

DE GRUYTER
MOUTON

Claire Louise Bowern

A GRAMMAR OF BARDI

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A Grammar of Bardi

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by

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Goorr joogarra ngaanka. For my Bardi friends and teachers.

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This was not an easy grammar to write, though I suppose no grammar is. I have felt a very strong responsibility to Bardi elders to put as much as possible of the language on paper, to try and document even a small part of their knowledge. Yet it is very clear that doing so simply emphasizes what a sketch this book is, and represents just a shadow of the wonderful language Bardi was when it was in daily use. I make no claim that this is a ‘comprehensive’ grammar of the language.

Maps

Figure 0.1. Map of the Western Kimberley (after McGregor 2004)



Figure 0.2. Map of Bardi dialects

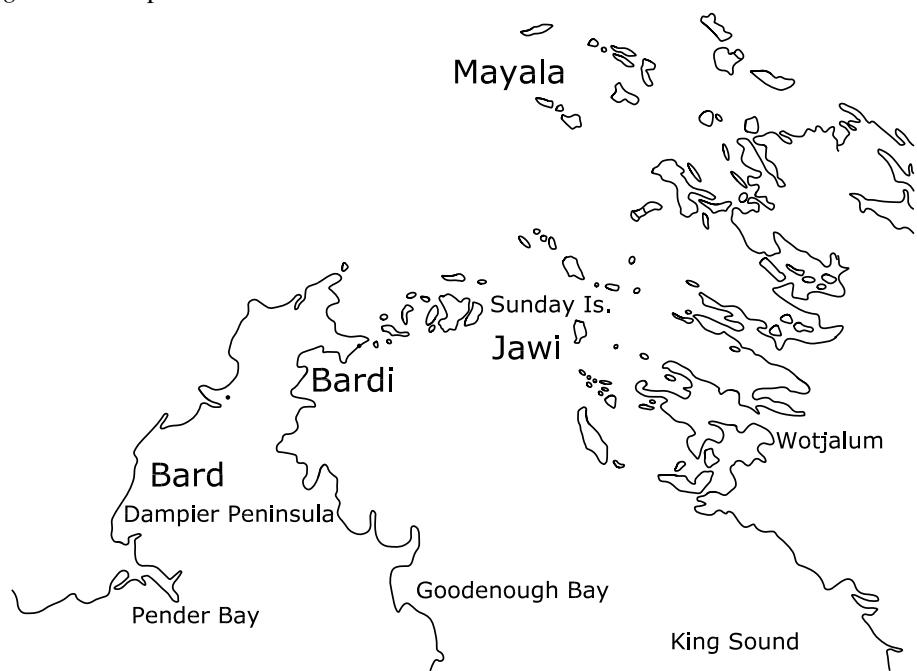
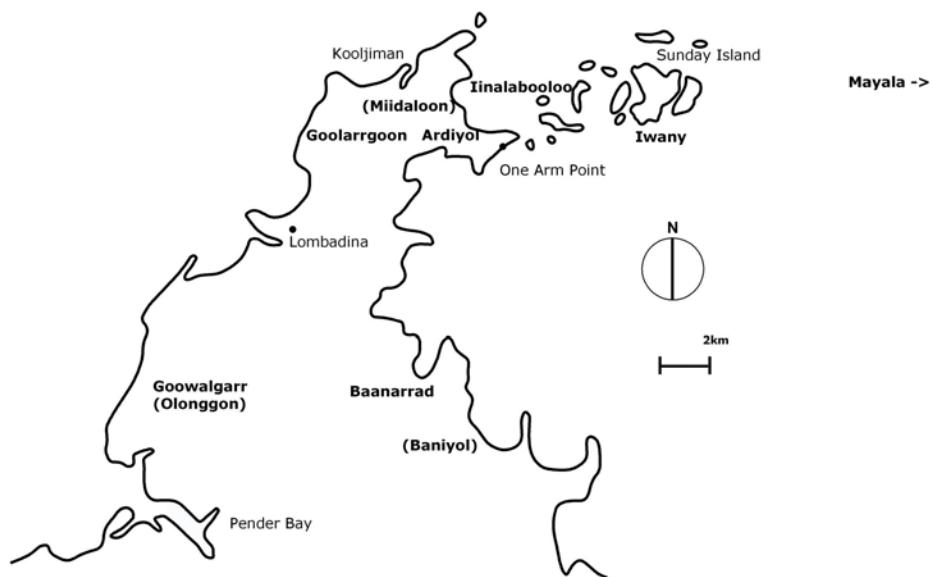


Figure 0.3. Bardi named areas



xxxviii *Maps*

Figure 0.4. Map of Sunday Island

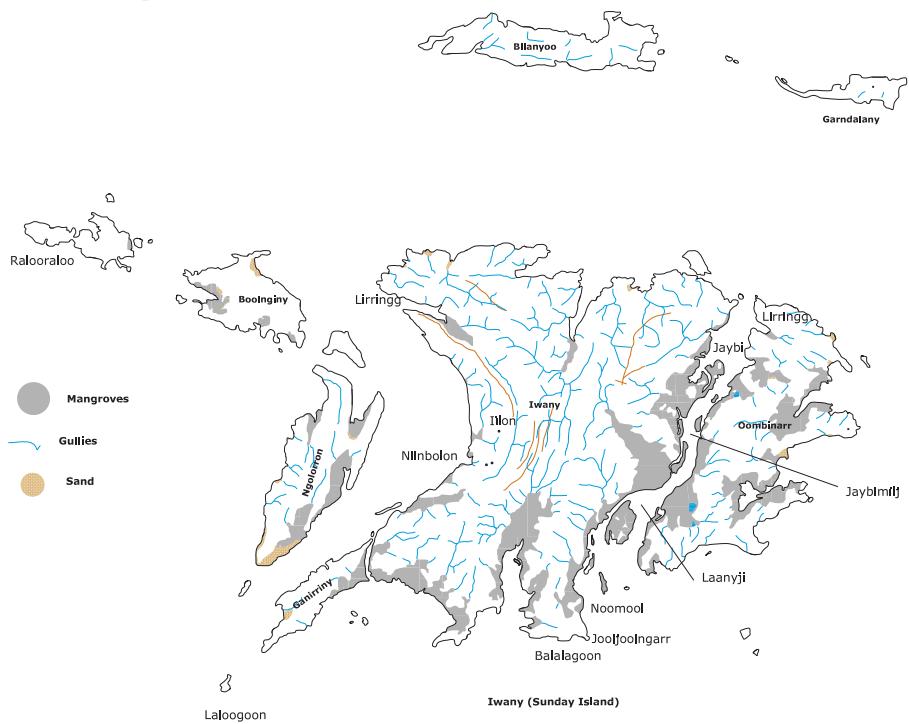


Figure 0.5. Map of One Arm Point



Abbreviations and Conventions

Conventions

Ungrammatical forms are marked by *, and are in italics. Reconstructions are also marked with a *, but are not in italics. In glossing, a hyphen - marks a morpheme boundary, while = marks a clitic boundary (e.g. *ginyinggon=min* ‘then=CLITIC’). A plus sign (+) marks a bound stem. In Bardi, the set of bound stems comprise some preverbs and all inalienably possessed nouns. The citation form of preverbs given without their accompanying light verb is thus *X+*. The plus sign is used to indicate that the preverb is never used without the light verb and does not exist on its own (e.g. *daag+* ‘sleep’). Inalienably possessed nouns cited in stem form without their prefix are cited in the unlenited form, with a + to indicate the position of the prefix, e.g. *+ga* ‘back, spine’ (cf. *ni-ya* ‘his back’). Clitics and affixes are consistently marked, but bound stems are only marked where the stem status is relevant. Inflecting verb stems are marked with hyphens (e.g. *-birril-* ‘fly’), as in previous publications on Bardi.

- affix boundary
- = clitic boundary
- + bound stem
- / / phonemic representation
- [] phonetic representation
- <> orthographic representation (when contrasted with phonemic)

Some explanation is warranted here of decisions made in glossing. Explanations of Bardi morphology – particularly the verbal morphology – are given in overview form in Chapter 9. Bardi verb morphology is not always easily segmented, and it was difficult to decide on the amount of information (and analysis-dependent information) which should be represented in the interlinearization. Should a verb like *ingoorrooloonganirr* ‘they collected them’ be segmented *i-n̩g-oorr-oo-loonga-n=irr*, which straightforwardly segments the surface form, or *i-n̩g-arr-a-jooloonga-n=irr*, which more transparently relates the individual morphemes to the morpheme-by-morpheme gloss and

provides more information about the presumed underlying form, but is harder to read? The latter makes it easier to find out more information about the component morphemes, but also obscures the relationship between the interlinear glossing and the speech form. The former glossing conventions also presume certain theoretical choices (for example, in stating that the root is *-loonga-* and not *-ooloonga-*, and that *oo* represents the augment transitive form). It is also somewhat artificial, since a form such as *ingoorrooloonganirr* is the product both of a series of historical sound changes which operated across morpheme boundaries, and historical and current morphological alternations.

- (0.1) *i- ng- oorr- oo- loonga -n =irr*
i- ng- arr- a- jooloonga -na =irr
 3 PST AUG TR collect REM.PST =3A.DO
 ‘They collected them.’

A further problem arises with forms such as *inamana* ‘(s)he put it’ vs *inman* ‘(s)he’s putting it’, and *injalan*, which means either ‘(s)he’s looking at it’ or ‘(s)he was looking at it’. In the first case, it’s unlikely that the underlying form of the past tense is *a*; rather, the form is the result of cluster epenthesis and simplification which has deleted the past tense morpheme *ng*. The same issue arises with pairs *ingamarran* ‘it was cooking’ (with *nga-* past tense) and *inamarran* ‘(s)he was cooking it’ (which shows the transitive marker and the *a* of the past tense). The past tense is therefore variably realized as *ng*, *nga*, *ang*, or *a*, depending on, in the end, transparent morpho-phonological alternations. This is also problematic because some of these alternations are lexically specified. Segmenting verbal morphemes is thus not straightforward.

An alternative would be not to segment prefix bundles at all, as in the following:

- (0.2) *ingoorroo- loonga -n =irr*
 3.A.PST.TR- collect -REM.PST =3A.DO

However, this doesn’t solve the zero verb root problem or the prefix/root interactions, and overlooks the fact that there is a considerable degree of regularity in prefix marking. The solution adopted here is to provide a detailed explanation of the probable synchronic and historical processes which led to the current semi-regularities in the Bardi prefix structure, but to keep it distinct from the actual glossing. Therefore the glossing itself segments what is present in the surface form. Glosses are of the form given in (0.3) (and the first line in (0.1)).

(0.3) *Irrngankanjamb.*

i- rr- nganka -n =jamb
 3- AUG- talk -CONT =THUS

‘They’re [just] talking [to each other].’

The first line just has the Bardi. The second has morpheme breaks, with no null morphemes except the verb root meaning ‘give’, which is always elided into adjacent morphological material. This root was historically **-wa-*, but the *w* was lost through regular sound change and the *a* never surfaces independently of the affixes which surround it. Lenited segments are represented as lenited (that is, in their surface forms), and elided segments are not restored. Epenthetic vowels are not segmented separately (that is, there are no segments glossed as *epenthetic* in the interlinear glossing); segmentation in the prefixes is therefore somewhat arbitrary. For example, there is no evidence for distinguishing a segmentation of the past tense and augment marker as *ng-arr-* as opposed to *nga-rr*; the former is used throughout for consistency.

Example referencing

There is considerable unpublished documentation for Bardi and referencing the collection is complex. Field notes exist in bound notebooks, unbound papers, and digital files (which themselves may be transcriptions of recordings or independent files) from multiple authors.

Examples in the text which are not labeled for language/dialect are from One Arm Point (Eastern (Modern)) Bardi. Examples from Laves’ texts (that is, from the 1920s) and from dialects other than One Arm Point Bardi are explicitly noted. Examples from unpublished texts are referenced by a code for the text name and the line number. A key to the texts and their speakers is given in Appendix D. References to Laves’ texts are of the form L100/12 (that is, L[aves], the text number, and the line number); the line numbers are editorial and refer to Bowern (in prep.b). Examples from written fieldnotes are cited by the first three letters of the collector’s surname, the book number and page number (BOW-FN3/4 [page 4 of Claire Bowern’s field notebook number 3]; AKL-F3/6 [page 6 of Gedda Aklif’s book F3]). Full details of these references are available on request. References to items which were recorded digitally and transcribed directly into Elan are to the name of the digital audio file and speaker’s initials (e.g. BE: CB64.2). Unreferenced sentences are

from the Bardi dictionary, published as Aklif (1999) and subsequently much expanded. Sentences overheard or addressed to me in conversation, but not recorded, are marked ‘conversation’ with the year.

Bardi orthographies

The following table gives the orthographies in use by different authors working on the Bardi language. I follow the 1990 community orthography for this work (and all others) and for consistency I have standardized examples from earlier works to this orthography. Where the older spelling or non-phonemic orthographies from early sources (such Nekes and Worms (1953) and Laves (n.d.)) are crucial to the analysis, examples are written *in this font*. A consequence of using the community orthography throughout is that the presentation of phonology in Chapter 3 does not use IPA except for the phonetic description. Rules for alternations, for example, are presented using the standard orthography and this differs in potentially confusing ways from the IPA (for example, in the use of *r* for the glide [i] and *rr* for the trill [r]). To present the grammar using IPA, however, would have raised yet another hurdle to Bardi community members’ access to the material. It would have shown disrespect, given that the orthography has been approved for use in works about Bardi. Note that the community orthography does not make an orthographic distinction between /u/ and /u:/ . The short vowel is considerably more common than its long counterpart (no affixes contain /u:/, for example) and the reader should assume that a vowel written as <oo> is short unless it is otherwise noted. Long vowels are marked here as oo to differentiate it from the short vowel.

