar) rather than (ugu)(naara)(sai)(tar). On the other hand, a bimoraic form such as *-tar* consistently induces ternary footing on the part of its host if the host has an odd number of moras.

2.9.3.3. Summary

By assuming the PRA, we only need to refer to the specification of /H/. That is, we can simply state that in each foot group (which is automatically parsed by the PRA) /H/ is assigned to the first foot, and no further statement for /L/ is required. This means that in the Irabu language the H tone is marked and the L tone is default, with a privative system of /H/ vs. /Ø/ (Hyman 2001), in which rules specify the marked /H/ only, and the other feature is seen as an absence of the /H/ feature. The alternating tonal pattern is thus analysed as the presence of the marked prosodic feature /H/ at as regular intervals as possible in accordance with the PRA, rather than as the presence of a specific tonal melody such as /HL/. Thus the Irabu alternating tonal pattern is not as different as it first appears from the rhythmic alternation phenomena in stress languages in which stressed or ‘strong’ syllables (marked) and stressless or ‘weak’ syllables (unmarked) alternate. The differences are that in Irabu the marked prosodic feature is tone rather than stress and such a feature is borne by an entire foot rather than an individual syllable.

2.9.4. Phrasal mapping of the alternating rhythm

Even though the tone assignment rule given in §2.9.3 *in principle* applies to the word(-plus) domain, it may apply to an entire phrase if the first member of the phrase has only one foot. In the (a) examples of (2-80) to (2-83) below, two nominal word(-plus)es form an NP. If the tone assignment rule exactly applied to each word(-plus) the expected pattern should be (i), where each member of a phrase (i.e. a word(-plus)) would constitute a single prosodic domain of tone assignment. However, what we actually get is (ii), which demonstrates that an entire phrase is a single prosodic domain of the tone assignment. Compare the (a) examples with the (b) examples, where the first member of a phrase consists of more than one foot the phrasal mapping of tone assignment does not occur, and each word(-plus) remains the domain of tone assignment.

- (2-80) a. *ba=ga* *ffa-gama*
1SG=GEN child-DIM
'my little child'
*i. (baga)_H (ffa)_H(gama)_L
ii. (baga)_H (ffa)_L(gama)_L
- b. *koozaburoo=ga* *ffa-gama*
Kozaburo=GEN child-DIM
'Kozaburo's little child'
(koo)_H (zabu)_L (rooga)_L (ffa)_H (gama)_L

- (2-81) a. *ba=ga* *ffa-gama-mmi*
 1SG=GEN child-DIM-PL
 ‘my little children’
 *i. (baga)_H (ffa)_H (gama)_L (mmi)_L
 ii. (baga)_H (ffa)_L (gama)_H (mmi)_L
- b. *koozaburoo=ga* *ffa-gama-mmi*
 Kozaburo=GEN child-DIM-PL
 ‘Kozaburo’s little children’
 (koo)_H (zabu)_L (rooga)_L (ffa)_H (gama)_L (mmi)_L
- (2-82) a. *ba=ga* *kjavidai=mai*
 1SG=GEN sibling=too
 ‘my sibling, too’
 *i. (baga)_H (kjav)_H (dai)_L (mai)_L
 ii. (baga)_H (kjav)_L (dai)_H (mai)_L
- b. *koozaburoo=ga* *kjavidai=mai*
 Kozaburo=GEN sibling=too
 ‘Kozaburo’s sibling, too’
 (koo)_H (zabu)_L (rooga)_L (kjav)_H (dai)_L (mai)_L
- (2-83) a. *ba=ga* *bancikira=mai*
 1SG=GEN guava=too
 ‘My guava, too’

*i. (baga)_H (ban)_H (cikira)_L (mai)_L

ii. (baga)_H (ban)_L (cikira)_H (mai)_L

b. *koozaburoo=ga* *bancikira=mai*

Kozaburo=GEN guava=too

‘Kozaburo’s guava, too’

(koo)_H (zabu)_L (rooga)_L (ban)_H (cikira)_L (mai)_L

Phrasal mapping applies if any mono-foot word is the first member of an NP, such as *vva=ga* (2SG=GEN) ‘your’, *kai=ga* (3SG=GEN) ‘his/her’, *pžtu=nu* (man=GEN) ‘someone’s’, *unu* ‘that’, etc. Below are examples with a trimoraic foot word-plus *naa=ga* ‘one’s own (reflexive pronoun)’ as the first member of an NP.

(2-84) *naa=ga ffa-gama*

RFL=GEN child-DIM

‘one’s own little child’

*a. (naaga)_H (ffa)_H(gama)_L

b. (naaga)_H (ffa)_L(gama)_L

(2-85) *naa=ga ffa-gama-mmi*

RFL=GEN child-DIM-PL

‘one’s own little children’

*a. (naaga)_H (ffa)_H(gama)_L(mmi)_L

b. (naaga)_H (ffa)_L(gama)_H(mmi)_L

(2-86) *naa=ga* *kjavdai=mai*

RFL=GEN sibling=too

‘one’s own sibling, too’

*a. (naaga)_H (kjav)_H (dai)_L (mai)_L

b. (naaga)_H (kjav)_L (dai)_H (mai)_L

(2-87) *naa=ga* *bancikira=mai*

RFL=GEN guava=too

‘one’s own guava, too’

*a. (naaga)_H (ban)_H (cikira)_L (mai)_L

b. (naaga)_H (ban)_L (cikira)_H (mai)_L

The phrase may also be a VP. As is shown below, the VP (main verb + auxiliary verb + modal clitic) in each example forms a single prosodic domain to which the tone assignment rule applies, rendering the pattern (b).

(2-88) *mii-Ø* *fii-tar=pazi.*

look-MED BEN-PST=maybe

‘(S/he) may have watched (something) (for someone).’

*a. (mii)_H (fii)_H (tar)_L (pazi)_L

b. (mii)_H (fii)_L (tar)_H (pazi)_L

(2-89) *jum-i-i* *fii-tar=pazi.*

read-THM-MED BEN-PST=maybe

‘(s/he) may have read (a book) (for someone).’

*a. (jumii)_H (fii)_H (tar)_L (pazī)_L

b. (jumii)_H (fii)_L (tar)_H (pazī)_L

(2-90) *jum-i-i* *njaat-tar=pazī.*

read-THM-MED PRF-PST=maybe

‘(S/he) may have finished reading.’

*a. (jumii)_H (njaat)_H (tar)_L (pazī)_L

b. (jumii)_H (njaat)_L (tar)_H (pazī)_L

Especially noteworthy in (2-88) to (2-90) above is the fact that the second member of a phrase in each example commences with L tone, a fact which would not be expected if the tone assignment rule exactly applied to each word(-plus).

Note that phrasal mapping occurs in tone assignment but not in foot building: footing commences and ends in each word(-plus), not across two word(-plus)es, as was defined in §2.9.2. Thus in a phrase like W1 + W2 below, we have the footing pattern (a) and not (b), the latter of which would be possible if the W1+W2 as a whole were treated as a single domain of footing.

(2-91)	W1	W2
	μ μ μ	μ μ μ μ
a.	(μ μ μ)	(μ μ) (μ μ)
*b.	(μ μ) (μ	μ) (μ μ μ)

This supports the view held in this thesis that footing is independent of (i.e. prior to) tone assignment.

Two juxtaposed word(-plus)es that do not form a phrase do not induce phrasal mapping of tone assignment. Thus in (2-92) below, the subject NP *baga* and the object NP *ffa-gama=u* do not form a single prosodic domain, even when the first word-plus *baga* is a mono-foot word-plus (cf. (2-80)).

(2-92)	<i>ba=ga</i>	<i>ffa-gama=u</i>	<i>ž-ž-a-di</i>
	1SG=GEN	child-DIM=ACC	scold-THM-NPST.INT
	Subject	Direct object	Verb
	‘I will scold my little child.’		
	(baga) _H	(ffa) _H (gamau) _L	(žžadi) _H
	<Prosodic domain>	<Prosodic domain>	<Prosodic domain>

Similarly, in (2-93) below, where the mono-foot word *jumii* is followed by *fiitar* (cf. (2-89)), the two verbs do not form a single VP but form distinct VPs (*jumii* is a chained clause head, and *fiitar* is a main clause head, thus (2-93) is a clause chaining structure). Thus each word(-plus) serves as distinct prosodic domain to which tone assignment applies.

(2-93)	<i>jum-i-i,</i>	<i>fii-tar=pazi.</i>
	read-THM-MED	give-PST=maybe
	[chained clause]	[main clause]
	‘(S/he) may have read (a book) and have given (it) (to someone).’	
	(jumii) _H	(fii) _H (tar) _L (pazi) _L
	<Prosodic domain>	<Prosodic domain>

Thus phrasal mapping takes place only when two word(-plus)es form a single morphosyntactic phrase *and* the first member of the phrase is a mono-foot word(-plus).

In sum, the tone assignment rules defined in §2.9.3 may map onto either a word(-plus) or a phrase, the latter being restricted to certain special cases. On the other hand, footing is consistently per word(-plus), supporting the view that footing is assigned before tone assignment.

2.10. Morphophonemics

There are several morpheme-specific phonological alternations. Below I describe four major such phenomena in terms of each morpheme. Other minor morphophonemic alternations will be noted when the relevant morpheme is introduced in the subsequent chapters.

2.10.1. Topic clitic and accusative clitic

The topic clitic *//=a//*, accusative clitic *//=u//*, and second accusative clitic *//=a//* are subject to /j/ insertion (in addition to other predictable general phonological rules as noted in §2.7) when attaching to a host ending in VV (long vowel or diphthong).

(2-94) Topic marker *//=a//* (and second accusative *//=a//*: these are homophonous)

//pana// ‘nose’ + *//=a//* > /pana=a/ [pana:] ‘nose:TOP’

//kuri// ‘this’ + *//=a//* > /kuri=a/ [kur^hu:] ‘this:TOP’

//tur// ‘bird’ + *//=a//* > /tur=ra/ [tu^h][a] ‘bird:TOP’ (geminate copy insertion)

//kaa// ‘skin’ + *//=a//* > /kaa=ja/ [ka:ja] ‘skin:TOP’ [/j/ insertion]

//kui// ‘voice’ + *//=a//* > /kui=ja/ [kuija] ‘voice:TOP’ [/j/ insertion]

(2-95) Accusative case //=u//

//pana// ‘nose’ + //=u// > /pana=u/ [panau] ‘nose:ACC’

//kuri// ‘this’ + //=u// > /kuri=a/ [kur^hu:] ‘this:ACC’

//tur// ‘bird’ + //=u// > /tur=ra/ [tu^hu] ‘bird:ACC’ (geminate copy insertion)

//kaa// ‘skin’ + //=u// > /kaa=ju/ [ka:ju] ‘skin:ACC’ [/j/ insertion]

//kui// ‘voice’ + //=u// > /kui=ju/ [kuiju] ‘voice:ACC’ [/j/ insertion]

2.10.2. Sequential nasal deletion

A sequence of moraic nasals (/mm/, /nn/, /mn/, /nm/) across morpheme boundaries may (but not obligatorily) undergo the deletion of the second nasal.

(2-96) *kan* ‘crab’ + *-mmi* (plural) > *kan-(m)mi*

kan + =*n* (dative) > *kan(n)*

kan + =*nkai* (allative) > *kan=(n)kai*

kam ‘god’ + *-mmi* > *kam-(m)mi*

kam + =*n* > *kam(n)*

kam + =*nkai* > *kam(n)kai*

2.10.3. /s/-to-/r/ assimilation

The formal noun *su(u)* ‘thing; man; COMP’ (§4.2.1.8) and diachronically related forms (forms that derived from *su(u)*) undergo assimilation when preceded by /r/.

(2-97) *kanamar=nu* *cuu-kar-Ø* *ruu=nu=du* *iciban.*

head=NOM strong-VLZ-NPST man=NOM=FOC No.1

‘Those who are wise are the best.’

(2-98) *ba=a ujaki-ka-tar=ruga=du, nnama=a jaa=mai njaa-n.*
 1SG=TOP rich-VLZ-PST=but=FOC now=TOP house=even NEG-NPST
 ‘I used to be rich, but now I do not have even a house.’ [=suga; §9.2.3]

(2-99) *kuri=a midum jar-Ø=ruuda.*
 3SG=TOP woman COP-NPST=AD.ASR
 ‘This is a woman, isn’t she?’ [=su(u)da; §9.3.5]

2.10.4. Sequential voicing

In Japonic languages, there is a special morphophonological process that clearly distinguishes a compound from a phrase or from an affixed word. In Japanese linguistics this is called ‘sequential voicing’, which I also adopt in describing Irabu compounds. Thus in compounds, not in phrases, a non-word-initial stem of a compound may undergo sequential voicing in which a stem-initial voiceless onset consonant is replaced by its voiced counterpart. Note that in the fricative class /f/ lacks a phonemically voiced counterpart, and /f/ is replaced by /v/, which belongs to the resonant class. Also, either /s/ or /c/ is replaced by its phonemically voiced counterpart /z/.

(2-100) *mcī* ‘road’ + *fisa* ‘grass’ > *mcī+vsa* ‘wandering’
mii- ‘female’ + *ffa* ‘child’ > *mii+vva* ‘daughter’
uku- ‘big’ + *ssam* ‘louse’ > *uku+zzam* ‘big louse’

(2-101) Voiceless**Voiced**

/p/	<i>pjaar</i> ‘hot season’	>	/b/	<i>naci+bjaar</i> ‘summer’
				summer+hot.season
/t/	<i>tur</i> ‘bird’	>	/d/	<i>uku+dur</i> ‘big bird’
				big+bird
/k/	<i>kan</i> ‘crab’	>	/g/	<i>uku+gan</i> ‘big crab’
				big+crab
/f/	<i>ffa</i> ‘child’	>	/v/	<i>biki+vva</i> ‘son’
				male+child
/s/	<i>sima</i> ‘island’	>	/z/	<i>imi+zima</i> ‘small island’
				small+island
/c/	<i>cin</i> ‘clothes’	>	/z/	<i>jari+zin</i> ‘worn-out clothes’
				worn.out+clothes

Sequential voicing is not obligatory and its occurrence cannot be precisely predicted. As a general tendency, the more conventional the combination of the compound stems is, the more likely it is to undergo sequential voicing, though this is not iron-clad, as seen in the examples above (*uku+dur* ‘big bird’, for example, is not considered to be a ‘conventionalised’ expression). However, we can tell in which context sequential voicing *never* occurs: if a potential target stem of sequential voicing already contains a non-initial syllable that carries a phonemically voiced onset (i.e. stops and fricatives), sequential voicing is blocked. For example, in *kazi* ‘wind’ the second syllable carries a phonemically voiced fricative onset /z/, and it never undergoes sequential voicing: *uku-* ‘big’ + *kazi* ‘wind’ > *uku+kazi* ‘big wind’ rather than **uku+gazi* (cf. *uku-* + *kan* ‘crab’ > *uku+gan* ‘big crab’). This constraint is also found on

sequential voicing in Japanese, and the constraint as noted above is known as Lyman's Law (Martin 1975; Sato 1989; Shibatani 1990; Ito and Mester 2003).

In a ternary compound, which is not uncommon in Irabu, the target stem of sequential voicing rule may be the second stem or the third, or both.

(2-102) *biki+vva+zii* (< *biki* + *ffa* + *sii*)

male+child+rock

'a rock whose shape is like a male child'

(2-103) *waa+kurusī+bžž* (< *waa* + *kurusī* + *pžž*)

pig+killing+day

'New year's eve'

2.11. Phonological characteristics of compounds

The phonological characteristics of compounds are rather complex. This is due to the cross-linguistically common fact that grammatical word boundaries and phonological word boundaries do not coincide in compounds.

A compound is a single word-plus rather than a phrase (see §3.6.2.2 for the justification for this view). We have noted throughout the sections above that a word-plus is in most cases a single phonological word in terms of (1) syllable structure, (2) phonological rules, and (3) prosody, with just a very few restricted exceptions (phrasal mapping of prosody where an entire phrase becomes a single phonological word in terms of (3)).

However, a compound is an important exception to this generalisation, in that each stem of a compound is in most cases treated as a separate phonological word in respect

of the three criteria of (1), (2), and (3). Moreover, with respect to (2), one specific rule, or sequential voicing (§2.10.4), treats a whole compound word as a single phonological word, whereas all others treat each stem as a phonological word, showing a complex (but cross-linguistically not uncommon) mapping pattern of phonological word boundaries. In what follows I first note cases where each compound stem usually acts as a separate phonological word, then proceed to note unproblematic cases where an entire compound is always treated as a phonological word in all three respects.

2.11.1. Productive compounds

The first type of compound is called a productive compound, because it is highly productive, showing a ‘phrasal’ character in terms of productivity (but see §3.6.2.2 for the distinction between a productive compound word and a phrase). For example, (2-104) below demonstrates that the first stem *ffu* ‘black’ can combine with various stems with a transparent meaning, while (2-105) below demonstrates that the second stem *gii* ‘tree’ can combine with various stem, again with a transparent meaning.

(2-104) a. <i>ffu+karazī</i>	b. <i>ffu+kabžž</i>	c. <i>ffu+dur</i>	d. <i>ffu+guruma</i>
black+hair	black+paper	black+bird	black+car
‘black hair’	‘black paper’	‘black bird’	‘black car’
(2-105) a. <i>ffu+gii</i>	b. <i>taka+gii</i>	c. <i>bžda+gii</i>	d. <i>gazīpana+gii</i>
black+tree	high+tree	low+tree	Gazīpana+tree
‘black tree’	‘tall tree’	‘short tree’	‘Gazīpana tree’

In most cases, each stem in a productive compound is a separate phonological

word. First, in (2-105) above, for example, the head stem /gii/ is underlyingly a monomoraic root //ki//, which undergoes the lengthening rule (§2.6.2) to become bimoraic. That is, the word minimality applies to each stem rather than to an entire compound, indicating that each stem is treated as a phonological word in terms of minimality. Also, as shown in the example below, a /C.(G)V/ sequence is possible in a productive compound, which is strictly prohibited within a phonological word domain and induces the geminate copy insertion rule to avoid this.

<p>(2-106) a. /kiban+anna/ poor+old.lady ‘poor old lady’ CV.CVC.<u>VC</u>.CV</p>	<p>b. /kiban+jaa/ poor+house ‘poor household’ CV.CVC.<u>G</u>VV</p>
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Finally, each stem is the domain of alternating rhythm, demonstrating that each stem is treated as a separate phonological word in terms of prosody. Also, if the first stem of a productive compound is a mono-foot stem, it becomes part of the second stem for the alternating rhythm, just as in the case of a phrase (§2.9.4). Thus in (2-107) below, the attested rhythmic pattern is (a), where the first stem is a mono-foot stem and becomes part of the second stem for rhythmic alternation (*agar+patiruma* is the single domain for rhythmic alternation), and the third stem, which commences a phonological word in terms of prosody, is likewise part of the fourth stem for rhythmic alternation. Pattern (b) would obtain if the entire compound were treated as a single domain for the rhythmic alternation, which is not the case.

- (2-107) *agar+patiruma+baka+aza*
 East+Hateruma+young+elder.brother
 ‘The young man of East Hateruma’
- a. (agar)_H (pati)_L (ruma)_L (baka)_H (aza)_L
 *b. (agar)_H (pati)_L (ruma)_H (baka)_L (aza)_L

A similar example is also found in a verb-verb stem sequence, or an agglutinative serial verb construction (§6.4.2.2). In (2-108) below, there is a prosodic boundary between the first stem *patarakasai* (containing affixes) and the second stem *pazimitar*, each stem being the domain of rhythmic alternation. Again, the unattested (b) pattern would be expected if the entire verb series were treated as a single domain of rhythmic alternation, which is not the case.

- (2-108) *patarak-as-ai+pazimi-tar*
 work-CAUS-PASS+begin-PST
 ‘(I) began to be forced to work’
- a. (pata)_H (raka)_L (sai)_L (pazimi)_H (tar)_L
 b. (pata)_H (raka)_L (sai)_H (pazimi)_L (tar)_L

One important phonological rule that treats a whole compound as a single phonological word is sequential voicing (§2.10.4). It causes the voiceless onset of the initial syllable of a non-initial stem of a compound to be voiced (e.g. *taka-* ‘tall’ + *kii* ‘tree’ > *taka+gii* ‘tall tree’; *waa* ‘pig’ + *kurusi* ‘killing’ + *pžž* ‘day’ > *waa+kurusi+bžž* ‘New Year’s Eve’). As is clear from the above examples, this rule targets a non-initial stem of a compound word. On the assumption that a phonological word is the domain in

which a phonological rule operates, the entire compound should be a phonological word in terms of this particular phonological rule. In other words, this rule marks the phonological-word-medial status of the stem that undergoes this allomorphy.

2.11.2. Lexicalised compounds

The second type of compound is rather rare, and highly lexicalised. Unlike productive compounds, a lexicalised compound exactly follows the general phonotactic pattern that characterise a phonological word, serves as the domain of major phonological rules, and is the domain of alternating rhythm. A typical example is /mi+pana/ in (2-109) and /ffuki/ in (2-110). These compounds are lexicalised in the sense that the meaning of each is not compositional. The compound /mipana/ has CVCVCVC structure, which is one typical syllable structure of root words (§2.5.7, TABLE 2-4, Rank 3). Likewise /ffuki/ has CCVCV structure, which is also common in root words (Rank 9). Neither stem in each example undergoes the lengthening rule even when /mi/ in (2-109) and /ki/ in (2-110) are monomoraic (cf. (2-105)). That is, the entire compound words are treated as phonological words, to which the word minimality constraint applies. In each example the entire compound is parsed into a single ternary foot, to which /H/ is assigned.

(2-109) /mi+pana/

eye+nose

‘face’ (not ‘eye and nose’)

a. CVCVCV

b. No lengthening rule on either stem

c. (mipana)_H

(2-110) /ffu+ki/

black+tree

‘Kuroki tree’ (not ‘black tree’; cf (2-105a))

a. CCV.CV

b. No lengthening rule on either stem

c. (ffuki)_H

Chapter 3

Descriptive preliminaries

This chapter introduces descriptive units and categories that will be presupposed in the subsequent grammatical description. In §3.1 phrase structure is overviewed. In §3.2 the notions word, clitic, and affix are defined. In §3.3 word classes are defined. In §3.4 grammatical relations are defined. In §3.5 three major argument types, i.e. core, extended core, and peripheral arguments, are introduced and defined. In §3.6 three major word formation processes are described, i.e. affixation, compounding, and reduplication.

3.1. Phrase structure

In this section I introduce two phrase types, a predicate phrase and a nominal phrase. Detailed descriptions of each phrase type are given in Chapters 4 and 7, but it is necessary to give an overview of these structures here as they are basis for the definition of certain word classes.

3.1.1. Predicate phrase

A predicate phrase falls into two types as shown in (3-1) and (3-2) below. A verbal predicate phrase consists of a verb phrase (VP) and its complement (if required).¹⁴ A nominal predicate phrase consists of a nominal phrase (NP) and a copula verb which is omitted under certain conditions (which will be described in §3.1.1.2). In each type of phrase, the relative ordering of the constituents is largely fixed. In addition to the

¹⁴ The notion of VP here is different from the generative notion of VP, where a verb and its complements are all within the VP domain.

constituents specified here, there may occur a clitic (e.g. focus clitic) that may be attached to a given constituent.

(3-1) Predicate phrase 1: verbal predicate

(VP complement+) [lexical verb (+auxiliary verb/lexical verb 2)]_{VP}

(3-2) Predicate phrase 2: nominal predicate

NP (+copula verb)

3.1.1.1. Verbal predicate

A lexical verb is the only obligatory component, which primarily determines the argument structure of the entire predicate. Thus the minimal predicate phrase is exemplified as follows, where there is a single lexical verb *ur* ‘exist’ in the predicate phrase.

(3-3) *pžtu=nu=du* *ur-Ø*.
man=NOM=FOC exist-NPST
‘(There) is a man.’

An auxiliary verb is a verb that functions as an aspect marker or a benefactive marker (‘do for the benefit of’). As is indicated in (3-1), this slot is also filled by a verb that retains more semantic content than an auxiliary verb (e.g. ‘come’), or a second lexical verb. That is, Irabu has a serial verb construction (Chapter 7). Either type of the second verb carries finite inflection in a complex VP (whereas the (first) lexical verb in a complex VP obligatorily carries non-finite inflection). Thus in (3-4) below, the (a)

example contains a simplex VP where the lexical verb *tumitar* ‘looked for’ shows finite inflection (*-tar*, past unmarked), whereas the (b) example contains a complex VP where the same lexical verb inflects for a specific non-finite verb form *tumi-i* (medial verb form), and the auxiliary verb *u-* (progressive) carries the finite inflectional affix *-tar* on behalf of the lexical verb. In the (c) example, the second verb slot is filled by a second lexical verb *t-* ‘come’, which, like an auxiliary, carries finite verb inflection.

(3-4) a. *tuz=zu=du* *tumi-tar.*
 wife=ACC=FOC look.for-PST
 ‘(I) looked for a wife.’

b. *tuz=zu* *tumi-i=du* *u-tar.*
 wife=ACC look.for-MED=FOC PROG-PST
 ‘(I) was looking for a wife.’

c. *tuz=zu* *tumi-i=du* *t-tar.*
 wife=ACC look.for-MED=FOC come-PST
 ‘(I) brought a wife.’ [lit. (I) looked for a wife and came back (with her).]

A VP complement is required in the following three construction types: (1) the light verb construction (as shown in (3-5) and (3-6)), where the lexical verb is filled by the light verb (*a*)*sī* ‘do’, (2) the state verb construction (3-7), where the lexical verb is filled by the state verb *ar* ‘be (in a state)’, and (3) the ‘become’ verb construction (3-8), where the lexical verb is *nar* ‘become’. In each example, the complement is a derived adverb (§3.3.5.2).

(3-5) *kunur=ra taka=u=baa juu mii=du si-Ø.*
 these.days=TOP hawk=ACC=TOP very looking=FOC do-NPST
 ‘These days (I) see hawks many times.’ [lit. these days I do looking at hawks.]

(3-6) *pžtu=u mii+mii as-i+ur-Ø.¹⁵*
 man=ACC RED+looking do-THM+PROG-NPST
 ‘(He is always) staring at persons.’ [lit. He is always doing staring.]

(3-7) *kari=a taka-fi=du ar-Ø.*
 3sg=TOP tall-AVLZ=FOC be-NPST
 ‘He is tall.’ [lit. he is in a tall state.]

(3-8) *kari=a taka-fi=du nar-tar.*
 3sg=TOP tall-AVLZ=FOC become-PST
 ‘He became tall.’ [lit. he became in a tall state.]

3.1.1.2 Nominal predicate

A nominal predicate phrase consists of an NP as a predicate head, followed by a copula verb, which is obligatorily absent when certain conditions are met (see below).

(3-9) a. *kari=a sinsii=du a-tar.* b. *kari=a sinsii.*
 3SG=TOP teacher=FOC COP-PST 3SG=TOP teacher
 ‘He was a teacher.’ ‘He is a teacher.’

¹⁵ The complement of the light verb *si* ‘do’ is a (reduplicated) verb stem. When the complement is a reduplicated verb stem, the light verb may be the bimoraic form *asi*.

The copular verb is necessary when at least one of the following conditions is met: (1) in past tense, (2) when negated, (3) when a conjunction clitic follows a predicate NP, and (4) when focus is marked on the predicate NP (as shown in (3-9a)). When all of these features are absent, the copular verb must be absent.

(3-10) *kari=a sinsii a-ta-m.*
 3SG=TOP teacher COP-PST-RLS
 ‘He was a teacher.’ [past tense]

(3-11) *kari=a sinsii ar-a-n.*
 3SG=TOP teacher COP-NEG-NPST
 ‘He was a teacher.’ [negation]

(3-12) *kari=a sinsii jar=ruga, jana+pžtu=dooi.*
 3SG=TOP teacher COP-NPST-RLS=but evil+man=EMP
 ‘He is a teacher, but (he is) evil.’ [conjunction clitic attachment]

(3-13) *kari=a sinsii=du ar-Ø=ri.*
 3SG=TOP teacher=FOC COP-NPST=CNF
 ‘He is a teacher, isn’t he?’ [focus marking on the predicate NP]

(3-14) *kari=a sinsii=du jar-Ø.*
 3SG=TOP teacher=FOC COP-NPST=CNF
 ‘He is a teacher, isn’t he?’ [*jar* is more preferred than *ar*]

(3-15) *kari=a sinsii.*
 3SG=TOP teacher
 ‘He is a teacher.’

As will be described in §6.3.6.2, the copula verb has an allomorph *jar*, which is obligatorily required when (a) the copula verb appears in a non-main clause and (b) the predicate head NP is not focused, as in (3-12). On the other hand, *jar* may also appear when the NP is focused in non-past tense in a main clause, as in (3-14), even though it is not obligatory. The tendency here is that if there is no clitic following the copula, as in (3-14), *jar* is more preferred.

3.1.2. Nominal phrase

A nominal phrase (NP) is a syntactic constituent that functions as an argument of a verb or a predicate head of a nominal predicate phrase. NP structure is schematised as (modifier+) head, to which a case clitic is attached to form an extended NP (Chapter 4). Case is obligatory unless it functions as a predicate head. However, there may be case ellipsis in subject and direct object (§4.3.10). The modifier slot may be filled by an NP itself in a recursive manner (where the case clitic attaching to the NP is a genitive case clitic), as shown in (3-16) and (3-17), or by an adnominal word, as shown in (3-18). It may also be filled by an adnominal clause, as shown in (3-19).

(3-16) *vva=ga jaa=n asib-a-di.*
 2SG=GEN house=ACC play-THM-INT
 ‘Let’s play at your house’ [[simplex NP+case]_{modifier} + head + case]

(3-17) *vva=ga jaa=nu naka=n asib-a-di.*
 2SG=GEN house=GEN inside=DAT play-THM-INT
 ‘Let’s play inside of your house’ [[complex NP +case]_{modifier} + head + case]

(3-18) *kanu jaa=n asib-a-di.*
 that house=DAT play-THM-INT
 ‘Let’s play at that house’ [[adnm w]_{modifier} + head + case]

(3-19) *ba=ga agu=nu ur-Ø jaa=n asib-a-di.*
 1SG=GEN friend=GEN exist-NPST house=DAT play-THM-INT
 ‘Let’s play at a house where my friend lives.’ [[adnm c]_{modifier} + head + case]

A head is obligatory in principle, but there does exist a headless adnominal clause structure (§4.2.2).

(3-20) *nafi-tar=ra taru=ga?*
 cry-PST=TOP who=Q
 ‘Who cried?’ [lit. Who was (the person who) cried?]

3.2. Word, clitic, and affix

3.2.1. Word

A word is a free form centring on a root. There are no prefixes or proclitics in Irabu, so that a word always commences with a root. The following section is concerned with criteria for deciding which morpheme is a suffix and which morpheme is an enclitic within a sequence of morphemes beginning with a root.

3.2.2. Affix vs clitic

Affixes and clitics are both bound, and do not head a phrase. As an initial approximation, an affix is morphologically attached to a stem, whereas a clitic is syntactically attached to a phrase. For example, the tense affix is morphologically attached to a verb stem, whereas a case clitic is syntactically attached to an NP. A clitic is, however, phonologically attached to the final word or word-plus of a phrase, or the host, forming a single phonological word with the host word(-plus), just as an affix is phonologically attached to the stem. See §9.1.1 for the notions of syntactic host and phonological host, which are crucial in understanding clitics.

From these characteristics of affixes and clitics, it is predicted that (1) an affix may be attached to a bound stem whereas a clitic cannot, and that (2) in general, a clitic has much less restriction than an affix on the type of host with which it is combined, since the host is whatever word closes off the phrase to which the clitic is syntactically attached. Even though the two characteristics can be used as very useful tests for the affix vs clitic status of a morpheme, they are only contingent properties and should not be taken as definitional, as will be noted in §3.2.3.

With respect to (1), since a clitic is attached to an entire phrase, i.e. a sequence of words, and since a word is in most cases a free form, a clitic cannot be attached to a bound stem. Thus if a putative affix or clitic may attach to a bound stem, it is an affix. By this, most verbal affixes and property concept affixes are identified as such. However, nominal affixes cannot, since a nominal stem is a free form by itself. For example, *ffa* 'child' is a free form, and *ffa-mmi* (child-PL) is also a free form. Thus we cannot tell whether the plural *-mmi* is an affix or a clitic if we rely on (1) only. However, *-mmi* turns out to be an affix with criterion (2), as discussed below.

With respect to criterion (2), affixes are clearly stem-specific, mostly occurring with

only one type of stem.¹⁶ Thus we refer to nominal affixes, verbal affixes, property concept stem affixes, etc. For example, the above-mentioned *-mmi* is a nominal affix. By contrast, clitics occur with at least two phonological hosts, even if their syntactic host is only one type. For example, the case clitic *=u* (accusative) is syntactically attached to an NP only, but without respect to whether the phonological host is a nominal word (3-21) or the verb of an adnominal clause in a headless structure (3-22).

(3-21) *[kai=ga ssagi=u asi-tar kutu]=u=du cifi-tar.*
 3SG=NOM bridal=ACC do-PST fact=ACC=FOC hear-PST
 ‘(I) heard the fact that he got married.’

(3-22) *[kai=ga ssagi=u asi-tar]=ru=du cifi-tar.*
 3SG=NOM bridal=ACC do-PST=ACC=FOC hear-PST
 ‘(I) heard (the news that) he did a bridal.’

The focus clitic *=du* shows an even freer combinability. Its syntactic host may be an argument NP, an adjunct, a subordinate clause, or (part of) a predicate phrase, and so on (§9.1).

(3-23) *pav=nu=du juu idi-i t-tar.*
 snake=NOM=FOC very exit-MED come-PST
 ‘SNAKES came out very (frequently).’ [syntactic host: subject argument]

¹⁶ The exceptions to this are *-gama* (diminutive), which may be attached to a nominal stem or to a certain kind of adjective, *-gi* ‘seem’, which may be attached to a property concept stem and a verb stem (Chapter 8), and *-ja*, a state nominaliser, which may be attached to a verb stem or to a property concept stem. See §3.2.3.3 for a discussion.

(3-24) *pav=nu juu=du idi-i t-tar.*
 snake=NOM very=FOC exit-MED come-PST
 ‘Snakes came out VERY (FREQUENTLY)’ [syntactic host: predicate adjunct]

(3-25) *pav=nu juu idi-i=du t-tar.*
 snake=NOM very exit-MED=FOC come-PST
 ‘Snakes CAME OUT very (frequently).’ [syntactic host: lexical verb of a VP]

(3-26) *pav=nu idi-i t-ta=iba=du, uturusī-ka-tar.*
 snake=NOM exit-MED come-PST=so=FOC fearful-VLZ-PST
 ‘Snakes came out, so (it) was fearful.’ [syntactic host: adverbial clause]

3.2.3. Problematic cases

The above criteria for words, affixes and clitics mostly work well to identify a word, an affix, or a clitic in a given string of morphemes. However, there are a few cases that need to be examined more carefully, as some words are exceptionally bound, some clitics are ostensibly like affixes in terms of their limited combinability with different hosts, and some affixes are ostensibly like clitics in terms of their freer combinability with different hosts.

3.2.3.1. Bound words

Even though most words are free forms, there exist a few bound words, i.e. words that cannot be uttered on their own. In Zwicky’s (1977) terms, these may be called ‘simple clitics’, as opposed to ‘special clitics’ which correspond to our notion of clitic here.

In (3-27) below, a free word *pžtu* ‘man’ heads an NP consisting of the modifier

(adnominal clause) *taja nu ar* and the head *pžtu*. As is illustrated in (3-28), the head slot filled by *pžtu* may be replaced by a bound word nominal *su(u)* ‘man; thing’, even though *suu* cannot stand alone. Note that this form undergoes the /s/-to-/r/ assimilation (§2.10.3), a process that only occurs in a word-plus. In this regard, too, it is like a clitic.

(3-27) *taja=nu* *ar-∅* *pžtu=nu=du* *masi.*
 strength=NOM exist-NPST man=NOM=FOC better
 ‘The man who is strong is better.’

(3-28) *taja=nu* *ar-∅* *ruu=nu=du* *masi.*
 strength=NOM exist-NPST man=NOM=FOC better
 ‘The man who is strong is better.’

There is another bound word, which is a bound verb. As is illustrated in (3-29a), the light verb designating ‘do’ has two variants, the free word form with *as-* and the bound word form with *s-*. The bound form functions as a word, as it fills the lexical verb slot of a VP (3-29b), just like a free word counterpart (3-29a).

(3-29) a. *kair+kair* *as-i-i=du* *ur-∅.*
 RED+turn.round do-THM-MED=FOC PROG-NPST
 ‘(He) is turning round a lot.’

b. *kair+kair* *s-i-i=du* *ur-∅.*
 RED+turn.round do-THM-MED=FOC PROG-NPST
 ‘(He) is turning round a lot.’

A bound word may be derived, as a derived adverb. In (3-30) below, *ibi* ‘planting’ is a bound word, which is a zero-converted verb stem (§3.3.5.2) and fills the VP complement slot. Note that it carries a clitic, which indicates that it is a word.

- (3-30) *buuc=cu=baa* *mmja* *ibi=du* *sī-tar*.
 sugarcane=ACC=TOP INTJ planting=FOC do-PST
 ‘(I) have planted sugarcane.’

3.2.3.2. Clitics with a limited combinability with a phonological host

There are clitics that combine with only one type of phonological host, or conjunction clitics (§9.2), such as =*suga* ‘but’ in (3-31a) below (/s/ is assimilated to /r/ when preceded by /r/). The distribution of conjunction clitics first appears to be like that of affixes (i.e. morphological rather than syntactic), in that the phonological host of a conjunction clitic is a verb only. If a conjunction clitic is attached to a nominal predicate, as in (3-31b), a copula verb is obligatorily present, to which the clitic is attached.

- (3-31) a. *ffa=nu* *nak-i+u-tar=ruga,* *nau=mai* *as-irai-t-tar*.
 child=NOM cry-THM+PROG-PST=but what=even do-POT-NEG-PST
 ‘(My) child was crying, but (I) couldn’t do anything.’
- b. *kari=a* *sinsii* *jar-∅=ruga,* *nau=mai* *s-sa-n-∅*.
 3SG=TOP teacher COP-NPST=but what=even know-THM-NEG-NPST
 ‘He is a teacher, but (he) does not know anything.’

This restriction on the phonological host in the case of conjunction clitics is in sharp contrast to the case of other predicate clitics like modal clitics (§9.3). As illustrated in (3-32) below, the modal clitic =*ca* (hearsay) may be phonologically attached to either a verb (a) or a predicate nominal (b), since its syntactic host is simply a predicate phrase.

- (3-32) a. *ffa=nu nak-i+u-tar=ca*
 child=NOM cry-THM+PROG-PST=HS
 ‘(My) child was crying, they say.’
- b. *kari=a sinsii=ca.*
 3SG=TOP teacher=HS
 ‘He is a teacher, they say.’

Thus, the comparison with modal clitics call into question the analysis that conjunction clitics like =*suga* ‘but’ are clitics.¹⁷

However, the definitional property of the clitic (i.e. a bound morpheme with a phrasal distribution) and its contingent property (such as the absence of severe restriction on the type of the phonological host) are essentially independent of each other. As noted in detail in each section of conjunction clitics (§9.2), these forms were formal nouns, i.e. head nouns of NPs modified by an adnominal clause (e.g. /su/ in =*suga* ‘but’ came from the bound word *suu* in §3.2.3.1 above). Thus, it is natural for them to combine only with the verb word, since the adnominal clause must end in a verb (a copula verb in the case of nominal predicate). These morphemes are synchronically not analysable as the head of an NP since they do not carry case.

¹⁷ This question was raised by an anonymous reviewer of the thesis.

Therefore I analyse them as conjunction clitics synchronically. These morphemes have lost their nominal feature in present Irabu, but its diachronic characteristic as NP head is still found in the restricted combinability with the phonological host.

There is one conjunction clitic that is still problematic. This is $=ssiba$ ‘so’ (§9.2.2), whose historical source is unknown.¹⁸ So, it is impossible to argue that the syntactic host of the clitic is a phrase or a clause like other conjunction clitics. However, admitting it as an inflectional affix certainly entails a loss of generalisation that would otherwise hold for the inflectional system of Irabu, and probably in language in general: inflection is non-recursive. As noted in §6.1.1, Irabu inflection consists of finite and non-finite inflections. Now, treating $=ssiba$ as an inflectional affix would result in the situation where a finite verb further carries non-finite inflection. For example, in the string *turadi-ssiba* ‘(I) will take, so...’, the finite verb *tur-a-di* (take-THeMatic-INTeNTional) ‘(I) will take’ would carry an exceptional ‘recursive stem extender’ *-s*, which is unique to this inflection, and which turns the fully finite verb into a stem, allowing the stem to carry the causal converbal affix, as in *tur-a-di-s-si-ba* (take-THM-INT-RCS-THM-CVB.CSL) ‘(I will take, so that...)’.

Thus, treating $=ssiba$ as an inflectional affix would result in the introduction of an ad-hoc morpheme *-s* (recursive stem extender) and would admit the situation where the entire system of Irabu inflection contains a typologically serious exception (i.e. recursive inflection). Rather, it is wise to stick to the current analysis that $=ssiba$ is a clitic, with the cost that there is no synchronic or diachronic fact that supports this view.

¹⁸ This might be the causal converbal form of the bound verb *s-* ‘do’ (§3.2.3.1). In Irabu, the verb ‘do’ may be used as a speech verb ‘say’, and the construction consisting of the clause + $=ssiba$ might historically be the complement clause + the speech verb. If this is true, the reason why $=ssiba$ only combine with a verb word is obvious: if the predicate of the subordinate clause is a nominal predicate, the copula verb is necessary. In this case, then, we can maintain that $=ssiba$ has a phrasal scope, scoping over an entire predicate, either nominal or verbal.

3.2.3.3. Affixes with a freer combinability with a phonological host

There are three affixes that show freer combinability with their phonological host than ordinary affixes: *-gi* ‘seem’, *-gama* (diminutive), and *-ja* (agent nominaliser). These affixes are not stem-specific, but can be attached to more than one stem types, as summarised below.

TABLE 3-1. ‘Clitic-like’ affixes and stem types

	Nominal stem	Property concept stem	Verb stem
<i>-gi</i>	-	+	+
<i>-ja</i>	-	+	+
<i>-gama</i>	+	+	-

These affixes are all derivational, either extending a stem or changing the stem class. The affix *-gi* ‘seem’ is primarily attached to a property concept stem such as *pisi-* ‘cold’, *ssu-* ‘white’, and so on, but may also be attached to a verb stem to derive a property concept stem, e.g. *par-gi* ‘seem to leave’, *mii-gi* ‘seem to look’ and so on. The affix *-ja* is a nominaliser, deriving a noun from a verb stem, as in *kak-ja* (write-NLZ) ‘writer’, and in limited cases from a property concept stems, as in *kag-ja* (beautiful-NLZ) ‘beautiful person’. The affix *-gama* is primarily attached to a nominal stem to extend the nominal stem, but may additionally be attached to an adjective (encoding a modest degree, e.g. *ssuu+ssu-gama* ‘whitish’; see §8.2.1).

Thus in terms of the freedom of combinability, these morphemes are like clitics. However, they are justified as affixes on the following grounds. First, *-gi* is attached to a bound stem. Except for very limited cases where a word is bound, an element that may be attached to a bound stem is *not* a clitic (and the host of *-gi* cannot be considered a bound word). Thus *-gi* is an affix. The agent nominaliser *-ja* is an affix for the same

reason. The diminutive suffix *-gama* may be attached to a free form, since its major host is a nominal stem. However, this affix always precedes other nominal affixes when they co-occur in an affix chain, as in *ffa-gama-mmi* (child-DIM-PL) ‘little children’, not **ffa-mmi-gama*. The plural *-mmi* is nominal-specific. Thus, if *-gama* were a clitic, then *ffa=gama-mmi* would be an exceptional ‘endoclititic’ structure. For this reason I treat *-gama* as an affix.

3.3. Word classes

Irabu has four major word classes, nominals, verbs, adjectives, and adnominals, of which nominals, verbs, and adjectives are large and open classes. The suggested criteria for word class assignment are listed in (3-33), which are either syntactic (A-B) or morphological (C-D). The ‘others’ are negatively defined as those parts-of-speech that do not satisfy any of the criteria, and this catch-all category falls into three subdivisions (adverbs, conjunctions, and interjections). Clitics are not words in the definition in this grammar, and so not assigned a word class. The syntactic properties of clitics are described in Chapter 9.

(3-33) Criteria for word class assignment

- (A) Heads an NP
- (B) Directly fills the dependent slot of an NP
- (C) Inflects
- (D) Is a reduplicated form with the input-stem-final phoneme lengthened

TABLE 3-2. Word classes: distinctive criteria

	(A)	(B)	(C)	(D)
Nominal	+	-	-	-
Adnominal	-	+	-	-
Verb	-	-	+	-
Adjective	+	-	-	+
Others	-	-	-	-

3.3.1. Nominals

A nominal is a word that can only head an NP. There is another word class, or adjective, that may head an NP (§3.3.4), but a nominal and an adjective may be unambiguously distinguished by the morphological criterion (D), and by the fact that an adjective may also appear in a VP. Since a nominal exclusively heads an NP, if a nominal is to modify another nominal in an NP, it must first head an NP, which then fills the modifier slot of a larger NP recursively (§3.1.2).

There are six major subclasses of nominals: nouns, pronouns (personal, demonstrative, reflexive), numerals, interrogatives, indefinites, non-pronominal demonstratives (Chapter 5). Thus demonstratives are distributed across two nominal subclasses. Furthermore, as noted in §3.3.2 below, there is a class of demonstratives that belongs to the adnominal word class (adnominal demonstrative).

3.3.2. Adnominals

An adnominal is a word that only serves as modifier of an NP. Thus an adnominal cannot function as an argument or a predicate head of a nominal predicate. And since it does not head an NP, it never carries case when functioning as a modifier of an NP (In the examples below an adnominal is underlined).

(3-34) a. *unu jaa=n=du asuv-tar.*
 that house=DAT=FOC play-PST

‘(I) played at that house.’

b. *daizina jarabi=du jar-Ø.*
 great child=FOC COP-NPST

‘(He) is an awesome child.’

The list of adnominals is given below. As seen, the native adnominals are all demonstratives. *daizina* ‘great’ is a recent loan from Japanese (Karimata 2002).

TABLE 3-3. Adnominals

Demonstrative	<i>kunu</i>	‘this’
	<i>unu</i>	‘that (medial)’
	<i>kanu</i>	‘that (distal)’
Japanese loan	<i>daizina</i>	‘great; awful’

3.3.3. Verbs

A verb is a word that inflects. Inflection is marked verb-finally (e.g. *mii-tar* (look-PST) ‘looked’, *mii-di* (look-INT) ‘will look’, and so on). Inflectional categories vary depending on whether a verb is a finite verb (inflecting for tense and/or mood) or a non-finite verb (inflecting for neither). Negative polarity may be inflectional in either type of verb form. Verb morphology is described in Chapter 6.

3.3.4. Adjectives

An adjective is a word that is created by the reduplication of a property concept stem

(PC stem) where the final phoneme of the input stem is lengthened by one mora. In addition, a few noun stems such as those in (3-36) can also be input stems of adjectives (see also Motonaga 1978 and Karimata 2002).

Input stem		Output word
(3-35) PC stem	>	Adjective
<i>taka-</i> ‘high’		<i>takaa+taka</i> ‘high’
<i>kiban-</i> ‘poor’		<i>kibann+kiban</i> ‘poor’
<i>pjaa-</i> ‘fast’		<i>pjaaa+pjaa</i> ‘fast’
(3-36) Noun stem	>	Adjective
<i>avva</i> ‘oil’		<i>avvaa+avva</i> ‘oily’
<i>jarabi</i> ‘child’		<i>jarabii+jarabi</i> ‘childish’

The morphological definition here is iron-clad, i.e. we can identify an adjective without ambiguity by this criterion.

There is no class of adjective phrases. Rather, as shown in TABLE 3-4, adjectives are ‘parasitic’ on NP structure and on VP structure, able to appear in either, even though they show a clear preference to occur in NPs (§8.2.3). That is, the adjective class aligns with nominals in terms of syntax. In particular, an adjective primarily functions as head of an NP that fills the modifier slot of a larger NP (as shown in (3-37) below). That is, an attributive function is typical (Chapter 8). Note that the NP headed by the adjective in (3-37) carries genitive case, just as in the case of an NP headed by a nominal word (3-38). Also, as will be fully described in Chapter 8, an NP headed by an adjective can be modified by an adnominal (3-39), a word that only fills the modifier slot of an NP,

even though it is less preferred than when an NP is headed by a nominal.

(3-37) *ujakii+ujaki=nu pžtu=tu kibann+kiban=nu pžtu*
 RED+rich=GEN man=ASC RED+poor=GEN man
 ‘A rich man and a poor man’

(3-38) *irav=nu pžtu=tu pžsara=nu pžtu*
 Irabu=GEN man=ASC Hirara=GEN man
 ‘A man from Irabu and a man from Hirara.’

(3-39) *daizina ujakii+ujaki=nu pžtu*
 great RED+rich=GEN man
 ‘very rich man.’

TABLE 3-4. Nominal, verb, and adjective in phrase structure

	In NP structure	In VP structure
Nominal	+	-
Adjective	+	+
Verb	-	+

3.3.5. Others

This catch-all category is a set of words that do not satisfy any of criteria (A) to (D). They do not share any morphological or syntactic features. It is possible to divide this category into several subcategories depending on their syntactic distribution: underived adverbs, derived adverbs, conjunctions, and interjections.

3.3.5.1. Underived adverbs

An underived adverb is a word that serves as a predicate adjunct, directly modifying a predicate (mostly a verbal predicate, but certain nominal predicates may be modified by an underived adverb; §8.2.2.3 and §8.3.4).¹⁹ There are just a small number of underived adverbs in Irabu, most of which are adverbial quantifiers.

(3-40) *cinuu=ja* *saki-gama=u* *juu=du* *num-tar.*
yesterday=TOP sake-DIM=ACC a.lot=FOC drink-PST
‘Yesterday (I) drank sake a lot.’

(3-41) *mazimunu-mmi=a* *ati* *uturusi-ka-i-ba=i...*
devil-PL=TOP very fearful-VLZ-THM-CVB.CSL=CNF
‘devils are very fearful, so, you know...’

(3-42) *ba=a* *mmja* *maadaa* *s-sai-n=dooi.*
1SG=TOP INTJ not.very know-POT-NEG=EMP
‘I don’t know (that) well.’

Below is a list of adverb roots that are frequently used in natural discourse. Adverb roots that are suspected to be recent loans from Japanese (e.g. *taigai* ‘normally’ < Japanese *taigai*) are excluded. As is shown, *maada* has its negative form *maadaa*, which can be analysed as *maada* + *=a* (topic marker), given that in negative constructions in general, topic marking very often occurs (§9.5.1.2).

¹⁹ Sentential adjuncts such as temporal modifiers *cinu* ‘yesterday’ are encoded by nouns such as time nouns (§5.2.1).

Table 3-5. Adverb roots

Form	Gloss	Related form (if any)
<i>juu</i>	very; frequently	
<i>ati</i>	very	
<i>maada</i>	very	<i>maadaa</i> ‘not very’
<i>murtu</i>	almost	
<i>mmja(hi)</i>	more	
<i>aur</i>	only	
<i>sugu</i>	immediately	

3.3.5.2. Derived adverbs

A derived adverb is a word that functions as (1) a predicate adjunct just like an underived adverb, or (2) a VP complement in a verbal predicate phrase (§3.1.1.1). There are three kinds of word form in this class depending on the stem from which the word is derived: PC adverb, zero-converted verbal stem, and verbal reduplication.

A PC adverb is derived from a PC stem (§3.3.4; §8.1). It may function either as (1) or (2). As a predicate adjunct, the PC adverb in (3-43) can be omitted, since it is not part of the predicate phrase. Also, its position may not be contiguous with the predicate. On the other hand, as a VP complement the PC adverbs in (3-44) cannot be omitted, and is contiguous with the other predicate components.

(3-43) As a predicate modifier

taka-fi=du *tuv-tar.*

high-AVLZ=FOC fly-PST

‘(He) jumped high’

(3-44) As a VP complement

a.	<i>taka-fi=du</i>	<i>a-tar.</i>	b.	<i>taka-fi=du</i>	<i>nar-tar.</i>
	high-AVLZ=FOC	be-NPST		high-AVLZ=FOC	become-PST
	'(He) was (in a) tall (state).'			'(He) became tall.'	

(3-44a) is a state verb construction, where the state verb 'be' (§6.3.6.3) requires an adverb derived from a PC stem. See also §8.3.3.1 for the relationship between this state verb construction and another construction involving PC stems.

A zero-converted verbal stem is a bound word, and only serves as (2). The complement-taking verb is the light verb *si* (§6.3.5.2). The zero conversion takes place to accommodate focus marking on the verb stem. As will be described in Chapter 9, when the focus clitic is attached to a predicate, it must be attached to a VP complement or a lexical verb, and it cannot directly attach to a stem or an affix within a word. Thus zero conversion takes place to extract a verb stem from a verb word and put it into the VP complement slot (as a derived adverb word). The undocked inflection of the original verb (*-tar* below) is attached to the light verb.

(3-45)	<i>mii-tar.</i>	>	<i>mii=du</i>	<i>si-tar.</i>
	look-PST		look=FOC	do-PST
	VP		VP comp=FOC	VP
	'looked'		'did looking.'	

Reduplicated verbal forms are also derived adverbs, but their syntactic status is somewhat difficult to analyse. It mostly functions as a VP complement, as shown in (3-46) below, and can be treated as a derived adverb in this regard. However, in a

number of instances they can terminate a sentence (3-47), encoding habitual aspect, but unlike verbs cannot carry any verb inflection, failing to satisfy the criterion for the verb word class. Thus reduplicated verbal forms seem to be intermediate between verb and derived adverb (VP complement).

(3-46) *tu-i+c-ci-i* *fau+fau* *s-i-i,*
 take-THM+come-THM-MED RED+eat do-THM-MED

ai=du *asi-tar*
 that.way=FOC do-PST

‘Bringing (the food), eating, (we) would do like that (in those days).’

(3-47) *unagaduu=nu* *tami=tii* *asi+asi.*
 oneself=GEN benefit=QT RED+do

‘(He) would do (i.e. say) “(That’s) our own benefit”.’

3.3.5.3. Conjunctions

A conjunction is a word that appears clause-initially and marks an inter-clausal relation. In example (3-48) the two clauses are connected by the conjunctive *ttjaa* ‘then; if so’ which is put at the initial position of the second clause.

(3-48) *kuma=a* *punicī-ka-i-ba,* *niv-vai-n-∅=nju.*
 this.place=TOP rocky-VLZ-THM-CVB.CSL sleep-POT-NEG-NPST=COR

‘This place is so rocky that I cannot sleep (here).’

ttjaa *ba=ga* *uma=n=na* *niv-va-di*.
 then 1SG=NOM that.place=DAT=TOP sleep-THM-INT
 ‘Then I’ll sleep there.’

TABLE 3-6 is a list of conjunction roots. As is shown, *aidu* appears to contain =*du* (focus). However, there is evidence that =*du* is not functioning as a focus marker here: there may occur another focus marker within the same clause, and it would be odd if both were treated as focus markers, since a focus marker appears only once within the same clause. Thus I treat *aidu* as a single conjunction morpheme. Likewise, *assiba* and *assuga* can be decomposed into the light verb *asi* + the conjunction clitic =*ssiba* (§9.2.2). However, I treat them as single morphemes since the *asi* here does not inflect.

TABLE 3-6. Conjunction roots

Form	Gloss	Related form (if any)
<i>aidu</i>	And then,	<i>ai</i> ‘that way’ + = <i>du</i> (focus)
<i>mata</i>	And,	
<i>ttjaa</i>	(If so) then,	
<i>asi</i>	Well; then; by the way;	imperative form of <i>asi</i> ‘do’
<i>assiba</i>	So,	<i>asi</i> ‘do’ + = <i>iba</i> ‘so’
<i>assuga</i>	But,	<i>asi</i> ‘do’ + = <i>suga</i> ‘but’

3.3.5.4. Interjections

An interjection is a word that (1) constitutes an utterance by itself, as illustrated in (3-49), and (2) must be followed by a quotative clitic =*ti(i)* if it is embedded into another clause, it, as shown in (3-50).

(3-49) *gammja!* *vva=ru* *a-tar=ru!?*
 oh.my.god 2SG=FOC COP-PST=Q
 ‘Oh my god! Was (it) you!?’

(3-50) *kari=a* *gammja=tii* *až-tar=ca.*
 3SG=TOP oh.my.god=QT say-PST=HS
 ‘S/he said, “Oh my god!”’

Onomatopoeic words are classified as interjections in these two regards.

(3-51) *dumma*, *dumma=ti*, *ai=nu* *utu=u* *cik-i-i...*
 ONM ONM=QT like.that=GEN sound=ACC hear-THM-MED
 ‘*Dumma! dumma!* Hearing such a sound...’

(3-52) *doofi=ti* *uti-i=i*, *tooriike=n* *nar-tar=ca.*
 ONM=QT drop-MED=CNF tooriike=DAT become-PST=HS
 ‘(The ground) collapsed (with the sound like *doofi*), (the collapsed area) became (what we now call) *tooriike*.’

TABLE 3-7. Interjection roots (non-onomatopoeic)

Form	Gloss	Related form (if any)
<i>hai</i>	‘Hey!’	
<i>hira</i>	‘You see?’	
<i>ahaa</i>	‘I see...’	
<i>agai</i>	(when surprised; impressed)	<i>agaitandi!</i>
<i>ugui</i>	(when surprised)	
<i>mmja</i>	(when upset; afraid)	<i>mmja</i> (discourse marker; Chapter 9)

<i>(a)gammja</i>	(when highly upset; afraid)	
<i>tandi</i>	I'm sorry!	<i>tandi</i> 'begging' (nominal root)
<i>tandigaatandi</i>	'Thank you!'	
<i>ttaaree</i>	'No way!'	
<i>ugutaajubaa</i>	'It's ruined!'	

TABLE 3-8. Interjection roots (onomatopoeic)

Form	Gloss
<i>guffa</i>	sound of stabbing, hitting, etc.
<i>zaffa</i>	sound of falling down
<i>zavva</i>	sound of falling down
<i>dumma</i>	sound of light striking
<i>bamma</i>	sound of severe striking
<i>doofi</i>	sound of collapsing (of building, etc.)
<i>bžžbžž</i>	sound of crying
<i>kjaakjaa</i>	sound of noisy situation
<i>pacipaci</i>	sound of fire burning
<i>putuputu</i>	sound of rain spotting; state of shivering

3.4. Grammatical relations

In this section I define subject, direct object, and indirect object. Irabu lacks cross-reference morphology that would serve as strong evidence for subject and/or direct object relation in many languages. However, as will be shown in the sections below, there are several syntactic tests that allow us to identify these two grammatical relations. On the other hand, as is typical cross-linguistically (cf. Comrie 1981; Payne 1997), the evidence for 'indirect object' as a grammatical relation is weak, as it is identified not by a syntactic characteristic but by a semantic role and a morphological case. I will not include it as a grammatical relation.

3.4.1. Subject

The grammatical relation subject is defined as an NP that shows the following two syntactic characteristics.

(A) HONORIFIC CONTROL

(B) REFLEXIVE CONTROL

In terms of (A), only the subject NP triggers honorification (the suffix *-(s)ama* on verb; §6.4.1.3). Thus in (3-53), the subject NP *sinsii* ‘teacher’ triggers honorification. Likewise, in (3-54) the honorific controller must be the subject NP *siitummi* ‘students’ even when such an interpretation is pragmatically odd.

(3-53) *sinsii=nu* *siitu-mmi=u=du* *jurab-i-i* *ur-ama-r.*
teacher=NOM student-PL=ACC=FOC call-THM-MED PROG-HON-NPST
‘The teacher is calling the students.’

(3-54) *siitu-mmi=nu* *sinsii=ju=du* *jurab-i-i* *ur-ama-r.*
student-PL=NOM teacher=ACC=FOC call-THM-MED PROG-HON-NPST
‘The students are calling the teacher.’

The reflexive controller is also a subject NP. In (3-55) below, this requires the interpretation (a) rather than (b), even when it is (b) that is pragmatically natural. This suggests that reflexive control is an abstract and purely syntactic phenomenon, only explainable in terms of the grammatical relation subject.

(3-55) *žžkuja=a ujaki+sjuu=kara naa=ga zin=nu=du ž-ži-tar.*
 beggar=TOP rich+old.man=ABL RFL=GEN money=ACC=FOC get-THM
 -PST

(a) 'From the rich man, the beggar got his (i.e. the beggar's) money'

*(b) 'From the rich man, the beggar got his (i.e. the rich man's) money'

Even though a subject NP is normally assigned nominative case, case marking cannot be used to define subject (or direct object, which is defined in the following section), since there are non-canonically-marked subjects and objects (§3.5.2). That is, strictly speaking, grammatical relation and case marking are mutually independent.

3.4.2. Direct object

Direct object is a grammatical relation in which the following characteristics cluster:

(A) PASSIVE SUBJECT: direct object may become subject in a passivised clause.

(B) SPECIAL TOPIC MARKING: only a direct object may be marked by a special topic marker =*ba(a)*, as opposed to a general (non-direct-object) topic =*a* (§9.5.1.1)

Direct object is less easy to define than subject, as the availability of criterion (A) is heavily dependent on the transitivity of a verb. For example, in the following transitive clause, the NP *hon* 'book' cannot be passivised.

(3-56) *hon=nu=baa jum-ta-m.*
 book=ACC=TOP read-PST-RLS
 '(I) read the book.'

**hon=na* *jum-ai-ta-m.*
 book=TOP read-PASS-PST-RLS
 [intended meaning] ‘The book was read’

Also, passivisation is not the defining property of direct object, since an indirect object may also be passivised (see the next section).

A more reliable criterion is (B). The NP *hon* above satisfies criterion (B), as shown in the above example. Moreover, (B) is not applicable to indirect objects as will be noted in the next section. The NP that satisfies criterion (A) always satisfies criterion (B).

3.4.3. Indirect object

There is no syntactic behaviour that justifies the postulation of indirect object as a grammatical relation. Rather, indirect object is defined with case marking and semantic role: indirect object is a dative-marked or allative-marked NP that encodes recipient, goal, or in a causative, causee agent.

(3-57) *ukka=u=mai* *tur-a-da,* *ui=n* *fii-tar=ca.*
 debt=ACC=even take-THM-NEG.MED 3SG=DAT give-PST=HS
 ‘(He) did not take the debt, but gave (it) to him.’

(3-58) *fīni=kara=du* *pžsara=nkai* *kuruma=u* *ufiī-kutu.*
 ship=ABL=FOC Hirara=ALL car=ACC send-NPST.OBL
 ‘(I) am supposed to send a car to Hirara (place name) by ship.’

(3-59) *nara=a ah-u-da, pžtu=nkai=du sigutu=u*
 RFL=TOP do-THM-NEG.MED man=ALL=FOC work=ACC

as-imi-tar=ca.

do-CAUS-PST=HS

‘(It is said that he) did not do (the work), but told others to do the job.’

As noted in §3.4.2, an indirect object of a clause may be turned into the subject in a passivised clause. Thus, from the main clause of (3-59) above (i.e. *pžtu=nkai=du sigutu=u as-imi-tar=ca*), it is possible to get the following passive sentence where the underlying indirect object is rearranged as the subject.

(3-60) *pžtu=nu sigutu=u as-imi-irai-tar=ca.*
 man=NOM work=ACC do-CAUS-PASS-PST=HS

‘A man was made to do a work, they say.’ [cf. (3-59)]

3.5. Argument structure

3.5.1. Core, extended core, and peripheral arguments

In the layering of the clauses, a distinction is made between core arguments (S/A, O), extended core arguments (or ‘extension to core’; E), and peripheral arguments (cf. Dixon 1994: 122-124; Dixon and Aikhenvald 2000: 3). As Irabu is a nominative-accusative language, it is unnecessary to distinguish between S and A, and I will instead refer to S/A. Core arguments are part of the argument structure of the verb and bear a grammatical relation to the verb (contributing to syntactic valence as well as semantic valence; Payne 1997: 170). Extended core arguments are also part of the

argument structure of the verb but do not bear a grammatical relation to the verb (only contributing to semantic valence); peripheral arguments are not part of the argument structure of the verb (i.e. not required by the inherent meaning of the verb) and do not bear a grammatical relation to the verb.²⁰

TABLE 3-9. Core, extended core, and peripheral arguments

	Core	Extended core	Peripheral
	S/A, O	E	
Part of the argument structure	+	+	-
Grammatical relation	+	-	-
	subject	theme of ‘become’	locative, etc.
	direct object	indirect object, etc.	

TABLE 3-10. Transitivity and valency

Transitivity	Argument structure		
Intransitive	S		
Extended intransitive	S		E
Transitive	A	O	
Extended transitive	A	O	E
Syntactic valence	+	+	-
Semantic valence	+	+	+

²⁰ An anonymous reviewer suggested that my formulation of an E argument should be changed in such a way that E is an argument that is *syntactically required* but not a subject or an object, rather than only contributing to *semantic valence*. However, it is very difficult to argue for or against what constitutes ‘syntactically required elements’ in languages like Irabu (and in Japanese), where pragmatically recoverable elements can freely be dropped, even if it is a subject, object, other arguments, or even a predicate. And it is necessary in the long run to consider what element is semantically required by the predicate to assume a syntactically well-formed clause. Thus, it is more modest to say that E is semantically required by the verb (and may be dropped syntactically in some cases) but does not bear grammatical relation to the verb.

3.5.2. Core arguments

Typically, nominative case is used for marking a subject NP, and accusative case for marking a direct object NP, as illustrated in (3-61). Usually, however, a subject NP is marked by the topic clitic =*a* (or =*u*), which replaces the nominative case (3-62).

(3-61) *maju=nu* *jumunu=u=du* *tur-tar.*
cat=NOM mouse=ACC=FOC catch-PST
‘A cat caught a mouse.’

(3-62) *maju=u* *jumunu=u=du* *tur-tar.*
cat=TOP mouse=ACC=FOC catch-PST
‘The cat caught a mouse.’

There are two non-canonical constructions. One is the dative subject construction, as illustrated in (3-63), and the other is the second accusative construction, as illustrated in (3-64).

(3-63) *vva=n=na* *pžtu=nkai* *naa=ga* *tuz=zu=ba*
2SG_i=DAT=TOP man=ALL RFL_i=GEN wife=ACC=TOP

fii-rai-r-m=mu?

give-POT-NPST-RLS=Q

‘Can you give others your own wife?’ [dative subject: controlling reflexive]

(3-64) *budur=ra* *mii-∅*, *kagi+munu=i*, *aparagi+munu=i=tii*,
dance=ACC2 look-MED beautiful(+thing)=CNF beautiful(+thing)=CNF
=QT
uccja=du *a-tar*.
that.much=FOC COP-PST
‘Watching a dance, (I thought like) “(It’s) beautiful”; (it) was like that.’

The dative marking on subject is always triggered by the potential suffix *-(r)ai* on the verb, as shown in (3-63) above. Alternatively, the subject may be marked by nominative (which is replaced by the topic marker *=a* if the latter is present):

(3-65) *vva=a* *pžtu=nkai* *naa=ga* *tuz=zu=ba*
2SG_i=TOP man=ALL RFL_i=GEN wife=ACC=TOP

fii-rai-r-m=mu?

give-POT-NPST-RLS=Q

‘Can you give others your own wife?’ [dative subject: controlling reflexive]

The second accusative marking on direct object mostly takes place in clause chaining constructions, as illustrated in (3-64) above (where the chained clause is marked by the medial verb inflection). The second accusative is a marker of low transitivity, a typological analogue of which is found in non-canonical object marking in so-called Altaic-type languages. See §4.3.3.1 for a more detail.

3.5.3. Extended core arguments

Extended core arguments may appear both in intransitive and transitive clauses, constituting extended subtypes of each clause. In an extended intransitive clause, the E argument is required by such verbs as *nar* ‘become’, *atar* ‘get hit by’, and *av* ‘meet’. In an extended transitive clause, the E argument is an indirect object NP. In either clause type, the E argument is dative-marked as an unmarked choice. In an extended transitive clause, however, the E argument may alternatively be marked by allative, which entails a physical movement of a patient to a recipient/goal.

3.5.3.1. The verb ‘become’

The verb designating ‘become’ may be intransitive or extended intransitive, in that its semantically required element (i.e. the theme role) may be an E argument NP, which is not part of a predicate, or a VP complement, which is part of a predicate (§3.3.5.2). Thus from this verb either an extended intransitive clause or an intransitive clause is constructed.²¹

(3-66) *kari=a sinsii=n=du nar-tar.*

3SG=TOP teacher=DAT=FOC become-PST

‘He became a teacher.’ [Extended intransitive containing an E argument]

(3-67) *kari=a aparagi-fi=du nar-tar.*

3SG=TOP beautiful-AVLZ=FOC become-PST

²¹ The light verb (*a*)*si* is similar in this regard: it may take an O argument, constructing a transitive clause, or a VP complement (§3.3.5.2), constructing an intransitive clause. Thus *budur=ru=du asi* ‘(I) do a dance’ is a transitive clause where a noun *budur* ‘dance’ is a direct object NP, marked by accusative =*ru*. On the other hand, the light verb construction *budur=du si* (where the verb root *budur* ‘(to) dance’ is zero-converted to serve as a VP complement) is an intransitive clause.

‘He became beautiful’ [Intransitive containing a VP complement]

3.5.3.2. The verb ‘get hit by’

The verb *atar* ‘get hit by’ requires two semantic arguments, (1) the one who gets hit and (2) the thing that hits him. The former is coded as an S argument, and the latter as an E argument (underlined).

- (3-68) tama=n *atar-i-i*, *sin-i-i* *njaa-n*.
bullet=DAT get.hit.by-THM-MED die-THM-MED PRF-NPST
‘(He) got hit by a bullet, and has died.’

This dative-marked NP cannot be seen as a direct object, since it cannot be passivised, or cannot be topic-marked by *=ba(a)* (§3.4.2). If it is topic-marked, it is marked by non-object topic *=a*.

- (3-69) tama=n=na *atar-tar=ruga*, *sin-a-t-tar*.
bullet=DAT=TOP get.hit.by-PST=but die-THM-NEG-NPST
‘(He) got hit by a bullet, but did not die.’ [topic: contrastive reading]

3.5.3.3. The verb ‘meet’

The verb *av* ‘meet’ requires two semantic arguments, (1) the one who meets someone, and (2) the one who is met by him. The (1) is coded as an S argument, and the (2) as an E argument (underlined).

(3-70) *ssjugacī=tii ik-i-i, ujaku-mmi=n av-Ø=dara.*

Obon.festival=QT go-THM-MED relative-PL=DAT meet-NPST=CRTN

‘When it comes to the Obon festival, (we) go (to the relatives’ place) and meet the relatives.’

This dative-marked NP cannot be seen as a direct object, since it cannot be passivised, or cannot be topic-marked by =*ba(a)* (§3.4.2). If it is topic-marked, then it is marked by non-object topic =*a*.

(3-71) *ujaku-mmi=n=na a-a-t-ta-m.*

relative-PL=DAT=TOP meet-THM-NEG-PST-RLS

‘As for the relatives, (I) didn’t meet (them).’

3.5.3.4. Indirect object

In an extended transitive clause, the E argument is an indirect object NP, and is marked by dative case as the unmarked choice. However, it may be marked by allative case if the speaker focuses on, or emphasises the fact that the event described involves movement of the patient/theme towards the recipient/goal (§4.3.4). The transitive verbs that take an E argument are *fīr* ‘give’, *ufīi* ‘send’, and verbs derived from transitive verbs by morphological causative.

(3-72) a. *ba=a kai=n=du zin=nu fīi-tar.*

1SG=TOP 3SG=DAT=FOC money=ACC give-PST

‘I gave him/her money.’ [unmarked choice: dative marking]

b. *ba=a kai=nkai=du zin=nu fii-tar.*

1SG=TOP 3SG=ALL=FOC money=ACC give-PST

‘I gave him/her money.’ [marked: movement of the theme is emphasised]

(3-73) a. *ba=a sinsii=n nengazjoo=ju=du ufii-tar.*

1SG=TOP teacher=DAT new.year.card=ACC=FOC send-PST

‘I sent a New Year card to (my) teacher.’ [unmarked choice: dative marking]

b. *ba=a sinsii=nkai nengazjoo=ju=du ufii-tar.*

1SG=TOP teacher=ALL new.year.card=ACC=FOC send-PST

‘I sent a new year card to (my) teacher.’ [marked: movement of the theme is emphasised]

(3-74) *ba=a kai=n=du pisir=ru cij-fasi-tar.*

1SG=TOP 3SG=DAT=FOC lunch=ACC make-CAUS-PST

‘I made him prepare lunch.’

3.5.4. Peripheral arguments

Peripheral arguments encode various optional semantic roles such as instrument (3-75), spatial-temporal limit (3-76), accompaniment (3-77), locative (3-78), goal (3-79), and source (3-80).

(3-75) *kari=a fici=sii icu=u kir-tar.*

3SG=TOP mouth=INST thread=ACC cut-PST

‘S/he cut thread with his/her mouth.’ [instrumental]²²

- (3-76) *aca=gami* *ur-i-Ø.*
tomorrow=LMT exist-THM-IMP
‘Stay until tomorrow.’ [limit]
- (3-77) *agu-mmi=tu* *asuv-tar.*
friend-PL=ASC play-PST
‘(I) played with friends.’ [accompaniment]
- (3-78) *ba=a* *uma=n* *žžu=u* *cii-ta-m.*
1SG=TOP that.place=DAT fish=ACC catch-PST-RLS
‘I got fish at that place.’ [locative]
- (3-79) *gakkoo=nkai=du* *ifi-tar.*
school=ALL=FOC go-PST
‘(He) went to school.’ [goal]
- (3-80) *im=kara* *sidasī+kazi=nu* *idi-i* *fii-Ø.*
sea=ABL cool+wind=NOM come.out-MED come-NPST
‘Cool wind comes through from the sea.’ [source]

It is sometimes difficult to draw a clear line between an E argument, which is an

²² In Irabu, the instrumental subject construction (e.g. ‘The teeth cut the thread’ or ‘The key opened the door’) is not allowed. Rather, the verbs *kir* ‘cut’ and *akir* ‘open’ require an agent and a patient/theme, which are coded as an A argument and an O argument respectively (in active voice).

NP whose referent is part of the argument structure of the verb, and a peripheral argument, whose referent is not part of the argument structure of the verb, given that this distinction is semantic. For example, the deictic directional verb *ifi* ‘go’ in (3-79) might be argued to have its goal argument NP as part of the argument structure, and the verb *idii* ‘come out’ in (3-80) might also be argued to have its source argument NP as part of the argument structure.

However, what is important is the fact that in terms of *syntactic* valence, E arguments and peripheral arguments are not part of the syntactic valence of the verb, and that in terms of *semantic* valence, there is a continuum between prototypical peripheral arguments (such as an instrumental NP (3-75)) and prototypical core arguments, and along this continuum lie the arguments which are more or less relevant to the event that a verb describes. Among such intermediate cases, there are NPs that are, as an unmarked choice, coded as dative NPs, which I refer to an E argument.²³ I limit the use of the E argument only insofar as such a notion is useful in describing valency (changing) phenomena. For example, it is clear that the theme argument of the verb ‘become’ must be stated in a semantically well-formed sentence. Thus it cannot be simply grouped under the ‘peripheral argument’ on the basis of the fact that it does not bear a grammatical relation, as it is semantically required. Thus I introduce the notion E argument to explicate this distinction. Also, the causee agent is better characterised as an E argument rather than simply as a peripheral argument, as this formulation allows us to generalise that the causative operation is to increase (semantic) valence. On the other hand, there is no such advantage in arguing that the goal role of the directional verb is

²³ This narrow definition of an E argument is cross-linguistically plausible as well. For example, Dixon and Aikhenvald (2000: 3) argue that extended intransitives and extended transitives are greatly outnumbered by plain intransitives and transitives. Also, they generalise that an E argument is dative-marked (if such a case is available).

an E argument.

3.6. Morphological typology

A word may consist minimally of a root, but may be morphologically complex. There are three major types of processes that produce morphologically complex structures: affixation (§3.6.1), compounding (§3.6.2) and full reduplication (§3.6.3). Affixation is attachment of a non-root bound morpheme within a word, whereas compounding and full reduplication involves two (or more) roots, where reduplication consists of $root_i + root_i$, and compounding consists of $root_i + root_j$.

3.6.1. Affixation

Affixation in Irabu is suffixation. Even though there are a few cases in which a verb appears to contain a prefix-like element, e.g. *pic-* ‘off’ in *pic-cjafi* ‘tear apart’ and *pic-cii* ‘pluck away’, the prefix-like element is highly lexicalized and has no productive use. Thus *pic-* above is only observed in the above-mentioned words. Diachronically, such prefix-like elements must have developed from compound stems (e.g. *pic-* can be traced back to a verb stem whose contemporary form is *pžk-*).

On the other hand, there are a few cases in which a compound stem shows prefix-like characteristics, though it is argued that they are stems rather than affixes. For example, *mi-* ‘female’ is always bound and always appears before another stem, thus looks like a prefix only in these regards. However, there is evidence that *mi-* is a compound stem: it is always lengthened to satisfy the minimality constraint (*mi-* + *uttu* ‘younger sibling’ > *mii+uttu* ‘younger sister’).²⁴ The obligatory lengthening is observed

²⁴ There is a fossilized compound *mi-* + *-dum* ‘person’ > *mi+dum* ‘woman’. This is not treated as a compound since the second stem is not used in other contexts, i.e. is only used when combining with *mi-* ‘female’ or *biki-* ‘male’. I treat *midum* and *bikidum* as single morphemes.

in each stem of a productive compound (§2.11) but is never found in affixes.

3.6.2. Compounding

Compounding is a morphological process whereby two (or more) roots are connected to form a single word stem. In many cases a compound is made up of two roots, though longer compounds as shown below are also well attested in free texts in my data. Examples (3-84) and (3-85a, b) have clause-like syntax in the compound structure, as if it were a structure consisting of an adnominal clause and a head nominal, though, as will be shown in §3.6.2.2, it is easy to distinguish between a compound word and a phrase.

(3-81) *uku+bata+giin+sinsii*

big+belly+congress.man+gentleman

‘Mr. big belly congress man’

(3-82) *umukutu+nkjaan+banasī*

implicational+old.days+talk

‘implicational folktale’

(3-83) *agar+patiruma+baka+aza*

east+Hateruma+young+big.brother

‘The Brother East Hateruma’ [legendary person]

(3-84) *juu+fau+busi*

dinner+eating+star

‘the star that is observed in evening’

- (3-85) a. *waa+kurusī+bžž* b. *asi+idi+pžtu*
 pig+killing+day sweat+coming.out+man
 ‘New Year’s Eve’ ‘person who tends to have a lot of sweat’

In what follows I mostly focus on more frequently observed two-root compounds and their general characteristics.