Glossing abbreviations

I have used the Leipzig glossing conventions, augmented by additional abbreviations where required. These are given in the following table.

- 1 first person
- 1+2 first and second person
- 2 second person

Table 0.1. Orthographic conventions for Bardi sources

IPA	Community	Aklif	Nicolas	Metcalfe	Laves
a	a	a	a	a	a, ə
a:	aa	a:	a	a(:)	a·
i	i	i	i	i	i
i:	ii	i:	i(i)	i(:)	i·
u	oo	u	oo	u	u
u:	oo	u:	oo	u(:)	u·
ɔ	o	ɔ	o	o	o
-	-	-	e	-	ə
p	b	b, p	b	b	b
d	d	d	d	d	d
ɖ	rd	rd, ɖ	rd, d	ɖ	ɖ, rd
c	j	j	j	ɖ	dj
k	g, k	g, k	g	g	g
m	m	m	m	m	m
n	n	n	n	n	n
ɳ	rn	rn	rn, n	ɳ	rn, ɳ
ɲ	ny	ny	ny	ny	ny
ŋ	ng	ng, ɳ	ng	ŋ	ŋ
l	l	l	l	l	l
ɿ	rl	rl	ɿ	rl, ɿ	ɿ
ʎ	ly	ly	ly	ly	ly
r̥	r	r, r̥	r	r̥	r̥
r̥r	rr	r, rr	rr	r̥	ꝝ
j	y	y	y	y	y
w	w	w	w	w	w

3	third person
ABL	ablative
ABS	absolutive
ACC	accusative
ADV	adverb
AND	comitative use of plural
APPL	applicative
ASP	aspect
AUG	augmented
CAUS	causative
COL	collective
COM	comitative
COMP	complementizer
CONJ	conjunction
CONT	continuous
CONTEMP	contemporaneous action
DAT	dative
DEN	denizen
DIR	directional
DO	Direct Object
DU	dual
EMPH	emphatic
EN	epenthetic nasal
ERG	ergative
EXP	expert
F	feminine
FOC	focus
FUT	future
G	glide
GEN	general (=gerund) prefix
GER	gerund
GROUP	group plural
HABIT	habitual
IMP	imperative

INAN	inanimate
INDF	indefinite quantification
INS	instrumental
INTENS	intensive
INTERROG	interrogative
INTR	intransitive
IO	Indirect, oblique Object
IPFV	imperfective
IRR	irrealis
K.O.	kind of, species of
L	lateral
L.ALL	local allative
LAT	lative
LOC	locative
M	masculine
MIN	minimal
N	nasal
N	noun
NEG	negative/negation
NOM.AG	nomen agentis
O	obstruent
OBL	oblique
PERL	perlative
PERS	person (of subject)
PFV	perfective
PL	plural
POSS	possessor
POSS'E	possessum
POSTP	postposition
PRED	predicate marker
PRO	pronoun/pronominal
PROP	proprietary
PRS	present
PST	past

PURP	purposive
PV	preverb
QUANT	quantifier
RCIP	reciprocal
REC.PST	recent past
REDUP	reduplication
REFL	reflexive(/reciprocal)
REL	clausal relator
REM.PST	remote (or general) past
SEMLBL	semblative
SEQ	sequential subordinator
SG	singular
SIMUL	simultaneous action
SP	species
SRCE	source
SUBORD	subordinator
T/A	tense/aspect
TAM	tense/aspect/mood marking
THEN	consecutive conjunction
THUS	causal subordinator
TNS	tense
TOP	topic
TR	transitivity morpheme <i>n-</i> ~ <i>a-</i>
V	verb
VAL	valency
VERY	intensive
VOC	vocative

Chapter 1

Introduction

1. Typological overview

1.1. Preliminaries

Bardi is the northernmost member of the Nyulnyulan family, one of the 27 non-Pama-Nyungan language families in Northern Australia and one of the five families of the Kimberley region of Australia's Northwest. Despite work on the languages for more than 100 years, to date there exists no full published reference grammar of a Nyulnyulan language.

Languages in the Nyulnyulan family are structurally rather different from both the non-Pama-Nyungan languages which are more familiar in the literature, such as the Gunwinyguan languages (e.g. Evans 2003a), Bunuban languages (McGregor 1990, Rumsey 2000), and the Pama-Nyungan languages immediately adjacent (e.g. Sharp 2004). Unlike more familiar non-Pama-Nyungan languages, Nyulnyulan languages do not exhibit noun incorporation, nor do they have complex subject/object portmanteau prefixes; they have dependent marking and complex predicates with a syntax rather different from languages further east. Non-Pama-Nyungan languages share a few recurrent features, such as a pronominal plural marker *-rr-* and some independent pronominal forms (for which see Blake 1988, 1990, Harvey 2003), but very little else. In a survey of lexical and morphological features, Bowern (2004b) found no systematic similarities between Nyulnyulan languages and other non-Pama-Nyungan languages of the region, though there are a number of widespread lexical items which are probably the result of language contact.

Nyulnyulan languages have no noun classes or adjective-noun concord; they are one of the very few non-Pama-Nyungan languages with this feature.¹ The verbal prefix morphology is also quite different. Nyulnyulan languages mark the subject (ergative or absolute) as a prefix. When the subject is plural, tense appears between the subject prefix and the number marker. Direct and oblique object agreement is by enclitic. In Worrorran, however, and also in Gooniyandi and Bunuba, most agreement is by a combined subject/object complex in transitive verbs, which is reminiscent of an inverse system (Capell and Coate 1984, Rumsey 1982, 2000). There is a great deal of suppletion in

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the forms and subject and object are fused together in the prefix chunk.

The final major difference between the Nyulnyulan languages and the other non-Pama-Nyungan languages of the area is the number of cases. Nyulnyulan languages have around 10 cases, expressing core grammatical functions such as ergative and dative, as well as locations and other relational meanings (privative and comitative, for example). Worrorran languages, in contrast, have a very limited set of cases. Love (2000:28-29) described Wororra as having only four postpositions which also mark some case functions.² Bardi is a typical Nyulnyulan language in this respect.

1.2. Inflectional type

Bardi is a highly inflectional language: partly fusional, partly polysynthetic, partly agglutinative. In the terminology of Nichols (1986), Bardi is a double-marking language. Most phrase types are marked for information about both the head and the dependent. A summary is given in Table 1.1. Items in bold are marked morphologically in Bardi.

Table 1.1. Nichols's (1986) Head and dependent markers

Level	Head	Dependent
Phrase	possessed noun	possessor
	noun	modifying adjective
	adposition	(object of adposition)
Clause	predicate	arguments and adjuncts
	auxiliary verb	lexical verb
Sentence	main clause predicate	relative or subordinate clause

1.3. Topics of theoretical interest

Bardi has a number of rare features and interesting properties that deserve special mention. These features are summarized here, and references are given to more detailed discussion later in the grammar.

Bardi has a unique vowel inventory, with a mid-height back rounded vowel /o/ but no equivalent front mid vowel. The system is also asymmetrical, with more short vowels than long vowels (though that is not so unusual). More

information is provided in §3.2. There are complex lenition patterns which cause alternations of many affixes; these lenition rules are both specified at the level of the affix and differ by speaker.

Bardi is a nonconfigurational language in the sense of Hale (1983). It exhibits extensive discourse-based omission of arguments, pronominal cross-reference, some discontinuity and no evidence for a verb phrase. However, it also differs quite substantially from some other nonconfigurational languages; unlike Warlpiri, for example, there is no requirement for omitted arguments to be definite or recoverable information. Unlike Mohawk (Baker 1989), there is no requirement for interrogatives to be initial, there is quirky case marking, and Bardi has infinitives (see further §15.1). We thus get a better sense of the variability in the syntax of such languages and the range of possibilities for pronominal arguments. Bardi apparently differs from its nearest neighbor Nyulnyul in this regard too; furthermore, evidence from the Laves materials from the 1928–29 indicates that Bardi has likely undergone some change in the last few generations to become more nonconfigurational and polysynthetic.

Bardi has complex predicates which consist of an inflecting light verb and uninflecting preverb.³ Complex predicates are an areal feature of Northern Australia (Bowern 2006a, McGregor 2002), but there are considerable syntactic and morphological differences between the languages which have been downplayed in the literature. Although the light verb inventory is comparable from language to language, the argument structure requirements for the light verbs differ from language to language, the syntax of preverb/light verb nexus and preverb inflection differ, as does the role of the complex predicate construction in relation to other types of verbal predicate. This is discussed in more detail in Bowern (2010b) and in Chapter 13.

There is a high degree of unproductive and semi-productive morphology. For example, of the derivational morphology discussed in §5.1, almost none is productive. It is tempting to relate this phenomenon to language death; after all, it is quite common for morphology to become less productive when languages cease to be spoken regularly. However, speakers have quite clear, consistent, and stable intuitions about the grammaticality of the relevant forms, which I would not expect if this were due purely to language death. Such judgments also contrast with areas of the language which have been subject to attrition, where judgments were not stable over the last five years. Furthermore, there is little indication that the situation was different in the Laves materials, which were transcribed from full speakers of the language who

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used the language daily. As a result of this level of exceptional, unproductive, and semi-productive morphology (particularly in the derivational categories), rather more space is spent on rule exceptions and in listing of individual instances than one might expect. The alternative would have been to present the rules which account for the majority of the data and ignore or gloss over the exceptions, but while that would have produced a more elegant (and considerably shorter) grammar, it would also have been a rather inaccurate description of the language.

Bardi makes extensive use of ‘second position’ at both the phrasal and the clausal level. Not only are there second position discourse clitics (§14.6, §16.2); case markers also occur in second position within the noun phrase (§5.2.1), no matter what the word class of their host. While case has properties of distribution similar to what we would expect to see with clitics, the case markers have the properties of inflectional affixes.

2. Bardi dialects

The language was spoken at the tip of the Dampier peninsula, as far south as Pender Bay (*Goorbalgoon*, *Goorwalgoon*) on the western side of the Dampier Peninsula, and to Cunningham Point (*Garramal*) on the eastern side. Other names are **Bard**, **Baardi**, **Bad** or **Bād**. People living at Lombadina call their language Bard or Baard, while those living at One Arm Point call it Bardi. Both names are used to refer to the language as a whole, and this creates a problem in choosing a single name for the language, since there are also some prescriptive views of language, and speakers tend to view other varieties as being ‘incorrect’ language. I use the name ‘Bardi’ as the cover term, as about 80% of my data come from speakers from the Eastern part of Bardi territory and Sunday Island, who call their language ‘Bardi’. I recognize that this will not be met with approval from Baard speakers, however, and I apologize for that. These names are long-standing and appear in the earliest records of the area. There were also names for surrounding languages.⁴

The dialect situation of Bardi has changed over the last hundred years. Modern Bardi is represented by a single dialect, and there is evidence for extensive convergence in the language of the last Jawi speakers towards Bardi. However, there is a great deal of historical information from various sources which gives us a better picture about the dialectal variation which may have been present in the nineteenth century. These dialectal boundaries are given

in Map 0.2 on page xxxvi. They are defined mostly on phonological grounds, such as the presence or absence of final vowels, and lenition patterns (discussed further below).

We can define three main dialects: ‘Bardi’ (the language of the eastern Dampier Peninsula and closest neighboring islands), ‘Bard’ or ‘Baard’ (the variety of the Western side of the Dampier Peninsula), and ‘Jawi’, which was the language of Sunday Island. There is also slight evidence for a variety of Pender Bay Bardi or Nyindinyindi in the southwesternmost part of Bardi country. There is some prescriptive feeling about the appropriateness of these names and their scope. For example, Baard people use the name *Baard* to apply to all mainland varieties, just as Bardi people (from the Eastern side of the Peninsula) use that term to refer to all varieties which are not *Jawi*.

Named varieties are all geographically located; we do not find the clan-based or patrilectal system of language names that some other regions of Australia have. There is a coincidental correlation between *booroo* (patrilineal estate) areas and language varieties because all the patrilineal estates are contiguous and in well-defined areas. The following sections describe the individual dialects in more detail.

2.1. Bardi

The dialect known as ‘Eastern Bardi’ or just ‘Bardi’ was spoken in the Ardiyol, Swan Point, Galan and Iinalabooloo regions (that is, the eastern part of the Dampier Peninsula and the close-in islands). This is the language recorded in Aklif (1999) as Ardiyooloon Bardi or One Arm Point Bardi. Most of the examples in this grammar come from this variety.

It is very difficult to gauge precisely how many full and partial speakers of Bardi there are (for discussion of the reasons behind this problem, see Evans 2001). The numbers are, however, very small. Metcalfe (1975b:1) estimated there to be approximately 350 full speakers of Bardi in 1975. In 2001 I was able to find no more than about 40, although my survey methods were hardly exhaustive. By 2010 there were fewer than 5 fluent speakers and a number of others who have familiarity with the language but who cannot speak it fluently.

Bardi people shifted completely to English in the 1950s, when the Sunday Island mission was closed and people were moved to Derby. However, the language had probably been in decline for some time. Whatever the exact

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numbers of fluent speakers today, almost all the fluent speakers of Bardi are in their 70s or older. Only the oldest Bardi people use the language daily. Many middle-aged people, however, can understand the language and some can speak it a little.

2.2. Bard or Baard

This is the variety spoken on the western side of the Dampier Peninsula in the Goorbalgoon and Goowalgar areas; it is much less well attested than Eastern Bardi, although there is some work by Moya Smith (e.g. Paddy and Paddy 1988, Smith 1983, 1984-5, 1987) which provides lexical information and some syntax. Some of the Peile materials are probably representative of this dialect, since they were recorded from speakers living at Lombadina. It is also possible that some of the Laves materials recorded at Boolgin are in this dialect. However, because those materials seem to show Eastern features (such as final vowel preservation), more likely they were recorded from Bardi (rather than Bard) speakers.

People say that the biggest difference between Bard and Bardi is the systematic deletion of final vowels. There are also some lexical differences that separate Mainland varieties of Bardi, particularly in the area of flora and fauna, but because I do not have much data for Bard, I cannot provide much information about other differences. Paddy and Paddy (1988) is a text in this variety and it does not appear to show differences in syntax from other Bardi varieties.

The material recorded in Nekes and Worms (1953) is probably also from this dialect, since there are lexical items in the source frequently cited without final vowels and some words which are clearly borrowings from Nyulnyul. *Bagar* ‘bush turkey’, for example, is not found in Bardi country (and there is another word *barrgara* in the Laves texts which may refer to the same species). However, it is uncertain whether Nekes and Worms recorded a true version of Baard or whether their material also contains many lexical items cited from Nyulnyul.

2.3. Island Bardi

Island Bardi is a term used by people to refer to the variety of Bardi that was spoken on Sunday Island, as distinct from Jawi. Speakers of Island Bardi moved from the mainland to Sunday Island in the late nineteenth and early

twentieth centuries when the Sunday Island Mission was founded, and I assume that this variety dates from that time. The settlement followed an influenza epidemic in which many Jawi people died. By some counts, more than two thirds of Jawi people died in this epidemic, and Bardi people from the mainland largely replaced Jawi people as the main Indigenous people on the mission.⁵

Island Bardi is, as far as I can tell, identical to the variety of Bardi spoken on the Eastern side of the Dampier Peninsula. Metcalfe (1975a) recorded a term *Injawardin* ~ *Injawadin* which was said to refer specifically to the island dialect of Bardi. This term was confirmed by Nancy Isaac in 2001, but nothing further is known of its reference. I do not treat Island Bardi as distinct from Mainland Bardi here.

2.4. Jawi

Jawi or **Jaawi** is the traditional language of Sunday Island and the Buccaneer Archipelago. Other names and spellings in the literature include *Chowie* (= Jawi) and various forms of *Iwanyoon*, which means ‘from Sunday Island (*Iwany*).’⁶

There are a few people at One Arm Point who have specifically Jawi descent rather than Bardi, including the Tygan family, the Coomerang family, and some members of the Wiggan family. Most Jawi people died of disease when Sidney Hadley set up a pearlling base and mission on Sunday Island around the turn of the 20th century. These days people see ‘Jawi’ as a family or cultural term rather than specifically a language or variety name. Apart from a few words which people recognize as ‘islander’ rather than ‘mainland’ (e.g. *jigil* ‘spear type’ and *banyinbooroo* ‘carpet snake’) there are today no clear features that distinguish the languages from each other. Laves, however, records them as separate dialects, and the Jawi of the Laves corpus is rather different from the Jawi used today. Bardi speakers describe traditional Jawi as being a bit ‘lighter’ than Bardi, and having a slightly different phrasing and use of deictic markers.⁷ Jawi data are seldom included here, except for where Jawi forms are known to differ from Bardi forms (see, for example, §9.4).

Data for Jawi were recorded by Laves in 1929, Anthony Peile in approximately 1967, and Howard Coate in the late 1950s or early 1960s. There is also a short description from 1910 (Bird 1910) and a word list from 1915 (Bird

1915), but Bird's materials are difficult to use because of spelling. The Laves material comprises some short texts, part of the same corpus as the Bardi texts. A Jawi text is included in Appendix E. The Coate materials available to me comprise a recording of a story, along with a few wordlists.⁸ The Peile materials for Jawi are also wordlist elicitation, and some sentences.

2.5. Mayala

Another term used in relation to language and place is **Mayala**. Historical maps are vague about the ownership of the islands in this area. This is in part because of researchers' concentration on certain mainland areas and islands close to the mainland, to the exclusion of the more remote islands; likewise Ngarinyin and Worrorra are much better documented languages than Umiida, Yawijibaya and Unggarranggu, the Worroran languages which are spoken most closely to this part of the country.

In talking to Bardi people about this area, Mayala was sometimes called the same as Jawi, and sometimes different. In general, the term Mayala was used to refer to the geographical area of the islands off the coast of the mainland Dampier Peninsula. The term Jawi is primarily used to refer to the language. However, there is also evidence that the two are not synonymous; for example, there were Jawi *booroo* (patrilineal estates) on Sunday Island as well as Bardi ones, but there were (to my knowledge) no Mayala *booroo* on Sunday Island. The term Mayala appears in Aklif (1999). In this work, the definition is given as follows: "Islands off the coast of the mainland. All islands east of Iwany [Sunday Island]." That is, the work by Aklif confirms that the term Mayala is primarily a term referring to place rather than language.

2.6. Nyindinyindi

In Anthony Peile's collection of Western Kimberley recordings, there is a five minute sample of a language called Nyindinyindi, from the Pender Bay region in the far south of Bardi country adjacent to Nyulnyul. The name has no etymology and is not known these days. The language on the tape is clearly Bardi rather than Nyulnyul, and appear to be very similar to the Goolarrgoon Bardi or Bard varieties. The identity of the speaker and the date of recording are not known, though most of Peile's recordings from this area date from the mid-1960s.

3. The Nyulnyulan family

3.1. Composition of the family

Bardi is the northernmost member of the Nyulnyulan family. The Nyulnyulan languages fall clearly into two groups: the western group, to which Bardi belongs, along with Nyulnyul, Jawi, Nimanburru and Jabirr-Jabirr; and the eastern group, which contains Nyikina, Warrwa, Yawuru and Jukun. Ngumbarl is too poorly attested to be classified for certain but it probably also belonged to the eastern group (Bowern 2010b). A family tree is given in Figure 1.1.⁹ Many of these varieties are similar, but mutually unintelligible; the ‘Small’ and ‘Big’ dialects are mutually intelligible.

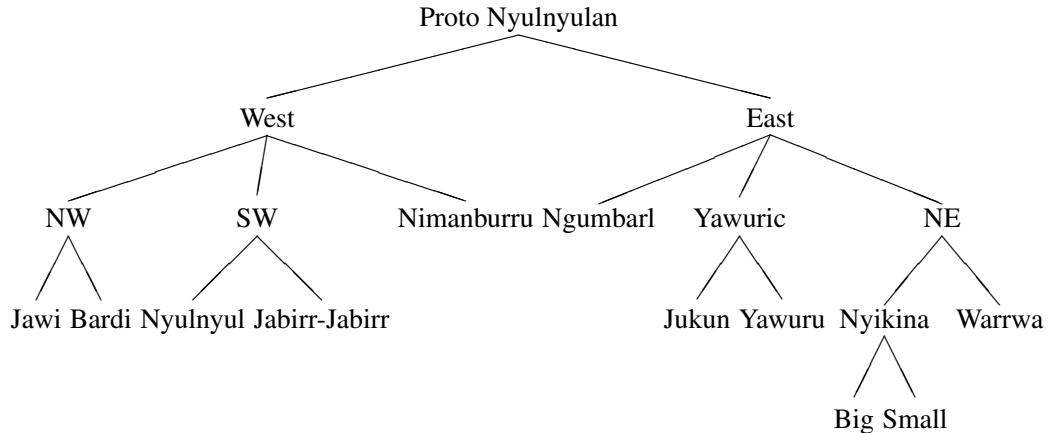
Most of the Nyulnyulan languages are now no longer spoken. Apart from Bardi, Nyikina and Yawuru are also still spoken by small numbers of people (my estimate based on my knowledge of the area is fewer than 10 speakers each). The last fluent speaker of Nyulnyul died in 1999. The other languages became extinct over the period 1965–1995. There are, however, several thousand people who claim descent from one or other of the Nyulnyulan groups, and many of these people have some knowledge of a Nyulnyulan language, ranging from a few words to passive comprehension to some ability to speak.

The Nyulnyulan languages are not closely related to any other groups in Australia. The closest families geographically are Bunuban (a small family comprising just two languages: Bunuba and Gooniyandi), Worrorran, and the Marrngu and Ngumpin-Yapa subgroups of Pama-Nyungan. There have been, however, periods of extensive contact between Nyulnyulan languages and different non-Nyulnyulan languages: Yawuru and Karajarri (Marrngu, Pama-Nyungan) in the South, Nyikina and Walmajarri (Ngumpin-Yapa, Pama-Nyungan) in the East, and Bardi/Jawi and Yawijibaya (Worrorran) in the North. These languages not only belong to different families, but are also rather different typologically.

3.2. History of classification

The Nyulnyulan family was identified by Schmidt (1919) as the ‘King’s Sound group’, which he classes as a member of the Western Subgroup (his term is *Untergruppe*), comprising the following:

Figure 1.1. Nyulnyulan family tree, after McGregor and Stokes (1989)



- I. Ruby Creek Language¹⁰
- II. King's Sound Group [= Nyulnyulan]
- III. Ord River Group [= Jarrahan]

The Ord River Group is the Jarrahan family (also occasionally called Djerag), a non-Pama-Nyungan family spoken along the Ord River in the Eastern Kimberley. It appears that in the sample data quoted by Schmidt (1919:163) for these groups, the Ord River and the King Sound data are reversed. The forms given as 'Ord River' are clearly Nyulnyulan, although not definitely any particular Nyulnyulan language. They are probably Nyikina. The words given as samples for the 'King Sound' group are probably Kija, which is the westernmost member of the Jarrahan family. Some examples of as 'Ord River' are (along with their Nyulnyulan cognates and the words given for 'King Sound'):

- (1.1) a. Knochen ('bone') *gand'e* (cf. Bardi *gaanyji*); King Sound *gud'i(l)* (Kija *kujim*¹¹)
- b. Wasser ('water') *wula* (Bardi *uula*, Nyulnyul *wula*); King Sound *koloë* (Kija *kurlum*)
- c. Sonne ('sun') *walga* (probably Nyikina, cf. Bardi *aalga* and Nyulnyul *walg*); King Sound *banda(l)* (Kija *parntel*)

Capell (1940), in his classification of Kimberley languages, also has a Dampierland group defined typologically as prefixing languages without noun classification. Capell's is primarily a typological classification, although he also took lexical data (and perhaps also kinship and other non-linguistic factors) into account. His group comprises the same languages as Schmidt.

O'Grady, Voegelin, and Voegelin (1966:35-36) state that there are four languages in the group: Nyulnyul, Yawuru, Nyikina, and Warrwa. Their survey was Australia-wide and was based on a wordlist of about 200 items. It was a lexicostatistical classification with control for obvious loans. O'Grady, Voegelin, and Voegelin (1966) class Nyulnyulan as a family-level member of the Australian phylum.

McGregor and Stokes (2004) include ten distinct languages in their classification, although they acknowledge that Bardi and Jawi, and some other pairs, are mutually intelligible. They also give information on the internal classification of Nyulnyulan. My classification differs in a few ways from theirs, particularly in the internal structure of Western Nyulnyulan. The main

difference is the placement of Nimanburru, in the basis of data which was not available to Stokes and McGregor when the paper was written (for which see further §1.3.3). McGregor and Stokes' criteria for subgrouping include shared vocabulary and shared morphology. They also presented lexicostatistical data.

Dixon (2002:667) describes Nyulnyulan as containing just two languages, Bardi and Nyikina, possibly following Hudson and McConvell (1984). This classification, however, ignores both linguistic and socio-cultural facts. Socio-culturally, it is incorrect to say that Yawuru is a dialect of Nyikina, since this implies that one variety name is superordinate to another. It is like saying that Swedish is a dialect of Norwegian. It is linguistically incorrect to say that Nyikina and Yawuru are mutually intelligible, since they are clearly immediately identifiable as distinct languages with several profound morphosyntactic and lexical differences. The influence of Karajarri on Yawuru, for example, makes it quite different lexically from other Nyulnyulan languages. Dixon (2002) also says that Nyulnyulan is possibly a dialect continuum of a single language, but he provides no evidence for this assumption. Bowern (2010a) shows that Nyulnyulan is not a dialect continuum.

3.3. Internal classification

I largely follow McGregor and Stokes (2004) in their classification of Nyulnyulan languages, although I differ on the placement of the languages that make up Western Nyulnyulan. I treat Nimanburru as a third branch, and not a dialect of Nyulnyul, based on its lack of shared innovations with Nyulnyul as in evidence from the Peile Nimanburru materials (Bowern 2010a). A family tree which shows the relations between the languages as I take them was given in Figure 1.1 above. I also treat Ngumbarl as a separate language from Jukun and Yawuru, based on the analysis of the Bates' materials for this language described in Bowern (2010a).

McGregor and Stokes (2004) divide Nyulnyulan into an Eastern group and a Western one, and I follow this division here. I suspect that such a division is also implicit in Dixon (2002), with his Bardi and Nyikina 'languages' (one language from each group).¹²

There are some features that can be described as purely Eastern or Western. Lexical data are useful here, since many words can be reconstructed only to one subgroup or the other. Some examples are given in (1.2) and (1.3):

(1.2) Reconstructible to Western Nyulnyulan only:

- a. **bardangka* ‘tree’
- b. **kajanunga* ‘for a while’
- c. **muunga* ‘sugarbag’

(1.3) Reconstructible to Eastern Nyulnyulan only:

- a. **kurrbuk* ‘vomit’
- b. **makarra* ‘tail’
- c. **ngurrun* ‘smoke’
- d. **kulir* ‘shoulder blade’

Another major difference between the Eastern and the Western languages lies in the organization of the verbal system. The Western languages are characterized by a four-way contrast in tense/mood in the verbal prefixes, as in (1.4) below (abstracting somewhat from allomorphic differences):

- (1.4)
- a. present: *-ϕ-*
 - b. past: *-ng(a)-*
 - c. future: *-ngga-*
 - d. irrealis: *-la-*

This system is shared, with few differences, by Bardi, Nyulnyul, Nimanburru, and Jabirr-Jabirr. Another morphological peculiarity in only the Western languages is the allomorphy of the third person minimal subject marker, which depends on the tense of the verb root. In Bardi, the forms are *i-* for past and present and *oo-* (phonemic /u-/ for future and irrealis. Compare Bardi *inanggamana* ‘he put it’ (past) with *oonkama* ‘he will put it’ (future). (See page 72 for orthography conventions.) Other Western Nyulnyulan languages have cognate morphemes here.