3.6.2.1. Structure

The possible patterns for two-root compounds are listed below, where lower case n, v, and pc represent nominal, verb, and PC roots respectively, and the upper case N, V, and PC represent derived nominal, verbal, and PC stems respectively. Of the logically possible nine combinations, two are unattested: pc-v and v-pc. The verb root must be converted into a nominal stem when followed by a nominal root, as is indicated by v > N (see §6.3.4.5 for this morphophonemics).

(3-86)	Root 1	Root 2	Stem	Example	Frequency
	n	n	N	<i>midum+vva</i> woman+child ‘daughter’	High
	n	v > N	N	<i>munu+kaci</i> thing+writing ‘writing’	High

v >N	n	N	<i>pataraci+munu</i>	High
			working+man	
			‘hard worker’	
v	v	V	<i>jum+pazimi-r</i>	High
			read+start-NPST	
			‘start to read’	
pc	n	N	<i>aparagi+midum</i>	High
			beautiful+woman	
			‘beautiful woman’	
n	pc	PC	<i>cimu+daka</i>	Low
			heart+high	
			‘difficult (person)’	
pc	pc	PC	<i>uku+naga</i>	Low
			big+long	
			‘big and long’	

3.6.2.2. The word (as opposed to phrasal) status of the compound

As noted in §2.11, there are two kinds of compound: (1) productive compounds and (2) lexicalised compounds. Most compounds are of type (1), with a compositional semantic structure and derived by a highly productive process of word formation. In productive compounds, each stem is a phonological word. This type of compound is exemplified in (3-87) to (3-89) below. On the other hand, as is illustrated in (3-90), there are just a few compounds which are lexicalized in meaning and are derived from an unproductive word formation process, and an entire compound behaves as a phonological word.

(3-87) a. <i>biki+kjavdai</i>	b. <i>biki+uttu</i>	c. <i>biki+vva</i>
male+sibling	male+younger.sibling	male+child
‘brother’	‘younger brother’	‘son’
(3-88) a. <i>uku+pžtu</i>	b. <i>uku+jaa</i>	c. <i>uku+gan</i>
big+man	big+house	big+crab
‘big man’	‘big house’	‘big crab’
(3-89) a. <i>mi+gaa</i>	b. <i>siba+gaa</i>	c. <i>mim+gaa</i>
eye+skin	lip+skin	ear+skin
‘eye ridge’	‘skin around lips’	‘earlap’
(3-90) a. <i>mi+pana</i>	b. <i>irav+cī</i>	c. <i>aka+ccir</i>
eye+nose	Irabu+mouth	red+pipe
‘face’	‘the Irabu language’	‘angry person’

All compounds are distinguished from phrases by the potential presence of sequential voicing (§2.10.4). Furthermore, a given compound, whether it be a productive or lexicalised one, cannot be broken up by the insertion of another word, whereas a phrase can.

To avoid circularity, let us use the adnominal *unu* ‘that (medial)’, which is independently justifiable as a word since it is a free standing unit, and it never carries an affix. Now, if a constituent A+B is an NP, it is possible for an adnominal word to be inserted between A and B, as in:

(3-91) *banti=ga jaa* > *banti=ga unu jaa*
 1PL=GEN house 1PL=GEN that house
 ‘our house’ ‘that house of ours’

On the other hand, if A+B constitute a compound, then the insertion is disallowed, as in:

(3-92) *uku+jaa* > **uku- unu -jaa*
 big+house big- that -house
 ‘big house’ ‘that big house’ [intended meaning]

Here, if the stem *uku-* ‘big’ is reduplicated to become an adjective (i.e. if the compound is transformed into an NP), the insertion becomes possible, as in:

(3-93) *ukuu+uku=nu unu jaa*
 RED+big=GEN that house
 ‘that big house’

In (3-85a) we observed that the compound *waa+kurusī+bžž* (pig+killing+day) ‘New Year’s Eve’ shows a clause-like syntax within the compound. Here, the final stem undergoes sequential voicing (*pžž > bžž*), thus the construct is clearly a compound. Also, no word can intervene between the two boundaries between the three stems. If it is actually turned into a phrase, then the insertion of a word becomes possible (or, the insertion of a word turns it into a phrase):

(3-94) a. *waa=ju kurusi-Ø pžž*
 pig=ACC kill-NPST day
 ‘The day when (one) kills a pig.’ [NOT New Year’s eve]

b. *waa=ju kurusi-Ø unu pžž*
 pig=ACC kill-NPST that day
 ‘That day when (one) kills a pig.’ [NOT New Year’s eve]

Note that *waa* now carries accusative case, as it is a direct object NP, and that the sequential voicing is absent in the final stem *pžž*, which is now a head nominal word of an NP. Also, since it is a phrase, its semantics is compositional, unlike its compound counterpart *waa+kurusi+bžž* ‘New Year’s eve’.

3.6.3. Full reduplication

Reduplication in Irabu is mostly full reduplication. There are just a few examples of partial reduplication: *niv* ‘sleep’ > *ni-niv* ‘snooze’, *maar* ‘around (n)’ > *ma-maar* ‘around (n)’. These attested examples indicate that the partial reduplication targets the stem-initial mora, rather than the stem-initial syllable (**niv-niv* or **maar-maar*).

There are two major types of full reduplication: PC stem reduplication, which creates an adjective (3-95), and verbal reduplication, which creates an adverb (3-96). These two can be distinguished by the fact that in PC stem reduplication the final phoneme of the input stem is lengthened by one mora.

(3-95) PC stem reduplication

Input stem	Output word
<i>taka-</i>	<i>takaa+taka</i> 'high'
<i>pjaa-</i>	<i>pjaaa+pjaa</i> 'fast'
<i>zau-</i>	<i>zauu+zau</i> 'good'
<i>kiban-</i>	<i>kibann+kiban</i> 'poor'
<i>mm-</i>	<i>mmm-mm</i> 'similar'

(3-96) Verbal reduplication

Input stem	Output word
<i>asi-</i> 'do'	<i>asī+asī</i> 'do iteratively; do as a custom'
<i>mii-</i> 'look'	<i>mii+mii</i> 'stare'
<i>kair-</i> 'turn round'	<i>kair+kair</i> 'turn round iteratively'
<i>vv-</i> 'sell'	<i>vv+vv</i> 'sell iteratively: sell as a custom'

Chapter 4

The nominal phrase

This chapter sets out to describe the syntactic structure and function of nominal phrases (NPs).²⁵ An NP consists of a phrasal modifier and a head, which is followed by a case clitic as an extension to an NP. The head is the minimal NP. Thus we recognise an extended NP structure consisting of an NP + case clitic. NPs function either as clausal modifier (argument), clausal head (nominal predicate), or as phrasal modifier (i.e. as a genitive-marked NP), as exemplified below.

- (4-1) *naa=ga* _____ *ffa=u=mai=du* *saar-i-i* *ifi-tar.*
oneself=GEN child=ACC=too=FOC take-THM-MED go-PST
'(They) took their own child, too.' [NP as direct object]

- (4-2) *kaun* *pžtu=u* *mmja* *mazimunu=dooi*
that man=TOP INTJ monster=EMP
'That person is in fact a monster.' [NP as nominal predicate]

- (4-3) *naa=ga* _____ *ffa=nu* *naa=ju=mai* *s-sa-da...*
oneself=GEN child=GEN name=ACC=even know-THM-NEG.MED
'Not knowing his own child's name...' [NP as phrasal modifier]

²⁵ The structure and subclass of nominal will be dealt with in Chapter 5. I discuss the nominal phrase first because the subclassification of nominal in Irabu is defined in relation to NP structure, and the structure of a nominal word is in turn dependent on the subclass of nominal, whereas NP structure can be defined without reference to subclasses of nominal.

The extended NP structure is schematised in terms of its functional slots in (4-4) below. The head is obligatory, though there is a headless adnominal clause structure where the head slot is empty (§4.2.1). The modifier is optional. The head and the modifier constitute the core of the NP, and is followed by its extension, i.e. case.

(4-4) Modifier Head =Case

The occurrence and choice of the case clitic vary, depending on the syntactic function of the NP (see below). Case is obligatory unless an NP functions as nominal predicate, or unless there is case ellipsis, which may occur with core argument NPs (subject and direct object). See (4-2) above in which the subject NP *kanu pžtu* does not carry nominative case, but is directly followed by the topic clitic.

At a clause-level, an extended NP in an argument slot may be further followed by various limiter clitics such as the additive quantifier =*mai* ‘too’ and/or discourse clitics such as the focus clitic =*du*, as is illustrated in (4-1). Also, an extended NP as predicate may be followed by predicate clitics (e.g. =*dooi* (emphasis) in (4-2)). These sentence-level clitics will be noted in Chapter 9.

4.1. The modifier

The modifier of an NP may be filled by an NP itself (including an NP headed by an adjective), an adnominal (clause), or other limited constructions.

4.1.1. Modifier filled by NP

The modifier NP carries a genitive case clitic as its extension, without respect to whether the modifier is a noun, pronoun, interrogative, indefinite, or numeral (see

Chapter 5 for a detailed description of subclasses of nominals). The semantic relationship between the modifier NP and the head is not limited to possession, but includes whole-part relation, attribution, and number specification (where the modifier NP is headed by a numeral word). Some representative examples follow.

- (4-5) a. *vva=ga* *ffa*
2SG=GEN child
‘your child’ [possession: modifier as a pronoun]
- b. *taru=nu* *ffa?*
who=GEN child
‘Whose child?’ [possession: modifier as an interrogative]
- c. *taugagara=nu* *ffa*
someone=GEN child
‘someone’s child’ [possession: modifier as an indefinite]
- (4-6) *vva=ga* *jaa*
2SG=GEN house
‘your house’ [possession]
- (4-7) *kii=nu* *juda*
tree=GEN branch
‘Tree’s branch’ [whole-part relation]

(4-8) *irav=nu pžtu*
Irabu=GEN man
'A man from Irabu' [attributive]

(4-9) *vva=ga panasi*
2SG=GEN talk
'your talk' or 'a talk about you' [attributive or 'about' relation]

(4-10) *giin=nu zjunji+sinsii*
congressman=GEN Junji+gentleman
'Mr. Junji, a congressman' [appositional]

(4-11) *mž-taar=nu pžtu*
three-CLF.HUMAN=GEN man
'three men' [number specification]

As is shown in (4-5) and (4-6), there is no formal distinction between alienable and inalienable possession in Irabu. General attributive modification in which the modifying NP describes an unidentified NP by attributing some property on it, as in 'a man from Irabu', 'a foreign person', and so on, is encoded more often by compounding, which also accounts for the bulk of property concept modification as in *imi+gan* 'small+crab: a small crab' (§8.3.4). Thus (4-8) is preferably restated as *irav+pžtu* 'Irabu man'.

Along with the fact that a modifier NP may be headed by a numeral word (which is a subclass of nominal in Irabu; see §5.2.3), it is noted that a modifier NP may be headed by an adjective (§8.2). Thus, as exemplified in (4-12) below, an adjective as a modifier

NP carries genitive case, as in the case of other modifier NPs as noted above.²⁶

- (4-12) *takaa+taka=nu* *pžtu=nu=du* *ur-Ø*.
RED+high=GEN man=NOM=FOC exist-NPST
'(There) is a tall man.'

4.1.2. Modifier filled by adnominal

The modifier slot may be filled by an adnominal word (§3.3.2; §5.4) or an adnominal clause (§11.4.3). See §3.3.2 for cases where an adnominal word fills the modifier slot. As a clausal equivalent of an adnominal word, an adnominal clause does not carry any case when filling the modifier slot, just like an adnominal word.

Under the term 'adnominal clause' are subsumed both relative clauses, where an argument within an adnominal clause is grammatically related to an NP head (i.e. relativised), and other kinds of 'simple attributive' clause, where no argument within an adnominal clause is grammatically related to the head. As will be discussed shortly, the distinction between these two clause types is not fundamental in Irabu grammar. Thus I continue to refer to the single category 'adnominal clause'.

Structurally, an adnominal clause cannot carry genitive case, but the predicate verb of the adnominal clause must inflect for the finite unmarked form (§6.3.1).

- (4-13) *šin-tar* *pžtu=nu* *paka=kara* *idi-i* *fii-Ø*.
die-PST man=NOM grave=ABL exit-MED come-NPST
'A man (who) died will come out of the grave.' [S relativized]

²⁶ See §4.1.4 for a discussion in favour of the analysis that an adjective really heads an NP.

(4-14) unu kiban+pžtu=nu nara-asi-tar munu,
 that poor+man=NOM learn-CAUS-PST thing

uri=u nara-a-dakaa nau=n=mai=du
 that=ACC learn-THM-NEG.CVB.CND what=DAT=even=FOC

nar-i+ufi-Ø=pazi. kari=a.
 become-THM+PRF-NPST=maybe 3SG=TOP

‘The thing (that) that person taught, if (he) hadn’t learnt it, (he) would have become whatever (bad person he would become), maybe.’ [O relativized]

(4-15) žžu=u jafi-Ø kaagi=nu=du fii-Ø.
 fish=ACC burn-NPST smell=NOM=FOC come-NPST
 ‘(There) comes a smell (that) (someone) burns fish.’ [simple attributive]

(4-16) ami fii-Ø tukja=n=na bannja=nkai par-kutu.
 rain fall-NPST time=DAT=TOP field.hut=ALL leave-OBL
 ‘In case it rains, (we) are supposed to go to the field hut.’ [simple attributive]

The syntactic distinction between relative clause and non-relative simple attributive clause is not fundamental in Irabu grammar. That is, in Irabu adnominal clauses, whether the head of the NP modified by an adnominal clause has a role in the clause is not a relevant strategy in encoding the modificational relationship between the adnominal clause and the head, and the two elements (adnominal clause and the head) are simply juxtaposed, and much is left to inference. See §11.4.3 for a more detailed

discussion to support this claim that there is no categorical distinction between a simple attributive clause and a relative clause. In this grammar, therefore, both kinds of clause are loosely subsumed under the term ‘adnominal clause’.

4.1.3. Modifier filled by other syntactic constructions

There are expressions where constructions other than an NP or an adnominal clause fill the NP modifier slot. Here, the quotative nominalizing clitic =*ti(i)* serves as an important means to put various sorts of construction into the modifier slot. That is, these constructions are turned into NPs by quotation embedding. The constructions with =*ti(i)* carry genitive case just as normal NPs do.

(4-16) *nau=ti=nu munu=u=ga bannja=ti až-Ø=ga?*
 what=QT=GEN thing=ACC=FOC field.hut=QT say-NPST=FOC
 ‘What kind of thing (do you) refer to as *bannja*?’

(4-17) *taru=nu ah-u-ba=mai zjaubu=ti=nu munu=dara.*
 who=NOM do-THM-CVB.CND=even alright=QT=GEN thing=EMP
 ‘(This) is like a thing that anyone can do.’

Another very common example involving quotative =*ti(i)* is a structure in which the NP modifier is filled by a property concept stem followed by =*ti(i)*:

(4-18) *ujakii=ti=nu pžtu mjaaku+pžtu,*
 rich=QT=GEN man Miyako+man

kibann=ti=nu pžtu irav+pžtu a-tar=ca.
 poor=QT=GEN man Irabu+man COP-PST=HS

‘(Of the two) the rich was a man from Miyako, (while) the poor was a man from Irabu.’

As will be fully accounted for in §8.1, property concept stems are bound forms that cannot head a phrase, and require various word formation processes to become an adjective, a nominal, a verb, or an adverb. In addition to these, as was illustrated in (4-18), the quotation strategy may be employed, by which otherwise bound property concept stems are put into the NP modifier slot with the help of the embedding function of =*ti(i)* (see §11.4.4.1 for quotative constructions). Note that property concept stems here involve a morphophonemic lengthening of the root-final mora (*ujaki* > *ujakii*, *kiban* > *kibann*).

4.1.4. Typological status of Irabu genitive

One typologically noteworthy fact about Irabu genitive is that it marks a range of modificational relationships that are not readily subsumed under the term ‘genitive’, which is typically associated with possession. As noted in §4.1.1, Irabu genitive also marks general attribution (4-8, 4-9), number specification (4-11), and adjectival attribution (4-12).²⁷ So, the question might be raised whether this modifier marker is really a genitive case marker, which usually marks a possessor NP. Some would argue that it is a different kind of modifying marker, like *de* in Chinese and *ng* in Philippine languages, which occurs between most modifiers of nouns and the noun (or a sequence of NPs). This alternative analysis would let us avoid the typologically unusual situation

²⁷ And this is true for the genitive case of Japonic languages in general.

where an adjective heads an NP, a situation that naturally results from the genitive case analysis (i.e. since an adjective carries a case marker, it should head an NP).²⁸

However, there are two independent arguments for analysing Irabu genitive as such, and against the alternative analysis suggested above.

First, there is strong evidence that the genitive clitic should be treated as a case marker. In Irabu, the genitive marker has two forms =*ga* and =*nu*, either of which is chosen based on the semantic property of the head of the NP to which it is attached (see below), and the same set of forms is found in nominative case.

(4-19) a. *vva=ga* *uttu=ga=du* *asi-tar.*
 2SG=GEN younger.sibling=NOM=FOC do-PST
 ‘(It was) Your younger sibling (who) did (it).’

b. *irav=nu* *im=nu=du* *iciban.*
 Irabu=GEN sea=NOM=FOC best
 ‘The sea of Irabu is the best.’

The crucial issue here is that what I treat as the nominative case marker and the genitive case marker are arguably analysable as the same morpheme, and that it is inappropriate to treat one as a linker (a non-case-marking, modifier-marking morpheme) and the other as a case marker. Rather, both are simply a single case marker. One strong piece of evidence for the same morpheme analysis is that the set of forms in both nominative and genitive follows the identical alternation pattern: generally speaking, a pronoun, a proper name, a kinship term, and a definite human common noun are marked with =*ga*,

²⁸ This alternative solution was suggested by an anonymous reviewer of the thesis.

whereas the others are marked with *=nu* (see §4.3.2 for detail). Even though the existing typological wisdom cannot capture the Irabu phenomenon properly, the Irabu case system treats an NP that serves as a phrasal dependent (i.e. NP modifier) and a primary clausal dependent (i.e. subject in this nominative-accusative language) as a single group, and marks them with the same case. I distinguish the phrasal dependent marker and the clausal dependent marker by calling the former genitive case marker and the latter nominative case marker, following the generally accepted conventions in linguistic typology, but I do not want to consider them to be different morphemes.²⁹

A second reason to stick to my genitive case analysis as opposed to the linker analysis is that the adjective class in Irabu is in fact highly nominal in nature (as is usual in many languages), so that it is not disquieting to assume that it may head an NP in the first place. As noted in §3.3.4, the adjective class can be distinguished both from nominals and from verbs by the morphological criterion of reduplication of a bound PC stem or a nominal stem (*taka-* ‘high’ > *takaa+taka* ‘high’; *jarabi* ‘child’ > *jarabii+jarabi* ‘childish’). An adjective thus defined is syntactically ‘parasitic’, occurring in NP structure or in VP structure (see §3.3.4). However, its occurrence in a VP is highly limited both in function and in frequency, and an adjective most typically occurs in NP structure (see §8.2.3). Furthermore, an adjective may carry the diminutive affix *-gama* (§8.2.1), which is a nominal derivational affix (§5.3.1). Given these, then, it is quite clear that the adjective class in Irabu aligns with nominals morphosyntactically. This highly nominal nature of the adjective class would be blurred if we introduced an ad-hoc category called ‘linker’ only to avoid the seemingly odd situation that an

²⁹ As an anonymous reviewer rightly points out, treating the nominative *=nu/=ga* and the genitive *=nu/=ga* as separate morphemes is like treating the object case after the verb and the object case after the preposition as separate cases in English, an analysis that would confuse the form and the syntactic function associated with the form. In dealing with the nominative and the genitive in Irabu, it is emphasised that they are not separate morphemes and that the same case form marks two different syntactic functions of an NP.

adjective heads an NP. In fact, this situation is harmonious with the nominal features of the adjective class as noted above, and should be described explicitly.

4.2. The head

The head is filled by a minimal NP (the nominal word) or an internally complex NP. A head nominal may be any subclass of nominal.

Even though there is no peculiar NP structure depending on the type of the head, there are three cases that deserve special attention with regard to the syntax of NP: (1) a formal noun head, (2) a headless NP, and (3) an appositional structure in which an NP consists of the modifier + complex NP head with the two slots being semantically appositional.

4.2.1. Formal nouns

A formal noun is a nominal with an abstract meaning which is the syntactic head of an NP containing an adnominal clause. The noun has a special grammatical function, a function similar to a complementiser ('that' in English) or a conjunctive marker ('when', etc.). Although such nouns are on a diachronic pathway toward becoming grammatical markers, many of them are still also in use as nouns. The degree of grammaticalisation varies depending on the transparency of their lexical meaning (which is in turn related to how productively the form in question is used as a nominal) and on their phonological independence, i.e. whether the word is free or bound (§3.2.3.1). In what follows I first describe free formal nouns, then a bound formal noun.

4.2.1.1. *tukja* 'time'

This noun literally expresses 'time' (4-20), but when it serves as a head of an NP

modified by an adnominal clause (4-21), it functions like conjunctive ‘when’ (see §9.2.1 for a true conjunctive =*kja(a)* ‘when’).

(4-20) *sjensoo=nu tukja=n=na nausi=ga ffa-mmi=u sudati-tar=ga?*
 war=GEN time=DAT=TOP how=FOC child-PL=ACC grow-PST=Q
 ‘In the time of war, how (did you) grow children?’

(4-21) *sjensuu=nu cuu-fi nar-∅ tukja=n=na*
 war=NOM strong-AVLZ become-NPST time=DAT=TOP

taiwan=kai=ja ik-ah-a-t-ta-m=mu?

Taiwan=ALL=TOP go-CAUS-THM-NEG-PST-RLS=Q

‘When the war became severe, (did the government) not make (people) move to Taiwan?’

4.2.1.2. *mai* ‘front; before’

This noun literally expresses ‘front’ (4-22), but when it serves as a head of an NP modified by an adnominal clause, it functions like conjunctive ‘before’ (4-23).

(4-22) *vva=ga jaa=nu mai=n pžtu=nu=du u-tar.*
 2SG=GEN house=GEN front=DAT man=NOM=FOC exist-PST

‘In front of your house, (there) was a man.’

(4-23) *cifi-∅ mai=n=du denwa ah-u-di.*
 arrive-NPST before=DAT=FOC phone do-THM-INT

‘Before (I) arrive, (I) will make a call.’

4.2.1.3. *atu* ‘back; after’

This noun literally expresses ‘back; after’ (4-24), but when it serves as a head of an NP modified by an adnominal clause, it functions like conjunctive ‘after’ (4-25).

(4-24) *sjensoo=nu atu=n=na haikjuu=ja njaa-t-tar?*
war=GEN after=DAT=TOP rationing=TOP not.exist-NEG-PST
‘After the war, wasn’t (there) rationing?’

(4-25) *agu=nu pjar-tar atu=n=na sabici-kar-Ø=ruda.*
friend=NOM leave-PST after=DAT=TOP lonely-VLZ-NPST=
=AD.ASR
‘After (your) friend has left, (you) feel lonely, don’t you?’

4.2.1.4. *kutu* ‘thing; fact’

This noun literally expresses ‘thing’ (4-26), but when it serves as a head of an NP modified by an adnominal clause, it functions like the English complementiser ‘(the fact) that’ (4-27).

(4-26) *ai=nu kutu=u=gami=a bassi-i njaa-n.*
that.way=GEN thing=ACC=LMT=TOP forget-MED PRF-NPST
‘(I) have forgot the things like that.’

(4-27) *tuz=zū muc-i+ur-Ø=kutu=u=mai*
wife=ACC have-THM+PROG-NPST=COMP=ACC=even

bassi-i=du *ur-Ø*.
 forget-MED=FOC PROG-NPST

‘(He) has forgot even the fact that (he) has a wife.’

4.2.1.5. *tami* ‘purpose; benefit’

This noun literally expresses ‘purpose’ or ‘benefit’ (4-28), but when it serves as a head of an NP modified by an adnominal clause, it is often followed by dative case =*n*, and functions like a purposive adverbial clause conjunction ‘in order to’ (4-29).

(4-28) *vva=ga* *tami=n=du* *patarak-i+ur-Ø=ca*.
 2SG=GEN benefit=DAT=FOC work-THM+PROG-NPST=HS

‘(He said he) works for your benefit.’

(4-29) *daigaku=nkai* *gookaku* *asī-Ø* *tami=n*
 University=ALL pass do-NPST purpose=DAT

jobikoo=tii=mai *ik-asī-Ø*. *taka+dai=dooi*.
 prep.school=QT=too go-CAUS-NPST costly+price=EMP

‘In order that (she) will pass (entrance examination of) the university, (her parents) make her go to prep-school. (That’s) costly.’

4.2.1.6. *jau* ‘state’

This noun has the abstract meaning ‘state’, and I have not been able to find an example in which *jau* is used in other constructions than an adnominal clause. Furthermore, it is always followed by the dative case, and functions as a subordinating conjunctive

encoding ‘so that; in order (for someone) to’.

(4-30) *mazimunu=nu* *par-ri-i* *kuu-n-Ø=jau=n*
evil.spirit=NOM go-THM-MED come-NEG-NPST=state=DAT

maasu *rri-i* *zau=n=du* *nci-r=dara.*
salt put-MED gate=DAT=FOC put-NPST=EMP

‘So as not for the evil spirit to come, (we) put salt (into a bucket of water), and put (the bucket) in front of the gate.’

The fact that *jau* is not used as a noun nor does it combine with different case clitics suggests that the morpheme is becoming more and more like a conjunction rather than a nominal.

4.2.1.7. *njaa* ‘manner’

njaa has the meaning ‘a way; a manner’, and mostly occurs with the dative clitic =*n*.

(4-31) *vva=ga* *njaa=n=na* *as-irai-n-Ø=suga.*
2SG=GEN manner=DAT=TOP do-POT-NEG-NPST=but

‘(I) cannot do like you, though.’ [lit. (I) cannot do in your way.]

When *njaa* heads an NP modified by an adnominal clause, it functions as a subordinating conjunctive ‘in the way; as’.

- (4-32) *ba=ga asi-∅ njaa=n vva=mai as-i-∅.*
 1SG=NOM do-NPST manner=DAT 2SG=too do-THM-IMP
 ‘Do (that) as I do.’

4.2.1.8. *su(u)*

This noun is a bound word (§3.2.3.1), designating a non-referential or mass entity ‘thing, man, that which, those which, one who, those who, etc’.³⁰ As a bound word it must attach to the preceding element, but it functions like a free word in that it heads an NP. Note that *su(u)* is realised as *ru(u)* when following /r/ (§2.10.3).

- (4-33) *taja=nu ar-∅ ruu=nu=du masi.*
 strength=NOM exist-NPST men=NOM=FOC better
 ‘Those who are strong are better.’

- (4-34) *sin-i-i par-∅ ruu mmja son=saa=i.*
 die-THM-MED leave-NPST men INTJ no.profit=R.EMP=CNF
 ‘Those who died out, you know, get no profit.’

- (4-35) *saci=n fau-tar ru=kara kama=nkai ik-i-∅.*
 earlier=DAT eat-PST men=ABL that.place=ALL go-THM-IMP
 ‘Those who have eaten earlier should go there.’

It is clear from the above examples that *su(u)* is a nominal as it heads the NP. In fact, the

³⁰ *su(u)* in Irabu has cognates in Northern Ryukyuan and in some Japanese varieties, with similar semantic and syntactic characteristics (Shinzato *forthcoming*)

bound noun can be replaced by another free nominal word. Compare, for example, (4-33) with the following, where the head NP is filled by a free word *pžtu* ‘man’:

- (4-36) *taja=nu* *ar-∅* *pžtu=nu=du* *masi*.
strength=NOM exist-NPST man=NOM=FOC better
‘A man who is strong is better.’

In addition to the fact that *su(u)* cannot stand alone, there is a prosodic characteristic such that the final grammatical word of an adnominal clause predicate + *su(u)* is treated as a single domain of the alternating rhythm, i.e. as a single phonological word. Thus there are examples where the final foot of the predicate-final grammatical word is H-toned, as in *patarak-ai-r=ruu* (work-POT-NPST=man) ‘those who can work’ > (pata)_H (raka)_L (ir)_H (ruu)_L, a pattern which would never occur if each of the two were a separate domain of the alternating rhythm (since the alternating rhythm must end in /L/ in each prosodic domain; §2.9.3.2).

su(u) can function as head of an adnominal clause which is no longer seen as modifying the head, due to a semantic abstraction of the ostensible head *su(u)*. Here, *su(u)* designates ‘fact’ or something like the English complementiser ‘that’.

- (4-37) *pisir=ru* *fau-∅* *su=u* *jami-ru*.
lunch=ACC eat-NPST COMP=ACC stop-IMP
‘Stop eating lunch.’

su(u) also functions as a modal marker. This is a grammaticalisation process in which the former NP head *su(u)* has been reanalysed as a post-predicate modifier clitic.

Thus in (4-38) below *su(u)* functions as modal clitic meaning ‘seem (that)’.

(4-38) *pžtu=nu jaa=nu suiija-gama=n ik-i-i*
 man=GEN house=GEN balcony-DIM=DAT go-THM-MED

mmna par-ri+uk-i+ar-∅=ruu.

all leave-THM+PRF-THM+RSL-NPST=seem

‘It seemed that (they) had gone to the balcony of someone’s house, and had all entered (under the balcony).’

Likewise, the conjunctive clitic =*suga* ‘but’ (§9.2.3) possibly reflects *su(u)* and =*ga* (archaic conjunctive ‘but?’), but =*suga* is always contiguous and no other element can intervene. Synchronically, I treat =*suga* as a single morpheme functioning as a conjunctive.

(4-39) *ffa=nu nak-i+u-tar=ruga=du*
 child=NOM cry-THM+PROG-PST=but=FOC

cik-ai-n-∅

firi-as-i-i=du

u-tar.

hear-POT-NEG-NPST

pretension-VLZ-THM-MED=FOC

PROG-PST

‘(My) child was crying, but (I) was pretending not to hear.’

4.2.2. Headless structure

There is a headless adnominal clause structure in Irabu. A headless adnominal clause structure is syntactically analysed as a structure in which the head is omitted (the

omitted head is indicated by [x] below). The omitted head can easily be pragmatically recovered. The predicate verb of the adnominal clause serves as the phonological host of the case clitic, whose syntactic host is an NP, however (§9.1.1).

(4-40) *jaa=ju* *fici-Ø[x]=n=na* *nausi=ga*
house=ACC build-NPST=DAT=TOP how=FOC

mimai-asī-tar?

compliment-VLZ-PST

‘In [the time] (when one) built a house, how did (you) do compliments (i.e. sending food and money to help the person who is building the house)?’

(4-41) *vva=ga* *tur-asī-tar[x]=ru=du* *jum-i+ur-Ø.*
2SG=NOM take-CAUS-PST=ACC=FOC read-THM+PROG-NPST

‘(I) am reading [the book] you let (me) take.’

Note that in (4-41) accusative //u// is realised as /ru/ due to Geminate copy insertion (in which the final C of the predicate verb is copied onto the onset of //u//; §2.9.2), which never occurs across two phonological words.

Some headless structures are more like clausal nominalisations where the adnominal clause has no clear semantic head. However, this is due to the fact that the omitted head is a formal noun (§4.2.1). The omitted formal noun is recoverable as either *kutu* ‘fact’ (§4.2.1.4) or *su(u)* (§4.2.1.8).

(4-42) *munu=u kafi-∅=fa mucikasi-munu.*

thing=ACC write-NPST=TOP difficult-thing

‘Writing is a difficult thing.’

(4-43) *kanu ubaa=nu sin-tar=ru=du cifi-tar.*

that old.woman=NOM die-PST=ACC=FOC hear-PST

‘(I) heard (that) the old woman died.’

4.2.3. Appositional structure

When *su(u)* (cf. §4.2.1.8) fills the head slot of an NP, this NP can occur in an appositional structure as exemplified below, where a modifier NP and a complex head (which is itself composed of a [adnominal clause]_{modifier} + head) are semantically appositional:

(4-44) *pana=nu ssu-kar-∅ ruu=nu=du kagi-kar-∅.*

flower=GEN white-VLZ-NPST things=NOM=FOC beautiful-VLZ-NPST

‘Flowers, white ones, are beautiful.’

In (4-45) below, the surface (highest-order) phrase structure of (4-44) is shown at ‘NP layer 1’, where *pana* is a minimal NP that fills the modifier slot, carrying genitive case as an extension, and *ssukar ruu* is a complex head, and the entire NP *pana=nu ssukar ruu* is followed by case *=nu* as an extension, which is further followed by the information structure clitic *=du* (focus). The complex head at NP layer 1 is recursively analysed as the modifier adnominal clause *ssukar* and the head *ruu* at NP layer 2.

(4-45) *pana=nu ssukar ruu =nu =du*

NP layer 2: [Mod] [Head]

NP layer 1: [Mod] [Head] Case

The apposition holds between the modifier and the head at NP Layer 1. As noted in §4.2.1.8, the semantic value of *su(u)* is abstract, designating ‘thing’ or ‘man’, so the head of NP layer 1 designates ‘white thing’. The referent of ‘thing’ is specified by the apposite modifier *pana=nu* ‘flower’, so that the entire meaning of the highest-order NP is ‘a flower as a white thing; a white flower’.

Similar examples follow, in which the structural schema is as shown in (4-45).

(4-46) *bikidum-mi=nu uu-kar-Ø ruu=nu jaa=nu*

male-PL=GEN big-VLZ-NPST men=NOM house=GEN

naugara=nkai un=nu=baa nuusi-i...

FIL=ALL devil=ACC=TOP lift-MED

‘Men, big ones, lift the devil on the thing-you-imagine of the house, and...’

(4-47) *herumetto=nu pžkki+ar-Ø ru=u muc-i-i*

helmet=GEN hollow+RSL-NPST thing=ACC take-THM-MED

avva=nu cik-i+u-i-ba=i,

oil=NOM become.caked-THM+PROG-THM-CVB.CSL=eh

uri=u sugu guusi=tii arav-Ø

that=ACC EMP ONM=QT wash-THM-MED

‘(I) took a helmet, one which is hollowed, you know it is caked with oil, so (I) washed it (with onomatopoeic expression).’

The examples above and other attested examples in my data suggest that the adnominal clauses in the appositional construction have stative rather than active predicates. Thus in the examples above the adnominal clause verb is an existential verb or a property concept verb (§8.3.3), or a verb containing a resultative aspect marker (a suffixed version of an existential verb).

4.3. Case

A case relation is formally encoded by a case clitic, which attaches to the final morpheme of an NP, forming an extended NP structure. Case marks either clausal dependency (between the predicate and the argument NP that is governed by the predicate) or phrasal dependency (between the head of NP and the modifier).

As defined in §3.5 there are core, extended core, and peripheral arguments. The case system for core arguments is of the nominative-accusative type, in which intransitive subject NP and transitive subject NP have the same case-marking, while transitive direct object NP has a different case-marking. However, there is frequent case ellipsis in core arguments (§4.3.10), resulting in the neutralisation of core argument cases. I do not treat ellipsed case as a ‘zero case form’ but simply as ellipsis, since the absence of an overt case form (either nominative or accusative) is not a regular means of expressing nominative or accusative case, and it does not specify one and only one case relation (i.e. ellipsis may indicate nominative or accusative).

4.3.1. Basic system

There are argument case markers (nominative, accusative, dative, allative, ablative, instrumental, associative, limitative, comparative) and a genitive case marker (§4.1.1).

Nominative, accusative, and dative code core argument NPs, though dative-marked core arguments are highly constrained (occurring only in the dative subject constructions; §3.6.2). The dative may also, along with the allative, mark an (extended) core argument. Dative and allative also function to mark locative and goal peripheral arguments respectively (§4.3.4). The other argument case forms mark peripheral arguments.

TABLE 4-1. Basic case frames (excluding dative subject)

Intransitive	S_{NOM}
Extended intransitive	$S_{\text{NOM}} + E_{\text{DAT}}$
Transitive	$A_{\text{NOM}} + O_{\text{ACC}}$
Extended transitive	$A_{\text{NOM}} + O_{\text{ACC}} + E_{\text{DAT/ALL}}$
(NP modifier	$\text{ModNP}_{\text{GEN}} + \text{Head}$)

(4-48) *pžtu=nu=du* *fii-∅*.
 man=NOM=FOC come-NPST
 ‘a man comes over.’ [Intransitive]

(4-49) *vva=a* *sinsii=n* *nar-i-∅*.
 2SG=TOP teacher=DAT become-THM-IMP=QT
 ‘You become a teacher.’ [Extended intransitive]

(4-53) a. *vva=a jamatu=kara=ru t-tar?*
 2SG=TOP Japan.mainland=ABL=FOC come-PST

‘Did you come from Mainland Japan?’

b. *uma=gami ik-i-i kuu-di.*
 that.place=LIM go-THM-MED come-INT

‘How about going as far as that place (and then) coming back?’

(4-54) a. *sigutu=u=kara as-su.*
 work=ACC=PRM do-INT

‘Let’s do the work first.’ [= *kara* encoding primacy (‘first; primarily’)]

b. *banti=n=gami=a asi-rai=du si-Ø*
 1PL=DAT=EMP=TOP do-POT=FOC do-NPST

‘We can do (that).’ [= *gami* encoding emphasis]

In summary, the interrelationship between the (argument) case clitics and their functions can be configured as shown in TABLES 4-2 and 4-3 below.

TABLE 4-2. Case forms and their functions: Sort by form

Name	form	Function (case)	Function (limiter)
NOMinative	= <i>ga</i> / <i>=nu</i>	S/A	
GENitive	= <i>ga</i> / <i>=nu</i>	NP modifier	
ACCusative	= <i>u</i> / <i>=a</i>	O	
DATive	= <i>n</i>	S/A, E, locative, etc.	
ALLative	= <i>nkai</i>	(E); goal	
INSTrumental	= <i>sii</i>	instrument	
ASsoCIative	= <i>tu</i>	associated motion	
CoMParative	= <i>jarruu</i>	comparative ‘than’	
ABLative	= <i>kara</i>	source; path	PRiMacy ‘primarily’
LIMitative	= <i>gami</i>	limit (‘as far as’)	EMPhasis

TABLE 4-3. Case forms and their functions: Sort by function

Form	NOM	ACC	DAT	ALL	INST	ASC	CMP	ABL	LMT
Function									
Case									
Core argument	*	*	(*)						
Extended core			*	(*)					
Peripheral			*	*	*	*	*	*	*
Limiter								*	*

4.3.2. Nominative and genitive

A single pair of case forms (=ga and =nu; see below for the choice between these)

marks both subject NPs and phrasal modifier NPs. I call the =*ga*/*=nu* that marks subject NPs nominative case, and the =*ga*/*=nu* that marks phrasal modifier NPs genitive case (see §4.1.4 for a more detailed discussion). Thus in (4-55) and (4-56) below *ba=ga* (1SG=*ga*) may be either ‘I’ or ‘my’.

(4-55) *ba=ga* *ffa-gama=u=du* *ž-ž-a-di*
 1SG=GEN child=ACC=FOC scold-THM-INT
 ‘(I) will scold my little child’ [=ga as genitive] See (2-80) in §2.9.4.

(4-56) *ba=ga* *ffa-gama=u=du* *ž-ž-a-di*.
 1SG=NOM child-DIM=ACC=FOC scold-THM-INT
 ‘I will scold (my) little child’ [=ga as nominative] See (2-92) in §2.9.4.

As briefly mentioned above, both nominative and genitive have two variant forms, =*ga* as noted above, and =*nu* as exemplified below.

(4-57) *pžtu=nu* *ffa=u=du* *jurav-tar*.
 man=NOM child=ACC=FOC call-PST
 ‘A man called (his/her) child’ [=nu as nominative]

(4-58) *pžtu=nu* *ffa=u=du* *jurav-tar*.
 man=GEN child=ACC=FOC call-PST
 ‘(someone) called a man’s child’ [=nu as genitive]

The alternation of =*ga* and =*nu* in both nominative and genitive is in accordance with

and the latter will be one of equal or higher-to-lower social relationship, as between friends, or between a parent and his/her child, an elder sibling and his/her younger sibling, a teacher and his/her pupil, etc. If the speaker is lower in social status than the addressee/third person referent, then the latter is referred to by kinship/social status terms or by proper names with a proper honorific stem such as *sinsii* ‘teacher’, as in *Kiigin-sinsii* ‘Teacher Keigen’).

This principle of pronominal function in the alternation between =*ga* and =*nu* implies that indefinite and newly introduced referents, which cannot be replaced by pronouns, are always marked by =*nu* even if the referents are kinship terms, social status terms, etc. This is in most cases true, but not a one-hundred per cent generalisation. Thus if a speaker introduces his/her own father into discourse, and the hearer does not know this father, then this referent tends to be marked by =*nu*:

(4-59) *ba=ga* *uja=nu* *pžsara=n* *u-i-ba*.
 1SG=GEN father=NOM Hirara=DAT exist-THM-CVB.CSL
 ‘because my father is in Hirara...’ [in response to ‘Why are you going to board ship?’]

Numerals may be marked either by =*ga* or by =*nu*, depending on their syntactic function. On the one hand, a numeral may modify a newly introduced referent. The numeral in such a use is marked by =*nu*.

(4-60) *ju-taar=nu* *pžtu=nu=du* *maar-i+u-tar*.
 four-CLF.HUMAN=GEN man=NOM=FOC wander-THM+PROG-PST
 ‘(There were) four persons walking around.’

On the other hand, a numeral can often function anaphorically, serving as head of an argument NP. Here, =*ga* is employed to mark the numeral.

(4-61) *ssibara, maibara, satubžtu=nu a-tar=ca, fiŋa-kiv.*
 north south neighbour=NOM exist-PST=HS two-CLF.HOUSE

pžtu-kiv=ga im=nu acca ja-i-ba...
 one-CLF.HOUSE=NOM sea=GEN side COP-THM-CVB.CSL

‘There lived two households, north and south. Because one (was) near the sea...’

4.3.3. Accusative and second accusative

There are two case forms that mark direct object: the accusative =*u* (an unmarked choice for a direct object NP) and the second accusative =*a* (a marked choice). Since the second accusative is a marked choice, I first describe the criteria for the choice of the second accusative, then proceed to describe the accusative, which can appear environments where the second accusative cannot appear.

4.3.3.1. Second accusative =*a*

The second accusative (glossed as ACC2) is highly limited in frequency, syntactic environment, and referentiality, in such a way as to indicate that this case form is a low-transitivity marker, typically found in semi-transitive constructions as in the so-called Altaic languages (Kuribayashi 1989, Kazama 1997). There are four major characteristics found in the second accusative.

First, the object marked by the second accusative (glossed ACC2) has a severe

restriction on its syntactic distribution. It must be adjacent to the predicate verb.

- (4-62) *kasa=a* *par-i-i=du* *niv-vi+u-tar=ca.*
 mosquito.net=ACC2 hang-THM-MED=FOC sleep-THM+PROG-PST=HS
 O V
 ‘Hanging a mosquito net, (they) were sleeping.’

Thus, if the object NP and the verb are intervened by a word or a clitic, the NP must be marked by accusative rather than second accusative.

- (4-63) *kari=a* *tuz=zu=mai* *tumi-i,* *nnama=a*
 3SG=TOP wife=ACC=too search-MED now=TOP

jamatu=n=du *ur-Ø=tii.*
 mainland.Japan=DAT=FOC exist-NPST=QT
 ‘He has searched (i.e. has got) a wife (and done other things he is supposed to do in his age), and now lives in mainland Japan.’

- (4-64) *kari=u=ba* *kurus-i-i,* *sin-ah-a-Ø=tii*
 3SG=ACC=TOP kill-THM-MED die-CAUS-THM-INT=QT

irav=nkai *t-tar=ca.*
 Irabu=ALL come-PST=HS
 ‘(He thought) “(I’ll) kill him, make him die!”, (and he) came to Irabu.’

Second, the object marked by the second accusative mostly appears in chained

dependent clauses in clause chaining constructions (§11.3).

(4-65) [*saz=za kav-vi-i*], *uma=n=du* *bi-ži+u-r*.
 towel=ACC2 wear-THM-MED that.place=DAT=FOC sit-THM+PROG
 -NPST

‘[Wearing a towel (on his head)], (he) is sitting there.’

(4-66) *nkjaan=du* [*nudu+ffu+vcca=tu* *mii+vcca=tu*]
 old.times=FOC neck+black+squirrel=ASC female+squirrel=ASC

tunuka-gama=a nas-i-i], *uri=u* *jama=nu* *mnaka=n*
 egg-DIM=ACC2 make-THM-MED that=ACC mountain=GEN middle=DAT

usu-i-i *u-tar=jaa=du...*

hide-THM-MED PROG-PST=then=FOC

‘Once upon a time, [black-neck-squirrel and a female squirrel made eggs], and hid them in the middle of the mountain, then...’

Third, those chained clauses in which a second accusative appears tend to encode descriptive states (they are ‘backgrounded’ in Hopper and Thompson’s 1980 terms) rather than temporally sequential (‘foregrounded’) events. We will see why this tendency is observed in §11.3.

Fourth, the object marked by the second accusative is mostly non-referential, as shown in (4-65), though there are several examples where this generalisation does not hold, as shown in (4-66), in which *tunuka-gama* ‘small egg’ is referential though

indefinite. The last three characteristics are intertwined, and will be further discussed in §11.3.

TABLE 4-4 below illustrates the marked features of second accusative as opposed to accusative. In the column Frequency, I examined thirteen long narrative texts from which the two case forms were extracted.

TABLE 4-4. ACC1 vs. ACC2

	ACC1	ACC2
Frequency	High (N = 308)	Low (N = 63)
Syntactic environment	No restriction	Chaining clause (backgrounded) O+V constituent
Referentiality	Referential preferred	Overwhelmingly non-referential

Besides the four major features noted in the previous paragraphs, there is a marginal but noteworthy feature of the second accusative: it can mark the possessor in a ‘X has Y’ possessive construction (§10.2.5).

(4-67) *jaa=ja* *njaa-n* *pžtu=kara=mai*
house=ACC2 not.exist-NPST man=from=even

zin=nu=du *tur-Ø=tii.*
money=ACC=FOC take-NPST=QT

‘(He) will take money even from people (for whom) there is no house.’

As will be discussed in §10.2.5, the possessor NP in the construction shows some

properties of subject.

Taking these features together, it is clear that the second accusative signals low transitivity. In the terminology of Hopper and Thompson's (1980) transitivity parameters, the second accusative is LOW on *individuation of O* (referentiality), *aspect* (telic or atelic, i.e. foregrounded or backgrounded), *participant* (transitive or intransitive; cf. second accusative can mark intransitive subject), and *negative polarity*. The low referentiality manifests itself in the syntactic constituency of O and V, a cross-linguistically very common syntactic manifestation of low transitivity. This being said, we are still left with a question of why the second accusative is concentrated in clause chains. This issue will be taken up again in §11.3, where I will note that medial verbs, which head chained clauses, lack a morphological aspectual distinction, especially between perfective (sequential events) and imperfective (descriptive states). Thus I argue that the second accusative is employed in Irabu morphosyntax to help mark this primary aspectual distinction in chained clauses that are otherwise ambiguous with regard to this distinction.

Before leaving the discussion of the second accusative, it is necessary to note the fact that second accusative =*a* is homophonous with topic marker =*a*. The allomorphy is identical in these two morphemes.

TABLE 4-5. Topic marker and the second accusative marker: allomorphy

	CVV_	C_	Cu_	Elsewhere
TOP = <i>a</i>	= <i>ja</i>	= <i>Ca</i>	= <i>u</i>	= <i>a</i>
ACC2 = <i>a</i>	= <i>ja</i>	= <i>Ca</i>	= <i>u</i>	= <i>a</i>

Diachronically speaking, both markers developed from the proto-Japonic topic marker **ba* (Alexander Vovin, p.c.). Synchronically, however, we cannot say that the second accusative functions as a topic marker, in view of the following fundamental differences between the two. The topic marker opts for referential NPs par excellence, while the second accusative shows the opposite tendency. Also, in the synchronic grammar of Irabu, the direct object is topic-marked by a special topic clitic *=ba(a)* (§9.5.1.1). Third, the topic marker does not appear within a subordinate clause or a chained clause, whereas the second accusative can, or in fact it is almost restricted to these environments. In (4-67) above, for example, the clitic *=a* cannot be taken as the topic marker, as the topic clitic never appears in an adnominal clause, so it is safe to say that what we are looking at here is the second accusative.

4.3.3.2. Accusative

The accusative case clitic *=u* occurs much more frequently than the second accusative (see Table 4-4 above), and is not restricted to occurring in specific environments like the second accusative. Thus it may occur whether the object NP and the verb is adjacent or not, whether the object NP occurs in a chained clause or not, or whether the object is non-referential or not.

- (4-68) a. *kari=a* *tuz=zu* *tum-i+a-Ø-m*.
 3SG=TOP wife=ACC search-THM+RSL-NPST-RLS
 ‘He has searched (i.e. has got) a wife.’ [O and V are adjacent]
- b. *kari=a* *tuz=zu=du* *tum-i+ar-Ø*.
 3SG=TOP wife=ACC=FOC search-THM+RSL-NPST
 ‘He has searched (i.e. has got) a wife.’ [O and V are not adjacent]

(4-69) a. [*kari=u=ba* *kurus-i-i*], *sin-ah-a-∅=tti*
 3SG=ACC=TOP kill-THM-MED die-CAUS-THM-INT=QT

irav=nkai *t-tar=ca.*

Irabu=ALL come-PST=HS

‘(He thought) “(I’ll) kill him, make him die!”, (and he) came to Irabu.’

[O in a chained clause]

b. *kari=u=ba* *kurus-a-di=tii*
 3SG=ACC=TOP kill-THM-INT=QT

irav=nkai *t-tar=ca.*

Irabu=ALL come-PST=HS

‘(He thought) “(I’ll) kill him!”, (and he) came to Irabu.’

[O not in a chained clause]

(4-70) a. *ba=a* *manzjuu=ju=du* *juu* *fau-∅.*
 1SG=TOP papaya=ACC=FOC very eat-NPST

‘I often eat papayas.’ [O is non-referential]

b. *ba=a* *unu* *manzjuu=ju=du* *fa-a-di.*
 1SG=TOP that papaya=ACC=FOC eat-THM-INT

‘I will eat that papaya.’ [O is referential]

4.3.4. Dative and allative

Dative case and allative case are marked by *=n* and *=nkai*, respectively. There is good reason to deal with these two clitics together. First, their functional range is similar, in that both may mark extended core arguments (indirect object, etc.) and peripheral arguments (goal, etc.), though dative case is additionally used to mark subject in the dative subject construction (§3.5.2). Second, the same extended core argument, specifically the indirect object, may be marked by either form, with a certain slight semantic difference.

TABLE 4-6. Dative and allative: functional distribution

	DAT	ALL
Core (subject)	*	
Extended core		
the argument of <i>nar</i> ‘become’, etc (§3.6.3)	*	
indirect object	*	(*)
Peripheral argument		
locative (spatial and temporal)	*	
effector	*	
goal		*

4.3.4.1. Dative *=n*

The dative clitic marks an extended core (E) argument or a peripheral argument (locative and effector), or a core argument (subject) in the dative subject construction.

(4-71) *vva=a* *sinsii=n=du* *nar-kutu=i.*
 2SG=TOP teacher=DAT=FOC become-OBL=eh
 ‘You are going (supposed) to become a teacher, eh?’ [E argument]

(4-72) *nausi=ga* *kari=a* *sin-tar=ga?* *tama=n* *atar-Ø=ee?*
 how=FOC 3SG=TOP die-PST=FOC bullet=DAT hit-NPST=Q
 ‘How did he die? By getting hit by a bullet?’ [E argument]

(4-73) *taru=n=ga* *av-tar=ga?*
 who=DAT=FOC meet-PST=FOC
 ‘Whom did (you) meet?’ [E argument]

(4-74) *nuuma=n* *fisa=a* *fii-ru.*
 horse=DAT grass=ACC2 give-IMP
 ‘Give hay to the horse.’ [E argument: indirect object]

(4-75) *kari=a* *nnama=a* *pžsara=n=du* *u-r=dara=i.*
 3SG=TOP now=TOP Hirara=DAT=FOC exist-NPST=EMP=eh
 ‘He’s now in Hirara, eh?’ [peripheral argument: locative]

(4-76) *jarabi-gama=n=na* *juu* *budur=mai* *asi-tar=ruga.*
 child-DIM=DAT=TOP very dance=too do-PST=but
 ‘As a child, (I) did a bit of dancing many times, too.’ [peripheral argument:
 temporal locative]

(4-77) *pžžtir=n pus-i-i makas-i-i ai-jas-i-i=du*
 sun=DAT dry-THM-MED roll-THM-MED that.way-VLZ-THM-MED=FOC

jaa=nu pana=nu naugara=u=mai cifii-Ø.
 house=GEN roof=GEN what.you.imagine=ACC=too make-NPST

‘(We would) dry (grass) the sun, roll it up; by doing that way (we would) make the doo-dah that is on the roof of the house.’ [peripheral argument: effector]

(4-78) *sinsii=n=na nkjagi-rai-n-Ø=pazi.*
 teacher=DAT=TOP eat.HON-POT-NEG-NPST=perhaps

‘You would not be able to eat (such a miserable food of us), Mister.’ [dative subject]

4.3.4.2. Allative =*nkai*

The allative clitic marks either an extended core argument (indirect object) or a peripheral argument (goal).

(4-79) *ucinaa=nkai kabocja=u=mai doragonfiruuc=cu=mai*
 Okinawa=ALL pumpkin=ACC=too dragon.fruit=ACC=too

ufii=dara. juupakku=kara=ju.
 send=EMP express.post=ABL=EMP

‘(You can) send pumpkins and dragon fruits, and so on. Via express post.’
 [indirect object]

(4-80) *ningin=nu=i* *kama=nu* *naka=nkai* *rri-i=du*
 human=ACC=eh iron.pot=GEN inside=ALL put-MED=FOC

fau-Ø=ti=nu *panasï=nu=du* *a-taiba.*
 eat-NPST=QT=GEN story=NOM=FOC exist-CVB.PST.CSL

‘There is a story in which (some devil) puts humans into an iron pot and eats,
 so...’ [indirect object]

(4-81) *ubaa-ta=ga* *nnuc=car-i-i* *ur-Ø=kja*
 grandmother-PL=NOM life=exist-THM-MED PROG-NPST=while

uri=u *tu-i+uk-i-ba=du*
 that=ACC record-THM+BNF-THM-CVB.CND=FOC

ffa+mmaga-mmi=nkai=mai *batas-ai-r=tii.*
 child+grandchild-PL=ALL=too pass-POT-NPST=QT

‘If (we) can record that (story) while you are alive, (we) can pass (it) to children
 and grandchildren.’ [indirect object]

(4-82) *kari=a* *gakkoo=nkai=du* *par-tar.*
 3SG=TOP school=ALL=FOC leave-PST

‘He left for school.’ [peripheral argument: goal]

(4-83) *unu* *ssakan-gama=nu* *fisa=nu* *mii=nkai* *usum-ta-m.*
 that k.o.crab-DIM=NOM plant=GEN around=ALL hide-PST-RLS

‘That *ssakan* crab hid into somewhere around the plant.’ [peripheral argument: goal]

- (4-84) *iravc=cu=baa* *ffa-gama-mmi=nkai* *nukusi-kutu=ca.*
 Irabu=ACC=TOP child-DIM-PL=ALL preserve-NPST.OBL=HS
 ‘(He) says that (he) is going to preserve Irabu for (our) children.’ [peripheral argument: goal (recipient)]

In the speech of some speakers it was observed that the deictic directional verb *ifi* ‘go’ may sometimes take dative case (as in 4-85 below) rather than allative case. This seems to be systematic rather than exceptional, since we also have a fused form consisting of the dative clitic and the subsequent directional verb (in its medial form): *=nkii* (< *=n ik-i-i*), which expresses ‘going to...’.

- (4-85) *gakkoo=n=du* *ifi-tar.*
 school=DAT=FOC go-PST
 ‘(He) went to school.’

- (4-86) *gakkoo=nkii=du* *asuv-tar.*
 school=going.to=FOC play-PST
 ‘(I) went to school and played.’

4.3.4.3. Dative and allative: semantic analysis

It is possible to give a rough characterisation of the semantic contrast between allative case and dative case. This involves the physical/psychological nature of the action on

the one hand and the vector of the action on the other. The explanation below is tentative, and further refinement is required through future research.

In the first place, the dative case is more associated with static/psychological events than the allative case, which is associated with more dynamic/physical events. In those extended transitive verbs which designate physical movement of a patient/theme toward a recipient/goal (e.g. ‘give’, ‘send’, ‘put (something) into’), the indirect object may be marked with allative case, even though dative marking is an unmarked choice (all the allative-marked indirect object NPs may be restated with dative, but not vice versa). Compare (4-87), in which indirect object is marked with allative, with (4-88), in which indirect object is marked with dative, even though both examples involve the same verb *fii* ‘give’. The difference here, as was read from the context from which the examples were extracted, is that in (4-88) the ‘giving’ action is not physical, but rather psychological (the ‘giving’ is actually the decision by the man from Miyako not to take debt from the man from Irabu).

(4-87) *kai tavkjaa=nkai=du zin=nu=baa fii-tar.*
 3SG one.person=ALL=FOC money=ACC=TOP give-PST
 ‘(I) gave the money to him alone.’

(4-88) *unu mjaaku+pžtu ukka=u=mai tur-a-da,*
 that Miyako+man debt=ACC=even take-THM-NEG.MED

unu irav+pžtu=n fii-tar=ca.
 that Irabu+man=DAT give-PST=HS

‘The man from Miyako decided not to take debt (from the man from Irabu), and gave (the debt) to the man from Irabu.’

On the other hand, the semantics of allative case and dative case can also be described with the vector of an action. As is schematically shown below, allative case is the locus to which the action is directed (from an agent [x]), while dative case is the locus from which the action is directed (to a patient [x]), or simply unmarked for the vector (in cases where the action is static/psychological).

(4-89) Allative and dative: vector of action

- a. [x] >>>>> [y]_{ALL}
- b. [x] <<<<< [y]_{DAT} (e.g. when [y] is the effector, or the dative subject agent)
- c. [x] ----- [y]_{DAT}

Another area in which the semantic difference in terms of (4-89) is clearly seen is causative. The indirect object in causative constructions (which encodes the causee role) opts for dative case in most examples. This is illustrated in (4-90) below, where the extended transitive causative clause is underlined. As is shown, in an extended transitive causative, the underlying agent of an underived verb becomes the causee, which is encoded as indirect object (*jarabi-mmi* ‘children’), while the underlying patient remains patient, which is encoded as direct object (*akavdi=nu mm-gama* ‘a small potato’). The semantic relationship between the causee and the patient is that the action of pulling out is directed from the causee to the patient, thus demonstrating the type (4-89b), which is then naturally encoded by dative case as opposed to allative case.

(4-90) *jarabi-mmi=n akavdi=nu mm-gama=u*
 child-PL=DAT red.arm=GEN potato-DIM=ACC

pžk-as-i-i=du, nara=a im=nkai ik-i-i,
 pull.out-CAUS-THM-MED=FOC oneself=TOP sea=ALL go-THM-MED

suu=ju=mai tur-Ø.
 seaweed=ACC=too take-NPST

‘(I) had children pull out red-armed potatoes (i.e. small and premature potatoes),
 whereas (I) myself go to the sea and take seaweeds.’

One of few attested examples in which allative encodes indirect object in a causative is given below.

(4-91) *ba=a mii=nu maada=a mii-n-Ø=ssiba=du,*
 1SG=TOP eye=NOM very=TOP see-NEG-NPST=so.that=FOC

kazi=nkai jum-asī-tar.
 Kazu=ALL read-CAUS-PST

‘I don’t have good sight, so (I) had Kazu read (the letter).’

Most examples of allative-marked causees involve a situation where there should be a more appropriate candidate who carries out the action of the underived verb (e.g. in (4-91) above it should be the speaker) but for some reason such a role has been passed to someone else (e.g. in (4-91) above *kazi*).

4.3.5. Instrumental =*sii*

Instrumental case marks an instrument or a cause (peripheral argument).

(4-92) *fizi=sii* *jari+zin=nu=baa* *sak-i-i=ju,*
mouth=INST worn.out+clothes=ACC=TOP split.up-THM-MED=EMP

ui=sii *sazi-nagi=mai* *cifi-tar=dooi.*
that=INST towel-APPR=too make-PST=EMP

‘(We) would split up worn out clothes with mouth (i.e. teeth), and (one) would make towels and so on from that (i.e. split cloths)’ [instrument]

(4-93) *umaci=sii* *akaras-i-Ø.*
fire=INST light.up-THM-IMP
‘Light up with fire.’ [instrument]

(4-94) *kanamar+jam=sii=du* *niv-vi+ur-Ø.*
head+disease=INST=FOC lie-THM+PROG-NPST
‘(He) is lying with headache.’ [cause]

It is possible for =*sii* to encode a means of transportation when subject is in control (e.g. as a driver), but not when subject is not in control (e.g. as a passenger). In the latter case, the ablative case =*kara* (§4.3.8) is used.

(4-95) *ba=a kuruma=kara=du ifi-tar.*
 1SG=TOP car=ABL=FOC go-PST
 ‘I went by car.’ [as a driver]

(4-96) *ba=a kuruma=kara=du ifi-tar.*
 1SG=TOP car=ABL=FOC go-PST
 ‘I went by car.’ [as a passenger]

4.3.6. Associative =tu

Associative case has two different functions that involve two different structures. First, it connects two NPs into a single complex head ($NP_1=tu NP_2$), just like ‘and’ in English. In Irabu =tu is cliticised to the first (head of) NP. The second NP may also be marked by =tu, thus showing the structure $NP_1=tu NP_2=tu$, which is then followed by case.

(4-97) *banti=tu vvadu=u agu+dusi jar-Ø=ruda.*
 1PL=ASC 2PL=TOP friend+friend COP-NPST=AD.ASR
 ‘We and you are close friends, aren’t us?’

(4-98) *naa=ga ffa=tu mama+ffa=tu=u*
 oneself=GEN child=ASC step+child=ASC=ACC

im=nkai saar-i-i ifi-tar=ca.
 sea=ALL take-THM-MED go-PST=HS
 ‘(She) took her own child and her stepchild to the sea.’

(4-99) *kui=tu* *kui=tu* *nzi=nu=ga* *masi?*
 this=ASC this=ASC which=NOM=FOC better
 ‘(Of) this and this, which is better?’

A second function of =*tu* is to mark a peripheral argument encoding an associative role, analogous to ‘with’ in English.

(4-100) *miju+sinsii-ta=tu* *ucinaa=nkai* *ifi-tar.* *banti=a=ju.*
 Miyo+teacher-PL=ASC Okinawa=ALL go-PST 1PL=TOP=EMP
 ‘We went to Okinawa with Teacher Miyo and others.’

(4-101) *kunu* *tuz=za* *sitabutu=tu* *mmja* *maar-i-i*
 this wife=TOP bedfellow=ASC INTJ wander-THM-MED

ur-∅=pazi=tii *umu-i-i...*
 PROG-NPST=maybe=QT think-THM-MED

‘This wife (of mine) is probably keeping company with a bedfellow, thought (the husband)...’

4.3.7. Comparative =*jarruu*

=*jarruu* marks a peripheral argument encoding a comparative relation, roughly corresponding to ‘than’ in English.

(4-102) *im=nu munu=jarruu pai=kara=nu munu=nu=du masi*
 sea=GEN thing=CMP field=ABL=GEN thing=NOM=FOC better

‘The things from field are better than the things of the sea.’

(4-103) *aca=nu usi=nu mumu=jarruu*
 tomorrow=GEN cattle=GEN leg=CMP

kjuu=nu macja=nu mumu.
 today=GEN bird=GEN leg

‘Rather than tomorrow’s cattle’s leg, today’s bird’s leg.’ [i.e. immediate small profit is more valuable than uncertain bigger profit.]

This clitic developed from the copular *jar + suu* (§4.2.1.8), with /s/-to-/r/ assimilation unique to the formal noun *suu* (§2.10.3).

4.3.8. Ablative =*kara*

The clitic =*kara* functions either as an ablative case marker of a peripheral argument encoding source, beginning point, or path (‘plorative’), as in (4-104) to (4-107) below, or as a limiter encoding primacy, i.e. ‘primarily; first; to begin with’, as will be described in §9.4.5.

(4-104) *guu=nu mii=kara unu pav=nu idi-i c-ci-i,*
 cave=GEN inside=ABL that snake=NOM exit-MED come-THM-MED

kanu midum=mu=du saar-i-i ifi-tar=ca.
 that woman=ACC=FOC take-THM-MED go-PST=HS
 ‘From inside the cave, that snake came out, and took that woman away.’
 [source]

(4-105) *uri=u=baa pžtu=kara=du cifi-tar=ri.*
 that=ACC=TOP man=ABL=FOC hear-PST=eh
 ‘(You) heard about that from someone, eh?’ [source]

(4-106) *kjuu=kara aca=gami kakar-kutu ja-i-ba,*
 today=ABL tomorrow=LMT sustain-NPST.OBL COP-THM-CVB.CSL

ba=a mmja ik-ai-n-Ø.
 1SG=TOP INTJ go-POT-NEG-NPST
 ‘(The job) will last from today to tomorrow, so I cannot go.’
 [beginning point]

(4-107) *mmi-gama=nu ir=nu mcī=kara sugu kunu*
 sea-DIM=GEN west=GEN road=ABL now this

mazimunu=nu=du kaju-i+ur-Ø=pazi.
 evil.spirit=NOM=FOC go-THM+PROG-NPST=maybe
 ‘Maybe through the road (which is) west to the sea, this evil spirit is going (to
 my house), perhaps.’ [path]

4.3.9. Limitative =*gami*

The clitic =*gami* functions either as a limitative case marker of a peripheral argument encoding limitation ‘until; as far as’, as is shown in (4-108) and (4-109) below, or as a limiter encoding emphasis (§9.4.7).

(4-108) *icinensjee=kara* *cjuugakkoo=gami* *zazaa=tti*
freshman=ABL junior.highschool=LMT ONM=QT

suru-i-i *mmja* *cjokugo=ti* *asi-ta-m.*
gather-THM-MED INTJ Imperial.speech=QT do-PST-RLS

‘From freshmen (of elementary school) to (students of) junior high school, people gather and line up, and (the principal) read Imperial speech.’

(4-109) *ici=gami=mai* *ganzuunar-ras-i-i* *nagaiki* *as-su=juu.*
when=LMT=even good.health-VLZ-THM-MED long.live do-IMP=COR

‘For all time (lit. Until whenever) keep good health and live long.’

4.3.10. Case ellipsis

Case ellipsis of core argument NPs is motivated by complex factors that I have not been able to identify in full detail. The full identification of the exact factors which contribute to case ellipsis is an important future research topic. Below I note some of the major contributors to case ellipsis.

First, when core argument NPs are followed by certain limiter clitics or the topic marker =*a*, the nominative case must be ellipted. Thus if a subject NP is marked by a limiter clitic =*mai* ‘too; even’, =*dumma* (emphasis), or topic clitic =*a*, nominative case

is always ellipted.

(4-110) *ba=a* *uri=u=baa* *s-si+u-Ø-m*
1SG=TOP that=ACC=TOP know-THM+PROG-NPST-RLS
'I know that, too.'

(4-111) *ban=mai* *uri=u=baa* *s-si+u-Ø-m*
1SG=too that=ACC=TOP know-THM+PROG-NPST-RLS
'I know that, too.'

(4-112) *ban=dumma* *uri=u=baa* *s-si+u-Ø-m*
1SG=EMP that=ACC=TOP know-THM+PROG-NPST-RLS
'I know that, too.'

Second, a case-marked NP tends to be more emphatic than a case-ellipted NP. In other words, case ellipsis tends to occur when the NP is not salient in discourse. In the short dialogue below, the direct object NP in the speech of A is not case-marked, and it is followed by the limiter clitic =*mai* 'even'. However, in the speech of B the same direct object carries accusative case-marking and this example with an overt case is more emphatic: as is shown, focus marking can occur when case-marked object and =*mai* co-occur, but does not occur when case-ellipted object and =*mai* co-occur. Thus, other things being equal, a case-marked NP is more emphatic than a case-ellipted NP.

(4-113) A. *kuri=a* *nau=mai* *s-sa-n-Ø=dara=i.*
3SG=TOP what=even know-THM-NEG-NPST=EMP=eh

‘This (woman) doesn’t know anything, does she?’

B. *gui! kuri=a nau=ju=mai=du s-si+u-Ø-m!*

Wow 3SG=TOP what=ACC=even=FOC know-THM+PROG-NPST-RLS

‘Come on! This (woman) knows everything!’

Thirdly, when a core argument NP is non-referential, it is more likely that the case of the NP will be ellipted. This factor is related to the second, i.e. saliency in discourse.

(4-114) *kan tur-ga ik-a-di.*

crab catch-CVB.PUR go-THM-INT

‘Let’s go to catch crabs.’

(4-115) *unu kan=nu tur-ga ik-a-di.*

that crab=ACC catch-CVB.PUR go-THM-INT

‘Let’s go to catch that crab.’ [pointing to a crab that is moving]

Finally, there are a couple of important syntactic factors: subordinate clauses are more likely to induce case ellipsis than main and coordinate clauses, and copular subject is more likely to induce case ellipsis than subject in other constructions.

(4-116) a. *ami fii-Ø tukja=n=na nau=ju=ga asi-kutu?*

rain fall-NPST time=DAT=TOP what=ACC=FOC do-OBL

‘What should (we) do (in the time) when the rain is falling?’

b. ami=nu *fī-kutu.*
rain=NOM fall-OBL
‘It will rain.’

(4-117) a. žžu *fau-∅* *tukja=n=na* *nausi=ga* *asi-kutu?*
fish eat-NPST time=DAT=TOP how=FOC do-OBL
‘What should (we) cook when we eat fish?’

b. žžu=u *fau-kutu.*
fish=ACC eat-OBL
‘(I) am supposed to eat fish (for today’s lunch).’

(4-118) ujakii=ti=nu pžtu *ucinaa+pžtu,*
rich=QT=GEN man Okinawa+man

kibann=ti=nu pžtu *mjaaku+pžtu* *a-tar=ca.*
poor=QT=GEN man Miyako+man COP-PST=HS

‘The rich man was a man from Okinawa, (while) the poor man was a man from Miyako.’

Chapter 5

Morphology of nominals and adnominals

This chapter presents the subclassification and morphology of the nominal word class and the adnominal word class and their internal structures. As noted in Chapter 3, a nominal is a word that only heads an NP, serving syntactically as an argument, a predicate nominal, or the modifier of an NP in a recursive manner. Adnominals are a very small class. I deal with nominals and adnominals together in this chapter because they are defined in terms of NP structure.

Nominals fall into five subclasses based on their syntactic and semantic features. These are: pronouns, nouns, numerals, interrogatives, indefinites, and non-pronominal (manner and locative) demonstrative nominals. At this stage, one note is necessary about the fact that numerals and certain demonstratives are classified as nominals. They can serve as minimal NPs and demonstrate all of the three syntactic functions of NPs (arguments, predicates, or the modifier of NPs), though the argument function may be rarely attested (specifically, in demonstrative manner words). Even though not criterial for the nominal word class, unlike typical nominals such as nouns, it is not common for these nominals to be modified by another NP or an adnominal (clause).

5.1. Nominals and adnominals: overview

5.1.1. The distribution in terms of NP structure

Both nominals and adnominals occur in NP structure. As was noted in §3.3.1, a nominal is defined as a word that exclusively heads an NP. NP structure is recursive, and so an NP may be the modifier of another NP. Thus, the element filling the modifier slot of an NP in (5-1) is actually an NP itself. This is evidenced in the fact that it also carries the

NP extension, i.e. case.

(5-1) *agu=nu* *jaa=n=du* *asuv-tar.*
friend=GEN child=DAT play-PST
'(I) played at (my) friend's house.'

Thus, *agu* in (5-1) is an NP, in the same sense that *agu=nu jaa* in (5-2) below is an NP. The difference is that *agu* in (5-1) is a minimal NP, whereas *agu=nu jaa* in (5-2) is a complex NP.

(5-2) *agu=nu* _____ *jaa=nu* *mai=n=du* *asuv-tar.*
friend=GEN house=GEN front=DAT=FOC play-PST
'(I) played in front of (my) friend's house.'

On the other hand, adnominals, like *unu* in (5-3), only fill the modifier slot of an NP. They cannot be considered minimal NPs, since they do not *head* an NP. They do not carry case, the NP extension.

(5-3) *unu* *jaa=n=du* *asuv-tar.*
that house=DAT=FOC play-PST
'(I) played at that house.'

5.1.2. Demonstratives

Demonstrative is a functional category, not a word class, as some demonstratives are nominals and some are adnominals.

Demonstrative roots are bound morphemes from which are derived either pronouns or non-pronominal demonstratives, by attaching derivational affixes such as *-(r)i* (pronominaliser), *-ma* (locative), *-i* (manner), and *-nu* (adnominal). The demonstrative root formally distinguishes between proximate (close to both the speaker and the hearer), medial (close to the hearer), and distal (distant from both).

TABLE 5-1. Demonstrative root and derived forms

		PROXIMATE	MEDIAL	DISTAL
Pronoun	Singular	<i>ku-(r)i</i>	<i>u-(r)i</i>	<i>ka-(r)i</i>
	Plural	<i>ku-nukja/ku-ntja</i>	<i>u-nukja/u-ntja</i>	<i>ka-nukja/ka-ntja</i>
Locative		<i>ku-ma</i>	<i>u-ma</i>	<i>ka-ma</i>
Manner word		<i>ku-i</i>	<i>a-i</i>	<i>ka-i</i>
Adnominal		<i>ku-nu</i>	<i>u-nu</i>	<i>ka-nu</i>

Demonstrative adnominals belong to the adnominal word class, whereas all other demonstratives belong to the nominal word class. Demonstrative pronouns are composed of a demonstrative root (*ku-* for proximate, *u-* for medial, and *ka-* for distal) and a demonstrative pronominaliser which further distinguishes singular and plural (see §5.2.2.1 for more detail). The parenthesised /r/ is retained when the following /i/ is followed by a vowel, as in *ku(r)i* ‘this’ + =a (topic) > *kuria* [kurja:], or *ku(r)i* + =u (accusative) > *kuri=u* [kurju:]. Otherwise /r/ is often deleted, as in *ku(r)i* > *kui* ‘this’, *ku(r)i* + =n (dative) > *kui=n*, especially in fast speech.

In addition to these frequently used demonstratives in which a demonstrative root is followed by a derivational affix to form a nominal or adnominal stem, there is a compounding strategy in which a demonstrative root is directly followed by a nominal root to form a nominal word:

(5-4)	a.	<i>ku+pagi</i>	b.	<i>u+pagi</i>	c.	<i>ka+pagi</i>
		this+bigness		that+bigness		that+bigness
		‘this size’		‘that size’		‘that size’

(5-5)	a.	<i>ku+daki</i>	b.	<i>u+daki</i>	c.	<i>ka+daki</i>
		this+state		that+state		that+state
		‘like this’		‘like that’		‘like that’

Also, there are a few nominals (especially time nouns) which contain one of the three demonstrative roots, as in *kunur* ‘these days’ (which apparently contains the proximate demonstrative root *ku-*) and *un* ‘those days’ (which apparently contains the medial demonstrative root *u-*). However, as these examples show, such forms are not systematically combinable with the full set of demonstrative roots, but rather are lexicalised.

5.2. Subclassification of nominals

5.2.1. Nouns

A noun functions as an NP of any kind (i.e. argument, predicate, and modifier of a larger NP). A noun may consist of a root alone, as in *jarabi* ‘child’, but may also be morphologically complex with various derivational affixations (as in *jarabi-gama-mmi* ‘child-DIM-PL: little children’) and/or compounding or reduplication (as in *biki+jarabi* ‘male+child: boy’). The derivational morphology of nominals is described in §5.3.

(5-6) *jarabi=nu=du* *nak-i+ur-Ø.*
 child=NOM=FOC cry-THM+PROG-NPST
 ‘A child is crying.’ [subject argument NP]

(5-7) *jarabi=u=du* *jurav-tar.*
 child=ACC=FOC call-PST
 ‘(x) called a child’ [direct object argument NP]

(5-8) *uri=a* *jarabi=dara*
 3SG=TOP child=CRTN
 ‘It’s a child’ [predicate NP]

(5-9) *jarabi=nu* *cin*
 child=GEN clothes
 ‘A child’s clothes’ [the modifier of an NP]

Time nouns such as *aca* ‘tomorrow’, *cinu* ‘yesterday’, *situmuti* ‘morning’, and *mainici* ‘everyday’ can additionally function adverbially. They directly modify predicates without carrying case.

(5-10) a. *cinu=du* *asi-tar*
 yesterday=FOC do-PST
 ‘(I) did (the job) yesterday.’ [*cinu* is a nominal]

b. *juu=du asi-tar.*
 very=FOC do-PST
 ‘(I) did (the job) much.’ [*juu* is an adverb]

(5-11) a. *situmuti=du par-tar=ca.*
 morning=FOC leave-PST=HS
 ‘(He) left (in the) morning, they say.’ [*situmuti* is a nominal]

b. *siġu=du par-tar=ca.*
 shortly=FOC leave-PST=HS
 ‘(He) left shortly.’ [*siġu* is an adverb]

5.2.2. Pronouns

Pronouns are words that have little intrinsic meaning, referring to entities in the immediate physical or discourse context, and which normally functions as NPs without modifiers. They include personal pronouns, demonstrative pronouns, and reflexive pronouns. As was noted in §4.3.2, one systematic behaviour shared by pronouns is that they require =*ga* rather than =*nu* for nominative and genitive cases. Also, pronouns formally distinguish number for human referents.

When a pronoun heads an NP, a modifier does not normally occur, though it is possible for an adnominal clause to modify a pronoun, as in:

(5-12) [*vva=ga aḡ-ḡi+u-tar*] *kari*=*a=da?*
 2SG=NOM say-THM+PROG-PST 3SG=TOP=how.about
 ‘What happened to that (guy) [who you were talking about]?’

5.2.2.1. Personal pronouns and demonstrative pronouns

Irabu is a language where personal pronouns exist only for first and second persons, exemplifying Bhat's (2004: 134) 'two person' type. Functionally speaking, person reference in Irabu is a system where first and second person reference (speech participant reference) is marked by distinct forms that are used exclusively for person reference, or personal pronouns, while third person reference (speech non-participant reference) is obligatorily combined with demonstrative reference, formally coded by demonstrative pronouns.