The Eastern languages, however, have a much more heterogenous system, although they are united by a series of changes in which present *-ϕ-* and past *-nga-* verb prefix morphology collapse into a single ‘non-future’ tense (Bowern 2012). The Eastern languages have a distinct prefixal category of irrealis future (*-ya-*), which the Western languages lack. (In contrast, an irrealis future is marked in Bardi by the irrealis prefix *-l-* and the future suffix *-a-*.)

3.4. External relations

While the unity of the Nyulnyulan family goes back to the earliest published classifications, including Schmidt (1919), no one to my knowledge has seriously proposed a close relationship between Nyulnyulan languages and any particular non-Pama-Nyungan language group. McGregor and Stokes (2004) make some suggestions based on running lexicostatistical results through cluster analysis software, but these do not suggest a close genetic relationship between Nyulnyulan and other Western Kimberley languages, only a ‘presumed genetic relationship’ (McGregor and Stokes 2004:caption to figure 3). Genetic relationships between all the languages of Northern Australia are presumed by Evans (2003d) and Heath (1990, 1997).

The subject of Bowern (2004b) was a search for possible external relationships between Nyulnyulan and the other major families of the Western Kimberley. I concluded that there was no evidence at this stage on which to posit a genetic relationship (in the traditional sense of the term) with any other Australian family. There are the usual collection of Wanderwörter, general resemblances, and monosyllabic verb and pronominal forms which plague much remote genetic comparison in Australia.

3.5. Degree of difference between the languages

There has been some difference of opinion in the literature about how many languages make up the Nyulnyulan family. While McGregor and Stokes (2004) give 10 languages, Dixon (2002) states that there are only two, with the possibility that the whole family is a single dialect chain.

Information on mutual intelligibility is sparse, but we can rule out the theory that Nyulnyulan is a single dialect continuum. As I show in Bowern (2010a), the family does not have the appearance of a dialect chain; instead, there is clearly a split between two subgroups (Eastern and Western). Languages are not mutually intelligible between these two groups, though there is considerable common vocabulary.¹³ I do not have equivalent data for intelligibility between Bardi and Nyulnyul, but speakers clearly treated Nyulnyul as a distinct language. The treatment was not the same for Bard or Jawi, which were considered types of Bardi.

Bardi has undergone enough sound changes that words in this language can look rather different from their cognates in the other languages of the

family (cf. *olorrgi* ‘seagull’, cognate with Nyulnyul *walabarrki*). Other differences are syntactic or lexical; some of these are also present between dialects. For example, the word *aliji* ‘in front’ can appear as a single word in Jawi, whereas in Bardi it appears only in the phrase *aliji baybirr* ‘one after another’.

4. Sources for Bardi

Bardi is the best described Nyulnyulan language (indeed, one of the best described languages of the region), although almost all the material is unpublished or in the form of field notes. Materials date back to 1910, with Bird’s *Notes on the Chowie Islanders* (Bird 1910, 1915). Other publications followed. Gerhardt Laves collected very extensive notes on Bardi in the late 1920s, including about 100 texts in Bardi, and several in Jawi (Laves n.d.). Hermann Nekes and Ernst Worms published detailed notes on the Nyulnyulan languages in Nekes and Worms (1953).

Howard Coate worked on Bardi and neighboring Worroran languages in the 1950s and 1960s.¹⁴ Toby (C.D.) Metcalfe published a study of Bardi verb morphology in 1975, and compiled a dictionary of over 3000 items (Metcalfe 1975a,b). The dictionary is unpublished, although many of the words appear in Bowern (2003b) and the manuscript materials are included in the current Bardi dictionary working database. Metcalfe worked mostly with men, including Tudor Ejai, Bessie Ejai’s husband.

Most recently, Gedda Aklif collected texts and lexical items between 1990 and 1993; an 1800-word dictionary was published as Aklif (1999), although other lexical items not included appear on the 50-odd tapes recorded as part of the dictionary elicitation project. A dictionary supplement appears as Bowern (2003b) and a new edition of the dictionary is currently in progress. Aklif’s texts were compiled, edited and put in book form for the One Arm Point school in Bowern (1999). Aklif’s field notes are also extensive and were used in the compilation of this grammar.

The earliest sound recordings of Bardi are from 1911 (recorded on wax cylinders by Yngve Laurell; see Boström 2002 and Bowern 2003a). In addition to using previously collected materials, I made four field trips to One Arm Point to work with Bardi speakers, totaling about nine months in the area, primarily recording oral history and eliciting grammar. Bowern (2003b) contains many of the words elicited through old recordings or which were

produced spontaneously. About 40% of the texts I recorded have been transcribed and are published in Bowern (2002); others are transcribed but are unpublished, and some are yet to be transcribed. An edition of the Laves materials is in progress. There is further discussion of my fieldwork and methods in §1.5.1 below.

Others who have collected Bardi materials are listed below. Full details can be found in Bowern 2007b.

- A short wordlist of dubious quality from Sunday Island was collected by Joseph Bradshaw and published in Mathew (1899).
- Arthur Capell made a set of several hundred vocabulary slips, including notes in shorthand. The cards from the first half of the alphabet (A–G) are in the collection of language materials of Geoffrey O’Grady, while the second half is with Kenneth Hale’s personal papers at the MIT Archives. Capell also published materials on language classification and general surveys from northwest Australia, including Capell (1940) and Capell and Elkin (1941).
- Anthony Peile made recordings of George Warrb discussing place names and bush medicine (Peile n.d.). He also recorded about eight hours of general material in several dialects of Bardi. The recordings date from 1966 or 1967. They were auditioned by Bardi speakers in 2008. They include place names, vocabulary elicitation, and some stories.
- Alice Moyle spent some time at Lombadina in June and July, 1968 and made extensive recordings of Bardi songs of all genres. These were played to Bardi speakers in 2003 and information on the songs was recorded.
- Geoffrey O’Grady recorded a tape of a Bardi speaker at Bidyadanga community in 1959; this tape includes elicitation with speakers of Karajarri and Yulparija. It also includes some sentence descriptions of the pictures in Steichen and Museum of Modern Art (New York, NY) (1955), a set of photographs of people from different cultures around the world.
- Wilf Douglas, a missionary on Sunday Island in the 1940s, made some Bible translations (now lost) and wrote and illustrated Douglas’ (1992)

‘Word gems from Iwany’ (revised and updated by Gedda Aklif).

- Moya Smith, an archaeologist and anthropologist working on Bardi plant and site use, has recorded lexical items (Smith and Kalotas 1985) and some stories (for example, Paddy and Paddy 1988).
- Edith Nicolas completed a PhD (Nicolas 1998) on comparing Bardi and Bunuba verb morphology; she spent about 6 months on fieldwork in 1996-97.
- Nekes and Worms (1953) mention other sources of missionary wordlists from Beagle Bay recorded between 1895 and 1910, by Droste and Emo. I have not been able to obtain copies of these materials, and do not know if they still exist.

I have also made reference to data from other Nyulnyulan languages, which come from both published and manuscript sources. The most important are Nekes and Worms (1953) (and McGregor’s (2006b) revised and annotated edition), McGregor (in press) for Nyulnyul, Stokes (1982a,b, 1985, 1999) for Nyikina, Hosokawa (1991) and Yawuru Language Team (1998) for Yawuru, and McGregor (1994b) for Warrwa.

Unless otherwise noted, the data for this study is Eastern Bardi; that is, it is data from speakers who belong to the *Baarnarad* and *Iinalabooloo* areas.

5. Methodology

All descriptions are shaped by the circumstances of data collection, by the interests of the speakers involved and of the linguist. I have been fortunate to have had access to a wide variety of sources for the language across the full-time period of its written attestation, and to have worked with intelligent, committed, dedicated, and flexible speakers. But we must not overlook the fact that the precarious language situation itself has made it necessary to go hunting for diverse data sources. In this section I describe the corpus on which this description is based and point out some areas where the corpus composition has affected the description. I also outline some methodological and theoretical points of relevance to the grammar.

I view language as a systematic and arbitrary system which may be described internally and independently of the circumstances of its speakers.

However, other factors shape the description of a language; social factors pervade language description—the circumstances of the documentation, the skills and interests of speakers and linguist (and the skills of the speakers in interpreting the linguist’s questions). We could argue that even elicitation prompts can have a social component within linguistics; consider, for example, the tendency to illustrate reflexive binding with sentences involving the phrase *pictures of himself/herself*.

5.1. Fieldwork

My fieldwork included three field trips while a graduate student (1999, 2001 and 2003) for general language documentation and work on my dissertation, and two subsequent trips in 2008 and 2011. The 2008 trip mostly included work on the Laves materials, while the 2011 trip focused on oral history transcription and residue queries from earlier work. The longest trip was 3.5 months, the shortest included 3 weeks at One Arm Point and a total of 7 in the Kimberley (including a stint as a volunteer at the KLRC working on a Nyikina learner’s guide). The total time spent in the field was 11 months. I began as a temporary volunteer linguist at the Kimberley Language Resource Centre, working with Joyce Hudson and Tamsin Wagner on Bardi and Nyikina materials. My first work with Bardi was editing Gedda Aklif’s texts for inclusion in a school reader.

While at One Arm Point, I stayed in vacant housing (a donga,¹⁵ the old police station, the old clinic, and the mechanics’ house, to be exact). Most of my fieldwork was done through One Arm Point school, since language has long been considered something that the school should be highly involved in, and since I could then help with learner’s materials. The arrangement also provided a measure of formality to the arrangements which suited both me and speakers. From the beginning of my fieldwork, my relationship with Bardi speakers has been primarily a ‘work’ relationship (although we are good friends), and it has had a degree of formality. That has no doubt affected (for both good and bad) the type of language materials I have gathered. There were clear expectations of me—that the language would be ‘good’ language, that I would make a record of the ‘best’ language, not casual speech, slang, or swearing. It has made grammatical elicitation easier, but has made conversational recording more difficult. Therefore I would not call this method ‘ethnographic,’ and it was only in the last two field trips that I was fluent enough in

Bardi to get much information on language use. I have included information on occasion about which speakers gave which judgments, especially where speakers appeared to differ. In doing so, I am not trying to imply that one speaker is right and another is wrong; rather, I assume that there are different ways of speaking Bardi (just as all other languages have differences). In other cases, I have made reference to the speaker because they figured out the basis for an analysis, or how to analyze a particular part of the grammar, and I acknowledge their work just as I would if a university colleague had done the same.

I have also done some informal observation, but since Bardi is almost never used in casual conversation the possibilities for this were limited. In the later field trips I was able to converse in the language and I used this opportunity to test grammaticality of certain constructions. My consultants were also happy to correct errors in my Bardi and so a great deal of information was gleaned that way. Both Bardi and English were used as matrix languages for elicitation.

My work has been conducted with the permission of One Arm Point council. Not everyone in the community has been happy that a linguist has been working on their language, though as the number of speakers has dwindled there has been increased support for language materials and for a linguist working on the language. Some people were glad that someone was making a record of the old language and the old ways, but others felt that it was a bad idea to give that information to an outsider. The positive opinions were more common than the negative ones.

Copies of all notes and tapes have been provided to One Arm Point school's language and culture program. All materials have also been archived at the Australian Institute for Aboriginal and Torres Strait Islander Studies in Canberra. Some of the narratives have been compiled into a separate CD and families of speakers have been provided with copies of these narratives.

5.2. Data sources and corpus coherence

The data for this grammar were collected from many different sources, both published and unpublished. The published material on the language is small compared to the wealth of field notes and recordings in existence. Gerhardt Laves, Arthur Capell, A. P. Elkin, Alice Moyle, C. D. Metcalfe, Gedda Aklif, Moya Smith, Edith Nicolas and I have all done fieldwork and compiled field

notes, in some cases over a number of years. These are discussed in §1.2 and §1.4 above.

Overall the sources show a fair degree of coherence. There are some lexical differences between the Nekes and Worms materials and mine, and some transcription differences among the sources which are probably due to researcher error. The biggest syntactic and morphological differences are between the Laves materials and everything else, and between my most recent field trips (in 2008 and 2011) and earlier trips. In that last trip a number of constructions for which I had hoped to get more information seemed to have disappeared from the language. For example, the applicative constructions discussed in §12.4 had become unproductive and almost all my examples (gathered from speakers over 30 years) were considered ungrammatical.¹⁶ I take this to be symptomatic of language death. In previous trips it was noticeable that speakers' morphological productivity increased as time went on in the trip. Some constructions were recorded only from Nancy Isaac before she passed away in 2004. I have tried to generalize across the Bardi corpus, and to note where constructions were particularly associated with one time period or source.