TABLE 5-2. Personal and demonstrative pronouns in terms of function

	Person reference	Demonstrative reference	Form
1st person	+	-	Personal pronoun
2nd person	+	-	Personal pronoun
3rd person	+	+	Demonstrative pronoun

TABLE 5-3. Personal pronouns and demonstrative pronouns in terms of form

		Singular	Plural (root-PL)
1 st person		<i>ba(n)</i>	<i>ban-ti</i>
2 nd person		<i>vva</i>	<i>vva-du</i>
3 rd person	proximate	<i>ku-(r)i</i>	<i>ku-nukja/ku-ntja</i>
	medial	<i>u-(r)i</i>	<i>u-nukja/u-ntja</i>
	distal	<i>ka-(r)i</i>	<i>ka-nukja/ka-ntja</i>

As can be seen, personal and demonstrative pronouns distinguish number (singular vs. plural) for human referents. Thus the plural forms of the third person are used for human referents only, which is indicated by the broken lines (*-nukja* and *-ntja* are

allomorphs with no semantic difference; probably **-nukja* > *-ntja* diachronically).

The first person forms deserve special attention in two respects. First, the singular form is irregularly bound (*ba-*) when followed by *=ga* (nominative or genitive) or *=a* (topic). When followed by *=u* (accusative), the first person singular form is realised as another bound stem *banu-*. Nakama (1992) reports that *=n* (dative) also requires this latter type of stem, giving rise to *banu=n*, which is also wide-spread across Miyako varieties, but I could not elicit the form or find it in the text data. Rather, dative is realised as simple *ban* ($\text{nasal}_1 + \text{nasal}_2 > \text{nasal}_1$; sequential nasal deletion; §2.10.2).

<p>(5-13) <i>ba=ga</i> <i>ffa</i></p> <p>1SG=GEN child</p> <p>‘My child’</p>	<p>cf. <i>ban=kara</i> <i>tur-tar</i></p> <p>1SG=ABL take-PST</p> <p>‘(x) took (something) from me’</p>
--------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------

(5-14) *ba=a* *par-a-di*.

1SG=TOP leave-THM-INT

‘I will leave.’

[irregular]

(5-15) *banu=u* *mii-ru*.

1SG=ACC look-IMP

‘Look at me’

[irregular]

(5-16) *ban=∅* *munu=u* *fii-ru*.

1SG=DAT thing=ACC give-IMP

‘Give me something to me.’ [sequential nasal deletion]

Second, the first person plural form is often used to encode ‘us but not you’ (i.e. exclusive implication). If one wants to express ‘me/us and you’ (inclusive) explicitly, the noun *duu* ‘body’ is used instead. That *duu* is a noun rather than a pronoun is indicated by the fact that it carries nominative/genitive =*nu*, and does not contain a plural morpheme.

(5-17) a. *kuma=a* *banti=ga* *sim-i+ur-∅* *sima.*
this.place=TOP 1PL=NOM live-THM+PROG-NPST island
‘This is the land we live in’ (e.g. speaking to a traveller)

b. *kuma=a* *duu=nu* *sim-i+ur-∅* *sima.*
this.place=TOP body=NOM live-THM+PROG-NPST island
‘This is the land we live’ (e.g. speaking to audience in the local congress)

(5-18) a. *banti=ga* *ffa*
1PL=GEN child
‘Our child’ (e.g. when introducing the child to someone)

b. *duu=nu* *ffa*
body=GEN child
‘Our child’ (e.g. when speaking to the partner)

5.2.2.2. Reflexive pronouns

Reflexive pronouns are *na(r)a* ‘oneself’ (singular) and *naa-du* ‘selves’ (plural). The parenthesised /r/ is deleted when *na(r)a* is followed by nominative/genitive =*ga*, as in *na(r)a* + =*ga* > *naa=ga*, or by the plural morpheme *-du* as shown above. If an NP is a subject and if another NP in the same clause is co-referential with it, a reflexive pronoun is substituted for the latter. This rule is obligatory in the case of third person pronouns but is optional in first and second persons (because the use of the first/second person pronouns for the co-referential NPs would not result in any ambiguity).

(5-19) 1st person subject > the same referent as a direct object

ba=a *kagami=n* *nara=u=du* *mii-tar.*
 1SG_i=TOP mirror=DAT RFL_i=ACC=FOC see-PST
 ‘I saw myself in a mirror.’

Or *ba=a* *kagami=n* *banu=u=du* *mii-tar.*
 1SG_i=TOP mirror=DAT 1SG_i=ACC=FOC see-PST

(5-20) 2nd person subject > the same referent as a direct object

vva=a *kagami=n* *nara=u=ru* *mii-tar?*
 2SG_i=TOP mirror=DAT RFL_i=ACC=FOC see-PST
 ‘Did you see yourself in a mirror.’

Or *vva=a* *kagami=n* *vva=u=ru* *mii-tar.*
 1SG_i=TOP mirror=DAT 2SG_i=ACC=FOC see-PST

(5-21) 3rd person subject > the same referent as a direct object

kari=a *kagami=n* *nara=u=du* *mii-tar.*
that.person_i=TOP mirror=DAT RFL_i=ACC=FOC look-PST
'S/he looked at himself/herself in the mirror.'

cf. *kari=a* *kagami=n* *kari=u=du* *mii-tar.*
that.person_i=TOP mirror=DAT that.person_j=ACC=FOC look-PST
'S/he looked at him/her in the mirror.'

na(r)a and *naadu* have one characteristic apparently not typical in reflexive pronouns cross-linguistically, i.e. as pronouns co-referential with subject 'in the same clause' (Schachter and Shopen 2007: 26). In quoted speech (typically in narratives), they can occur sentence-initially with no obvious reflexive controller (i.e. subject) present in the clause, as in (5-22) and (5-23) below. Such examples are typically accompanied by the hearsay marker =*ca* (§9.3.3) or the quotative marker =*tii* (§11.4.4.1) after the quoted portion.

(5-22) *nara=a* *ik-a-di=ca.*
RFL=TOP go-THM-INT=HS
'(X_i says) "I_i'll go".'

(5-23) *nara=u=ba* *pus-i-i* *nci+a-r=tii*
RFL=ACC=TOP dry-THM-MED put+RSL-NPST=QT
'(Mermaid_i said) "(they) dried me_i on (the roof)"'

This ‘sentence-initial reflexive’ suggests that the reflexive controller is not necessarily an overt subject in the clause in which the reflexive pronoun appears, but the subject of a quotative expression that can be contextually recovered. For example, as is shown in the free translation of (5-22) and (5-23), it is possible to recover the clause ‘X said’, and the third person ‘subject’ X controls the reflexive.

Functionally speaking, the appearance of the ‘sentence-initial reflexive’ in quoted speech indicates the commencement of a quotation, and this is a helpful indicator especially because Irabu is an OV language where the actual quotation markers such as =*tii* come only after the quoted speech section.

5.2.3. Numerals

Numerals are made up of a numeral root and a classifier suffix. They can function as NPs, but most of their uses are adverbial, i.e. modifying predicates with no case (in generative grammar this would be called ‘quantifier float’). The adverbial function is illustrated in (5-24) to (5-26):

(5-24) *pžtu=nu=du* *mž-taar* *kuma=n* *ur-Ø*.
 man=NOM=FOC three-CLF.HUMAN this.place=DAT exist-NPST
 ‘Persons, (with) three members, are here.’

(5-25) *pžtu=nu=du* *kuma=n* *mž-taar* *ur-Ø*.
 man=NOM=FOC this.place=DAT three-CLF.HUMAN exist-NPST
 ‘Persons are here (with) three members’

(5-26) *mž-taar* *ur-∅*.
 three-CLF.HUMAN exist-NPST
 ‘(Persons) are here (with) three members’

Note in (5-26) that it is not possible to analyse the numeral as floating, as the head nominal from which the numeral should float (as in, say, *mžtaar=nu pžtu* ‘three persons’) is missing here. Rather, the examples above are better analysed as being used adverbially, one very common characteristic of nominals in Irabu.

When used as an NP, a numeral either functions as the modifier of an NP (as in (5-27) below), or as an argument NP (as in (5-28) to (5-32) below) or a predicate NP (as in (5-33) below).³¹ It is very common for a numeral to be modified by another NP, as shown in (5-31), or by an adnominal (clause), as shown in (5-29) and (5-30). In (5-28), *mž-taar* ‘three persons’ and *fi-taar* ‘two persons’ function anaphorically just like pronouns. As was noted in §4.3.2, whereas in the NP modifier function numerals opt for genitive =*nu* rather than =*ga*, in the subject function they take the nominative =*ga* rather than =*nu*.

(5-27) *mž-taar=nu* *pžtu*
 three-CLF.HUMAN=GEN man
 ‘Three persons’

³¹ An anonymous reviewer argued that a numeral does not head an NP but serves as a modifier without a head noun, i.e. it demonstrates a headless structure, as in the case of English (e.g. *I saw three* to mean *I saw three persons*). However, unlike English, a numeral in Irabu is a word consisting of a numeral root and a classifier suffix, thus it is impossible to compare numerals in Irabu with those in other languages like English directly. Saying *I saw three (persons)* in English (where the head in brackets is omitted) is different from saying this in Irabu, since the bracketed head must be stated in the form of classifier. Thus, the numeral *mž-taar* (three-CLF.HUMAN) can be used either independently, as in (5-26), or as a modifier of an NP, as in (5-27).

(5-28) *mž-taar=ga* *kuma=n,*
 three-CLF.HUMAN=NOM this.place=DAT

fitaar=ga *kama=n* *u-ta-m.*
 two-CLF.HUMAN=NOM that.place=DAT exist -PST-RLS

‘Three (of them) were here, and two were there.’ [subject argument NP]

(5-29) *unu* *mž-taar=ru* *saar-i-i* *kuu-Ø.*
 that three-CLF.HUMAN=ACC take-THM-MED come-IMP

‘Bring those three persons.’ [Direct object argument NP]

(5-30) *ifisa=n* *sin-tar* *mž-taar=nu* *paka*
 war=DAT die-PST three-CLF.HUMAN=GEN grave

‘The grave of three persons who died in the war’ [Direct object argument NP]

(5-31) *kama=nu* *mž-taar=nkai* *munu=u* *fii-ru.*
 that.place=GEN three-CLF.HUMAN thing=ACC give-IMP

‘Give things to the three persons there.’ [Indirect object argument NP]

(5-32) *ju-taar=kara* *mž-taar=n=du* *nar-tar.*
 four-CLF.HUMAN=ABL three-CLF.HUMAN=DAT=FOC become-PST

‘(The number of people) became three from (the original) four.’ [peripheral argument NP and extended core argument NP]

(5-33) *kuma=n* *t-tar=ra* *mž-taar=du* *a-tar.*
 this.place=DAT come-PST=TOP three-CLF.HUMAN=FOC COP-PST
 ‘(The people who) came here was three (persons).’ [Predicate NP]

Depending on what is being counted, both numeral roots and classifier suffixes may take on different forms. For example, as illustrated in the examples above, humans are counted by the HUMAN classifier *-taa(r)* (‘persons’), whereas, as in (5-34) and (5-35) below, inanimate nouns are counted by various classifiers such as the HOUSE classifier *-kjuu* or the GENERAL classifier *-ci*. Also, numeral roots are variable depending on the classifier suffix they carry. Thus ‘three houses’ in (5-34) and ‘three things’ in (5-35) differ both in the numeral root and the classifier suffix.

(5-34) *mž-kjuu=nu* *jaa.*
 three-CLF.HOUSE=GEN house
 ‘Three houses (or households)’

(5-35) *mii-ci=nu* *macigai*
 three-CLF.GENERAL=GEN error
 ‘Three errors’

As is shown in the examples above, the numeral form also differs depending on the classifier attached to it. In the case of a numeral for ‘three’, the basic form is *mž-*, which may be *mii-* when followed by the general classifier *-ci*. See Tables 5-4 and 5-5 for more examples of classifiers and numerals.

In information questions, the numeral root is replaced by *ifi-* ‘how many’, as in:

(5-36) *ifti-taar=nu* *pžtu=ga?*
 how.many-CLF.HUMAN=GEN man=FOC
 ‘How many persons (are there)?’

(5-37) *ifti-kjuu=nu* *jaa=ga?*
 how.many-CLF.HOUSE=GEN house=FOC
 ‘How many houses (or households) (are there)?’

(5-38) *ifti-ci=nu* *macigai=ga?*
 how.many=CLF.GENERAL=GEN error=FOC
 ‘How many errors (are there)?’

Below are two major sets of numerals. The numeral set for general inanimate nouns (TABLE 5-4) is morphologically most transparent, and most of the numeral roots here are also used in cardinal counting in isolation.

TABLE 5-4. Numerals for counting general inanimate nouns

Numbers	word form	morphological structure
1	<i>piti-ci</i>	NUM -CLF:GENERAL
2	<i>fitaa-ci</i>	
3	<i>mii-ci</i>	
4	<i>juu-ci</i>	
5	<i>ici-ci</i>	
6	<i>mm-ci</i>	
7	<i>nana-ci</i>	
8	<i>jaa-ci</i>	
9	<i>kukunu-ci</i>	
10	<i>tuu</i>	NUM
11 to 19	<i>tuu+piti-ci</i> , etc.	NUM (‘10’+‘1’, etc.) -CLF:GENERAL

20+ (loans)	<i>nizjuu</i>	non-native number system (< Japanese)
How many	<i>ifi-ci</i>	NUM.WH-CLF.GENERAL

The basic numeral roots in the table above also participate in other numeral + classifier combinations as in TABLE 5-5, though the numeral roots of lower numbers (especially ‘1’) tend to be irregular and suppletive. Note that in TABLE 5-5 the numeral root for ‘1’ is not the basic *pžtu*- but an irregular *tavkjaa*.

TABLE 5-5. Numeral word set for counting humans

Numbers	human	morphological structure
1	<i>tavkjaa</i>	suppletive form
2	<i>fi-taar</i> ³²	NUM -CLF:HUMAN
3	<i>mž-taar</i>	
4	<i>ju-taar</i>	
5	<i>ici=nu pžtu</i>	NUM + =GEN + <i>pžtu</i>
6	<i>muju=nu pžtu</i>	(with the minor exception for ‘six’)
7	<i>nana=nu pžtu</i>	
8	<i>jaa=nu pžtu</i>	
9	<i>kukunu=nu pžtu</i>	
10	<i>tuu=nu pžtu</i>	
11 to 19	<i>tuu-pitici=nu pžtu</i>	NUM -CLF:GENERAL + =GEN + <i>pžtu</i>
20 (loans)	<i>nizjuu</i>	Non-native system (< Japanese)
How many	<i>ifi-taar</i>	NUM.WH-CLF.HUMAN

5.2.4. Interrogatives

Interrogatives fall into six basic forms which are roots, and just two complex forms which are composed of a basic form plus other morpheme(s). The basic forms may function as NPs, and are thus nominals. On the other hand, complex forms are not straightforwardly classified as nominals.

³² Here, the numeral is underlyingly *fiita-*, with the second syllable deleted when followed by *-taar* (*fiita-taar* > *fi-taar*) by hapalogy. This analysis was suggested by an anonymous examiner of the thesis.

5.2.4.1. Basic forms

The basic forms, as listed in TABLE 5-6 below, can all serve as NPs in any of the three functions.

TABLE 5-6. Basic forms of Interrogative

Form	Meaning
<i>nau</i>	what
<i>taru</i>	who
<i>nza</i>	where
<i>nzi</i>	which
<i>ici</i>	when
<i>iccja</i>	how much; to what extent

Unlike typical nominals such as nouns, it is not common for interrogatives to be modified by another NP or an adnominal (clause), but it is possible, as shown in (5-42) and (5-43).

- (5-39) *nau=ju=ga* *fau-tar=ga?*
 what=ACC=FOC eat-PST=Q
 ‘What (did you) eat?’ [Argument NP]

- (5-40) *iccja=ga* *a-tar=ga?*
 how.much=FOC COP-PST=Q
 ‘How much was (it)?’ [Predicate NP]

- (5-41) *nza=nu* *pžtu=du* *a-tar?*
 where=GEN man=FOC COP-PST

‘Which place’s person was (he)?’ [Modifier of NP]

(5-42) *vva=a nza=nu taru=ga?*

2SG=TOP where=GEN who=Q

‘Who are you from whose family?’ [modified by NP]

(5-43) *vva=a iravci=nu nau=ju=ga nara-i+ur-Ø=ga?*

2SG=TOP Irabu.language=GEN what=ACC=FOC learn-THM+PROG-
-NPST=Q

‘What (element) in the Irabu language are you studying?’ [modified by NP]

The interrogatives *ici* ‘when’ and *iccja* ‘how much; to what extent’ can also be used adverbially.

(5-44) *asii mmja ici=ga fii-kutu?*

then INTJ when=FOC come-OBL

‘Then, when will (you) come?’

(5-45) *vva=a iccja=ga kav-tar=ga?*

2SG=TOP how.much=FOC buy-PST=Q

‘How much (did) you buy?’

It is not a straightforward matter to subclassify the numeral for *ifici* ‘how many’, as it exhibits characteristics of both numerals and interrogatives. On the one hand, it carries a classifier suffix just as numerals do; on the other hand, it marks an information

question just as interrogatives do. Also, the major syntactic criteria for distinguishing nominal subclasses, i.e. in terms of the syntactic functions, do not work here. However, there is a subtle but consistent difference between numerals (including ‘how many’) and interrogatives: when used as subject, numerals all take nominative case =*ga* rather than =*nu*, while interrogatives take =*nu* rather than =*ga*. Thus in (5-47), *ifitaar* ‘how many (people)’ takes =*ga*. However, it is much more common to use the numeral adverbially, as in (5-48), than as subject, as in (5-47).

(5-46) *taru=nu=ga sin-tar=ga?*
 who=NOM=FOC die-PST=Q
 ‘Who died?’

(5-47) *ui=kara=a ifi-taar=ga=ga sin-tar=ga?*
 that=ABL=TOP how.many-CLF.HUMAN=NOM=FOC die-PST=Q
 ‘Out of them, how many persons died?’

(5-48) *ui=kara=a ifi-taar(=ga) sin-tar=ga?*
 that=ABL=TOP how.many-CLF.HUMAN(=FOC) die-PST=Q
 ‘Out of them, how many persons died?’

5.2.4.2. Complex form: ‘how’

‘how’ is expressed with *nau* ‘what’ followed by instrumental case =*sii*. However, *nau=sii* is in most cases reduced to *nau=si*, and unlike an instrumental argument, *nau=si* can serve as head of a phrasal modifier NP, meaning ‘what kind of’ (5-50):

(5-49) *sjensoo uwar-i-i=kara nausi=ga nbjav-tar?*
 war finish-THM-MED=ABL how=FOC survive-PST
 ‘After the war finished, how did (you) survive?’

(5-50) *nausi=nu munu=u=ga kav-tar=ga?*
 how=GEN thing=ACC=FOC buy-PST=Q
 ‘What kind of thing did (you) buy?’

Since *nau=si(i)* has a conventional meaning ‘how?’ or ‘what kind?’, I describe it as a morpheme *nausi(i)*. Syntactically, *nausi(i)* directly modifies a predicate (i.e. adverbial) or is the modifier of an NP. The latter characteristic at first appears to justify treating *nausi* as an adnominal, but given that it carries the NP extension when functioning as the modifier of an NP, it is actually a minimal NP, i.e. a nominal word.

5.2.4.3. Complex form: ‘why/how’

The interrogative ‘why’ (or ‘how’) is expressed with a morphologically complex construction centring on *nau* ‘what’: *nau=sĩ=tii* (what=do=QT ‘(lit.) by doing what’). This construction functions adverbially. It is often realised as a fused form *nautti* or *nauttee*. Based on this morphological unity and the conventional semantics I describe *nau=sĩ=tii* and its variants as a single morpheme *nausĩtii* (~*nauttii*) meaning ‘why’ or ‘how’. They do not function as NPs. Rather they only function adverbially, directly modifying predicates. Thus they are exceptional ‘interrogative adverbs’.

(5-51) *nautti=ga par-tar=ga?*
 why=FOC leave-PST=Q

‘Why did (you) leave?’ or ‘In what way did (you) leave?’

5.2.5. Indefinites

An indefinite functions as an argument NP, a predicate NP, or the modifier of an NP. As shown in TABLE 5-7 below, indefinites all contain, at least historically, an interrogative. Indefinites derived from an interrogative + dubitative clitic =*gagara* ‘I wonder (how/what/why)’ (§9.3.2). Thus, *nau=gagara* ‘something’ is literally ‘I wonder what’. The historically complex form is synchronically tightly united and often exhibits the deletion of the syllable *ga* in the middle (*naugagara* > *naugara*). Also, the indefinite for ‘something’ undergoes irregular phonological reduction whereby the interrogative *taru* ‘who’ is realised as *tau*. I treat each indefinite form as a single morpheme based on its morphological unity, phonological irregularity, and a high degree of lexicalisation.

TABLE 5-7. Indefinites (a comparison with interrogative forms)

Interrogatives		Indefinites	
Form	Meaning	Form	Meaning
<i>nau</i>	what	<i>naugagara</i>	something
<i>taru</i>	who	<i>taugagara</i>	someone
<i>nza</i>	where	<i>nzagagara</i>	somewhere
<i>nzi</i>	which	<i>nzigagara</i>	either
<i>ici</i>	when	<i>icigagara</i>	sometime
<i>iccja</i>	how much; to what extent	<i>iccjagara</i>	some; some extent

Unlike nouns, it is uncommon for these to be modified by another NP or an adnominal (clause), but it is possible as shown in (5-55) and (5-56).

(5-52) *taugagara=nu=du sin-tar=ca*
 someone=NOM=FOC die-PST=HS
 ‘Someone has died, they say.’ [Argument NP]

(5-53) *taru? s-sa-n-Ø. taugagara=dara!*
 who know-THM-NEG-NPST someone=CRTN
 ‘(You said) who? I don’t know. (That’s) someone, anyway.’ [Predicate NP]

(5-54) *taugagara=nu ffa.*
 someone=GEN child
 ‘Someone’s child’ [Modifier of NP]

(5-55) *uma=nu naugara=u muc-i+kuu-Ø.*
 that.place=GEN something=ACC carry-THM+come-IMP
 ‘Bring the thing there.’ [modified by NP]

(5-56) *ik-i-i=ja mii-n-Ø nzagagara=nkai ik-a-di.*
 go-THM-MED=TOP EXP-NEG-NPST somewhere=ALL go-THM-INT
 ‘(I) will go to somewhere I have never been to.’ [modified by adnominal clause]

5.2.6. Non-pronominal demonstrative nominals

5.2.6.1. Demonstrative locatives

Demonstrative locatives (TABLE 5-1) serve as an argument or a predicate NP, and the modifier of an NP. Unlike nouns, it is not common for a demonstrative locative to be modified by another NP or an adnominal (clause), but such examples occur, as in

(5-60).

(5-57) *kuma=n=du* *ur-∅=dooi,* *uja.*
this.place=DAT=FOC exist-NPST=EMP father
'(We're) in this place, daddy.' [Argument NP]

(5-58) *sin-tar=ra* *kuma=ru* *a-tar=ru?*
die-PST=TOP this.place=FOC COP-PST=FOC
'(The place) (x) died was this place?' [Predicate NP]

(5-59) *kuma=nu* *nii=u* *tur-i-∅.*
this.place=GEN root=ACC take-THM-IMP
'Take (out) the root of this part.' [Modifier of NP]

(5-60) *ba=ga* *ur-∅* *kuma=kara* *massugu* *ifi-kutu.*
1SG=NOM exist-NPST this.place=ABL straight go-OBL
'(You) should go straight from this place (where) I am.'

5.2.6.2. Demonstrative manner words

Demonstrative manner words are the least typical nominals, in that their typical function is adverbial and their function as argument NPs is highly limited. According to my text database, where a demonstrative manner word functions as an argument NP, this NP is an instrumental NP, i.e. a peripheral argument, as shown in (5-64a). I found only one exception where a demonstrative manner word functions as direct object NP (5-64b). It is relatively common for demonstrative manner words to function as predicate NPs or as

modifiers of NPs. I could not elicit or find in texts examples where a demonstrative manner word is modified by another NP or an adnominal (clause).

(5-61) *ai=du* *asi-tar* *kai=du* *asi-tar=tii*
 that.way=FOC do-PST that.way=FOC do-PST=QT

ba=a *ubui+u-Ø-m=mu.*
 1SG=TOP remember+PROG-NPST-RLS=FOC

‘I cannot remember (things), (saying) “(I) did that way or did that way (i.e. did such and such things in such and such manner)”’. [adverbial]

(5-62) *ai=nu* *kutu=u=baa* *s-sa-n-Ø.*
 that.way=GEN thing=ACC=TOP know-THM-NEG-NPST

‘I don’t know things like that.’ [modifier of an NP]

(5-63) *ai=du* *a-tar=rju.*
 that.way=FOC COP-PST=EMP

‘(It) was like that.’ [predicate NP]

(5-64) a. *kui=sii* *nja-i-Ø* *t-ta-m=dara.*
 that.way=INST endure-THM-MED come-PST-RLS=CRTN

‘By that way, (I) have endured (i.e. have lived a severe life).’ [peripheral argument NP]

b. *mmja* *nau=ju=ga* *fau-tar=gagara* *ai=mai*

INTJ what=ACC=FOC eat-PST=I.wonder thay.way=even

s-si+u-Ø-m=mu.

know-THM+PROG-NPST-RLS=FOC

‘Well, what would (they) eat, could I know even the way (they ate)?’ [direct object argument NP]

5.3. The internal structure of the nominal word

The internal structure of the nominal word is schematically shown in (5-65):

(5-65) Stem (-DIMinutive)(-PLural)(-APPRoximative)

The stem slot may be filled by a nominal root which is in itself a free form, a compound stem, or a class-changed stem (e.g. agent nominal; §8.5.1). The three affixes are all derivational: diminutive, plural, and approximative. In principle, the restriction on derivational morphology depends not so much on the nominal subclass as on the semantic content of a stem. For example, the diminutive suffix *-gama* can mark either a noun or a demonstrative as long as it makes sense to encode ‘tininess’ or ‘modesty’, but cannot mark any nominal whose semantic content is incompatible with these notions. However, there does exist some interdependency between the subclass of nominals and derivational morphology. For example, the plural affix has different allomorphs for different nominal subclasses, as shown in §5.3.2.

5.3.1. Diminutive *-gama*

The diminutive suffix is *-gama*. As is illustrated in the following examples, the

diminutive suffix encodes a tiny entity (5-66), a modest degree (5-67), and so on, all of which concern the idea of ‘a little bit of’. In relation to this semantic entailment, it can express a modest attitude on the part of the speaker (5-68), which is appropriate when one asks something to the hearer with politeness, or a derogative meaning, as in (5-69).

(5-66) *ba=ga ffa-gama=a kanasi+munu.*
 1SG=GEN child-DIM=TOP lovely+thing
 ‘My little child is lovely’

(5-67) *saki-gama=u=du num-tar.*
 saki-DIM=ACC=FOC drink -PST
 ‘(I) drank a bit of sake.’

(5-68) *saki-gama=u tur-as-i-Ø.*
 saki-DIM=ACC take-CAUS-THM-IMP
 ‘Could you please pass me the sake?’

(5-69) *uma=nu junsja-gama*
 that.place=GEN policeman-DIM
 ‘The bluddy policeman (standing) there.’

5.3.2. Plural *-mmi/-ta, etc.*

There are several suffixes that mark plurality, depending on the lexical class of the root to which it is attached. For nouns, it is either *-mmi* or *-ta*. For pronouns it is *-ti* (first person), *-du* (second person; reflexive), or *-nukja* (third person; alternatively *-ntja*), as

listed in §5.2.2.1.

The plural affix *-mmi* is a grammaticalised form of a common noun *mmi* ‘crowd’, and encodes plurality of animate referents. For non-human animate referents, the suffixing of *-mmi* is somewhat disfavoured and an analytic expression making use of the common noun *mmi* is more preferred, as illustrated in (5-71b-c).

(5-70) *uma=n* *pžtu-mmi=nu=du* *ur-∅*.
that.place=DAT man-PL=NOM=FOC exist-NPST
‘There are people.’

(5-71) a. *uma=n* *tur-mmi=nu=du* *ur-∅*.
that.place=DAT bird-PL=NOM=FOC exist-NPST
‘There are birds.’

b. *uma=n* *tur=nu* *mmi=nu=du* *ur-∅*.
that.place=DAT bird=GEN crowd=NOM=FOC exist-NPST
‘There are a flock of birds in that place.’

c. *uma=n* *tur=nu* *mmi-as-i-i=du*
that.place=DAT bird=NOM crowd-VLZ-THM-MED=FOC

ur-∅.

PROG-NPST

‘In that place birds are making a crowd.’ [lit. In that place birds are doing crowd.]

-ta encodes associative plurality, translated as ‘(X and) his/her company’. Thus *-ta* can mark proper nouns, as in (5-72), while *-mmi* cannot (5-73).

(5-72) *uma=n* *zjunzi-ta=nu=du* *ur-Ø*.
 that.place=DAT Junji-PL=NOM=FOC exist-NPST
 ‘There are Junji and his company.’

(5-73) **uma=n* *zjunzi-mmi=nu=du* *ur-Ø*.
 that.place=DAT man-PL=NOM=FOC exist-NPST
 [Lit.] ‘There are several Junji’s.’

In old-fashioned speech such as traditional song lyrics, it is not uncommon to find cases where *-ta* is followed by *-mmi*:

(5-74) *mutui* *kagi=nu* *agu-ta-mmi*
 very beautiful=GEN friend-PL-PL
 ‘Very beautiful friends.’

The relative order is always *-ta* followed by *-mmi* as above, and there seems to be no difference in meaning between *agu-ta* ‘friends; (specific) friend and his/her company’ and *agu-ta-mmi*, or between other pairs in attested examples.

5.3.3. Approximative *-nagi*

The approximative suffix is *-nagi*. This suffix marks approximation, translated as ‘something like; or else; or like’, or ‘and so on’, which allows speaker to avoid an exact

identification of the referent.

(5-75) *pžtu-nagi=nu* *u-tar.*
 man-APPR=NOM exist-PST
 ‘There was a man or suchlike.’

(5-76) *uma-nagi=u* *sauc-cas-i-∅.*
 that.place-APPR=ACC cleaning-VLZ-THM-IMP
 ‘Clean around there.’

(5-77) *un-nagi=n=na* *nau=mai* *as-irai-t-tar.*
 that.time-APPR=DAT=TOP what=even do-POT-NEG-PST
 ‘(I) couldn’t do anything in those days.’

5.4. Adnominals

Adnominals are distinct from nominals in that the former are restricted to functioning as the modifier of an NP. Also, they do not carry case, which is obligatory for nominals unless an NP functions as a predicate. The adnominal class is very small and closed. Adnominals never carry derivational affixes such as nominal derivational affixes (§5.3).

TABLE 5-8. Adnominals

SUBCLASS	FORM	GLOSS
Demonstratives	<i>ku-nu</i>	‘this’ (proximate)
	<i>u-nu</i>	‘that’ (medial)
	<i>ka-nu</i>	‘that’ (distal)
Others	<i>daizina</i>	‘great; awful’

5.4.1. Demonstrative adnominals

There is a class of demonstrative adnominals, functioning only as the modifier of NPs.

- (5-78) *kunu* *pžtu=u* *sinsii=tim=dooi.*
this man=TOP teacher=HS=EMP
‘This man is a teacher, they say.’

The derivational suffix *-nu*, which derives an adnominal stem from a demonstrative root, may have developed from the genitive case clitic *=nu*. Synchronically, however, it is not a clitic, in that it attaches to a bound stem rather than to a free word.

5.4.2. Other adnominals

I could identify only one adnominal that is not a demonstrative. This is a recent loan from Japanese adjective *daiji=na* (*=na* is an adnominal marker of Japanese, which has become part of the stem in Irabu *daizina*). It functions as an intensifier, with either meaning of ‘great’ or ‘awful’.

- (5-79) *uri=a* *daizina* *s-sja=dooi.*
3SG=TOP great know-NLZ=EMP
‘That (guy) is such a knowledgeable person.’

- (5-80) *uri=a* *daizina* *jana+pžtu=dooi*
3SG=TOP great evil+man=EMP
‘That (guy) is such an evil person.’

Chapter 6

Verb morphology

This chapter sets out to describe the internal structure of verbs, focusing on both their inflectional and derivational morphology. The verb class is the only word class that shows inflection. The verb is thus unambiguously defined by inflection. In this respect, the copula is a verb, but it differs from other non-copula verbs in that it cannot head a verb phrase. It appears in a nominal predicate phrase (§7.2). A verb inflects word-finally. I call the portion of the verb word other than the inflection a stem. I call a minimal stem a root. However, a stem may be a compound and/or may be derived by affixation. A verb stem may be derived from another verb or from a property concept stem. The former process is described in this chapter, while the latter is described in Chapter 8.

6.1. Functional overview

6.1.1. Verb inflection and finiteness

A primary distinction is made between finite inflection, i.e. inflection that specifies tense and/or mood, and non-finite inflection, i.e. the inflection that specifies neither. Negative polarity is an inflectional category compatible with both inflection types.

Syntactically, finite verb forms can terminate a sentence, while non-finite verbs cannot terminate a sentence, always occurring subordinated, coordinated, or chained to a matrix clause (Chapter 11).

6.1.2. Tense, mood, negation, voice, and aspect

Typologically common predicate categories such as tense, mood-modality, negation, voice, and aspect, are encoded in various ways in Irabu, not necessarily in verb

morphology.³³ Since these encodings often show complex interdependency and/or involve larger structures (phrases and clauses), they will be discussed more fully in Chapter 10 (the simple sentence). In what follows I outline the categories thus encoded as a basis for the subsequent description of verb morphology.

6.1.2.1. Tense, mood-modality, and negation

Tense, mood, and negation are expressed by verb inflection. Two mood categories are grammaticalised as verb inflection: realis and irrealis. A fuller discussion of mood occurs in §10.5.1, and it suffices here to note that realis mood expresses the speaker's perceived certainty (e.g. on the basis of actuality) and high information value (i.e. new information to the hearer), whereas irrealis mood expresses future intention or wish. There are also forms that are unmarked for mood.

There are of course other kinds of non-grammaticalised modality (e.g. uncertainty, guess, potentiality, necessity, hearsay evidentiality, etc.), which are expressed by various non-inflectional strategies, e.g. through modal clitics such as =*pazì* 'maybe' (§9.3).

The tense system involves a two-way distinction between past and non-past. Whereas all non-finite verbs are not tense-marked, many finite verbs are marked with tense. There are a few finite verb forms that are not tense-marked: these are intentional, optative, and imperative forms, which have no formal opposition between past and non-past, simply carrying a mood suffix attached to the stem.

Mood is also crucially implicated in encoding time reference. Thus a non-past realis form implies immediate future time reference in which an action or state of affairs is imminent (e.g. a situation obviously about to occur in front of speaker, as in *Hai!*

³³ Irabu verbs do not have agreement morphology, i.e. are not inflected for person, number, etc., of subject.

uti-r-m=dooi! ‘Hey! The base is about to drop!’), whereas the non-tense-marked finite forms, i.e. irrealis forms such as *-di* (intentional) usually imply non-immediate future time reference, though this is not an inherent function of *-di*. Also, modal possibilities are dependent on tense in crucial ways. As is shown in FIGURE 6-1, the realis mood form is only found in past tense (e.g. *ibi-ta-m* ‘plant-PST-RLS: (certainly) planted’) and non-past tense that designates present or imminent future time reference (e.g. *ibi-r-m* ‘plant-NPST-RLS: be going to plant’). This asymmetry in the distribution of realis mood is a formal manifestation of the semantic fact that past time reference and future time reference are asymmetrical with regard to mood (Comrie 1985a; Chung and Timberlake 1985). Making a realis assertion with future time reference is much more difficult than making one with past or present/imminent future time reference.

Time reference	Past >>>>>>>	Present to imminent future >>	Future >>>>>
TENSE	Past	Non-past	N/A
MOOD	{ Realis Unmarked	{ Realis Unmarked	Irrealis

FIGURE 6-1. Tense system and mood system: overview

Negative polarity is also inflectional, and is again intertwined with the tense/mood systems. In particular, negation is incompatible with the non-past realis. Thus *ibi-r-m* ‘is going to plant’ cannot be negated, whereas *ibi-r* (non-past unmarked) has a negative counterpart *ibi-n*. This can be seen as an instantiation of a typologically recurrent restriction on the compatibility of negation with realis (in fact, there are languages which treat all negative clauses as irrealis; Payne 1997: 245).

6.1.2.2. Voice

Three types of non-active voice (causative, passive, malefactive) are marked by derivational morphology on verbs (§6.4; §10.4). In Japanese linguistics, malefactive would alternatively be called ‘adversative passive’ (Shibatani 1990 for a review). However, if we restrict the term passive voice to a valency *decreasing* operation (Dixon and Aikhenvald 2000), it should not be treated as a type of passive in Irabu or in Japanese (see §10.4.3 for a fuller discussion).

6.1.2.3. Aspect

Aspect is marked by three different coding strategies: (1) aspectual auxiliary verb, as in *ibi-i=du ur-Ø* ‘be planting’ (plant-MED=FOC PROG-NPST), (2) finite unmarked inflection, as in *ibi-r* ‘(habitually) plant’, and (3) full reduplication of a verb root, as in *ibi+ibi* ‘(iteratively) plant; (habitually) plant’. Aspectual categories that are productively coded by one or more of these strategies are progressive, resultative, prospective ‘complete something for some benefit’, perfect, iterative, and habitual. Since aspect marking requires reference to a range of structures, from verb morphology to VP structure, it will be dealt with more extensively in §10.5.2 after all the relevant structures have been introduced.

6.1.3. Inflection and clause combining

Irabu verb inflection also encodes clausal subordination and clause chaining. These structures are described in Chapter 11. In what follows I only note their basic characteristics in relation to verb inflection.

A non-finite verb form called a converb is used mainly to mark adverbial or adsentential subordination. That is, a converb turns its clause into an adjunct constituent

(adverbial or adsentential), retaining verbal features in its clause-internal syntax, as illustrated in the examples below (the comma orthographically indicates a clause boundary).

- (6-1) *aagu=u cici-ccjaaki=du, niniv-vas-i+u-tar.*
 song=ACC hear-CVB.SIM=FOC sleepiness-VLZ-THM+PROG-PST
 ‘While listening to a song, (he) got sleepy.’ [adverbial adjunct]

- (6-2) *uku+kazi=nu fi-tigaa, mmna jaa=nu naka=n*
 big+wind=NOM come-CVB.CND all house=GEN inside=DAT
ur-kutu.
 exist-OBL
 ‘If a big wind blows, everyone should be at home.’ [adsentential adjunct]

A non-finite verb form called a medial verb is used to construct clause chaining. The term ‘medial verb’ is employed here following the literature on clause chaining in Papuan languages, especially Thompson and Longacre (1985), Foley (1986), and Haiman (1987). In the following example, the first two clauses are medial clauses that are chained to the matrix predicate *mii-tigaa*, which is itself an adsentential adjunct of the matrix that follows (whose predicate is *atar=dara*).

- (6-3) *utu=u cik-i-i, puka=nkai idi-i,*
 sound=ACC hear-THM-MED outside=ALL go.out-MED

<i>mii-tigaa,</i>	<i>mmja,</i>	<i>uma=nu=i,</i>
look-CVB.CND	INTJ	that.place=GEN=CNF

<i>niwaa=nu</i>	<i>pitici</i>	<i>kugani=nu</i>
garden=GEN	full	gold=NOM

<i>unusjuku</i>	<i>a-tar=ca.</i>
that.much	exist-PST=HS

‘(He) heard the sound, went outside, and looked, so (there) was gold, that much, filling the whole garden.’

6.2. The structure of the verb word

The verb template is schematised as **Stem (THEMATIC)-INFLECTION**, where the ‘Stem’ slot may be occupied by a simple root or a derived stem extended by various derivational processes such as verb-verb compounding and derivational affixation (§6.4). The inflection part may be internally complex, i.e. may consist of two or three inflectional affixes. Certain subclasses of stem carry a thematic vowel before certain inflectional affixes. The presence or absence of thematic vowels is dependent on the stem class, and these are discussed in what follows.

6.2.1. Stem class

To describe inflection accurately, it is first necessary to introduce the major morphological classes of stem. These stem classes are termed Class 1 and Class 2. There are also certain irregular verb stems (see TABLE 6-1 below), which are dealt with in §6.3.5.

The two major stem classes are largely phonologically determined. Class 1 stems are minimally bimoraic, and end in /i/ (e.g. *ibi-* ‘plant’; *idi-* ‘exit; come out’; *tumi-* ‘search’; *nkai-* ‘welcome’; *rri-* ‘put’; *kui-* ‘exceed’; *mii-* ‘look’; *fii-* ‘give’, etc.). Class 2 roots may be monomoraic, and all end in /C/ except for certain cases that end in a vowel (e.g. *fa-* ‘eat’; see §6.3.4.3).

TABLE 6-1. Irabu verb classes

Class 1: minimally bimoraic, ending in /i/

Class 2: may be monomoraic, largely C-final

Irregular: Deictic directional roots ‘come’ (suppletive)

Light verb root ‘do’ (Class 2-like)

Negative verb root (Class 1-like)

Existential verb root (Class 2-like)

Copula verb root (Class 2-like)

TABLE 6-2. Frequently used class 1 stems and class 2 stems

Class 1		Class 2	
<i>idi-</i>	‘go out; exit’	<i>asib-</i>	‘play’
<i>ibi-</i>	‘plant’	<i>kat-</i>	‘win’
<i>mii-</i>	‘look’	<i>kak-</i>	‘write’
<i>nii-</i>	‘boil’	<i>kug-</i>	‘paddle’
<i>fii-</i>	‘give’	<i>nas-</i>	‘give birth’
<i>pazīmi-</i>	‘begin’	<i>muc-</i>	‘lift’
<i>nkai-</i>	‘welcome; bring’	<i>jum-</i>	‘read’
<i>tumi-</i>	‘search’	<i>sīn-</i>	‘die’
<i>pani-</i>	‘jump’	<i>niv-</i>	‘sleep’
<i>kui-</i>	‘exceed’	<i>až-</i>	‘say’
<i>bassi-</i>	‘forget’	<i>tur-</i>	‘take’
<i>karagi-</i>	‘turn over’	<i>fa-</i>	‘eat’
<i>kai-</i>	‘change’	<i>f-</i>	‘bite’
<i>kangai-</i>	‘think’	<i>s-</i>	‘know’
<i>tati-</i>	‘stand (sth)’	<i>c-</i>	‘put on’
<i>katami-</i>	‘carry’	<i>mm-</i>	‘ripe’
<i>mutagi-</i>	‘lift’	<i>v-</i>	‘sell’
<i>sīdi-</i>	‘hatch’	<i>ž-</i>	‘scold’
<i>rri-</i>	‘put into’	<i>r-</i>	‘enter’

Certain Class 1 stems consisting of a single phoneme (e.g. *f-* ‘bite’) are moraic consonants, and induce the geminate copy insertion rule (§2.7.1) when a vowel-initial affix follows (e.g. *f-* + *-ai* (passive) > *f-fai*).

6.2.2. Thematic vowel (stem extension)

In order to carry certain inflectional affixes, Class 2 stems carry a thematic vowel *-a* (or *-u* in certain lexical items; see §6.3.4.4) or *-i* to form a thematic stem. Otherwise they do not carry thematic vowels, so remain athematic stems.³⁴ Class 1 stems are inherently athematic. The thematic vowels are stem-extenders (Bickel and Nichols 2007),

³⁴ I will explain (in 6.2.3) the validity of the analysis where a thematic vowel belongs to the stem, as opposed to the analysis where the segment belongs to part of the inflectional affix that follows the stem.

analogous to thematic segments in Indo-European (Grundt 1978), Caucasian (Kibrik 1991), and certain Oceanic languages (Lichtenberk 1983), occurring stem finally and marking conjugational classes.

As an illustration of thematic stem formation, let us look at the Class 2 stem *tur-* ‘write’ and some of its inflection. Like all members of Class 2 members, *tur-* has three inflectional possibilities, depending on the inflectional affix that follows: (1) to remain an athematic stem, (2) to form a thematic stem with *-a*, and (3) to form a thematic stem with *-i*. The stem *tur-* remains an athematic stem when carrying such an inflectional affix as the conditional converb *-tigaa*, irrealis prohibitive *-na*, and past unmarked *-tar*.

(6-4)	a.	<i>tur-tigaa</i>	b.	<i>tur-na</i>	c.	<i>tur-tar</i>
		take-CVB.CND		take-PRH		take-NPST
		‘if (x) take’		‘(you) don’t take’		‘took’

The stem *tur-* carries thematic *-a* when it further carries such inflectional affixes as negative medial verb suffix *-da*, negative conditional converb suffix *-daka*, and finite irrealis intentional suffix *-di*.

(6-5)	a.	<i>tur-a-da</i>	b.	<i>tur-a-daka</i>	c.	<i>tur-a-di</i>
		take-THM-NEG.MED		take-THM-NEG.CVB.CND		take-THM- -INT
		‘not taking...’		‘if (x) do not take’		‘will take’

The stem *tur-* carries thematic *-i* before it further carries such inflectional affixes as medial verb suffix *-i*, causal converb suffix *-ba*, and finite non-past imperative suffix

-∅:

(6-6) a. <i>tur-i-i</i>	b. <i>tur-i-ba</i>	c. <i>tur-i-∅</i>
take-THM-MED	take-THM-CVB.CSL	take-THM-IMP
‘(x) take, and’	‘(x) take, so that’	‘(you) take’

See §6.3.1 and §6.3.2 for an exhaustive list of inflectional affixes that do or do not require thematic stems.

On the other hand, a Class 1 stem like *idi-* ‘exit’ is always athematic, i.e. does not carry a thematic vowel in any of these morphological environments:

(6-7) a. <i>idi-tigaa</i>	b. <i>idi-rna</i>	c. <i>idi-tar</i>
exit-CVB.CND	exit-IMP	exit-NPST
‘if (x) exit’	‘(you) don’t exit’	‘exited’

(6-8) a. <i>idi-da</i>	b. <i>idi-dakaa</i>	c. <i>idi-di</i>
exit-MED.NEG	exit-NEG.CVB.CND	exit-INT
‘not exiting...’	‘if (x) do not put’	‘will exit’

(6-9) a. <i>idi-i</i>	b. <i>idi-ba</i>	c. <i>idi-ru</i>
exit-MED	exit-CVB.CSL	exit-IMP
‘(x) exit, and’	‘(x) exit, so that’	‘(you) exit’

In summary, whether or not a thematic vowel can appear depends on the class of the verb stem, i.e. Class 1 (always athematic) or Class 2 (athematic or thematic), and in

the latter class, whether thematic affix *-a* or *-i* is required is dependent on which inflectional affix follows.

6.2.3. Some notes on the thematic vowel analysis

Thematic vowels are stem extender affixes in the current description. However, there may be at least two alternatives in the treatment of what I regard as thematic vowels.

Analysis 1: to treat them as part of Class 2 stems (at the lexical level)

Analysis 2: to treat them as part of the suffix that follows.

This issue is worth discussing at some length in this grammar given that linguists working on Japonic languages often raise this issue (Kazama 1992), and often suggest the solution (2).³⁵ Such an analysis would make sense in Japanese, while it is definitely not in Irabu, as is shown in what follows.

To begin with, Analysis 1 immediately turns out to be an ill analysis. According to this analysis, a Class 2 minimal stem for ‘write’, for example, should have three allomorphs *kafi*, *kaka*, and *kaki*. Thus there should not be a stem form *kak-*.

(6-8) Class 2 stem *kak-* ‘write’ [Analysis 1]

a. <i>kaka-di</i>	b. <i>kaki-i</i>	c. <i>kafi-tar</i>
write-INT	write-MED	write-PST
‘will write’	‘write, and...’	‘wrote’

³⁵ This issue also seems to be cross-linguistically a recurrent topic. See, for example, Lichtenberk (1983) for his argument for thematic ‘consonants’ in Manam as stem extenders and not as part of the subsequent affix or of the preceding root.

Here, it is noted that affixation of agent nominalizer suffix *-ja* to the stem produces *kak-ja*. It is straightforward to consider that the stem is underlyingly *kak-* rather than one of *kaka*, *kaki*, or *kafi*. Thus thematic vowels should not be included as part of Class 2 stems at the lexical level.

Turning to Analysis 2, it would be more advantageous than Analysis 1, since we can dispense with the thematic-athematic stem distinction altogether from the grammatical description. Compare (6-9) and (6-10) below.

(6-9) Class 2 stem *kak-* ‘write’ [Analysis 2]

- | | |
|-------------------|------------------|
| a. <i>kak-adi</i> | b. <i>kak-ii</i> |
| write-INT | write-MED |

(6-10) Class 1 stem *ibi-* ‘plant’ [either Analysis 1 or 2]

- | | |
|------------------|-----------------|
| a. <i>ibi-di</i> | b. <i>ibi-i</i> |
| plant-INT | plant-MED |

However, we now have to postulate a host of allomorphy on the part of inflectional affixes. For example, even though Analysis 2 in (6-9) can dispense with the thematic-athematic stem distinction, we have allomorphy on the part of the inflectional affix depending on whether it is attached to a Class 2 stem (6-9) or a Class 1 stem (6-10).

The current thematic analysis resolves this allomorphy by analysing the initial vowel of an inflectional affix in Analysis 2 (e.g. *-a* of *-adi*) as part of the stem, i.e. as a thematic vowel, as illustrated in (6-11):

(6-11) Class 2 stem *kak-* ‘write’ [the current ‘thematic vowel’ analysis]

- | | |
|--------------------|-------------------|
| a. <i>kak-a-di</i> | b. <i>kak-i-i</i> |
| write-THM-INT | write-THM-MED |

However, in this analysis, we have to admit two types of stem, i.e. thematic stems and athematic stems. So, in terms of descriptive economy, we cannot really judge whether Analysis 2 or the thematic analysis is better.

The substantial reason for abandoning Analysis 2 and taking the current analysis concerns agglutinative Auxiliary Verb Construction, where a lexical verb stem and an auxiliary verb stem is serialised to form a single verb stem (§6.4.2.3). As will be noted in §6.4.2.3, there are three aspect markers *u(r)-* (progressive), *a(r)-* (resultative), and *uk-* (benefactive perfect) that are used as an auxiliary verb stem. They appear as an independent auxiliary verb word in a verb phrase (phrasal AVC, §7.1.4), as illustrated in (6-12a), or as the second stem in a single verb word (agglutinative AVC), as in (6-12b).

(6-12) Class 1 stem *ibi-* ‘plant’

- | | | |
|--------------------------------|---------------|----------------------------------------|
| a. <i>ibi-i</i> | <i>u-tar.</i> | b. <i>ibi+u-tar.</i> |
| plant-MED | PROG-PST | plant-PROG-PST |
| Lexical V | Aux V | [Lexical stem + Aux stem] _v |
| ‘(x) was planting (something)’ | | |

As is clear from the above pair, the inflectional affix *-i* of the lexical verb in (a) example is deleted, and the lexical stem and the auxiliary stem is agglutinatively serialised to form (b) example.

Now, let us look at what happens in the same kind of word-phrase alternation when the lexical verb stem is a Class 2 stem.

(6-13)	a. <i>kak-i-i</i>	<i>u-tar.</i>	b. <i>kak-i+u-tar.</i>
	write-THM-MED	PROG-PST	write-THM+PROG-PST
	Lexical V	Aux V	[Lexical stem+Aux stem] _v
	'(x) was writing'		

If we follow the current analysis, as is shown in (6-13) above, the alternation between (6-13a) and (6-13b) can be explained by the same rule as for (6-12a) and (6-12b): the inflectional affix *-i* of the lexical verb *kakii* is deleted, and the lexical verb stem *kaki* and the auxiliary verb stem form a single stem.

This demonstrates that the thematic vowel *-i* cannot be attributed to the property of inflectional affix. Here, if we maintained that the thematic vowel *-i* belonged to the progressive aspect root *u-*, then the overall structures above would be as follows:

(6-14)	a. <i>kak-ii</i>	<i>u-tar.</i>	b. <i>kak+iu-tar.</i>
	write-MED	PROG-PST	write+PROG-PST
	Lexical V	Aux V	[Lexical stem+Aux stem] _v
	'(x) was writing'		

This analysis claims that the progressive aspect marker has two allomorphs, *iu(r)-* in an agglutinative AVC in which the first stem is Class 2 (as in (6-14b)), and *u(r)-* elsewhere, as in (6-14a). However, such an analysis is certainly ad-hoc with a multiple duplication of allomorphy both in inflectional affixes and in the three root aspect markers.

In sum, even though Analysis 2 and the thematic analysis are equally plausible in terms of descriptive economy (i.e. the former opts for allomorphy on the part of the inflectional affix whereas the latter on the part of the stem), the best way to describe the alternation between an agglutinative AVC and a phrasal AVC is to adopt the thematic analysis.

6.3. Inflectional morphology

In this section I describe the formal aspects of finite and non-finite inflections, presenting a full list of inflectional paradigms with two representative stems: Class 1 *ibi-* ‘plant’ and Class 2 *tur-* ‘take’. Following the basic description of inflection, I note morphophonemic processes applicable to certain subclasses of Class 2 stems.

6.3.1. Finite inflection

Finite inflection is the type of inflection which forms finite verbs, which may terminate a sentence. Finite inflection marks tense and/or mood, and, in certain forms, negative polarity.

TABLE 6-3 sets out the inflectional paradigm of finite verb forms (unmarked, realis, and irrealis forms). In the row for ‘Structure’, [Stem] is an athematic stem, whereas [Stem(-a)] and [Stem(-i)] are a thematic stem with *-a* and a thematic stem with *-i* respectively, if the stem is a Class 2 stem. If the stem is a Class 1 stem, which is always athematic, the bracketed (-a) or (-i) is irrelevant.

TABLE 6-3. Finite inflection

(a) Unmarked form (inflected for tense)

		Class 1		Class 2	
	Structure	NPST	PST	NPST	PST
Affirmative	[Stem]-tense	-r	-tar	-∅	-tar
Negative	[Stem(-a)]-neg-tense	-n-∅	-t-tar	-n	-t-tar

Note: the negative suffix *-n* assimilates to *-t* when followed by *-tar*.

(b) Realis form (inflected for tense and mood)

		Class 1		Class 2	
	Structure	NPST	PST	NPST	PST
Affirmative	[Stem]-tense-mood	-r-m	-ta-m	-∅-m	-ta-m
Negative	[Stem(-a)]-neg-tense-mood		-t-ta-m		-t-ta-m

Note: (1) *-ta-m* is formed by the past tense suffix *-tar* + the realis mood suffix *-m* with /r/ deleted by rule.

(2) there is no negative form for non-past realis

(c) Irrealis form (inflected for mood)

	Structure	Class 1	Class 2
optative	[Stem(-a)]-mood	-baa	-baa
intentional	[Stem(-a)]-mood	-di/-ju	-di/-∅
negative intentional	[Stem(-a)]-mood	-djaan	-djaan
imperative	[Stem(-i)]-mood	-ru	-∅
prohibitive	[Stem]-mood	-rna	-na

Note: the intentional suffix has two variants in each stem class (see below for detail)

TABLE 6-4 and TABLE 6-5 illustrate each type of inflection with Class 1 stem *ibi-* ‘plant’ and Class 2 stem *tur-* ‘take’. In addition to the paradigm below there are two ‘secondary inflectional endings’, described in §7.2.3.

TABLE 6-4. Finite inflection of Class 1 *ibi-* ‘plant’ (stem is indicated by [])

(a) Unmarked form

	Structure	Non-past	Past
Affirmative	[Stem]-tense	<i>ibi-r</i> ‘plant’	<i>ibi-tar</i> ‘planted’
Negative	[Stem]-neg-tense	<i>-n-Ø</i> ‘not plant’	<i>ibi-t-tar</i> ‘did not plant’

(b) Realis form

	Structure	Non-past	Past
Affirmative	[Stem]-tense-mood	<i>ibi-r-m</i> ‘plant’	<i>ibi-ta-m</i> ‘planted’
Negative	[Stem]-neg-tense-mood		<i>ibi-t-ta-m</i> ‘did not plant’

(c) Irrealis form

	Structure		
optative	[Stem]-mood	<i>ibi-baa</i>	‘want to plant’
intentional	[Stem]-mood	<i>ibi-di</i> or <i>ib-ju</i>	‘will plant’
negative intentional	[Stem]-mood	<i>ibi-djaan</i>	‘won’t plant’
imperative	[Stem]-mood	<i>ibi-ru</i>	‘you plant’
prohibitive	[Stem]-mood	<i>ibi-rna</i>	‘you do not plant’

Note: when the intentional suffix is *-ju*, the stem-final /i/ is deleted.

TABLE 6-5. Finite inflection of Class 2 *tur-* ‘take’ (stem is indicated by [])

(a) Unmarked form

	Structure	Non-past	Past
Affirmative	[Stem]-tense	<i>tur-Ø</i> ‘take’	<i>tur-tar</i> ‘took’
Negative	[Stem-a]-neg-tense	<i>tura-n-Ø</i> ‘not take’	<i>tura-t-tar</i> ‘did not take’

(b) Realis form

	Structure	Non-past	Past
Affirmative	[Stem]-tense-mood	<i>tur-Ø-m</i> ‘take’	<i>tura-ta-m</i> ‘took’
Negative	[Stem-a]-neg-tense-mood		<i>tura-t-ta-m</i> ‘did not take’

(c) Irrealis form

	Structure		
optative	[Stem-a]-mood	<i>tura-baa</i>	‘want to take’
intentional	[Stem-a]-mood	<i>tura-di</i>	‘will take’
negative intentional	[Stem-a]-mood	<i>tura-djaan</i>	‘won’t take’
imperative	[Stem-i]-mood	<i>turi-Ø</i>	‘you take’
prohibitive	[Stem]-mood	<i>tur-na</i>	‘you do not take’

There is a gap in the inflectional paradigm above: the non-past realis form lacks a negative counterpart. This was noted in §6.1.2.1.

The irrealis intentional suffix for Class 1 stems is either *-ju* (only with a Class 1 stem) or *-di*, whereas that for Class 2 stem is either *-di* or $-\emptyset$ (or the absence of *-di*). The suffix *-ju* causes truncation of the stem-final /i/, as shown in Table 6-4 (c) (*ibi-* + *-ju* > *ib-ju*). Other examples are: *mutagi-* ‘lift’ > *mutag-ju* ‘will lift’, *mii-* ‘look’ > *mi-ju* ‘will look’, *nkai-* ‘welcome’ > *nka-ju* ‘will welcome’.

Below I list examples of affirmative finite verb forms. A full functional account is given in §10.5.1. In particular, unmarked forms have various uses, of which the major ones are listed below.

(6-15) Past realis (PST-RLS)

nkjaan=na *pav=mai* *juu* *u-ta-m.*
 old.times=TOP snake=too very exist-PST-RLS

‘In those days (there) were a lot of snakes.’ [direct experience; speaker is certain and is asserting that his/her statement is true.]

(6-16) Past unmarked (PST)

a. *nkjaan=na* *pav=mai* *juu* *u-tar?*
 old.times=TOP snake=too very exist-PST

‘In old times (there) were a lot of snakes, weren’t there?’ [speaker is not certain that his/her statement is true.]

b. *pav=nu=du* *juu* *u-tar.*
 snake=NOM=FOC very exist-PST

‘(It was) snakes (that) were plentiful.’ [the statement is presupposed]

(6-17) Non-past realis (NPST-RLS)

hai! uti-r-m=dooi!

INTJ drop-NPST-RLS=EMP

‘Watch out! (the base) is going to drop!’ [imminent future event that is certain to occur in speaker’s presence]

(6-18) Non-past unmarked (NPST)

a. *atu+fīni=a saci nar-∅.*

late+boat=TOP early become-NPST

‘The boat departing late will arrive early.’ [proverb: general truth atemporally applicable]

b. *kunur=ra maž=mai mm=mai fau-∅.*

these.days=TOP rice=too potato=ACC=too eat-NPST

‘Nowadays (one) eats both rice and potatoes.’ [habitual]

c. *upujuu=ja pžsara=kara fii-∅.*

The Upujuu=TOP Hirara=ABL come-NPST

‘The Upujuu (ship) comes from Hirara.’ [scheduled and regularly occurring future event]

(6-19) Irrealis optative (OPT)

ba=ga mmaga=u mii-baa=i=ti,

1SG=GEN grand.child=ACC see-OPT=CNF=QT

denwa asi-tar=ca.

phone do-PST=HS

‘(She) is said to have made a call and said “I want to see my grandchild.”’

(6-20) Irrealis intentional (INT)

ba=a aca ik-a-di.

1SG=TOP tomorrow go-THM-INT

‘I will go tomorrow.’

(6-21) Irrealis imperative (IMP)

pucci fa-i-Ø!

in.haste eat-THM-NPST.IMP

‘Eat in haste!’

6.3.2. Non-finite inflection

Non-finite inflection marks coordination or adverbial subordination, with no tense or mood marking. The only exception to this is past anterior *-tarjaa* ‘did X, and then...’ which can be considered to have derived from the finite unmarked inflectional affix *-tar*. Negative polarity is systematically marked on medial verbs, but only restrictively on converbs.

6.3.2.1. Converbs

TABLE 6-6 sets out the inflectional paradigm of converb suffixes.

TABLE 6-6. Converb inflection: Comparison of Class 1 and Class 2

	Class 1 <i>ibi-</i> ‘plant’	Class 2 <i>tur-</i> ‘take’
conditional 1 (unproductive) ‘if’	[<i>ibi</i>]- <i>ba</i>	[<i>tur-a</i>]- <i>ba</i>
negative conditional 1 ‘if not; unless’	[<i>ibi</i>]- <i>dakaa</i>	[<i>tur-a</i>]- <i>dakaa</i>
aversive ‘lest’	[<i>ibi</i>]- <i>zīm(=ti(i))</i>	[<i>tur-a</i>]- <i>zīm(=ti(i))</i>
negative intentional conditional ‘if will not’	[<i>ibi</i>]- <i>djaadakaa</i>	[<i>tur-a</i>]- <i>djaadakaa</i>
causal ‘because; when; if’	[<i>ibi</i>]-(<i>ri</i>)- <i>ba</i>	[<i>tur-i</i>]- <i>ba</i>
circumstantial ‘while’	[<i>ibi</i>]- <i>utui</i>	[<i>tur-i</i>]- <i>utui</i>
conditional 2 (productive) ‘if; when’	[<i>ibi</i>]- <i>tigaa</i>	[<i>tur</i>]- <i>tigaa</i>
negative conditional 2 ‘if not... (it’s OK)’	[<i>ibi</i>]- <i>gurai</i>	[<i>tur</i>]- <i>gurai</i>
simultaneous ‘while’	[<i>ibi</i>]- <i>ccjaaki</i>	[<i>tur</i>]- <i>ccjaaki</i>
purposive ‘in order that’	[<i>ibi</i>]- <i>ga</i>	[<i>tur</i>]- <i>ga</i>
continuous ‘whenever’	[<i>ibi</i>]- <i>gakaazī</i>	[<i>tur</i>]- <i>gakaazī</i>
immediate anterior ‘as soon as’	[<i>ibi</i>]- <i>tuu</i>	[<i>tur</i>]- <i>tuu</i>
past anterior ‘did X, and then...’	[<i>ibi</i>]- <i>tarjaa</i>	[<i>tur</i>]- <i>tarjaa</i>

In Class 1, the inflectional affixes of causal and conditional 1 are both *-ba*, but there may appear *ri* for causal converb *-ba*, securing the relevant distinction. This *ri* may be a structural analogue to the thematic *-i* stem of Class 2. The aversive converb *-zīm* may be followed by quotative clitic *=tii* (§11.4.4.1).

Below I list examples of converbs. A fuller account of converbs as head of subordinate clauses will be given in §11.4.1 and §11.4.2.

(6-22) Conditional 1 (CVB.CND)

kuma=n _____ *nci-ba=du*, *zau-kar-Ø*
 this.place=DAT put-CVB.CND=FOC good-VLZ-NPST
 ‘(It’s) fine if you put (it) here.’

(6-23) Negative conditional 1 (CVB.NEG.CND)

nama par-a-dakaa, junai=n nar-Ø=dara.
now leave-THM-CVB.NEG.CND night=DAT become-NPST=
=CRTN

‘If you don’t go (back home) now, (it) will get dark.’

(6-24) Aversive (CVB.AVR)

kazam=nu par-ra-zim, tuu=ju simi-ru.
fly=NOM enter-THM-CVB.AVR window=ACC shut-IMP

‘Lest flies come in, shut the window.’

(6-25) Negative intentional conditional (CVB.NEG.INT.CND)

vva=ga ik-a-djaadakaa, ban=mai ik-a-djaan.
2SG=NOM go-THM-CVB.NEG.INT.CND 1SG=too go-THM-
-NPST.NEG.INT

‘If you will not go, I will not go either.’

(6-26) Causal (CVB.CSL)

ffa=nu nak-i-ba=du, niv-vai-n-Ø.
child=NOM cry-THM-CVB.CSL=FOC sleep-POT-NEG-NPST

‘Because my child cries, I cannot sleep.’

(6-27) Circumstantial (CVB.CRCM)

kunu tugi=u=ba tur-i-i siti-i,
this spike=ACC=TOP take-THM-MED do.away.with-MED

uri=u uju=u fikas-i-utui=jaa,
 3SG=ACC hot.water=ACC boil-THM-CVB.CRCCM=ATN

ui=ga naka=nkai sa=tti rri-ri-ba,
 3SG=GEN inside=ALL ONM=QT put-THM-CVB.CSL

japa-fi nar-Ø=dara.
 soft-AVLZ become-NPST=CRTN

‘You do away with these spikes, and, while boiling water, you see, put it (the leaf whose spikes have been stripped off) into the water; then it becomes softened.’

(6-28) Conditional 2 (CVB.CND)

nkif=fu tur-tigaa,
 Caulerpa.lentillifera=ACC take-CVB.CND

ukusu=nkai cik-i-i ara-i-Ø.
 marine.water=ALL put-THM-MED wash-THM-IMP

‘If you get a Caulerpa lentillifera, put it into marine water and wash (it).’

(6-29) Negative conditional 2 (CVB.NEG.CND)

nnama asi-gurai, zjaubu=ju.
 now do-CVB.NEG.CND fine=EMP

‘If (you) don’t do (it) now, (that’s) fine.’

(6-30) Simultaneous (CVB.SIM)

sīgutu=u asī-ccjaaki=du, ffa+murja=mai asī-∅.
work=ACC do-CVB.SIM=FOC child+sitting=too do-NPST
'While (I) am working, (I) do baby-sitting as well.'

(6-31) Purposive (CVB.PUR)

žžu cīi-ga, ik-a-di.
fish catch-CVB.PUR go-THM-INT
'Let's go to catch fish.'

(6-32) Continuous (CVB.CNT)

ba=ga mii-gakaazī, sauz=zu=bakaar=du
1SG=NOM look-CVB.CNT cleaning=ACC=always=FOC

as-i+ur-∅.
do-THM+PROG-NPST
'Every time I see (her), (she) is always doing house cleaning.'

(6-33) Immediate anterior (CVB.ANT)

kunu ffa=a, mma=n katami-rai-tuu=du,
this child=TOP mother=DAT carry-PASS-CVB.ANT=FOC

nafi-∅ su=u jami-r.
cry-NPST CMP=ACC stop-NPST
'This child stops crying as soon as it is carried by its mother.'

(6-34) Past anterior (CVB.PST.ANT)

mii-tarjaa=du, mmja, naa=ga tuzi a-tar=ca.
 look-CVB.PST.ANT=FOC INTJ RFL=GEN wife COP-PST=HS
 ‘(He) looked at (her), then (he found that it) was his wife.’

6.3.2.2. Medial verbs

TABLE 6-7 sets out the inflectional paradigm of medial verbs. Although medial verbs are non-finite, i.e. lacking tense and mood marking, they still mark polarity.

TABLE 6-7. Medial verb inflection of Class 1 *ibi-* ‘plant’ and Class 2 *tur-* ‘take’

	Class 1 Stem-INFL	Class 2 Stem(-THM)-INFL
medial ‘do (sth), and...’	<i>[ibi]-i</i>	<i>[tur-i]-i</i>
negative medial ‘not doing’	<i>[ibi]-da</i>	<i>[tur-a]-da</i>

The suffix *-i* has a variant, *-∅*, which often occurs when the stem ends in /ii/ or /ai/, as in *mii-∅* (look-MED) ‘look:MED’ rather than *mii-i* and *fa-i-∅* (eat-THM-MED) ‘eat:MED’ rather than *fa-i-i*. However, this variation is not obligatory, and we often find *mii-i* and *fa-i-i* in careful speech.

Below I list examples of medial verbs. As illustrated in (a) examples and (b) examples below, a medial verb may be used as a head of a chained clause (see §11.3 for a fuller account of clause chaining) or as a lexical verb of a complex VP (§7.1).

(6-35) Medial (MED)

a. *pisir=ru fa-i-i, sigutu=u as-i-i,*
 lunch=ACC eat-THM-MED work=ACC do-THM-MED

ffa=u nkai-i=du, jaa=n ngi-tar.

child=ACC bring-MED=FOC house=DAT return-PST

‘(I) ate lunch, worked, brought a child, and returned home.’ [clause chaining]

b. *buuz=zu nag-i-i=du ur-Ø.*

sugar.cane=GEN break.down-THM-MED=FOC PROG-NPST

‘(He) is harvesting sugarcane.’ [within VP structure]

(6-36) Negative medial (NEG.MED)

a. *suba=u=mai misi-da, kjoociki a-simi-tar.*

side=ACC=even let.see-NEG.MED standing.still do-CAUS-PST

‘Not allowing (students) to look away, (the teacher) made (them) stand still.’ [clause chaining]

b. *uri=u=baa až-ža-da u-tar.*

that=ACC=TOP say-THM-NEG.MED PROG-PST

‘(I) kept unstating it.’ [within VP structure]

6.3.3. Internal structure of inflectional endings

Some notes are necessary to justify the morphological analyses presented above.

6.3.3.1. Finite realis inflection as -(NEG)-TENSE-MOOD

A close look at the non-past realis/unmarked pairs in Classes 1 and 2 reveals that a realis form is formed by suffixing the mood suffix /m/ to an unmarked form. Thus, the

Class 1 *ibi-r-m* ‘plant-NPST-RLS’ is analysable as the unmarked *ibi-r* + *-m*, and Class 2 *tur-Ø-m* ‘take-NPST-RLS’ is analysable as the unmarked *tur-Ø* + *-m*. From this observation, I have analysed that the past *-ta-m* can be analysed as *-tar* + *-m* (-PST + *-m*) with deletion of /ɾ/. This synchronic analysis is diachronically supported, as the *-m* was once a clitic *=*mo* or *=*mu*, attached to the unmarked form (Karimata 1999).

TABLE 6-8. Morpheme boundaries in (non-) past realis and unmarked

Past:	unmarked	<i>-tar</i>	
	realis	<i>-tar</i> + <i>-m</i> > <i>-ta-m</i>	
Non-past	unmarked	<i>-r</i> (Class 1)	<i>-Ø</i> (Class 2)
	realis	<i>-r</i> + <i>-m</i> > <i>-r-m</i>	<i>-Ø</i> + <i>-m</i> > <i>-Ø-m</i>

6.3.3.2. Finite inflection as -TENSE-MOOD_[NEG]

It is impossible to extract a negative morpheme from the forms *-rna* (Class 1 prohibitive) or *-na* (Class 2 prohibitive) and *-djaan* (negative intentional). Clearly, in *-rna* and *-na* negative polarity is fused with mood, since *-na* (prohibitive) expresses negation by itself.

The form *-djaan* could be analysed as *-djaa* + *-n*, i.e. containing negative suffix *-n*, but there appears to be no justification for this analysis synchronically. I encountered just one attestation in my text corpus which suggests that *-djaa* and *-n* were originally separate morphemes.

- (6-37) *vva=ga* *nkai-djaadaka,* *nau=h-u-di=ga?*
 2SG=NOM bring-CVB.NEG.INT.CND what=do-THM-NPST.INT=FOC
 ‘If you don’t bring (him), what (would you) do?’

Here, *-djaadakaa* could be analysed into *-djaa* + *-dakaa* (negative conditional converb). In contemporary Irabu this is a completely fossilised expression, however, and I do not know whether any other combination of [*-djaa* + another morpheme] is ever possible. As shown in TABLE 6-6, I analyse *-djaadakaa* as a single negative intentional conditional converb suffix.

6.3.4. Morphophonemics of Class 2 athematic stems

The underlying forms of Class 2 stems (i.e. Class 2 roots) end in stops, fricatives, resonants, or in exceptional cases, vowels. They may undergo (morpho-)phonemic processes in the formation of the athematic stem, which has the same phonotactic constraint as holds for phonological words, i.e. an athematic stem must end in a vowel or a resonant.

6.3.4.1. Stem-final stop lenition

As illustrated in TABLES 6-9, when appearing as athematic stems, Class 2 stems that underlyingly end in a stop undergo a morphophonemic adjustment, or what I call stem-final stop lenition ($b > v$, $t > c$, $k > f$, $g > v$). For example, *tub-* ‘fly’ forms an athematic stem form *tuv-* when followed by conditional converb suffix *-tigaa*, yielding *tuv-tigaa* ‘if fly’; in the same environment, *kat-* ‘win’ and *kak-* ‘write’ form athematic stems *kac-* and *kaf-*, but they additionally undergo the predictable /i/ insertion, which occurs to break up a non-geminate cluster of a fricative $C_1 + C_2$ (§2.7.2). Thus, we get *kac̄i-tigaa* ‘if win’ and *kaf̄i-tigaa* ‘if write’ as a surface output. For stems ending in /k/ or /g/, a variant athematic stem form is observed, formed by turning /k/ and /g/ into /c/ and /z/ respectively. However, this is not common, and is primarily used to mark a class-changing derivation (verb stem > nominal stem: §6.3.4.5 below). For example, the

underlying stem //kak-// ‘write’ is turned into two athematic stem forms, *kafi* or *kaci*. The former is noted above. The latter occurs in *kaci-tar* ‘wrote’ (write-PST), *kaci-tigaa* ‘if write’ (write-CVB.CND), and so on, but *kaci* is mainly used in forming a compound stem, especially of a compound noun (§6.3.4.5).

TABLE 6-9. Stem-final stop lenition of Class 2 stems

a. Stem-final /b/

Example	<i>tub-</i> ‘fly’	<i>jurab-</i> ‘call’	<i>asib-</i> ‘play’
thematic -a	<i>tub-a</i>	<i>jurab-a</i>	<i>asib-a</i>
thematic -i	<i>tub-i</i>	<i>jurab-i</i>	<i>asib-i</i>
athematic	<i>tuv</i>	<i>jurav</i>	<i>asiv</i>

b. Stem-final /t/

Example	<i>kat-</i> ‘win’	<i>ut-</i> ‘smash’	<i>mat-</i> ‘wait’
thematic -a	<i>kat-a</i>	<i>ut-a</i>	<i>mat-a</i>
thematic -i ³⁶	<i>kac-i</i>	<i>uc-i</i>	<i>mac-i</i>
athematic	<i>kac(i)</i>	<i>uc(i)</i>	<i>mac(i)</i>

c. Stem-final /k/

Example	<i>kak-</i> ‘write’	<i>nk-</i> ‘pull out’	<i>fik-</i> ‘wipe’
thematic -a	<i>kak-a</i>	<i>nk-a</i>	<i>fik-a</i>
thematic -i	<i>kak-i</i>	<i>nk-i</i>	<i>fik-i</i>
athematic	<i>kaf(i)/kac(i)</i>	<i>nf(i)/nc(i)</i>	<i>fif(i)/fic(i)</i>

d. Stem-final /g/

Example	<i>tug-</i> ‘burnish’	<i>kug-</i> ‘paddle’	<i>nag-</i> ‘bring down’
thematic -a	<i>tug-a</i>	<i>kug-a</i>	<i>nag-a</i>
thematic -i	<i>tug-i</i>	<i>kug-i</i>	<i>nag-i</i>
athematic	<i>tuv</i>	<i>kuv</i>	<i>nav</i>

³⁶ Here, when the stem-final /t/ is followed by /i/, it alternates with /c/. /ci/ is phonetically [tʃi], but note that in Irabu [tʃi] cannot be analysed as /ti/, as is the case in Japanese, since there is [ti], which is phonemically analysed as /ti/. It is also noted that some speakers prefer to use /c/ throughout, as in *kac-a* and *kac-i*, *uc-a* and *uc-i*, *mac-a* and *mac-i*, and so on.’

6.3.4.2. Class 2 stems ending in fricative and resonant

A Class 2 athematic stem ending in a fricative or a resonant does not undergo any peculiar morphophonemic processes. A Class 2 stem ending in a fricative simply undergoes predictable /i/ insertion to avoid fricative-final C. For example, *nas-* ‘bear; do’ forms a thematic stem (*nas-a/nas-i*) or an athematic stem (*nasī-*, with predictable /i/ insertion: *nasī-∅* (non-past unmarked); *nasī-tam* (past realis), etc.).

Some stems are underlyingly monomoraic, and are subject to the lengthening rule (§2.6.2) in order to form an athematic stem, since an athematic stem must have at least two morae. Since the stems end in a moraic //C//, they also induce the geminate copy insertion rule (§2.7.1) when forming *-a* thematic or *-i* thematic stem.

Table 6-10. Monomoraic stem and stem extension

Example	<i>f-</i> ‘bite’	<i>s-</i> ‘know’	<i>c-</i> ‘wear’	<i>v-</i> ‘sell’	<i>ž-</i> ‘scold’	<i>r-</i> ‘enter’
thematic <i>-a</i>	<i>f-fa</i>	<i>s-sa</i>	<i>c-ca</i>	<i>v-va</i>	<i>ž-ža</i>	<i>r-ra</i>
thematic <i>-i</i>	<i>f-fi</i>	<i>s-si</i>	<i>c-ci</i>	<i>v-vi</i>	<i>ž-ži</i>	<i>r-ri</i>
athematic	<i>fī</i>	<i>sī</i>	<i>cī</i>	<i>vv</i>	<i>žž</i>	<i>rr</i>

6.3.4.3. Class 2 stems that ended in *w

There are Class 2 stems that historically ended in *w, which is reflected as /v/ or in some cases as /u/ in athematic stem in present-day Irabu, and is absent in thematic stems. Thus these Class 2 stems are in synchronic terms exceptional in that their thematic stems do not end in a consonant. Examples are *pa(v)-* ‘creep’, *fa(u)-* ‘eat’, *na(v)-* ‘bind’, and *ka(v)-* ‘buy’. The stem *fau-* ‘eat’ is exceptional in that the athematic stem-final phoneme is a vowel rather than a consonant.

Table 6-11. Class 2 stems ending in historical **w* and their stem extension

Example	<i>fa(u)</i> - ‘eat’	<i>na(v)</i> - ‘bind’	<i>ka(v)</i> - ‘buy’
thematic <i>-a</i>	<i>fa-a</i>	<i>na-a</i>	<i>ka-a</i>
thematic <i>-i</i>	<i>fa-i</i>	<i>na-i</i>	<i>ka-i</i>
athematic	<i>fau</i>	<i>nav</i>	<i>kav</i>

6.3.4.4. Class 2 stems with *-u* thematic vowel

Certain Class 2 stems that ended in **w* have *-u* thematic stems rather than *-a* thematic stems. TABLE 6-12 compares *tur*- ‘take’, a typical Class 2 stem that takes thematic *-a*, with other three stems that take thematic *-u*. These stems have the stem-final syllable structure /u(v)/. Thus, a thematic stem in *-u* can be regarded as a regressive assimilation on the part of the thematic vowel.

TABLE 6-12. Class 2 stem with *-u* thematic vowel

Example	<i>tur</i> - ‘take’	<i>umu(v)</i> - ‘think’	<i>juku(v)</i> - ‘rest’	<i>su(v)</i> - ‘follow’
thematic <i>-a/-u</i>	<i>tur-a</i>	<i>umu-u</i>	<i>juku-u</i>	<i>su-u</i>
thematic <i>-i</i>	<i>tur-i</i>	<i>umu-i</i>	<i>juku-i</i>	<i>su-i</i>
athematic	<i>tur</i>	<i>umuv</i>	<i>jukuv</i>	<i>suv</i>

6.3.4.5. Morphophonemic nominalisation

As noted in §3.4.2.2, in a compound nominal, the verb root (as a modifier) must be converted into a nominal stem. This nominalised stem form is identical with the athematic stem form as noted above, except if the root-final phoneme is /k/ or /g/, where the nominalised stem and the athematic stem differ, as shown in TABLE 6-13. Thus *kaci* as opposed to *kafi* is used as a nominal stem ‘writing’ which then combines with another nominal stem to form a compound nominal (*kaci+kata* ‘the way of writing’ (writing+way); *munu+kaci* ‘(the act of) writing’ (thing+writing)).

TABLE 6-13. Nominalised stems and athematic stems

Root	<i>kak-</i>	<i>kug-</i>
	‘write’	‘paddle’
Nominalised stem	<i>kaci</i>	<i>kuzi</i>
Athematic stem	<i>kafi</i>	<i>kuv</i>

- (6-38) a. *kaci+kata* (**kafi+kata*) b. *kuzi+kata* (**kuv+kata*)
 writing+way paddling+way
 ‘writing method’ ‘paddling method’

A nominalised stem is also used as a V1 of a verb-verb compound (§6.4.2.1), as in *kaci+kai-r* ‘rewrite (write+change-NPST)’. Unlike in compound nouns, however, the V1 here may alternatively be an athematic stem (thus *kafi+kai-r* is possible). Thus in Irabu, a first stem of a compound shows deverbalisation both in compound verbs and in compound nouns, even though it is more pervasive in compound nouns.

6.3.5. Irregular verbs

6.3.5.1. Deictic directional verb ‘come’

In Japonic in general, the deictic directional verb expressing ‘come’ shows irregular inflection *par excellence*, with a number of stem forms. This also holds for Irabu, where the suppletive verb stems are (a) *kuu-*, (b) *c-*, (c) *f-*, (d) *t-*, and (e) *fii-*.

TABLE 6-14. Deictic directional verb ‘come’ and its inflection

		Class 2 <i>tur-</i> ‘take’	‘come’
(a)	finite negative past realis	<i>tur-a-t-ta-m</i>	<i>kuu-t-ta-m</i>
	finite negative past unmarked	<i>tur-a-t-tar</i>	<i>kuu-t-tar</i>
	finite negative non-past unmarked	<i>tur-a-n-Ø</i>	<i>kuu-n-Ø</i>
	finite irrealis intentional	<i>tur-a-di</i>	<i>kuu-di</i>
	finite irrealis negative intentional	<i>tur-a-djaan</i>	<i>kuu-djaan</i>
	finite irrealis optative	<i>tur-a-baa</i>	<i>kuu-baa</i>
	conditional converb 1	<i>tur-a-ba</i>	<i>kuu-ba</i>
	negative conditional converb 1	<i>tur-a-dakaa</i>	<i>kuu-dakaa</i>
	aversive converb	<i>tur-a-zim(=tii)</i>	<i>kuu-zim(=tii)</i>
	negative medial	<i>tur-a-da</i>	<i>kuu-da</i>
	finite irrealis imperative	<i>tur-i-Ø</i>	<i>kuu-Ø</i>
(b)	medial	<i>tur-i-i</i>	<i>c-ci-i</i>
(c)	causal converb	<i>tur-i-ba</i>	<i>f-fi-ba</i>
(d)	finite past realis	<i>tur-ta-m</i>	<i>t-ta-m</i>
	finite past unmarked	<i>tur-tar</i>	<i>t-tar</i>
(e)	finite non-past realis	<i>tur-Ø-m</i>	<i>fii-Ø-m</i>
	finite non-past unmarked	<i>tur-Ø</i>	<i>fii-Ø</i>
	finite irrealis negative imperative	<i>tur-na</i>	<i>fii-na</i>
	conditional converb 2	<i>tur-tigaa</i>	<i>fii-tigaa</i>
	negative conditional converb 2	<i>tur-gurai</i>	<i>fii-gurai</i>
	simultaneous converb	<i>tur-ccjaaki</i>	<i>fii-ccjaaki</i>
	continuous converb	<i>tur-gakaazi</i>	<i>fii-gakaazi</i>
	purpose converb	<i>tur-ga</i>	<i>fii-ga</i>
	immediate anterior converb	<i>tur-tuu</i>	<i>fii-tuu</i>

As shown in TABLE 6-14 above, these stems are parallel to Class 2 stems, where all finite and non-finite inflectional affixes are listed alongside those of the regular stem *tur* ‘take’. Clearly, (a) *kuu-* exactly corresponds to the *-a* thematic stem, with one exception, shown in bold-face, i.e. the imperative, where *kuu-* corresponds to the *-i* thematic stem

of Class 2. We see that (b) *c-* corresponds to the *-i* thematic stem of Class 2 that carries the medial verb suffix, (c) *f-* corresponds to the *-i* thematic stem of Class 2 that carries the causal converb suffix, (d) *t-* corresponds to the athematic stem of Class 2 that carries a finite past realis or unmarked suffix, and (e) *fī-* corresponds to the athematic stem of Class 2 that carries all other inflectional affixes. Note that in (b) and (c) geminate copy insertion (§2.7.1) occurs, as the stems here are all moraic consonants.

6.3.5.2. Light verb *(a)s-* ‘do’

The light verb ‘do’ is another major irregular verb in Japonic languages. In Irapu, however, it is not really irregular, but can be subsumed under Class 2. The only differences between a typical Class 2 and the light verb stem *(a)s-* (where /a/ may be dropped in the light verb constructions; see §3.1.1.1) are that the latter has a thematic stem in *-u* in place of a thematic stem in *-a*, and that the finite irrealis imperative form is either the irregular *assu* or the expected *as-i-∅*, even though the latter is not common. The *-u* thematic stem *as-u* is alternatively *ah-u* in free variation (the latter is more common).

TABLE 6-15. Inflection of the light verb *(a)sī*

Example	<i>tur-</i> ‘take’	<i>(a)s-</i> ‘do’
thematic <i>-a</i>	<i>tur-a</i>	<i>(a)s-u/(a)h-u</i>
thematic <i>-i</i>	<i>tur-i</i>	<i>(a)s-i</i>
athematic	<i>tur</i>	<i>(a)s(i)</i>
finite irrealis imperative	<i>tur-i-∅</i>	<i>(a)ssu/as-i-∅</i>

6.3.5.3. Negative verb *njaa-* ‘not exist’

The negative verb stem *njaa-* ‘not exist’ is like a Class 1 stem in that it lacks thematic stems, but shows a peculiar characteristic in its inflection. That is, even though the stem

is already negative in meaning, it is morphologically negated in its inflected forms (I do not gloss the negative suffixes attached to *njaa-* as NEG henceforth): *njaa-n-Ø* ‘not exist’ (not.exist-NPST), *njaa-t-tar* ‘did not exist’ (not.exist-PST), *njaa-da* ‘not existing’ (not.exist-MED). The inflectional possibilities of *njaa-* are also much more restricted than those of other regular verbs, since it only carries the negative inflections.³⁷

TABLE 6-16. Negative verb inflection

	Class 1 <i>ibi-</i> ‘plant’	Negative verb <i>njaa-</i>
finite negative past realis	<i>ibi-t-ta-m</i>	<i>njaa-t-ta-m</i>
finite negative past unmarked	<i>ibi-t-tar</i>	<i>njaa-t-tar</i>
finite negative non-past unmarked	<i>ibi-n-Ø</i>	<i>njaa-n-Ø</i>
negative conditional converb 1	<i>ibi-dakaa</i>	<i>njaa-dakaa</i>
negative conditional converb 2	<i>ibi-gurai</i>	<i>njaa-gurai</i>
aversive converb	<i>ibi-zīm(=tii)</i>	<i>njaa-zīm(=tii)</i>
negative medial	<i>ibi-da</i>	<i>njaa-da</i>

6.3.6. Existential verb, state verb, and copula verb

There are three etymologically related verb forms: the existential verb *ar* ‘exist’, the state verb *ar* ‘be (in a state)’ and the copula verb *ar*. These can be distinguished in several respects as summarised below.

TABLE 6-17. Existential verb, state verb, and copula verb

	Existential verb	State verb	Copula verb
Animacy-sensitive	+	-	-
Suppletive negation	+	+	-
VP internal	+	+	-
No allomorphy	+	+	-

³⁷ The negative intentional conditional suffix cannot be carried by *njaa-* for another reason: the suffix only attaches to volitional verb stems.

6.3.6.1. Existential verb

An existential verb stem form varies depending on the animacy of the subject NP, i.e. an animate form *ur-* or an inanimate form *ar-*.³⁸ In terms of inflectional morphology, both stems are in most respects like a Class 2 stem but show some diachronically induced peculiarities. In TABLE 6-18 below, the stem form of the finite past realis, finite past unmarked, and conditional converb 2 irregularly lacks stem-final /r/ in contrast with other athematic environments such as the finite non-past negative imperative inflection and simultaneous converb inflection where the athematic stem carries /r/. It thus diverges from typical Class 2 stems where the stem-final consonant is retained in all environments. Also, in the finite non-past realis form, there is fluctuating variation between *u-∅-m/a-∅-m* and *ur-∅-m/ar-∅-m*. This suggests that in earlier Irabu /r/ was regularly present in other athematic stems as well (i.e. in finite past realis). I analyse that the underlying synchronic stem form as *ur-*, where /r/ is deleted by rule when followed by finite past realis, finite past unmarked, and conditional converb 2 suffixes.

TABLE 6-18. Existential verbs and their inflections

	Existential		<i>tur-</i> ‘take’
thematic <i>-a</i>	<i>ur-a</i>	<i>ar-a</i>	<i>tur-a</i>
thematic <i>-i</i>	<i>ur-i</i>	<i>ar-i</i>	<i>tur-i</i>
athematic	<i>u(r)</i>	<i>a(r)</i>	<i>tur</i>
finite non-past realis	<i>u(r)-∅-m</i>	<i>a(r)-∅-m</i>	<i>tur-∅-m</i>
finite non-past unmarked	<i>ur-∅</i>	<i>ar-∅</i>	<i>tur-∅</i>
finite non-past negative imperative	<i>ur-na</i>	<i>ar-na</i>	<i>tur-na</i>
finite past realis	<i>u-ta-m</i>	<i>a-tam</i>	<i>tur-ta-m</i>
finite past unmarked	<i>u-tar</i>	<i>a-tar</i>	<i>tur-tar</i>
conditional converb 2	<i>u-tigaa</i>	<i>a-tigaa</i>	<i>tur-tigaa</i>

³⁸ An anonymous reviewer pointed out an interesting phenomenon found in some Ryukyuan varieties, where the choice of the existential verb form is dependent on perceived self-control mobility rather than animacy. So, according to the reviewer, in these languages a typhoon, a ferry, a taxi, and so on, can take the form usually associated with animate subjects. This is not the case in Irabu, however.

The inanimate existential verb stem *ar-* is suppletively negated, with the negative verb stem *njaa-*. Thus the negative forms of the inanimate existential verb are as shown in TABLE 6-16 (except for the negative imperative (prohibitive), which is *ar-na*).

(6-39) A: *manzjuu=∅=ja* *a-∅-m=mu?*
 papaya=Z=TOP *exist-NPST-RLS=Q*
 ‘Is there any papaya?’

B: *njaa-n-∅*.
 not.exist-NPST
 ‘No, (there) isn’t.’

6.3.6.2. Copula verb

The copula verb stem is identical in form to the inanimate existential verb stem *ar-* (§6.3.6.1), but differs from existential *ar-* in all four of the features listed in TABLE 6-17. First, it is not animacy-sensitive. Thus as illustrated in (6-40) below, the copula verb remains *ar-* whether the subject NP is animate or inanimate.

(6-40) a. *kari=a* *sinsii=du* *a-tar*.
 3SG=TOP teacher=FOC COP-PST
 ‘He was a teacher.’ [animate subject NP]

b. *banti=ga* *jaa=ja* *imi+jaa=du* *a-tar*.
 1PL=GEN house=TOP small+house=FOC COP-PST
 ‘Our house was a small house.’ [inanimate subject NP]

(6-44) *kari=a* *minku=gami=du* *jar-Ø.*
 3SG=TOP deaf=EMP=FOC COP-NPST

‘He’s a damn deaf (guy)!’

(6-45) *midum* *ja-tigaa,* *kaami=ti* *as-i-Ø.*
 female COP-CVB.CND Kaami=QT do-THM-IMP

‘If (the baby) is a girl, name her *Kaami*.’

(6-46) *kiban+pžtu* *ja-i-ba,* *nau=mai* *njaa-n-Ø.*
 poor+man COP-THM-CVB.CSL what=even not.exist-NPST

‘Because (I) am a poor man, I have nothing.’

(6-47) *kari=a* *zau+midum* *jar-Ø=ruga=du,*
 3SG=TOP good+woman COP-NPST=but=FOC

apavci+midum=dooi.

talkative+woman=EMP

‘She’s a good woman, but also a talkative woman.’

Compare (6-45) to (6-47) with the examples in which the inanimate existential verb appears in the same types of non-main clause, where no *jar-* allomorph is observed:

(6-48) *zin=nu* *a-tigaa,* *zjautuu+jasīci=nkai* *asī-Ø.*
 money=NOM exist-CVB.CND great+house=ALL do-NPST

‘If (there) were money, (I) would make (my house) a better one.’

(6-49) *kari=a* *taja=nu* *a-i-ba,*
 3SG=TOP strength=NOM exist-THM-CVB.CSL

nuuma=u=mai *pžk-ai-r.*
 horse=ACC=even pull-POT-NPST

‘Because he has (great) physical strength, (he) can even pull a horse.’

(6-50) *nkjaan=na* *bannja=mai* *a-tar=ruga,*
 old.times=TOP field.hut=too exist-PST=but

nnama=gami=a *mii-n-Ø=ni.*
 now=EMP=TOP see-NEG-NPST=CNF

‘In older times (there) were field huts, but now (we) don’t see them, eh?’

6.3.6.3. State verb

The state verb *ar-* ‘be’ differs from the existential verb *ar-* only in that the former is not animacy-sensitive, as in the case of the copula verb *ar-*. This is shown in the example below, where the verb stem *ar-* does not alternate with *ur-* as would be expected in the existential verb.

(6-51) a. *kari=a* *taka-fi=du* *ar-Ø.*
 3SG=TOP high-AVLZ=FOC be-NPST

‘He is (in a) tall (state).’ [animate subject NP]

b. *kanu* _____ *jama=a* *taka-fi=du* *ar-Ø*.
 that mountain=TOP high-AVLZ=FOC be-NPST

‘That mountain is (in a) high (state).’ [inanimate subject NP]

The state verb *ar-* and the existential verb *ar-* as opposed to the copula verb *ar-* shares the morphological characteristic whereby these are negated by suppletion (see §6.3.6.1 for the existential verb), whereas the copula verb *ar-* is negated by using the regular negative suffix *-n* (see §6.3.6.2).

(6-52) *kari=a* *taka-fi=fa* *njaa-n-Ø*.
 3SG=TOP high-AVLZ=FOC NEG-NPST

‘He is (in a) tall (state).’ [the negative counterpart of (6-46a)]

Syntactically, the state verb *ar-Ø* ‘be’ takes the PC adverb (§8.3.2) *taka-fi* ‘in a high state’ as its complement, forming the state verb construction (§3.3.5.2).

6.4. Derivational morphology

In this section I describe the internal structure of the stem. As is shown schematically in (6-53) below, there are three major portions of a stem: the primary stem (‘Stem_p’ slot below), the derivational affix chain, and a thematic vowel.

(6-53) **Primary stem** **Derivational affix chain** **Thematic vowel**
 Stem_p (-CAUS)(-PASS)(HON) (-THM)

A primary stem may be derived by compounding or by a class-changing derivation

(property concept stem > verb primary stem). The latter process is described in Chapter 8. A primary stem optionally carries a derivational affix chain that consists of voice affixes and honorific affixes in the order specified in (6-53). After all these derivations a thematic vowel optionally appears depending on the class of the entire stem and the inflectional affix that follows, as was described in §6.2.

In what follows I first describe derivational affixes, then primary stem formation for presentational purposes.

6.4.1. Derivational affixes

As shown in (6-53) above, derivational affixes are voice and honorific affixes. The ‘PASS’ slot is filled by the affix *-(r)ai*, which has a range of functions in addition to passive marking, i.e. malefactive marking and potential marking. I henceforth refer to this single form that fills the PASS slot as the passive affix, but I indicate its specific function in the interlinear gloss: passive (PASS), malefactive (MAL), and potential (POT).

It is not common for a verb to carry all three affixes, but elicitation confirmed that each affix shows the above ordering when they co-occur. When a derivational affix extends a stem, the class of the whole stem is determined by the final segment of the stem: as is illustrated in (6-54) and (6-55) below, there are two causative affixes *-as* (which only attaches to a Class 2 stem) and *-simi* (which only attaches to a Class 1 stem). Since a Class 1 is categorised as a stem ending in /i/ and a Class 2 is as a stem ending in a segment other than /i/, the stem with *-as* is a Class 2 stem, whereas the stem with *-simi* is a Class 1 stem. Thus in (6-54) below the stem *mii-* ‘look’ and the extended stem *mii-simi* both carry the non-past unmarked suffix *-r*, which demonstrates that both are Class 1 stems. Likewise, in (6-55) below the stem *nak-* ‘cry’ and the extended stem

nak-as both show non-past unmarked zero affixation, which demonstrates that both are Class 2 stems.

(6-54) Class 1 stem *mii-* ‘look’ + causative *-sīmi* > Class 1 stem *ibi-sīmi-*

a. *mii-r*

look-NPST

‘look’

b. *mii-sīmi-r*

look-CAUS-NPST

‘make (someone) look’

(6-55) Class 2 stem *nak-* ‘cry’ + causative *-as* > Class 2 stem *nak-as-*

a. *nafi-∅*

cry-NPST

‘cry’

b. *nak-asī-∅*

write-CAUS-NPST

‘make (someone) cry.’

Likewise, the passive-malefactive-potential affix *-(r)ai* creates a Class 1 stem. However, the honorific affix *-(s)ama*, which does not end in /i/ so is expected to create a Class 2 stem, is exceptional in that it creates a Class 1 stem rather than an expected Class 2 stem.

(6-56) Class 2 stem *nak-* ‘cry’ + malefactive *-(r)ai* > Class 1 stem *nak-ai-*

a. *nafi-∅*

cry-NPST

‘cry.’

b. *nak-ai-r*

cry-MAL-NPST

‘is cried’

(6-57) Class 2 stem *nak-* ‘cry’ + honorific *-(s)ama* > Class 1 stem *nak-ama-*

a. *nafi-∅*

b. *nak-ama-r*

cry-NPST

‘cry’

cry-HON-NPST

‘cry:HON’

6.4.1.1. Causative *-sīmi, -as*

The light verb *(a)s-* is a Class 2 stem, but the causative suffix that it carries is *-sīmi*.

Also, when it occurs with the causative suffix, the affix-initial *s* is deleted (*(a)s-* + *-sīmi* > *(a)s-īmi*).

(6-58) *uu-fi-∅* *nar-i-i* *daizīna* *buuciri=jarruga*
 big-VLZ-MED become-THM-MED very mighty.one=but

vva=n=mai *mii-sīmi-baa=i=ti*.

2SG=DAT=too see-CAUS-NPST.OPT=CNF=QT

‘(He) has become a big boy, though (he’s) a mighty boy, (I) want to let you see (him), you know.’ [*mii-* is a Class 1 stem]

(6-59) *taru=nu=ga* *nak-asī-tar=ga?*
 who=NOM=FOC cry-CAUS-NPST=FOC
 ‘Who has made (you) cry?’ [*nak-* is a Class 2 stem]

(6-60) *nau=mai* *a-sīmi-da*
 what=even do-CAUS-NEG.MED

taigaku *s-īmi-tar*.

withdrawal.of.school do-CAUS-PST

‘(My parents) did not allow me to do anything, and made me withdraw from school.’ [(a)s- is a Class 2 stem]

6.4.1.2. Passive-malefactive-potential *-(r)ai*

The passive suffix is *-(r)ai*. The bracketed /r/ is inserted when attaching to a Class 1 stem. As illustrated in (6-61), *-ai* attaching to Class 2 stems further undergoes the geminate copy insertion rule (§2.7.1) if the host ends in moraic /C/.³⁹ The examples below illustrate typical functions of the affix (see §10.4 for more detail).

(6-61) *ba=a* *sinsii=n=du* *ž-žai-tar.*
 1SG=TOP teacher=DAT=FOC scold-PASS-PST
 ‘I was scolded by the teacher.’ [passive]

(6-62) *ba=a* *jumunu=n* *mm=mu=baa* *fa-ai-tar.*
 1SG=TOP rat=DAT potato=ACC=TOP eat-MAL-PST
 ‘I had my potatoes eaten by rats’ [malefactive]

(6-63) *ba=a* *saki=u=baa* *num-ai-r-m=dooi.*
 1SG=TOP sake=ACC=TOP drink-POT-NPST-RLS=EMP
 ‘I can drink sake.’ [potential]

³⁹ The analysis that /r/ is inserted is not without cost, as it cannot explain why /r/ is inserted. On the other hand, another analysis where /r/ is deleted when the underlying *-rai* attaches to a Class 2 stem is explainable in terms of cluster reduction. However, this latter analysis is problematic when dealing with such an example as (6-61), where a moraic C is followed by *-rai*. In the latter analysis, *ž- + -rai* turns into *ž-žai* as a result of an ad-hoc assimilation process. The current analysis (with underlying *-ai*) can deal with this consistently by referring to predictable geminate copy insertion, as suggested above. Thus I adopt the current analysis. Similarly, in §6.4.1.3, I adopt the ‘insertion’ analysis for *-(s)ama* (e.g. *bž-* ‘sit’ + *-ama* > geminate copy insertion > *bž-žama*, as in (6-68) below).

6.4.1.3. Honorific *-(s)ama*

The honorific affix *-(s)ama* appears after a voice affix when they co-occur. The initial /s/ is inserted when it is attached to a Class 1 stem. Also, when *-(s)ama* is attached to a Class 1 stem, the initial /s/ is frequently replaced by /h/ (*mii-sama-r* ~ *mii-hama-r* ‘look:HON’ (look-HON-NPST)). The final /a/ of *-(s)ama* is not a thematic vowel but an inherent part of the affix: we do not have **-(s)am-i* in any environment. A stem containing *-(s)ama* thus belongs to Class 1, and does not carry a thematic vowel. It is followed by the non-past unmarked suffix *-r* rather than *-∅*.

The honorific affix is losing productivity. Most of the attested examples of *-(s)ama* are in fixed greeting expressions or in traditional song lyrics.

(6-64) *ganzuunar=ra* *s-i-i* *ur-ama-r-m=mu?*
being.healthy=ACC2 do-THM-MED PROG-HON-NPST-RLS=FOC
‘(Are) you healthy?’ [a fixed greeting expression]

(6-65) *duju-ta=ga* *kjuu=nu* *ugunaar=ra*
1PL.INCL-PL=GEN today=GEN gathering=TOP

kan+ganasi=nu *jurus-i-i* *uk-ama-r.*
god+beloved=NOM allow-THM-MED PRF-HON-NPST
‘Today’s gathering of ours, the god has allowed.’ [in a traditional song]

Honorific *-(s)ama* has an irregular form for the irrealis imperative: *-ci* rather than expected *-ru*. Furthermore, this imperative form is by far the most well attested use of honorific *-(s)ama*. Most younger speakers (in their 40’s and younger) can only construct

honorific forms with the fixed form STEM-(s)*amaci*.

(6-66) *jurus-i-i* *fii-sama-ci*.
forgive-THM-MED BEN-HON-IMP
'Please forgive me.'

(6-67) *zuu* *nkjagi-sama-ci*.
INTJ eat.HON-HON-IMP
'Now, please eat.'⁴⁰

(6-68) *kuma=n* *bž-žama-ci*.
this.place=DAT sit-HON-IMP
'Please be seated here.'

6.4.2. Primary stem

In this section I describe primary stem formation and related constructions. Three major construction types are described here: (1) compound, (2) agglutinative serial verb construction (SVC) and auxiliary verb construction (AVC), and (3) phrasal SVC and AVC. These are distinguished in terms of whether a sequence of verb stems (V1 and V2) form a single primary stem (whose boundary is schematically shown as []), and whether the sequence may occur as a complex stem of a word (indicated by '+') or as a phrase (i.e. each stem appears as a word; a word boundary is indicated by # below).

⁴⁰ *nkjagi-* 'eat' (Class 1) is a lexical (suppletive) honorific form corresponding to non-honorific *faw-* 'eat' (thus *nkjagi-samaci* is double-marked for honorification). *nkjagi-* is the only form that I identified as a lexical honorific form in Irabu.

TABLE 6-19. verb-verb compound, agglutinative SVC, and AVC

Compounding	[V1+V2]
Agglutinative SVC/AVC	[V1]+[V2]
Phrasal SVC/AVC	[V1]#[V2]

Thus, a compound forms a single complex primary stem, whereas an agglutinative SVC/AVC forms a complex stem consisting of two primary stems. A complex phrase consists of two (or more) words. As will be described in what follows, some agglutinative AVCs are rearranged as phrasal AVCs.

In this section, our focus is on compounding and agglutinative SVC/AVC, as they constitute a stem within a verb. Phrase structure will be taken up in Chapter 7.

6.4.2.1. Compounds

Compounding two verb stems (V1 + V2) forms a single primary stem. As a single primary stem, the entire compound carries derivational affix(es) (if any) and an inflectional affix, and it is impossible for each component stem to carry these affixes independently. Although verb-verb compounds are largely compositional in meaning, it is collocational (i.e. the combination of V1 and V2 is not productive), and it is necessary for each V1+V2 to be listed as lexical items. Example (6-69) illustrates a semantically non-compositional compound, whereas (6-70) illustrates semantically compositional compounds.

(6-69) *panki+naur-Ø* (split+grow-NPST) ‘bloom’

(6-70) a. *karagi+ukusi-Ø* (turn.over+get.up-NPST) ‘turn up (window, etc.)’

- b. *kaci+kai-r* (write+change-NPST) ‘rewrite’
- c. *tur+kai-r* (take+change-NPST) ‘replace’
- d. *sici+bžžfi-Ø* (lay+crush-NPST) ‘crush something by laying it’
- e. *usi+cii-Ø* (push+crush-NPST) ‘crush’
- f. *usi+tausii-Ø* (push+get.down-NPST) ‘push down’
- g. *pžk-i+rri-r* (pull-THM+let.into) ‘pull in’
- h. *pžfi+mudusi-Ø* (pull+return-NPST) ‘draw back’
- i. *kurugi+uti-r* (turn.round+drop-NPST) ‘tumble down’
- j. *tuv+uri-r* (jump+go.down-NPST) ‘drop down’

From the examples above, it is possible to make several generalisations. First, if V1 is a Class 2 stem, the stem form must be an athematic stem (§6.3.4) rather than a bare root. Morphophonemic nominalisation is also common (§6.3.4.5), as seen in (6-70b) and (6-70d), where *kak-* ‘write’ and *sik-* ‘lay’ appear as *kaci-* and *sici-* (nominalised form) rather than *kafi-* and *sifi-* (athematic stem) respectively. In very limited cases, V1 is a thematic *-i*, as in (6-70g). This synchronically exceptional form may have been common in earlier Irabu, as there are many fossilised compounds where a previous V1 stem can be considered to have been an *i* thematic stem: *mucjagar* ‘pop up’ (*muc-i* ‘carry’ + *agar* ‘go up’), *tacjagar* ‘stand up’ (*tac-i* ‘stand’ + *agar* ‘go up’), *pžkjagir* ‘pull up’ (*pžk-i* ‘pull’ + *agir* ‘lift’), etc. Here, */Ci+a/ (2 morae) is now reanalysed as /Cja/ (1 mora).

Second, there are some stems that often occur in the V1 slot and others that often occur in the V2 slot. For example, *usi-* ‘push’ and *pžfi-* ‘pull’ are well attested in the above examples as a V1 stem. Likewise, *kai-* ‘change’ and *agar-* ‘go up’ are common as a V2 stem. However, *usi-* and *pžfi-* do not freely combine with a large number of V2’s; *kai-* and *agar-* do not freely combine with a large number of V1’s. This is in sharp

contrast to agglutinative SVCs and AVCs described in the following sections, where V2 can combine with almost any V1.

Third, most verbal compound stems form separate phonological words in terms of (1) phonotactics and (2) the applicability of phonological rules. The prosodic evidence is irrelevant here, since in each example above V1 is one foot, which means that V1+V2 is treated as a single domain for rhythmic alternation (§2.9.4). With respect to (1) and (2), however, we see a phonological word boundary between V1 and V2. For example, in (6-70a) /ia/ occurs across the stem boundary, and it is pronounced as [i.a] rather than [ja:], the latter of which would be obtained if /ia/ occurred in a phonological word (§2.5.2). The same holds for (6-70i), where /iu/ is pronounced as [i.u] rather than [ju:]. In (6-70j), V1 ends in a coda /v/, and V2 begins in a vowel. There is thus a /C.V/ sequence, which would induce the geminate copy insertion rule (§2.7.1) to produce /C.CV/ if this sequence occurs in a phonological word. However, it is not the case in (6-70j), indicating that each stem is treated as a separate phonological word.

6.4.2.2. Serial verb construction (SVC)

Irabu SVCs fall into two types. First, there are agglutinative SVCs, where the component stems occur within a word rather than forming separate grammatical words. They can be called ‘one word constructions’ in Aikhenvald’s (2006) typology of SVCs. Second, there are phrasal SVCs, where the component stems occur as separate grammatical words (§7.1.3). In either case, Irabu SVCs are largely restricted to two-verb constructions.

There are two major differences between compound verbs and agglutinative SVCs in Irabu. First, V2 in an SVC never undergoes sequential voicing (§2.10.4), while V2 in a compound may do so (see, for example, (6-70d) *sīcī+bžžfi* ‘crush something by laying

it' where V2 is underlyingly *pžžk-* 'crush'). Second, unlike compounds, V1 and V2 in an SVC constitute separate primary stems. Since each stem is a primary stem, each can carry its own derivational affix as long as it is semantically appropriate. As a single word, however, the serialised stems carry a single inflectional affix.⁴¹ Thus, as is shown in (6-71) below, whereas it is possible for V1+V2 as a whole to carry a causative suffix (6-71b), it is also possible for V1 *ibi-* 'plant' and V2 *pazimi-* 'begin' to each carry the causative suffix *-simi*. These stems form a larger stem, which carries the past suffix *-tar*.⁴²

- (6-71) a. *ibi+pazimi-tar* b. *ibi+pazimi-simi-tar*
 plant+begin-PST plant+begin-CAUS-PST
 ' began planting ' ' ordered someone to begin planting '
- c. *ibi-simi+pazimi-simi-tar*
 plant-CAUS+begin-PASS-PST
 ' (e.g. a owner) ordered (a servant leader) to make (servants) plant. '

While V1 is almost unrestricted, V2 is chosen from a restricted set of verb stems that encode phases of actions (e.g. 'begin', 'stop', 'keep', etc.).

⁴¹ In Irabu, inflection is per word, so the fact that inflection occurs after the series indicates that the whole SVC constitutes one word. However, even though the situation where inflection occurs after an entire series is typical of SVCs in a number of languages, it does not necessarily indicate that the series constitutes a single word, as in Kalam (Andrew Pawley, p.c.).

⁴² In the case of a sequence of two primary stems, the 'stem' here would be called a 'verb theme', a higher-level unit consisting of primary stems (see Foley's 1991 description of Yimas for the notion verb theme).

TABLE 6-20. V2 in agglutinative SVC

Form	Class	Gloss	Example	
<i>pati-r</i>	1	finish (or use up)	<i>ibi+pati-r</i>	‘finish planting’
			<i>num+pati-r</i>	‘finish drinking’
			<i>tur+pati-r</i>	‘finish taking’
			<i>kafi+pati-r</i>	‘finish writing’
<i>uwar-Ø</i>	2	finish	<i>ibi+uwar-Ø</i>	‘finish planting’
			<i>num+uwar-Ø</i>	‘finish drinking’
			<i>tur+uwar-Ø</i>	‘finish taking’
			<i>kafi+uwar-Ø</i>	‘finish writing’
<i>pazimi-r</i>	1	begin	<i>ibi+pazimi-r</i>	‘begin planting’
			<i>num+pazimi-r</i>	‘begin drinking’
			<i>tur+pazimi-r</i>	‘begin taking’
			<i>kafi+pazimi-r</i>	‘begin writing’
<i>ciziki-r</i>	1	keep	<i>ibi+ciziki-r</i>	‘keep planting’
			<i>num+ciziki-r</i>	‘keep drinking’
			<i>tur+ciziki-r</i>	‘keep taking’
			<i>kafi+ciziki-r</i>	‘keep writing’
<i>maar-Ø</i>	2	wander	<i>ibi+maar-Ø</i>	‘plant here and there’
			<i>num+maar-Ø</i>	‘drink here and there’
			<i>tur+maar-Ø</i>	‘take here and there’
			<i>kafi+maar-Ø</i>	‘write here and there’

The verb *pati-* ‘finish’ and the verb *uwar-* ‘finish’ have different meanings. The former

encodes exhaustivity, or a ‘use up’ situation, whereas the latter encodes completion of an action. Thus, *num+pati-r* means ‘drink up’, whereas *num+uwar-Ø* means ‘finish drinking’ with no entailment of an exhaustive use of what is drunk. Likewise, *kafi+pati-r* means ‘write and use up paper’, and so on, while *kafi+uwar-Ø* means ‘finish writing’, with no entailment of an exhaustive use of what is written on.

The last example, i.e. *maar-* ‘wander’, is exceptional in that it may alternatively appear as an independent word, as shown in (6-72), like aspectual auxiliary verbs (to be discussed below). Semantically, too, it is like an aspectual auxiliary verb in that it encodes iterative aspect rather than a phase of action (initial phase, medial phase, and final phase).

(6-72)	<i>ibi+maar-Ø</i>	>	<i>ibi-i</i>		<i>maar-Ø</i>
	plant+wander-NPST		plant-MED		wander-NPST
	‘plant here and there’				

6.4.2.3. Auxiliary verb construction

The auxiliary verb construction (AVC) is defined as a ‘mono-clausal structure minimally consisting of a lexical verb element that contributes lexical content to the construction and an auxiliary verb element that contributes some grammatical or functional content to the construction’ (Anderson 2006: 7). In Irabu, there are two kinds of AVCs: agglutinative AVCs and phrasal AVCs (§7.1.4). As shown schematically in TABLE 6-19, an agglutinative AVC is a one-word construction, where V1 (lexical verb) and V2 (auxiliary verb) form a single grammatical word, carrying a single inflectional affix. A phrasal AVC consists of two words, and each word is inflected (see §7.1.4).

Three aspectual auxiliary verbs, progressive *ur-*, resultative *ar-*, and prospective

ufi- (§10.5.2), may form either an agglutinative AVC or a phrasal AVC. Other auxiliary verbs only form a phrasal AVC. In (6-73) below, the progressive auxiliary *ur-* can form an agglutinative AVC with the lexical verb *ibi-* ‘plant’ (6-73a) or it can stand as an independent word, forming a phrasal AVC with the lexical verb which is inflected for a medial verb form (the obligatory form for the lexical verb in a complex VP). In (6-74), on the other hand, the perfect auxiliary verb *njaa-* never forms an agglutinative AVC with the lexical verb. The two verbs always form a phrasal AVC.

- (6-73) Auxiliary 1 a. *ibi+ur-∅* (plant+PROG-NPST) ‘be planting’
 b. *ibi-i ur-∅* (plant-MED PROG-NPST) ‘be planting’

- (6-74) Auxiliary 2 *ibi-i njaa-n* (plant-MED PRF-NPST) ‘have planted’

The alternation between an agglutinative AVC and a phrasal AVC will henceforth be called ‘word-phrase alternation’. This alternation is in most cases motivated by the focus marking on the lexical verb (V1 in agglutinative AVCs). Since the phonological host of a focus marker must be a word(-plus) rather than a stem within a word, the lexical verb stem and the auxiliary stem in an SVC must be kept separate syntactically. This requires an agglutinative AVC to be turned into a phrasal AVC. However, when a focus is on another element (an argument, a VP complement, or an adjunct), the lexical verb and the aspectual auxiliary are very often fused into a single verb, as an agglutinative AVC.

- (6-75) a. *ba=a* *tigami=u* *kak-i-i=du* *u-tar.*
 1SG=TOP letter=ACC write-THM-MED=FOC PROG-PST

‘I was writing a letter’ [phrasal AVC]

b. *ba=a* *tigami=u=du* *kak-i+u-tar.*
1SG=TOP letter=ACC=FOC write-THM+PROG-PST

‘I was writing a letter.’ [agglutinative AVC]

(6-76) a. *ba=a* *tigami=u* *kak-i-i=du* *ar-Ø.*
1SG=TOP letter=ACC write-THM-MED=FOC RSL-NPST

‘I have written a letter.’ [phrasal AVC]

b. *ba=a* *tigami=u=du* *kak-i+ar-Ø.*
1SG=TOP letter=ACC=FOC write-THM+RSL-NPST

‘I have written a letter.’ [agglutinative AVC]

(6-77) a. *ba=a* *tigami=u* *kak-i-i=du* *ufi-kutu.*
1SG=TOP letter=ACC write-THM-MED=FOC PROS-OBL

‘I am supposed to write a letter.’ [phrasal AVC]

b. *ba=a* *tigami=u=du* *kak-i+ufi-kutu.*
1SG=TOP letter=ACC=FOC write-THM+PROS-OBL

‘I am supposed to write a letter.’ [agglutinative AVC]

6.5. Citation form

In the rest of this grammar, I use a finite unmarked form for the citation form of a verb.

Thus when we are talking of a verb designating ‘look’ without respect to its morphology,

I represent the form by *miir* (mii-r: look-NPST), and when we are talking of a verb designating 'write', I represent the form by *kafi* (kafi-Ø: write-NPST).

Chapter 7

The predicate phrase

The predicate phrase is either verbal or nominal. A verbal predicate phrase consists of a verb phrase (VP) and its complement (if required; §3.1.1.1; §3.3.5.2). A VP consists of a verb word other than the copula. A nominal predicate phrase consists of a nominal phrase (NP) and a copula verb which is omitted under certain conditions (§3.1.1.2). Clause-level clitics (§9.1.2) may be attached to a predicate, sometimes intervening between elements of the phrase, as shown in (7-1) and (7-2) below, and/or sometimes after an entire predicate, as shown in (7-3) and (7-4) below.

- (7-1) *ba=a* *hon=nu* *jum-i-i* =*du* *ur-Ø*.
1SG=TOP book=ACC read-THM-MED=FOC PROG-NPST
'I am reading a book.'

- (7-2) *kari=a* *sinsii* =*du* *a-tar*.
3SG=TOP teacher=FOC COP-PST
'He was a teacher.'

- (7-3) *kari=a* *mudur-i-i* *t-tar* =*pazĩ*
3SG=Z=TOP return-THM-MED come-PST=maybe
'He may have come back.'

- (7-4) *kari=a* *sinsii* =*pazĩ*.
3SG=TOP teacher=maybe

‘He may be a teacher.’

7.1. The structure of verbal predicate phrase

In this section I describe the internal structure of the verbal predicate phrase, which is schematically shown below:

(7-5)(VP complement+) [lexical verb 1 (+auxiliary verb/lexical verb 2)]_{VP}

Our focus in what follows is VP structure. See §3.1.1.1 and §3.3.5.2 for the description of VP complements.

7.1.1. Verb inflection within a VP

When a VP is internally complex, the first verb (V1) is a non-finite, medial verb form. The second verb (V2) is either a finite or a non-finite verb form, depending on whether the clause headed by the VP is independent or dependent. For example, the VP *purii ttar* in (7-6) has the structure V1_[medial] + V2_[finite], since the VP heads an independent clause. The VP *purii ccii* in (7-7), on the other hand, has the structure V1_[medial] + V2_[medial], since the VP heads a dependent clause that occupies a non-final slot in a clause chain (§11.3). The VP *purii ffiiba* in (7-8) has the structure V1_[medial] + V2_[converb], since the VP heads a dependent clause that functions as a causal adsentential clause (§11.4.1.3).

(7-6) *pai=kara* *mm=mu=du* *pur-i-i* *t-tar.*
field=ABL potato=ACC=FOC dig-THM-MED come-PST
‘From the field (I) dug potatoes and came.’ [head: finite verb]

(7-7) *mm=mu pur-i-i c-ci-i, fa-i-Ø.*
 potato=ACC dig-THM-MED come-THM-MED eat-THM-IMP
 ‘(You) dig potatoes and come, then eat (them).’ [head: medial verb]

(7-8) *mm=mu pur-i-i f-fi-ba, mac-i+ur-i-Ø.*
 potato=ACC dig-THM-MED come-THM-CVB.CSL wait-THM+PROG-
 -THM-IMP
 ‘Because (I) will dig potatoes and come, keep waiting.’ [head: converb]

7.1.2. Lexical verb and auxiliary verb

In a VP the structural head and the semantic head do not necessarily coincide. Let us examine this mismatch step by step. To begin with, the headship of a VP that lacks a structural dependent is uncontroversial, since the structural head is filled by a lexical verb, which is also a semantic head, i.e. the ‘primary information-bearing unit’ (Croft 2003).

(7-9) *ba=a pisir=ru=baa fau-ta-m=suga=du...*
 1SG=TOP lunch=ACC=TOP eat-PST-RLS=but=FOC
 ‘I ate lunch, but...’⁴³

On the other hand, in a complex VP where both the head slot and the dependent slot are filled, it is the verb filling the dependent slot that is morphologically marked for the dependency relation. Thus in (7-10) below, the structural dependent is marked by a special inflection, the medial verb form. However, this structurally dependent verb may

⁴³ The clitics =*suga* and =*du* are clause-level constituents and belong only phonologically to the VP.

be the semantic head, i.e. the primary information-bearing unit. Thus the structural dependent *faii* ‘eat’ is fully lexical in meaning, whereas the second verb *ar* encodes resultative aspect. On the other hand, it is this second verb *ar* which has finite inflection, and functions as the structural head.

(7-10)	<i>ba=a</i>	<i>pisir=ru=baa</i>	<u><i>fa-i-i=du</i></u>	<u><i>ar-Ø.</i></u>
	2SG=TOP	lunch=ACC=TOP	eat-THM-MED=FOC	RSL-NPST
	a. Structural headship:	Dependent	Head	Head
	b. Semantic headship:	Head	Dependent	Dependent
	‘I have eaten lunch.’			

In this grammar an auxiliary verb is defined as a verb within an internally complex VP that fills the structural head slot but serves as a semantic dependent. In the example above, the auxiliary is the resultative aspectual marker *ar*. Thus ‘auxiliary verb’ labels the mismatch between structural and semantic headship. A lexical verb is defined as the verb that serves as semantic head, which may be either a structural head (e.g. *fautam* in (7-9)) or a structural dependent (e.g. *faii* in (7-10)).

7.1.3. Phrasal serial verb constructions

7.1.3.1. Definition

Those VPs in which V2 is also a lexical verb, with a double semantic head structure, are phrasal serial verb constructions (see §6.4.2.2 for agglutinative SVCs that constitute a verb stem). A phrasal SVC has structural asymmetry, where the first verb is non-finite (medial verb form) and the second verb is finite (or non-finite, §7.1.1). An example of a phrasal SVC is:

(7-11) *agu=u* *jurab-i-i* *t-tar.*
 friend=ACC call-THM-MED come-PST
 ‘I brought my friends’ [lit. (I) called (my) friends and came back; motion]

(7-12) *tur-i-i,* *mmja,* *nak-i-i* *fau-ta-m=dara.*
 take-THM-MED INTJ cry-THM-MED eat-PST-RLS=CRTN
 ‘(I) took (the dish), and ate (it) crying.’

(7-13) *suu=ju* *makas-i-i* *tur-i-Ø.*
 vegetable=ACC pull-THM-MED take-THM-IMP
 ‘Pull the vegetable out.’ [lit. Pull the vegetable and take (it).]

By contrast, a phrasal auxiliary verb construction (AVC), as illustrated in (7-10) above, has both semantic and structural asymmetry (see §6.4.2.1 for agglutinative AVCs). That is, V1 is the semantic head and V2 is the semantic dependent, whereas V1 is the structural dependent and V2 is the structural head.

TABLE 7-1. AVCs and SVCs

	AVC		SVC	
	V1	V2	V1	V2
Semantic head	*		*	*
Structural head		*		*

Since semantic headship is a notion of more/less rather than either/or kind, the double semantic heads in an SVC are not given absolutely equal status: V1 of an SVC may be more semantically prominent than V2, or vice versa, even though both verbs can

still be seen as lexical verbs. For example, (7-11) above is a motion SVC, where the motion verb (V2) is less semantically prominent, since the argument structure is primarily determined by V1 (transitive). On the other hand, in (7-12) V2 is more semantically prominent than V1, since it is the V2 that determines the transitivity of the SVC as a whole, and V1 modifies V2 as a manner adverbial. In (7-13), it is difficult to judge whether V1 or V2 is semantically more prominent, as both A and O arguments are shared, and no modificational relationship is established between the two verbs. At any rate, in each of the examples, both verbs retain their lexical meaning.

On the other hand, V2 of an AVC is clearly a semantic dependent with much semantic bleaching. For example, the resultative aspectual auxiliary *ar* adds aspectual information to the event described by the lexical verb, and it does not retain its lexical meaning (*ar* '(inanimate subject) exist'). Cross-linguistically, an SVC is a typical diachronic source for AVCs (Payne 1997: 310; Anderson 2006: 11), and if either of the double semantic heads in an SVC has undergone a significant semantic bleaching or abstraction, the construction begins to be like an AVC. In Irabu, AVCs have V2 as an auxiliary verb expressing aspectual and benefactive categories (§7.1.4).

7.1.3.2. Typological characteristics of phrasal SVCs

The definition of an SVC given in the preceding section differs from that suggested in Aikhenvald's (2006: 1), where she states that 'a serial verb construction is a sequence of verbs which act together as a single predicate, *without any overt marker of coordination, subordination, or syntactic dependency of any other sort*' (emphasis mine).

This definition certainly excludes the Irabu VP (and other complex predicates in Japanese, Korean, and so-called Altaic languages), since the first verb shows syntactic dependency (non-finite inflection). However, there are enough functional-typological

similarities for us to use the same term for the Irabu case.⁴⁴ In general, SVCs often (but by no means must) exhibit the following characteristics (Foley and Olson 1985; Givón 1990; Durie 1997; Pawley and Lane 1998; Aikhenvald 2006; *inter alia*), all of which are shared by Irabu SVCs, as briefly noted in what follows:

- (1) monoclausality
- (2) argument sharing
- (3) encoding of sequential events, manner, motions, etc.
- (4) shared predicate categories ('operators' in Foley and Van Valin's 1984 terms) such as tense and mood
- (5) single intonational unit

(1) Monoclausality

A phrasal SVC is monoclausal, serving as a single predicate. If it occurs in an independent clause, it consists of a medial verb and a finite verb. This analysis requires careful justification, as medial verbs occur in two structural contexts: as V1 within a VP, e.g. (7-14), and as the head of a non-final clause in a chain (7-15).

(7-14) *agu=u* *jurab-i-i* *t-tar*.
friend=ACC call-THM-MED come-PST
'(I) brought my friends' [lit. (I) called (my) friends and came back.]

⁴⁴ See also Payne (1997: 311) and Shibatani and Huang (2006) for a similar claim that non-finite marking on a verb within a series does not necessarily exclude the possibility to call the construction an SVC, as such exclusion would entail a loss of generalisation.

(7-15) *agu=u* *jurab-i-i,* *t-tar.*
 friend=ACC call-THM-MED come-PST

‘(I) called (my) friends, and (I) came back.’

There is a criterion for distinguishing between the two structures. A VP is a tight syntactic knit, while two verbs in a clause chain are not. This is easily tested by seeing whether it is possible to insert a word between the two verbs in each case. The following example can only be interpreted as two verbs in a clause chain, since the adverb *sugu(=du)* ‘right away’ intervenes between the first verb and the second verb.

(7-16) *agu=u* *jurab-i-i,* *sugu=du* *t-tar.*
 friend=ACC call-THM-MED right.away=FOC come-PST

‘(I) called (my) friends, and (I) came back right away.’

By contrast, if a VP is to be modified by an adverb, it must be placed before the whole VP (7-17).

(7-17) *agu=u* *sugu=du* *jurab-i-i* *t-tar.*
 friend=ACC right.away=FOC call-THM-MED come-PST

‘I brought my friends right away.’

There is a significant difference in semantics between (7-14) and (7-15) above. In the monoclausal SVC (7-14), the act of calling a friend and the act of coming (back) are directly related, thus the speaker actually brought the friend, coming together with him. In Lord’s (1974) terms, the second verb is ‘always in some sense a further development,

result, or goal' of the first verb. On the other hand, in the biclausal (7-15), it may be possible that the speaker alone came back.

(2) Argument sharing

Both verbs in a VP (either an SVC or an AVC) must share a subject, whereas two verbs in a chain may not. In (7-18) below the subject of the VP is *ba=a* 'I', which is shared by both V1 and V2.

(7-18) *ba=a* *agu=u* *jurab-i-i* *t-tar*.
 1SG=TOP friend=ACC call-THM-MED come-PST
 'I brought my friends' [lit. I called (my) friends and came back.]⁴⁵

In a clause chain like (7-19) below, a medial verb inflection usually signals same-subject reference. Thus in (7-19) the second clause lacks an overt subject, but the subject in the second clause is interpreted as the same as that in the first.

(7-19) *ba=a* *agu=u* *jurab-i-i,* *t-tar*.
 1SG=TOP friend=ACC call-THM-MED come-PST
 'I called (my) friends, and came.'

⁴⁵ It is important *not* to confuse semantic subject and grammatical subject (the latter of which is what I mean by 'subject'). Of course, subject sharing is meant for the latter concept. (7-18) 'I brought my friends' has the meaning 'I called my friends and *I and my friends* came back'. Here, one might argue that the semantic subject is *I and my friends*, and call into question the generalisation that subject sharing is obligatory. However, in terms of syntax, the subject must be 'I'. For example, if one says (7-18) with the reflexive pronoun, as in *unagadu=sii* (RFL=INST) 'by oneself', the reflexive pronoun must refer to 'I', not 'I and my friends'. See §3.4.1 for reflexive control of subject.

However, this same subject entailment is not an absolute rule. As is illustrated in (7-20) below, it is possible for each clause to have a different subject.

- (7-20) *ba=ga agu=u jurab-i-i, kai=ga=du t-tar.*
 1SG=NOM friend=ACC call-THM-MED 3SG=NOM=FOC come-PST
 ‘(I) called (my) friends, and (among them) he came.’

(3) Encoding of sequential events, manner, motions, etc.

Phrasal SVCs encode sequential subevents (iconically ordered) that constitute a larger single event. The subevents are often iterative, as shown in (7-22) and (7-23), but may be manner (7-24) to (7-28), motion (7-29) and (7-30), and so on.

- (7-21) *vvadu=ga sin-i-i par-tigaa=dumma,*
 2PL=NOM die-THM-MED leave-CVB.CND=EMP

iravci=mai njaa-n-Ø.

Irabu.language=too not.exist-NPST

‘If your generation dies out, the Irabu language will also disappear.’ [sequential events]

- (7-22) *ami fii-Ø atu=n=na ssudur=nkai ik-i-i,*
 rain fall-NPST after=DAT=TOP ssudur=ALL go-THM-MED

nuur+zuu=ju=mai tur-i-i fau-Ø.

nuur+plant=ACC=too pick-THM-MED eat-NPST

‘After it rains (I) go to Ssudur (place name), and pick and eat nuurzuu plant.’

[sequential events: iterative]

- (7-23) *kai bazakar-i-i, f-fa-Ø=tti as-i-i,*
like.that show.claw-THM-MED bite-THM-INT=QT do-THM-MED
uri=a tur-i-i rri-i...
3SG=TOP take-THM-MED put.in-MED

‘(The crab) showed its claw, moving menacingly, (and I) took it and put it into (the basket).’ [sequential events: iterative]

- (7-24) *nuuma=n nuur-i-i par-tar=ca.*
horse=DAT ride-THM-MED leave-PST=HS
‘(He) left riding on a horse.’ [manner]

- (7-25) *kata+bata=u=baa jak-i-i fau-Ø.*
half+body=ACC=TOP burn-THM-MED eat-NPST
‘(They) (would) burn and eat the half of the body.’ [manner]

- (7-26) *uri=u nak-i-i=du fau-tar.*
3SG=ACC cry-THM-MED=FOC eat-PST
‘(She) ate it crying.’ [manner]

- (7-27) *mma=a naa=ga ffa=u=baa takara=ti=du*
mother=TOP oneself=GEN child=ACC=TOP treasure=QT=FOC

umu-i+u-i-ba=i,

think-THM+PROG-THM-CVB.CSL=CNF

ffa=nu pana+dar=ru=mai jub-i-i tur-Ø.

child=GEN nose+snout=ACC=even suck-THM-MED take-NPST

‘A mother thinks that her baby is a treasure, you know, (she) can suck out the snout of baby’s snout.’ [manner]

(7-28) *icu=u=baa, mmja, fizi=sii kir-Ø.*

thread=ACC=TOP INTJ mouth=INST cut-NPST

mata, umaci=sii jak-i-i kir-Ø.

and fire=INST burn-THM-MED cut-NPST

‘(One) cuts threads with his mouth; also (one can) cut (threads) by burning (them) with fire.’ [manner]

(7-29) *uttussu=mai saar-i-i ifi-ta-m=dara.*

younger.brother=too accompany-THM-MED go-PST-RLS=CRTN

‘(I) took my younger brother, too (to some place).’ [motion]

(7-30) *mm+pur-ja-gama=a muc-i-i ik-i-i,*

potato+dig-NLZ-DIM=ACC2 carry-THM-MED go-THM-MED

pžk-i-i c-ci-i...

pull-THM-MED come-THM-MED

‘(people would) take (lit. carry go) a potato digger (to the field), and pull and bring (potatoes)...’ [motion]

(4) Shared predicate categories

Since V1 of a phrasal SVC is a non-finite form, the specification of tense and mood (finite inflectional categories) is dependent on V2, which can be inflected for these categories. The scope of interrogation is also over an entire SVC:

(7-31) *vva=a unu panas=su=baa cik-as-i-i maar-tar=ru?*
 2SG=TOP that story=ACC=TOP hear-CAUS-THM-MED wander-PST=
 =Q

‘Did you visit hear and there exposing that talk?’

(7-32) *aa+gara=u=ru tur-i-i siti-r?*
 foxtail.millet+hull=ACC=FOC take-THM-MED do.away.with-NPST

‘Do (I have to) take and do away with the hulls of foxtail millet?’

On the other hand, the second verb in a clause chain can be independently interrogated, with the truth value of the first clause being presupposed.

(7-33) *vva=a uja=nu sin-i-i,*
 2SG=TOP father=NOM die-THM-MED

mjaaku=nkai=ja kuu-t-ta-m=mu?
 Miyako=ALL=TOP come-NEG-PST-RLS=Q

‘Didn’t you come back_{V1} to Miyako even when your father died_{V2}?’

Negation is more complicated. First, a medial verb is inflected for negative polarity, choosing either an affirmative form *-i* or a negative form *-da*. Thus V1 can be independently negated within an SVC. This is also true for an AVC.

(7-34) *munu=u=mai* *až-žá-da* *par-tar.*
 thing=ACC=even speak-THM-NEG.MED leave-PST
 ‘(He) left without speaking anything.’

(7-35) *maasu=u=baa* *maadaa* *fa-a-da=du* *ur-Ø.*
 salt=ACC=TOP not.much eat-THM-NEG.MED=FOC PROG-NPST
 ‘I am taking care not to eat too much salt.’

When V2 is negated with a finite inflection, either the scope is over an entire SVC, as illustrated in (7-36) below, or V1 is negated with contrastive meaning, as illustrated in (7-37) below. In the latter case, V1 is topic-marked, as the topic marking designates contrastive meaning.

(7-36) *banti=a* *kiban-ka-ta=iba,* *waa-nagi=a*
 1PL=TOP poor-VLZ-PST=so pig-APPR=TOP

kurus-i-i *fa-a-t-ta-m.*
 kill-THM-MED eat-THM-NEG-PST-RLS
 ‘We were poor, so did not kill and eat pigs.’

(7-37) *waa-nagi=a, kuris-i-i=ja fa-a-t-tar=ruga,*
 pig-APPR=TOP kill-THM-MED=TOP eat-THM-NEG-NPST=but

sǖs=su ka-i-i=du fau-tar.
 meat=ACC buy-THM-MED=FOC eat-PST

‘(I) did not eat a pig by killing (one), but (I) bought and ate one.’ [i.e. I ate a pig not by killing but by buying its meat.]

(5) Single intonational unit

The verbs in a phrasal SVC or AVC undergo phrasal mapping of rhythmic alternation (§2.9.4), whereas two verbs in a clause chain do not. Thus in (7-38) below, the V1 of the SVC has one foot and therefore is treated as part of the phonological word (i.e. the entire SVC) for the purpose of the rhythmic alternation.

(7-38) *agu=u jurab-i-i t-tar.*
 friend=ACC call-THM-MED come-PST

‘(I) brought (my) friends.’ [lit. (I) called (my) friends and came back]

(*aguu*) (*jura*)(*bii*) (*ttar*)

(H) (H) (Ø) (Ø)

By contrast, if these same verbs are used in a clause chain, as illustrated in (7-39) below, phrasal mapping does not occur, and each verb is treated as a phonological word. There is also a clear intonational break (pause) between the first verb and the second verb in a chain in (7-39).

(7-39) *agu=u* *jurab-i-i,* *t-tar.*
friend=ACC call-THM-MED come-PST
‘(I) brought (my) friends.’ [lit. (I) called (my) friends and came back]
(aguu) (jura)(bii) (ttar)
(H) (H) (Ø) (H)

7.1.4. Phrasal auxiliary verb constructions

A phrasal AVC consists of a lexical verb (medial verb inflection) and an auxiliary verb (see also §6.4.2.3 for a summary of Irabu AVCs). Functionally, phrasal AVCs fall into two major types: aspectual AVCs (§7.1.4.1) and benefactive AVCs (§7.1.4.2). The difference in function is carried by the auxiliary verb. It is also reflected in certain syntactic differences, as will be noted in what follows. As noted in §6.4.2.3, there is word-phrase alternation, where three aspectual auxiliaries (progressive *ur*, resultative *ar*, and prospective *ufi*) may alternatively form an agglutinative AVC where V1 and V2 constitute a single verb stem.

7.1.4.1. Aspectual AVCs

Aspectual AVCs express the basic aspectual distinctions of progressive, resultative, prospective (‘do something for future benefit/purpose’), perfect, and experiential (‘have ever done; try doing’), by selecting an appropriate aspect auxiliary verb (glossed PROG, RSL, PROS, PRF, and EXP respectively). A fuller functional account of aspect is provided in §10.5.2. Here it is sufficient to note the following three structural characteristics.

First, all aspect auxiliary verbs represent grammaticalisations of their lexical verb counterparts: progressive *ur* (< existential (for animate) *ur*), resultative *ar* (< existential

(for inanimate) *ar*), prospective *ufi* (< *ufi* ‘put; place’), perfect *njaan* (< negative stative *njaan* ‘be non-existent’), and *miir* (< *miir* ‘look’). These auxiliary verbs are illustrated in the examples below.

(7-40) Progressive

ffa=nu *nak-i-i=du* *ur-Ø*.
 child=NOM cry-THM-MED=FOC PROG-NPST
 ‘(My) child is crying.’

(7-41) Resultative

kuri=a *nak-i-i=du* *ar-Ø*.
 3SG=TOP cry-THM-MED=FOC RSL-NPST
 ‘This (one) has cried (to the effect that he has a red-rimmed eyes)’

(7-42) Prospective

mm=mu=baa *piicja-gama* *nukus-i-i=du*
 potato=ACC=TOP little.amount-DIM leave-THM-MED=FOC

ufi-kutu.

PROS-OBL

‘(We) have to keep a bit of potato (for dad who is absent).’

‘Tomorrow (I) have to catch fish’

(7-43) Perfect

kari=a *sin-i-i* *njaa-n.*
3SG=TOP die-THM-MED PRF-NPST
'He has died.' [lit. He died, and is non-existent]

(7-44) Experiential

ku=nu *harigani=u* *umaci=sii* *nbas-i-i* *mii-ru.*
this=GEN wire=ACC fire=INST stretch-THM-MED EXP-IMP
'Try stretching this wire with fire.'

Second, the auxiliary verbs that cannot form an agglutinative AVC, i.e. perfect *njaan* and experiential *miir*, are always contiguous with the lexical verb within an AVC, as illustrated in (7-43) and (7-44). That is, no focus marker or topic marker appears on the lexical verb.

Third, the perfect auxiliary is identical in form with the negative existential verb *njaan*. This can be seen in (7-43), where perfect aspectual AVC is literally 'died, and is non-existent'. However, the degree of semantic abstraction is such that the original semantic force does not necessarily hold. Thus in (7-45) below the auxiliary verb simply encodes a perfect event, and does not allow a literal interpretation '(I) read and that book is non-existent'.

(7-45) *hon=nu=baa* *jum-i-i* *njaa-n.*
book=ACC=TOP read-THM-MED PRF-NPST
'As for the book, (I) have read (it).'

7.1.4.2. Benefactive AVCs

Benefactive AVCs express actions that are directed to a person for his/her benefit.

(7-46) a. *ba=a* *maccja=nkai=du* *ifi-tar.*
1SG=TOP shop=ALL=FOC go-PST
'I went to a shop.'

b. *ba=a* *ui=ga* *kaari=n*
1SG=TOP 3SG=GEN stead=DAT

maccja=nkai=du *ik-i-i* *fii-tar.*
shop=ALL=FOC go-THM-MED BEN-PST
'I went to a shop instead of him.'

c. *kari=a* *ba=ga* *kaari=n*
3SG=TOP 1SG=GEN stead=DAT

maccja=nkai=du *ik-i-i* *fii-tar.*
shop=ALL=FOC go-THM-MED BEN-PST
'He went to a shop instead of me.'

The benefactive AVC is also observed in Japanese (Martin 1975). One interesting difference between Irabu and Japanese is that in Irabu the benefactive auxiliary is invariably *fiiir*, whereas in Japanese the choice of auxiliary depends on the deictic centre, i.e. on who is the beneficiary of the action: (1) *ageru* '(speaker) do for someone's

benefit (from speaker's point of view)', (2) *kureru* '(non-speaker subject) do for speaker's benefit', and (3) *morau* '(speaker) have something done for speaker's benefit.' Note that (1) and (2) are encoded by *fiir* in (7-46b) and (7-46c) respectively. Also, (3) is expressed by (7-46c), where the deictic centre is the subject and not the speaker.

7.1.4.3. Auxiliary ellipsis

A past-tense progressive auxiliary verb may undergo ellipsis. This phenomenon is in most cases an avoidance of repetition of a previous utterance that contains the auxiliary, as illustrated in (7-47), though some examples cannot be seen as avoidance of repetition, as illustrated in (7-48) where auxiliary ellipsis occurs without a previous mention of the auxiliary.

(7-47) A. *manjuu=gami=a ar-i-i=ru u-tar?*
 papaya=LMT=TOP exist-THM-MED=FOC PROG-PST
 'Were (there) papayas (in those days)?'

B. *ar-i-i=du.*
 exist-THM-MED=FOC
 '(There) were.'

(7-48) A. *ka=nu buuciri+jarabi=a=da?*
 that=GEN mighty+child=TOP=how.about
 'What has become of that mighty boy?'

B. *kari=a mmja nak-i-i=du.*
 3SG=TOP INTJ cry-THM-MED=FOC
 ‘(He) was crying.’

In other Miyako Ryukyuan varieties such as Ogami (Hosei Daigaku Okinawa Bunka Kenkyujo 1977; Thomas Pellard p.c.) auxiliary ellipsis is so common that such non-finite termination is now seen as a form of sentence-final verb. This may be a further diachronic development from the auxiliary ellipsis seen in Irabu: with a more and more productive use of ellipsis, the non-finite medial verb form (as a lexical verb) will more and more be felt to be a kind of ‘non-finite past form’. In Irabu, however, ellipsis is not at all frequent, so we can safely interpret it as ellipsis and regard the full VP as the unmarked option.

7.2. The structure of nominal predicate phrase

This section describes the structure of a predicate headed by an NP, or a nominal predicate. See §10.2.1 and §10.2.2 for the function of nominal predicates.

7.2.1. Basic structure

As mentioned in §3.1.1.2, a nominal predicate phrase consists of an NP as a predicate head, which may be focus-marked by the focus clitic (see §9.1.2.4 for syntactic distribution of this clitic), followed by a copula verb, which is obligatorily absent when certain conditions are met, i.e. in affirmative, in non-past tense, in absence of the focus clitic on the NP, and in a main clause (see §3.1.1.2 for detail). Thus, in the following pair of examples, (7-49a) contains the copula verb *atar* as it is in past tense, whereas in (7-49) it is absent, as the above-mentioned conditions are all met.

(7-49) a. *ba=a* *sinsii=du* *a-tar.*
 1SG=TOP teacher=FOC COP-PST
 ‘I was a teacher’

b. *ba=a* *sinsii.*
 1SG=TOP teacher
 ‘I am a teacher.’

A predicate NP may be headed by a nominal word (Chapter 5) or an adjective word (Chapter 8), even though it is less common for an adjective to fill this syntactic slot (TABLE 8-8 of §8.3.4.1). The nominal word that heads a predicate NP may be any subclass of nominal, i.e. a noun, a pronoun, a numeral, an interrogative, an indefinite, a compound derived from a PC stem (§8.3.4).

(7-50) a. *kanu* *pžtu=mai* *irav+pžtu=dooi.*
 that man=too Irabu+man=EMP
 ‘That man (is) also a man from Irabu.’ [nominal as head]

b. *kama=nu* *ngjamasii+ngjamasii=du* *a-ta=iba.*
 that.place=NOM RED+noisy=FOC COP-PST=so
 ‘For that place was noisy.’ [adjective as head]

In very limited cases, however, a predicate NP may also be headed by a verb that was historically composed of a verb followed by a formal noun, and this will be described in §7.2.2 below.

7.2.2. Secondary inflection

There are two bound forms, *kutu* ‘thing’ and *gumata* ‘?’,⁴⁶ which can be used either as a bound nominal word or a finite inflectional affix. In the latter case, I call these ‘secondary inflectional affixes’.

When used as a bound noun they head an NP modified by an adnominal clause, just like formal nouns (§4.2.1). In (7-51) and (7-52) below, the NPs take a copula verb.

(7-51) *vva=ga* *nkai-r* *kutu=du* *a-tar.*
2SG=NOM pick.up-NPST thing=FOC COP-PST

‘(It) was a you-pick-up (-your-child) case.’ [i.e. You should have picked up your child.]

(7-52) *vva=ga* *nkai-r* *gumata=du* *a-tar.*
2SG=NOM pick.up-NPST ?=FOC COP-PST

‘(It) was a you-pick-up(-your-child) case.’ [i.e. You were supposed to pick up your child.]

Note here that the preceding verbs that function as the predicates of the adnominal clauses are fully inflected (finite non-past unmarked), indicating that there is a grammatical word boundary between the verb and the secondary inflectional affix.

On the other hand, the same forms can be used as secondary inflectional affixes *-kutu* and *-gumata*. In this case, they are attached directly to the bare verb stem.

⁴⁶ Karimata (2003), in describing another Miyako Ryukyuan variety, Bora, notes that this form is a ‘formal noun’ i.e. a semantically abstract/empty nominal, which functions like a tense/mood formative that encodes definite future. As in the case of Bora, the lexical meaning of *-gumata* is unclear in Irabu as well.

(7-53) *vva=ga nkai-kutu=du a-tar.*
 2SG=NOM pick.up-OBL=FOC COP-PST
 ‘(It) was a you-pick-up(-your-child) case.’ [i.e. You should have picked up your child.]

(7-54) *vva=ga nkai-gumata=du a-tar.*
 2SG=NOM pick.up-ANTC=FOC COP-PST
 ‘(It) was a you-pick-up(-your-child) case.’ [i.e. You were supposed to pick up your child.]

It is reasonable, then, to treat the head nouns of (7-51) and (7-52) as being integrated into the finite verbal inflection paradigm in (7-53) and (7-54), paradigmatically contrasting with other finite inflectional affixes (§6.3.1). The secondary inflectional affixes *-kutu* and *-gumata* have irrealis modality in this environment. Thus *-kutu* is best characterised as irrealis obligative/potential (deontic or epistemic), and *-gumata* as irrealis anticipated future (epistemic).

The finite verbs of secondary inflection only head a main clause predicate, but unlike other finite verbs they fill the NP slot of the nominal predicate phrase. Note that in (7-53) and (7-54) the verbs of secondary inflection are followed by a copula verb. Also, like NPs they are negated with a copula verb:

(7-55) *vva=a nkai-kutu=u ar-a-n-Ø.*
 2SG=TOP pick.up-OBL=TOP COP-THM-NEG-NPST
 ‘(It) isn’t a you-pick-up(-your-child) case.’ [i.e. You are not supposed to bring your child.]

(7-56) *vva=ga* *nkai-gumata=a* *ar-a-n-Ø*.

2SG=NOM pick.up-NPST.ANTC=TOP COP-THM-NEG-NPST

‘(It) isn’t a you-pick-up(-your-child) case.’ [i.e. You are not supposed to pick up your child.]

The secondary inflection phenomenon is an example of a grammaticalised structure occurring alongside its un-grammaticalised source structure, a common situation cross-linguistically. In the case of *-gumata*, the degree of grammaticalisation is greater, as it is no longer used in its un-grammaticalised source structure. The crucial fact in dealing with secondary inflection is that the secondary inflectional affixes still show nominal features syntactically, retaining their original syntactic function as head of NPs (as they carry a copula), even though they are inflectional affixes in terms of verb morphology.

Chapter 8

Property concepts, adjectives, and other derivational processes

This chapter focuses on (1) issues to do with 'property concepts' ('high', 'good', 'white', etc.), including the description of the adjective class, and with (2) class-changing derivational processes. With regard to (1), there are four major word formation processes involving a given property concept stem (henceforth PC stem): adjective formation, nominal formation, verb formation, and adverb formation. With regard to (2), there are stem class-changing processes whereby a PC stem is derived from a verb stem, and a nominal stem is derived from a verb stem.

8.1. Property concept stems (PC stems)

A PC stem is a bound stem and requires suffixation, compounding, or reduplication to function as a grammatical word (a few exceptional free PC stems do exist; §8.1.2.2). An adjective is formed by reduplicating a PC stem (e.g. *taka-* 'high' > *takaa+taka*), and usually modifies the head nominal within an NP. The adjective class is fully described in §8.2. In addition to the adjective formation, there are three other ways to form a grammatical word from a PC stem: (1) a nominal compound (*taka+jama* 'high+mountain', *taka+munu* 'high(+thing)'), (2) a PC verb (*taka-ka-ta-m* 'was high-VLZ-PST-RLS'), and (3) a PC adverb (*taka-fi* 'high-ly'). Each constitutes a subclass of its respective word class. These are described in §8.3.

8.1.1. Property concept

Property concepts (Thompson 1988) are cross-linguistically likely to be expressed as 'adjectives'. Dixon (1982) identifies the following semantic categories of property

concepts.

TABLE 8-1. Property concepts and Dixon's (1982) semantic types

DIMENSION	<i>uku-</i> 'big'	<i>naga-</i> 'long'	<i>taka-</i> 'tall'	<i>pžsu-</i> 'wide'
AGE	<i>mžž-</i> 'new'	<i>baka-</i> 'young'	<i>gaba-</i> 'old'	<i>jari-</i> 'old'
VALUE	<i>zau-</i> 'good'	<i>bar-</i> 'bad'	<i>kagi-</i> 'lovely'	<i>pinna-</i> 'odd'
COLOUR	<i>ffu</i> 'black'	<i>ssu</i> 'white'	<i>aka</i> 'red'	<i>au</i> 'blue'
PHYSICAL PROPERTY	<i>kupa-</i> 'hard'	<i>iv-</i> 'heavy'	<i>cuu-</i> 'strong'	<i>aci-</i> 'hot'
HUMAN PROPENSITY	<i>kuukaci</i> 'mean'	<i>pukarasi</i> 'happy'	<i>umukutu</i> 'clever'	<i>pazikasi-</i> 'ashamed'
SPEED	<i>pjaa-</i> 'fast'	<i>niv-</i> 'slow'		

Many PC stems in Irabu are of these categories, but a number of PC stems belong to other categories such as Position, Difficulty, and Similarity (Dixon 2004: 5).

TABLE 8-2. Property concept roots and other semantic types

Position	<i>taka-</i> 'high'	<i>bžda-</i> 'low'	<i>tuu-</i> 'far'	<i>cika-</i> 'near'
Difficulty	<i>mucikasi-</i> 'difficult'			
Similarity	<i>junuguu</i> 'same'			

As indicated by '-' in TABLES 8-1 and 8-2 above, most PC stems are bound, except for a few free PC stems that may be zero-converted to nominal stems (see §8.1.2.2). For example, *junuguu* 'same' in TABLE 8-2 can stand alone if it is zero-converted to a nominal, and can function as head of an NP (either argument or predicate).

- (8-1) *ui=mai* *sīn-i-i,* *mmja,* *junuguu=n=du* *nar-tar.*
 3SG=too die-THM-MED INTJ same=DAT=FOC become-PST
 'He also died, and became the same (as another guy who had died).'

- (8-2) *kui=tu* *kui=tu=u* *junuguu=du* *jar-∅*.
 this=ASC this=ACC=TOP same=FOC COP-NPST
 ‘This and this are the same.’

8.1.2. Morphosyntax of the PC stem

A PC stem exhibits a number of morphosyntactic properties that distinguish it from other stem classes (nominal stems, verb stems, and adverb stems). I list them below, labelled (A), (B), and (C). (A) and (C) are borrowed from Motonaga (1978: 395).

(A) **REDUPLICATION:** a PC stem can be reduplicated. Unlike other kinds of reduplication such as verbal reduplication (§3.3.5.2; §10.5.2.6), PC stem reduplication involves a full reduplication *plus* lengthening of the stem-final phoneme by one mora. In some cases it is possible to consider that the reduplication expresses intensity by itself, but in others it is not. Rather, intensity is more regularly expressed by intonation and/or by the phonetic realisation of one-mora lengthening: the lengthening may be extra-long [ː] depending on the semantic intensity that speaker wishes to emphasise.⁴⁷

- (i) *taka-* ‘high’ > *takaa+taka*
- (ii) *kuu-* ‘hard’ > *kuuu+kuu*
- (ii) *kiban-* ‘poor’ > *kibann+kiban*

(B) **DIRECT QUOTATION** with stem-final lengthening: a PC stem can be directly

⁴⁷ Karimata (2002: 61) pointed out this fact as a tendency that holds true for Miyako Ryukyuan varieties in general. He argues that when lengthening is sustained over two morae (he apparently considers that there is a phonemic contrast between monomoraic and bimoraic lengthening, which I do not agree with), reduplication is interpreted as intensifier.

quoted by quotative clitic =*ti(i)*, where the PC stem undergoes the lengthening that is identical to that in reduplication (A). The semantic effect of this is a quoted exclamation. This lengthened PC stem is treated as an interjection, as it constitutes an utterance and is embedded into a matrix clause with the clitic =*ti(i)* (see §3.3.5.4 for the definition of interjections).

<i>takaa=ti=nu</i>	<i>pžtu</i>
high=QT=GEN	man
‘a man who is like, “(how) tall!”’	

(C) **SPECIAL DERIVATIONAL AFFIXES:** PC stems may have a distinct set of derivational affixes attached to them. These are the verbaliser *-ka(r)*, the state nominaliser *-sa*, and the adverbialiser *-fi*.

(i) <i>taka-ka-tar</i>	(ii) <i>taka-sa</i>	(iii) <i>taka-fi</i>
high-VLZ-PST	high-NLZ	high-AVLZ
‘was high’	‘highness; height’	‘highly’

The following table shows how various PC stems satisfy each criterion. Also, the table lists nominal stems (k-m), which satisfy one or more of the criteria, showing that these are less prototypical nominal stems and more like PC stems, as Motonaga (1978) pointed out.

TABLE 8-3. PC stems and nominal stems: distinctive criteria

		(A)	(B)	(C)		
					-sa	-fi
						-ka(r)
a	<i>taka-</i> ‘high’	*	*	*	*	*
b	<i>baka-</i> ‘young’	*	*	*	*	*
c	<i>bar-</i> ‘bad’	*	*	*	*	*
d	<i>cuu-</i> ‘strong’	*	*	*	*	*
e	<i>pukarasi-</i> ‘happy’	*	*	*	*	*
f	<i>niv-</i> ‘slow’	*	*	*	*	*
g	<i>au</i> ‘blue’	*	*	*	*	*
h	<i>aparagi</i> ‘beautiful (person)’	*	*	*	*	*
i	<i>ujaki</i> ‘rich’	*	*	*	*	*
j	<i>buuciri</i> ‘mighty (person)’	*	*	*	*	*
k	<i>avva</i> ‘oil’	*	*	?	*	*
l	<i>jarabi</i> ‘child’	*	*			*
m	<i>gudun</i> ‘dull person’	?	*			?

Note 1: The PC stems in (a-f) are taken from each column in TABLE 8-1. Others are taken from my own field note and Motonaga (1978: 395).

Note 2: * (attested)

? (grammaticality judgement varies among consultants)

The above table requires a number of comments. These correspond to the three parts of the above table, i.e. (a-f), (g-j), and (k-m). For the descriptive purposes, I define a PC stem as a stem that is consistently judged by consultants to satisfy all of (A), (B), and (C). Thus by my definition the stems belonging to (a-j) in TABLE 8-3 are PC stems. As discussed below, these PC stems fall into two subclasses: prototypical and less prototypical PC stems, depending on whether they are bound stems. The PC stems listed in the table are representative sample stems. There are quite a large number of PC stems in the Irabu lexicon (see, for example, Nakama 1992 for a large list of PC stems in Miyako Ryukyuan in general).