I have recorded over 100 hours of material on Bardi, comprising narratives, elicitation, and discussion of other materials (such as photos or music recordings) in roughly equal proportions. Aklif recorded about 70 hours, comprising about 20 hours of narratives and 50 hours of elicitation, particularly for examples for the Bardi dictionary (Aklif 1999). Amount of time with speakers varied by field trip. In 2001, I worked 1.5-2 hours each with Jessie Sampi and Nancy Isaac each weekday morning, and then for about 1.5 hours with Bessie Ejai most afternoons. In 2003 I spent more time in joint sessions (for example with Bessie Ejai and Jimmy Ejai together). In 2008 most of the sessions with Jessie Sampi and Bessie Ejai were joint, and primarily involved working through the Laves materials (though I also did some syntactic elicitation with Jessie Sampi alone, and with Bessie Ejai). Not all of this material has been transcribed yet, although there is now a substantial written corpus, which forms the basis of the examples for the grammar.

I used many different methods of data collection in working on Bardi. These ranged from word-by-word translation to free conversation, with many different types of structured, semi-structured, and unstructured tasks in between. These included oral history recordings, picture, video, and toy prompts (to elicit deixis), and on occasion direct questions about the semantics of words in the language. The Bardi people I have worked with (Jessie Sampi,

Bessie Ejai, and Nancy Isaac in particular) are very experienced in working with linguists and have very good intuitions about their language, which they have shared. I was very fortunate to be able to work with them.

I have also used corpus searches of my collection of spontaneous speech. These include oral history, mythological and personal narratives, and example sentences provided for the Bardi dictionary. At the time of writing this corpus is estimated to be approximately 120,000 words. This corpus contains narratives recorded by me, the narratives recorded by Gedda Aklif between 1990 and 1993 (including mythological stories, Bible stories and religious texts, and some personal narratives), the non-secret texts recorded by C. D. Metcalfe (some of which were published in Hercus and Sutton 1986), and the non-restricted portions of the Laves corpus from the late 1920s. For cultural reasons, the corpus cannot be made freely available at present.

On occasions I refer to the Bardi dictionary as a source of word frequency counts. The dictionary is based on Aklif (1999) and Metcalfe (1975a); about 3200 of the words were initially recorded in those two sources. It also contains words from the Laves texts, words recorded in Nekes and Worms (1953) which were subsequently checked with speakers in 2001 and 2003, and other lexical items from my field notes which were not recorded elsewhere. As of 2012, the dictionary contains just over 4350 headwords. The dictionary is available to Bardi community members as a working document and a Bardi–English and English–Bardi manuscript for publication is in preparation.

5.3. Approach to language description

There are several ways in which this description differs from those typically published for Australian languages. First is in the phonetic description: I have relied on rather more acoustic measurements than is typical for grammatical descriptions. Recordings from before 2003 were digitized at 44,100 Hz from analog sources (or in the case of the 2001 and 2003 trips, redigitized from minidisc recordings). Subsequent field recordings were made using an Edirol R-01 compact flash recorder and external stereo (lavalier) microphone. Recordings were analyzed using Praat (Boersma and Weenink 2010).

Second, this grammar was not written with basic linguistic theory in mind. On the contrary, while the description is couched in the functional typological vocabulary which is common to basic linguistic theory, the inspiration for much of the work has been theoretical questions in both lexical functional

grammar and government and binding theory. I do not believe that letting the language ‘speak for itself’ is a meaningful way to describe structure; I am interested in what’s possible as well as what is actually said, and what Bardi can tell us about language more generally. Therefore while I hope that this work will be accessible to linguists of different formal and functional persuasions, I do not think of it as a primarily functional description. At times, I presume some familiarity with (or at least tolerance of) principles of argument structure which are common to all current formal theories, and without which it is impossible to provide principled arguments for how verbs and their arguments combine, and why certain combinations of nouns and verbs are ungrammatical.

As mentioned in Bowern (2005), much of the grammatical work for non-Pama-Nyungan languages has focused on morphology and morphosyntax, at the expense of syntactic description. Although the morphology of languages like Bardi is complex and somewhat irregular, it is not at all the case that the morphology ‘does the work’ of the syntax in less morphologically complex languages. For example, although the constituent order is very free, it is not unconstrained. Discourse principles account for a great deal in the ordering, but they do not account for everything, and so a theory of constituency beyond major discourse functions is required to account for how Bardi sentences are formed grammatically.

In many places in this description, I have given an indication of the relative frequency of alternative constructions. I have not quantified most of these frequencies; rather, they are stated in terms of the relative commonness or rareness of the construction. Where more precise numbers are important, I have done text counts. Elsewhere, I have based the frequency judgments on corpus searches and perusal of the examples returned, and occasionally on my own impressions based on 10 years of working with this material.¹⁷

Bardi is not a typical Nyulnyulan language, and since information for other Nyulnyulan languages is rather more widely available (particularly those that McGregor has worked on; see for example McGregor 1990, 1994b, 1996a) I have tried to place this description in the context of the other languages in the Nyulnyulan family and in the region. One reason for doing this is that there is a tendency to view Australian languages as all rather similar. While there are similarities in phonemic systems, case marking, and other broad areas, this standardization of description has, I believe, led us to emphasize the similarities between the languages at the expense of their differences.

My window to Bardi culture has been primarily through language. Through oral history and friendship I have been privileged to be offered a glimpse into other worlds: traditional Bardi culture and practices, and a way of living informed by the memories of those practices, which is different and all the more vibrant for it. (Some of this is captured in One Arm Point School 2010.) I have included some information about traditional practices in Chapter 2; these were things that the old people particularly wanted to document. Those practices come through in the examples, as do, I hope, some examples from daily life. While for the most part I have chosen examples which illustrate well the grammar under discussion, I have also tried to choose examples which might be helpful for Bardi people learning the language.

5.4. Information management

In doing fieldwork, and in working with old materials, I have inevitably come across pieces of information which are restricted in various ways. Bardi speakers have told me personal narratives, and on occasions shared information which would be inappropriate to make the subject of a grammatical study. Some of this was simply personal; others involved topics—such as details of early massacres and child removal—which would be trivialized by treating them piecemeal as objects of grammatical dissection. Other information was restricted for cultural or ceremonial reasons. Authors in the early 20th Century (all community outsiders) did not show reticence in publishing gender-restricted material. I have not used examples from these materials in preparing this grammar.

I have never asked directly why senior Bardi people have wished to make a record of their language, but from indirect discussion I can draw some conclusions. Some elders have been worried that their language is not being passed on, and they wish a permanent record of the language and its words and structures. For others, the concern has been to treat the language as a vehicle for traditional knowledge. That is, they are less concerned to describe the language structures than to record traditional narratives and information about the country and Bardi society. A third reason has been language pedagogy—they were working with a linguist so that their children and grandchildren would be able to learn the language after they were gone.

Bardi people differ on their views of who should have access to the materials and the traditional knowledge recorded by linguists. For the most

part, the elders were very clear that they wanted non-restricted information about Bardi language and culture to be widely known. In short, they were sick of being marginalized in Kimberley and Australian history. They wanted it widely known that the Bardi language is complex and just as good a language as any other, that Bardi people have not been wiped out, and that their history is a valuable part of the Kimberley record. They also maintain a distinctly Bardi (or Baard) identity which is different from a more generalized ‘Indigenous’ or ‘Aboriginal’ identity. However, at various times during my time in working on Bardi there has been tension among One Arm Point community members about how much information about the language should be available to outsiders. Some have maintained that the language should be published, while others have felt that the language should be restricted to those with a heritage (or birth) right to it (which would not include me). Among fluent speakers of the language and their immediate families, however, the consensus I have heard has always overwhelmingly been that keeping the language secret will not help preserve it.

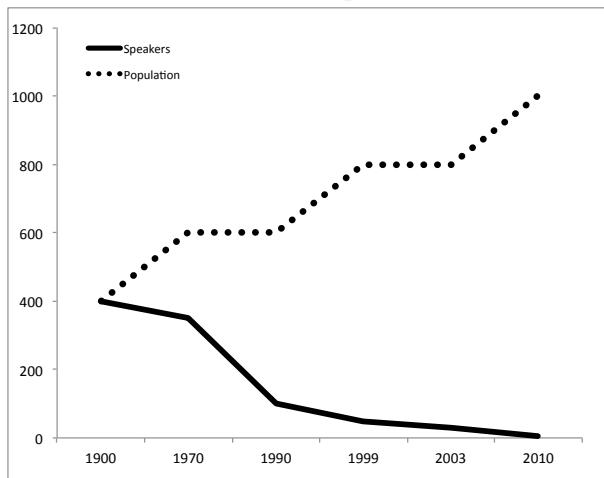
5.5. Audience

This is an academic grammar aimed at linguists, so it uses the technical terms in linguistics and is set out in the way that linguists organize grammars. That, unfortunately, is not the best way for language learning. A learner’s guide was drafted in 2006 and has been circulated at One Arm Point (Bowern et al. 2010); it has undergone several revisions since then. That book sets out Bardi grammar and morphology and was written with language learners in mind. There is a much greater emphasis on common vocabulary and phrases and on explaining terminology in the learner’s guide. People who want more information about Bardi will still be able to make use of this reference grammar, however, especially if they concentrate on the examples and how they fit together. There is a detailed set of references to morphology (word pieces) in the index.

5.6. Number of speakers and language vitality

Over the time I have been doing fieldwork at One Arm Point, the number of speakers of Bardi has gone from over 40 to around 5. Over the life of

Figure 1.2. Number of Bardi speakers



the corpus (from the Bird materials in the late 19th Century), the community has gone from essentially monolingual and entirely Bardi-speaking to essentially monolingual in English, though with varying degrees of familiarity with Bardi. At the same time, however, the number of people identifying as Bardi is growing, and is larger now than it probably ever was. Figure 1.2 shows the number of speakers plotted against number of community members.

The number of speakers has implications for the description. While 30 people probably already sounds like an extremely small number of speakers for a language, it is enough for a small community of practice if they all talk to one another. The Bardi-speaking community has gone from a small number of people who saw each other daily and who used the language almost daily to an even smaller number of people who are somewhat isolated from one another, and who no longer use the language on a daily basis.

This attrition is reflected in some of my data. I did not find many language death features in my data, except for the most recent field trips in 2008 and 2011 (and further work conducted by Laura Kling in 2010). In earlier trips there were some indications that the language was not in frequent use: for example, speakers tended to use more complex morphology the further we were into the field trip, as though there was a ‘warm-up’ phase of getting back into practice. The texts recorded by Gedda Aklif in 1990 contain considerably more clause linking, and tend to be longer.¹⁸ The data in the first three trips were quite stable with a high degree of consistency between speakers and

within speakers. This has had some consequences for the description. While earlier work focused on textual work, elicitation, and some grammaticality judgments, a fair amount of the more detailed work has of necessity been based on textual materials and the crucial questions which would clear up the grammar points weren't able to be asked. I do not mean this as a criticism of speakers, and it should not be taken as such; it is a linguistic description of differences in forms of the language across the time I have been recording it. It is also an explanation of why there are forms in this grammar that Bardi people might not hear these days (and that speakers might not accept).

These days there is extensive codeswitching between English and Bardi in all spontaneous speech (although less in narratives) and controlling this is part of the grammar of contemporary Bardi (and perhaps one way in which modern Bardi is different from the Bardi of the Laves texts).

Chapter 2

Bardi Ethnography

Bardi people were traditionally hunter-gatherers and fishers; in every way they were (and are still) sea people. They live along the coast of the Dampier Peninsula and surrounding islands. They got (and still do get) much of their food from the ocean (Smith 1983), and while some food, such as yams, came from inland, the focus of the culture is very much towards the ocean. In this they reflect a more general Kimberley Aboriginal division between Land people and Sea people. The tip of the Dampier Peninsula is semi-tropical. The region has monsoonal weather, with a warm dry season lasting from March to October and a hot humid ‘rainy’ season lasting from November to late February.

I present here a description of traditional Bardi life; I include it as a compilation of information from various sources that might be of interest both to Bardi people now and to others. I am deliberately not describing Bardi people’s current lives. I was a guest in the community to do language work, not to make observations about current life; the traditional ways were of interest to the people I was working with and they wished to talk about them and record them. In doing so I neither imply that Bardi people live like this these days nor wish to imply that they are tied to a culture from another time.

In talking about the ‘old days,’ the senior Bardi people had many different reactions. On the one hand, they recognized the toughness and uncertainty of their lives then (and some noted that life is still uncertain, but in rather different ways these days). On the other hand, there was also a good deal of nostalgia for some aspects of that life, particularly the freedom to move about own’s own land, the community cohesion and sharing, and the lack of problems associated with alcohol. There was also some pride in the ability to live in that country despite the harshness of the life, and considerable pride in the detail of traditional knowledge about the country that came with living through the land.

1. Precontact population size

The population of the region in pre-European times is difficult to know, as there have been no publicly available archeological surveys of the region.¹⁹ At the time of the founding of the mission on Sunday Island at the end of the Nineteenth Century, there were perhaps 150 Bardi and Jawi people living on the island. There is evidence, however, of an influenza (or perhaps diphtheria) epidemic which preceded Europeans into the Kimberley in the 1870s (Crawford 2001). All in all there might have been perhaps 1500 or more Bardi, Baard, Jawi, and Mayala people across the region in the period immediately prior to European settlement. This calculation is from patrilineal estate estimates and assumes an average of between 40 and 50 people per *booroo* (patrilineal estate). This is reasonable assuming that the population estimate of 150 is correct for Bardi/Jawi people on Sunday Island before European settlement. Estate sizes vary quite substantially, however, so this figure should be considered approximate (Gibson 1951, Robinson 1973).

2. Ecology of the Dampier Peninsula

2.1. Seasons

The Bardi year is divided into six seasons. They are defined based on several factors, including what fruits are ripe, which fish are fat, when turtles are mating, and the direction of the prevailing winds and strength of the tides. The seasons do not have absolutely defined dates and can be longer or shorter depending on the year; the seasons themselves are of unequal lengths and range from several weeks to several months. The word *lalin* is also used to translate ‘season’ and ‘year’. The following descriptions of the seasons are reproduced with minor edits from Aklif (1999).