8.1.2.1. Prototypical PC stems: (a-f)

Among the three parts of TABLE 8-3, (a-f) are prototypical PC stems. They satisfy all of (A) to (C), and are bound. All of these denote the seven semantic types of property concept suggested by Dixon (1982). See TABLE 8-1 above.

Below I illustrate each prototypical PC stem (a) to (f) in terms of each of the morphosyntactic criteria (A) to (C).

(A) REDUPLICATION

taka- ‘high’ > *takaa+taka* [taka:(·)taka] ‘(very) tall’

baka- ‘young’ > *bakaa+baka* [baka:(·)baka] ‘(very) young’

bar- ‘bad’ > *barr+bar* [ba:(·)ba] ‘(very) bad’

cuu- ‘strong’ > *cuuu+cuu* [tsu:(·)tsu:] ‘(very) strong’

pukarasi- ‘happy’ > *pukarasii+pukarasi* [pukarasi:(·)pukarasi] ‘(very) happy’

niv- ‘slow’ > *nivv+niv* [niv:(·)niv] ‘(very) slow’

(B) DIRECT QUOTATION

taka- ‘tall’ > *takaa=ti=nu* *pžtu*
tall=QT=GEN man
‘a man who is like, “(how) tall!”’

baka- ‘young’ > *bakaa=ti=nu* *pžtu*
young=QT=GEN man
‘a man who is like, “(how) young!”’

bar- ‘bad’ > *barr=ti=nu* *pžtu*
bad=QT=GEN man
‘a man who is like, “(how) bad!”’

- cuu-* ‘strong’ > *cuuu=ti=nu pžtu*
 strong=QT=GEN man
 ‘a man who is like, “(how) strong!”’
- pukarasi-* ‘happy’ > *pukarasii=ti=nu cimuci*
 happy=QT=GEN feeling
 ‘a feeling like, “(how) happy!”’
- niv-* ‘slow’ > *nivv=ti=nu pžtu*
 slow=QT=GEN man
 ‘a man who is like, “(how) slow!”’

(C) SPECIAL DERIVATIONAL AFFIXES

- taka-* ‘tall’ > *taka-ka-ta-m* ‘was tall’
taka-sa ‘height’
taka-fi ‘high:ADV’
- baka-* ‘young’ > *baka-ka-ta-m* ‘was young’
baka-sa ‘youth’
baka-fi ‘young:ADV’
- bar-* ‘bad’ > *bar-ka-ta-m* ‘was bad’
bar-sa ‘badness’
bar-fi ‘bad: ADV’
- cuu-* ‘strong’ > *cuu-ka-ta-m* ‘was strong’
cuu-sa ‘strength’
cuu-fi ‘strongly’
- pukarasi-* ‘happy’ > *pukarasi-ka-ta-m* ‘was happy’
pukaras-sa ‘happiness’

pukarasi-fi ‘happily’

niv- ‘slow’ > *niv-ka-ta-m* ‘was slow’

niv-sa ‘slowness’

niv-fi ‘slowly’

8.1.2.2. Less prototypical PC stems: (g-j)

Less prototypical PC stems also satisfy all of criteria (A), (B), and (C), though they show certain nominal features as noted below. Let us first confirm the fact that they satisfy the three relevant criteria.

(A) *auu+au* [au:(·)au] ‘(very) blue’

aparagii+aparagi [aparagi:(·)aparagi] ‘(very) beautiful’

ujakii+ujaki [ujaki:(·)ujaki] ‘(very) rich’

buucirii+buuciri [bu:tʃiri:(·)bu:tʃiri] ‘(very) mighty’

(B) *auu=ti=nu* *tin*

blue=QT=GEN sky

‘the sky which is like, “(how) blue!”’

aparagii=ti=nu *pžtu*

beautiful=QT=GEN man

‘a man who is like, “(how) beautiful!”’

ujakii=ti=nu *pžtu*

rich=QT=GEN man

‘a man who is like, “(how) rich!”’

buucirii=ti=nu pžtu

mighty=QT=GEN man

‘a man who is like, “(how) mighty!”’

(C) *au-ka-ta-m* ‘was blue’

au-sa ‘blueness’

au-fi ‘blue:ADV’

aparagi-ka-ta-m ‘was beautiful’

aparagi-sa ‘beautifulness’

aparagi-fi ‘beautifully’

ujaki-ka-ta-m ‘was rich’

ujaki-sa ‘richness’

ujaki-fi ‘richly’

buuciri-ka-ta-m ‘was mighty’

buuciri-sa ‘mightiness’

buuciri-fi ‘mightily’

Even though PC stems (g-j) satisfy all of criteria (A), (B), and (C), they show the following nominal feature: they are free forms, and may function as an E argument of the verb ‘become’ by themselves (whereas prototypical PC stems (a-i) are bound). Thus,

as is illustrated below, whereas a prototypical PC stem (a) *taka-* ‘high’ cannot appear alone, a PC stem (h) *aparagi* ‘beautiful’ may appear alone, as an E argument.

(8-3) a. **taka=n=du* *nar-tar.*
 high=DAT=FOC become-PST
 ‘(She) became tall.’

b. *aparagi=n=du* *nar-tar.*
 beautiful=DAT=FOC become-PST
 ‘(She) became beautiful.’

In order to function as an E argument of the verb ‘become’ a prototypical PC stem must be transformed into an adjective (§8.2) or a compound nominal (§8.3.4), as illustrated in (8-4) below, and to function as a VP complement of the verb ‘become’, it must be transformed into a PC adverb (§8.3.2), as illustrated in (8-5) below.

(8-4) a. *takaa+taka=n=du* *nar-tar.*
 RED+high=DAT=FOC become-PST
 ‘(She) became tall.’ [adjective: as head of an E argument]

b. *taka+pžtu=n=du* *nar-tar.*
 high+person=DAT=FOC become-PST
 ‘(She) became a tall person.’ [compound nominal: as head of an E
 argument]

- (8-5) *taka-fi=du* *nar-tar.*
 high-AVLZ=FOC become-PST
 ‘became high’ [PC adverb: as a VP complement]

See §3.4.1 for the syntactic characteristic of the verb ‘become’, which may be either an extended intransitive verb (when it takes an E argument NP), or an intransitive verb (when it takes a VP complement).

Since *aparagi* is a PC stem, it may alternatively be a PC adverb form (satisfying (C)) and function as a VP complement of the verb ‘become’ rather than an E argument NP, as shown in (8-6).

- (8-6) *aparagi-fi=du* *nar-tar.*
 beautiful-AVLZ=FOC become-PST
 ‘became beautiful.’ [PC adverb: as a VP complement; cf. (8-3b)]

This multifunctional feature of less prototypical PC stems distinguishes them from prototypical nominal stems, which cannot function as an input stem of a PC adverb.

8.1.2.3. Less prototypical nominal stems: (k-m)

The stems belonging to this part are nominal stems rather than PC stems. They can satisfy one or more of (A) to (C), but do not consistently satisfy all of them. When these nominals occur in the structures of (A), (B), and (C), they take on the meaning of property concepts:

- (8-7) *avva* ‘oil’ (A) *avvaa+avva* [avva:(·)avva] ‘(very) oily’
 (B) *avvaa=ti=nu mssii*
 oil=QT=GEN miso.soup
 ‘miso soup like “(how) oily!”’
 (C) *avva-ka-tar* ‘was oily’
 ?*avva-sa* ‘oiliness’
avva-fi ‘oily:ADV’
- (8-8) *jarabi* ‘child’ (A) *jarabii+jarabi* [jarabi:(·)jarabi] ‘(very) childish’
 (B) *jarabii=ti=nu pžtu*
 child=QT=GEN man
 ‘a person who is like, “(how) childish!”’
 (C) *jarabi-ka-tar* ‘was childish’
 **jarabi-sa*
 **jarabi-fi*
- (8-9) *gudun* ‘dull person’ (A) ?*gudunn+gudun*
 (B) *gudunn=ti=nu pžtu*
 dull=QT=GEN person
 ‘a person who is like, “(how) dull!”’
 (C) *gudun-ka-tar* ‘was dull’
 **gudun-sa*
 **gudun-fi*

Other nominal stems that behave similarly include *maifiga* ‘wise child’, *waacina*

ujaki ‘rich (person)’ > *ujaki-gi* ‘seem to be rich’

buuciri ‘mighty (person)’ > *buuciri-gi* ‘seem to be mighty’

(A) REDUPLICATION

taka-gii+taka-gi [takagi:(·)takagi] ‘seem to be (very) high’

baka-gii+baka-gi [bakagi:(·)baka] ‘seem to be (very) young’

bar-gii+bar-gi [ba|gi:(·)ba|gi] ‘seem to be (very) bad’

cuu-gii+cuu-gi [tsu:gi:(·)tsu:gi] ‘seem to be (very) strong’

pukarasī-gii+pukarasī-gi [pukarasigi:(·)pukarasigi] ‘seem to be (very) happy’

niv-gii+niv-gi [niugi:(·)niugi] ‘seem to be (very) slow’

au-gii+au-gi [augi:(·)augi] ‘(very) bluish’

aparagi-gii+aparagi-gi [aparagigi:(·)aparagigi] ‘seem to be (very) beautiful’

ujaki-gii+ujaki-gi [ujakigi:(·)ujakigi] ‘seem to be (very) rich’

buuciri-gii+buuciri-gi [bu:tʃirigi:(·)bu:tʃirigi] ‘seem to be (very) mighty’

(B) DIRECT QUOTATION

taka-gii=ti=nu *pžtu*

tall-seem=QT=GEN man

‘a man who seems like, “(how) tall!”’

baka-gii=ti=nu *pžtu*

young-seem=QT=GEN man

‘a man who seems like, “(how) young!”’

bar-gii=ti=nu *pžtu*
bad-seem=QT=GEN man
‘a man who seems like, “(how) bad!”’

cuu-gii=ti=nu *pžtu*
strong-seem=QT=GEN man
‘a man who seems like, “(how) strong!”’

pukarasi-gii=ti=nu *cimuci*
happy-seem=QT=GEN feeling
‘a feeling that seems like, “(how) happy!”’

niv-gii=ti=nu *pžtu*
slow-seem=QT=GEN man
‘a man who seems like, “(how) slow!”’

au-gii=ti=nu *suu*
blue-seem=QT=GEN vegetable
‘a vegetable that seems like, “(how) bluish (green)!”’⁴⁸

aparagi-gii=ti=nu *pžtu*
beautiful-seem=QT=GEN man
‘a person who seems like, “(how) beautiful!”’

⁴⁸ In Irabu, the semantic range of *au* includes ‘green’ as well as ‘blue’.

(C) SPECIAL DERIVATIONAL AFFIXES

taka-gi-ka-ta-m (high-seem-VLZ-PST-RLS) ‘seemed to be high’

taka-gi-sa (high-seem-NLZ) ‘a situation in which something seems
to be high’

taka-gi-fi (high-seem-AVLZ) ‘seem to be high:ADV’

baka-gi-ka-ta-m (young-seem-VLZ-PST-RLS) ‘seemed to be young’

baka-gi-sa (young-seem-NLZ) ‘a situation in which something seems to be
young’

baka-gi-fi (young-seem-AVLZ) ‘seem to be young:ADV’

bar-ka-ta-m (bad-seem-VLZ-PST-RLS) ‘seemed to be bad’

bar-gi-sa (bad-seem-NLZ) ‘a situation in which something seems to be bad’

bar-gi-fi (bad-seem-AVLZ) ‘seem to be bad: ADV’

cuu-gi-ka-ta-m (strong-seem-VLZ-PST-RLS) ‘seemed to be strong’

cuu-gi-sa (strong-seem-NLZ) ‘a situation in which something seems to be
strong’

cuu-gi-fi (strong-seem-AVLZ) ‘seem to be strong:ADV’

pukasī-gi-ka-ta-m (happy-seem-VLZ-PST-RLS) ‘seemed to be happy’

pukasī-gi-sa (happy-seem-NLZ) ‘a situation in which something seems
to be happy’

pukasī-gi-fi (happy-seem-AVLZ) ‘seem to be happy:ADV’

niv-gi-ka-ta-m (slow-seem-VLZ-PST-RLS) ‘seemed to be slow’

niv-gi-sa (slow-seem-NLZ) ‘a situation in which something seems to
be slow’

niv-gi-fi (slow-seem-AVLZ) ‘seem to be slow:ADV’

au-gi-ka-ta-m (blue-seem-VLZ-PST-RLS) ‘seemed to be blue’

?*au-gi-sa* (blue-seem-NLZ) ‘a situation in which something seems to be blue’

au-gi-fi ‘seem to be blue: ADV’

aparagi-gi-ka-ta-m (beautiful-seem-VLZ-PST-RLS) ‘seemed to be beautiful’

?*aparagi-gi-sa* (beautiful-seem-NLZ) ‘a situation in which someone seems to
be beautiful’

aparagi-gi-fi (beautiful-seem-AVLZ) ‘seem to be beautiful:ADV’

ujaki-gi-ka-ta-m (rich-seem-VLZ-PST-RLS) ‘seemed to be rich’

?*ujaki-gi-sa* (rich-seem-NLZ) ‘a situation in which someone seems to be rich’

ujaki-gi-fi (rich-seem-AVLZ) ‘seem to be rich:ADV’

buuciri-gi-ka-ta-m (mighty-seem-VLZ-PST-RLS) ‘seemed to be rich’

?*buuciri-gi-sa* (mighty-seem-NLZ) ‘a situation in which someone seems to be
mighty’

buuciri-gi-fi (mighty-seem-AVLZ) ‘seem to be mighty:ADV’

8.2. The adjective class

8.2.1. Overview

This section outlines the morphological, semantic, and syntactic characteristics of adjectives.

8.2.1.1. Morphology

An adjective is a grammatical word created by reduplicating a PC stem, lengthening the final segment of the first reduplicate.⁴⁹

(8-12) PC stem	>	Adjective
<i>taka-</i> ‘high’		<i>takaa+taka</i> ‘high’
<i>kuu-</i> ‘hard’		<i>kuuu+kuu</i> ‘hard’
<i>kiban</i> ‘poor’		<i>kibann+kiban</i> ‘poor’

In addition, less prototypical nominal stems (§8.1.2.3) may be transformed into an adjective word.

(8-13) Nominal stem	>	Adjective
<i>avva</i> ‘oil’		<i>avvaa+avva</i> ‘oily’
<i>jarabi</i> ‘child’		<i>jarabii+jarabi</i> ‘childish’
<i>gudun</i> ‘dull (person)’		<i>gudunn+gudun</i> ‘dull’

It is easy to identify the adjective class morphologically. Even though the

⁴⁹ Unlike some of the Miyako varieties (such as the Nakachi dialect of Irabu and Hirara) where laryngealisation is regularly heard in the duplicate, the reduplication in Irabu (Nagahama) does not involve laryngealisation.

reduplication strategy itself is also seen in verb stem reduplication (8-14), which encodes iterative or habitual aspect (§10.5.2.6), a reduplicated verbal form does not involve the lengthening of the final segment of the reduplicate. Syntactically, a reduplicated verb stem fills the complement slot of the light verb (*a*)*sī* ‘do’, and is classified as a derived adverb (§3.3.5.2).

(8-14) *mii+mii* *as-i+ur-Ø*.
 RED+look do-THM+PROG-NPST
 ‘(He) is staring.’

Thus the reduplicated form of PC stem and the reduplicated form of verb stem are unambiguously distinguished.

Another morphological characteristic of adjectives is that they do not inflect, nor do they carry derivational affixes with just a small number of exceptions. The diminutive suffix *-gama* may follow certain adjectives (e.g. *imii+imi-gama* ‘small’, *maruu+maru-gama* ‘short’, *ssuu+ssu-gama* ‘a bit white’), belonging to the semantic categories of DIMENSION and COLOUR.

8.2.1.2. Semantics

As noted in §8.1.2, the reduplication strategy can itself encode intensity, but it is dependent on the degree of the phonetic lengthening, and its inherent connection to intensity is questionable. For example, an adjective may be modified by an intensifier such as *ati* ‘very’ without resulting in semantic redundancy.

(8-15) *ati takaa+taka=nu pžtu=i.*
 very RED+high=GEN man=CNF
 ‘(He) is a very tall man, eh?’

Another fact that supports the analysis that reduplication is not necessarily connected to intensity is that, as noted in §8.2.1.1, certain adjectives may carry the diminutive suffix *-gama*, which designates a modest degree (§5.3.1), a concept contradictory to intensity.

In the example sentences I explicitly gloss an intensity meaning where it is evident from context, but otherwise do not gloss it.

8.2.1.3. Syntax

The adjective class does not have its own distinctive syntactic behaviour or its own phrase structure.⁵⁰ Rather, an adjective is ‘parasitic’ on both NP and VP structures, i.e. with a flexible ability to occur in either structure, though with a number of restrictions to be described in the following two sections. Thus there are a number of differences between an NP headed by an adjective and an NP headed by a nominal in terms of, for example, its argument function (the former usually functions as a modifier of a superordinate NP, whereas the latter has no such tendency). Crucially, the argument function of an NP headed by an adjective is highly limited and in certain respects questionable (see §8.2.2.1). When appearing in a VP, an adjective only fills the lexical verb slot of a complex VP, and never fills the auxiliary slot or the only available slot of a minimal VP.

⁵⁰ By contrast, a Japanese ‘uninflected adjective’ (Backhouse 2004), or an attributive adjective, heads an adjective phrase with its phrasal extension *=na*, as opposed to genitive *=no* as found in an NP in this language: *kirei=na hito* ‘beautiful person’ vs *okinawa=no hito* ‘a person from Okinawa.’

TABLE 8-4. Adjective in phrase structure

	As head of an NP (sorted by function)			In VP structure (sorted by slot)		
	Argument	Predicate head	NP modifier	A complex VP		A minimal VP
				lex verb	aux	lex verb
Nominal	+	+	+	-	-	-
Adjective	(+)	+	+	+	-	-
Verb	-	-	-	+	+	+

As is clear from the table, it is easy to identify an adjective as opposed to a noun or a verb syntactically, since a noun *only* appears in an NP, and a verb *only* appears in a VP.

In addition to being able to appear in an NP and in a VP, an adjective may directly modify a predicate like an adverb. Adverbial modification is a common syntactic characteristic of adjectives in many languages (Dixon 2004: 11).

(8-16) *bždaa+bžda pur-i-Ø.*

RED+low dig-THM-IMP

‘Dig (to make the hole) deep.’ [adverbial modification]

(8-17) *uku+daka=nu takaa+taka ma-i+ur-Ø.*

big+hawk=NOM RED+high fly-THM+PROG-NPST

‘A big hawk is flying (very) high.’ [adverbial modification]

In what follows I describe the adjective class in terms of phrase structure, first noting its characteristics in NPs, then in VPs.

8.2.2. Adjectives in NP structure

An adjective may head an NP.⁵¹ The NP may function as an E argument (see §3.5.3 for the notion of E argument) of the verb ‘become’ (8-18) on the analysis adopted here.

(8-18) *takaa+taka=n=du nar-tar.*

RED+high=DAT=FOC become-PST

‘(He) became tall.’ [E argument of the verb ‘become’]

cf. *sinsii=n=du nar-tar.*

teacher=DAT=FOC become-PST

‘(He) became a teacher.’

One might argue here that the E argument of the verb ‘become’ is not really an argument in the first place. The argument status is justified only by the fact that the NP carries dative case. Cross-linguistically, the theme NP that is governed by a verb designating ‘become’ is often analysed as a VP complement. For example, in describing English, Huddleston (1984) suggests that the complement of *become* as in *she became president* is part of a predicate, or a predicate complement. Huddleston points out that the predicate complement shows a number of peculiarities absent from, say, a direct object NP in transitive clauses such as *He shot the president*. The complement of *become* allows omission of the article and, unlike a direct object, cannot be passivised. Thus, even though I continue to regard the dative-marked NP as an E argument, there is

⁵¹ An anonymous reviewer asked whether the adjective in this slot is not a noun. As I mentioned in §8.2.1.3, an adjective is parasitic, in that it may appear in an NP or in a VP. The fact that a word belonging to a certain class can appear in an NP slot does not necessarily mean that this word is a noun. Note that an adjective is defined morphologically, independent of its syntactic characteristics, i.e. whether it occurs in an NP or not.

an alternative descriptive solution whereby the NP is treated as a special type of VP complement (in such a case the problem would be that the complement exceptionally carries a case).

An NP headed by an adjective may also function as a predicate nominal (8-19) or the modifier of a superordinate NP (8-20). Since it heads the NP, the adjective carries case unless the NP functions as a predicate.

(8-19) *uri=a* *takaa+taka=du* *a-tar.*
 3SG=TOP RED+high=FOC COP-PST
 ‘He was tall.’ [head of a nominal predicate phrase]

cf. *uri=a* *sinsii=du* *a-tar.*
 3SG=TOP teacher=FOC COP-PST
 ‘He was a teacher.’

(8-20) *takaa+taka=nu* *pžtu*
 RED+high=GEN man
 ‘tall man’ [modifier of a superordinate NP]

cf. *irav=nu* *pžtu*
 Irabu=GEN man
 ‘A man from Irabu’

An NP headed by an adjective is nevertheless different from an NP headed by a noun in three important respects: (1) its highly restricted ability to serve as an argument (i.e.

its sole ability to serve as an E argument of the verb ‘become’), (2) its skewed preference for the NP modifier function, and (3) its ability to be modified by an adverb (like a verb) as well as by an adnominal (like a nominal). We will see in §8.3.4 that (3) is shared by a compound nominal derived from a PC stem, but an NP headed by an adjective is more likely to be modified by an adverb than by an adnominal, whereas an NP headed by a compound nominal derived from a PC stem shows no such preference.

8.2.2.1. Highly restricted argument function

The argument function of an NP headed by an adjective is restricted to the E argument of the verb ‘become’, carrying dative case.

- (8-21) *imii+imi=n=du* *nar-tar.*
 RED+small=DAT=FOC become-PST
 ‘(It) became small.’ [Argument NP: complement of ‘become’ verb]

- (8-22) *umaci=sii* *as-i+u-tigaa,*
 fire=INST do-THM+PROG-CVB.CND

- ffuu+ffu=n=du* *nar-Ø.*
 RED+black=DAT=FOC become-NPST
 ‘Burning with fire, (the paper) becomes black.’

Otherwise, an NP headed by an adjective cannot function as subject, direct object, or any peripheral argument.

8.2.2.2. Skewed functional preference for the modifier NP function

The typical function of an NP headed by an adjective is to serve as modifier of a superordinate NP, attributively modifying the head noun, a function which serves as a cross-linguistically recurrent, or probably the primary criterion for identifying an adjective class (Schachter 1985; Hengeveld 1992; Bhat 1994; Wetzer 1996; Croft 2002, 2003; Dixon 2004).

- (8-23) *imii+imi=nu* *mii-gama=nu* *nar-Ø=dara.*
RED+small=GEN fruit-DIM=NOM grow-NPST=CRTN
'A small fruit grows.'

- (8-24) *nagaa+naga=nu* *bau=ju* *tur-as-i-Ø.*
RED+long=GEN stick=ACC take-CAUS-THM-IMP
'Pass (me) a long stick.'

An NP headed by an adjective may also function as head of a nominal predicate phrase, but this function is much less common than the modifier function.

- (8-25) *kanu* *midum=ma* *aparagii+aparagi=du* *a-tar.*
that woman=TOP RED+beautiful=FOC COP-PST
'That woman was very beautiful.' [predicate NP]

- (8-26) *kuma=a,* *mmja,* *sīdasī+sīdasī=dara=i?*
this.place=TOP INTJ RED+cool=CRTN=CNF
'It is very cool here, eh?' [predicate NP]

8.2.2.3. Modificational constraint

An NP headed by an adjective may be modified by an adverb, a characteristic not found in an NP headed by a nominal other than a compound nominal derived from a PC stem (§8.3.4). Whereas an NP headed by a compound nominal derived from a PC stem (8-27) may freely be modified by either an adnominal or an adverb, an NP headed by an adjective (8-28) is better modified by an adverb than by an adnominal, according to my consultants. Some consultants even reported that adnominal modification is ‘unnatural’.

(8-27) a. *kuri=a* *ati* *kupa+munu=n=du* *nar-i+ur-Ø*.

3SG=TOP very hard+thing=DAT=FOC become-THM+PROG-NPST

‘This has become a very hard thing.’ [modified by the adverb *ati* ‘very’]

b. *kuri=a* *daizina* *kupa+munu=n=du* *nar-i+ur-Ø*.

3SG=TOP great hard+thing=DAT=FOC become-THM+PROG-NPST

‘This has become a very hard thing.’ [modified by the adnominal *daizina*

‘great’]

(8-28) a. *kuri=a* *ati* *kupaa+kupa=n=du* *nar-i+ur-Ø*.

3SG=TOP very RED+hard=DAT=FOC become-THM+PROG-NPST

‘This has become very stiff.’

?b. *kuri=a* *daizina* *kupaa+kupa=n=du* *nar-i+ur-Ø*.

3SG=TOP great RED+hard=DAT=FOC become-THM+PROG-NPST

8.2.3. Adjectives in VP structure

An adjective may appear in a VP, though this is much less common than the use of an adjective to head an NP. For example, in my text count, of all the tokens of adjectives (N = 328), the adjectives that appear in VP structure account for 8, whereas the adjectives that appear in NP structure account for 304, with the remaining 24 tokens accounting for other limited syntactic functions such as adverbial function (see §8.1.2.3; see also Shimoji 2009 for a more detail). This usage-based fact tells us that the adjective class in Irabu is highly nominal in nature, showing a clear preference to occur in NP structure.

When an adjective appears in a VP, there are two severe restrictions that do not hold when a verb appears in a VP. First, an adjective only fills the lexical verb slot of a complex VP (§3.1.1.1; §7.1.2). Second, the auxiliary must be the progressive auxiliary (§7.1.4.1; §10.5.2.1).

(8-29) *hira, kama=a imii+imi=du ur-Ø=ri.*

INTJ that.place=TOP red+small=FOC PROG-NPST=CNF

‘You see, that place is small, eh?’

(8-30) *cīnuu=ja cīcī=nu akaa+aka=du u-tar.*

yesterday=TOP moon=NOM RED+bright=FOC PROG-PST

‘Yesterday, the moon was bright.’

(8-31) *kantja=a jarabii+jarabi=du ur-Ø=dara.*

3PL=TOP RED+child=FOC PROG-NPST=CRTN

‘They are ? being childish, you see.’ [lit. they are childish-ing, you see.]

There are a number of arguments for the analysis that the verb *ur* (or *utar*) after an adjective cannot be regarded as the existential verb *ur* '(animate subject) exists'.⁵² The existential verb *ur* only co-occurs with an animate subject (e.g. *pžtu=nu=du ur* 'there is a man', *waa=nu=du ur* 'there is a pig', but **jama=nu=du ur* 'there is a mountain'), whereas the auxiliary verb *ur* has no such restriction. Examples (8-29) and (8-30) then clearly show that *ur* is an auxiliary, and therefore we can say that the adjective fills the main verb slot of a VP.

Another major argument for the analysis that the verb *ur* (or *utar*) after an adjective cannot be regarded as the existential verb *ur* '(animate subject) exists' is that, as mentioned in §7.1.4.3, a past-tense progressive auxiliary (i.e. *utar*) may undergo ellipsis. This is also true in the construction of adjective + *utar*, as in (8-30), where the auxiliary may undergo ellipsis.

8.2.4. Adjectives derived from nominal stems

As noted in §8.2.1.1, an adjective may be derived from a certain set of nominal stems, with the property concept meaning related to the input nominal stem (e.g. *jarabi* 'child' > *jarabii+jarabi* 'childish'). Even if the input stem of reduplication is a nominal stem, the

⁵² An anonymous reviewer suggested a third possibility, which says that *ur* in this environment is a special kind of copula, as it is cross-linguistically common for a verb that functions as a progressive auxiliary to function as a copula with adjectives. This may be true in languages like English: the verb *be* (and its conjugated forms) can be analysed as a copula when followed by an adjective (*I am hungry*), as this verb is identical in form and in other syntactic behaviours with the progressive auxiliary *be* (*I am dancing*). However, this is not true in Irabu, where the copula verb and the auxiliary are formally distinguished. Also noted is the Irabu fact that it is quite uncommon for adjectives to fill the lexical verb slot, i.e. adjectives prefer NPs. This imbalance in distribution can be explained by the fact that an adjective in Irabu is highly nominal in nature (see also §4.1.4), but this could not be explained if we considered that the progressive auxiliary is used as a copula, a verb that should appear after an NP.

output adjective word behaves exactly in the same way as other adjectives in terms of morphology (the lengthening of the final phoneme of the input stem) and syntax.

(8-32) *jarabii+jarabi=n=du nar-tar.*

RED+child=DAT=FOC become-PST

‘(He) became childish.’

(8-33) *ati=du jarabii+jarabi=nu pžtu.*

very=FOC RED+child=GEN man

‘very childish man’ [dependent of an NP; modified by an adverb]

(8-34) *jarabii+jarabi=du a-tar.*

RED+child=FOC COP-PST

‘(He) was very childish.’ [predicate]

(8-35) *jarabii+jarabi nafi-na.*

RED+child cry-PRH

‘Don’t cry childishly.’ [modifying like an adverb]

(8-36) *jarabii+jarabi=du ur-Ø.*

RED+child=FOC PROG-NPST

‘(He) is childish.’ [VP lexical verb]

8.2.5. Summary

To sum up, adjectives constitute a distinct word class, distinguished from both nominals and verbs in terms of morphology and of syntax. Even though an adjective may head an

NP, the NP headed by an adjective differs from the NP headed by a nominal in crucial ways: its argument function is very restricted, and it allows adverbial modification (a characteristic shared by a compound nominal derived from a PC stem). An adjective cannot serve as a minimal VP, even though it may serve as a lexical verb within a complex VP structure, with a severe restriction on the auxiliary that cooccurs.

8.3. Deriving nominals, verbs, and adverbs

In this section I describe how nominal, verbal, and adverbial stems are derived from PC stems. There are four derived forms: (1) state nominals, (2) compound nominals derived from a PC stem, (3) PC verbs, i.e. derived verbs whose primary stem is derived from a PC stem, and (4) PC adverbs, i.e. derived adverbs whose primary stem is derived from a PC stem. Except for type (1), where the derivations are typical nominal stems, derived stems of these classes which involve PC stems exhibit certain peculiarities in comparison to underived nominal, verb, and adverb stems. Thus it is necessary to recognise (2), (3), and (4) as subclasses of nominals, verbs, and adverbs respectively.

Assuming a morphosyntactic continuum from the verb class at one extreme to the nominal class at the other (following Wetzer 1996), the adjective class occurs in the middle, and we can situate the remaining subclasses of verb and nominal as shown in the figure below, where the double slashes segment each word class (the PC adverb does not find a place on the continuum, so is excluded here).

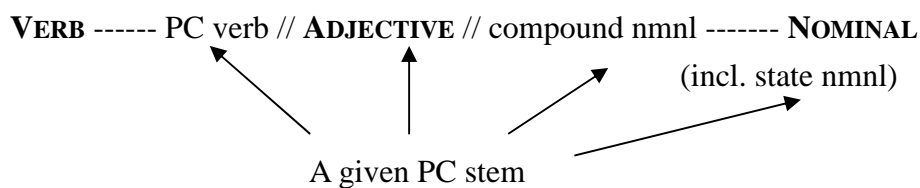


FIGURE 8-1. Wetzer's (1996) Noun-Verb continuum and its manifestation in Irabu

In what follows, I begin with the least controversial case, i.e. state nominalisation. Then I describe two subtler and inter-related cases, PC adverb derivation and PC verb derivation. Then I proceed to describe the most complicated case, the derivation of compound nominals.

8.3.1. State nominal derivation with *-sa*

The nominaliser *-sa* creates a stem that functions as head of an NP, and expresses a state nominalisation (Comrie and Thompson 1985), roughly translated as ‘-ness’ or ‘-ity’ in English. This NP has the full range of NP functions: an argument NP, a predicate NP, or a modifier of a superordinate NP. It does not allow adverbial modification, carrying an adnominal instead. Thus state nominalisation creates a (prototypical) nominal stem.

(8-37) *kai=ga budur=nu kagi-sa=nu=du iciban.*
 3SG=GEN dance=GEN beautiful-NLZ=NOM=FOC No.1

‘Her dance is the most beautiful’ [lit. ‘The beauty of her dance is the best.’]

[head of argument NP]

(8-38) *kantja=a uccja=nu cuu-sa=du a-tar.*
 3PL=TOP that.much=GEN strong-NLZ=FOC COP-PST

‘They were (with) that strength (i.e. they were strong that much).’ [Head of

predicate NP]

(8-39) *vva=ga umukutu-sa=nu ukagi=dara.*
 2SG=GEN wise-NLZ=GEN advantage=CRTN

‘(That’s) your wisdom’s advantage (i.e. I’m indebted to your wisdom).’ [head of

NP dependent]

Although it is not necessary to distinguish between an underived nominal and a state nominal in terms of major syntactic criteria, a state nominal has certain minor peculiarities. For example, when *-sa* attaches to *tuu-* ‘far’, it may express either the expected meaning of great distance or what would be more properly translated simply as ‘far’:

(8-40) *jaa=ja tuu-sa=ru?*

house=TOP far-NLZ=FOC

‘Is your house far?’ [lit. Is your house farness?]

Thus *tuu-sa* may behave semantically more like the English adjective ‘far’ than a state nominal. Interestingly, the adjective form *tuuu+tuu* is not preferred among native speakers (though they understand what it means), and this lexical gap must be related to the semantic peculiarity of *tuu-sa*. In terms of morphosyntax *tuu-sa* here is unambiguously a nominal word, since it only heads an NP. Also, as a nominal, it does not tolerate adverbial modification. Thus in the following examples, the state nominal *tuusa* can be modified by an adnominal (8-41a), but cannot be modified by an adverb (8-41b).

(8-41) a. *jaa=ja daizina tuu-sa ar-a-n-Ø=nu?*

house=TOP great far-NLZ COP-THM-NEG-NPST=FOC

‘Isn’t your house that far?’ [lit. ‘isn’t your house that farness?’]

*b. *jaa=ja* *ati* *tuu-sa* *ar-a-n-Ø=nu?*
house=TOP very far-NLZ COP-THM-NEG-NPST=FOC

8.3.2. PC adverb with *-fi*

A PC adverb is derived from a PC stem by the adverbialiser *-fi*. The productive derivation of adverbs from PC stems compensates for the scarcity of underived adverbs in the Irabu lexicon (§3.3.5.1). As shown in (8-42) below, a PC adverb modifies a predicate verb as in the case of other adverbs, but this is not as common as the function noted in the following paragraph.

(8-42) *unu* *tur=ra* *taka-fi=du* *tuv-tar.*
that bird=TOP high-AVLZ=FOC fly-PST
‘That bird flew high.’

Unlike underived adverbs (§3.3.5.1), a PC adverb more frequently serves as a VP complement, either of the state verb *a(r)*, as in (8-43), or of the verb ‘become’, as in (8-44) (see also §8.2.2.1, where this latter verb may take an E argument rather than a VP complement). Note that in (8-43), the state verb *ar* is not a copula, as its negative form is suppletive *njaan* rather than morphological *ar-a-n* (§6.3.6.3).

(8-43) a. *unu* *jama=a* *taka-fi=du* *ar-Ø.*
that mountain=TOP high-AVLZ=FOC be-NPST
‘That mountain is high’ [lit. That mountain exists in a high state]

b. *unu jama=a taka-f=fa njaa-n-Ø.*
 that mountain=TOP high-AVLZ=TOP not.be-NEG-NPST
 ‘That mountain is not high’ [*ar* is suppletively negated]

(8-44) *nam=nu taka-fi=du nar-tar.*
 wave=NOM high-AVLZ=FOC become-PST
 ‘The wave became high.’

8.3.3. PC verb with *-ka(r)*

A PC verb consists of a verb stem derived from a PC stem by the verbaliser suffix *-ka(r)* and an inflectional affix identical to one for other verbs. Thus it is uncontroversial to analyse the word form as a verb (see §3.3.3 for the definition of the verb). Even though a verb derived from a PC stem is a subclass of verb in terms of the definition of the verb class (i.e. inflection), it still exhibits a number of morphosyntactic differences that require us to distinguish between a PC verb and other verbs.

8.3.3.1. Diachronic account of *-ka(r)*

It is well known among Ryukyuan linguists (cf. Motonaga 1978; Nakama 1992; Uemura 1997) that the verbaliser *-ka(r)* developed from an analytic expression, specifically from **-ku* (adverbialiser) and **ari* (existential verb).⁵³ PC stems then acquired various affixation strategies, one of the earliest of which was an adverbialisation strategy (**-ku* suffixation, regularly reflected by *-fi* suffixation in Irabu: **ku* > /fi/). One important

⁵³ The proto-Japonic language originally lacked an adjective word class (which is not the case in Modern Japanese where there are two classes of adjectives, i.e. nominal or uninflected adjectives and verbal or inflected adjectives; Backhouse 2004), and PC stems were bare stem forms (Kasuga 1973, Yamazaki 1973, Nakama 1992).

structure in which PC adverbs appeared was the state verb construction, as in (8-45a), which later fused to give rise to a single verb (8-45b), reflected as the *-ka(r)* verbaliser in Irabu.

(8-45) Old Japanese (diachronic development)

- | | | | |
|--------------------|---------------|--------|-------------------------|
| a. <i>*taka-ku</i> | <i>ari-∅.</i> | >>>>>> | b. <i>taka-kari-∅</i> |
| high-AVLZ | exist-NPST | | high- <i>kari</i> -NPST |
| ‘is high’ | | | ‘is high’ |

(8-46) Irabu (synchronic system)

- | | | |
|----------------------|--------------|-----------------------|
| a. <i>taka-fi=du</i> | <i>ar-∅.</i> | b. <i>taka-kar-∅.</i> |
| high-AVLZ=FOC | exist-NPST | high-VLZ-NPST |
| ‘is high’ | | ‘is high’ |

That is, the *-ka(r)* verbaliser developed from a kind of compound verb structure, where an adverb and a verb were conjoined.

In Irabu, both the analytic structure (8-46a) and the synthetic structure (8-46b) co-exist in contemporary grammar. The analytic structure consists of a PC adverb and the state verb *ar*, where the PC adverb is the complement of the verb (state verb construction). The alternation between the two structures is motivated by focus and topic marking. Thus, as is illustrated in (8-46) above, if a PC stem is to be focused (or topicalised), it is adverbialised and the analytic (a) structure rather than originally synthetic (b) is selected. If a PC stem is not to be focused (or topicalised), the stem occurs within a single verb word, as in (b). This resembles word-phrase alternation (§6.4.2.3):

(8-47) a. *tigami=u kak-i-i=du ur-Ø.*
 letter=ACC write-THM-MED=FOC PROG-NPST

‘(I) am writing a letter.’ [complex VP: a phrasal AVC]

b. *tigami=u=du kak-i+ur-Ø.*
 letter=ACC=FOC write-THM+PROG-NPST

‘(I) am writing a letter.’ [a verb word: an agglutinative AVC]

The diachronic relationship between (8-46a) and (8-46b) is that (8-46b) developed from an agglutinative stem sequence within a word (8-45b) whose source structure is a state verb construction (8-45a), reflected as (8-46a), in the same way that an agglutinative AVC (§6.4.2.3) developed from a phrasal AVC (§7.1.4). In both types of diachronically related structures, then, focus and topic marking reveals the historically older structure.

	Analytic	Synthetic
Grammaticalisation path	(older structure) >>>>	(new structure)
Word-phrase alternation	V1=FOC#V2	V1+V2
	V1=TOP#V2	V1+V2
The StVC-PC verb alternation	PC- <i>fi</i> =FOC# <i>a(r)</i>	PC stem- <i>ka(r)</i>
	PC- <i>fi</i> =TOP# <i>a(r)</i>	PC stem- <i>ka(r)</i>

8.3.3.2. The PC verb as a subclass of verb

As shown in TABLE 8-5 below, there are a number of morphosyntactic features shared between PC verbs and other verbs, including the definitional criterion, i.e. inflection. However, as the three rows on the right side indicate, there are two major and [one

minor differences between PC verbs and other verbs, which necessitate a distinction between them within the verb class. Each criterion is noted in order below.

TABLE 8-5. Verbs and PC verbs: distinctive criteria

	Inflection	Conjunction Clitics	NP modification	Complex VP	Negation	Verbal focus
Typical verbs	+	+	adnominal clause	+	suffixal	LVC
PC verbs	+	+	adnominal clause	(+)	suffixal or analytic	StVC

Note: LVC (Light Verb Construction); StVC (State verb construction)

■ INFLECTION

A verb stem which is derived from a PC stem with *-ka(r)* carries a verb inflectional affix (with the morphophonemic pattern identical to the state verb *a(r)*). In the table below, I list two underived verb stems, i.e. the verb stem *tur-* ‘take’ (Class 2) and the state verb stem *a(r)-* for comparison. The symbol ‘?’ indicates that the inflection in question is semantically impossible. As is clear from the table, there is a single set of inflectional affixes that applies to *tur-*, *a(r)-*, and *taka-ka(r)-*, with some morphophonemic adjustment on the part of the stem (which is identical in *a(r)-* and *taka-ka(r)-*). Thus, unlike Japanese, where an adjective and a verb have different sets of inflectional affixes (e.g. non-past inflection *-i* vs. *-(r)u*; Backhouse 1984), there is no ground on which to distinguish between a verb and a PC verb in terms of inflectional morphology.

TABLE 8-6. PC verb in terms of inflection (cf. §6.3.1, 6.3.2)

	<i>tur-</i> ‘take’	Existential	<i>taka-ka(r)</i>
thematic <i>-a</i>	<i>tur-a</i>	<i>ar-a</i>	<i>taka-kar-a</i>
thematic <i>-i</i>	<i>tur-i</i>	<i>ar-i</i>	<i>taka-kar-i</i>
athematic	<i>tur</i>	<i>a(r)</i>	<i>taka-ka(r)</i>
finite past realis	<i>tur-ta-m</i>	<i>a-ta-m</i>	<i>taka-ka-ta-m</i>
finite past unmarked	<i>tur-tar</i>	<i>a-tar</i>	<i>taka-ka-tar</i>
finite non-past realis	<i>tur-Ø-m</i>	<i>a(r)-m</i>	<i>taka-ka(r)-m</i>
finite non-past unmarked	<i>tur-Ø</i>	<i>ar-Ø</i>	<i>taka-kar-Ø</i>
finite irrealis intentional	<i>tur-a-di</i>	<i>ar-a-di</i>	<i>taka-kar-a-di</i>
finite irrealis optative	<i>tur-a-baa</i>	<i>ar-a-baa</i>	<i>taka-kar-a-baa</i>
finite irrealis imperative	<i>tur-i-Ø</i>	? <i>ar-i-Ø</i>	? <i>taka-kar-i-Ø</i>
causal	<i>tu(r)-i-ba</i>	<i>a(r)-i-ba</i>	<i>taka-ka(r)-i-ba</i>
conditional 1	<i>tur-a-ba</i>	<i>ar-a-ba</i>	<i>taka-kar-a-ba</i>
conditional 2	<i>tur-tigaa</i>	<i>a-tigaa</i>	<i>taka-ka-tigaa</i>
negative conditional	<i>tur-a-dakaa</i>	<i>ar-a-dakaa</i>	<i>taka-kar-a-dakaa</i>
aversive (+ = <i>tii</i>)	<i>tur-a-zim</i>	<i>ar-a-zim</i>	<i>taka-kar-a-zim</i>
negative intentional conditional converb	<i>tur-a-djaadakaa</i>	<i>ar-a-djaadakaa</i>	<i>taka-kar-a-djaadakaa</i>
simultaneous	<i>tur-ccjaaki</i>	? <i>ar-ccjaaki</i>	? <i>taka-kar-ccjaaki</i>
purposive	<i>tur-ga</i>	? <i>ar-ga</i>	? <i>taka-kar-ga</i>
continuous	<i>tur-gakaazi</i>	<i>ar-gakaazi</i>	<i>taka-kar-gakaazi</i>
immediate anterior	<i>tur-tuu</i>	? <i>ar-tuu</i>	? <i>taka-kar-tuu</i>
medial	<i>tur-i-i</i>	<i>ar-i-i</i>	<i>taka-kar-i-i</i>
negative medial	<i>tur-a-da</i>	<i>ar-a-da</i>	<i>taka-kar-a-da</i>

■ CONJUNCTION CLITICS

There are a number of morphosyntactic features in which an ordinary verb and a PC verb behave in the same way, all of which can be explained by the fact that the verbaliser *-ka(r)* etymologically contains the state verb *ar* (§8.3.3.1). One such feature is the conjunction clitic attachment. A conjunction clitic (§9.2) is a clitic that is attached only to a verb. When a nominal predicate phrase is to be marked by this clitic, the

copula verb is obligatory as the phonological host of the clitic.

- (8-48) *uri=u=baa* *cifi-tar=ruga,* *mmja, bassi-i* *njaa-n.*
 3SG=ACC=TOP hear-PST=but INTJ forget-MED PRF-NPST
 ‘(I) heard about that, but, well, (I) have forgot.’ [verb + =*suga* ‘but’]

- (8-49) a. *kari=a* *midum* *jar-∅=ruga,* *taka+pžtu=dooi.*
 3SG=TOP woman COP-NPST=but high+man=EMP
 ‘She is a woman, but (she) is a tall woman.’

- *b. *kari=a* *midum=suga,* *taka+pžtu=dooi.*
 3SG=TOP woman=but high+man=EMP

A PC verb behaves exactly like a verb in this regard, with the clitic directly attaching to the PC verb.

- (8-50) a. *kari=a* *aparagi-kar-∅=ruga,* *jana+pžtu=dooi.*
 3SG=TOP beautiful-VLZ-NPST=but bad.hearted+man=EMP
 ‘She is beautiful, but (she) is evil-hearted.’ man/person again

■ **MODIFIER OF AN NP**

In order to appear in the modifier slot of an NP, a verb must first head an adnominal clause, which in turn fills the modifier slot. As noted in §4.1.2, the head verb of an adnominal clause must inflect for the finite unmarked form. This is true for PC verbs as well.

(8-51) *sin-tar* *pžtu*
 die-PST man
 ‘A man who died’

(8-52) *cuu-ka-tar* *pžtu*
 strong-VLZ-PST man
 ‘A man who was strong’

■ **COMPLEX VP**

In a complex VP structure, both typical verbs and PC verbs may serve as a lexical verb (§7.1.2), with the same medial verb inflection. However, there is a severe restriction on the auxiliary verb when a PC verb is the lexical verb: it must be the progressive auxiliary. Furthermore, not all PC verbs may serve as a lexical verb within a complex VP. There is a tendency for the PC verb within a complex VP to denote a HUMAN PROPENSITY (§8.1.1).

(8-53) *zau-kar-i-i* *ur-i-Ø.*
 well.behaved-VLZ-THM-MED PROG-THM-IMP
 ‘Be well behaved.’ [i.e. ‘behave yourself’ e.g. in addressing a child]

(8-54) *ganzuu-kar-i-i* *ur-ama-r-m=mu?*
 healthy-VLZ-THM-MED PROG-HON-NPST-RLS=FOC
 ‘Are you healthy?’ [i.e. ‘How are you?’]

■ **NEGATION**

Whereas the negation of other verbs is consistently encoded by an inflectional suffix such as *-n*, the negation of a PC verb may be either morphological or analytical. Inflectional negation encodes *dynamic* rather than stative negation, and is used when a PC verb has an inchoative sense:

- (8-55) a. *uri=a ssu-kar-Ø.*
 that=TOP white-VLZ-THM-NPST
 ‘That is white.’ [affirmative: stative]
- b. *uri=a ssu-kar-a-n-Ø.*
 that=TOP white-VLZ-THM-NEG-NPST
 ‘That does not become whitened.’ [negative: active]
- c. *uri=a ssu-kar-a-t-tar.*
 that=TOP white-VLZ-THM-NEG-PST
 ‘That did not become whitened.’ [negative: active]

Analytic negation encodes stative negation. It employs adverbialisation of a PC stem (§8.3.2) and the negative verb *njaan* (§6.3.5.3).

- (8-56) a. *uri=a ssu-kar-Ø*
 that=TOP white-VLZ-THM-NPST
 ‘That is white.’

- b. *uri=a* *ssu-f=fa* *njaa-n-Ø*.
 that=TOP white-AVLZ=TOP NEG-NPST
 ‘That is not white.’

This syntactic asymmetry in the stative(afirm)-stative(neg) pair, shown schematically in TABLE 8-7, reflects the diachronic fact that a PC verb was originally an agglutinative stem sequence, in which PC stem + **-ku* and **ari* (existential verb) were fused to form a single word, as in (8-45b). As was noted in §6.3.6, the state verb is suppletively negated by the negative verb *njaan*, and this is reflected in the requirement that a PC verb requires the verb *njaan* for stative negation.

TABLE 8-7. PC verbs and negation

	Morphosyntax	Semantics
Affirmative	PC verb	[be <i>x</i>]
Negative 1 (inflectional)	PC verb [+ negative inflection]	[not become <i>x</i>]
Negative 2 (analytic)	PC adverb + negative verb	[be not <i>x</i>]

■ **VERBAL FOCUS**

A final area in which a PC verb differs from a typical verb concerns verbal focus, i.e. focus on the verb stem (§3.3.5.2). A verb may be analytically rearranged for the purpose of focus marking, so that a verb stem is converted to an adverb, and the undocked inflectional affix instead docks on the light verb *asī* ‘do’.

(8-57) <i>mii-tar</i>	> <i>mii=du</i>	<i>sī-tar.</i>
look-PST	look=FOC	do-PST
‘looked’	‘did looking.’	

A PC verb cannot employ this strategy. Instead, as noted in §8.3.3.1, the analytic construction involving adverbialisation of a PC stem and the existential verb is obligatory.

(8-58) <i>taka-ka-tar</i>	> <i>taka-fi=du</i>	<i>a-tar.</i>
high-VLZ-PST	high-AVLZ=FOC	exist-PST
‘was high’	‘was high’ [lit. was in a high state]	

8.3.4. Compound nominals derived from PC stems

8.3.4.1. Overview

A PC stem and a nominal stem may be compounded to form a compound nominal. The head nominal may be unrestricted (8-59), or the noun *munu* ‘thing’, which may often lack a substantive meaning (8-60). The former compound will henceforth be referred to as a ‘lexical head compound’ and the latter as a ‘dummy head compound’.

(8-59) Lexical head compounds

a. <i>uku+pžtu</i>	b. <i>ssjana+pžtu</i>	c. <i>aparagi+pžtu</i>
big+man	dirty+man	beautiful+man
‘big man’	‘dirty man’	‘beautiful man’

(8-60) Dummy head compounds

a. <i>uku+munu</i>	b. <i>ssjana+munu</i>	c. <i>aparagi+munu</i>
big(+thing)	dirty(+thing)	beautiful(+thing)
'big (one)'	'dirty (one)'	'beautiful (one)'

Lexical head compounds appear in texts with no distributional bias for any particular syntactic slot (though a slight preference for the predicate function is observed), whereas dummy head compounds appear mostly as predicate NPs. Below are the results of a text count of nine long texts. I list the result of adjectives for comparison (the 4% for 'argument' function concerns the E argument function of the verb 'become').

TABLE 8-8. Nominals and adjectives: distribution in terms of NP function

	Argument	Predicate	Modifier of NP	Other
Non-compound nominal	52%	14%	22%	12%
Lexical head compound	34%	55%	11%	0%
Dummy head compound	19%	79%	2%	0%
Adjective	4%	12%	76%	8%

Diachronically, a dummy head compounding undoubtedly developed from a lexical head compounding. To make the discussion clear, let us assume two extreme cases in (8-61) below, where the head *munu* 'thing; man' of a compound nominal gradually underwent semantic abstraction. The semantic content of *munu* was completely lost (glossed \emptyset) in (8-61b).

(8-61) a. Lexical head compounding >>>> b. Dummy head compounding

uku+munu

uku+munu

big+thing

big+ Ø

‘big thing’

‘big’

The situation in (8-61b) is idealised and not consistently observed in Irabu. Rather, in the synchronic system of Irabu the dummy head compound structure is semantically situated somewhere between the two extremes, so that the head *munu* is in most cases but not always a mere structural head. There are still cases where *munu* literally means ‘thing; man’, and there is a morphological attributive relationship obtaining between the PC stem and the head.

(8-62) *imi+munu=u ar-a-da, uku+munu=u tur-i-Ø.*

small+thing=TOPCOP-THM-NEG.MED big+thing=ACC take-THM-IMP

‘Don’t take a small one: take a big one.’

(8-63) *kanu niv+munu-mmi=n nk-ai-tar=ru=ti, mmja.*

those slow+man-PL=DAT pass-POT-PST=FOC=QT INTJ

“(Were you) passed over by those slow men?”, said (the man).’

Note in (8-63) that the compound is marked by the plural suffix *-mmi* (since *munu* literally means ‘man’), which would never attach to a dummy head compound where *munu* is semantically empty. Thus, even synchronically, lexical head compounding and dummy head compounding should not be treated as two distinct types.

In terms of the two cross-linguistically recurrent functions of PC words (or

adjectives if there is such a class in a language), i.e. attribution and predication (Schachter 1985; Bhat 1994; Wetzer 1996; Dixon 2004), a distinction can be made in Irabu between *morphological attribution* in which a PC stem directly modifies a nominal stem within a grammatical word (as in compound nominals; (8-64a) below) and *syntactic attribution* in which an adjective is derived from a PC stem and then the adjective word modifies the head nominal word, as in (8-64b) below.

(8-64)	a. morphological attribution	b. syntactic attribution
	<i>uku+jaa</i>	<i>ukuu+uku=nu jaa</i>
	big+house	RED+big=GEN house
	‘big house’	‘big house’

It is possible for a nominal to be modified with both syntactic and morphological attribution, as in (8-65) and (8-66).

(8-65)	<i>ukuu+uku=nu</i>	<i>ssu+jaa.</i>
	RED+big=GEN	white+house
	Adjective	PC stem + nominal
	Syntactic attribution	Morphological attribution
	‘big and white house’ [lit. big white-house]	

(8-66)	<i>ssuu+ssu=nu</i>	<i>uku+jaa</i>
	RED+white=GEN	big+house
	Adjective	PC stem + nominal
	Syntactic attribution	Morphological attribution

‘White and big house’ [lit. white big-house]

See §8.4.2 for the functional difference between the two kinds of attribution illustrated in (8-64).

8.3.4.2. Lexical head compounds

Lexical head compounds have a fully lexical nominal stem (other than *munu* ‘thing’) as the head, modified by a PC stem (see §3.6.2.2 where I argued that the compound structure cannot be analysed as an NP). In what follows I note a syntactic difference between an ordinary nominal and a lexical head compound nominal. As shown in TABLE 8-9 below, like an adjective, the latter allows adverbial modification.

TABLE 8-9. Nominals and PC nominals

	Argument	Predicate	Modifier of NP	Modified by adverb
Ordinary nominals	+	+	+	-
Compound nominals				
Lexical head compound	+	+	+	+
Dummy head compound	+	+	(+)	+
Adjectives	(+)	+	+	+

Although a lexical head compound demonstrates a full range of NP functions, there is one conspicuous difference between it and an ordinary nominal: a lexical head compound allows both attributive and *adverbial* modification. Unlike an adjective, it shows no preference for either modification (§8.2.2.3).

(8-67) *kari=a ati=du taka+pžtu.*

3SG=TOP very=FOC high+man

‘He is a very tall man.’

(8-68) *kari=a daizina taka+pžtu.*

3SG=TOP great high+man

‘He is a very tall man.’

Note that in (8-67) the focus clitic is attached to the adverb *ati*, whereas it is absent in (8-68). The focus clitic =*du* can attach to an argument, an adjunct, a VP complement, or a lexical verb within a complex VP (§9.1.2.4), thus cannot attach to the modifier within an NP. Hence, in (8-67) =*du* cannot occur on the modifier of the NP, whereas in (8-68) =*du* may occur on the adverb (which occurs outside an NP, serving as a predicate adjunct).

8.3.4.3. Dummy head compounds

In a dummy head compound the head nominal stem is the noun *munu* ‘thing; man’, as shown in (8-69b) below. This stem may often be semantically empty. In such a case, the head nominal stem is simply the structural head of the compound, making the whole compound a nominal, but it is the PC stem that serves as the semantic head. This mismatch in headship is analogous to that found in the formal noun *su(u)* ‘thing; man’ (§4.2.1.8), which is structurally an NP head but is semantically often not. The difference between *munu* and a formal noun is that the former is the structural head of a single word, whereas the latter is the structural head of an NP.

- (8-69) a. Lexical head compound b. Dummy head compound
- | | |
|-----------------|-----------------|
| <i>uku+pžtu</i> | <i>uku+munu</i> |
| big+man | big(+thing) |
| ‘big man’ | ‘big (thing)’ |

Thus, unlike lexical head compounds, there is not usually an attributive relationship between the PC stem and the head *munu*, since the head is semantically empty.

Dummy head compounds occur most often as predicate NPs. Also, like lexical head compounds, they allow adverbial modification or adnominal modification. This is true whether or not *munu* is semantically empty.

- (8-70) a. *ba=a ati=du kuu+munu.*
 1SG=TOP very=FOC hard+Ø
 ‘I feel very painful.’

- b. *ba=a daizina kuu+munu.*
 1SG=TOP great hard+Ø
 ‘I feel very hard.’

- (8-71) a. *uri=a ati uku+munu=du a-tar.*
 3SG=TOP very big+thing=FOC COP-PST
 ‘It was a very big thing.’

- b. *uri=a daizina uku+munu=du a-tar.*
 3SG=TOP great big+thing=FOC COP-PST

‘It was a very big thing.’

When *munu*, carrying its literal meaning ‘thing’, functions as semantic as well as structural head with its literal meaning, the dummy head compound may serve as argument, as shown in (8-72) below, or as modifier of an NP, as shown in (8-73) below, though the latter function is very rare (see TABLE 8-8).

(8-72) a. *mmjahi* *uku+munu=u* *tur-i-Ø*.
more big+thing=ACC take-THM-IMP

‘Take a bigger one.’

(8-73) *buuciri+munu=nu* *uku+gui=ja* *uturusi-ka-Ø-m*.
mighty+man=GEN big+voice=TOP fearful-VLZ-NPST-RLS

‘The big voice of a mighty person is fearful.’

On the other hand, in my text data a dummy head compound in which *munu* is semantically empty *never* functions attributively, i.e. as the modifier of an NP. Such a modifier use is artificially constructed in (8-74), which many native speakers judged unnatural. As shown in §8.2.2.2, this kind of attributive function is normally taken over by an adjective, as shown in (8-75). Actually, the consultant corrected (8-74) as (8-75).

(8-74) *?uku+munu=nu* *pžtu*.
big+Ø=GEN man
[intended meaning] ‘big man’

(8-75) *ukuu+uku=nu* *pžtu*
 RED+big=GEN man
 ‘big man’

TABLE 8-10. Dummy head compound and its syntactic function

	Argument NP	Predicate NP	Modifier of NP
Lexical head compound	+	+	+
Dummy head compound			
<i>munu</i> [+ lexical]	+	+	(+)
<i>munu</i> [- lexical]		+	

In summary, a dummy head compound is classified as a nominal, in that it only heads an NP. It demonstrates all the functions of NPs, even though this function depends on whether *munu* is semantically substantive or not. However, it is a subclass rather than a typical instance of the nominal class as it may additionally allow adverbial modification in addition to adnominal modification. Semantically, a dummy head compound is very much like an adjective especially when *munu* is semantically not substantive (e.g. (8-70)). However, they clearly differ in terms of syntax, since a dummy head compound (and a lexical head compound) never appears in VP structure.

As noted in the preceding paragraph, it is interesting that a similar adjectival meaning may be expressed by an adjective and a dummy head compound. What we are looking at in dummy head compounds may be an intermediate stage of the diachronic development from a lexical head compound to a true adjective. If we assume, as the typological literature suggests (Dixon 1982, 2004; Schachter 1985; Wetzler 1996; Croft 2002), that (a) attributive modification and (b) predicative modification are the two basic functions of the adjective class, then it turns out that the synchronic Irabu system lacks an adjective class that regularly does the job of (b), since the existing adjective

class mostly functions attributively (TABLE 8-8). There are three word forms that are likely to fill this functional gap in Irabu: compound nominals (dummy head compounds in particular) and PC verbs. It is *noteworthy that a dummy head compound mostly functions predicatively. Now, the semantic change of *munu* may be interpreted as a change that creates the adjective specialised for predicative modification, which will emerge when the semantic content of *munu* has completely been lost and *munu* has been reanalysed as an ‘adjectivalising suffix’ that derives a predicative adjective.

8.4. Adjective, compound nominal, and PC verb: functional account

The functions of words that include PC stems are summarised in TABLE 8-11 below. As described in §8.3.4, a dummy head compound mostly functions as a predicate NP, whereas an adjective mostly functions as modifier of an NP. A PC verb has an exclusive function of predication, either in a main clause or in a non-main clause, and the adnominal clause including the PC verb serves as modifier of an NP. In a lexical head compound nominal there is a morphological attributive relationship between the PC stem and the head nominal.

TABLE 8-11. PC nominals and PC verbs in terms of function

	Predication	Attribution	
		Syntactic	Morphological
Dummy head compound	*		
PC verb	*		
Adnominal clause including PC verb		*	
Adjective		*	
Lexical head compound			*

The table raises three questions. (1) When does a speaker encode a predication as a

dummy head compound nominal and when as a PC verb? (2) When does a speaker encode an attribution as an adjective and when as a lexical head compound? (3) When does a speaker encode an attribution in an NP as an adnominal clause (whose predicate is a PC verb) and when as an adjective? These three questions are addressed below.

8.4.1. Dummy head compound vs PC verb: predicative function

There is a clear tendency for a dummy head compound nominal to occur as predicate in the pragmatically unmarked topic-comment structure. In this structure, there is a topic-marked NP, often subject, and the predicate is in the focus domain (i.e. carries new information). Conversely, there is a clear tendency for a PC verb to occur as predicate when the predicate is presupposed.

(8-76) *kari=a* *cuu+munu.*
 3SG=TOP strong(+thing)
 ‘He is strong.’ [unmarked topic-comment structure]

(8-77) A. *nzi=nu=ga* *cuu-kar-Ø?*
 which=NOM=FOC strong-VLZ-NPST
 ‘Which is strong(er)?’

B. *kui=ga=du* *cuu-kar-Ø.*
 this=NOM=FOC strong-VLZ-NPST
 ‘This (guy) is strong(er).’

Another clear distributional tendency is that a dummy head compound is much

more likely to be used in a main clause than a PC verb. Given the preference of a PC verb for presupposition, this distributional tendency may be explained by the pragmatic status of subordinate clauses in general: subordinate clauses tend to be presupposed, in the sense that the truth condition is not challenged by the addressee (Ertshik-Shir and Lappin 1979, 1983; Lewis 1979; Quirk et.al 1985; Lambrecht 1994).⁵⁴ See Koloskova and Ohori (2008) for a similar claim with regard to the pragmatic status of PC verbs in Hirara (a Miyako language related to Irapu) as being presupposed.

(8-78) *kuu-ka-tigaa, mudur-i-i kuu-Ø.*
 hard-VLZ-CVB.CND return-THM-MED come-IMP
 ‘If (you feel things are) hard, come back.’

(8-79) *ujaki-kar-Ø tukja=mai a-tar=ruga,*
 rich-VLZ-NPST time=too exist-PST=but

nnama=a hira zin=mai njaa-da ur-Ø.
 now=TOP INTJ money=too not.exist-NEG.MED PROG-NPST
 ‘(There) was a time (I) was rich, but now, you see, (I) have no money.’

(8-80) *kunusjuku kata-ka-i-ba=mai,*
 this.much hard-VLZ-THM-CVB.CND=even

⁵⁴ For example, Ertshik-Shir and Lappin (1979) suggest what they call the ‘lie-test’: if an addressee, upon hearing a sentence, says ‘that’s not true’, this statement is about the main clause rather than the subordinate clause that is couched in the main clause. See Lambrecht (1994: 52) for more detailed discussion.

nci+u-tigaa, japa-fi nar-Ø=dara.
 put+PROG-CVB.CND soft-AVLZ become-NPST=CRTN

‘Even if (it) is this hard, (it) will become softened if (you) put (it in water).’

8.4.2. Adjective vs lexical head compound: attributive function

An adjective modifies a nominal in NP structure (syntactic attribution), whereas a PC stem within a lexical head compound modifies a head nominal within the word (morphological attribution).

An adjective in attributive function almost always modifies a nominal that is newly introduced into discourse. This nominal tends to be referential.

(8-81) *nkjaan=du=i, ujakii+ujaki=nu pžtu=tu*
 old.times=FOC=CNF RED+rich=GEN man=ASC

kibann+kiban=nu pžtu=tu dusi a-tar=ca.
 RED+poor=GEN man=ASC friend COP-PST=HS

‘Once upon a time, (there were) a rich man and a poor man, (and they) were friends.’

(8-82) *mii-tigaa, ssuu+ssu=nu mii-gama=nu a-ta=iba,*
 look-CVB.CND RED+white=GEN fruit-DIM=NOM exist-PST=so

‘When (I) looked, (there) was a white fruit, so...’

A PC stem within a lexical head compound is also an attributive modifier of the head nominal stem. Unlike the adjectival attribution noted above, the head nominal stem in a

lexical head compounding is typically non-referential and the compound nominal is typically used as a predicate head of the proper inclusion expression, as in *uri=a taka+jama* (3SG=TOP high+mountain) ‘this is a high mountain.’ (see §10.2.1 for proper inclusion).

(8-83) *kari=a maada=du gaazuu+pžtu=dara=i.*
 3SG=TOP very=FOC selfish+man=CRTN=CNF
 ‘He’s a very selfish man, eh?’

(8-84) *kuma=a puniči+dukuma ja-i-ba, niv-vai-n-Ø.*
 this.place=TOP rocky+place COP-THM-CVB.CSL sleep-POT-NEG-
 -NPST
 ‘This place is a rocky place, so (I) cannot sleep.’

8.4.3. Adnominal clause vs adjective: syntactic attributive function

As illustrated in (8-85) and (8-86) below, a PC verb may head an adnominal clause that fills the modifier slot of an NP. As the gloss indicates, the pragmatic implication here is always one of contrast. The modified nominal has already been invoked in the discourse. In (8-85) for example, the discourse is about whether a house that is white or a house that is black is better. See also (8-79) above, where a contrastive meaning is encoded by the PC verb *ujakikar* ‘is rich (as opposed to poor)’.

(8-85) *ssu-kar-Ø jaa=nu=du masi.*
 white-VLZ-NPST house=NOM=FOC better
 ‘The house that is white (as opposed to black) is better.’

(8-86) *uu-kar-Ø* *pžtu=mai* *imi-kar-Ø* *pžtu=mai*
 big-VLZ-NPST man=too small-VLZ-NPST man=too

uma=n *dav-vas-i-i=du* *u-tar.*
 that.place=DAT crowd-VLZ-THM-MED=FOC exist-PST

‘Bigger men and smaller men were both crowded there.’

On the other hand, as illustrated in (8-87) and (8-88) below, attribution by an adjective does not entail a contrast, since, as noted in §8.4.2, an NP containing an adjective introduces a new referent into discourse.

(8-87) *ssuu+ssu=nu* *jaa=nu=du* *ar-Ø.*
 RED+white=GEN house=NOM=FOC exist-NPST

‘(There) is a (very) white house.’

(8-88) *ukuu+uku=nu* *pžtu=tu* *imii+imi=nu* *pžtu=tu*
 RED+big=GEN man=ASC RED+small=GEN man=ASC

bařitaa=sii=du *u-tar.*
 two=INST=FOC exist-PST

‘(There) were a (very) big man and a (very) small men together.’

8.5. Class-changing derivation

In this section I describe (1) noun-to-verb derivation, (2) verb-to-noun derivation and (3) verb-to-PC-stem derivation. The first two processes are very limited in Irabu, since the light verb (*a*)*sī* ‘do’ and such formal nouns as *su(u)* ‘man; thing’ and *kutu* ‘fact’ function as equivalents of verbalisation and nominalisation in other languages.⁵⁵ For example, if one wants to derive a predicative expression from a noun *sauzī* ‘cleaning’, one uses it as a direct object of the light verb *asī*. The direct object NP may be marked as second accusative.

(8-89) *sauz=zu* *ah-u-di*.
 cleaning=ACC do-THM-INT
 ‘(I) will do cleaning.’

(8-90) *kansja=a* *s-i-i*, *par-tar=ca*.
 thanking=ACC2 do-THM-MED leave-PST=HS
 ‘(He) did thanking, and left.’

To derive an action nominal from a verb *kak-* ‘write’, one uses a formal noun *kutu* ‘thing; fact’ as head of the NP, in which the modifier slot is filled by an adnominal clause headed by the verb *kak-*:

(8-91) *kafi-∅* *kutu=u* *mucikasi-f=fa* *njaa-n-∅*.
 write-NPST fact=TOP difficult-AVLZ=TOP NEG-NPST
 ‘Writing is not difficult.’

⁵⁵ Many scholars note that verbalisation is generally absent even in languages where nominalisation is productive (Hopper and Thompson 1984: 746).

Below we will examine other limited morphological means of nominalisation, together with a more productive and varied PC stem derivation from a verb stem.

8.5.1. Verb-to-noun derivation

Verb-to-noun derivation derives agent nominals with the agent nominaliser *-ja* (see §2.8.3.2 for the morphophonemics of this suffix). The suffix is attached to a bare verb stem (rather than an athematic stem; §6.3.4). Thus in (8-92) below, for example, *-ja* is attached to *s-* rather than its athematic stem form *sii* (§6.3.4.2).

(8-92) *kari=a* *s-sja=dooi*.
 3SG=TOP know-NLZ=EMP
 ‘He is a person who knows a lot.’

(8-93) *daizina* *sadur-ja=du* *a-tar*.
 great search-NLZ=FOC COP-PST
 ‘(She) was a woman who chases men.’ [lit. ‘(She) was such a (man) searcher.’]

(8-94) *sauz=zu=bakaar* *as-i-i*, *mmja*,
 cleaning=ACC=only do-THM-MED INTJ

vva=a *daizina* *surumik-ja=i*.
 2SG=TOP great clean-NLZ=CNF

‘Doing cleaning all the time, you are a person obsessed with cleaning.’

When a transitive verb is nominalised, the underlying object appears as the first

component of a compound stem, of which the verb stem is the second component.

- (8-95) *site, munu+kak-ja=n=ru nar-tar=ru?*
then thing+write-NLZ=DAT=FOC become-PST=FOC
'Then, has (she) become a writer?'

- (8-96) *vva=a butu+muc-ja=ru?*
2SG=TOP husband+have-NLZ=FOC
'Are you a husband-having man?'

As is shown in (8-97), *-ja* may in rare cases derive an instrumental nominal rather than an agent nominal.

- (8-97) *mm+pur-ja=u muc-i+kuu-Ø.*
potato-dig-NLZ=ACC take-THM+come-IMP
'Bring the potato-digger' [instrument nominaliser]

8.5.2. Verb-to-PC-stem derivation

A PC stem is productively derived from the athematic stem of a verb using one of three major derivational affixes: *-busi* 'wanting to', *-guri* 'difficult to', and *-jasi* 'easy to'. A derived PC stem satisfies (A), (B), and (C) in §8.1.2, as the three tables below illustrate.

TABLE 8-12. *mii-* ‘look; see’ + *-busi* ‘want to’ as a PC stem

Criteria		<i>mii-</i> ‘look; see’	Gloss
(A) reduplication		<i>mii-busi</i> + <i>mii-busi</i>	‘(I) am wanting to see’
(B) direct quotation		<i>mii-busi</i> = <i>ti=nu cümüci</i>	‘the feeling like, “(how much I am) wanting to see!”’
(C) special derivation	- <i>sa</i>	<i>mii-bus-sa</i>	‘the degree to which (I) am wanting to see’
	- <i>fi</i>	<i>mii-busi-fi</i>	‘wanting to see’
	- <i>ka(r)</i>	<i>mii-busi-ka-tar</i>	‘(I) was wanting to see’

TABLE 8-13. *mii-* ‘look; see’ + *-busi* ‘difficult to’ as a PC stem

Criteria		<i>mii-</i> ‘look; see’	Gloss
(A) reduplication		<i>mii-gurii</i> + <i>mii-guri</i>	‘(it is) difficult to see’
(B) direct quotation		<i>mii-gurii</i> = <i>ti=nu munu</i>	‘a thing which is like “(how) difficult to see (it is)!”’
(C) special derivation	- <i>sa</i>	<i>mii-guri-sa</i>	‘the degree to which (it is) difficult to see’
	- <i>fi</i>	<i>mii-guri-fi</i>	‘being difficult to see’
	- <i>ka(r)</i>	<i>mii-guri-ka-tar</i>	‘was difficult to see’

TABLE 8-14. *mii-* ‘look; see’ + *-jasi* ‘easy to’ as a PC stem

Criteria		<i>mii-</i> ‘look; see’	Gloss
(A) reduplication		<i>mii-jasii</i> + <i>mii-jasi</i>	‘(it is) easy to see’
(B) direct quotation		<i>mii-jasii</i> = <i>ti=nu munu</i>	‘a thing which is like “(how) easy to see (it is)!”’
(C) special derivation	- <i>sa</i>	<i>mii-jas-sa</i>	‘the degree to which (it is) easy to see’
	- <i>fi</i>	<i>mii-jasi-fi</i>	‘being easy to see’
	- <i>ka(r)</i>	<i>mii-jasi-ka-tar</i>	‘was easy to see’

8.5.2.1. ‘wanting to’ *-busi*

A PC stem is derived from the athematic stem of a verb with *-busi* ‘wanting to’.

(8-98) *ba=a vva=ga ffa=u=baa mii-busi+munu=i.*
 1SG=TOP 2SG=GEN child=ACC=TOP look-want.to(+thing)=CNF
 ‘I want to see your child.’

(8-99) *ba=a vva=ga ffa=u=baa miibusii+mii-busi=ti=du*
 1SG=TOP 2SG=GEN child=ACC=TOP RED+look-want.to=QT=
 =FOC

umu-i+ur-Ø.

think-THM+PROG-NPST

‘I am thinking like “I want to see your child (very much)”.’

(8-100) *kuri=u ar-a-da, kuri=u=du mii-busi-kar-Ø.*
 3SG=ACC COP-THM-NEG.MED 3SG=ACC=FOC look-want.to-VLZ-
 -NPST

‘Not this one, (I) want to see this one.’

(8-101) *uri=u=baa mii-busi-f=fa njaa-n-Ø.*
 3SG=ACC=TOP look-want.to-AVLZ=TOP NEG-NPST

‘(I) don’t want to see it.’

8.5.2.2. ‘difficult to’ -*guri*

A PC stem is derived from the athematic stem of a verb with -*guri* ‘difficult to’. As in the case of the derivation with -*busi* (§8.5.2.1), the derived PC stem with -*guri* may form an adjective, a state nominal, a compound nominal, a PC verb, or a PC adverb.

- (8-102) *cifii-gurii+cifii-guri=nu* *jaa*
 RED+make-difficult.to=GEN house
 ‘a house that is difficult to make’ [adjective]
- (8-103) *ui=ga* *cifii-guri-sa=nu=du* *daizi.*
 3SG=GEN make-difficult.to-NLZ=NOM=FOC awful
 ‘Difficulty of (making) it is awful.’ [state nominal]
- (8-104) *uri=a* *cifii-guri+munu=du* *a-tar.*
 3SG=TOP make-difficult.to(+thing)=FOC COP-PST
 ‘It was (one) difficult to make.’ [compound nominal]
- (8-105) *uri=a* *cifii-guri-ka-Ø-m=dooi.*
 that=TOP make-difficult.to-VLZ-NPST-RLS=EMP
 ‘That is difficult to make.’ [PC verb]
- (8-106) *uri=a* *cifii-guri-f=fa* *njaa-n-Ø.*
 that=TOP make-difficult.to-AVLZ=TOP NEG-NPST
 ‘That is not difficult to make.’ [PC adverb]

The syntactic valence (§3.5.1) of the verb stem may be either retained or decreased when the derived PC stem is further transformed into a word other than a state nominal (where the O of the verb stem surfaces as the modifier of the NP, as shown in (8-103)). When the valence is retained, the underlying O remains O ([O > O]); when the valence is decreased, the underlying O appears as an S (schematised as [O > S] below). The

decreasing arrangement is more common. In (8-107a), the derived clause is headed by a nominal predicate phrase (whose head is a dummy head compound nominal), which still governs its direct object.

(8-107) a. *kantja=ga jaa=ju=baa daizina cifi-guri+munu*
 3PL=GEN house=ACC=TOP great make-difficult.to(+thing)
 ‘Their house is very difficult-to-make(-house).’ [O > O]

b. *kantja=ga jaa=ja daizina cifi-guri+munu*
 3PL=GEN house=TOP great make-difficult.to(+thing)
 ‘Their house is very difficult-to-make(-house).’ [O > S]

8.5.2.3. ‘easy to’ -*jasī*

A PC stem is derived from the athematic stem of a verb with *-jasī* ‘easy to’. The derived PC stem with *-jasī* may form an adjective, a state nominal, a compound nominal, a PC verb, or a PC adverb.

(8-108) *cifi-jasii+cifi-jasi=nu jaa*
 RED+make-easy.to=GEN house
 ‘a house that is easy.to make’ [adjective]

(8-109) *ui=ga cifi-jas-sa=nu=du iciban*
 3SG=GEN make-easy.to-NLZ=NOM=FOC best
 ‘Easiness of (making) it is the best.’ [state nominal]

(8-110) *uri=a cifiī-jasi+munu=du a-tar.*
 3SG=TOP make-easy.to(+thing)=FOC COP-PST

‘It was (one) easy to make.’ [compound nominal]

(8-111) *uri=a cifiī-jasi-ka-∅-m=dooi.*
 that=TOP make-easy.to-VLZ-NPST-RLS=EMP

‘That is easy to make.’ [PC verb]

(8-112) *uri=a cifiī-jasi-f=fa njaa-n-∅.*
 that=TOP make-easy.to-AVLZ=TOP NEG-NPST

‘That is not easy to make.’ [PC adverb]

As in the case of *-guri* (§8.5.2.2), the syntactic valence of the verb stem may be either retained or decreased when the derived PC stem is further transformed into a word other than a state nominal. In (8-113a), the derived clause is headed by a nominal predicate phrase (whose head is a dummy head compound nominal), which still governs its direct object.

(8-113) a. *kantja=ga jaa=ju=baa daizīna cifiī-guri+munu*
 3PL=GEN house=ACC=TOP great make-difficult.to(+thing)

‘Their house is very difficult-to-make(-house).’ [O > O]

b. *kantja=ga jaa=ja daizīna cifiī-guri+munu*
 3PL=GEN house=TOP great make-difficult.to(+thing)

‘Their house is very difficult-to-make(-house).’ [O > S]

Chapter 9

Clitics

This chapter focuses on the syntactic distribution and the semantic-pragmatic function of various clitics. As was described in §2.1 and in §3.2.2, a clitic is a bound form that does not head a phrase, attaching to a grammatical word from outside, and is thus subject to fewer co-occurrence restrictions than an affix, which is an internal member of a grammatical word and whose presence and form are determined by the stem to which it is attached. The grammatical word and the attached clitics constitute a larger morphosyntactic unit which I call a word-plus (§2.1). In most cases this is a phonological word, showing a high degree of coherence in terms of phonotactics, phonological rules, and the default mapping domain of the alternating rhythm (see §2.1.2 for an overview of the phonological word). Clitics are like grammatical words with regard to their co-occurrence restrictions, but are like affixes in terms of their phonological integration into the host.

9.1. Introduction

9.1.1. Syntactic host and phonological host

It is necessary to distinguish between a syntactic host and a phonological host. A syntactic host is the constituent over which a clitic has semantic scope, e.g. an NP, a clause, etc., whereas a phonological host is an element with which a clitic forms a phonological word, e.g. the last word-plus within an NP. In (9-1) below the syntactic host of the focus clitic =*du* * is the entire A argument NP *bantiga ujaga*, whereas =*du* is attached phonologically to the word-plus *uja=ga* ‘father:NOM’, the phonological host, so that *uja=ga=du* is a single phonological word.

(9-1) *banti=ga uja=ga=du ssagi-as-imi-tar.*
 1PL=GEN father=NOM=FOC wedding-VLZ-CAUS-PST

‘Our father made me marry.’

9.1.2. Overview of Irabu clitics

As defined in the introduction to Chapter 4, a case clitic is an extension to an NP. Thus its distribution in terms of possible syntactic hosts is precisely explained in relation to NP structure, and with the exception of predicate NPs, a case clitic is obligatory in each NP within a clause (with the exception of case ellipsis). Case clitics are therefore phrasal clitics. See Chapter 4 for the distribution and function of case clitics.

On the other hand, there are other kinds of clitic whose syntactic host is an entire clause or a clausal element (i.e. an argument, an adjunct, or a matrix predicate), and whose presence is in many cases once per clause (e.g. a modal clitic occurs in many cases once per clause). These are clausal clitics, which I describe in this chapter.

To show the difference between phrasal clitics and clausal clitics briefly, let us observe (9-2) and (9-3) below. In (9-2) below each of the three case clitics is per NP. The dative case and the nominative case are per argument NP, whereas the genitive case is per modifier NP.

(9-2) *kantja=ga jaa=n=du ffuki=nu ar-Ø.*
 3PL=GEN house=DAT=FOC Kuroki=NOM exist-NPST

‘(There) is a *Kuroki* tree in (the garden of) their house.’

In (9-3), on the other hand, the clitic =*mai* ‘too’ is a clausal clitic, structurally attached to the entire locative argument (indicated by []). It can never be attached to the modifier

NP within a superordinate NP, since the constituent is not an argument. Unlike case, therefore, the syntactic distribution of the clitic =*mai* is explained with reference to the clause-level syntax rather than to the NP structure.

- (9-3) [kantja=ga jaa=n]=mai=du ffuki=nu ar-Ø.
 3PL=GEN house=DAT=too=FOC Kuroki=NOM exist-NPST
 ‘(There) is a *Kuroki* tree in (the garden of) their house, too.’

As summarised in TABLE 9-1 below, there are five kinds of clausal clitics with differing co-occurrence restrictions, which are described in the sections below. Conjunction clitics are structurally attached to an entire clause (coordinate clause). Other clitics are attached to a clausal element, i.e. an adjunct (either a predicate adjunct or a sentential adjunct), an argument, or a matrix predicate.

TABLE 9-1. Clausal clitics in terms of syntactic host

	Entire clause	Clausal element		
		Predicate	Argument	Adjunct
Conjunction clitic	*			
Modal clitic		*		
Limiter clitic		*	*	
Topic/focus clitic	*	*	*	*
Discourse marker clitic	*	*	*	*

When a clitic is attached to a predicate, its phonological host may be a V1, V2, NP, copula, or a VP complement (see §3.1.1 for the structure of the predicate phrase structure).

Clausal clitics as well as phrasal clitics form a single phonological word with the immediately preceding word-plus. This is in most cases a chance neighbour of the syntactic host structure. For example, as is illustrated in (9-4) below, the syntactic host of the modal clitic =*pazĩ* ‘maybe’ (§9.3.4) is a predicate, either verbal or nominal, so its phonological host may be a verbal word-plus or a nominal word-plus.

(9-4) a. *kari=a* *par-tar=pazĩ.*
 3SG=TOP leave-PST=maybe
 ‘He may have left.’

b. *kari=a* *sinsii=pazĩ.*
 3SG=TOP teacher=maybe
 ‘He may be a teacher.’

See §3.2.2 for the same argument for case clitics.

On the other hand, other clitics, such as the modal clitic =*su(u)da* (§9.3.5), have a more severe restriction on the phonological host. Even though its syntactic host is a predicate, the phonological host must be a verbal word-plus. Thus when it is syntactically attached to a nominal predicate, the copula verb is obligatorily present as its phonological host.

(9-5) a. *kari=a* *par-tar=ruda.*
 3SG=TOP leave-PST=AD.ASR
 ‘He has left, hasn’t he?’

- b. *kari=a* *sinsii* *jar-Ø=ruda.*
 3SG=TOP teacher COP-NPST=AD.ASR
 ‘He is a teacher, isn’t he?’

As is shown in TABLE 9-2 below, all conjunction clitics behave similarly, requiring their phonological host to be verbal. Other clitics have at least two kinds of phonological host, and this characteristic is a major criterion for distinguishing clitics from most affixes (§3.2.2). In the table, the phonological hosts listed are not exhaustive but distinctive (e.g. the adjective word-plus is excluded here). In particular, limiter clitics, topic/focus clitics, and discourse marker clitics are distinguished from each other by their (in)ability to be attached to a word-plus containing a PC adverb (§8.3.2), a word-plus containing an underived adverb (§3.3.5.1), and an adnominal word-plus (§5.4, see also below).

TABLE 9-2. Clausal clitics in terms of phonological host

	Verb word-plus	Nominal word-plus	Other word-plus		
			PC adv	Un.adv	Adn
Conjunction clitic	*				
Modal clitic	*	*			
Limiter clitic	*	*	*		
Topic/Focus clitic	*	*	*	*	
Discourse marker clitic	*	*	*	*	*

Basically, an adnominal word does not carry any clitic. Unlike a noun, it does not carry the genitive clitics as it directly fills the modifier slot of an NP (whereas a noun does so indirectly, by first heading an NP, which then carries the genitive clitic). However, a discourse marker can phonologically attach to any constituent of a clause including the modifier of an NP. In (9-6) below, the confirmative clitic *=i* ‘eh?; you know’ (§9.6.4) is

attached to the adnominal *kanu* ‘that’ and the head noun with the accusative clitic.

- (9-6) *kanu=i, jaa=ju=i, vv-m=ti=du as-i+ur-Ø.*
 that=CNF house=ACC=CNF sell-NPST-RLS=FOC do-THM+PROG-NPST
 ‘(That guy) is going to sell that house.’

9.1.2.1. Conjunction clitics

A conjunction clitic (§9.2) marks coordination, and its syntactic host is an entire clause (i.e. a coordinate clause). A conjunction clitic requires the copula verb when attaching to a nominal predicate. That is, its phonological host must be a verbal word-plus. In relation to this, as shown below, the ‘so’ conjunction clitic *=(ss)iba* has a reduced allomorph *=iba*, which also triggers an irregular allomorphy on the part of the host (the past unmarked suffix *-tar > -ta*), indicating an affix-like morphological bonding.

- (9-7) a. *kuumuja=nu u-ta=iba=du, uturusī+munu a-ta-m.*
 cockroach=NOM exist-PST=so=FOC fearful+thing COP-PST-RLS
 ‘(There) was a cockroach, so (it) was fearful.’

- b. *giin=du a-ta=iba=du, daizīna ujaki+pžtu=dooi.*
 congressman=FOC COP-PST=so=FOC great rich+man=EMP
 ‘(He) was a congressman, so (he) is a very rich man’

9.1.2.2. Modal clitics

There are clitics whose syntactic host is a matrix (i.e. main) clause predicate, whether nominal or verbal. These are **modal clitics** (§9.3), such as the certainty modal clitic

=*dara*. Except for =*su(u)da*, as noted in §9.1.2, modal clitics do not require a copula verb, and may be directly attached to a predicate nominal (9-9), demonstrating that they syntactically attach to a predicate (whether it be a verbal or nominal), rather than attaching morphologically to a verb stem.

(9-8) *kan=nu=du* *ur-Ø=dara*.
 crab=NOM=FOC exist-NPST=CRTN
 ‘(There) is a crab.’

(9-9) *uri=a* *parumna=dara*.
 3SG=TOP snail=CRTN
 ‘It is a snail.’

9.1.2.3. Limiter clitics

There are clitics whose syntactic host may be an argument or an (clausal) adjunct. These are **limiter clitics** (§9.4), which consist of quantifier clitics (e.g. =*mai* ‘too’) and qualifier clitics (e.g. contrastive/emphasis =*gami*).

(9-10) *mm=mu=mai* *nii+fau-Ø*.
 potato=ACC=too boil+eat-NPST
 ‘(I) boil-and-eat potatoes, too.’

(9-11) *vva=ga* *ah-u-ba=gami=du* *zau-kar-Ø*.
 2SG=NOM do-THM-CVB.CND=EMP=FOC good-VLZ-PST
 ‘If you do (it), (that’s) fine.’

‘This (guy) was a fisherman.’

Below are examples of the focus marker =*du*, where the syntactic constituent to which =*du* attaches is bracketed.

(9-14) [*banti=ga uja=ga*]=*du* *až-tar*.
1PL=GEN father=NOM=FOC say-PST
‘[Our father] said (that).’ [subject argument]

(9-15) *jusarabi+maar=ru=baa* [*juu*]=*du* *asī-tar*.
twilight+wandering=ACC=TOP very=FOC do-PST
‘(I) would [often] take a walk before dusk.’ [adjunct: adverb]

(9-16) [*assuga*]=*du=i*, *ffa=nu* *bžžbžž=tii* *nak-i-i*, *mmja*,
but=FOC=CNF child=NOM ONM=QT cry-THM-MED INTJ

nau=mai *as-irai-t-ta-m*.

what=even do-POT-NEG-PST-RLS.

‘[But], my child cried a lot, and (I) could not do anything.’ [adjunct: conjunction]

(9-17) [*butu=nu njaa-n-Ø=niba*]=*du*, *pai=nkai=ja*
husband=NOM not.exist-NEG-NPST=so=FOC field=ALL=TOP

maadaa ik-ai-n-Ø.

not.very go-POT-NEG-NPST

‘[My husband died, so] (I) can’t often go to my field.’ [coordinate clause]

(9-18) *[tigami=u kak-i-i]=du, par-tar.*

letter=ACC write-THM-MED=FOC leave-PST

‘[Writing a letter], (he) left.’ [sentential adjunct: non-finite adsentential adjunct clause]

(9-19) *kari=a [jagumi+pžtu]=du [a-tar].*

3SG=TOP awful+man=FOC COP-PST

‘He was such a person.’ [predicate: NP as phonological host]

(9-20) *tigami=u [kak-i-i]=du [ur-Ø].*

letter=ACC write-THM-MED=FOC PROG-NPST

‘(I) am writing a letter.’ [predicate: lexical verb as phonological host]

(9-21) *fini=u=baa [vv]=du si-tar.*

boat=ACC=TOP selling=FOC do-PST

‘(I) did sell (my) boat.’ [VP complement]

9.1.2.5. Discourse marker clitics

There are clitics whose host may be any syntactic constituent, and whose distribution is mostly determined by discourse factors rather than syntactic structure. These are **discourse marker clitics** (§9.6) which include various discourse markers such as

confirmative =i as illustrated below.

(9-22) *nubir=gami=a* [*mma+munu a-ta-m*]=*mi*.

nubir.plant=EMP=TOP tasty+thing exist-PST-RLS=CNF

‘Nubir plant [was tasty], eh?’ [matrix predicate]

(9-23) [*uri=u*]=*i*, *im=nu* *mizi=sii* *arav-∅*.

3SG=ACC=CNF sea=GEN water=INST wash-NPST

‘(When you got a seaweed, you) wash [it], you see, with sea water.’ [direct object argument]

(9-24) [*kuma=nu* *nii=ju* *kir-i-i*]=*i*,

this.place=GEN root=ACC cut-THM-MED=CNF

kaa=ju=du *piccjafi-∅*.

skin=ACC=FOC tear.off-NPST

‘[(You) cut a root here], you see, and tear off the skin of the root.’ [sentential adjunct: non-finite adsentential adjunct clause]

(9-25) [*butu=u* *sin-tar=ruga=du*]=*i*, *pataki=mai* *a-ta-m*.

husband=TOP die-PST=but=FOC=CNF field=too exist-PST-RLS

‘(My) husband died, but (there) was (still) a field.’ [coordinate clause]

9.1.3. Relative ordering within clitic chains

When clitics co-occur, forming a clitic chain, their relative ordering within the clitic chain mostly reflects restrictions on their co-occurrence with a given type of host (i.e.

the higher degree of restriction a clitic shows, the nearer to the host it comes; see TABLE 9-2). Conjunction clitics are only attached to a verb, so it precedes any other kind of clitic. Modal clitics and limiter clitics do not appear in the same slot. Both these clitics precede topic/focus clitics, and finally discourse marker clitics close off a clitic chain. Thus in (9-26) below, the predicate modifier clitic =*iba* (conjunction clitic ‘so’) is followed by the limiter clitic =*gami* (contrastive/emphatic), which is in turn followed by the focus clitic =*du* and the discourse marker clitic =*i*.

(9-26) *banti=a* *kuu-ka-ta=iba=gami=du=i*,
 1PL=TOP poor-VLZ-PST=so=EMP=FOC=CNF

kookoo=mai *idah-a-t-tar=dooi*.
 high.school=even let.go-THM-NEG-NPST=EMP

‘We were poor, so (our family) didn’t let me go to high school.’

9.2. Conjunction clitics

A conjunction clitic typically marks coordination of a clause headed by a finite predicate without a dependency or embedding relationship to a matrix clause (§11.2). There are three conjunction clitics: temporal =*kja(a)* ‘when’, ‘But’ conjunction =*suga*, and ‘So’ conjunction =(ss)*iba*.

9.2.1. Temporal =*kja(a)*

The clitic =*kja(a)* is a temporal conjunction ‘when’ or ‘while’. The bracketed phoneme is optional, though =*kja* is preferred when another clitic follows.

(9-27) *uja=nu sin-Ø=kjaa=du ffa-mmi=nu av-Ø.*
 parent=NOM die-NPST=when=FOC child-DIM=FOC make.quarrel-NPST
 ‘When a parent dies, the children quarrel.’

(9-28) *tida=nu agar-Ø=kja=du*
 sun=NOM rise-NPST=when=FOC

fim-i-i ik-i+u-tar. miz=zu=baa.
 get-THM-MED go-THM+PROG-PST water=ACC=TOP
 ‘When the sun rose (I) would go and get, (I mean) water.’

(9-29) *ba=ga munu=u fa-i+ur-Ø=kjaa*
 1SG=NOM thing=ACC eat-THM+PROG-NPST=when

maccja=nkai ik-i-i kuu-Ø.
 shop=ALL go-THM-MED come-IMP
 ‘While I am eating, go to the shop and come back.’

In texts I found several examples in which =*kja(a)* apparently expressed ‘until’ rather than ‘when’ or ‘while’, as shown in (9-30).

(9-30) *patarak-ai-r=kjaa, sjuumun=nu kacī+kai-Ø*
 work-POT-NPST=until invoice=ACC write+change-MED

<i>ntsi-i</i>	<i>par-i-∅=tii</i>	<i>asi-tarjaa...</i>
put-MED	leave-THM-IMP=QT	say-CVB.PST.CND

‘Until (I) am able to work, refresh (the due date of) the invoice and put it and come again, said (the man), then...’

However, a later elicitation revealed that this is a shortened version of *=kja=gami*, as in (9-31) below, where *=gami* (limitative case) expresses ‘until’.

(9-31) *kai=n idjav=kja=gami=a, munuž-ž-a-da ur-i-∅.*
 3SG=DAT meet=when=until=TOP speak-THM-NEG.MED PROG-THM-
 -IMP

‘Keep silent until (you) see him.’

This may suggest that *=kja(a)* was a formal noun, since the *=gami* here can be considered a case clitic expressing its case relation ‘until; as far as’. If so, then *=kja* has almost lost its status as a formal noun in that it cannot carry any other case, and it is even possible for *=gami* to be unexpressed, as in (9-30).

9.2.2. ‘So’ conjunction *=(ss)iba*

The conjunction clitic *=(ss)iba* expresses the ‘so; therefore’ causal relation. The initial /ss/ is present when *=(ss)iba* attaches to a host that ends in a CV, as in the finite irrealis intentional form (9-32).

(9-32) *uku+nam=mu jar-ah-a-di=ssiba,*
 big+wave=ACC send-CAUS-THM-INT=so

ur-i-i *kuu-∅=juu!*
 descend-THM-MED come-IMP=EMP

‘(I) will cause a big wave, so come down with the wave!’

The initial /ss/ is deleted when attaching to the past unmarked suffix *-tar* (9-33).

(9-33) *ubaa=ja* *akjaada=mai* *as-i+u-ta=iba,*
 old.woman=TOP merchant=too do-THM+PROG-PST=so

uma+kuma *maar-i+u-tar.*
 there+here wander-THM+PROG-PST

‘The old woman was a merchant, so (she) visited here and there.’

In all other contexts only the first /s/ is deleted, i.e. we have the form *=siba* (9-34). In very old speakers’ speech, /s/ in *=siba* is subject to another morphophonemic process in which it is assimilated to a preceding /n/ (see (9-35) as opposed to (9-34)).

(9-34) *ba=a* *s-sa-n-∅=siba=gami=du* *až-žī+ur-∅.*
 1SG=TOP know-THM-NEG-NPST=LMT=FOC say-THM+PROG-NPST

‘I don’t know, so I am asking.’

(9-35) *uku+tagu* *muc-ai-n-∅=niba,* *bakecī-gama=n*
 big+basin carrry-POT-NEG-NPST=so bucket-DIM=DAT

ir-i-i *unu* *kuba-gama* *ka=tti.*
 put-THM-MED that betel.palm-DIM ONM=QT

‘(I) couldn’t carry a big basin, so (I) put (water) in the betel palm, like this.’

9.2.3. ‘But’ conjunction =*suga*

The conjunction clitic =*suga* expresses the adversative ‘but’ relation. This clitic probably developed from =*su(u)* (formal noun ‘man; thing’) + =*ga* (archaic conjunction ‘but’?), but in the synchronic grammar of Irabu =*suga* is a single morpheme that cannot be broken up. The initial /s/ is subject to the characteristic morphophonemic process of =*su(u)*: /s/ assimilates to a preceding /r/ (§2.10.3), as illustrated in (9-38).

(9-36) *dzin=nu* *ar-Ø* *ujaki+munu-mmi=gami=a*
 money=NOM exist-NPST rich+man-PL=LMT=TOP

fa-i-Ø=du *ufi-Ø=suga,*
 eat-THM-MED=FOC PROS-NPST=but

banti=a *kuu+munu-gama=du* *a-ta=iba=du...*
 1PL=TOP poor+man-DIM=FOC COP-PST=so=FOC

‘Rich people who have money would eat (rice), but we were a bit poor, so...’

(9-37) *imi-kar-Ø=kjaa=gami=a* *cif-fa-n-Ø=suga=i,*
 small-VLZ-NPST=when=LMT=TOP make-THM-NEG-NPST=but=CNF

mmja uu-fi-∅ nar-i-i=kara=a mmja
 INTJ big-VLZ-MED become-THM-MED=ABL=TOP INTJ

pataki=mai juu a-tar.
 field=too very exist-PST

‘(When) I was a kid (our family) did not plant (potatoes), but after becoming old (our family) had many fields.’

(9-38) *ba=a ik-a-t-tar=ruga=du,*
 1SG=TOP go-THM-NEG-PST=but=FOC

ani=kara cifi-tar.
 elder.sister=ABL hear-PST

‘I didn’t go, but (I) heard from my elder sister.’

9.3. Modal clitics

Modal clitics function to encode non-grammaticalised modality, i.e. modality that is not encoded by verbal inflection (see §10.5.1 for the definition of modality).

9.3.1. Dubitative =*bjaam*

The modal clitic =*bjaam* expresses the speaker’s doubtful attitude ‘I wonder if...’, ‘I doubt...’, and so on. In (9-39) =*bjaam* is structurally attached to a nominal predicate, and in (9-40) it is attached to a verbal predicate.

(9-39) A. *kari=a mmja daizina nisidu=dooi.*
 3SG=TOP INTJ awful theft=EMP
 ‘He is an awful thief.’

B. *ai=bjaam=mi.*
 that.way=I.doubt=CNF
 ‘I wonder if (the fact is) that way.’ [i.e. ‘that’s what you say.’]

(9-40) *kan=nu=ru ur-∅=bjaam=ti, muu=ju*
 crab=NOM=FOC exist-NPST=I.wonder=QT seaweed=ACC

ujukasī-tigaa, bazakar-i-i=du u-tar.
 shake-CVB.CND raise.claw-THM-MED=FOC PROG-PST
 ‘(I thought) “I wonder if there is a crab,” and when I shake seaweed, (the crab)
 was raising its claw (to fight against my attack).’

As is illustrated in (9-40) above, =*bjaam* may be used in a self-question.

9.3.2. Dubitative 2 =*gagara*

The modal clitic =*gagara* expresses the speaker’s doubtful attitude ‘I wonder how’, ‘I wonder what’, and so on, always co-occurring with an interrogative such as *nau* ‘what’, *taru* ‘who’, *nza* ‘where’, *nausi* ‘how’, and so on. When it is directly attached to an interrogative, the resulting form is an indefinite nominal (Chapter 5).

The speech act of the sentence in which =*gagara* is found is not a question in the sense of invoking the hearer’s verbal response (Sadock and Zwicky 1985), but an

uncertain statement, or a self-question. Even though =*gagara* consisted originally of =*ga* (the focus marker of information question which is double-marked on a predicate; §9.5.2.2) and =*gara* (unknown morpheme), and this is still evidenced in its prosodic behaviour (see below), I treat it as a single morpheme, since =*ga* and =*gara* always appear together to function as a dubitative marker.

(9-41) *gui! nau=nu=ga ur-Ø=gagara=i?*
 Wow what=NOM=FOC exist-NPST=I.wonder=CNF
 ‘Wow, what is there....’ [self-question]

(9-42) *taru=nu=ga kuu+munu-mmi=u=mai mii-r=gagara=i?*
 who=NOM=FOC poor+man-PL=ACC=too look.after=I.wonder=CNF
 ‘(I wonder) who would look after poor people as well?’ [self-question]

As these examples show, =*gagara* is very often followed by the discourse marker clitic =*i* (confirmative), which normally requests a verbal response from the hearer about what speaker says (§9.6.4). However, in a self-question =*i* is used as if there were an imaginary hearer in the monologue.

As noted in §2.9.2.2, the mora length of a morpheme makes a difference to this footing. A monomoraic morpheme is simply treated as part of the host on which default bimoraic footing operates, whereas a polymoraic morpheme always starts a foot. In this regard, =*gagara* behaves like =*ga* + =*gara*:

(9-43) *nau=ga=gara*
 a. (nauga)_H (gara)_L

*b. (nau)(gagara)

Here, the (b) pattern would be obtained if =*gagara* were treated prosodically as a single trimoraic morpheme. However, what we actually get is the (a) pattern in which =*gara* starts its own footing, and this induces a ternary foot on the part of its prosodic host, i.e. *nau* + =*ga*, the latter being treated as part of the host for footing purposes because it is monomoraic.

9.3.3. Hearsay =*ca* and =*tim(dara/dooi)*

The modal clitic =*ca* functions to mark hearsay evidence. This is the default form that attaches to each sentence-final finite verb when one narrates a folktale story.

(9-44) *piicja-gama num-a-di=ca.*
small-DIM drink-THM-INT=HS
'(This guy says) "I'll drink a little bit".'

(9-45) *vva=ga ujaku-mmi=a kuma-nagi=n u-tar=ca.*
2SG=GEN relative-PL=TOP this.place-APPR=DAT exist-PST=HS
'Your relatives used to live here, they say.'

(9-46) *tooriike=tii=du=i, ssibara, maibara,*
Tooriike=QT=FOC=CNF back front

satu+bžtu=nu a-tar=ca.
neighbour+man=NOM exist-PST=HS

‘In Tooriike (Trans-pond), (there) were neighbours facing each other.’ [In a folktale story]

Another hearsay discourse marker =*tim(dara/dooi)* has two variants, =*timdara* and =*timdooi*. These are analysable into =*tim* + =*dara* (certainty modal clitic) and =*tim* + =*dooi* (emphatic modal clitic) respectively. I treat each of these variants as an internally complex clitic, because no other element can intervene between =*tim* and =*dara*/=dooi, and =*tim* cannot appear alone. In terms of function, =*tim* expresses a situation in which the hearsay part of a proposition [x] in [x]=*tim* is already well integrated into an established knowledge of the speaker (that is, it expresses ‘it is said that [x] holds true, and I am well aware that [x] is true.’). Thus =*tim* has a strong assertive sense even if the statement is not first-hand, and is often used when a speaker uses a second-hand message in an act of persuasion, warning or caution.

(9-47) *junai=n* *maar-i+u-tigaa,* *mmja*
 night=DAT wander-THM+PROG-CVB.CND INTJ

mazimunu=nu *fī-∅=timdara.*

evil.spirit=NOM come-NPST=HS

‘(People say) If (one) wanders around in the night time, an evil spirit will come.’ [connotation: ‘so you shouldn’t do that’]

(9-48) A. *kanu* *sjuu=ja* *sin-ta-m=dooi.*
 that old.man=TOP die-PST-RLS=EMP
 ‘That old man has died.’

B. *ai=timdara*.

that.way=HS

‘(I have already heard) that.’ [connotation: ‘I am already aware of it.’]

Thus =*tim* is different from =*ca* in that the latter simply expresses ‘[x] is a hearsay fact’, which is the default interpretation *not* integrated into speaker’s knowledge. By using =*ca*, the speaker is not taking responsibility for the hearsay fact. On the other hand, =*tim* strongly expresses the speaker’s certainty about the validity of the hearsay report. This is why it is followed by =*dara* or =*dooi*, which encode certainty and emphasis respectively.

(9-49) a. *kari=a pžtarrjam=timdooi*.

3SG=TOP lazy.man=HS

‘He is said to be a lazy man.’ [connotation: ‘I can bet it, so you should believe me’]

b. *kari=a pžtarrjam=ca*.

3SG=TOP lazy.man=HS

‘He is said to be a lazy man.’ [speaker may or may not be sure of the hearsay fact]

9.3.4. Uncertainty =*pazĩ*

The modal clitic =*pazĩ* expresses more or less uncertainty on the part of the speaker.

(9-50) *ffufigii, ui=ga=du juu mma-ka-tar.*
 k.o.plant that=NOM=FOC very tasty-VLZ-PST

uri=a nnama=mai nar-i-i=du ur-∅=pazĩ=dooi.
 that=TOP now=too grow-THM-MED=FOC PROG-NPST=
 =maybe=EMP

‘*Fufigii*, that was very tasty. (Trees) may bear that (fruit) still now.’

(9-51) *s-sa-n-∅. nnama=gami=a pžsara=pazĩ.*
 know-THM-NEG-NPST now=EMP=TOP Hirara=maybe

‘I don’t know. By now (she has arrived in) Hirara.’

The clitic =*pazĩ* was probably a formal noun (see §4.2.3), that had the structure adnominal clause + =*pazĩ* where the once adnominal clause is now treated as a main clause predicate, and the modal use of =*pazĩ* has derived from this construction. This is based on the fact that =*pazĩ* shows some synchronic peculiarities in comparison with other modal clitics: it can be followed by a copula, as shown in (9-52) below:

(9-52) *mmna kuu-n-∅=pazĩ=du a-ta=iba=du,*
 everyone come-NEG-NPST=should.be=FOC COP-PST=so.that=FOC

sauc=cu=mai ah-u-da unumama-as-i+u-tar.
 cleaning=ACC=even do-THM-NEG.MED situation.as.it.is-VLZ-THM+
 +PROG-PST

‘(I) thought that no one would come (in all probability), so that (I) did not clean

(my house) and left everything as it was.’

9.3.5. Addressive assertive =*su(u)da*

This section and the next three (§9.3.6, §9.3.7, §9.3.8) describe clitics that are semantically more like discourse markers than typical modal clitics described so far, as they do not simply express a speaker’s attitude toward a proposition, but are addressee-oriented in one way or another. Among these clitics, the modal clitic =*su(u)da* shows relatively clear modal meaning. It encodes the speaker’s assertion that his/her statement is true, but with request for the hearer’s confirmation that his/her statement is actually true.

(9-53) A. *gama=nu mii=tii=ja nau=ju=ga až-Ø=ga?*
 cave=GEN place.around=QT=TOP what=ACC=FOC say-NPST
 =Q

‘What does (one) mean by “*gamanu mii*”?’ [speaker A is not sure of the expression *gamanu mii*, though she knows that this expression is used in Irabu]

B. *gama=nu mii? nau=ga gama=nu mii?*
 cave=GEN place.around what=FOC cave=GEN place.around
 ‘*gamanu mii*? What the hell is *gamanu mii*?’

A. *gama=nu mii=n usum-i-i=ti=du*
 cave=GEN place.around=DAT hide-THM-MED=QT=FOC

duu=ja aǰ-Ø-m=suuda.

1PL=TOP say-NPST-RLS=AD.ASR

‘We say like, “hiding in *gamanu mii*”, don’t we?’

The clitic *=su(u)da* can be traced back historically to *=su(u)* (formal noun ‘man; thing’; §4.2.1.8) + *=da* ‘?’. This is evidenced in the characteristic morphophonemics of *=su(u)*: as in the case of *=su(u)*, the initial /s/ of *=su(u)da* is subject to the morphophonemic progressive assimilation (*//r// + //su(u)da// > /rru(u)da/*):

(9-54) *vva=mai asi-tar=ruda.*

2SG=too do-PST=AD.ASR

‘You did (it), too, don’t you?’

Synchronically, however, the clitic *=su(u)da* always occurs as a unit, and no other element can intervene between *su(u)* and *da*. If its historical source construction was an adnominal clause structure, i.e. [adnominal clause] + formal noun *su(u)*, the host verb of *=su(u)da* should be the finite unmarked form. However, it also appears after other inflected forms (see (9-53)), indicating that *=su(u)da* is no longer treated as a formal noun that is modified by an adnominal clause. Thus I treat it as a single modal clitic.

=su(u)da shows one syntactic peculiarity that is not observed in other modal clitics presented so far: its syntactic host is an NP, but it cannot phonologically be attached to the last word-plus of an NP, and requires the copula verb (*jar* rather than *ar*, which is the allomorph that appears only in non-main clauses) as its phonological host. This constraint is understandable given that *=su(u)da* was a formal noun (+ *=da*): **=su(u)* was a formal noun that was modified by an adnominal clause, which must end in a verb.

(9-55) *kari=a daizina buuciri jar-Ø=ruuda.*
 3SG=TOP awful mighty.person COP-NPST=AD.ASR
 ‘He’s an awful mighty person, isn’t he?’

9.3.6. Certainty =*dara*

The clitic =*dara* expresses a modal meaning roughly characterised as certainty about the speaker’s statement. It is like a discourse marker in that it almost always appears in dialogue rather than in monologue, indicating that it has an addressee-oriented function. Since it expresses the speaker’s certainty, =*dara* never occurs in questions, only in statements, and in those discourses in which a speaker reports an event or state that is based on his/her direct experience.

(9-56) *unu nubir+zuu-gama, ui=ga=du juu a-tar=dara.*
 that k.o.plant+plant-DIM that=NOM=FOC very exist-PST=CRTN
 ‘The *nubir* plant, (there) were a plenty of them.’

(9-57) *kan=nu idi-i c-ci-i, junai=n=ni, jur, jur=rju,*
 crab=NOM exit-MED come-THM-MED night=DAT=CNF night night=
 =EMP

jur c-ci-i, sugu kasakasakasa=tii as-Ø=siba=du,
 night come-THM-MED EMP ONM=QT do-NPST=so=FOC

utu=u cik-i-i, banti=a c-ci-i,
 sound=ACC hear-THM-MED 1PL=TOP come-THM-MED

uri=u tu-i+fau-tar=dara.

that=ACC take-THM+eat-PST=CRTN

‘Crabs come out (of their nests), in the night, in the night (they) come with some noise like “*kasakasakasa*”, so (we) listen for the sound, and we come and catch-and-eat them.’

Structurally, *=dara* is in a paradigmatic relation to the modal clitics reviewed so far, except for the assertive *=su(u)da*, which may follow *=dara*. Here, *=su(u)da* is realised as the irregular form *=ssuda*. Alternatively, *=darassuda* might be treated as a single modal clitic encoding a very strong assertion and certainty.

(9-58) A. *kari=a daizina munu+s-sja=dooi.*

3SG=TOP great thing+know-NLZ=EMP

‘She is such a knowledgeable person’

B. *ai=dara=ssuda.*

that.way=CRTN=AD.ASR

‘Exactly.’

9.3.7. Emphatic *=doo(i)*

The modal clitic *=doo(i)* is an emphatic marker.⁵⁶ The parenthesized /i/ is usually present, but it is not uncommon to find examples in which it is absent. It may be

⁵⁶ There are other emphatic clitics listed in this grammar (§9.3.8, §9.4.6, §9.4.7, and §9.6.1). I admit that it is rather inappropriate to regard all of them as ‘emphatic’ markers if the description is to be more precise. However, I am not at this stage in the position to be clear enough to assign more precise terms and descriptions, due to lack of substantial data. It is thus an important research topic to refine my description of these particular markers.

historically decomposed into =*doo* + =*i* (discourse marker: confirmative), given that in many neighbouring varieties of Miyako Ryukyuan only =*doo* is used in the contexts in which =*dooi* would be used in Irabu.⁵⁷ In Irabu, =*dooi* may be further followed by =*i*, thus the /i/ found in =*dooi* does not function as a discourse marker any more.

(9-59) *vvadu=ga patarak-i+a-i-ba=du kjuu=ja*
 2PL=NOM work-THM+RSL-THM-CVB.CSL=FOC today=TOP

irav=va ar-∅=dooi=i.
 Irabu=TOP exist-NPST=EMP=CNF

‘Because you have worked, today(’s society), (I mean) Irabu, exists, doesn’t it?’

When the finite intentional *-di* and =*doo(i)* co-occur, the complex form often appears as a fused form *-tuu(i)*, where /i/ of *-di* is deleted and the resulting /dd/ geminate becomes a voiceless /tt/. The complex form can be analysed as *-t=tuu(i)*, encoding an immediate future intention.

(9-60) *ba=a par-a-t=tuu.*
 1SG=TOP leave-THM-INT=EMP

‘I’ll go (right now).’

(9-61) *kuma=n nci-t=tuui.*
 this.place=DAT put-INT=EMP

⁵⁷ For example, in Hirara (Nakama 1992) the form corresponding to Irabu =*doo(i)* is =*doo*. In Ikema, =*dooi* is observed (this was pointed out by an anonymous reviewer).

‘I’ll put (this) here (right now).’

A finite realis verb form very often co-occurs with =*dooi*. The realis mood encodes strong certainty on the part of speaker and always carries new information to hearer (i.e. encodes assertion as opposed to presupposition; §10.5.1.1). That is, when the realis form is used, (the speaker assumes that) the hearer has a wrong assumption about, or is unaware of the truth of the statement that the speaker expresses, and therefore the speaker naturally puts contrastive emphasis on his/her statement.

(9-62) *mma+munu a-ta-m=dooi.*

tasty+thing COP-PST-RLS=EMP

‘(It) was delicious.’ [connotation: ‘although you might doubt it’]

(9-63) *hai! uti-r-m=dooi!*

INTJ drop-NPST-RLS=EMP

‘Watch out! (The vase behind you) is gonna drop!’

(9-64) *uma=nu in=na fii-Ø-m=dooi.*

that.place=GEN dog=TOP bite-NPST-RLS=EMP

‘The dog there will bite (people).’ [connotation: ‘so you shouldn’t go there’]

9.3.8. Reserved emphatic =*saa*

The modal clitic =*saa* functions as an emphatic marker which also expresses a degree of reserve. It is often used by female speakers, and is often followed by the confirmative clitic =*i*. Unlike =*dooi* (§9.3.7), =*saa=i* cannot be followed by another =*i*, so =*saa=i*

cannot be treated as a single morpheme.

(9-65) *jarabi=a mmja panas=su=baa cik-a-n-Ø=saa=i.*
child=TOP INTJ talk=ACC=TOP hear-THM-NEG-NPST=R.EMP=
=CNF

‘Children (tend not to) listen to other’s talk, you know.’

(9-66) *aunazi-nagi=mai u-ta=iba=i,*
ratsnake-APPR=too exist-PST=so=CNF

ukuu+uku=nu aunazi-nagi=mai. mii-rai-n-Ø=saa.

RED+big=GEN ratsnake-APPR=too see-POT-NEG-NPST=R.EMP

‘(In those days) (there) were ratsnakes, so, you know, very big ratsnakes. (But now) (we) cannot see (them).’

9.4. Limiter clitics

A limiter clitic quantifies or qualifies (e.g. emphasises) its syntactic host, which is either the argument or adjunct. I have identified five limiter clitics that function exclusively as such, and two case clitics that additionally serve as limiters: =*mai* ‘too’, =*tjaaki* ‘only’, =*bakaar* ‘always’, =*cumma* ‘no’, =*dumma* (emphasis), =*kara* ‘primarily; to begin with’ (or ablative case), =*gami* (emphasis/limitative case).

(9-67) *pai=kara=gami=du nau=ju=mai muc-i-i c-ci-i*
field=ABL=EMP=FOC what=ACC=too carry-THM-MED come-THM-MED

im=nu suu=mai juu fau-tar=ruga=du
 sea=GEN weed=too very eat-PST=but=FOC

nnama=a maada=a mii-n-Ø=ni.
 now=TOP very=TOP see-NEG-NPST=CNF

‘(We) used to eat *Turna, Fikuna, Nubir*, and seaweeds very much, but now (we) don’t often see (these vegetables and seaweeds), do we?’

The clitic =*mai* has the meaning ‘even if’ when it is attached to a non-finite clause. In particular, =*mai* often combines with causal converbal clauses and medial verb clauses. =*mai* has a reduced form =*m* when it is attached to causal converbal clauses, as is shown in (9-71) below.

(9-70) *vva=ga aŝ-ŝa-ba=mai cik-a-n-Ø.*
 2SG=NOM say-THM-CVB.CND=even listen-THM-NEG-NPST
 ‘Even if you say, (he) won’t listen.’

(9-71) *uma=n nci-ba=m zjaubu=ju.*
 that.place=DAT put-CVB.CSL=even alright=EMP
 ‘Even if (you) put (it) there, (that’ll be) alright.’ [i.e. you can put it there.]

(9-72) *ffa=nu nak-i-i=mai puka=nkai=ja id-ah-ai-r-m=mu?*
 child=NOM cry-THM-MED=even outside=ALL=TOP exit-CAUS-POT-
 -NPST-RLS=Q

‘Even if the child cries, could (you) back (it) off outside? (no, you couldn’t)’

9.4.2. ‘Only’ quantifier =*tjaaki*

The clitic =*tjaaki* is a restrictive quantifier encoding ‘only’.

- (9-73) *uri=u=tjaaki=du* *žž-tar=dooi.*
3SG=ACC=only=FOC scold-PST=EMP
‘(I) scolded him only.’

- (9-74) *vva=tjaaki=a* *ifi-na.*
2SG=only=TOP go-PRH
‘You alone don’t go.’

The positioning of =*tjaaki* and the case clitic, which should in principle precede =*tjaaki* (as shown in (9-73) above) can be reversed. Such flexible ordering is not common in Irabu clitic chains, but the fact that it occurs demonstrates an important difference between a clitic chain and an affix chain, as the latter must always follow the specified ordering within the word domain.

- (9-75) *ui=tjaaki=u=du* *žž-tar=dooi.*
3SG=only=ACC=FOC scold-PST=EMP
‘(I) scolded only him.’

9.4.3. ‘Only’ quantifier 2: =*bakaar*

The ‘only’ quantifier 2 =*bakaar* encodes ‘only’, but unlike the other ‘only’ quantifier as noted in §9.4.2, =*bakaar* entails negative meaning associated with ‘only’, as in ‘only *x* monotonously’.

(9-76) *jana+cimuc-cas-i-i=du* *ju-kar-a-n-Ø*
 bad+spirit-VLZ-THM-MED=FOC good-VLZ-THM-NEG-NPST

kutu=u=bakaar *kangai+u-tar=ca.*

thing=ACC=only think+PROG-PST=HS

‘Having a bad spirit, (he) was always thinking only of things that are not good.’

(9-77) *kai=n=bakaar* *ffa+mur-ja* *as-imi-i,* *mmja,*
 3SG=DAT=only child+baby.sit-NLZ do-CAUS-MED INTJ

nara=a *asib-i-i* *maar-i+ur-Ø.*

oneself=TOP play-THM-MED wander-THM+PROG-NPST

‘(The mother) tells only her to baby-sit, while she herself is going outside to have fun.’

9.4.4. ‘Nothing’ quantifier =*cumma*

This clitic always appears in a negative sentence and negates the value of the argument to which it attaches. The argument must be headed by an interrogative nominal such as *taru* ‘who’ and *nau* ‘what’ (but not *nausi* ‘how’ or *naiti* ‘how; why’, as they are not nominals). According to my text database, this argument is always a direct object.

(9-78) *taru=u=cumma* *s-sa-n-Ø.*
 who=ACC=nothing know-THM-NEG-NPST

‘(I) don’t know anyone.’

(9-79) *nau=ju=cumma as-irai-n-Ø=munu.*
 what=ACC=nothing do-POT-NEG-NPST=for
 ‘For (I) cannot do anything.’

9.4.5. ‘Primarily’ qualifier =*kara*

The ablative case clitic =*kara* (§4.3.8) can additionally function as a limiter clitic encoding primacy, i.e. ‘primarily, first, to begin with’.

(9-80) *ba=a bitur-i-i=du ur-Ø. ui=n=kara*
 1SG=TOP be.full-THM-MED=FOC PROG-NPST 3SG=DAT=first

fii-ru.

give-IMP

‘I’m full. Give him (the food) first.’

The clitic =*kara* is often attached to a non-finite clause, in particular to a non-finite adsentential clause, i.e. a medial verb clause. Since a non-finite adsentential clause is neutral with regard to the perfective/imperfective aspect distinction in verb morphology, the attachment of =*kara* helps explicate the telicity of an action by denoting the meaning ‘after (doing something)’. Thus in (9-81) below, the (a) example is ambiguous in terms of the perfective/imperfective distinction, allowing either interpretation, whereas the (b) example with =*kara* only allows Interpretation 2.⁵⁸

⁵⁸ There are other morphosyntactic means to explicate the perfective/imperfective distinction, one of which is non-canonical object marking (see §4.3.3.2).

- (9-81) a. *nuuma=n nuur-i-i=du par-tar.*
 horse=DAT ride-THM-MED=FOC leave-PST
 ‘Riding a horse, (he) left.’ [Interpretation 1: imperfective]
 ‘After riding a horse, (he) left.’ [Interpretation 2: perfective]

- b. *nuuma=n nuur-i-i=kara=du par-tar.*
 horse=DAT ride-THM-MED=after=FOC leave-PST
 ‘After riding a horse, (he) left.’ [Only Interpretation 2]

9.4.6. Emphatic qualifier =*dumma*

The emphatic qualifier clitic =*dumma* attaches to arguments, usually indicating emphasis’. When it is attached to a subject argument, it does not carry case.

- (9-82) *ban=dumma iravci=mai s-sa-n-fi*
 1SG=EMP Irabu.language=even know-THM-NEG-AVLZ

nar-i+u-i-ba...

become-THM+PROG-THM-CVB.CSL

‘I myself am becoming influent in Irabu, so...’

- (9-83) *aagu=u=dumma s-sai=du si-Ø.*
 song=ACC=EMP know-POT=FOC do-NPST
 ‘(This woman) knows songs, too.’

Though not common, =*dumma* may attach to a non-finite subordinate clause, in particular to a conditional converbal clause. Here, =*dumma* may entail a ‘lest’ or ‘just in case’ meaning, as shown in (9-85).

(9-84) *saki=u num-tigaa=dumma, mecjakucja as-i+u-tar.*
 Sake=ACC drink-CVB.CND=EMP badly do-THM+PROG-PST
 ‘When/if he drank Sake, (he) went crazy.’

(9-85) *ui=ga fau-tigaa=dumma, nci+uk-i-Ø.*
 3SG=NOM eat-CVB.CND=lest put+PROS-THM-IMP
 ‘Lest that (guy) should eat, put (it) aside.’

9.4.7. Emphatic qualifier 2 =*gami*

The limitative case clitic =*gami* (§4.3.9) can additionally function as a limiter encoding emphasis. When =*gami* and a topic marker co-occur, the argument modified is interpreted as contrastive topic (‘with respect to X (as opposed to Y)’).

(9-86) A: *vva=mai saada=n=ru u-tar?*
 2SG=too Sawada=DAT=FOC exist-PST
 ‘You, too, were in Sawada?’

B: *ban=gami=a nagahama=n=du c-ci+u-tar=dara.*
 1SG=EMP=TOP Nagahama=DAT=FOC come-THM+PROG-PST=EMP
 ‘I (as opposed to the others) had come to Nagahama (by then).’

(9-87) *mmja nau=ju=ga fau-tar=gagara ai=mai*
 INTJ what=ACC=FOC eat-PST=I.wonder thay.way=even

s-si+u-Ø-m=mu? *zin=nu ar-Ø*
 know-THM+PROG-NPST-RLS=Q money=NOM exist-NPST

ujaki+munu-mmi=gami=a nau=mai fa-i-Ø=du
 rich+man-PL=EMP=TOP what=even eat-THM-MED=FOC

ufi-Ø=suga banti=a kuu+munu-gama=du
 PRF-NPST=but 1PL=TOP poor+man-DIM=FOC

a-ta=iba.

COP-PST=so

‘Well, what would (they) eat, could I know even the way (they ate)? Rich men who have much money would eat whatever (they want), but we were not wealthy men, so...’

When =*gami* and the focus marker co-occur, the argument/adjunct modified is interpreted as being contrastively focused (‘It is A, not B, that...’).

(9-88) *pav ar-a-da, par=gami=du jar-Ø.*
 snake COP-THM-NEG.MED needle=EMP=FOC COP-NPST
 ‘(I did) not say *pav*, but *par*.’

The clitic =*gami* may be attached to a (non-)finite adverbial clause. Also, it may be attached to the (first) lexical verb of a VP which has developed historically from a non-finite adverbial clause. In all these environments =*gami* encodes simple emphasis rather than contrast. All the known examples involve =*gami* followed by focus clitic =*du*.

- (9-89) *vva=ga až-ži-ba=gami=du, nak-i+ur-∅=dara.*
 2SG=NOM say-THM-CVB.CSL=EMP=FOC cry-THM+PROG-NPST=
 =CRTN

‘Because you say (it), (this kid) is crying.’

- (9-90) *akjaada as-i+ur-∅=kja=gami=du umakuma*
 merchant do-THM+PROG-NPST=when=EMP=FOC here.there

maar-i+u-ta=iba s-si+u-tar.
 wander-THM+PROG-PST=so know-THM+PROG-PST

‘When (she) was doing a merchant, she visited here and there, so (I) knew (her).’

- (9-91) *ba=a uri=u=baa s-si-i=gami=du ur-∅!*
 1SG=TOP that=ACC=TOP know-THM-MED=EMP=FOC PROG-NPST

‘I know that!’

9.5. Topic clitics and focus clitics

Irabu has a rich inventory of topic and focus markers. There are two topic markers:

=ba(a) is object topic clitic, i.e. it only co-occurs with a direct object argument, whereas *=a* is used in other environments. There are three focus markers, each associated with a different kind of speech act: *=du* (statement), *=ru* (Yes-No question), and *=ga* (information question). There are distributional constraints on topic and focus markers in terms of inter-clausal syntax (e.g. a topic/focus clitic cannot appear in a subordinate clause but may appear in a coordinate clause), and these will be discussed in Chapter 11.

As noted in §4.3.10, nominative case marking (*=ga/=nu*) and topic marking (*=a*) are in paradigmatic relation, i.e. they cannot co-occur. This is illustrated in (9-92).

(9-92) *kari=a* *sinsii=du* *a-tar.*
 3SG=TOP teacher=FOC COP-PST
 ‘He was a teacher.’ [subject]

Otherwise the case clitic and the topic clitic are simply juxtaposed, showing a syntagmatic relation, as shown in (9-93) to (9-95). The paradigmatic relation holds between nominative *case* and the topic marker, and is not explained in terms of subject *grammatical relation*. Thus, in (9-94), the subject carries the dative case clitic *=n* followed by the topic marker *=a*, just as in (9-93) where the dative case clitic marks indirect object.

(9-93) *kai=n=na* *fii-rna.*
 3SG=DAT=TOP give-PRH
 ‘Don’t give (it) to him.’ [indirect object]

(9-94) *kai=n=na* *as-irai-n-Ø.*
 3SG=DAT=TOP do-POT-NEG-NPST
 ‘He can’t do (that).’ [dative subject construction; §3.5.2]

(9-95) *pisir=ru=baa* *fau-ta-m=mu?*
 lunch=ACC=TOP eat-PST-RLS=Q
 ‘Have you eaten lunch?’ [lit. (As for) lunch, have you eaten (it)?]

9.5.1. Topic markers

9.5.1.1. Object topic =*ba(a)*

Object topic =*ba(a)* marks direct object arguments only, and follows the accusative case clitic. The parenthesised /a/ is optional. Although =*ba(a)* may encode either a general topic or a contrastive topic, it frequently encodes a contrastive topic. The general topic function is exemplified in (9-96), whereas the contrastive topic function is exemplified in (9-97) and (9-98). In (9-96), a discourse is initiated by the speaker’s statement, and the discourse that follows is about ‘the thing (I) let (you) have yesterday’. On the other hand, in (9-97), ‘songs’ is what the discourse is about, but it is contrasted with ‘folktale stories’ in the previous discourse. The same argument can be applied to (9-98).

(9-96) *cinuu mut-asī-tar munu=u=baa fau-ta-m=mu?*
 yesterday have-CAUS-PST thing=ACC=TOP eat-PST-RLS=Q
 ‘(Did you) eat the thing that (I) let (you) have yesterday?’ [general topic]

(9-97) [Context: The speaker asks a woman whether she knows folktale stories, and she said No. Then the speaker asks another question as follows:]

vva=a *aagu=u=baa* *s-si-i=ru* *ur-Ø?*
 2SG=TOP song=ACC=TOP know-THM-CHN=FOC PROG-NPST

‘Do you know songs, then (as opposed to folktales)?’ [contrastive]

(9-98) A. *ba=a* *kuri=u=du* *nuzum-Ø.*

1SG=TOP 3SG=ACC=FOC like-NPST

‘I like this (one).’ [in presence of a range of things for choice]

B. *mmja* *kuri=u=baa=da?*

INTJ this=ACC=TOP=how.about

‘Well, (don’t you like) this (one)?’ [suggesting another one]

9.5.1.2. Non-object topic =a

The non-object topic clitic =a marks syntactic constituents other than direct object. It can mark either a general or a contrastive topic. A constituent thus marked is not necessarily the subject. ‘Setting NPs’, (i.e. spatial and temporal sentential adjuncts which are inherently topic-worthy (Foley and Van Valin 1984) are usually topic-marked. In general, the less topic-worthy a referent is, i.e. the lower it is on the animacy hierarchy the more likely it becomes to bear a contrastive meaning when followed by =a.

(9-99) *macinaka=n=na* *saada+pžtu=mai* *finnaka+pitu=mai*
 Shimoji.Island=DAT=TOP Sawada+man=too Kuninaka+man=too

nza+pžtu=mai *u-ta-m.* *pai=nu=du* *a-ta=iba.*
 where+man=too exist-PST-RLS field=NOM=FOC exist-PST=so

'In Shimoji Island (there) were people from Sawada, and people from Kuninaka, and people from anywhere. For (there) were (their) fields.' [general topic]

(9-100) *nkjaan=na* *pžtu=nu* *juu=du* *u-tar=rju.*
old.times=TOP man=NOM very=FOC exist-PST=EMP

'In old times (there) were many people.' [general topic]

(9-101) *uma=n* *jamatu+pžtu=nu=du* *ur-Ø=dara.*
that.place=DAT main.land.Japan+man=NOM=FOC exist-NPST=EMP

kari=a *uku+biki+nisjai=dooi.*
3SG=TOP big+male+adolescence=EMP

'In that place (there) is a Japanese mainlander. He is a tall young guy.' [general topic]

(9-102) *ba=a* *nnama=kara* *ik-i-i* *sugu* *kari=u=baa*
1SG=TOP now=ABL go-THM-CHN now 3SG=ACC=TOP

kurus-a-di.

kill-THM-INT

'I will go now and kill him right away.' [general topic]

(9-103) a. *ami=nu* *f-fi+ar-Ø.*
rain=NOM fall-THM+RSL-NPST

'Rain has fallen.' [unmarked statement]

b. *ami=a* *f-fi+ar-Ø*.
rain=TOP fall-THM+RSL-NPST
‘RAIN has fallen (but the wind hasn’t blown)’ [contrastive]

(9-104) *kai=n=na* *nau=mai* *fii-rna*.
3SG=DAT=TOP what=even give-PRH
‘To him, don’t give anything (but you may give to others).’ [contrastive]

In a complex predicate phrase (§3.1.1), the (first) lexical verb or the predicate NP is marked by the non-object topic clitic when the predicate is negated. In some cases this can be interpreted as contrastive topic, as shown in (9-105) below.

(9-105) A. *vva=a* *nauti=ga* *tur-i-i* *fau-tar=ga?*
2SG=TOP why=FOC take-THM-MED eat-PST=Q
‘Why did you take and eat (that)?’

B. *fa-i-i=ja* *ur-a-n-Ø=dooi*.
eat-THM-MED=TOP PROG-THM-NEG-NPST=EMP
‘I didn’t eat.’ [lit. with respect to eating that, I didn’t do it (though I took that); contrastive]

However, topic marking in negation is obligatory. It is ungrammatical for the topic marking to be absent (9-106c).

- (9-106) a. *ba=a bitur-i-i=du ur-Ø.*
 1SG=TOP get.full-THM-MED=FOC PROG-NPST
 ‘I am full.’
- b. *ba=a bitur-i-i=ja ur-a-n-Ø.*
 1SG=TOP get.full-THM-MED=TOP PROG-THM-NEG-NPST
 ‘I am not full.’
- *c. *ba=a bitur-i-i ur-a-n-Ø.*
 1SG=TOP get.full-THM-MED PROG-THM-NEG-NPST
 ‘I am not full.’
- (9-107) a. *ba=a sinsii=du a-tar.*
 1SG=TOP teacher=FOC COP-PST
 ‘I was a teacher.’
- b. *ba=a sinsii=ja ar-a-t-tar.*
 1SG=TOP teacher=TOP COP-THM-NEG-PST
 ‘I was not a teacher.’
- *c. *ba=a sinsii ar-a-t-tar.*
 1SG=TOP teacher COP-THM-NEG-PST
 ‘I was not a teacher.’

Thus topic marking in negative constructions no longer has a (contrastive) topic

marking function. Rather it seems to provide double marking of negation both on the lexical part of a phrase and on the grammatical part (i.e. the auxiliary verb or the copula verb). I gloss such a use of topic marker as TOP, but it should be noted that it is not really ‘topic’.

9.5.2. Focus markers

9.5.2.1. Declarative focus =*du*

The declarative focus marker is =*du*. It only occurs in statements, not in questions or requests. The following elicited examples illustrate how =*du* can mark each of the arguments in an extended transitive clause which contains three (extended) core arguments plus a peripheral argument (instrumental). (9-108) is the unmarked version. In (9-109) to (9-112) =*du* is added to a subject, instrument, goal and direct object argument, respectively :

(9-108) *agu=nu sokutaci=sii ucinaa=nkai nimuc=cu ufii-tar.*
 friend=NOM express=INST Okinawa=ALL parcel=ACC send-PST
 ‘(My) friend sent a parcel to Okinawa by express.’

(9-109) *agu=nu=du sokutaci=sii ucinaa=nkai nimuc=cu ufii-tar.*
 friend=NOM=FOC express=INST Okinawa=ALL parcel=ACC send-PST
 ‘(My) FRIEND sent a parcel to Okinawa by express.’

(9-110) *agu=nu sokutaci=sii=du ucinaa=nkai nimuc=cu ufii-tar.*
 friend=NOM express=INST=FOC Okinawa=ALL parcel=ACC send-PST

‘(My friend) sent a parcel to Okinawa BY EXPRESS.’

(9-111) *agu=nu sokutaci=sii ucinaa=nkai=du nimuc=cu ufi-tar.*

friend=NOM express=INST Okinawa=ALL=FOC parcel=ACC send-PST

‘(My friend) sent a parcel TO OKINAWA by express.’

(9-112) *agu=nu sokutaci=sii ucinaa=nkai nimuc=cu=du ufi-tar.*

friend=NOM express=INST Okinawa=ALL parcel=ACC=FOC send-
-PST

‘(My friend) sent a PARCEL to Okinawa by express.’

9.5.2.2 Interrogative focus =ru and =ga

Interrogative focus is marked by =ru in yes-no questions and by =ga in information questions. Focus markers =ru and =ga are thus in effect question markers. Indeed, =ru and =ga may be double-marked, i.e. may redundantly appear twice, once on a focused constituent, and once on a sentence-final word-plus.

TABLE 9-3. Focus marking and speech act type (in simple sentences)

Form	=du	=ru	=ga
Speech act	Statement	Yes-No question	Information question
Double-marking	NO	YES	YES

(9-113) *uri=u=ru fau-tar(=ru)?*

that=ACC=FOC eat-PST(=Q)

‘Did (you) eat that?’

(9-114) *nau=ju=ga* *fau-tar(=ga)?*

what=ACC=FOC eat-PST(=Q)

‘What did you eat?’

As the examples below illustrate, I treat the double-marked sentence-final marker as a homophonous question marker (glossed as =Q) rather than a ‘copied’ focus marker. I do this because sentence-final =*ru*, but not focus-marking =*ru*, undergoes assimilation, whereby the initial //r// alternates with /m/ or /n/ if it is attached to a word-plus ending in /m/ or /n/ respectively (9-115).

(9-115) *u-∅-m=mu* *mii-n-∅=nu* *s-sa-n-∅.*

exist-NPST-RLS=Q see-NEG-NPST=Q know-THM-NEG-NPST

‘(I) don’t know (whether) (the person) is alive or not.’

This allomorphy is not observed in =*ru* functioning as a focus marker even when the morphophonological environment is identical:

(9-116) *uri=a* *kam=ru* *a-tar=ru?*

3SG=TOP god=FOC COP-PST=Q

‘Was he a god?’ [**kam=mu*]

(9-117) *gama=nu* *mii=n=ru* *u-tar?*

cave=GEN inside=DAT=FOC exist-PST

‘(Were they) inside of the cave?’ [**mii=n=nu*]

The focus marker =*ru* or =*ga* marks a sentence as interrogative, and the sentence-final question marker is redundant and may be omitted (as in (9-117)). On the other hand, if there is no focus marker present, then the sentence-final question marker is the sole means of marking interrogative. Such a situation occurs in yes-no questions.

(9-118) *vva=a* *pisir=ru=baa* *fau-ta-m=mu?*
 2SG=TOP lunch=ACC=TOP eat-PST-RLS=Q
 ‘Have you eaten lunch?’

The question marker here might alternatively be analysed as a focus marker that focuses a predicate since the speaker’s yes-no question asks whether the addressee has eaten lunch or not. However, this would require us to admit a structural asymmetry between the declarative focus clitic =*du* and the interrogative clitic =*ru*. As was noted in §9.1.2.4, =*du* never has scope over an entire predicate even when the predicate as a whole is within the focus domain, and there are a number of restrictions concerning the predicate focus marking. By the same token I assume that =*ru* here does not mark the predicate as being in focus.

9.6. Discourse marker clitics

9.6.1. Emphatic/corrective =*ju(u)*

The emphatic/corrective discourse marker =*ju(u)*, where the bracketed /u/ is optionally deleted, has two related functions. First, it expresses general emphasis (glossed EMP). Second, it expresses a speaker’s exasperation, such that s/he wants to correct the hearer’s wrong assumption or careless misunderstanding of what the speaker has said (glossed COR).

(9-119) *uri=a* *nnama=du* *cifi-tar=rju.*
 3SG=TOP now=FOC arrive-PST=EMP

‘That (guy) arrived just now.’

(9-120) *kuma=a* *mmja* *ati* *ngjamasi-ka-i-ba,*
 this.place=TOP INTJ very noisy-VLZ-THM-CVB.CSL

niv-vai-n-Ø=njuu!

sleep-POT-NEG-NPST=EMP

‘Because this place is very noisy, (I) cannot sleep!’

(9-121) A. *kuri=a* *nagahama+pžtu=ca.*
 3SG=TOP Nagahama+man=HS

‘This (guy) is from Nagahama, according to him.’

B. *nau?*

what

‘What?’

A. *gui!* *nagahama+pžtu=juu!*

INTJ Nagahama+man=COR

‘Come on! (I said he’s from) Nagahama!’

(9-122) A. *karjuu=nu* *mizĩ=tii=ja* *nausi=ga* *asi-Ø?*
 luck=GEN water=QT=TOP how=FOC do-NPST

uri=u=baa

ami-r?

that=ACC=TOP

get.submerged-NPST

‘What do you do with the water of luck (a bucket of holy water)? Do you get submerged with it?’

B. *aran=dooi! zau=n nci-kutu=ju!*

NEG=EMP gate=DAT put-OBL=COR

‘No way! (One is supposed to) put (it) at (one’s) gate.’

9.6.3. ‘How about’ =*da*

The discourse marker =*da* attaches to a topic-marked NP, functioning to present a new topic with the meaning ‘how/what about [NP]?’

(9-123) *kuma=a=da?*

this.place=TOP=how.about

‘How about this place?’

The NP may be a clausal complement, as in (9-124).

(9-124) A. *akaudi=nu mm=mai pur-Ø,*

premature=GEN potato=too dig-NPST

nubir-zuu=ju pžk-i-i c-ci-i, nii+fau-Ø.

Nubir-plant=ACC pull.out-THM-MED come-THM-MED boil+eat-
-NPST

‘(We) would dig early potatoes, pull and bring (home) *Nubir* plants, then boil and eat them.’

B. *mata kaa=nkai mizi fim-Ø=ma=da?*

and water.well=ALL water get-NPST=TOP=how.about

‘And what about (going) to the well and getting water?’

Also, the topic marker must be the object topic marker =*ba(a)* if the NP functions as object of an (ellipted) predicate, as in (9-125).

(9-125) *kuri=u=baa=da?*

this=ACC=TOP=how.about

‘How about (doing) this?’

9.6.4. Confirmative =*i*

The confirmative discourse marker =*i* is similar to English tag marker ‘eh?’ in its basic function, requesting confirmation of what speaker says. However, unlike ‘eh?’, =*i* may appear in a self-question, and may scope over almost any constituent of a clause, occurring iteratively in one utterance, which secures a constant attention to and responsiveness on the part of the hearer.

(9-126) *vva=ga pataraci=dara=i?*

2SG=GEN

work=CRTN=CNF

‘(That’s) your work, eh?’

(9-127) *nau=nu=ga* *ur-∅=gagara=i?*

what=NOM=FOC exist-NPST=CNF

‘(I wonder) what is there?’ [self question]

(9-128) *nkjaan=du=ca,* *njkaan=du=i,* *kam=nu=i,*

old.times=FOC=HS old.times=FOC=CNF god=NOM=CNF

doobuc=cu=i, *icimus=su=i,* *mmna*

animal=ACC=CNF living.thing=ACC=CNF all

kam=nu *mai=n* *zaa=nkai*

god=GEN front=DAT throne=ALL

acimar-∅ *tukja=nu* *a-tar=ca.*

gather-NPST time=NOM exist-PST=HS

‘Once upon a time, (there) was a time when a god (ordered) animals, living things, all of them, (to) gather in front of his throne.’

9.6.5. Emotional =*ra(a)*, =*sja(a)*

The emotional discourse markers add a negative emotional nuance to the utterance, especially expressing such emotions as anger, feeling upset, and irritation. There is a clear distributional pattern whereby =*ra(a)* mostly appears in imperative clauses, whereas =*sja(a)* mostly appears in interrogative clauses.

(9-129) *vva=ga=du=ra* *nara-as-i-Ø*.

2SG=NOM=FOC=EMO learn-CAUS-THM-IMP

‘You teach (him).’ [with an implication that the speaker feels unhappy about being asked to teach (him) a story]

(9-130) *až-ži-i* *mii-ru=raa!*

say-THM-MED EXP-IMP=EMO

‘Just try speaking!’

(9-131) *agaii!* *nau=ga=sja?!*

INTJ what=FOC=EMO

‘Shit! What the hell (are you saying)?!’

(9-132) *taru=ga=sjaa* *vva=u* *nuzum-Ø=ga?!*

who=FOC=EMO 2SG=ACC like-NPST=Q

‘Who ever would like you?!’ [rhetorical question]

9.6.6. Question =ru/=ga

As described in §9.5.2.2, there are two question markers whose choice depends on the choice of focus marker with the focus marker that appears within the same clause. Thus in a yes-no question sentence the question marker is =ru (=nu or =mu depending on the final phoneme of the host; see §9.5.2.2), whereas in an information question sentence it is =ga.

9.6.7. Question 2 =e(e)

The question marker =e(e) marks a yes-no question sentence, attaching to any constituent that is utterance-final. While the short =e is always a distinct syllable nucleus optionally inducing the geminate copy insertion rule, as in (9-133a), the long =ee may become the nucleus of a syllable in which the final consonant of the preceding constituent is the onset, as in (9-134a), optionally inducing an irregular resyllabification process and fused morphology, as in (9-134b).

(9-133) a. *vva=ga* *cifii-tar=re?*

2SG=NOM make-PST=Q

‘(Did) you make (this)?’ [ci.fi.i.ta.r.re/ CV.CVV.CVC.CV]

b. *nau=sii=e?*

what=INST=Q

‘By what (instrument do you make this)?’ [nau.sii.e/ CVV.CVV.V]

(9-134) a. *vva=ga* *cifii-tar=ee?*

2SG=NOM make-PST=Q [ci.fi.i.ta.ree/ CV.CVV.CV.CVV]

b. *nau=sjee?*

what=INST.Q [nau.sjee/ CVV.CGVV]

It is very difficult to analyse the functional difference between =e and the question marker that was described in the preceding section, and this is a future research topic. At this stage, it can be said that =e often carries emphasis:

(9-135) A. *nanahjakuman-en=timdooi.*

seventy.thousand-yen=HS

‘(He earns) seventy thousand yen, I heard.’

B. *ui=ga* *uu-sa=e!?*

that.way=GEN many-NLZ=Q

‘That much!?’

Structurally it is easy to tell the difference, as =*e* never occurs with a focus marker, whereas =*ru/=ga* may do so, showing a formal concordance with the focus marker within the clause.

Chapter 10

The simple sentence

In this chapter I describe various functional-typological phenomena centring on the simple sentence, many of which are morphosyntactically expressed across the different structures that have been described so far. These are: (1) major speech-act-related clause types (declarative, interrogative, and imperative), (2) expressions of proper inclusion, equation, state, location, and possession, (3) negation, (4) valency changing, and (5) tense-aspect-mood systems.

10.1. Speech acts and clause types

As summarised in TABLE 10-1, there are three clause types that are grammaticalised for three major speech acts, i.e. statement, question, and command (Lyons 1977; Givón 1984). The encoding devices are intonation, verb morphology, and focus marking.

TABLE 10-1. Speech act and focus marking

Speech act	Clause type	Focus marking	Verb inflection
STATEMENT	Declarative	= <i>du</i>	- Imperative
QUESTION	Interrogative	= <i>ru</i> (Yes-No type)	- Imperative
		= <i>ga</i> (Information type)	- Imperative
COMMAND	Imperative	None	+ Imperative

There are also mismatches between clause type and speech act, e.g. the interrogative clause type may express a (polite) command. These are described in §10.1.4.

10.1.1. Declarative clauses

A declarative clause may be syntactically distinguished from an interrogative clause by the choice of focus clitic if a focus clitic is present. The focus clitic for declaratives is =*du*, as opposed to =*ru* or =*ga* for interrogatives.

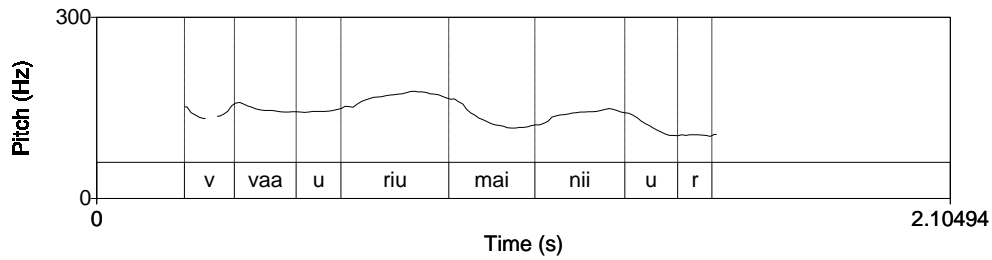
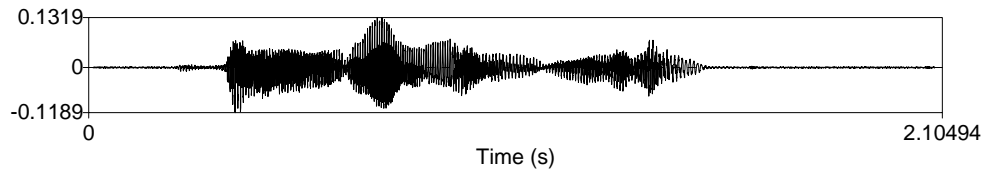
(10-1) *mm=mu=du* *fau-tar.*
potato=ACC=FOC eat-PST
'(I) ate potato.' [Declarative]

(10-2) *mm=mu=ru* *fau-tar?*
potato=ACC=FOC eat-PST
'Did (you) eat potato?' [Yes-No interrogative]

(10-3) *nau=ju=ga* *fau-tar?*
what=ACC=FOC eat-PST
'What did (you) eat?' [Wh-interrogative]

There is a prosodic feature that distinguishes declaratives from interrogatives and imperatives. In declarative clauses the prosodic pattern generated by the alternating rhythm (§2.9.3) is directly manifested:

(10-4) *vva=a* *uri=u=mai* *nii+ur-Ø*
2SG=TOP that=ACC=too boil+PROG-NPST
(vva)_H (urir)_H (mai)_L (nii)_H (ur)_L
'You are boiling that, too.' [Declarative]

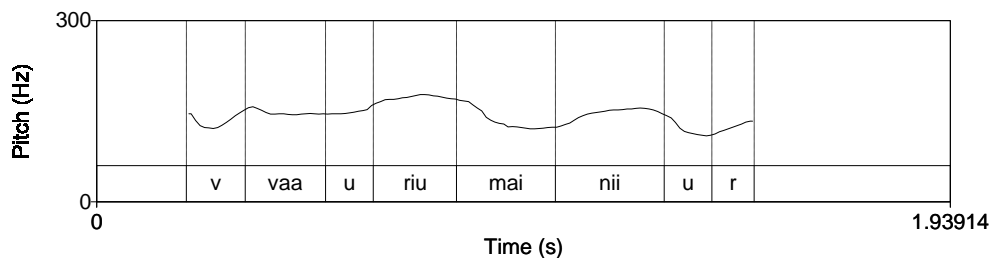
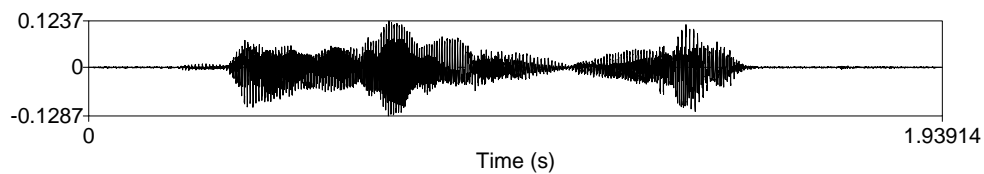


Interrogative clauses often carry a rising terminal contour superimposed on the rhythmic pattern. In (10-5) and in (10-6) the rising contour occurs somewhere around the final mora of the sentence-final word(-plus).⁵⁹

(10-5) *vva=a uri=u=mai nii+ur-Ø?*

2SG=TOP that=ACC=too boil+PROG-NPST

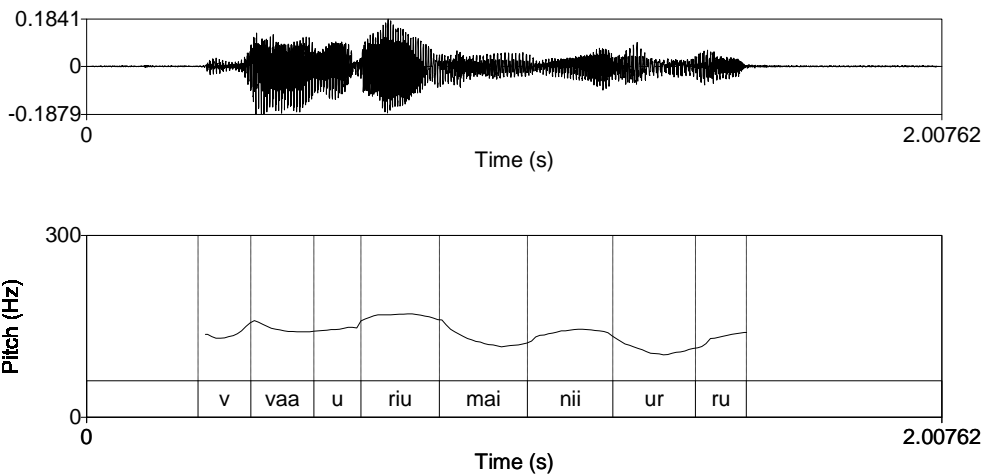
‘Are you boiling that, too?’ [Interrogative: final rising contour]



⁵⁹ The pitch tracks here were extracted from the speech of a native speaker of Irabu (male, age = 67 in 2006), and processed with the software application *Praat*.

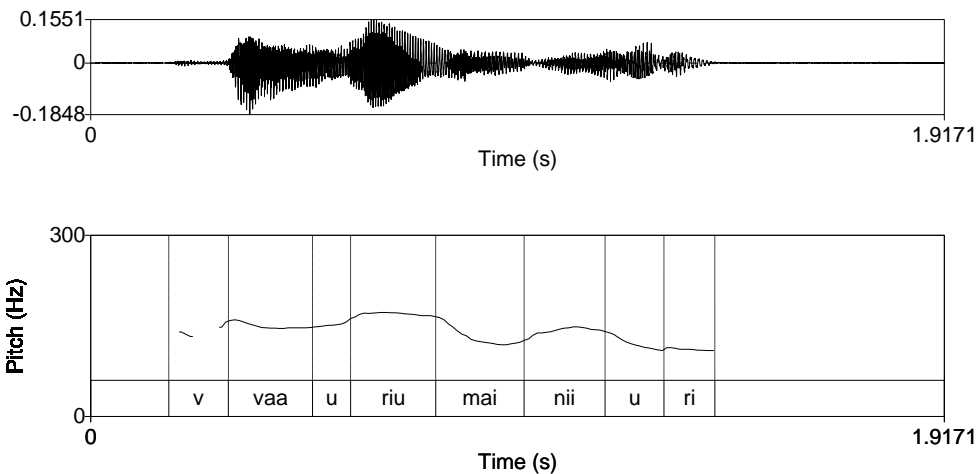
Note that in (10-6) below the word-plus ends in the question clitic, and the rising contour occurs on the question clitic rather than on the verb (as in (10-5)).

(10-6) *vva=a uri=u=mai nii+ur-Ø=ru?*
 2SG=TOP that=ACC=too boil+PROG-NPST=Q
 ‘Are you boiling that, too?’ [Interrogative (with question marker): final rising contour]



An imperative clause does not have the final rising contour observed in interrogative clauses. However, the final L-toned foot in imperatives is pronounced with a slightly higher and flatter contour than in declaratives.

(10-7) *vva=a uri=u=mai nii+ur-i-Ø*
 2SG=TOP that=ACC=too boil+PROG-THM-IMP
 ‘Keep boiling that, too.’



10.1.2. Interrogative clauses

An interrogative clause may be marked by focus marking on a clausal element (i.e. an argument, a VP complement, or an adjunct) and/or question marking on the clause-final word(-plus). There is no obligatory fronting of the interrogative word.

There are two subtypes of interrogative clause: Yes-No and Wh. An interrogative word (such as *taru* ‘who’) is obligatory in Wh interrogatives. In Yes-No interrogative clauses, the focus clitic is =*ru*, as shown in (10-8) below, while in Wh interrogative clauses it is =*ga*, as is shown in (10-9). As illustrated in these examples, when a focus marker is present, a question marker is optional, and its form is identical to that of the focus clitic in the same clause.

- (10-8) *vva=ga=ru* *uri=u* *až-tar(=ru)?*
 2SG=NOM=FOC that=ACC say-PST(=Q)
 ‘Did you say that?’

(10-9) *vva=a* *nau=ju=ga* *až-tar(=ga)?*
 2SG=TOP what=ACC=FOC say-PST(=Q)
 ‘What did you say?’

As noted in §9.5.2.2, I treat these two (i.e. the focus marker and the question marker) as different morphemes based on the fact that the two forms show different allomorphic patterns, even though the focus marker may be the historical source of the question marker.

As is shown in (10-9), when a clause has no focus marker the question marker alone appears. This is the case in the yes-no type.

(10-10) *vva=a* *uri=u* *až-tar=ru?*
 2SG=TOP that=ACC say-PST=Q
 ‘Did you say that?’

10.1.3. Imperative clauses

An imperative clause is morphologically marked by the finite imperative inflection (§6.3.1). The prohibitive is also a type of imperative, a negative imperative.

(10-11) a. *uma=n* *bizi-ru.*
 that.place=DAT sit-IMP
 ‘Sit there.’

b. *uma=n=na* *bizi-rna.*
 that.place=DAT=TOP sit-PRH

‘Don’t sit there.’

An imperative clause cannot co-occur with focus marking. Thus in the examples of imperatives below, no focus marker appears in the sentence, even where focus falls intonationally on a certain element in the sentence (underlined).