2.1.1. *Mankal*

Mankal is the wet rainy monsoon season. There are strong winds and storms (*oonkoonkool*) from the ocean as well as whirlwinds (*ajibankoort*). There is little fruit available. It’s the end of the turtle hunting season, but this is a good time for collecting turtle eggs. Some years *mankal* only lasts for one or two weeks in January or early February, though in other years it is longer.

2.1.2. *Ngaladany*

This is the end of the wet season. It's very hot and very humid. There is no wind, and people don't move around much. It's not a good time for fruit. It's usually in late February to early March.

2.1.3. *Irralboo*

This season has big tides. The low tides are good for reefing. It's a good time for fruit. At the beginning of the *irralboo* season the weather is hot, and sometimes soft rain falls. Later south east breezes (*alboolboorr*) begin to blow. This is the mosquito season (which affects which campsites people would use). The peak of *irralboo* is usually in April and May.

2.1.4. *Barrgan*

Barrgan is the cold season and there are strong south east winds. At this time many fish are fat, but the tides are not good for reefing. People used to fish at night (*oondoog*). It is also the dugong (*odorr*) hunting season, and it's a good time for bushfood. Pandanus nuts (*gaamba*) are red and *joongoon* fruit is ripe. *Barrgan* lasts from May to August.

2.1.5. *Jalalay*

West winds (*almbana*) begin to blow in this season, which comes in September and October. The dugong hunting season ends. People go out reefing in the low spring tides. Stingray (*barnamb(oo)*) are fat at this time.

2.1.6. *Lalin*

Lalin is the turtle hunting season and usually starts in about November. People call it 'married turtle season' because it is the mating season for turtles. This time is good for *iilarra* 'wild apple' (*Syzgium suborbiculare*) fruit. It gets hot and humid during the build up to the wet season. Winds shift from westerly to strong north westerly (*banijoon*). Tropical storms (*janjal*) come from the north west at the end of the *lalin* season, and bring rain. It lasts until the wet season or *mankal* begins again, usually in January.

2.2. Tides

Everyone in Bardi society (not just navigators or hunters) had a detailed knowledge of the tides and tidal currents. Tides are very strong in this part of the world, with a ten meter difference between low and high tide during spring tides. The water runs strongly through narrow channels and off the reefs, creating whirlpools and horizontal waterfalls. Directions are still given ‘with the tide’ (*joodarrarr*) or ‘against the tide’ (*arrinarr*) by old Bardi people.

Different tides are named, based on their strength, their direction, and the time of day. The recorded names are given in Table 2.1. *Molangan* ‘flood tide’ and *mayoordin* ‘ebb tide’ are general terms for tide directions. The others are specific. The way to ask about what the tide is doing is to ask *anggi gaarra*, literally ‘what tide, what sea.’

Table 2.1. List of tide terms

Bardi	English
<i>naalan</i>	spring tide
<i>ganygin</i>	neap tide
<i>bola</i>	tide going out about 6–7am
<i>gooloonoo</i>	tide in the afternoon, going out, full and going out at sundown
<i>ayal(a)</i>	little tide coming in in the morning, after <i>gooloonoo</i>
<i>bonan</i>	tide coming in in the early morning 6–7am
<i>joombalmoorr(i)</i>	tide that’s out in the afternoon, when it’s dry
<i>boorrnginyjin</i>	nearly full tide
<i>molangan</i>	~ coming in (flood) tide
<i>mawoolangan</i>	
<i>mayoordin</i>	going out (ebb) tide

I have no information on astronomical knowledge. Some constellations are named, including *birriny* ‘seven sisters’ (Pleiades). Bardi people did not travel at night by choice, given the hazards of sharks, snakes, crocodiles, and tidal currents, though they could do so when necessary. Therefore they did not use techniques of celestial navigation. Rouja (1998) contains substantial information on marine resource use.

3. Flora and fauna

Bardi people had a comprehensive knowledge of the plants and animals in their country and its seas. Flora and fauna in Bardi are named in a hierarchical system. There are three levels clear in the system. Not all animals and plants are uniquely categorized and there is some polysemy in naming. That is, there are terms which are both life-form (in the sense of Berlin 1992) and generic names. There is no single word for all living things (that is, there is no unique originator), though this is a covert category, since there is a distinction between living things (which are referred to as *noonyji* ‘alive’) and non-living.

Table 2.2. Generic flora/fauna terms

Bardi	English	Comment
<i>garrabal</i>	bird	
<i>aarli</i>	fish	broader than ‘fish’; see below
<i>barnangga</i>	shellfish	
<i>barnamb(oo)</i>	stingray	
<i>mayi</i>	plants	plant food
<i>boowa</i>	insect	
<i>gooljoo</i>	grass	
<i>bardag(a)</i>	tree	
<i>joorroo</i>	shark, snake	see below
<i>goorlil</i>	turtle, dugong	see below
<i>gaanyji</i>	shell	also ‘bone’

Most terms occur at the generic or species level. Many species have a single term (that is, the folk classification system corresponds to the species level of Linnean classification), although some species have more than one term and are differentiated by gender, ripeness, or age. This is particularly true of commonly eaten fish species such as trevally. People know they are the same species and that the words refer to different life stages.²⁰ In other cases, there is a single term which covers multiple species. All little birds are called by one of two terms (*diindiin* or *alingindir*), depending on whether they are colorful or not. There are generic terms which group the species terms into classes. Table 2.2 gives these terms. There are some other generic terms in addition to those given in Table 2.2; for example, *goomboo* is the

term for any large fish. It is thus more specific than fish in general but more general than a particular species.

Some of these terms may also be compounded. *Aarli-mayi*, for example, is the term for ‘food’; it is a compound of *aarli* ‘meat’ *mayi* ‘plant food’²¹). They may also be modified to give more specific reference (for example, *gaarrayoon jöorroo* ‘sea-ORIG *jöorroo*’ is the word for ‘shark’). The default reference for the word *joorroo* is snake. *Goorlil* is normally used primarily as the generic for turtle, but in older usage it also referred to dugong (*odorr*). *Goorlil* is further polysemous in that as well as the generic for turtles, it can refer specifically to the green sea turtle *Chelonia mydas*.

Some animals and birds had both an everyday common name and a special, sacred name for use in ceremonies. The ceremonial names are restricted information (Jimmy Ejai pers. comm. 2003) and are therefore not recorded here.

At the species level, some terms are polysemous between plants and animals. The term *iilarra*, for example, means both ‘wild apple’ (*Syzygium suborbiculare*) and its fruit, and is also a term for flowery cod (*Epinephelus fuscoguttatus*). In other cases, one term has recently fallen out of use. In the Bardi materials from the 1930s, for example, *gamaranginy* ‘echidna’ was also recorded in the meaning ‘toad fish’, but this polysemy was not recognized by current speakers.

Information is conflicting about whether Bardi people had animal totems. There are hints in the earliest anthropological sources (for example, the field notebooks of A. P. Elkin) from the 1920s that personal totems were used and were instantiated by (among other things) food taboos. None of the people I spoke to were familiar with personal totems or food taboos as a Bardi practice, however.

4. Food and medicine

4.1. Food sources and hunting practices

Information about traditional food consumption comes from current practices of the oldest Bardi people, their memories of growing up, and accounts from the older literature (in particular Smith and Kalotas 1985).

Most traditional food came from the sea: shellfish, fish caught with spears or poison, larger marine animals such as dugong and turtle, and stingrays.

Land animals were also hunted, including kangaroo species, goannas and other reptiles, and insects. Whales and sharks were not eaten (there is a cultural taboo against eating them).

Seed grinding and winnowing was not used in this area (Smith 1983). Staple foods include fish, shellfish, and small game. There are also several species of yam growing in the region, including *Dioscorea* and *Glycine* species. Pandanus nuts were eaten but cycads were not.²² There is also extensive bush food from plants and trees in the country; this is detailed in Smith and Kalotas (1985) and Paddy, Paddy, and Smith (1987).

There is no permanent surface water in Bardi country. Rivers flow only after heavy rain and the word *iidarr* 'creek' refers to a tidal salt water creek (that is, the temporary tidal creeks that fill up behind sand banks on beaches). Drinking, cooking, and washing water comes from underground springs or soakages (and these days from bore water). Finding the soakages required local knowledge. There are stories of strangers to the country trying to find water but being unable to do so. Either the water disappears, or the strangers are oblivious to its presence. Strangers must be introduced to the country in order to make use of this resource.

Turtles, dugong, and sometimes stingray were hunted from a mangrove raft. While the hunting was done by men, looking out for turtle was a family activity. Fishing with spears was also done by men; the women used fish poison to stun the fish and make them float to the surface for easy collection. There are two types of fish poison; *ilngam* and *banyjoordoo*.²³ The former was used on the islands, while the latter is from the mainland and comes from the Galan area primarily. One of the poisons is a mild alkaloid which is not harmful to humans. The other works by removing oxygen from the water so that the fish are stunned and float to the surface.

In addition to fish poison, fish were speared. These methods are both still used, though fishing from the shore with hand lines or trawling lines from a boat are now more common. Fishing lines and hooks were also sometimes used in traditional times, with the lines being made from fig tree string.²⁴ There were also permanent fish traps in several areas in Bardi country. Some were used for moonlight hunting, where the fish would come into the trap while the tide came in, and before the tide turned spinifex grass would be placed into the permanent stones of the trap. Everyone worked along the trap line with lighted spinifex torches to prevent the fish from escaping as the tide went out. The fish were then easily collected as the water level dropped.

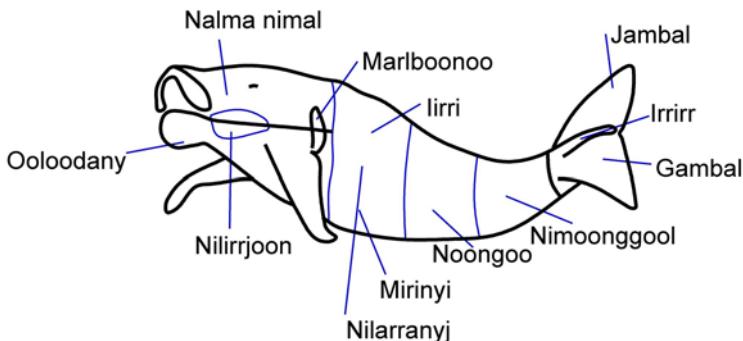
Meat from sea and land creatures was cooked on the coals of a fire or in

an earth oven (*laalboo*). Water was boiled in baler shells or in a turtle shell. Paperbark was used for plates.

Dugong and turtle are hunted by men only. Both were hunted from *gaalwa* or ‘double’ rafts made of mangrove logs (these days they are hunted from tinnies, or small aluminium dinghies). Dugong are drowned and turtle are caught by diving onto their backs and holding up the shell to prevent them from diving deep underwater. They are then towed to shore and placed on their backs until they are killed. There were, to my knowledge, no taboos on uttering the names of animals while they are hunted, though my information on traditional hunting practices is mostly secondhand. Likewise, there are no taboos on uttering the names of dangerous animals.

There is a specific order in which parts of turtle and dugong are cut up for cooking and sharing. Meat was (and still often is) shared between family groups, with particular relations to the catcher receiving certain parts. These are outlined in the dictionary. An example of the main parts of a dugong is given in Figure 2.1. The parts given to each relation vary from person to person and are chosen at the boy’s initiation (Gibson 1951:17).

Figure 2.1. Dugong parts



Shellfish is plentiful in Bardi country and is used not only for bait but also for eating. *Langar* is the typical bait for some types of fish; there are also different types of oysters, and other shellfish (which have the collective name *barnangga*).

Small land game was hunted with spears and boomerangs. There are kangaroos in the general area, and also goanna and blue-tongued lizard. It is unclear whether snakes were traditionally eaten.

4.2. Cooking procedures

There are several different ways of cooking food. Some items are boiled; *nōorrma* (boiled and congealed turtle blood soup), for example, was boiled in the turtle's shell. Water was boiled in baler shells (*ambool*).

Common ways of cooking meat and yams included roasting over hot coals and cooking in earth ovens. For the former, the fire is allowed to die down and then the food items are placed in the ashes. Fish were cooked whole, without scaling (and sometimes without gutting), though they were also gutted. In the case of very fatty fish, the fat and flesh would sometimes be mixed together and then returned to the fish for cooking. They were then placed on a paperbark plate for eating.

Earth ovens (*laalboo*) are made by digging a hole and lighting a fairly large fire in the bottom of it. Once the fire has died down, flat rocks are placed on the coals. The best rocks for this purpose come from a place on Jayirri island, and are still brought to other places in Bardi country for that purpose. Once the rocks are heated, the food is then placed on the rocks and covered in sand for a few hours until fully cooked. These days it is a good way to cook damper.

Bardi people did not practice seed grinding and so did not make breads or flours in precolonial times.

5. Material culture

5.1. Transport

Bardi people were traditionally semi-sedentary hunter-gatherers and fishers. That is, they did not practice agriculture or keep gardens, but nor were they opportunistic foragers. They had (and have) a well-defined land tenure system, defined camp-sites within patrilineal estates, and practiced some types of resource management (such as the use of fish-traps). While there were patriclan-based camping areas, groups of people would move from place to place at certain times of the year.²⁵ For example, when the turtle hunting was good (at 'married turtle' or *lalin* time, towards the end of November), people would camp near the places where turtle could be seen from the headlands. Camping places are just about all within sight of the sea (or within a few kilometers of it). In stories from the 1920s, any time a character camps further

inland, the storyteller makes a comment about how unusual and remarkable this behavior is.