(10-12) *kai=ga* *panasi* *ar-a-da,*
3SG=GEN talk COP-THM-NEG.MED

nnama=a *ba=ga* *panas=su* *cik-i-∅.*
now=TOP 1SG=GEN talk=ACC hear-THM-IMP

‘(Do) not (listen to) his talk, now listen to my talk.’

(10-13) *kui* *ar-a-da,* *uri=u* *misi-ru.*
3SG COP-THM-NEG.MED 3SG=ACC show-IMP

‘(Do) not (show) this, show that.’

10.1.4. Mismatches or ambiguous cases

10.1.4.1. Polite command

An interrogative clause may function pragmatically as a polite command.

(10-14) *zin=nu* *kar-as-i-i* *fii-djaan=nu?*
money=ACC borrow-CAUS-THM-MED BEN-NEG.INT=Q

‘Wouldn’t you let me borrow money?’

10.1.4.2. Rhetorical question

An interrogative clause may function pragmatically as a rhetorical question, which does not serve as a question but as a negative statement. In such cases, there is no rising contour characteristic of interrogative sentences.

(10-15) *ba=a s-si+u-Ø-m=mu.*

1SG=TOP know-THM+PROG-NPST-RLS=Q

‘I don’t know.’ [lit. Would I know?]

A frequent use of rhetorical questions is one salient characteristic of Irabu discourse. In fact, rhetorical force is apparently very weak in most of the rhetorical questions (thus (10-15) above can be simply interpreted as ‘I don’t know’, rather than the pragmatically highly rhetorical counterpart ‘(How) would I know?’). A similar example follows, where the speech of B is simply a response to that of A, with no special rhetorical force.

(10-16) A. *ssagi=u=ba ah-u-t-ta-m?*

wedding=ACC=TOP do-THM-NEG-PST-RLS

‘(Did you) not do a wedding?’

B. *asi-Ø-m=mu.*

do-NPST-RLS=Q

‘No, I didn’t.’ [lit. ‘Would I do (that?)’]

The use of rhetorical questions seems to be a mark of sophisticated speech style, and is

particularly characteristic of older female speakers' speech.

The finite realis form (§6.3.1) is very often used as a predicate form of rhetorical questions, as illustrated in (10-15) and (10-16) above. We will return to this use of the finite realis form in §10.5.1.1.

10.1.4.3. Self question and clause types

A self question is formally marked by the modal clitic =*bjaa*m 'I wonder if...' (§9.3.1) or =*gagara* 'I wonder how/what/who...' (§9.3.2). A self question exhibits an intermediate characteristic between a question and a statement. On the one hand, it is not like a statement, in that it questions a proposition. On the other, it is not like a question in the sense of the act of requesting a verbal response, as it lacks an addressee. This intermediate status is reflected in the fact that a self question with the clitic =*bjaa*m (not =*gagara*) is encoded either by the declarative clause type or the interrogative clause type, in terms of focus marking. Thus in the following pair of examples, both (a) and (b) are equally possible.

- (10-17) a. *kanu* *sjuu=ga=ru* *asi-tar=bjaam=mi.*
 that old.man=NOM=FOC do-PST=I.wonder=CNF
 'I wonder if that old man did (it)...' [Interrogative sentence]
- b. *kanu* *sjuu=ga=du* *asi-tar=bjaam=mi.*
 that old.man=NOM=FOC do-PST=I.wonder=CNF
 'I wonder if that old man did (it)...' [Declarative sentence]

10.2. Proper inclusion, equation, state, location, and possession

In this section I describe how proper inclusion (e.g. ‘he is a student’), equation (‘he is my father’), state (including property; ‘he is tired’; ‘he is tall’), location (‘he is in school’), and possession (‘he has a brother’) are encoded. There is good reason to deal with these in the same section, as they are encoded in a similar or an identical way, as will be shown below.

10.2.1. Proper inclusion

Proper inclusion is encoded by either (a) a nominal predicate or (b) a verbal predicate where the predicate verb is the light verb (*a*)*sī* ‘do’ and the theme is encoded as an NP marked by the second accusative. Examples (10-18) and (10-19) illustrate (a). Examples (10-20) to (10-22) illustrate (b).

(10-18) *vva=a jamatu+pžtu=ru?*
2SG=TOP mainland.Japan+man=Q
‘Are you a Japanese mainlander?’

(10-19) *ba=a zjunsja=du a-ta=iba=du=i,*
1SG=TOP policeman=FOC COP-PST=so=FOC=CNF

mmna s-si+ur-∅. banu=u=baa.
all know-THM+PROG-NPST 1SG=ACC=TOP
‘I was a policeman, so, you know, everyone knows me.’

(10-20) *agu=u* *s-i-i,* *umissi-ka-ta-m.*
 song=ACC2 do-THM-MED fun-VLZ-PST-RLS
 ‘Being friends (each other), (everyday) was fun.’ [lit. Doing friends...]

(10-21) *biki+nisjai=ja* *s-i-i,*
 male+young.man=ACC2 do-THM-MED

umakuma *maar-i+u-tar.*
 here.and.there wander-THM+PROG-PST
 ‘Being a young man, (he) visited various places.’

(10-22) *banti=ga* *jarabi=a* *s-i+ur-Ø=kjaa,* *mmja,*
 1PL=NOM child=ACC2 do-THM+PROG-NPST=when INTJ

eiga=mai *terebi=mai* *njaa-ttar=ruda.*
 movie=even television=even not.exist-PST=AD.ASR
 ‘When I was a child, (there) was no movie (theatre), no TV, you know.’ [lit.
 when I was doing a child...]

Note that in (10-20) and (10-21) the light verb heads a chained clause. Also, in (10-22), the compound verb *siur* can be rearranged as a medial verb + an auxiliary (word-phrase alternation; §6.4.2.3), and the medial verb in such a complex VP structure is historically derived from the clause-chaining construction. Thus, all the examples of the light verb construction encoding proper inclusion are (related to) a clause chaining construction, which is the most typical environment for the second accusative to occur (§4.3.3.1). The

question raised here is whether the NPs marked by second accusative case above are direct object NPs, as in the case of *tunuka-gama* in (10-23) below. The NP in (10-23) satisfies one of the two criteria for direct object, i.e. (A) ability to be passivised, and (B) ability to be marked by a special topic marker =*ba(a)* (§3.4.2). It can be marked by the object topic marker =*ba(a)* (whereby second accusative is replaced by accusative, as shown in (10-23b)):

- (10-23) a. *tunuka-gama=a* *nas-i-i...*
 egg-DIM=ACC2 give.birth.to-THM-MED
 ‘Giving birth to eggs...’
- b. *tunuka-gama=u=baa* *nas-i-i...*
 egg-DIM=ACC=TOP give.birth.to-THM-MED
 ‘Giving birth to eggs...’

However, the NPs marked by the second accusative in the light verb construction do not satisfy either of the criteria for direct object. Thus, the NP marked by the second accusative in the light verb construction may be undergoing (or have undergone) a diachronic reanalysis in which the NP is becoming less and less like a direct object, and more and more like a predicate complement, i.e. the complement of the light verb.

10.2.2. Equation

An equational expression is only encoded by a nominal predicate. Thus, in Irabu one cannot say ‘He is doing my father’, meaning ‘He is my father’, even when one can say ‘He is doing a teacher’ (as noted in §10.2.1.).

(10-24) *kari=a ba=ga uja.*
 3SG=TOP 1SG=GEN father
 ‘He is my father.’

(10-25) *kanu sima=a ikima+zima jar-Ø=ruda.*
 that island=TOP Ikema+island COP-NPST=AD.ASR
 ‘That island is Ikema Island.’

10.2.3. State

A state (including a property) is encoded by either a nominal predicate or a verbal predicate.

A property may be encoded by a PC stem (§8.1), from which an adjective, a (dummy) compound noun, a verb, or an adverb is derived.

(10-26) *ba=a sabiciī+sabici=du a-tar.*
 1SG=TOP RED+lonely=FOC COP-PST
 ‘I was lonely.’ [adjective]

(10-27) *sīdasi+kazi=nu=du fik-i+ur-Ø=ri?*
 cool+wind=NOM=FOC blow-THM+PROG-NPST=CNF
 ‘A cool wind is blowing, eh?’ [compound noun]

(10-28) *agaii=ti, daižina pukarasi+munu=i=ti,*
 INTJ=QT great happy(+thing)=CNF=QT

ai=du *asi-Ø.*

that.way=FOC do-NPST

‘(I said) “Oh, (how) happy (I am)!”, (I) did (i.e. said) like that.’ [dummy compound noun]

(10-29) *kuma=ga=du* *zau-kar-Ø.*

this.place=NOM=FOC good-VLZ-NPST

‘This place is good.’ [verb]

(10-30) *jagami* *uturusi-fi=du* *ar-Ø=ri?*

very fearsome-AVLZ=FOC be-NPST=CNF

‘(That) is very fearsome, eh?’ [adverb]

Dynamic verbs may express states with the support of the progressive auxiliary (see §10.5.2.1 for progressive aspect), as illustrated in (10-31), or with non-finite inflections (§6.3.2) that encode states, such as simultaneous and circumstantial converb inflections, as illustrated in (10-32), and medial verb inflection, as illustrated in (10-33). For medial verbs, which do not morphologically mark the distinction between sequential (perfective) and non-sequential/descriptive (stative) functions, the presence of the second accusative on the direct object NP in a medial verbal clause is one indicator of stativity (§4.3.3.1).

(10-31) *uku+gui=ja* *s-i-i=du,* *nnama=gami=a*

big+voice=ACC2 do-THM-MED=FOC now=EMP=TOP

ž-ži-i=du *ur-Ø=pazi.*
 scold-THM-MED=FOC PROG-NPST=maybe
 ‘With the big voice, (I infer that he) is scolding (his child), perhaps.’

(10-32) *cīcī-ccjaaki,* *niniv=va* *as-i+ur-Ø.*
 hear-CVB.SIM snooze=ACC2 do-THM+PROG-NPST
 ‘While listening, (she) is snoozing.’

(10-33) *umac=cu* *tacīgi-utui=du=i,*
 fire=ACC burn-CVB.CRCM=FOC=CNF

kam+nigai=mai *asi-Ø.*
 god+prayer=too do-NPST
 ‘Burning fire, (the shamans) do their prayers to gods.’

(10-34) *miz=za* *num-i-i=du* *juku-i+ur-Ø.*
 water=ACC2 drink-THM-MED=FOC take.rest-THM+PROG-NPST
 ‘Drinking water, (he) is taking rest.’

10.2.4. Location

A locational expression is encoded by a verbal predicate in which the lexical verb is an existential verb, and the location is encoded by a locative NP (which is dative-marked). Note that the verb form is either *ur* (for an animate subject) or *ar* (for an inanimate subject), and that the negative form of *ar* is the suppletive form *njaan* (§6.3.6.1).

(10-35) *kanu pžtu=u mmja nagoja=n=du ur-Ø.*
 that man=TOP INTJ Nagoya=DAT=FOC exist-NPST
 ‘That person is, well, in Nagoya.’ [animate subject NP]

(10-36) *banti=ga sima=n=na žžu=mai kan=mai*
 1SG=GEN island=DAT=TOP fish=too crab=too

pinza=tii=mai juu ur-Ø=ruga,
 goat=QT=too very exist-NPST=but

waa=mai, mmja, mata nau=nu=ga
 pig=too INTJ and what=NOM=FOC

ur-Ø=gagara=i.

exist-NPST=I.wonder=CNF

‘In our island, (there are) plenty of fish, crabs, goats, and so on, (and) pigs, too, and, well, what else is (there)?’ [animate subject NP]

(10-37) *kama=nu kujagaa-nagi=n purkaa=nu,*
 that.place=GEN Kuyagaa-APPR=DAT well=NOM

uku+purkaa=nu=du a-ta=iba=du...
 big+well=NOM=FOC exist-PST=so=FOC

‘(There) was a well, a big well around Kuyagaa (place name), so...’

As is shown in the following dialogue, in a series of conventionalised expressions such as (a) ‘where do you live?’ and the response to it, as in (b) ‘I live in’, the expression of (b) frequently involves the ellipsis of the existential verb.

(10-38) a. *vva=a nza=n=ga ur-Ø?*
 2SG=TOP where=DAT=FOC exist-NPST
 ‘Where are you (living)?’

b. *ba=a finnaka=n=du.*
 1SG=TOP Kuninaka=DAT=FOC
 ‘I (live) in Kuninaka.’

10.2.5. Possession

A possessive expression (‘I have a car’) may be encoded by the existential verb construction that was described in §10.2.4. Thus Irabu demonstrates a cross-linguistically common isomorphism of existential, locative, and possessive expressions (Clark 1978). There are two major points to note with regard to existential expressions that are used to encode possession.

First, whether a possessive expression or a ‘have’ expression is chosen to express the existential verb construction depends on the relative animacy of the possessor and the possessed. In general, if both the possessor and the possessed are equal in animacy (e.g. both are humans, both are non-humans), the existential construction is used. For example, as illustrated in (10-39) below, such an expression as ‘this house has big windows’ is encoded literally as ‘big windows exist in this house’, using the existential pattern, since both the possessor and the possessed are non-humans. Likewise, when

both the possessor and the possessed are humans, the existential pattern is used, and the existential verb must be *ur* rather than *ar* (10-40).

(10-39) *kunu jaa=ja ukuu+uku=nu madu=nu=du ar-Ø.*
 this house=TOP RED+big=GEN window=NOM=FOC exist-NPST
 ‘This house has big windows.’ [lit. Big windows exist in this house.]

(10-40) *ba=a kjavdai=nu tavkjaa ur-Ø.*
 1SG=TOP sibling=NOM one.person exist-NPST
 ‘I have one sibling.’ [lit. One sibling is at me.]

The subject NP is unmarked for case, directly followed by a topic marker. This occurs when nominative case is replaced by a topic marker (§4.3.10).

In general, if the possessor is higher in animacy, one can use either a ‘have’ verb, such as *muc-* ‘have’ and *cikana-* ‘have (a domestic animal)’, or the existential expression, as shown in (10-41), but the choice also depends on the semantic type of the possessed. For example, abstract nouns such as *taja* ‘strength’ cannot co-occur with a ‘have’ verb, but always require the existential verb (10-42).

(10-41) a. *vvadu=u jaa=ju=baa muc-i+ur-Ø=ru?*
 2PL=TOP house=ACC=TOP have-THM+PROG-NPST=Q
 ‘Do you have a house?’

b. *vvadu=u jaa=ja ar-i-i=ru ur-Ø?*
 2PL=TOP house=TOP exist-THM-MED PROG-NPST

‘Do you have a house?’ [lit. With respect to you, is there a house?]

- (10-42) *kari=a* *taja=nu=du* *ar-Ø*.
 3SG=TOP strength=NOM=FOC exist-NPST
 ‘He has strength.’ [i.e. He is strong.]

The second major point about a possessive expression encoded by the existential verb construction concerns subjecthood. The possessor NP, which is marked by nominative case or by a topic marker that replaces this case, can be regarded as a subject since it triggers honorification and controls a reflexive pronoun (§3.4.1).

- (10-43) *sjuuganas=sa* *umukutu=nu* *ar-i-i* *ur-ama-r*.
 grandfather=TOP wisdom=NOM exist-THM-MED PROG-HON-NPST
 Possessor Possessed
 ‘Grandfather has wisdom.’ [possessor as a trigger of honorification]

- (10-44) *kari=a* *uja=kara* *iži-tar*
 3SG_i=TOP father=ABL be.given-PST
 Possessor

- naa=ga* *pataki=nu=du* *ar-Ø*.
 RFL_i=GEN field=NOM=FOC exist-NPST
 Possessed

‘He_i has his_i own field inherited from his father.’ [possessor as a reflexive controller]

However, there are two qualifications that should be noted. First, whereas in an ordinary existential verb construction (as in locational expressions) the verb form is sensitive to the animacy of the subject NP, in the existential verb construction encoding a possessive expression the verb form is determined by the animacy of the possessed rather than the possessor, which indicates that the possessed takes on a subject property in this respect. For example, in (10-43) the existential verb form is *ar* (for an inanimate subject), even when the subject is animate. Second, the possessed nominal is marked by nominative, which is typically associated with a subject.

Thus it seems that a prototype approach better captures subjecthood in the existential verb construction here. For example, if we consider subject to be a grammatical relation that exhibits a cluster of several properties such as (1) reflexive control, (2) triggering of honorification, (3) the NP whose animacy determines the form of an existential verb, (4) morphological case marking as nominative, and (5) semantic status as an actor (i.e. potential initiator and/or controller of the action of the predicate; Foley and Van Valin 1984: 29), the possessed NP has two of them, i.e. (3) and (4), whereas the possessor has four of them, i.e. (1), (2), (4), and (5). In this grammar, I have suggested a discrete and definitional view of subject in Irabu (§3.4.1), but there exist problematic cases, as shown here. In the discrete view, the possessed NP in the examples above is a non-subject NP (which cannot be characterised neatly), but in a prototype approach, it is a deficient subject NP, satisfying (3) and (4) above.

Interestingly, if the existential verb is negated, the possessed is marked by the second accusative, a non-canonical direct object marker (§4.3.3.1).

(10-45) *ba=a* *zin=na* *njaa-n-Ø*.
 1SG=TOP money=ACC2 not.exist-NPST

'I have no money'

(10-46) *kuri=a kan=na njaan=ssiba, nau=mai as-irai-n-Ø.*

3SG=TOP sense=ACC2 not.exist=so what=even do-POT-NEG-NPST

'This (guy) has no good sense (i.e. is not ready-witted), so cannot do anything.'

However, the possessed NP cannot be justified as a direct object either, as it does not satisfy any of the criteria for direct object (i.e. an ability to be marked by object topic =*ba(a)*, or to be passivised; §3.4.2). Here, if we resort to a prototype approach, as in the case of subject, we can suggest several properties that characterise direct object: (1) an ability to be passivised, (2) an ability to be marked by =*ba(a)*, (3) an ability to be marked by (second) accusative, and (4) semantic status as an undergoer (which does not perform, initiate, or control any situation but rather is affected by it in some way; Foley and Van Valin 1984: 29). The possessed NP shares (3) and (4) with (prototypical) direct objects. It is thus possible to analyse the possessed NP here as a grammatical role somewhere between a subject and a direct object NP, showing some subject properties and some direct object properties.

10.3. Negation

Negation is encoded morphologically, suppletively, or analytically, of which the first strategy is the most regularly employed in a wide range of predicates.

10.3.1. Inflectional negation

Inflectional negation uses the negative inflectional suffixes *-n*, *-ttar*, *-ttam*, *-djaan*, *-rna*,

-*da*, and so on (§6.3.1, §6.3.2). Most verbs, without respect to whether the verb is a lexical verb or an auxiliary, are negated with this strategy, including copula verbs (§6.3.6.2). The exceptions to this are few and are noted in the following sections.

(10-47) a. *ba=a unu midum=mu=du nuzum-Ø.*
 1SG=TOP that woman=ACC=FOC want-NPST
 ‘I want that woman.’ [affirmative]

b. *ba=a unu midum=mu=baa nuzum-a-n-Ø.*
 1SG=TOP that woman=ACC=TOP want-THM-NEG-NPST
 ‘I don’t want that woman.’ [negative]

(10-48) a. *ba=a batafisar-i-i=du ur-Ø.*
 1SG=TOP get.angry-THM-MED=FOC PROG-NPST
 ‘I am angry.’ [affirmative]

b. *ba=a batafisar-i-i=ja ur-a-n-Ø.*
 1SG=TOP get.angry-THM-MED=TOP PROG-THM-NEG-NPST
 ‘I am not angry.’ [negative]

(10-49) a. *ba=a jamatu+pžtu.*
 1SG=TOP mainland.Japan+man
 ‘I am a Japanese mainlander.’ [affirmative]

- b. *ba=a jamatu+pžtu=u ar-a-n-Ø.*
 1SG=TOP mainland.Japan+man=TOP COP-THM-NEG-NPST
 ‘I am not a Japanese mainlander.’ [negative]

10.3.2. Negation of existential and state verbs

The existential verb *ar* (for inanimate subject) and the state verb *ar* are negated by the suppletive negative verb *njaan*.⁶⁰

- (10-50) a. *uma=n nagaa+naga=nu bau=nu=du ar-Ø.*
 that.place=DAT RED+long=GEN stick=NOM=FOC exist-NPST
 ‘(There) is a long stick there.’ [existential; affirmative]

- b. *uma=n=na nagaa+naga=nu bau=ja njaa-n-Ø.*
 that.place=DAT=TOP RED+long=GEN stick=TOP NEG-NPST
 ‘(There) is not a long stick there.’ [negative]

- (10-51) a. *kari=a aparagi-fi=du ar-Ø.*
 3SG=TOP handsome-AVLZ=FOC be-NPST
 ‘He is (in a) handsome (state).’ [state; affirmative]

- b. *kari=a aparagi-f=fa njaa-n-Ø.*
 3SG=TOP handsome-AVLZ=TOP NEG-NPST
 ‘He is (in a) handsome (state).’ [affirmative]

⁶⁰ See §6.3.6 for the distinction between the existential verb and the state verb.

10.3.3. Negation of PC verb

A PC verb (§8.3.3) may be negated either inflectionally or analytically. The analytic negation consists of a PC adverb and the negative form of the state verb *ar*.

(10-52) a. *ssu-kar-Ø*.

white-VLZ-NPST

‘(That) is white.’ [affirmative: stative]

b. *ssu-kar-a-n-Ø*.

white-VLZ-THM-NEG-NPST

‘(That) does not become whitened’. [negative: dynamic]

c. *ssu-f=fa* *njaa-n-Ø*.

white-AVLZ=TOP NEG-NPST

‘That is not white. [negative: stative]

As noted in §8.3.3.2, when a PC verb is inflectionally negated (with the same negative affix that is used for an ordinary verb), the negative form designates dynamic negation rather than stative negation.

10.4. Valency changing

In this section, I describe the ways in which semantic valence (which concerns the semantic arguments of the verb, or ‘participants’) and syntactic valence (which concerns core arguments, i.e. S/A and O) are (re-) arranged (see §3.5.1 for the notions of syntactic and semantic valence). In this valency changing process, an E argument, or a

dativemarked argument that contributes to the semantic valence but does not contribute to the syntactic valence (§3.5.3), is also relevant, as the rearranged (demoted) core argument or a newly introduced participant may be encoded as an E argument.

Valency changing includes three morphological operations and one syntactic operation. The morphological operations are passive, causative, and malefactive. The syntactic operation is reflexive. There are also pairs of verb roots that contrast in inchoative versus causative meanings (e.g. *mui-* ‘burn (intr)’ vs. *muusi-* ‘burn (tr)’), with no derivational relationship between the two, and these are noted in the section of causative.

10.4.1. Causative

10.4.1.1. Morphological causative

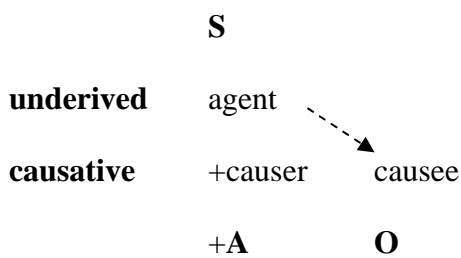
The morphological causative derives an (extended) transitive clause by the addition of a causative suffix (either *-asi* or *-simi*, depending on the class of the verb stem to which the causative suffix attaches; see §6.4.1.1).

- (10-53) a. Class 1 *fi-* ‘give’ > *fii-simi* ‘make/let give’
 mii- ‘look’ > *mii-simi* ‘make/let see’
 idi- ‘go out’ > *idi-simi* ‘make/let go out’
- b. Class 2 *fa-* ‘eat’ > *fa-asi* ‘make/let eat’
 jum- ‘read’ > *jum-asi* ‘make/let read’
 tur- ‘take’ > *tur-asi* ‘make/let take’

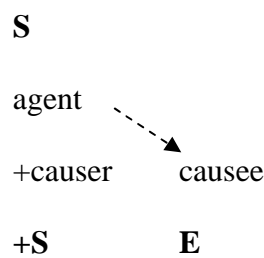
In terms of semantic valence, the morphological causative adds a causer to the

existing proposition. In terms of syntactic valence, the causer is assigned the subject (S/A) status. If the underived clause is intransitive, the original agent, or the causee in the causative clause, is encoded either as a direct object (as in (10-54a)) or as an E argument (as in (10-54b)), depending on the degree of control of the causer over the causee. If the underived clause is transitive (as in (10-54c)) the causee is encoded regularly as an E argument, and the patient in the underived clause remains a direct object in the causativised clause.

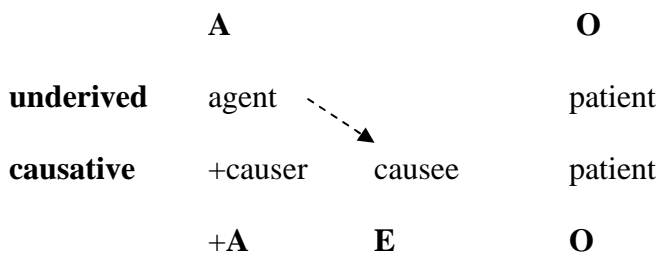
(10-54) a. Intransitive > Transitive



b. Intransitive > Extended intransitive



c. Transitive > extended transitive



In the following pair of examples, the (a) example is an underived intransitive clause, from which the causativised transitive clause (b) is derived, illustrating (10-54a).

(10-55) a. *ffa=nu* *nafi-tar.*
 child=NOM cry-PST

‘A child cried.’ [underived]

- b. *uja=ga=du* *ffa=u* *nak-asì-tar.*
father=NOM=FOC child=ACC cry-CAUS-PST
‘The father made the child cry.’ [causative]

When the underived clause is intransitive, this type of causativisation is typical. However, there is another type of causativisation, as schematised in (10-54b) above, where the causee is encoded as an E argument. This is illustrated in (10-56) below (the E argument is underlined).

- (10-56) *uja=a* *tuu=ju* *simi-i=du,* *nara=a*
father=TOP door=ACC shut-MED=FOC RFL=TOP

puka=nkai *ik-i-i,* *ffa=n* *nak-asì-tar=ca.*
outside=ALL go-THM-MED child=DAT cry-CAUS-PST=HS
‘The father shut the door, and went outside, letting the child cry (without feeling ashamed).’

The semantic difference between (10-55b) and (10-56) is as follows. Whereas in (10-55b) the causer has full control over the causee (i.e. the causee is construed as a patient), in (10-56) the causer lets the causee cry, thus the causee still exhibits an agentive characteristic.

In the following pair of examples, the causative derivation is from a transitive (a) to an extended transitive (b), illustrating (10-54c) above.

(10-57) a. *unu siitu=u hon=nu=du jum-tar.*
 that pupil=TOP book=ACC=FOC read-PST
 ‘That pupil read a book.’ [underived]

b. *sinsii=ga unu siitu=n hon=nu=du jum-asi-tar.*
 teacher=NOM that pupil=DAT book=ACC=FOC read-CAUS-PST
 ‘The teacher had the pupil read the book.’ [causative]

There are indications that a lexical extended transitive verb such as *fir* ‘give’ and *ufii* ‘send’ cannot derive a causative, which would require four semantic and syntactic arguments. In free texts, such examples did not occur. In elicitation, some speakers did construct a four-place predicate clause with the instrumental NP encoding the causee, as shown in the (b) example below, derived from (a).

(10-58) a. *uttu=nu uja=n nimuc=cu=du ufii-tar*
 younger.sibling=NOM father=DAT letter=ACC=FOC send-PST
 ‘The younger sibling sent the parcel to his/her father.’

b. *ani=nu uttu=sii uja=n*
 elder.sister=NOM younger.sibling=INST father=DAT

nimuc=cu=du uf-fasi-tar.
 parcel=ACC=FOC send-CAUS-PST
 ‘The elder sister ordered (her) younger sibling to send the parcel to
 (their) father.’

However, a much more preferred alternative, according to the consultant who constructed this example, is to use either (a) a non-causative clause, or (b) an analytic expression:

(10-59) a. *ani=nu* *uttu=sii* *uja=n*
 elder.sister=NOM younger.sibling=INST father=DAT

nimuc=cu=du *ufi-tar.*
 parcel=ACC=FOC send-PST

‘The elder sister sent the parcel to (their) father by way of her younger sibling.’ [cf. (10-58b)]

b. *ani=nu* *uttu=nkai* *uja=n*
 elder.sister=NOM younger.sibling=ALL father=DAT

nimuc=cu *uf-fi-Ø=ti=du* *až-tar.*
 parcel=ACC send-THM-NPST.IMP=QT=FOC say-PST

‘The elder sister said, “You send the parcel to daddy”.’

Note that in (10-59a) the verb *ufi-tar* does not carry the causative suffix *-as*. The causative meaning is inferred from the statement that the elder sister sent the parcel by way of the younger sibling, where the actual carrier is the younger sibling. In (10-59b), there are two verbs, one (*až-tar* ‘said’) governing the causer *ani* and the message quoted by *=ti* (*uja=n nimuc=cu uf-fi-Ø* ‘You send the parcel to daddy’), and the other (*uf-fi-Ø* ‘You send’) governing the recipient *uja* and the gift *nimuci*.

In either example, burdening the verb *ufiī* with the fourth argument, i.e. the causer, is avoided. This means that Irabu verbs (like those in most known languages) can govern up to three arguments, and thus no causative derivation is possible from extended transitive verbs, as the introduced causer cannot be governed by the verb that is already ‘full’. This is why the causee in (10-58b) is encoded by a peripheral argument (the instrumental NP), which is not governed by (i.e. not part of the argument structure of) the verb. The situation in (10-58b) is schematised as follows.

(10-60) Extended transitive > Extended transitive + peripheral argument

	A		E	O
underived	agent		recipient	patient
causative	+causer		recipient	patient
	+A	peripheral	E	O

Here, the causee occupies the lowest position of the hierarchy [A > O > E > peripheral] that is not filled. This bears out Comrie’s (1975) hierarchical coding pattern of the original S/A in causatives (subject > direct object > indirect object > oblique).

10.4.1.2. Lexical intransitive-transitive pairs

There are a small number of pairs of verbs where each pair consists of an intransitive non-causative form (with an inchoative meaning), e.g. *idi-* ‘go out’, and a transitive causative form, e.g. *idasī-* ‘extract’, sharing some part of the root. If the other parts that differ (e.g. *idi-* vs. *idasī-*) could be analysed as inchoative and causative affixes respectively, these pairs of verbs could be referred to as non-directed, equipollent alternations (i.e. there is no basic-derived relationship) in terms of Haspelmath’s (1993)

typology of causatives. However, since it is not possible to extract a single set of morphemes that express causation and inchoation, and since these pairs are very limited in number and not productively created, I describe each verb form simply as a single root rather than a root + a causative suffix or a root + an inchoative suffix. Below, the dot ‘.’ is meant just to suggest a possible morpheme boundary in terms of the causative-inchoative contrast.

(10-61)	Inchoative		Causative
	<i>id.i-</i> ‘go out’	vs.	<i>id.asi-</i> ‘extract’
	<i>maa.r-</i> ‘round’	vs.	<i>maa.si-</i> ‘round’ [round something]
	<i>kak.ar-</i> ‘hang’	vs.	<i>kak.ir-</i> ‘hang’
	<i>mu.i-</i> ‘burn’	vs.	<i>mu.usi-</i> ‘burn’

The inchoative verbs here may also be causativised by the regular morphological means described in §10.4.1.1:

(10-62)	<i>idi-</i> ‘go out’	>	<i>idi-simi</i> ‘make/let go out’
	<i>maar-</i> ‘round’	>	<i>maar-asi</i> ‘make/let round’
	<i>kakar-</i> ‘hang’	>	<i>kakar-asi</i> ‘make/let hang’
	<i>mui-</i> ‘burn’	>	<i>mui-simi</i> ‘make/let burn’

The difference between the lexically causative forms of (10-61) and the morphologically derived causative forms of (10-62) is that with the former the causer has full control over the causee, a contrast also shown in an O argument vs an E argument in (10-54a-b). This difference in the degree of control shows up as a different

arrangement of case for the causee. In (10-63) below, where the verb stem is a lexical causative form, the causee is encoded as an O argument (with accusative):

- (10-63) *kari=u* (*isī=n* *nuusi-i=du*) *maasi-tar*.
3SG=ACC (chair=DAT lift-MED=FOC) turn.round-PST
'(I) turned round him/her (by lifting him/her on the chair).'

In (10-64) below, on the other hand, the verb is morphologically causativised, and the causee is encoded as an E argument, deriving an extended intransitive clause.

- (10-64) *kai=n* (*unagaduu=sii*) *maar-asi-tar*.
3SG=DAT (oneself=INST) round-CAUS-PST
'(I) let him/her round (by him/herself)'

10.4.1.3. Anticausative

The anticausative derives an inchoative verb (e.g. '(something spontaneously) break') from an underived causative verb that implies external causation (e.g. '(someone) break (something)') (Nedjalkov and Sil'nickij 1969; Haspelmath 1993: 91; Dixon and Aikhenvald 2000: 7-8). The derived anticausative form always implies a spontaneous event, and thus never allows a syntactic marking of an agent.

In Irabu, anticausative is not productive, and is strictly limited to a certain set of verbs. Even though it is possible to isolate an anticausative suffix *-i* (as is clear from the examples below), the suffix has no productivity and shows some semantic irregularity.⁶¹

⁶¹ For example, it is possible to find such pairs as *r-* 'enter' (inchoative) and *r-ri-* 'enter' (causative), where we see the opposite function of *-i*, deriving a causative form from an inchoative form.

I describe the putative anticausativised forms as roots rather than derived forms which is why I indicate the possible morpheme boundary by a dot ‘.’ rather than a hyphen ‘-’.

(10-65) Inchoative verb	Anticausative verb
<i>bur-</i> ‘break (a stick, etc.)’	<i>bur.i-</i> ‘break’
<i>bar-</i> ‘break (a glass, etc.)’	<i>bar.i-</i> ‘break’
<i>tur-</i> ‘take (off)’	<i>tur.i-</i> ‘get apart’

In the example below, the pair of *bur-* ‘break’ (inchoative) and *huri-* ‘break’ (causative) is illustrated. Note that the former is a Class 2 verb, whereas the latter is a Class 1 verb, which is reflected in the difference in the form of the non-past unmarked suffix (§6.3.1).

(10-66) a.	<i>kii=nu</i>	<i>juda=u=du</i>	<i>bur-Ø.</i>
	tree=GEN	branch=ACC=FOC	break-NPST
	‘(I) break a branch of a tree.’		
b.	<i>kii=nu</i>	<i>juda=nu=du</i>	<i>huri-r.</i>
	tree=GEN	branch=NOM=FOC	break-NPST
	‘A branch of a tree breaks.’		

10.4.2. Passive

The passive derives an (extended) intransitive clause from a transitive clause with the passive suffix *-(r)ai* (§6.4.1.2). The semantic valence of the verb remains the same, i.e. a passive agent is always implied, resulting in the semantic effect that the event is brought about by some external causer (see more discussion below). In terms of syntactic

valence, the passive agent NP is demoted, either by deletion (resulting in an intransitive clause) or to an E argument (resulting in an extended intransitive clause). The syntactic inclusion of the agent depends on to what degree the agent is important in discourse.

(10-67) Transitive > (extended) intransitive

	O	A
underived	patient	agent
passive	patient	(agent)
	S	(E)

In example (10-68) below the passive agent is not present, as the specification of the agent is not important in the discourse context.

(10-68) *katabata=a* *fa-ai-i*,
half.body=TOP eat-PASS-MED

katabata=a *jaa=nu* *pana=n* *nuus-irai+u-i-ba*,
half.body=TOP house=GEN roof=DAT lift-PASS+PROG-THM-
-CVB.CSL

nara=n=na *kuu-rai-n-Ø*.
RFL=DAT=TOP come-POT-NEG-NPST

‘A half of my body was eaten, and the other half of my body has been lifted on the roof of a house, so I cannot come (back).’

The part of the discourse from which the example was extracted is about a mermaid

who was caught by two fishermen (i.e. the agents of the events described by the passivised clauses) and a god who wants to get her back to the sea world. The example is uttered by the mermaid, directed to the god, explaining her *current situation* from which she cannot come back to the sea world. (In this part and in the rest of the story the fishermen are not mentioned.)

Even though the specification of agent is pragmatically unimportant in the passive above, the event described here is not a spontaneous one, i.e. there is ‘external causation’ in the event described (Amberber 2000: 315). Thus it is easy to insert an agent NP in these examples, say, *pžtu=n* ‘by a man’. This potentially added NP is regularly marked by dative case, thus we can refer to such an agent NP as an E argument. This semantic characteristic of passive is in sharp contrast to, say, the anticausative (§10.4.1.3) where an action occurs spontaneously and no agent is implied (thus the agent never appears as an NP). The anticausative is a clear example of the reduction of semantic valence, but the passive in Irabu does not reduce semantic valence.⁶²

One important characteristic of the patient NP is that it is in most cases a human,

⁶² This is a characteristic of Irabu that is distinct from Modern Japanese, where there are passives (in addition to the Irabu type passive) that decrease the semantic valency by not entailing the existence of an external causer. For example, in Modern Japanese we have such an example as *kikakukaigi no ato, ikutuka no aidea ga tamesareta* ‘After the planning meeting, several ideas were tested.’ Here, no external causer is implied, and it is difficult to add an appropriate agent NP to this sentence. In pre-Modern Japanese, however, most of the passive examples functioned to highlight a patient that is affected by an external causer, just like the passive in Irabu (Shiba 2005; Seino and Tanaka 2006: 326). Shiba states that in this latter kind of passive, semantic valence remains the same, as the same event is described from the perspective of the patient (see also Seino and Tanaka 2006).

In other valency changing phenomena, such as applicative or applicative-like phenomena (such as ‘Ivan sowed wheat in the field’ vs ‘Ivan sowed the field with wheat’), it is often pointed out that the number and the kind of semantic roles of the underived and the derived verbs remain the same (which is to say, the semantic valency remains the same), though the sentential meaning may be different, e.g. with respect to affectedness of the patient (Comrie 1985b: 314). In Comrie’s terms, such valency changing processes are ‘valency rearrangement’ rather than ‘valency decrease’, and in the former, he notes that ‘the rearrangement of the arguments does entail differences in which arguments can optionally be omitted’.

The passive of Irabu and in pre-Modern Japanese are thus a valency rearrangement operation, and the Modern Japanese passive may additionally function as a valency decrease operation.

who is either a speaker or an entity with whom the speaker feels some ‘empathy’ (Kuno and Kaburaki 1977). Thus, the passive is likely to take on a negative meaning in that the patient that the speaker feels empathy with is affected by the action of an external causer (that is, the proposition in which A acts on B is described like ‘My B is affected (by A)’). In the example below, the passive subject has a third person referent, which is the speaker’s father, who is affected by the action of taking him away for the defence army (against his and the speaker’s will). The event is thus described with a negative meaning.

(10-69) *banti=ga* *uja=a* *mmja* *booeitai=nkai=ti*
 1PL=GEN father=TOP INTJ defence.army=ALL=QT

tur-ai-ta=iba.

take-PASS-PST=so

‘Our father was taken (from us) for the defence army.’

In free texts it is possible to find cases where the passive subject is non-human, but such examples are not common, and the subjects were in most cases seen as being possessed or related to the speaker in some way or another. One good example is (10-68) above where the subject in each passive clause is a body part of the speaker. Thus the relation ‘My B is affected (by A)’ holds true. Another example of non-human subject is as follows.

(10-70) *pinza=u=du* *cikana-i+u-tar=ruga,* *mmja,* *ba=ga*
 goat=ACC=FOC have-THM+PROG-PST=but INTJ 1SG=NOM

ucinaa=nkai ik-i-i, mata mudur-i-i t-tar=dara.
 Okinawa=ALL go-THM-MED and return-THM-MED come-PST=
 =CRTN

assiba=du uri=a mmja kurus-ai-i...
 so=FOC 3SG=TOP INTJ kill-PASS-MED

‘(I) had a goat; I went to Okinawa and returned; and it had been killed...’

Though agentless passives are common, it is also common to find both in texts and in elicited data cases where the agent is explicitly stated with dative case, i.e. as an E argument. Interestingly, in elicitation, many speakers created a sentence with an agent when they were asked to create a passive clause without being provided any context, as illustrated in (10-71) and (10-72) below.

(10-71) *uja=n ž-žai-i=bakaar ur-Ø=ri=ti.*
 parent=DAT scold-PASS-MED=only PROG-NPST=CNF=QT

‘(I would say like) (You) are always scolded by (your) parents.’

(10-72) *pžtu=n mii-rai-rna.*
 man=DAT look-PASS-PRH

‘Don’t be witnessed (found out) by (any)one.’

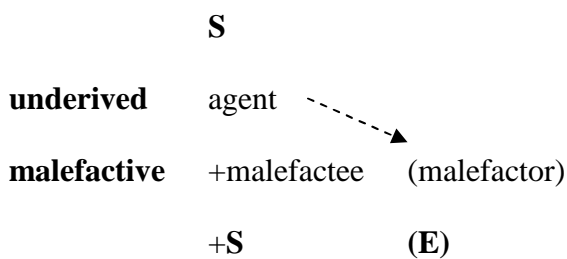
10.4.3. Malefactive

Malefactivisation is a derivational process that uses the passive morphology *-(r)ai* on the verb stem), but is distinct from passivisation in that it changes valency. However, certain semantic-pragmatic characteristics are shared between the malefactive and the

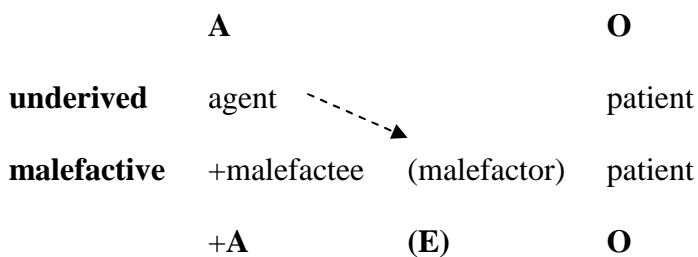
passive, and the two can thus be subsumed under a single functional class encoded by the same morphology, as explained below.

In a malefactive clause, semantic valence *increases* with the introduction of a malefactee, which is encoded as a subject. The original agent of the underived verb, which is a malefactor in the derived clause, is encoded either as an E argument or simply unstated, like a passive agent. Since malefactivisation simply adds the malefactee, malefactivisation may co-occur with both an intransitive verb and a transitive verb, deriving an extended subtype of each if the malefactor is stated, or simply rearranging the semantic roles and the syntactic arguments if the malefactor is unstated. Also, the syntactic status of the original O if any is not affected by the introduction of the malefactee, just like the causative.

(10-73) Intransitive > (Extended) intransitive



(10-74) Transitive > (Extended) transitive



Example (10-75a) below is an intransitive clause, from which an extended

intransitive clause is derived by malefactivisation. In (10-75b), the depicted event consists of ‘rain’ (malefactor) and some other entity who is bothered by the fact that a rain falls (malefactee). This newly introduced malefactee appears as an S syntactically, whereas the malefactor is encoded as an E argument.

(10-75) a. *ami=nu=du* *fii.*
rain=NOM=FOC fall
‘Rain falls’ [i.e. it rains]

b. *ba=a* *ami=n=du* *f-fai-r.*
1SG=TOP rain=DAT=FOC fall-MAL-NPST
‘I am bothered by rain (that) falls.’

In (10-76) below, (a) is the underived intransitive clause, from which the malefactive clause (b) is derived. Here, unlike the example above, the malefactor is unstated. Thus what we get is still an intransitive clause, where the original agent is now demoted by deletion, and the newly introduced malefactee is encoded as an S.

(10-76) a. *tuzi=nu=du* *ngi-tar.*
wife=NOM=FOC leave-PST
‘My wife left.’

b. *ba=a* *ngi-rai-tar.*
1SG=TOP leave-MAL-PST
‘I was bothered by the fact that (my wife) left.’

In (10-77) below, the (a) example is a transitive clause, from which an extended transitive (b) and a transitive clause (c) are derived. The original O remains O in either derived clause, and the newly introduced malefactee is encoded as an A argument whereas the original A is demoted to an E argument (b) or deletion (c). In (c), the clause remains a transitive clause, but the A argument is rearranged (agent > malefactee).

(10-77) a. *taugagara=nu jaa=ju=du tur-tar.*
 someone=NOM house=ACC=FOC take-PST
 ‘Someone took a house (by force).’

b. *kari=a taugagara=n jaa=ju=du*
 3SG=TOP someone=DAT house=ACC=FOC

tur-ai-tar.
 take-MAL-PST
 ‘He was troubled (by the fact that) someone took his house (by force).’

c. *uma=nu pžtu=nu=du mmja*
 that.place=GEN man=NOM INTJ

ujaki+munu=u s-i-i u-tar=ruga,
 rich(+thing)=ACC2 do-THM-MED PROG-PST=but

jaa=ju=du tur-ai-tar=ca.
 house=ACC=FOC take-MAL-PST=HS

‘The man there was rich, but (he) was troubled (by someone who) took his house (by force).’

Compare (10-77c) above with the example below, which is a passive clause derived from (10-77a). The original A is demoted to deletion, as in the case of (10-77c), but here the original O is promoted to S, as shown in (10-78) below.

(10-78) *jaa=nu=du* *tur-ai-tar.*
house=NOM=FOC take-PASS-PST
‘A house was taken by force’

In sum, malefactivisation exhibits characteristics that are similar to causativisation on the one hand and passivisation on the other. There are three characteristics that are common in malefactivisation and causativisation: (1) the introduction of a new role (increasing semantic valence), (2) the coding of such a role as a syntactic subject, and (3) the retention of the original O (if any) as O. On the other hand, malefactivisation is like passivisation in that (1’) the patientive rather than agentive role (malefactee in the case of a malefactive clause) is assigned the subject status, (2’) the original subject may be deleted if it is unimportant in discourse (this is unlike a causee in a causativised clause, which must be stated as an E argument unless it is understood and zero pronominalised), and (3’) there is a negative meaning that an external causer brings about an action that affects a patient.⁶³

Thus, the suffix *-(r)ai*, which encodes either passivisation or malefactivisation, has

⁶³ In the elicitation data and the text data I could not find any example where a malefactive form is used with a positive meaning as in the case of Japanese. But this might come from the small size of my database rather than the true nature of malefactive.

a general function of focusing on the patient in an event, which may be directly affected (as in passivisation) or indirectly affected (as in malefactivisation) by an external causer (passive agent or malefactor).

10.4.4. Reflexive

Reflexivisation is not marked by verb morphology. Unlike English and many other languages, where such concepts as ‘wash’, ‘shave’, and ‘dress’ can be expressed by reflexives, they are never expressed in this way in Irabu. These verbs are always semantically bivalent, requiring an agent and a non-reflexive theme. However, the theme in these verbs is often a body part of the agent, and in this case the possessor (i.e. agent) may be simply omitted or encoded by a reflexive pronoun *na(r)a* (§5.2.2.2).

(10-79) *kari=a* (*naa=ga*) *tii=ju=du* *ara-i+ur-Ø*.
 3SG=TOP (RFL=GEN) hand=ACC=FOC wash-THM+PROG-NPST
 ‘He is washing (his) hand.’

If the possessor here is encoded by a third person demonstrative pronoun, it implies that the possessor is different from the agent:

(10-80) *kari=a* *kai=ga* *tii=ju=du* *ara-i+ur-Ø*.
 3SG=TOP 3SG=GEN hand=ACC=FOC wash-THM+PROG-NPST
 ‘He_i is washing his_j hand.’ [e.g. a father helps his child wash hands]

It is not common to find in texts those examples where the agent and the patient/theme refer to exactly the same entity (rather than the whole-part relation as

noted above). However, in elicitation, I was given the following examples with a reflexive pronoun replacing the patient/theme. In place of a reflexive pronoun, a lexical noun *duu* ‘body’ (which may also function as an equivalent of the first person inclusive form; §5.2.2.1) may be used.

(10-81) *pžtu=u=bakaar mii-da, duu=ju mii-ru.*
 man=ACC=always look-NEG.MED body=ACC look-IMP
 ‘Stop looking always at others, but look at yourself’ [i.e. take care of your own behaviour].

(10-82) *kari=a nara=u=du iciban=tii umu-i+ur-Ø.*
 3SG=TOP RFL=ACC=FOC No.1=QT think-THM+PROG-NPST
 ‘He is thinking himself to be the best.’

10.5. Tense, mood, and aspect

In this section I describe three predicate categories, tense, mood, and aspect.

10.5.1. Tense and mood

Tense and mood are expressed by inflectional affixes.⁶⁴ The tense system of Irabu is the binary system of past vs non-past. Tense is obligatorily marked on each finite verb form except for finite irrealis verbs. Finite irrealis verb forms only inflect for mood with future time reference being entailed. They are attemporal.

⁶⁴ I follow Palmer (1986: 21-22) and Bybee and Fleischman (1995: 2) in defining moods as grammaticalised modalities (in the form of verb inflection), and modality as speaker’s (subjective) attitudes and opinions (Bybee, Perkins, and Pagliuca 1994: 176). Modality consists of epistemic and deontic modalities (Palmer 1986; Payne 1997).

10.5.1.1. Realis mood

The realis mood inflection (see §6.3.1 for the morphological description) expresses both the semantic and the pragmatic stance of the speaker as summarised in (10-83).

(10-83) The realis mood inflection expresses (a) speaker's perceived certainty, and (b) high information value, in that the speaker indicates that his message is new information to the hearer as the hearer does not know, or has a wrong assumption about, the truth value of the proposition.⁶⁵

As an initial approximation, the following dialogue illustrates (10-83a) and (10-83b). Here, speaker A has the assumption that 'this (woman)' is ignorant, which A thinks is wrong, as he is certain that 'this (woman)' is a wise person. Thus A corrects B's assumption by using the finite realis form.

(10-84) A. *kuri=a nau=mai s-sa-n-Ø=pazi.*
3SG=TOP what=even know-THM-NEG-NPST=maybe
'This (woman) doesn't know anything, perhaps.'

B. *gui! kuri=a nau=ju=mai s-si+u-Ø-m!*
INTJ 3SG=TOP what=ACC=even know-THM+PROG-NPST-RLS
'No way! She knows everything!'

⁶⁵ A number of studies of Miyako Ryukyuan have referred to the function of what I call finite realis verb forms (Uchima 1985; Uemura 1997; Karimata 1997; Nakama 1992; Izuyama 2002), but no conclusion or agreement has been reached. All authors agree that these forms express speaker's subjective judgement, as opposed to an unmarked or objective judgement which is said to be encoded by what I call finite unmarked forms. It is a matter of controversy exactly what these authors mean by 'subjective' and 'objective', but it is noted that these authors all tried to capture the mood system involving what I call realis forms and unmarked forms of Miyako Ryukyuan in terms of marked vs unmarked modal features. This is what I do in this grammar as well.

Another example is given below, where speaker A warns speaker B not to buy things at supermarket x, as speaker A is quite certain that the goods sold at the supermarket are costly.

(10-85) A. *mucii=mai njaa-n-Ø=niba. x=n ar=ru si-Ø?*
 rice.cake=too not.exist-NPST=so x=DAT existing=FOC do-NPST
 ‘I have run out of rice cakes, so (the supermarket) x sells some?’

B. *ugui! uma=a taka-ka-Ø-m=ju!*
 INTJ that.place=TOP high-VLZ-NPST-RLS=EMP
 ‘Hey! they (sell) costly (things)!’

As illustrated in the above two examples, the non-past realis forms of stative predication encode the perceived certainty of the speaker towards the ongoing state. When a dynamic verb is inflected for the non-past realis form, the verb expresses an imminent future event (see FIGURE 10-1). The speaker is aware that the event is going to happen in all probability, either because s/he has observed it to be imminent, or because the speaker has other reasons (e.g. a promise) to believe that the event will take place. On the other hand, the hearer is not aware of the imminent future. The speaker uses the realis form to call the hearer’s attention to the occurrence of the event. Thus the realis form often entails a warning interpretation, as shown in (10-86), even though it is not always so, as shown in (10-87).

(10-86) *hai! uti-r-m=dooi!*
 INTJ drop-NPST-RLS=EMP

‘Watch out! (The base behind you) is going to drop!’

(10-87) *kaja, kaja, fī-Ø-m!*

there there come-NPST-RLS

‘(Hey don’t you see) there, there, (the ship is) coming!’

Even though there is a natural correlation between speaker’s certainty and speaker’s direct experience/witness as a source of information (first hand evidentiality), this correlation is probabilistic rather than the norm. The following dialogue demonstrates this.

(10-88) A. *zau=n=du mmna mizi=nu ar-i+u-i-ba=du.*

gate=DAT=FOC all water=NOM exist-THM+PROG-THM-
-CVB.CSL=FOC

‘There was (a bucket of) water at the entrance (of the house).’

B. *uma-nagi=n?*

that.place-APPR=DAT

‘Over there?’

A. *uma-nagi=n=ju.*

that.place-APPR=DAT=EMP

‘Yeah, over there.’

B. *taru=mai* _____ *sin-ta-m=dara.* *karjuu=nu* *mizī=ti.*
 who=too die-PST-RLS=CRTN luck=GEN water=QT

‘(Then it means that) someone has died. The water is holy water for keeping bad luck away.’

Here, speaker A is not familiar with Irabu culture, so that she does not know the symbolic meaning of a bucket of water in front of the gate of someone’s house, so she reports what she saw at speaker B’s house. Upon hearing the report, speaker B immediately understands what the bucket symbolises (i.e. she knows that this means someone’s death, or a funeral). Speaker B then tells it to Speaker A, relying on her established knowledge and providing new information to speaker A. Note that the speaker B does not see the bucket of water or the dead body. Thus the realis form is not a grammatical marker of firsthand evidentiality or secondhand evidentiality.⁶⁶

Several morphosyntactic correlates of (10-83a) and (10-83b) can be detected. First, as illustrated in (10-85), (10-86), and (10-88) above, the realis form very often co-occurs with those clitics that encode certainty (e.g. =*dara*, §9.3.6) or emphasis (e.g. =*dooi*, §9.3.7; =*ju*, §9.6.1).

Second, because the realis form has the semantic characteristic of (10-83a), it never co-occurs with the hearsay clitic =*ca* (§9.3.3). This is understandable because a speaker uses =*ca* to indicate that s/he is not willing to take the responsibility for the

⁶⁶ In Weber’s (1986: 137) description of Quechua, a distinction is made between evidentiality, which concerns how the speaker came by the information, and validationality, which concerns the speaker’s attitude toward the information. The realis mood in Irabu then expresses validationality rather than evidentiality. The realis form of Irabu is very similar in function to ‘finite verbs’ in Tungusic languages (Kazama 2005), which are alternatively called ‘validational forms’ (Malchucov 2000). In Tungusic languages, the validational form (which, according to Malchucov, has developed from a firsthand evidential form, which is still found in Udehe) is highly restricted in use due to its marked modal feature, and only used when a speaker perceives certainty, and it is in most cases used in conversations, and in rhetorical questions (Shinjiro Kazama, p.c.; Kazama 2005). All these generalisations precisely hold true in the realis form of Irabu.

validity of the hearsay information. Thus if a speaker were certain of a hearsay fact, s/he would not use =*ca* in the first place. As noted in §9.3.3, when a speaker is certain of a hearsay fact, s/he uses the other hearsay clitic =*tim(dooi/dara)*.

(10-89) *jurav-na. kari=a daizina saki+fa-ja=timdooi.*
 call-NPST.IMP 3SG=TOP awful Sake+eat-NLZ=HS
 ‘Don’t invite (him): he is said to be an awful drunker.’

(10-90) *junai=n paka=nkai=nu pžtu=nu maar-i+ur-Ø=timdara.*
 night=DAT grave=ALL=GEN man=NOM wander-THM+PROG-NPST
 =HS
 ‘At night, men who are dead are walking around. (So return home before dark)’ [speaking to children as if the speaker believes that this rumour is true]

It is likely that this clitic contains a historical remnant of realis mood morpheme *-m*. That is, =*tim* may be traced back to quotative =*ti* + *-m*. One piece of evidence is that, as noted in §9.3.3, =*tim* obligatorily co-occurs with =*dara* (certainty clitic) or =*dooi* (emphatic clitic). This co-occurrence is naturally explained if we assume that =*tim* contained *-m* (see the preceding paragraph). Historically, the realis morpheme *-m* is known to have derived from an epistemic clitic *=*mo* or =*mono* (Uchima 1970). Given that it was originally a clitic, it is not surprising that it attached to a part-of-speech other than a verb (i.e. quotative clitic =*ti*).

A third morphosyntactic correlate of the realis form is as follows: due to the pragmatic characteristic of (10-83b), the realis form never co-occurs with focus marking on an argument, a VP complement, or an adjunct (argument focus construction; §11.8)

where the predicate is by definition presupposed. As will be discussed in §10.5.1.3, the predicate verb of the argument focus construction is typically a finite unmarked form, which is unmarked for the modal values (10-83a) or (10-83b).

Fourth, it is very rare for the realis form to be used in questions, which is evident considering that it marks speaker's certainty. However, as noted in §10.1.4.2, it is common for the realis form to be used in rhetorical questions, which pragmatically function as a negative statement. Example (10-91) illustrates this use of the realis form.

- (10-91) *uma=kara=a* *fim-ai-r-m=mu.*
 that.place=ALL=TOP get-POT-NPST-RLS=Q
 ‘(One) cannot get (water) from that place.’ [lit. Could (one) get (water) from
 that place?]

If we consider that the realis form is used to encode speaker's perceived certainty about the *truth* of the proposition, the realis forms used in rhetorical questions are problematic, since these uses demonstrate the opposite function of the realis form: they mark the proposition as a *falsehood*. For example, in (10-91) above the speaker is certain of the untruth of the proposition ‘one can get water from that place’. However, certainty and truth value should be mutually independent, as one can have certainty about what s/he thinks is false just as much as about what s/he thinks is true. Thus the realis form functions to express speaker's certainty, without respect to whether s/he regards a proposition as being true or false.

Finally, as briefly noted in §6.3.1, whereas the past realis inflection has both affirmative forms (consisting of the past tense *-ta* and the realis mood *-m*) and negative forms (consisting of the negative *-t*, the past *-ta*, and the realis mood *-m*), the non-past

realis form lacks a negative counterpart. This asymmetry in negation is naturally explained by referring to the modal characteristic of realis: since it requires the speaker's perceived certainty, it is more difficult to use it with what will not occur (non-past tense) than with what did not actually occur (past tense). For example, the negation of (10-92a) is carried out by the unmarked inflection (10-92b), where no imminent future interpretation or definite future interpretation is inherently expressed, and the speaker simply states that 'he will not come'.

(10-92) a. *kari=a* *fii-Ø-m*.
 3SG=TOP come-NPST-RLS
 'He is coming' [imminent future] or
 'He is sure to come' [definite future]

b. *kari=a* *kuu-n-Ø*.
 3SG=TOP come-NEG-NPST
 'He will not come.'

The independent evidence that (10-92b) is an unmarked form is that this form can be used as the predicate of an adnominal clause, which must be an unmarked form (§4.1.2).

(10-93) *kai=ga* *kuu-n-Ø* *pžž=ž**a* *ici=ga?*
 3SG=NOM come-NEG-NPST day=TOP when=Q
 'When is the day he will not come?'

In addition to the morphosyntactic correlates of the realis mood as noted above,

there is also a clear distributional characteristic of realis forms in natural discourse. The text genres that are very likely to induce the use of realis forms are conversations, and the text genres that are not likely to induce the use of realis forms are narratives, especially folktale stories and procedural texts. This correlation between the text genres and the occurrence of realis forms can be easily explained from the pragmatic characteristic of realis forms: it is much more likely to occur in conversations than in narratives since there is a hearer with a much more active role in the conversational act than narration, and without a hearer who interacts actively with the speaker, (10-83b) would be irrelevant. An unmarked form is typically used in place of a realis form in these narrative genres (see §10.5.1.3).

10.5.1.2. Irrealis mood

The irrealis mood expresses that the proposition is weakly asserted as either possible, likely, or uncertain, or necessary, desired or undesired, but the speaker is not ready to back up the assertion with evidence or other strong grounds (Givón 1984; 1994: 268). Thus the irrealis mood clearly contrasts with the realis mood in terms of speaker's certainty (10-83a), as it decidedly expresses the speaker's perception of uncertainty (cf. the unmarked form is neutral in this regard). Also, the irrealis mood does not express high information value as defined in (10-83b), in that it may be under the scope of presupposition. For example, in (10-94) below, the predicate headed by the irrealis intentional form is presupposed.

(10-94) *vva=a* *nau=ju=ga* *fa-a-di=ga?*
 2SG=TOP what=ACC=FOC eat-THM-INT=Q
 'What are you going to eat?'

As listed in FIGURE 10-1 (see also §6.3.1 for morphological detail), there are five irrealis categories: intentional, optative, imperative, anticipated future *-gumata* and obligative/potential *-kutu*, the latter two being secondary inflection (§7.2.3). These all entail future time reference, encoding future intentions or wishes (see below).

The intentional form expresses (1) the speaker's future intention or (2) the non-speaker participant's future intention, but the latter is restricted to questions, quoted speech, or constructions with a hearsay marker (Hayashi 2007).

(10-95) *ba=ga* *uma=n=na* *niv=va-di.*
 1SG=NOM that.place=DAT=TOP sleep-THM-INT
 ‘(As for) that place (where you are lying) I will sleep (instead).’

(10-96) *vva=a* *kuu-di=ru?*
 2SG=TOP come-INT=Q
 ‘Will you come?’

cf. **vva=a* *kuu-di.*
 2SG=TOP come-INT
 ‘You will come.’

(10-97) *kari=a* *kuu-di=ca.*
 3SG=TOP come-INT=HS
 ‘(According to him), he will come.’

cf. **kari=a kuu-di.*

3SG=TOP come-INT

‘He will come’

The optative form expresses the speaker’s wish (‘want to’) that is directed to future.

(10-98) *nkifi? ui=gami=a mmja,*
sea.grapes 3SG=EMP=TOP INTJ

fa-a-baa=tii=ja umu-u-n-Ø.
eat-THM-OPT=QT=TOP think-THM-NEG-NPST

‘Sea grapes? Well, as for it (I) don’t think like “(I) want to eat (them).”’

(10-99) *agaii, ban=mai ik-a-baa=i!*
INTJ 1SG=too go-THM-OPT=CNF

‘I want to go, too!’

The imperative mood expresses a command (see also §10.1.3). This is also considered to be directed to some indefinite future time, in the sense that the action will take place after the command is expressed.

(10-100) *kuma=n ur-i-Ø.*
this.place=DAT exist-THM-IMP

‘Stay here.’

(10-101) *munuž-na=ju, ui=ga taa=nkai munuž-na!*
 speak-PRH=EMP 3SG=GEN FIL=ALL speak-PRH
 ‘Don’t speak; don’t speak to that creature!’⁶⁷

The anticipated future form expresses an anticipated event at the moment of speech, as illustrated in (10-102), but it is not as imminent or evident as in the case of the non-past realis form, as illustrated in (10-103).

(10-102) *kari=a aca=du fī-gumata.*
 3SG=TOP tomorrow=FOC come-ANTC
 ‘He will come tomorrow.’

(10-103) *kai=ga fī-Ø-m.*
 3SG=NOM come-NPST-RLS
 ‘He is coming’ [e.g. when the speaker sees him approaching.]

Also, the degree of anticipation is lower than in the case of a habitual event, as illustrated in (10-104), where the verb is inflected for the non-past unmarked form (§10.5.1.3; §10.5.2.6).

(10-104) *kari=a mainiċ fī-Ø.*
 3SG=TOP everyday come-NPST
 ‘He comes everyday.’ [e.g. referring to a paperboy who regularly brings

⁶⁷ The noun *taa* is only used in this specific NP structure *ui=ga taa=nkai*. It can be replaced by *ui=nkai* ‘to him’ but the complex NP expresses the speaker’s irritation.

newspapers]

The obligative/potential form expresses either speaker's obligation or the potentiality of the event described, thus demonstrating a cross-linguistically recurrent isomorphism of deontic and epistemic modalities.

(10-105) *uri=a ba=ga asi-kutu ja-i-ba,*
3SG=TOP 1SG=NOM do-OBL COP-THM-CVB.CSL

vva=a zjaubu=ju.

2SG=TOP all.right=EMP

'As for it, I ought to (am supposed to) do (it), so you don't worry (about it).'

[deontic reading]

(10-106) *siimai, vva=a mmja, ž-žai-kutu.*
INTJ 2SG=TOP INTJ scold-PASS-OBL

'Keep me out of it... You will be scolded.' [epistemic]

Note that in (10-105) the verb is followed by the copula verb *jar*, an allomorph that appears only in subordinate clauses (§6.3.6.2). This is due to the historical fact that *-kutu* used to be a formal noun heading an NP with an adnominal clause (§7.2.3).

10.5.1.3. The verb form unmarked for mood

The finite unmarked form is unmarked for either realis or irrealis mood. This form is obligatorily required when a verb serves as a predicate head of an adnominal clause

(§4.1.2).

When the finite unmarked form serves as head of a main clause predicate, it contrasts with realis forms and irrealis forms as a sentence-final predicate verb form. In past tense, where only the unmarked form and the realis form are available, the unmarked form is much more frequently used than the realis form. Due to the marked modal features of realis (§10.5.1.1), its use is very limited. On the other hand, in non-past tense, where there are several inflected forms available (realis form, unmarked form, and five irrealis forms), the use of the unmarked form is rather restricted, as future events are encoded by various irrealis forms depending on the nature of the future expressed, i.e. intention, anticipation, wish, and so on. In what follows I note the cases in which the unmarked form can be or must be used over the realis form and the irrealis forms.

In contrast to the realis form, which always carries new information and therefore never co-occurs with focus marking on the non-predicate element (§10.5.1.1), the unmarked form (as well as the irrealis form) may co-occur with focus marking, as it does not necessarily entail new information. In past tense, therefore, the use of the unmarked form is obligatory in presence of the focus marker.

(10-107) *uri=a* *mma-ka-ta-m.*
3SG=TOP tasty-VLZ-PST-RLS
'That was TASTY.' [predicate focus]

(10-108) *ui=ga=du* *mma-ka-tar.*
3SG=NOM=FOC tasty-VLZ-PST
'THAT was tasty.' [argument focus]

In non-past tense and attemporal clauses, on the other hand, the verb form that co-occurs with focus marking may be either an unmarked form or an irrealis form, depending on the time reference. In short, the realis form is excluded. See §11.5 for more detail on the interaction between focus marking and verb inflection, which is known as *kakarimusubi* in Japanese historical linguistics.

Another environment where the unmarked form is selected over the realis form is with markers that convey uncertainty on the part of the speaker. Since the unmarked form does not express the speaker's perceived certainty, it can co-occur with the hearsay marker =*ca* (§9.3.3) and other markers that convey speaker uncertainty, such as =*bjaam* 'I wonder' (§9.3.1) and =*pazi* 'maybe' (§9.3.4). The realis form is not used in the presence of these uncertainty markers.

(10-109) *kuri=a sītabutu=u muc-i+ur-∅=bjaam=mi.*

3SG=TOP bedfellow=ACC have-THM+PROG-NPST=I.wonder=CNF

'I wonder if this (woman) has a bedfellow.'

(10-110) *nnama=gami=a cīk-i+ur-∅=pazi.*

now=EMP=TOP arrive-THM+PROG-NPST=maybe

'(She) may have arrived by now.'

In fact, the unmarked form is the default form used in folktale stories, where =*ca* is typically used to end each sentence (see APPENDIX (1)).

One noteworthy feature of the unmarked form in terms of speaker's perceived certainty is that it can express the speaker's not yet established knowledge, i.e. newly learned information. The following pair of examples illustrates this. Example (10-111)

is a restatement of (10-84B), where the realis form is used, since the speaker is certain of the stated proposition. The near-identical sentence (10-112), on the other hand, ends with the unmarked inflection, and indicates that the speaker has just now realised the fact expressed in the sentence, which is thus uttered with surprise.

(10-111) *gui! kuri=a nau=ju=mai s-si+u-Ø-m!*
 INTJ 3SG=TOP what=ACC=even know-THM+PROG-NPST-RLS
 ‘No way! She knows everything!’ [speaker is certain that she is wise]

(10-112) *gui! kuri=a nau=ju=mai s-si+ur-Ø!*
 INTJ 3SG=TOP what=ACC=eveb know-THM+PROG-NPST
 ‘Wow! She knows everything!’ [speaker assumed that she was dull.]

Likewise, in the following example, the use of the unmarked form indicates newly learned information perceived with surprise.

(10-113) *vva=a nagahama+pžtu=u s-i+u-tar!*
 2SG=TOP Nagahama+man=ACC2 do-THM+PROG-PST
 ‘(Oh!) you were (from) Nagahama!’ [speaker did not know this fact.]

The correlation between the unmarked form and newly learned information is explainable. In formulating a cross-linguistically valid epistemic scale of REALIS and IRREALIS modalities (as shown in FIGURE 10-2 below), Akatsuka (1985) situates newly learned information at the left edge of the domain of IRREALIS modality.

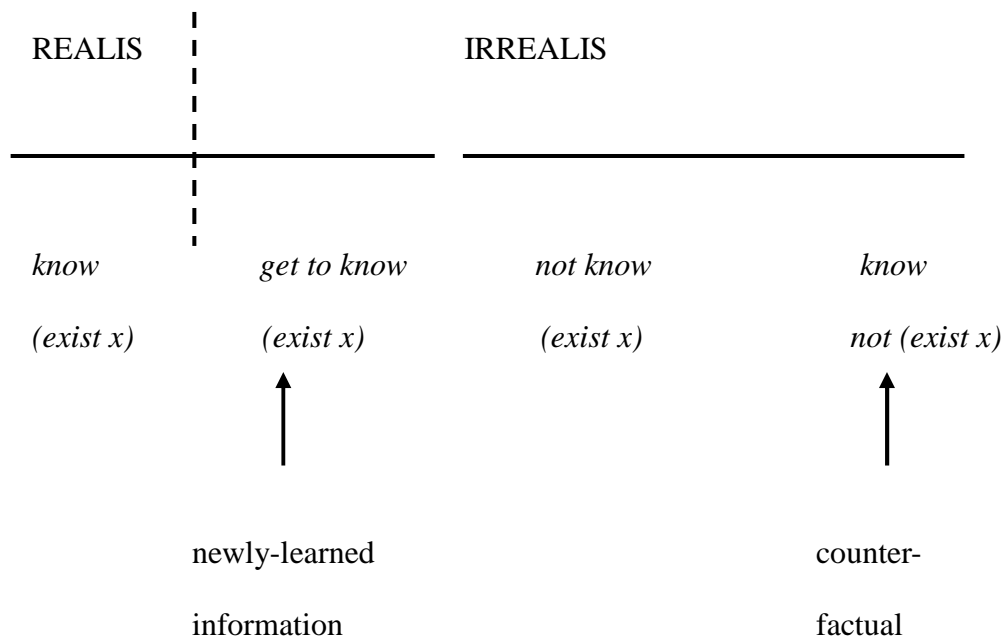


FIGURE 10-2. Akatsuka's (1985) epistemic scale

Newly learned information is like realis in that it designates a situation that speaker considers to hold true (schematised as 'exist x'), but it is nevertheless unlike REALIS since it is not integrated into the speaker's established knowledge ('get to know (exist x)'). Akatsuka shows that in many languages this semantic scale is reflected in morphosyntactic distinctions. For example, the English conjunction *if* is characteristic of IRREALIS modality, but it may also be used in cases where the proposition is regarded as true but the speaker perceives the situation with a surprise, as in *if he's so happy to see me, I should have come earlier* (Akatsuka 1985: 630). In Irabu, newly learned information is encoded by the unmarked form rather than the realis form, thus supporting Akatsuka's claim that newly learned information is distinct from REALIS modality. But, in Irabu newly learned information is treated distinctly from the other

part of IRREALIS modality, which is encoded by irrealis forms.⁶⁸

Turning now to the environment where the unmarked form as opposed to the irrealis forms is selected in non-past tense, the unmarked form signifies habituality and general truth, or a state of affairs that holds true without respect to specific time reference. Also, when combined with the progressive aspect auxiliary, the unmarked verb form expresses present time reference.

(10-114) *sjensoo=nu* *tukja=n=na* *nau=mai* *fau-Ø=i*.
 war=GEN time=DAT=TOP what=even eat-NPST=CNF
 ‘In warfare, (one) eats anything, right?’

(10-115) *mii+jarabi-mmi=a,* *mmja,* *utedama=u=mai* *asĩ-Ø,*
 female+child-PL=TOP INTJ juggling =ACC=too do-NPST

 maar=mai *vcĩ-Ø.* *biki+jarabi-mmi=a,* *mmja,*
 ball=too hit-NPST male+child-PL=TOP INTJ

⁶⁸ Akatsuka’s other claim that counterfactuality cross-linguistically belongs to IRREALIS domain and therefore is expected to be coded by irrealis morphosyntax is not fully justified in Irabu. We observed in §10.5.1.1 that in Irabu the realis form can be used in rhetorical questions, which expresses counterfactuality in that the speaker knows that a proposition is false (thus it can be schematised as ‘know not (exist x)’ in the above FIGURE). The epistemic scale suggested by Akatsuka assumes that epistemic modality is more sensitive to truth value (schematised as ‘(exist x)’ and ‘not (exist x)’ than speaker’s perceived certainty (schematised as ‘know’ in FIGURE 10-2), since in the scale REALIS modality and counterfactuality are situated in the opposite margins even when they share the characteristic of speaker’s certainty. This way of formulating epistemic modality is based on Western philosophical tradition (Givón 1994), and does not seem to be true in all languages. In Irabu, it seems rather that speaker’s certainty is more important than truth value and can be encoded identically with the same form.

tatimma=tii=mai, mata naugara=tii=mai asi-Ø.
 stilt=QT=too and whatever=QT=too do-NPST

‘Girls do juggling, and bounce balls; boys plays on stilts and so on.’

(10-116) *atu+fini=a saci nar-Ø.*
 late+boat=TOP first become-NPST

‘The boat (that started) late will become (the) first (that arrives).’ [proverb:
 ‘stay alert even when the game is on your side’]

(10-117) *žžu=u c-ci-i=du ur-Ø.*
 fish=ACC catch-THM-MED=FOC PROG-NPST

‘(He) is catching fishes.’ [i.e. he is fishing]

10.5.1.4. Relative tense

The tense in adnominal clauses is a relative as opposed to absolute tense (Comrie 1985a). That is, the deictic centre of the tense of an adnominal clause predicate (underlined below), is not the moment of speech but the moment of the event described as a main clause predicate (double-underlined). Since the verb form of an adnominal clause must be a finite unmarked form, the tense marking is either past *-tar* or non-past *-r/-Ø* (Class 1/Class 2).

(10-118) *unu nak-i+ur-Ø ffa=u=du mutagi-tar.*
 that cry-THM+PROG-NPST child=ACC=FOC lift-PST

‘(I) lifted the crying child.’ [Relative clause]

(10-119) ž-žai-i=bakaar ur-Ø jarabi=du a-tar=ruga,
 scold-PASS-MED=only PROG-NPST child=FOC COP-PST=but

nnama=gami=a *zau+bikidum+nisjai=n* *nar-i+ur-Ø.*
 now=EMP=TOP good+male+young.guy=DAT become-THM+PROG
 -NPST

‘(He) was a child who was always scolded, but now is a good young guy.’

(10-120) c-ci+u-tar cin=nu=du nv-tar.
 wear-THM+PROG-PST clothes=ACC=FOC take.off-PST

‘(She) took off the clothes she had worn (until the act of taking off)’

10.5.2. Aspect

Aspect is marked by (1) an auxiliary verb (§7.1.2), (2) finite unmarked inflection (§6.3.1), or (3) verbal reduplication (§3.3.5.2). There are five aspect auxiliaries, namely progressive, resultative, prospective, perfect, and experiential, of which the first three can be compounded with the lexical verb, depending on the focus marking on the lexical verb (word-phrase alternation; §6.4.2.3). The other two aspect auxiliaries always form a complex VP with the lexical verb, and no focus marking is allowed on this verb. Finite non-past unmarked inflection without any auxiliary construes an event as a habitual one, which holds true without respect to specific temporal location.⁶⁹ Verbal reduplication marks iterativity or habituality.

⁶⁹ On the other hand, finite non-past unmarked inflection without any auxiliary construes an event as a single whole, i.e. perfective in Comrie’s (1976) terms.

TABLE 10-2. Aspects and their coding strategies

	auxiliary	inflection	verbal reduplication
Progressive	+		
Resultative	+		
Prospective	+		
Perfect	+		
Experiential	+		
Habitual	+	+	+
Iterative			+

10.5.2.1. Progressive

Progressive aspect is expressed by the aspect auxiliary *ur*. This is a grammaticalised form of the lexical verb *ur* ‘(animate referent) exist’. In Irabu, there are not many stative verb lexemes in the lexicon, so that many stative notions such as ‘know’, ‘have’, ‘be ill’, etc., are derived from punctual lexemes (that express ‘realise’, ‘lift’, ‘become ill’, etc.) by the aspect auxiliary.

(10-121) *jarabi=nu* *nak-i-i=du* *ur-Ø*.
 child=NOM cry-THM-MED=FOC PROG-NPST
 ‘A child is crying.’

(10-122) *pjaa=ja* *aagu=u=mai*
 old.times=TOP song=ACC=too

s-si-i=du *u-tar=ruga=du,*
 know-THM-MED=FOC PROG-PST=but=FOC

ui+pžtu=n *nar-i-i=kara,*
 old+man=DAT become-THM-MED=after

mmja, *as-irai-n-Ø.*
 INTJ do-POT-NEG-NPST

‘Previously (I) used to know songs, but (now I) have become an old man, (I) cannot sing.’

(10-123) *vva=a* *tuz=za* *muc-i-i=ru* *ur-Ø?*
 2SG=TOP wife=ACC2 have-THM-MED=FOC PROG-NPST
 ‘(Do) you have a wife?’

(10-124) *ba=a* *jam-i-i=du* *ur-Ø=rju.*
 1SG=TOP fall.ill-THM-MED=FOC PROG-NPST=EMP
 ‘I am ill.’

10.5.2.2. Resultative

Resultative aspect is expressed by resultative aspect auxiliary *ar*. This is a grammaticalised form of the lexical verb *ar* ‘(inanimate referent) exist’. Resultative aspect expresses that the action so marked has resulted in a certain state, focusing on the current state rather than the action itself. The resultative auxiliary may co-occur either with an intransitive verb (10-125) or a transitive verb (10-126), though the latter is more

typical.

(10-125) *vva=a nautti=ga nak-i+ar-Ø=ga?*
2SG=TOP why=FOC cry-THM+RSL-NPST=Q
'Why have you cried?'

(10-126) *nakagus=su=baa tur-i-i, ara-i-i=du ar-Ø.*
gut=ACC=TOP take-THM-MED wash-THM-MED=FOC RSL-NPST
'As for the guts (of a pig), (I) have taken them out and cleaned them.'