There were trails and accepted, customary ways of traveling between various campsites over land and sea. Using these routes required knowledge of the tides; knowing how to navigate the waterways was a necessary skill, and not just for hunters. For example, Bessie Ejai described how one must wait for slack tide (when the tide is turning) to cross certain channels; in other cases one can only go with the tide, and must get partway and then wait for the tide to turn so one can continue (e.g. from Niimidimanggoon onward to Sunday Island from the mainland). Currents in this area are often very dangerous and difficult to navigate even with outboard motors these days.

Bardi material culture is probably fairly typical of sedentary or semi-sedentary hunter-gatherers, with the exception of the *gaalwa*, or double-raft. A *gaalwa* is a raft made of mangrove logs (from the species *joolboo* or kapok mangrove (*Campostemon schultzii*)). The logs are cut, then dried, at which point they become very buoyant. Then holes are made in the planks and wooden pegs are driven in to keep the logs together. The logs are also lashed together for added strength. This creates the *jonyjol* or lower part of the raft. The upper part is called the *nirrongorrol* and is lined with spinifex and used to keep things dry. The raft is paddled by a single paddle from the stern. *Gaalwa* were regularly used for hunting and transport of several people. Their manufacture and use is described in Rouja (1998) and an example made by senior Bardi men can be seen at the Maritime Museum in Sydney.

Bark canoes called *barrawar* were also known to Bardi people, and occasionally used, but the *gaalwa* was the preferred means of transport. Otherwise, people would move between places by swimming. Older stories have considerable information about the specific journeys and preferable routes.

5.2. Weapons

The toolkit of all groups in the area was multifunctional and fairly small. The word for a person's 'things' is *ooldoobal* or *oongganggoo*.

The main weapons for hunting, fishing, and fighting were boomerangs (*jiwi*, *irrgili*) and spears (*jaala*, *jinal*, *irrol*). Some spears were made from a single piece of wood, with the tip hardened in the fire. Others (*jinal*) had a wooden shaft with a stone, glass or metal tip which was fixed to the shaft with *arrba* (gum) or *limirri* (sugarbag wax or spinnifex gum). Stone was

the traditional material for the tip, but glass or metal were used after Europeans arrived in the late Nineteenth Century. Tipped spears are felt to have been a foreign item; the Bardi traditionally used fire-tipped spears and the stone-tipped ones were felt to be a fairly recent introduction. Bardi men used spearthrowers (*yarnkal*²⁶ or *ngabaliny*). The word for a spear-tip is *jimbila*; this is a loan. *Jinal* is also likely to be loan from further east. Spear terminology is summarized in Table 2.3. Laves gives *goorrjarda* as a term for a spear with a long shaft, but this is an error; the term refers to a type of boomerang.

Table 2.3. Spear terms

Bardi	English	Note
<i>bamboo</i>	spearshaft	probably loan
<i>galirriny</i>	red wattle (<i>Acacia monticola</i>)	mainland
	fighting spear	
<i>garrminy</i>	wooden spear	Metcalfe (1975a) only
<i>gooral</i>	spear	generic term; Jawi (= <i>irrol</i>)
<i>(goorrjarda</i>	long shafted spear	Laves only)
<i>irrol</i>	spear	generic
<i>jaala</i>	spear	now generic; specifically glass-tipped in Laves
<i>jarrar</i>	harpoon	for dugong and turtle
<i>ji(i)nal</i>	glass-pointed spear	
<i>joongoorr</i>	small fishing spear	women's
<i>linymid(i)</i>	black wattle spear	island spear
<i>ngabaliny</i>	spearthrower	Jawi
<i>yarnkal</i>	spearthrower	
<i>jimorrgomol</i>	spears and boomerangs	collective
<i>jiwirrola</i>	spears and boomerangs	collective; compound (of <i>jiwa</i> and <i>irrola</i>)

Boomerangs (*irrgil(i)* or *jiwa*) were also made from several different trees, and are of several different types. The generic term is *irrgil(i)*, which can also refer to the main tree (*Hakea arborescens*) from which boomerangs are made. *Garrgarrbin* are little boomerangs used by kids for playing, and for fishing. Boomerangs can also be made from *biindoon* (red mangrove, *Rhi-*

zophora stylosa) for the ceremonial boomerangs used to accompany singing, or *göolmi* (*Grewia breviflora*). The ‘number seven’ boomerang²⁷—*ilbooriny* or *ilburriny*—also has a name, but it is said to be a loan from Nyulnyul. Laves records a term *jaranggarr(a)* for any type of large boomerang. Boomerangs can also be made from pindan wattle (*Acacia tumida*), in which case they are called *wanggay*, a loan from Nyulnyul. A returning boomerang is called *yagarr* or *yagarr irrigili*.²⁸

Shields were made from several different kinds of wood, including *jalgit* (styptic tree, *Canarium australianum*) and *raanyji* (sandpaper fig; *Ficus opposita*).

5.3. House-building

There are several different structures in which Bardi people used to live. Wind shelters or shades (known as *baali*) were constructed from pandanus or other palms. They are still used on the beach, principally for shade; they were a shelter from the sun or from rain in the wet seasons.

There were also other dwellings, including small grass-built sleeping huts. These were used primarily for sleeping and not for living in (most living was outside). Bardi people would also use rock shelters or *gardin*. This word translates as ‘cave’ but from the designation of what Bardi people have called by the English word ‘cave,’ it would be more accurately translated as a rock shelter; it refers to anything where the rock provides some shelter from wind, sun, or rain.

More recently, Bardi people live in European-style houses. There are two words for this: *mayar* and *awij*. The former is a widespread Kimberley word, while the latter is a loan from English. There are some rock-based houses on Jayirri island; their origin is uncertain.

5.4. Clothing and personal ornamentation

Traditional clothing was fairly minimal and included pearl-shell ornamentation and paperbark skirts for women. Personal ornamentation was also minimal. There was some ritual scarring (for both men and women) called *bawoorr* ‘cicatrice’, and some use of nose pins (*arangay*). Bardi people used to practice tooth avulsion, where the two incisors were removed. There is

Figure 2.2. Pearlshell and *baali*



some documentation of ritual hair styles and headdresses in Elkin (1945), which involved clay. *Joowalal* was one hair style worn by men, where the hair was tied into a high bun using string made of hair. Some styles involved the use of *moondoojirr* 'head sticks'. There was also use of body paint. Hair belts (*baali*²⁹ or *arnal*) were also worn.

Bardi pearlshell ornaments were widely traded in the Kimberley and further afield. The flat plates are called *riiji* in Bardi³⁰ and the smaller side ornaments are called *binyjibinyji*. Uncarved pearlshells are called *goowarn*. For pearlshell trading, see further Akerman and Stanton (1994). A photo is given in Figure 2.2.

6. Social organization

6.1. Moieties and sections

6.1.1. *Moieties*

Bardi has two generational moieties: *jarndoo* and *inar(a)*. These are egocentrically defined; that is, a person is *jarndoo* and refers to all members of har-

monic generations as *jarndoo*.³¹ A ‘harmonic’ generation includes all member’s of ego’s generation (that is, for me, myself, my brothers and sisters, and my cousins and second cousins), and all members of ego’s grandparents’ and grandchildren’s generation. *Inar* or *inara* people are of the parents’ and children’s generations (and great-grandchildren’s and great-grandparents’ generations); these generations are called ‘disharmonic’ in the anthropological literature. Bardi people did not have other moiety divisions, such as are found in many other parts of the country.

6.1.2. Sections

Many Australian Aboriginal groups have a system of sections, a system of exhaustive classification where each person is assigned to a group based on their parents’ section; sections also determine marriage eligibility (see further Dixon 1980, Walsh and Yallop 1993). Bardi people are notable in the Western Kimberley for being one of the few groups not to make use of section or subsection names. According to Capell and Elkin (1941), sections were spreading up the Dampier Peninsula in the early mission days and reached Nyulnyul (just to the south of Bardi country) in the 1920s and 1930s. The names of widespread Kimberley section terms such as *banaga* are known and recognized but are never used.

6.2. Kinship

Bardi is described by Elkin (1932) as having a kinship system of the ‘Aranda’ type. Aranda-type kinship systems are defined by their having four distinct terms in the grandparents’ generation, in prohibiting cross-cousin marriage but permitting some second cousin marriages. This system is shared with Nyulnyul and Nyikina, with Yawuru having a ‘Karadjeri’ system.

Bardi kinship is classificatory, in that kinship terms may be used to address and refer to people beyond biological families. However it is not exhaustively classificatory in the sense that Arnhem Land or Central Desert systems are, especially these days. It is not known to what extent the absence of a classificatory system is the result of contact or whether it is a genuine difference. In addition to the kinship terms discussed here, there are also ‘para-kinship’ terms which prefer to people in a particular relation to the speaker, but which

are more general than kinship terms. For example, a group of women who are in a disharmonic (*inara*) generation to the speaker are called *inyaab(oo)*, and any younger *inara* men would be called *iwanybalini*. These are not strictly kinship terms like ‘brother’ or ‘sister’, since they can be used of non-relatives, but they are terms which can only be interpreted and used with a knowledge of social organization and of the relative generational status of speaker and referent.

Marriage is only to people who are *jarndoo* to each other. In pre-mission times there does not seem to have been an age restriction on marriage, although there seems to have been a preference for girls marrying men of their grandparents’ generation.

The general term for someone belonging to the same country is *gamoolol*; the English loan *gandriman* ‘countryman’ is also used. Metcalfe records a word *nyarroorr* for a ‘close relation’, such as a sibling or cousin, but that word is not used anymore.

6.2.1. Relational terms

The Bardi kinship system is similar to the Nyulnyul one described in Scheffler (1978), which is in turn based on a description in Elkin (1938). My description here is based primarily on secondary sources (Aklif 1999, Elkin 1975, Gibson 1951, Robinson 1973, Scheffler 1978) and Gedda Aklif’s fieldnotes, as I did little elicitation in this area. Kinship terms are given in Tables 2.4 and 2.5.³²

Bardi kinship relies on the notion of a ‘propositus,’ or the person from whose perspective the kinship relation is calculated. In particular, many kinship terms are sensitive to the gender of the propositus (rather than to the gender of the referent). For example, there are two terms for ‘child’: *aala* and *bo*. Neither are sensitive to the gender of the referent, and so could be used to translate both ‘son’ and ‘daughter’. However, the terms are sensitive to the gender of the propositus, with *aala* used to refer to the child of a man, and *bo* the child of a woman. Other terms are neutral with respect to the gender of the propositus. *Birrii* ‘mother’ and *gooloo* ‘father’, for example, do not change depending on whether a man’s parent or a woman’s parent is under discussion.

There are four distinct grandparent terms. Thus mother’s mother, father’s mother, father’s father, and mother’s father are all uniquely named. The

Table 2.4. Consanguineal kinship terms

Bardi	English	Kin designations
Consanguineal Terms		
<i>oombarn</i>	older brother	eB, FBS, MZS
<i>borla</i>	younger brother	yB, FBS, MZS
<i>babili</i>	brother	B, FBS, MZS
<i>marrir</i>	sister	Z, MZD, FBD
<i>jaal(a)</i>	cross-cousin	MBC, FZC
<i>oombarnborla</i>	second cousins (male)	FFZC, FMBC, MMBC, MFZC
<i>marrirbola</i>	second cousins (female)	FFZC, FMBC, MMBC, MFZC
<i>jija</i>	sister	Z, FBD, MZD
<i>aala</i>	man's child	C
<i>bo</i>	woman's child	C
<i>birrii</i>	mother, father's brother's wife	M, MZ, FBW, MFZD, MMBD
<i>gòoloo</i>	father, mother's sister's husband	F, FB, MZH, FFZS, FMBS
<i>irrmoorr(oo)</i>	father's sister, mother's brother's wife	FZ, MBW, FFZD,FMBD
<i>gaarra</i>	mother's brother	MB, MFZS, MMBS
<i>galoongoordoo</i>	father's father	FF, FFB, (man's)SC, BSC
<i>jamoo</i>	mother's father	MF, MFB, (man's)DC, BDC
<i>goli</i>	father's mother	FM, FMZ, (woman's)SC, ZSC
<i>gamarda</i>	mother's mother	MM, MMZ, (woman's)DC, ZDC

Table 2.5. Affinal (marriage) kinship terms

Bardi	English	Kin designations
Affinal Terms		
<i>aamba</i>	husband	H
<i>malarr</i>	wife	W
<i>anyman</i>	spouse's grandparents' generation	HFF, HFM, HMM, HMF, HFZM (etc), HFBM (etc), HMMM (etc), WFF, WFM, WMM, WMF (etc)
<i>rangan</i>	husband's parents' generation	HM, HF, HFZ, HFB, HMZ, HMB
<i>aloorr</i>	man's wife's mother, woman's daughter's husband (+ brothers)	WB, DH, DHB
<i>yagoo</i>	wife's brother	WB
<i>oomarl(a)</i>	wife's brother (Jawi?)	WB
<i>janawang</i>	husband's sister	HZ
<i>jamoonyarri</i>	wife's father	WF
<i>babaramban</i>	wife's brother	WB
<i>rambarr</i>	wife's uncle (mother's brother)	WMB, WBDH
<i>gamardanyarr</i>	wife's uncle (mother's brother)	WMB, WBDH
<i>jamoonyarr(i)</i>	wife's father	WF

same terms are used for the corresponding grandchild relationships. While the grandparent terms are not sensitive to the gender of the propositus, the grandchild terms are. *Goli*, for example, means a (man's or woman's) father's mother, or a **woman's** son's child (male or female).

There are some synonymous kinship terms. *Yagoo* and *babaramban*, for example, are both used to mean a man's brother-in-law (that is, a man's wife's brother). *Yagoo* is said by Robinson (1973) to be a recent loan from Malay; more probably it spread from a Pama-Nyungan language through the pearlimg industry. Likewise, *rambarr* and *gamardnyarr* are both alternatives for a man's wife's uncle (mother's brother). In 2011, Bessie Ejai suggested that the term *oomarl* was not restricted to Jawi, but was also used in Bardi.