In (10-127) and (10-128) below the patient is encoded as a subject. Thus resultative aspect seems to function like passivisation (§10.4.2). However, as shown in (10-129) and (10-130), as well as in (10-126) above, the clause may often remain the active voice, and the subject is very likely to be unexpressed.⁷⁰

(10-127) *mizī=nu=du nci+ar-Ø.*
water=NOM=FOC put+RSL-NPST
'(A bucket of) water has been put out.'

(10-128) *ahaa kuri=a ž-žai-i mmja*
I.see 3SG=TOP scold-PASS-MED INTJ

⁷⁰ Martin (1975) refers to the corresponding auxiliary *aru* in Japanese as 'intransitivizing resultative', as in Japanese the resultative auxiliary derives an intransitive clause where the subject encodes the patient. In this regard, then, the Irabu resultative auxiliary *ar* is different from the Japanese counterpart.

nak-i-i=du *ar-∅=ri=tii* *pazimi=a* *naugara*
 cry-THM-MED=FOC RSL-NPST=CNF=QT first=TOP FIL

umuv-tar=dara.

think-PST=EMP

‘I see, having been scolded this (boy) has cried (to the effect that he has a red-rimmed eyes); like this I thought.’

(10-129) *buuz=zu=baa* *ibi-i=du* *ar-∅.*
 sugarcane=ACC=TOP plant-MED=FOC RSL-NPST

‘As for the sugarcane, (it) has been planted.’

(10-130) *daizna* *surumik-ja* *ja-i-ba,*
 great clean-NLZ COP-THM-CVB.CSL

jaa=ju=mai *zjautuu=n* *ssabi-i=du* *ar-∅.*

house=ACC=too satisfaction=DAT clean-MED=FOC RSL-NPST

‘(She) is a person who likes cleanness, so the house has also been cleaned to satisfaction (lit. (she) has also cleaned the house to satisfaction).’

10.5.2.3. Prospective

Prospective aspect is so named because it encodes the implicit prospect of an event/state resulting from the event that is deliberately done in advance and is encoded by prospective aspect. In the following example, the predicate is encoded with the prospective auxiliary *ufi*, which is a grammaticalised form of the lexical verb *ufi* ‘put’.

(10-131) *ba=a zin=nu tami-i=du uk-a-di.*
 1SG=TOP money=ACC save-MED=FOC PROS-THM-INT
 ‘I will save money (for some future event).’

The preliminary event is construed either as a single whole (i.e. perfective event) or as an ongoing process (imperfective, as shown above). In the following example, the predicate marked with the prospective auxiliary designates a perfective action that will have been completed by the time one eats dinner.

(10-132) *kan=mai žžu=mai banti=ga tumi-i=du ufi-kutu.*
 crab=too fish=too 1PL=NOM search-MED=FOC PROS-OBL
 ‘We will search for crabs and fish (for dinner).’

In the following example, the predicate marked with the prospective auxiliary (a compound verb) designates an imperfective event preliminary for the future event (i.e. the arrival of the parcel).

(10-133) *vva=a par-i-Ø. ba=ga mac-i+uk-a-di.*
 2SG=TOP leave-THM-NPST.IMP 1SG=NOM wait-THM+PROS-THM-
 -INT
 ‘You leave. I will wait (for the parcel to come).’

As schematically shown below, prospective aspect and resultative aspect (§10.5.2.2) have parallel aspectual-temporal structures, in that in both aspects the state/event resulting from the event marked with the aspect auxiliary is relevant.

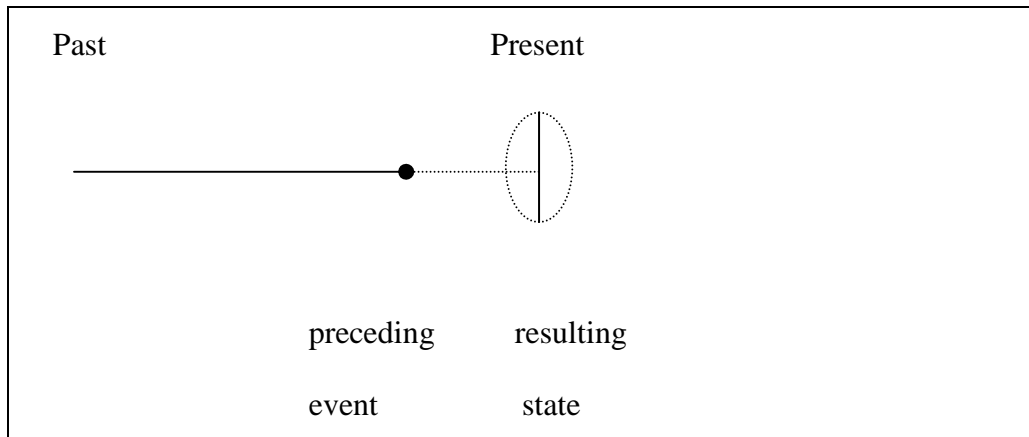


FIGURE 10-3. Resultative aspect

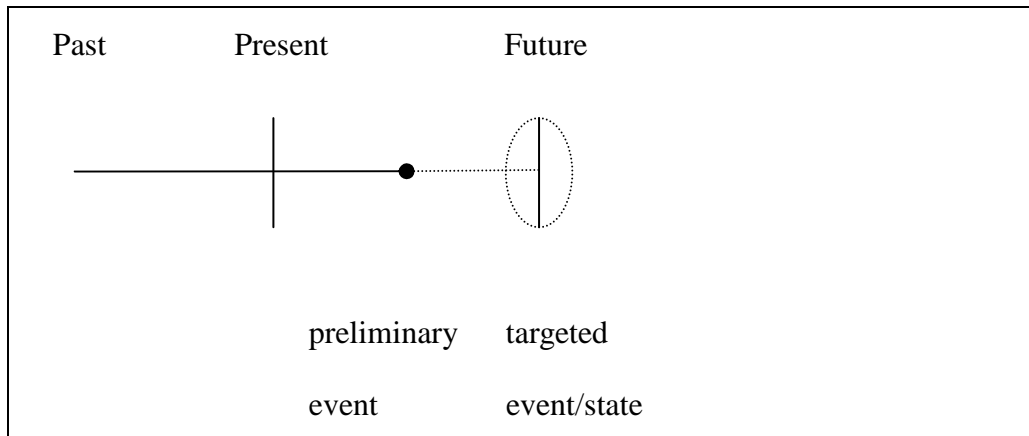


FIGURE 10-4. Prospective aspect

Both of the following examples are concerned with certain states/events resulting from preceding events encoded with the respective auxiliaries, but contrast in the time of the preceding event.

- (10-134) a. *tigami=u=baa kak-i+ar-Ø.*
 letter=ACC=TOP write-THM+RSL-NPST
 ‘As for the letter, it has been written.’

- b. *tigami=u=du* *kak-i+ufi-Ø*.
 letter=ACC=FOC write-THM+PROS-NPST
 ‘(I) will write a letter (e.g. before sending it in afternoon)’

Since both aspects are more or less concerned with the state/event resulting from a preceding event, their aspectual meaning may entail an evidential meaning, i.e. inferential evidentiality. That is, these aspects trace the preceding event encoded by the auxiliary from the resulting state. This evidential extension of perfect/resultative aspect is common cross-linguistically (Comrie 1976: 110; Bybee, Perkins, and Pagliuca 1994: 95-97). In the following example, the resultative aspect marking expresses that one can infer what happened from the present state of the child.⁷¹

- (10-135) *mii-tarjaa=du* *naugara* *ahaa,* *kuri=a*
 look-PST.ANT=FOC FIL INTJ 3SG=TOP

- jam-i-i=du* *ar-Ø=ri=tii*.
 fall.ill-THM-MED=FOC RSL-NPST=CNF=QT
 ‘(I) looked (at the child), then (I thought) “hmmm, this guy has come down with illness.”’ [resultative aspect implying inferential evidence]

The prospective aspect also has inferential entailment. However, the resulting event/state is the present state rather than a future event/state, a present state which has

⁷¹ The inferential evidential entailment of resultative aspect has already been reported in the description of Ishigaki (a Southern Ryukyuan language spoken on Ishigaki Island) by Miyara (1995: 163-164), where he notes that the resultative *eer* may be used in such cases as where the speaker sees the ground wet and infers that it rained.

resulted from the past event, In this respect it is just like resultative aspect in the aspectual-temporal structure (see FIGURE 10-3). Also, the ‘preliminary’ event is not really preliminary, as it is not volitional. There are simply two related events, and the speaker is focusing on the resulting event/state, from which he infers the preceding (‘preliminary’) event. In example (10-136), the use of the prospective aspect auxiliary expresses that there is a present state (i.e. that the ground is wet), from which the speaker infers that it rained some time before the moment of speech.

(10-136) *ami=nu=du* *f-fi+ufi-Ø=i.*
rain=NOM=FOC fall-THM+PROS-NPST=CNF
‘(Considering the fact that the ground is wet) it has rained.’

In example (10-137), the use of the prospective aspect auxiliary expresses that there is a present state (that they are absent in the place they should be), from which the speaker infers that they have already died.

(10-137) *kantja=a ur-a-t-ta=iba,* *sīn-i+ufi-Ø=pazī=i=ti.*
3PL=TOP exist-THM-NEG-PST=sodie-THM+PROS-NPST=maybe=CNF=
=QT
‘They weren’t (at the place where we promised to meet), so (I) thought “(they) have died.”’

Likewise, in the following example, the prospective auxiliary expresses that there is a certain resulting state (i.e. that his shoes are in the entrance) that the speaker actually sees, from which he infers that he has come back home by the time of speech.

(10-138) *c-ci-i=du* *ufi-Ø=pazi.*
 come-THM-MED PROS-NPST=maybe
 ‘(He) has come (back), perhaps.’ [looking at his shoes in the entrance.]

10.5.2.4. Perfect

Perfect aspect is expressed by the perfect aspect auxiliary *njaan*. This is a grammaticalised form of the lexical verb *njaan* ‘not exist’. The perfect auxiliary expresses a currently relevant state brought about by the past event. To demonstrate the current relevance inherent to perfect aspect, let us consider the following pair of examples where the (a) example ends with a lexical verb inflected for past unmarked and the (b) example ends with the perfect auxiliary.

(10-139) a. *uri=u=baa* *cifi-tar.*
 3SG=ACC=TOP hear-PST
 ‘(I) heard about that.’

b. *uri=u=baa* *cik-i-i* *njaa-n.*
 3SG=ACC=TOP hear-THM-MED PRF-NPST
 ‘(I) have heard about that.’

Here, the (a) example may be followed by such an expression as ‘but I had forgotten it, whereas the (b) cannot. This is because in the (b) example the past event ‘I heard about that’ has current relevance.

The perfect auxiliary often pragmatically entails the speaker’s regret about the resulting state.

(10-140) *ju-taa* *u-tar=ruga,*
 four-CLF.HUMAN exist-PST=but

tavkjaa=ja *šin-i-i* *njaa-n.*
 one.person=TOP die-THM-MED PRF-NPST
 ‘There were four (children), but one has died.’

(10-141) *jurus-i-i* *fii-hama-ci.* *unu* *zin=nu=baa*
 forgive-THM-MED BEN-HON-IMP that money=ACC=TOP

cika-i-i *njaa-n=ti=du* *až-tar=ca.*
 spend-THM-MED PRF-NPST=QT=FOC say-PST=HS
 ‘(He) said, “Please forgive me; (I) have spent that money.”’

10.5.2.5. Experiential

Experiential aspect is expressed by experiential aspect auxiliary *miir*, which is a grammaticalised form of the lexical verb *miir* ‘look’. Experiential aspect designates an action roughly translated as ‘try V-ing’.

(10-142) *nzi,* *až-ži-i* *mii-ru.*
 INTJ say-THM-MED EXP-IMP

‘OK, try speaking.’

(10-143) *ik-ai-r* *tukuma=gami* *ik-i-i* *mii-di.*
 go-POT-NPST place=LMT go-THM-MED EXP-INT

fisa=u=mai *kar-i-i=du* *u-tar.*
 grass=ACC=too cut-THM-MED=FOC PROG-PST

‘When (I) was small, (I) used to gather grass for goats.’

(10-146) *ssagi=ti* *asi-tigaa,* *midum=mu* *bikidum=nu*
 wedding.ceremony=QT do-CVB.CND woman=ACC man=GEN

mai=nkai *saar-i-i* *ik-i-i,* *budur=mai*
 front=ALL take-THM-MED go-THM-MED dance=too

aagu=mai *asi+asi.*

song=too RED+do

‘When it comes to a wedding ceremony, (people) take a bride to the house of the groom, and do dances and songs.’

(10-147) *kari=a* *saada+pžtu* *ja-i-ba=i,*
 3SG=TOP Sawada+man COP-THM-CVB.CSL=CNF

sagu=u *s-i-i,* *nau* *sī-tarjaa,*
 melody=ACC do-THM-MED what do-CVB.PST.ANT

ika *sī-tarjaa=tii* *asi+asi.*

ECHO do-CVB.PST.ANT=QT RED+do

‘She is from Sawada, so (she) has a characteristic speech melody, doing (i.e. saying) like “if you do such and such...”’

Iterative aspect is encoded by verbal reduplication. Unlike the case of habitual aspect, verb stem reduplication is not restricted to *asi* ‘do’. It is also very common for the reduplicated form to be framed in a specific construction where A=topic B+B LV (A is inflected for medial verb, B+B is a reduplicated verb form, and LV is a light verb *asi*). Here, the actions encoded by A and B are iterated.

(10-148) *uki-i=ja* *kair+kair* *s-i-i=du* *ifi-tar=ca.*
 stand-MED=TOP RED+turn.over do-THM-MED=FOC go-PST=HS
 ‘(He) went standing up and turning over and over.’

(10-149) *pur-i-i=ja* *tur+tur* *as-i-i=du* *ur-Ø.*
 dig-THM-MED=TOP RED+take do-THM-MED=FOC PROG-NPST
 ‘(They) are digging and taking (potatoes).’

(10-150) *nak-i-i=ja* *fau+fau,* *nak-i-i=ja* *fau+fau*
 cry-THM-MED=TOP RED+eat cry-THM-MED=TOP RED+eat

as-i-ba=gami=du, *mmna* *barav-tar.*
 do-THM-CVB.CSL=EMP=FOC all laugh-PST
 ‘(The girl) was crying and eating repeatedly, so everyone laughed (at her).’

Chapter 11

The complex sentence

This chapter describes complex clause structures, noting three major clause linkage types: (1) coordination, (2) clause chaining, and (3) subordination. I also describe the syntactic characteristics of focus constructions (§11.5), as focus marking and complex clause structures are inter-related.

11.1. Overview of complex clause structures

Coordination falls into symmetrical coordination (where the first clause and the second clause are conjoined by a conjunction word: §3.3.5.3) and asymmetrical coordination (where the first clause is marked by a conjunction clitic; §9.2). Clause chaining consists of a series of non-finite, medial clauses (§6.3.2.2) terminated by a finite clause. Subordination falls into adsentential subordination (where the subordinate clause functions as a sentential adjunct), adverbial subordination (where the subordinate clause functions as a predicate adjunct), adnominal subordination (where the subordinate clause functions as an adnominal), and complementation (where the subordinate clause functions as an argument).

TABLE 11-1. Irabu clause linking types

Linking type	Subtype
Coordination	Symmetrical
	Asymmetrical
Clause chaining	
Subordination	Adsentential
	Adverbial
	Adnominal
	Complement

11.2. Coordination

Coordination links two main clauses either by a conjunction word (§3.3.5.3) or by a conjunction clitic (§9.2) attached to the first clause.

11.2.1. Symmetrical coordination

In symmetrical coordination, two (or more) main clauses are linked by a free conjunction word such as *mata* ‘and’ (see §3.3.5.3 for a full list of conjunctions). Both clauses in the coordinate construction are fully independent, i.e. both clauses have a form that can be used independently, may be inflected for any finite form (§6.3.1), and are independently specified for speech act (declarative, interrogative, or imperative; §10.1). Also, there is an intonational break between the two clauses. Thus I insert a period ‘.’ rather than comma ‘,’ between the linked clauses.

(11-1) *nkjaan=na* *budur-nagi=mai* *umissi-ka-ta-m.*
old.times=TOP dance-APPR=too interesting-VLZ-PST-RLS

assuga, nnama=a mii-n-Ø=ni.
 but now=TOP see-NEG-NPST=CNF

‘In old days dances were fun; but now (we) don’t see (dances), eh?’

(11-2) *buuc=cu=mai ibir-tigaa ibi-ru.*
 sugarcane=ACC=too plant-CVB.CND plant-IMP

mata, nngi=nu paa=mai tur-tigaa tur-i-Ø.
 and sweet.potato=GEN leaf=too take-CVB.CND take-THM-IMP

‘Plant sugarcane if you want; and take sweet potato leaves if you want.’

11.2.2. Asymmetrical coordination

In asymmetrical coordination, the first clause is marked by a conjunction clitic. This clause is inflected for a finite form like the second, but there is a severe restriction on the finite inflection of the first clause. As summarised in TABLE 11-2 below, the restriction varies depending on the type of clitic that is attached to the clause. The clause marked by the temporal conjunction =*kja* (§9.2.1) is not a coordinate clause but an adsentential subordinate clause, and is excluded from the table below (and the verb form must be a finite unmarked form).

TABLE 11-2. Conjunction clitic and finite inflection

	Unmarked		Realis		Irrealis		
	PST	NPST	PST	NPST	INT	OPT	IMP
=(<i>ss</i>) <i>iba</i> ‘so’	+	-	-	-	+	-	-
= <i>suga</i> ‘but’	+	+	-	+	-	-	-

The following examples illustrate the use of *=(ss)iba* ‘so’ (see §9.2.2 for the morphophonemics of this clitic) with the unmarked past inflection and the irrealis intentional inflection.

- (11-3) *[aur nana-ci jaaci=nu munu=n*
 still seven-CLF.GENERAL eight-CLF.GENRAL=GEN man=DAT
aziki-i=du pai=nkai=mai par-ta=iba],
 trust-MED=FOC field=ALL=too leave-PST=so

nau=ja h-u-da u-Ø-m=bjaam=mi.
 what=ACC2 do-THM-NEG.MED PROG-NPST-RLS=I.wonder=CNF
 ‘(I) have trusted (the baby) to a child of only seven or eight years old and left for the field, so I wonder if (the child) is not doing something bad.’

- (11-4) *[kuma=n nci-di=ssiba], muc-i+par-i-Ø=juu=i.*
 this.place=DAT put-NPST.INT=so have-THM+leave-THM-IMP=
 =EMP=CNF

‘(I) will put (this bag) here, so take (it) away, OK?’

The following examples illustrate the use of *=suga* ‘but’ (See §9.2.3 for the morphophonemics of this clitic) with the unmarked inflection and the realis inflection.

demonstrating a construction like insubordination (or ‘incoordination’). Furthermore, the sentence-terminating coordinate clause is very often marked by the focus marker =*du*.

(11-8) *unukja=ga mmja unu kuusjuu=n=mai tavkjaa=ja*
 3PL=NOM INTJ that bombardment=DAT=too one.person=TOP

sīn-i-i, mmja, mž-taar a-tar=ruga=du.
 die-THM-MED INTJthree-CLF.HUMAN COP-PST=but=FOC

‘They (my child), among them one died in the bombardment; (they) were three (brothers), though.’

There is usually a major intonational break between the sentence-terminating coordinate clause and a clause that follows.

As illustrated in (11-9) below, the sentence-terminating coordinate clause may contain a focus marker within itself.

(11-9) *kazi=a fik-i-i=du ur-∅=ruga=du.*
 wind=TOP blow-THM-MED=FOC PROG-NPST=but=FOC

‘The wind is blowing, though.’

The above examples suggest that the sentence-final ‘focus marker’ does not really function as a focus marker, as the declarative focus marker never occurs sentence-finally in other contexts (§9.1.2.4) and the focus marker in principle appears only once in a sentence. It is unclear at this stage, however, what function this

sentence-final marker has.

11.3. Clause chaining

Cross-linguistically, clause chaining has been defined as ‘the use of non-finite forms not headed by a conjunction with temporal or circumstantial meaning’ (Myhill and Hibiya 1988: 363). This definition is morphological and functional. There are also syntactic criteria that identify clause chaining as opposed to other clause linking strategies such as adsentential subordination and coordination (§11.6). See also §7.1.3.2 for the related and important issue of the distinction between clause chaining (medial clause + main clause) and a phrasal SVC (medial verb + finite verb as a single complex predicate).

A clause chain consists of one or more non-finite clauses, specifically medial verbal clauses (§6.3.2.2), and one finite clause that terminates the chain. The following example illustrates a typical clause chain, in this case consisting of seven chained non-finite clauses (each of which is numbered a, b, c...g.) and a finite final clause (h).

(11-10) a. *unu cimi=u=kara guusi=tii uri=a tur-i-i,*
that claw=ACC=first ONM=QT 3SG=ACC2 take-THM-MED

b. *birafi=nkai rri-i,*
basket=ALL put-MED

c. *fitaa-ci, fitaa-ci, kai badzakar-i-i,*
two-CLF.GENERAL two-CLF.GENERAL that.way raise.claw-THM-
-MED

d. *f-fa-Ø=ti*

as-i-i,

bite-THM-NPST.INT=QT

do-THM-MED

e. *uri=a tur-i-i,*

3SG=ACC2 take-THM-MED

f. *rri-i,*

put-MED

g. *mata kuzimi-gama=u=mai*

bur-i-i,

and small.claw-DIM=ACC=too

break-THM-MED

h. *ai=sii=du*

fau-tar.

that.way=INST

eat-PST

‘(I) take the claws (of the crabs)_[a], put them into a Birafu (small basket)_[b];
(crabs) raise their claws, two (claws)_[c], trying to bite me_[d], (I) catch them_[e], put
(them) into (the Birafu)_[f]; and (in so doing I) also break the small claws_[g]; (I)
ate (crabs) in this way_[h].’

As illustrated above, chained clauses encode temporally sequential events (or ‘foreground’ in Hopper’s 1979 terms) or temporally non-sequential, descriptive events/states (‘background’). For example, the foreground clauses in (11-10) are [a], [b], [e], and [f], which are surrounded by background clauses that describe each event, e.g. [d] describes the circumstantial event of [c], and these two clauses describe the

background for the sequential events [a] and [b].

Thus a medial clause with *-i* (affirmative) or *-da* (negative) is contextual, used either as a foreground clause or as a background clause.⁷² Although the foreground-background distinction is largely contextually inferred, there are several means to make it explicit. These are (1) same or switch subject reference tracking, (2) limiter clitic attachment, and (3) second accusative marking.

First, when the subject of a following clause is the same as that of the medial clause in question, the foreground function is usually entailed (e.g. (a) and (b), (e) and (f)). This is not exceptionless, as illustrated in (11-10) where the (g) clause has the same subject as (h), but they overlap temporally. On the other hand, if the subject is switched, the two clauses are not normally temporally sequential, but are contrasted with each other. For example, in (11-10), the (c) clause has a different subject ‘crab’, and it serves as a background clause for the preceding sequential events (a) and (b).

Second, the limiter clitic *=kara* (§9.4.5) expresses ‘after’, marking the foreground use of the medial clause to which it is attached, as shown in (11-12).

- (11-11) [*nuuma=n nuur-i-i]=du par-tar.*
horse =DAT ride-THM-MED=FOC leave-PST
a. ‘(He) rode a horse, and left.’
b. ‘(He) left riding a horse.’

- (11-12) [*nuuma=n nuur-i-i]=kara=du par-tar.*
horse =DAT ride-THM-MED=after=FOC leave-PST

⁷² This conflation of foreground and background functions is a typical feature of clause chaining in Asian languages (Central, South, and East Asian languages) in general (Bickel 1998).

a. ‘(He) rode a horse, and left.’

*b. ‘(He) left riding a horse.’

Third, the second accusative =*a* is largely restricted to medial clauses in clause chaining, and it usually indicates the background function of the medial clause in which it appears. (see §4.3.3.1). Thus, in the following example, only interpretation (b) is allowed.

(11-13) [*bura*=*a* *mak-i-i*]=*du* *ifi-tar*.
sleeve=ACC2 turn.up-THM-MED=FOC go-PST

*a. ‘(He) turned up his sleeves, and went.’

b. ‘(He) went with his sleeves turned up.’

The connection between the second accusative and its backgrounding function is explainable. As noted in §4.3.3.1, the second accusative typically marks a non-specific and/or indefinite NP, a feature of low transitivity of the clause in which it appears (Hopper and Thompson 1980: 252-253). According to Hopper and Thompson, low transitivity features tend to covary cross-linguistically, so that a clause with a non-specific/indefinite O is likely to have atelic aspect, i.e. temporally non-sequential and therefore backgrounded aspect. Hopper and Thompson’s Transitivity Hypothesis is that transitivity features covary so as to explicate a foreground and a background in discourse. The strong connection in Irabu between the second accusative and backgrounding is thus an empirical support of their hypothesis.

In (11-10) above, it can be seen that both the (a) clause and the (e) clause contain the second accusative, even when each of them is logically sequential with (b) and (f)

respectively. However, they *entail* iterativity, i.e. (a)-(b) are iteratively carried out, so are (e)-(f). Thus the presence of the second accusative in a sequential clause does affect the interpretation of sequential clauses, implying some temporal overlap rather than a perfective sequence.

11.4. Subordination

Subordination embeds a clause within the main clause, making the subordinate clause function as a constituent of the main clause, i.e. an argument, an adnominal, or an adjunct. The latter is either a predicate adjunct (adverb) or a sentential adjunct.

The distinction between adsentential and adverbial clauses is justified on the basis of whether the clause is under main clause illocutionary force, as will be discussed in §11.6.3.

11.4.1. Adsentential subordination

An adsentential subordinate clause is a sentential adjunct of the main clause. It functions as a spatial-temporal setter, providing a topic or framework for subsequent discourse described by the main clause ('sentence margin' in Thompson and Longacre's 1985: 236 terms; see also Bickel 1998: 384). It usually occurs at the left margin of a sentence, as illustrated in (11-14) below, but it may also be nested within the main clause, as in (11-15). This nesting structure often occurs when the subject of the main clause is a topic (cf. internal topic marking is disallowed in a subordinate clause; §11.6.2).

(11-14) [*saki=u num-tigaa*], *ba=a sugu=du niv-Ø*.

Sake=ACC drink-CVB.CND 1SG=TOP right.away=FOC sleep-NPST

‘[When I drink Sake], I sleep easily.’

(11-15) *ba=a* [*saki=u* *num-tigaa*], *sugu=du* *niv-Ø*.

1SG=TOP Sake=ACC drink-CVB.CND right.away=FOC sleep-NPST

‘[When I drink Sake], I sleep easily.’

Both finite and non-finite clauses serve as an adsentential clause. The finite adsentential clause is a clause with the temporal conjunction clitic =*kja* ‘when; while’ (§9.2.1). Also, the adnominal clause with a formal noun such as *tukja* ‘when’, *mai* ‘before’, *atu* ‘after’, *jau* ‘state’, and *tami* ‘purpose’ (§4.2.1) functions like a finite adsentential clause, even though it is syntactically not a sentential adjunct, but occurs within an NP (adnominal clause + head noun). See §4.2.1 for these formal noun constructions, which are not dealt with in what follows. The non-finite adsentential clause is a converbal clause (§6.3.2.1). Many but not all converbal clauses are adsentential clauses, including: the (negative) conditional clause ‘if (not)’, the causal clause ‘because; so’, the continuous clause ‘whenever’, the immediate anterior clause ‘as soon as’, and the aversive clause ‘lest’.

11.4.1.1. Temporal clauses with =*kja* ‘when/while’

A temporal adsentential clause is a finite clause designating ‘when/while’ marked by the temporal conjunction clitic =*kja* ‘when’ (§9.2.1).

(11-16) [*ba=ga* *jarabi=a* *s-i+ur-Ø=kjaa*],

1SG=NOM child=ACC2 do-THM+PROG-NPST=while

ffa+mur-ja=mai *asi-Ø.*
 child+sit-NLZ=too do-NPST

‘[When I was a child], (I) would do a baby sitter.’

In the above example, the main clause ends in an unmarked non-past form, which encodes habitual aspect (§10.5.2.6).

11.4.1.2. Conditional clause

A conditional clause is a clause encoding the ‘if’ relation or the ‘when’ relation. This clause is headed by one of five conditional converbs, *-ba*, *-tigaa* ‘if; when’ and *-dakaa* ‘if not’ and *-djaadakaa* ‘if will not’ (§6.3.2.1).

The conditional form *-ba* ‘if; when’ is restricted to fixed expressions such as the following:

(11-17) [*vva=ga* *kak-a-ba]=du, *zau-kar-Ø.**

2SG=NOM write-THM-CVB.CND=FOC good-VLZ-NPST

‘If you write, (that) will be good.’ [fixed expression: Stem-*ba(=du)* *zaukar*

‘Why not ...’?]

(11-18) [*ba=ga* *kak-a-ba]=mai, *zjaubu=ru?**

1SG=NOM write-THM-CVB.CND=even alright=FOC

‘Even if I write, (is that) alright?’ [fixed expression: Stem-*ba=mai* *zjaubu* ‘It is OK to...’]

Conditional ‘if, then’ is more commonly expressed by *-tigaa*.

(11-19) [*zin=nu a-tigaa*], *kav-Ø=suga*.

money=NOM exist-CVB.CND buy-NPST=but

‘[If (there) is money], I would buy, though.’ [adsentential subordination]

The negative conditional form *-dakaa* encodes ‘if not; unless’.

(11-20) [*zin=nu para-a-dakaa*], *idah-a-n-Ø=dooi*.

money=ACC pay-THM-NEG.CVB.CND let.go.out-THM-NEG-NPST=
=EMP

‘[If (you) don’t pay money], I will not let you out.’

The negative conditional intentional form *-djaadakaa* encodes ‘if not’ with an intentional meaning.

(11-21) [*zin=nu para-a-djaadakaa*], *idah-a-n-Ø=dooi*.

money=ACC pay-THM-NEG.CVB.CND.INT let.go.out-THM-NEG-NPST=
=EMP

‘[If (you) won’t pay money], I will not let you out.’

11.4.1.3. Causal clause with converb ‘because; if/when’

A causal clause is a clause encoding ‘because’ or ‘if/when’.⁷³ This clause is headed by the causal converb *-ba*.

⁷³ This semantic conflation of causal and temporal meaning in one subordinating morpheme is common cross-linguistically. Thompson and Longacre (1985: 181) state that this is because two events which are mentioned together as being simultaneous or adjacent in time are often inferred to be causally related.

(11-22) [*ffa=nu mmja mainici nak-i-ba*]=*du*
 child=NOM INTJ everyday cry-THM-CVB.CSL=FOC

niv-vai-n-Ø=saa.

sleep-POT-NEG-NPST=R.EMP

‘[Because (my) child cries everyday], (I) cannot sleep.’

(11-23) [*unu mc=cu ik-i-ba*]=*du* *kujagaa=nkai idi-r.*
 that road=ACC go-THM-CVB.CSL Kujagaa=ALL exit-NPST

‘[If (you) go through that road], (you) will get to Kuyagaa.’

11.4.1.4. Continuous clause *-gakaazi* ‘whenever’

A continuous clause is headed by a continuous converb with *-gakaazi* ‘whenever’. All the collected examples in my texts indicate that a continuous clause encodes exasperation on the part of the speaker.

(11-24) [*kari=u jurav-gakaazi*], *saki-gama=u muc-i+kuu-Ø=ti=du*
 3SG=ACC call-CVB.CNT Sake-DIM=ACC carry-THM+come-
 -IMP=QT=FOC

asi-Ø.

do-NPST

‘[Whenever (we) call him], (he) says “bring Sake, please.”’

11.4.1.5. Immediate anterior clause with *-tuu* ‘as soon as’

An immediate anterior clause is headed by an anterior converb with *-tuu* ‘as soon as’.

(11-25) [Context: in the past a pupil had to wear a ‘vernacular board’ around his/her neck when the teacher heard him/her using Irabu rather than Japanese.]

asi, [unu sinsii=ga par-tuu]=du, mmja,
 then that teacher=NOM leave-PST=FOC INTJ

nubui=n kaki+ar-Ø munu=u=baa tur+tur.
 neck=DAT hang+RSL-NPST thing=ACC=TOPRED+take

‘Then, [as soon as the teacher left], (the students) would take off the thing (the vernacular board) from the neck.’

11.4.1.6. Aversive clause with *-zim* ‘lest’

An aversive clause is headed by an aversive converb with *-zim* ‘lest’.

(11-26) [*kuma=n niv-vi-i njaa-zim*],
 this.place=DAT sleep-THM-MED PRF-CVB.AVR

naugara ah-u-di.
 something do-THM-INT

‘[Lest (we) should fall asleep here], let’s do something.’

11.4.2. Adverbial subordination

Adverbial subordination embeds a clause within the main clause as a predicate adjunct, i.e. as an adverb (§3.3.5.1). An Irabu adverbial clause modifies the main clause predicate as a manner modifier or a purpose modifier, and is encoded by a converbal clause. Just as there are very few underived adverbs in Irabu (§3.3.5.1), only two

converbal clause types are used for adverbial subordination, i.e. (1) a simultaneous clause, and (2) a purpose clause, and (2) is being reanalysed as a monoclausal element, i.e. a phrasal SVC.

11.4.2.1. Simultaneous clause with *-ccjaaki* ‘while’

A simultaneous clause is headed by a simultaneous converb with *-ccjaaki* ‘while’.

(11-27) [*tatimma asĭ-ccjaaki*]=*du* *tii=ju* *kai+kai* *as-i+ur-Ø*.
 stilt do-CVB.SIM=FOC hand=ACC RED+change do-THM+PROG
 -NPST

‘(He) is taking his hands off the stilt several times [while doing stilts].’

(11-28) [*naci-ccjaaki*],*c-ci+u-tar* *cĭn=nu=baa* *nug-i-i...*
 cry-CVB.SIM wear-THM+PROG-PST clothes=ACC=TOP take.off-THM-
 -MED

‘She took off her clothes [while crying].’

11.4.2.2. Purpose clause with *-ga* ‘(go) in order to’

A purpose clause is headed by a purposive converb with *-ga* ‘in order to’.

(11-29) *nnama=kara* [*ssjugaci=nu* *siki+munu*
 now=ABL Obon.festival=GEN offering+thing

kav-ga], *ifi-kutu*.
 buy-CVB.PUR go-OBL

‘(I) have to go [to buy things for offering in the Obon festival].’

(11-30) [*sinsii=ju jurav-ga*], *ik-a-di*.
teacher=ACC call-CVB.PUR go-THM-INT
‘Let’s go [to call the teacher].’

This converb only co-occurs with directional verbs such as *ifi* ‘go’, *fii* ‘come’, and *mudur* ‘return’, and so on, and no word can intervene between the two. It is thus like a phrasal SVC (§7.1.3), and I describe it as an intermediate case between a biclausal construction (adverbial clause + main clause) and a phrasal SVC (I thus do not indicate the clausal boundary with ‘,’ as in the case of other converbal clauses). For example, among the five criteria I suggested in §7.1.3.2 for the distinction between a biclausal construction and a phrasal SVC, which are restated in (11-31) below, the purposive converbal construction satisfies four, the exception being (e).

- (11-31) a. monoclausality: nothing can intervene between the two verbs
b. argument sharing
c. encoding of sequential events, manner, motions, etc.
d. shared predicate categories such as tense, mood, negation, etc.
e. single intonational unit

With respect to (a), the purposive converb and the main clause verb form a tight syntactic unit, and nothing can intervene between them. With respect to (b), the two verbs together require a single set of arguments. With respect to (c), it is fairly common cross-linguistically for an SVC to encode purpose (Foley and Olson 1985; Aikhenvald

2006). With respect to (d), predicate categories such as tense, negation and interrogative hold/have scope over an entire purposive construction. However, this feature is seen in Irabu subordination in general (§11.6.3). Finally, (e) distinguishes a purposive construction from a phrasal SVC. As noted in §2.9.4, rhythmic alternation maps onto an entire phrase if the first member of a phrase has one mora only. Thus the phrasal SVC in (11-32) shows the prosodic pattern (a) rather than (b) (/H/ represents High tone, and /Ø/ toneless). However, in a purposive construction in (11-33), the attested prosodic pattern is (b) even when the first member (i.e. the purposive converb) has one mora. Thus prosodically the construction is not a phrase.

(11-32) *jak-i-i* *fau-tar.*
 burn-THM-MED eat-PST
 ‘burned and ate.’
 a.

(H)	(Ø)(Ø)
-----	--------

 *b.

(H)	(H)(Ø)
-----	--------

(11-33) *kav-ga* *ifi-kutu.*
 buy-CVB.PUR go-OBL
 ‘go to buy’
 *a.

(H)	(Ø)(Ø)
-----	--------

 b.

(H)	(H)(Ø)
-----	--------

11.4.3. Adnominal subordination

11.4.3.1. Overview

An adnominal clause functions like an adnominal word (§3.3.2), so that it directly fills

the modifier slot of an NP without carrying case, occurring prenominally. No relativiser is required, but the predicate verb of the adnominal clause must have the finite unmarked form (inflecting only for tense; §6.3.1; §10.5.1.3). In the relativisation of the argument of the adnominal clause, the ‘gap’ strategy (Keenan 1985) marks the position relativised. Any argument, core, extended core, or peripheral, can be relativised. Furthermore, an NP that cannot be seen as an argument of the adnominal clause can establish a modifying semantic relationship with the adnominal clause, where pragmatic inference determines how the adnominal clause narrows down the reference without the head noun playing any role in the adnominal clause. In this latter case it is more appropriate to call the modificational relationship simple attribution rather than relativisation.⁷⁴ In what follows I first describe relativisation, followed by simple attribution.

11.4.3.2. The NP that can be relativised

In relativisation, the underlying adnominal clause contains an NP coreferential with the head NP that it modifies. This coreferential NP is left out of the surface adnominal clause, leaving a gap. In the following example, the adnominal clause is shown in brackets.

(11-34) [*kuu-ttar*] *pžtu=u=baa*
 come-NEG.PST man=ACC=TOP

⁷⁴ The encoding of relativisation and simple attribution with the same structure is found in Japonic adnominal clauses in general. Teramura (1993) refers to this distinction between relativisation and simple attribution as ‘internal’ and ‘external’ relationships respectively, noting whether the NP relativised can be considered to be underlyingly an internal member (i.e. an argument) to the adnominal clause.

‘What is the thing [you think you want to become]?’ [E argument: the argument of the ‘become’ verb]

(11-38) *[muzi kar-Ø] juurja=n=na*
 barley harvest-NPST season=DAT=TOP

muzi=nu puu-gama f-fi-i c-ci-i...
 barley=GEN spike-DIM bite-THM-MED come-THM-MED

‘In the season (when) [(one) harvests barley], (I) will bring barleys holding them in my mouth, and...’ [peripheral argument: temporal]

(11-39) *banti=ga zidai=n=na, munu=u cijü-Ø=ti asi-tigaa,*
 1PL=GEN time=DAT=TOP thing=ACC make-NPST=QT do-CVB.CND

[munu=u jafi-Ø] konro=mai njaa-t-ta=iba...
 thing=ACC burn-NPST grill=even not.exist-PST=so

‘In our times, when it comes to cooking, (there) was no grill [with which one] burns things], so...’ [peripheral argument: instrumental]

(11-40) *nau=ti=ga aš-tar=gagara,unu,*
 what=QT=FOC say-PST=I.wonder INTJ

[ffa=nu jamatu+jumi=a s-i+ur-Ø] sjuu...
 child=NOM mainland.Japan+wife do-THM+PROG-NPST old.man

‘How can I say, well, the old man [(whose) child is a wife of a Japanese

mainlander]...’ [possessor]

11.4.3.3. Relativisation of an NP from a complement clause

If the underlying adnominal clause contains a sentential complement (introduced by quotative =*ti(i)*), it is still possible for an NP within the complement to be relativised. For example, from the underlying clause (11-41a), the NP *pžtu* (subject of the complement clause) can be relativised, as shown in (11-41b).⁷⁵

(11-41) a. *ba=a* [*pžtu=nu* *icigu* *togucinupama=n*
1SG=TOP man=NOM always Toguchi.beach=DAT

bizi+ur-Ø]=ti=du *až-tar.*
sit+PROG-NPST=QT=FOC say-PST

‘I said [that a man is always sitting on Toguchi beach].’

b. [*ba=ga* [*icigu* *toguchinupama=n*
1SG=NOM always Toguchi.beach=DAT

bizi+ur-Ø]=ti *až-tar]*_{adnm} *pžtu*
sit+PROG-NPST=QT say-PST man

‘The man [(who) I said is always sitting on Toguchi beach].’

⁷⁵ The (b) examples are taken from texts, and the corresponding (a) examples were constructed by the present author and checked by native consultants.

11.4.3.4. Relativisation of an NP from an adjunct clause

The NP in an adjunct clause (an adverbial clause or an adsentential clause; §11.4.1, §11.4.2) may be relativised, even though this is not common in natural discourse. Thus from the structure [C_{ad}[C_{main}]], the NP in C_{ad} (adjunct clause) can be relativised, giving rise to an NP [C_{ad}[C_{main}]]_{adnm} N_{head}. The relativisation of core arguments is the most common, but a peripheral argument may also be relativised. In (11-42) the relativisation of the direct object NP in an adverbial clause (simultaneous converbal clause) is illustrated. (11-42a) is an underlying clause, from which (11-42b) is derived.

(11-42) a. *ba=a* [*pžtu=u* *maci-ccjaaki*]=*du* *sigutu=u*
 1SG=TOP man=ACC wait-CVB.SIM=FOC work=ACC

as-i+u-tar.

do-THM+PROG-PST

‘I was doing work [while waiting for a man].’

b. [*ba=ga* [*maci-ccjaaki*]] *sigutu=u*
 1SG=TOP wait-CVB.SIM work=ACC

*as-i+u-tar]*_{adnm} *pžtu.*

do-THM+PROG-PST man

‘The man [(whom) I was doing work [while waiting for]].’

(11-43) below illustrates the relativisation of the locative NP in a conditional adsentential clause.

(11-43) a. *[kunu jaa=n simav-tigaa], ngjamasī-gi-ka-Ø-m.*
 this house=DAT live-CVB.CND noisy-seem-VLZ
 -NPST-RLS

‘[If I live in this house], (it) should be noisy, it seems.’

b. *[[simav-tigaa], ngjamasī-gi-kar-Ø]_{adnm} jaa.*
 live-CVB.CND noisy-seem-VLZ-NPST house

‘A house [in which [if I live], it should be noisy].’

11.4.3.5. Relativisation of an NP from other kinds of complex clause

It is impossible for an NP within a coordinate clause (§11.2) to be relativised. When the NP in a clause chain (§11.3) is relativised, the relativised NP must belong in the final main clause, not in a chained clause. In (11-44a) below, the topic-marked subject belongs in the main clause. It may be relativised, deriving (11-44b).

(11-44) a. *hikooki=a [bakudan=nu utus-i-i], [sīn-as-i-i],*
 plane=TOP bomb=ACC drop-THM-MED die-CAUS-THM-MED

[kizjuu=ju vc-i-i], par-tar.
 machinegun=ACC shoot-THM-MED leave-PST

‘The plane [dropped bombs], [killed (people)], [fired machineguns, and] left.’

- b. *[[bakudan=nu utus-i-i], [sin-as-i-i],*
 bomb=ACC drop-THM-MED die-CAUS-THM-MED

[kizjuu=ju vc-i-i], [par-tar]_{adnm} hikooki.
 machinegun=ACC shoot-THM-MED leave-PST plane
 ‘The plane [(that) [dropped bombs], [killed (people)], [fired machineguns,
 and] left].’

(11-45) and (11-46) below further illustrate the restriction of relativisation in clause chaining. In (11-45) below, from the underlying clause (11-45a), the E argument NP of the final main clause is relativised to derive (11-45b).

- (11-45) a. *uja=a [ffa=u nas-i-i], pžtu=n*
 parent=TOP child=ACC give.birth-THM-MED man=DAT

aziki-tar.

trust-PST

‘The parent (mother) [gave birth to a child, and] entrusted it to a man.’

- b. *[uja=nu [ffa=u nas-i-i],*
 parent=NOM child=ACC give.birth-THM-MED

aziki-tar]_{adnm} pžtu

trust-PST man

‘the man [to whom the parent (mother) [gave birth to a child and]

entrusted it]’

If the final clause here is turned into a chained clause, as shown in (11-46) below, then the relativisation of the same E argument NP becomes impossible.

(11-46) a. *uja=a* *[ffa=u* *nas-i-i]*, *[pžtu=n*
parent=TOP child=ACC give.birth-THM-MED man=DAT

aziki-i], *par-tar*.
trust-MED leave-PST

‘The parent (mother) [gave birth to a child], [entrusted it to a man, and] left.’

b. **[uja=ga* *[ffa=u* *nas-i-i]*, *[aziki-i]*,
parent=NOM child=ACC give.birth-THM-MED trust-MED

*par-tar]*_{adnm} *pžtu*
leave-PST man

[Intended meaning] ‘a man [with whom the parent (mother) [gave birth to a child], [entrusted it, and] left].’

If the structure of the last medial clause and the final clause (i.e. *azikii partar*) in (11-46a) is rearranged as a monoclausal constituent, i.e. a phrasal SVC, with single phrasal prosody (§7.1.3.2 (5); see also §11.4.2.2), *azikii partar* is treated as the main clause predicate VP governing *uja* ‘a parent’ (A argument), *ffa* ‘child’ (zero

(11-49) [*vva=ga budur-tar*] *kagi-sa=a mmja iciban.*

2SG=NOM dance-PST beautiful-NLZ=TOP INTJ best

‘The beauty [with which you danced] is, well, the best.’

Further examples follow, which demonstrate that in principle any head noun and any clause can establish the modificational relationship as long as pragmatic inference can permit this. In (11-50), the head noun *kui* ‘voice’ and the adnominal clause *sitabutu=nu ur* ‘there is a bedfellow’ establish a modificational relationship, even though the head noun has no role in the adnominal clause. By pragmatic inference the hearer knows that this adnominal clause narrows down the type of voice heard over the telephone.

(11-50) *hai, kuri=a mmja [sitabutu=nu ur-Ø] kui=dooi=tii.*

Hey 3SG=TOP well bed.fellow=NOM exist-NPST voice=EMP=QT

‘Hey, this (voice of her that is heard over telephone) sounds like a voice which is heard when her bedfellow is at her place.’ [i.e. This voice is so upset that this probably indicates that her bedfellow is at her place now.]

In (11-51a) below, the interpretation is that the head noun has a role in the adnominal clause (as a patient subject), whereas in (11-51b) the interpretation is that the head noun has no role.

(11-51) a. [*cuu-fti sġgu-rai-tar*] *mipana*

strong-AVLZ hit-PASS-PST face

‘The face that was terribly hit.’

b. [cuu-fi	siġu-rai-tar]	mipana
strong-AVLZ	hit-PASS-PST	face

‘The face that (indicates that he) was terribly hit.’ [e.g. when you are looking at a person with a bitter face, you infer that this person must have been terribly beaten.]

11.4.4. Complementation

Complementation is the ‘syntactic situation that arises when a notional sentence or predication is an argument of a predicate’ (Noonan 1985:42). Complementation involves two syntactic constructions: quotative construction (§11.4.4.1) and adnominal clause + formal noun (§11.4.4.2).

A complement clause functioning as the object of speech act verbs such as *až* ‘say’, *cīfi* ‘hear’, and *tanum* ‘ask’, and cognitive verbs such as *umuv* ‘think’ is introduced by the quotative =*ti(i)*. Otherwise, no special complementiser morpheme exists in Irabu. Rather, there is a grammaticalisation path from an adnominal clause structure towards a complement clause structure, and a formal noun (*su(u)* ‘thing; man’, *kutu* ‘fact’, and *munu* ‘thing’) heading an adnominal clause functions like a complementiser. Thus, this latter type of complementation is actually a subtype of adnominal clause structure, but functions as a complement clause.

11.4.4.1. Quotative complement

A quotative clause is a type of finite complement clause, functioning as an object complement of speech act verbs such as *až* ‘say’, *asī* ‘do’ (which has the senses ‘do’ and ‘say’), *panasī* ‘speak’, etc., and cognitive verbs such as *umuv* ‘think’, *kangair* ‘think’, *sīi* ‘know’, etc.

(11-52) [*kjuu=ja ueno=nkai=du ik-i-i t-tar=tii]=du*
 today=TOP Ueno=ALL=FOC go-THM-MED come-PST=QT=FOC

asī+asī.

RED+do

‘(She) goes like, [“Today (I) went to Ueno”].’

(11-53) [*uri=u fa-a-baa=tii]=ja umu-u-n-∅.*
 3SG=ACC eat-THM-NPST.OPT=QT=TOP think-THM-NEG-NPST

‘(I) don’t think like, [“(I) want to eat it”].’

Unlike other subordinate clauses, a quotative clause can contain a topic marker and/or focus marker independently of the main clause in which it is embedded, as it is direct quotation. In (11-54) below, the quotative clause contains the topic marker =*ja* and the focus marker =*du*. Note that the quotative clause itself is marked by the focus marker =*du*, which belongs in the main clause.

(11-54) [*kuri=a nau=n=mai=du nar-i+ufi-∅=tii*]
 3SG=TOP what=DAT=too=FOC become-THM+PROS-NPST=QT

umu-i-ba=du, puka=nkai=ja ik-ah-a-n-∅=dooi.
 think-THM-CVB.CSL=FOC outside=ALL=TOP go-CAUS-THM-
 -NEG-NPST=EMP

‘(It is) because (I) think like, [“This (guy)’s gonna become (troubled by) whatever trouble”], (that) (I) do not let you go out.’ [object complement]

11.4.4.2. Adnominal clause structure functioning like a complement

Two formal nouns, *su(u)* ‘thing; man’ (§4.2.1.8) and *kutu* ‘fact’ (§4.2.1.4), function like an English complementiser ‘that’, and the modifying adnominal clause functions like a complement clause. The formal nouns are glossed COMP below.

In (11-55a) below, the NP consisting of the adnominal clause and the formal noun *su(u)* (which is realised as *ruu* as a result of assimilation) functions as a direct object. As an NP, it carries case, just like other NPs as illustrated in (11-55b).

- (11-55) a. [*fau-tar=ruu*]=*ju=mai* *bassi-i=du* *ar-∅*.
 eat-PST=COMP=ACC=even forget-MED=FOC RSL-NPST
 ‘(He) has even forgot [the fact that (he) ate].’ [object complement]
- b. [*uri*]=*u=mai* *basi-i=du* *ar-∅*.
 3SG=ACC=even forget-MED=FOC RSL-NPST
 ‘(He) has forgot even [that].’ [object NP]

There are two important differences between a formal noun construction and a quotative clause construction. First, whereas the former carries case when functioning as an argument just like an argument NP, the quotative clause does not carry case in the same environment. Second, whereas quotation embeds a fully finite, fully independent clause of any speech act type (i.e. declarative, interrogative, or imperative; §10.1) into a main clause, an NP consisting of an adnominal clause and a formal noun is subject to severe restrictions, just like other adnominal clauses (§11.4.3.1): (1) the adnominal clause is a finite unmarked form; (2) the adnominal clause cannot contain its own topic and focus, as a general restriction on subordination; (3) the adnominal clause cannot

have an independent interrogative/imperative force, again as a general restriction on subordination. In (11-56) below, the quotative clause is headed by a finite realis verb, contains the topic marker =*a*, and is an interrogative clause.

(11-56) [*vva=a kuu-ka-ta-m=mu=tii*] *až-tar*.
 2SG=TOP hard-VLZ-PST-RLS=Q=QT say-PST
 ‘(I) said, [“Did you feel painful?”]’

By contrast, the predicate of the adnominal clause in (11-57) below is a finite unmarked verb, the clause does not contain the topic marker, and the clause cannot be an interrogative or imperative clause.

(11-57) [*vva=ga kuu-ka-tar=ru*]=*u=baa* *s-si+ur-Ø*.
 2SG=NOM hard-VLZ-PST=COMP=ACC=TOP know-THM+PROG-NPST
 ‘(I) know that you felt painful.’

11.5. Focus construction (*kakarimusubi*)

This section describes the focus construction. Focus marking is discussed in this chapter because it is associated with complex clause structures (e.g. a focus marker may be attached to an adsentential clause, and so on.).

11.5.1. A brief note on *kakarimusubi*

The focus construction in Irabu and other Ryukyuan varieties and in Old Japanese is known as *kakarimusubi* (literally ‘marking and predication’) in Japanese linguistics (see Hendriks 1998 and Shinzato and Serafim 2003 for a historical account of Japonic

kakarimusubi, and Karimata 1999 and Uchima 1985 for Ryukyuan *kakarimusubi*). *Kakarimusubi* is characterised by two features: focus marking and verbal concordance, as discussed below.

As a simple approximation, a standard Japonic *kakarimusubi* is a concord phenomenon where the use of a focus marker triggers the use of a specific verb form, e.g. adnominal form or *Rentaiki*, instead of the expected finite, or *Shushikei* (based on Shinzato and Serafim 2003: 189). Pragmatically, the focus marking on an argument (or another non-predicate element such as an adverb) entails the presupposed status of the predicate.

Whereas a standard Japonic *kakarimusubi* is a ‘positive’ concordance phenomenon where the use of a focus marker *requires* the use of a specific verb form, Irabu *kakarimusubi* is a ‘negative’ concordance phenomenon, where the use of a focus marker *blocks* the use of a specific verb form, the finite realis form (§6.3.1), due to the pragmatic characteristic that this verb form marks an assertion carrying new information (§10.5.1.1, §10.5.1.3).⁷⁶ That is, the finite realis form marks predicate focus, thus this form cannot co-occur with the focus marking on the argument (argument focus, where the predicate is presupposed).

(11-58) *ba=ga=du* *mii-tar/-di/*-ta-m*
 1SG=NOM=FOC do-PST/-INT/*-PST-RLS
 ‘I saw/will see/*(surely) saw.’ [predicate is presupposed]

In argument focus structure, the predicate verb form is a finite form other than the realis

⁷⁶ On the other hand, *kakarimusubi* in other Miyako Ryukyuan varieties may be referred to as ‘no concordance’ phenomenon, since the use of a focus marker does not restrict the choice of verb form, i.e. any verb inflection is possible (Uchima 1985).

form, i.e. an unmarked form (§10.5.1.3) or an irrealis form (§10.5.1.2). Thus Irabu *kakarimusubi* can be explained in terms of the pragmatic function of the verb form, rather than in terms of a mere syntactic concordance, as in the case of a standard Japonic *kakarimusubi*.

In what follows I note which element in a sentence can be focus-marked, especially noting the focussability of the coordinate clauses, chained clauses, and subordinate clauses described above (see §9.1.2.4 for a description of which element can be focus-marked in a simple sentence). I only note the declarative focus clitic =*du* (§9.5.2.1) here, but the generalisation holds for other focus markers (§9.5.2.2).

11.5.2. Focus marking

The focus clitic =*du* has scope over a clause-level constituent in a sentence, i.e. an argument, a predicate, or an adjunct (see §9.1.2.4 for more detail on focus marking on a predicate). It appears once only in a sentence, except if the sentence embeds a quotative clause, which itself shows a sentential feature (cf. §11.4.4.1, (11-52)).

With regard to focus marking on an argument, since the focus clitic has scope over the whole argument, it never occurs within a complex NP. Thus the modifier, whether it is an NP, an adnominal word, or an adnominal clause, cannot be focus-marked. In (11-59) below, the pragmatically focused element in B's speech is the modifier NP *ucinaa=nu* of the superordinate peripheral argument NP (ablative-marked), but the focus marker does not mark the modifier NP but the entire peripheral argument NP (indicated by square brackets) that contains the modifier NP.

- (11-59) A. *pžsara=nu* *kuukoo=ru?* *ucinaa=nu* *kuukoo=ru?*
 Hirara=GEN airport=Q Okinawa=GEN airport=Q

‘(Are you leaving from) the airport in Hirara, or the one in Okinawa?’

B. [*ucinaa=nu kuukoo=kara*]=*du* *ifi-kutu*.

Okinawa=GEN airport=ABL=FOC go-OBL

‘I am supposed to go [from the airport in HIRARA].’

A complement clause may be focus-marked if it is an argument of the main clause.

(11-60) [*nnama=kara ik-i-i, kurus-a-di=tii*]=*du až-tar=ca*.

now=ABL go-THM-MED kill-THM-INT=QT=FOC say-PST=HS

‘(He) said, [“(I) will go now, and kill (him)”].’

(11-61) [*cin=nu mima-i+u-tar=ruu=ju*]=*du*

clothes=ACC tidy-THM+PROG-PST=COMP=ACC=FOC

juu ubui+ur-Ø.

clearly remember+PROG-NPST

‘(I) remember [that (he) would tidy up my clothes].’

An (sentential) adjunct, an adsentential clause (11-62) or an adverbial clause (11-63) may be focus-marked.

(11-62) [*vva=ga mii-n-Ø=kja*]=*du, bara-i+ur-Ø=pazi*.

2SG=NOM look-NEG-NPST=when=FOC laugh-THM+PROG-NPST=
=maybe

‘(It is) [when you are not aware] (that) (they) are laughing, perhaps.’

(11-63) [*aagu=u asi-ccjaaki*]=*du*, *ici+muju ark-i+u-tar*.
song=ACC do-CVB.SIM=FOC five+six walk-THM+PROG-PST
‘(It was) [while singing a song] (that) the five or six (people) were walking.’

A chained clause or a series of chained clauses may also be focus-marked.

(11-64) *unusjuku num-i-i, bjuu-i-i=du*,
so.much drink-THM-MED get.drunk-THM-MED=FOC

aagu=mai až-tar.
song=too say-PST
‘(I) drank so much, got drunk, and then sang a song, too.’ [medial clause as
adsentential clause]

According to my text data, the focus-marked clause in a clause chain is always the last medial clause in a chain, as illustrated above. This suggests that an entire medial clausal chain ($M_1, M_2, M_3...M_n$) is focus-marked, as opposed to the final clause (F). Thus the clause structure of (11-64) is schematised as $[[[M_1], M_2]_{=FOC} F]$.

An asymmetrical coordinate clause is not focus-marked. This means that an asymmetrical coordinate clause and a following clause cannot establish a single presupposition-focus information structure. Seemingly focus-marked asymmetrical coordinate clauses are in most cases sentence-terminating coordinate clauses (§11.2.2), and as noted in §11.2.2, this focus marker does not function as such, as there is no

clause that governs it. The very few attested examples where an asymmetrical coordinate clause seems to be marked by the focus clitic and further followed by another clause, such as (11-65), turn out to be bisentential in several respects.

(11-65) *kazi=a fik-i-i=du ur-∅=ruga=du.*
 wind=TOP blow-THM-MED=FOC PROG-NPST=but=FOC

kunkuriito ja-i-ba=du, maadaa s-sai-n-∅=dara.
 Concrete COP-THM-CVB.CSL=FOC not.very know-POT-NEG-NPST=
 =CRTN

‘The wind does blow, but (the house you are living in is made of) concrete, so (you) can’t recognise (the fact that the wind blows outside).’

First, there is a major intonation break between the first clause and the second, as in the case of symmetrical coordination (§11.2.1) and a sentence-terminating asymmetrical coordinate clause (§11.2.2). Second, if we consider that the asymmetrical coordinate clause is dependent on the second clause (which is internally complex, consisting of an adsentential causal clause and the main clause), then the main clause governs two focus markers, one on the coordinate clause and the other on the adsentential clause. This would be a serious exception to the general constraint that the focus marker appears once only in a sentence (see the first paragraph of this section). It is thus more plausible to consider that the coordinate clause here is a sentence-terminating one, and the second clause commences a new sentence.

11.6. Degree of dependency: Coordination, clause chaining, adsentential and adverbial subordination

In this section I describe criteria for distinguishing between coordination, clause chaining, adsentential and adverbial subordination. As summarised in TABLE 11-3 below, there are four criteria: (1) focus marking, (2) restriction on clause-internal topic marking, (3) dependency with respect to main clause illocutionary scope, and (4) relativisation of an NP from inside the clause.⁷⁷

TABLE 11-3. Coordination and subordination: distinction

Linkage type	Subtype	Focus marking	Restriction on clause-internal topic marking	under the main clause illocutionary force	the of an NP from inside the clause	Relativisation of an NP from inside the clause
Coordination	Sym	-	-	-	-	-
	Asym	-	-	-	-	-
Clause chaining		+	±	±	-	-
Subordination	Ads	+	+	±	+	+
	Adv	+	+	+	+	+

The major criterion for distinguishing between coordination and other linkage types is focus marking. Coordination and clause chaining on one hand and subordination on the other are distinguished by the restriction on relativisation. These and other criteria are discussed in the sections below.

⁷⁷ Criteria (1) and (3) are due to Foley and Van Valin (1984), Bickel (1993) and Bisang (1995). Criterion (3) is known as ‘operator dependency’ in the literature, which concerns whether a clause is dependent on the main clause for specification of clausal categories, or ‘operators’, such as tense, negation, and illocutionary force. Foley and Van Valin (1984) assume a three-way distinction of clause linking types, or ‘nexus’ types with the two criteria (1) and (3): (A) coordination (-embedded, -dependent), (B) subordination (+embedded, +dependent), and (C) co-subordination (-embedded, +dependent).

11.6.1. Restrictions on focus marking

As noted in §11.5.2, an adsentential clause, an adverbial clause, and a chained clause (or a series of chained clauses) may be focus-marked, while coordinate clauses may not, assuming that the sentence-final focus marker in asymmetrical coordination is not functioning as such (§11.5.2).

The most relevant theoretical question here is whether focussability of a clause reveals the embedded status of the clause. This is relevant especially in the study of clause chaining, which is standardly defined as clausal ‘co-subordination’ (Foley and Van Valin 1984), where a clause is dependent but not embedded (see Footnote 77). However, if we assume that focussability indicates embeddedness (as in Haspelmath 1995: 15), Irabu clause chaining would be an embedding structure, as in the case of adsentential and adverbial subordination.

I do not take focussability as a feature of embeddedness, and I argue against the analysis that chained clauses in Irabu are embedded. This argument rests on two observations. First, a chained clause cannot be seen as a constituent of a superordinate clause. This is in sharp contrast to complements, which serve as (fill the structural slot of) argument NPs, adjunct clauses, which serve as (sentential or predicate) adjuncts, or adnominal clauses, which serve as adnominal words. Second, whereas clear embedded processes such as complementation and adverbial/adsentential/adnominal subordination are not freely recursive (due to the extralinguistic factor of information-processing), clause chaining is almost unrestricted with regard to recursiveness.

I take focussability as a feature of dependency. That is, a focused element cannot be independently a focus but must always entail the presence of a presupposed element. This is a dependency at the level of information structure.

11.6.2. Restricted clause-internal topic marking

A coordinate clause may contain a topic marker. In (11-66), two independent clauses are conjoined by a conjunction word (§3.3.5.3), demonstrating symmetrical coordination. Each clause contains the topic marker =*a* (§9.5).

(11-66) *pinza=a mci=kara=du par-tar=ca.*
goat=TOP road=ABL=FOC leave-PST=HS

mata unta=a kaa=kara=du par-tar=ca.
and frog=TOP river=ABL=FOC leave-PST=HS

‘The goat left along the road; the frog left along the river.’

Example (11-67) demonstrates asymmetrical coordination, where the first clause is marked by a conjunction clitic (§9.2). Again, each clause contains the topic marker =*a*.

(11-67) *kari=a nnama=kara=du fi-Ø=suga,*
3SG=TOP now=ABL=FOC come-NPST=but

vva=a sugu=du ifi-kutu?
2SG=TOP right.away=FOC go-OBL

‘He is going to come soon, but are you going now?’

An adsentential or adverbial subordinate clause, on the other hand, does not accommodate topic marking. In the following example, therefore, the topic-marked subject NP belongs in the main clause, not in the adsentential clause.

(11-68) *pžtu=u* [*šin-tigaa*], *nza=nkai=ga* *ifi-kutu?*
 man=TOP die-CVB.CND where=ALL=FOC go-OBL
 ‘Where does a man go when (he) dies?’

Since the topic-marked NP belongs in the main clause, when the converbal clause is extraposed to the left margin of the sentence, we get the following structure:

(11-69) [*šin-tigaa*], *pžtu=u* *nza=nkai=ga* *ifi-kutu?*
 die-CVB.CND man=TOP where=ALL=FOC go-OBL
 ‘Where does a man go when (he) dies?’

In (11-70) below, the nominative-marked NP belongs in the converbal clause. This is evidenced in the fact that it is impossible for the NP to be transposed to the medial position, as in (11-71), where the strict verb-final order within a subordinate clause is violated.

(11-70) [*pžtu=nu* *šin-tigaa*], *nza=nkai=ga* *ifi-kutu?*
 man=NOM die-CVB.CND where=ALL=FOC go-OBL
 ‘Where does a man go when (he) dies?’

(11-71) * [*šin-tigaa*, *pžtu=nu*] *nza=nkai=ga* *ifi-kutu?*
 die-CVB.CND man=NOM where=ALL=FOC go-OBL
 ‘Where does a man go when (he) dies?’

A chained clause may contain the topic marker =*a* only if the clause is

backgrounded. Pragmatically, when the topic marker =*a* appears in a chained clause, it is always interpreted as marking a contrastive topic.

(11-72) *bikidum=ma* *samsin-gama=mai* *pžk-i-i*,
 male=TOP Samsin-DIM=too play-THM-MED

midum=ma *aagu-gama=u=mai* *až-Ø*.
 female=TOP song-DIM=ACC=too say-NPST

‘Men play the *Samsin* guitar, whereas women sing songs.’

By contrast, when a chained clause functions as a foreground clause encoding a sequential event (see §11.3), it cannot contain the topic marker.

11.6.3. Main clause illocutionary scope

An adverbial clause is under the scope of the illocutionary force (interrogative force, imperative force, mood, negation, etc.) of the main clause (demonstrating ‘conjunct scope’ in Bickel’s 1993 terms), whereas a coordinate clause is not (demonstrating ‘disjunct scope’). An adsentential clause and a chained clause may be either under the scope of the main clause illocutionary force or independent of it.

Let us take negation and interrogative force as examples of the main clause illocutionary force, as these represent the narrowest and broadest scopes of various illocutionary forces in Irabu respectively. As summarised in TABLE 11-4 below, a coordinate clause (A in A + B), a chained clause, and an adsentential clause are independent of the scope of the main clause negator (B), whereas an adverbial clause is always under the scope of the main clause negator. With respect to interrogative force, a

11.6.3.2. The scope of interrogation

A coordinate clause, either symmetrical or asymmetrical, is independent of the main clause interrogator (here the question clitic =*ru*; §9.6.6).

- (11-77) *ba=a* *fa-a-n-Ø=suga*, *vva=a* *fa-a-di=ru?*
1SG=TOP eat-THM-NEG-NPST=but 2SG=TOP eat-THM-INT=Q
'I don't eat (it), but will you eat (it)?'

A chained clause may be within the scope of the main clause interrogator, as in (11-78a), or outside it, as in (11-78b) (see also §7.1.3.2 (4)). Furthermore, the medial clause alone may be within the scope of interrogation, with a contrastive meaning, as in (11-78c). In this case, the medial clause is often focus-marked.

- (11-78) *ucīnaa=nkai* *ik-i-i(=ru)*, *kaimunu* *asī-ta-m=mu?*
Okinawa=ALL go-THM-MED(=FOC) shopping do-PST-RLS=Q
a. 'Did (you) go to Okinawa and go shopping?'
b. '(You) went to Okinawa, and did (you) go shopping?'
c. 'Did (you) go to Okinawa (rather than to Hirara) and went shopping?'

An adsentential clause may also be either within the scope of the main clause interrogator or independent of it. However, unlike a medial clause, when an adsentential clause is within the scope of the main clause interrogator, the interrogative scope is not over the entire sentence (as in the case of (11-78a) above), but over the adsentential clause only, with a contrastive meaning (11-79b).

- (11-79) *ucinaa=nkai ifi-tigaa(=ru), kaimunu ah-u-di=ru?*
 Okinawa=ALL go-THM-MED(=FOC) shopping do-THM-INT=Q
 a. ‘Will you (you) go to Okinawa and (you) go shopping?’
 b. ‘Will (you) go shopping if you go to Okinawa (rather than to Hirara)?’

An adverbial clause is always under the scope of the main clause interrogator, either with a sentential scope (11-80a) or with a narrower scope on the adverbial clause only (11-80b).

- (11-80) *munu=u vv-ccjaaki(=ru), fa-i+u-tar=ru?*
 thing=ACC sell-CVB.SIM(=FOC) eat-THM+PROG-PST=Q
 a. ‘Were (you) eating while selling things?’
 b. ‘(Was it) while selling things (that) you were eating?’

11.6.4. Restrictions on relativisation

As noted in §11.4.3.3 to §11.4.3.5, whereas it is possible for an NP in an adverbial clause and an adverbial clause to be relativised, it is impossible for an NP in a chained clause or in a coordinate clause.

Appendix

In what follows I list two narrative texts produced by two native speakers of Irabu, and transcribed by the present author with the help of one native speaker of Irabu.

- (1) *Junaitama, a mermaid of Tooriike*, a folktale explaining how Tooriike on Shimoji Island (MAP 2 in §1.1) was created. This text was narrated by a female speaker living in Nagahama (age: 92).
- (2) *Vernacular plate*, a narrative describing the speaker's schooldays, when pupils would be punished when they used Irabu instead of Japanese, the standard language of Japan. The pupils who used Irabu had to wear a plate from their neck, and the plate was called a vernacular plate. This text was narrated by a female speaker living in Nagahama (age: 67).

To keep confidentiality secured, these texts sometimes contain XX, which substitutes person names, place names, etc. When a text contains sentences of Japanese, I indicate it by square brackets. Loan words from Japanese and other languages are not particularly indicated, and phonemically represented with Irabu orthography (§2.2). Each Irabu sentence is numbered, but when a sentence is so long that it is reasonable to break it down into two parts for translation purposes, I did so and numbered accordingly.

(1) *Junaitama, a mermaid of Tooriike*

01. *tooriike=tii=du=i, ssibara, maibara, satu+bžtu=nu*
Tooriike=QT=FOC=CNF back front neighbour+person=NOM

a-tar=ca. fita-kiv.
exist-PST=HS two-CLF.HOUSE

‘In (what is now called) Tooriike,⁷⁸ there were two neighbouring houses, back (north) and front (south).’

02. *fita-kiv ar-i-utui=du,*
two-CLF.HOUSE exist-THM-CVB.CRCM=FOC

pžtu-kiv=ga im=nu acca ja-i-ba, unukja=a,
one-CLF.HOUSE=NOM sea=GEN side COP-THM-CVB.CSL 3PL=TOP

‘Of the two houses, one was beside the sea, so...’

03. *pžtu-kiv=nu pžtu=nu*
one-CLF.HOUSE=GEN man=NOM

ssibara=ru a-tar=ru maibara=ru a-tar=ru mmja s-sa-n-Ø=suga,
back=FOC COP-PST=Q front=FOC COP-PST=Q INTJ know-THM-
-NEG-NPST=but

‘The man from one of the houses - I’m not sure whether (the house) was of the backside or of the frontside - ...’

04. *pžtu-kiv=nu... fita-kiv=kara pžtu-kiv=nu pžtu=nu*
one-CLF.HOUSE=NOM two-CLF.HOUSE=ABL one-CLF.HOUSE man=NOM

junai, ningjo, junatama=u tu-i+c-ci-i,
junai mermaid Junaitama=ACC catch-THM+come-THM-MED

‘(The man from) one house of the two houses caught and brought *junai*, I mean, a mermaid, *Junaitama*...’

⁷⁸ *Tooriike* is literally “trans-pond”, which consists of two neighbouring ponds. These ponds developed from underground caverns. *Tooriike* is situated on Shimoji, and there are numerous legends and folktales about it.

05. *kurus-i-i, mmja uri=a žžu ja-i-ba,*
 kill-THM-MED INTJ 3SG=TOP fish COP-THM-CVB.CSL

kurus-i-i, kata+bata=u=baa jak-i-i fa-i-Ø,
 kill-THM-MED half+body=ACC=TOP burn-THM-MED eat-THM-MED

kata+bata=u=baa jaa=nu pana=n nuusi-i,
 half+body=ACC=TOP house=GEN roof=DAT lift-MED

pus-i+a-tar=ca.

dry-THM+RSL-PST=HS

‘and killed it, as it is a fish; (he) killed and burned and ate half of the body (of *Junaitama*), and laid the other half on the roof of his house.’

06. *aidu, rjuukjuu... rjuuguu=nu kam=nu*
 then Ryukyu sea.world=GEN god=NOM

junaitama, junaitama=tii as-si-ba=du,
 Junaitama Junaitama=QT say-THM-CVB.CSL=FOC

‘Then, the god of Ryukyu, no, Ryugu (sea world) said calling “Junaitama! Junaimata!”, so...’

07. *nara=a mmja kurus-ai-Ø=du, kata+bata fa-ai-i,*
 RFL=TOP INTJ kill-PASS-MED=FOC half+body eat-PASS-MED

kata+bata=a jaa=nupana=n nuusi-rai+u-i-ba,
 half+body=TOP house=GEN roof=DAT lift-PASS+PROG-THM-CVB.CSL

nara=n=na kuu-rai-n-Ø=tii až-tar=ca.
 RFL=DAT=TOP come-POT-NEG-NPST=QT say-PST=HS

‘(Junaitama) said, “I have been killed, and half of my body was eaten, and the other half has been laid on the roof, so I cannot come back (to the sea world).”’

08. *unu rjuukjuu... rjuuguu=nu kam=nu=du mmja,*
 that Ryukyu Ryugu=GEN god=NOM=FOC INTJ

mmja uri=a mmja par-tar=ca.
INTJ 3SG=TOP INTJ leave-PST=HS

‘(The god) created a big wave, but it did not reach, and (he) created another big wave, so that (Junaitama) came down riding on the wave, and left (for the sea world).’

13. *aidu uma=nu ssibara maibara=a mmja*
thus that.place=GEN back front=TOP INTJ

doofi=ti uti-i=i, tooriike=n nar-tar=ca.
ONM=QT collapse-MED=CNF Tooriike=DAT become-PST=HS

‘Thus, the place around the backside and the frontside collapsed, and became what we now call *Tooriike*.’

(2) *The vernacular plate*

01. *banti=ga sima=n=na hoogen=nu... hjoozungo*
1PL=GEN island=DAT=TOP vernacular=ACC standard.language

cikav-Ø pžtu=nu=du mii-da, mmna sinsii-taa=nkai=mai
use-NPST man=NOM=FOC see-NEG.MED all teacher-PL=ALL=even

hoogen=nu cika-i+u-tar=dara=i.
vernacular=ACC use-THM+PROG-PST=CRTN=CNF

‘In our island, (we) do not see people who use a vernacular... no, the standard language (Japanese); everyone would use the vernacular even (when speaking) to teachers.’

02. *mmja, juubinkjokucjoo=nu ffa=nu unukja=a... untja=a mmja,*
INTJ postmaster=GEN child=NOM 3PL=TOP 3PL=TOP INTJ

sokai=ja s-i-i, ik-i-i si-tjaaki,
evacuation=ACC2 do-THM-MED go-THM-MED do-CVB.CRCM

mudur-i+c-ci-i, hjoozungo cika-i+u-tar=dara.
return-THM+come-THM-MED standard.language use-THM+PROG-PST
=CRTN

‘Well, (there was) a child of a postmaster; they...they evacuated (to escape from the bombard, as it was in the middle of the Second World War), and spent sometime for a while; when they returned, they ended up with speaking the standard language.’

03. *untja pžtu-kiv=du mmja hjoozungo=u=baa*
3PL one-CLF.HOUSE=FOC INTJ standard.language=ACC=TOP

cika-i+ufi-Ø=pazi.
use-THM+PROS-NPST=maybe

‘They alone were speaking the standard language, I suppose.’

04. *mmna hoogen=na s-i-i.*
all vernacular=ACC2 do-THM-MED

‘Everyone (else) spoke the vernacular.’

05. *aidu*, *hoogen+fida=a*, *konsjuu=no* *reikoo=wa*
 then vernacular+board=TOP this.week=GEN goal=TOP

hjoozjungo=o *cuka-i-masjoo=tii=du*
 standard.language=ACC use-THM-POL.NPST.HRT=QT=FOC

kokuban=∅ *kak-ai+u-tar.*
 blackboard=DAT write-PASS+PROG-PST

‘With regard to the vernacular plate, (a message) was written on the blackboard saying, “This week’s goal is this: let us use the standard language ”.’

06. *mmja*, *hjoozjungo=u* *cika-a-n-∅* *pžtu=u*,
 INTJ standard.language=ACC use-THM-NEG-NPST person=TOP

akaa+aka=nu *ica=u=baa=i*, *hoogen+fida=tii=du* *až-tar.*
 RED+red=GEN board=ACC=TOP=CNF vernacular+plate=QT=FOC say-PST
 ‘Well, (for) those who do not speak the standard language, (there was) a red board, which was called a vernacular plate.’

07. *asi*, *uri=u=i*, *nubui=n* *pak-as-i-i* *maar-tar.*
 then 3SG=ACC=CNF neck=DAT wear-CAUS-THM-MED wander-PST
 ‘Then (the teacher) made them wear it.’

08. *uri=a* *kaki-simi-i=du* *hoogen=nu* *cikav-tigaa=ju*,
 3SG=ACC2 wear-CAUS-MED=FOC vernacular=ACC use-CVB.CND=EMP

batafisari-ka-i-ba, *unu* *juubin=nu* *XX*,
 be.angry-VLZ-THM-CVB.CSL that post.office=GEN *XX*

banti=tu *piti-ci* *tusisita* *ja-i-ba*,
 1PL=ASC one-CLF.GENERAL junior COP-THM-CVB.CSL
 ‘(The teacher) would make (pupils) wear it, if (they) used the vernacular; (this made us) angry; now *XX* (person name), the postmaster’s (daughter), was one year junior to us...’

09. *uri=u=ba cimcc-i-i, hoogen=nu cika-i-Ø!*
 3SG=ACC=TOP pinch-THM-MED vernacular=ACC use-THM-IMP

vva hoogen=nu cika-i-Ø,
 2SG vernacular=ACC use-THM-IMP

nande vva tavkjaa uri=u kaki-n-Ø=ga=ti až-ži-ba,
 why 2SG one.person 3SG=ACC wear-NEG-NPST=Q=QT say-THM-
 -CVB.CSL

‘(I) pinched her (so that she would utter the vernacular involuntarily), saying
 “use the vernacular! You use the vernacular! How come you alone don’t wear it
 (the plate)?” ...’

10. *site, watasi=ni=wa i-e-nai=noni=ti až-ži-ba,*
 for 1SG=DAT=TOP say-POT-NEG.NPST=so=QT say-THM-CVB.CSL

až-ži-Ø, až-ži-Ø, vva=mai hoogen=na
 say-THM-IMP say-THM-IMP PL=too vernacular=ACC2

až-ži-Ø=tii až-tar.
 say-THM-IMP=QT say-PST

‘So (she) said, “For I cannot speak (the vernacular) anyway”, (so I) said “Say (it)!
 Say (it)! You speak the vernacular (like us)!”.’

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