Kinship relations are gradient in this area, according to speakers. That is, ties are more closely enforced with people from (geographically) closer groups, while those further away are treated less strictly. Not everyone is exhaustively classified and referred to by a kinship term.

Some terms from English are used these days. *Jija* 'sister' is a long-standing loan. *Nana* is used for grandmothers. There is also a term 'little daddy', for someone who would be called *gooloo* (e.g. a father's father's sister's son) who is younger than the propositus. It is also used for a great-grandchild.

Some kinship terms are often possessed; this is especially true in the Laves corpus for *birrii* 'mother' and *gooloo* 'father'.

6.2.2. *Address and reference terms*

Some kinship terms are both address and reference terms; that is, they are used both when talking about the relation, and when talking to them. Most terms are the same for address and reference, but a few are different:

- (2.1) a. *gamarda* 'mother's mother': address term *gamini*
- b. *jamoo* 'mother's father': address term *nyami*
- c. *jaal(a)* 'cross cousin': address term *jaji*

I have examples where the address terms are also used as reference terms. *Nyami*, for example, can be used to refer to a person's mother's father in a story, just as someone telling a story in English might use 'dad' or 'daddy' as a reference term instead of 'father'. I do not have any data about baby talk

terms for mother and father, except for *babili*, a reference term for ‘brother’ that children also use as an address term. Bardi kinship terms are still widely used in English at One Arm Point.

6.2.3. Dyadic and group terms

In addition to the relationship terms described above, Bardi has a number of kinship group (dyadic) terms which are used to refer to members of a group who have a particular relationship to one another. They are summarized in Table 2.6. Data are from Robinson (1973), Aklif’s annotations on a copy of Robinson (1973) and Aklif (1999), and my field notes.³³ There are some slight differences in definition among the sources. For example, both Aklif and I have recorded *marrirborl* in the meaning of ‘a group of people who call each other sister’, whereas Robinson (1973:327) defines it as any people who call each other sibling (including Z and B, etc). Robinson (1973) consistently quotes forms with final vowels, whereas I have recorded most of these terms without final vowels (cf. *golinyarr* ~ *golinyarra*). Additional kin designations which were not recorded by Robinson (1973) but which do appear in Aklif (1999) are given in parentheses. Robinson (1973:327) gives the grandparent dyad terms as referring both to a group of people of the same generation (MM + MMB + MMZ) and to groups of MM and DS (etc), though Aklif (1999) and I have only recorded these terms in the multi-generational meanings. A few of these terms have distinct address terms; for example, *algoor* is the term used by men who are *jarndoo* to one another to address each other.

Table 2.6 contains two types of dyadic term; the first are true dyads, in that they refer to pairs of people who have particular relationships to one another. *Alabal* (a husband’s sister and wife’s brother) and *aalamalarr* (a man’s wife and his children) are of this type. Some of these terms can also be used to refer to a group of people whose relationships are defined with respect to the speaker or propositus rather than to each other. They would be more appropriately labeled ‘kinship collectives.’ For example, *nyamigamarda* are not people who call each other ‘mother’s father’ and ‘mother’s mother’, but rather the set of people whom the propositus calls mother’s father and mother’s mother. Some of the terms are ambiguous; *jamoonyarr*, for example, can mean either ‘people who call each other *jamoo*’ (that is, a person’s mother’s father and

Table 2.6. Dyadic (group) terms

Bardi	English	Kin Designations
<i>aalabo</i>	men's and women's children	mC + wC
<i>aalagalag</i>	group of children with their father	mC + F
<i>aalamalarr</i>	man's wife and his children	W + mC
<i>alabal</i>	brothers and sisters-in-law	HZ + WB, etc
<i>jaalbola</i>	cousins and brothers	FZC + B (etc)
<i>birriigaarra</i>	mother and her brother	M + MB (+MZ)
<i>birriirrmoorroo</i>	'aunties'	M + FZ
<i>irrmoorrgooloo</i>	father and his sister	F + FZ
<i>birriibo</i>	mother and her children	M + wC
<i>oombarnborla</i>	same generation 'brothers'	B + B, FBS + FBS, etc
<i>marrirborla</i>	same generation 'sisters'	Z + Z,
<i>irrmoorrgool</i>	father with his siblings	F + FB + FZ
<i>gaarragooloo</i>	uncles	F + MB
<i>goligamarda</i>	grandmothers	FM + MM
<i>galoogaloongoordoo</i>	grandfathers	FF + FF
<i>jamoogamarda</i>	grandparents	MF + MM
<i>nyamigamarda</i>	grandparents	MF + MM
<i>gamardajamoo</i>	grandparents	MM + MF
<i>injalala</i>	cross cousins	MBS + MBD, FZS + FSD (etc)
<i>galoongoordinyarr</i>	grandparents and grandchildren	FF + FFB + FFZ (etc), FF + SC (etc)
<i>golinyarr</i>	grandmother and grandchildren	FM + MFZ + FMB (etc); FM + SC (etc)
<i>jamoonyarr</i>	grandmother and grandchildren	MF + MFB (etc); MF + DC (etc)
<i>gamardanyarr</i>	grandmother with her grandchildren	MM + DC
<i>alooram barr</i>	wife's parents and their daughter-in-law	WM + WMB (+ DH?)
<i>oorambarr</i>		WMB and WMBB
<i>anymanoonoo</i>	mothers-in-law	DHM + SWM
<i>orangan</i>	in-laws	HM + SW
<i>oomarloomarl(a)</i>	man with wife's brothers	ZH + WB

their daughter's child), or it can mean 'a group of people that the speaker calls *jamoo*'.

6.2.4. Bereavement terms

Bardi has a set of bereavement terms in addition to the regular kinship address and reference terms. These are roughly the equivalent of the English terms 'widow' (or 'widower') and 'orphan' but are more extensive. They collapse some of the distinctions made in the relationship terms described in the previous sections. Laves gives singular and group forms for some of these terms; thus a *mirajina* is a group of sisters who have lost a sister, with *miraj* being the singular. Laves gives *joomboo* as another term for a bereaved sister, but it is recorded by both Aklif and me as the term for a brother who has lost a sibling. Not all speakers recognize this term, however. *Jilarr* is given in some sources as the bereavement term for a married brother only, but current speakers say that the bereaved brother does not have to be married for the term to apply.

Table 2.7. Bereavement terms

Bardi Singular	Group term	English
<i>gambaj(oo)</i>	<i>gambajina</i>	bereaved mother
<i>algooyarr</i>	<i>algooyarrin</i>	bereaved father
<i>miraj(i)</i>	<i>mirajina</i>	bereaved sister or grandmother
<i>joomboo</i>	<i>joombina</i>	bereaved brother
<i>galgarr(a)</i>	<i>galgarrina</i>	bereaved spouse
<i>loomi</i>	<i>loominyl</i>	bereaved child
<i>jilarr</i>	<i>jilarrjina</i>	bereaved brother or grandfather
<i>ngaarra</i>		bereaved uncle

The bereaved sibling terms apply also to other relatives at the same harmonic generation levels; that is, they refer not only to bereaved sisters or brothers, but also to grandparents.

6.2.5. Other kinship terms

There are some other terms which are collective in function. That is, they refer to groups of people who have generational relationships to one another. These are given in (2.2).

- (2.2) a. *iwanybalini* ‘group of younger men who are *inara* to the propositus’
- b. *inyaaboo* ‘an older woman who is *inara* to the propositus’
- c. *jalbid* ‘an older woman who is *jarndoo* to the propositus’
- d. *jimaarral* ‘age-mate, person who has been through initiation with the propositus’
- e. *ngalmangan* ‘a group of women’s children’

In addition to the kinship terms discussed above, there are also a few special named relations between people who are *inar(a)* to each other, including between a man and his mother’s brother who would be his sponsor through initiation. This relationship is called *jawooloo*.

6.3. Kin-based taboos

There are several interactional taboos based on kinship. A woman and her son-in-law (daughter’s husband) may not meet or interact in any way; they may not sit at the same campfire (or these days in the same car or be in the same house). They may not talk, even through an intermediary. This taboo is especially strictly enforced with the oldest daughter’s husband; less so with the younger children. Gibson (1951:17) reported that on Sunday Island the men would sit at the back of the church, and arrive after (and leave before) the women, so as to avoid potential interaction with tabooed kin.

Opposite sex siblings have limited interaction; they do not address one another directly. This takes place from puberty. There are also a couple of ‘respect’ relations; one is between a mother-in-law and her daughter-in-law (son’s wife ~ husband’s mother); daughters-in-law are expected to provide food gifts for their mother-in-law and to be generally respectful. Gibson (1951:15) says that a man’s mother’s brother’s wife is also an avoidance relation.

There were a few circumstances where an *aloorr* might cease to observe the taboos and start to be treated as a regular child. The phrase for this is

garool innagal langan (literally ‘he/she strokes a shoulder’). It is not clear under what circumstances this could happen.

Other relationship pairs cannot say the names of each other directly. The main pairs for this are *aloorr*, *rangan*, and *gaarra*. A person cannot say the name of another person who is related to them in one of these ways.

6.4. Marriage systems

As described in §2.6.1 above, Bardi people had a pair of egocentric moieties, termed *jarndoo* (for ego’s generation and other harmonic generations, such as those of the grandparents and grandchildren), and *inara* for the disharmonic generations (ego’s parents and children). The only possible marriage was between people who were in the *jarndoo* relationship to each other. However, there is some reference in the early anthropological literature to there being other preferences in choosing marriages too. For example, it was preferable for the women to be in the grandchildren’s generation of the husband.³⁴ Men could take more than one wife, although it is difficult to tell how widespread polygamy was. I also have no information on the usual number of wives that a man could have. If a man died, it was customary for one of his brothers to marry his wife and take care of his family. If the husband died, however, the woman had a choice about whether to accept or reject the brother’s marriage; if she rejected it, she was expected to return to her own clan and country.

Little is known about traditional Bardi marriage patterns beyond the constraints on marriage to someone who is *jarndoo*. There is a special word *irrbanbin* to refer to a marriage where a pair of brothers marry a pair of sisters. This was a preferred marriage. In addition, there is some evidence that marriage was clan-based and clan exogamous. That is, a person would not marry someone from the same patriclan. Men from Sunday Island appear to have married women from Oowini country; women from Sunday Island may have married men from that area too. Men from Pender Bay seem to have married Nyulnyul women. Elkin (1932:308) describes the marriage principle as “little bit long way”; Elkin suggests that “long way” here refers both to geographic distance and to distance kinship reckoning, that one should not be too closely related to one’s potential spouse, but not too distant from them either. Some speakers describe Bardi marriage as primarily linguistically endogamous while being clan-exogamous (that is, Bardi speakers from a different area were preferred); this accords with Elkin’s description. Elkin

(1932:308) claims that although second cousin marriage is dispreferred, marriage between a man and his sister's son's daughter is possible, so long as the sister's son's wife was a proper marriage. Elkin (1932:310) also notes that a difference between the Bardi and Nyulnyul systems is the classification of the mother's mother's brother's son (MMBS), who is a 'father' in Nyulnyul but a mother's brother (*gaarra*) in Bardi.

There were several ways in which a marriage could be arranged. Sometimes wives were 'stolen' from neighboring groups. The Laves texts from the 1920s contain several stories about men who steal women (some unmarried, mostly those already married) from other areas. Some marriage involves a 'promise' (an arrangement that included the parents). In other cases, wives were 'inherited' by a younger brother when the older brother died. There were also love matches, as long as the match was licit according to other rules. The word for betrothal is *balngarinjoon*. When women married, they kept their patrilineal inheritance rights; that is, they were not adopted into their husband's clan.

Post-marriage living seems to have been largely patrilocal (that is, the wife would live with her husband's clan), though there seems to have been some variation, and some mobility of family groups among the different areas in which they had rights to live. Information on this is inferred from the Laves materials, since by the end of the 19th Century, almost all Bardi people were living in missions in a few places in Bardi country and the traditional mobility patterns were largely lost.

6.5. Class, equality, and occupational differences

While there was no socioeconomic class system, Bardi people were not all treated as socially equal. Older people (both men and women) had more social status than younger people, and men seem (from the Laves texts) to have been more powerful than women. For example, the punishments given to women for adultery were considerably more severe than those given to men, and while people had land rights through both their father's line and through their mother, the rights accorded through their mother were considerably less than those through the patri-line.

In traditional times there was no occupational specialization, beyond certain tasks that men would do and others that women would do. Only men hunted dugong and turtle, for example. However, people did talk about dif-

ferences in how good different individuals were at certain tasks (for example, in raft building).

7. Land and land tenure

7.1. Language and land

In some Australian Aboriginal groups, rights to language are acquired through the land. That is, there is a close relationship between the land and the language spoken there, and people are said to speak a particular language *because* of their relationship with that land. This is less clear in the Dampier Peninsula. The culture hero Galaloong put the Bardi language in Bardi country (and also Baard and Jawi); he is the same hero who named the places and showed people water on the islands. However, the way speakers talk about language implies that the relationship is less direct than it is in Central Australia. For example, while land boundaries are often quite well-defined, the linguistic boundaries on the Peninsula are described in more fluid and fuzzy terms. Pender Bay Bardi, for example, is described as ‘Bardi coming-up Nyulnyul’, and Bardi from Sunday Island is sometimes described as ‘part Bardi, part Jawi’. The places are named in a particular language, and people from a particular place speak a particular language. Thus one finds statements that ‘Goolarrgoon people speak Bard(i)’ or ‘Goolarrgoon people are Bard(i)’ but not that ‘the Bard(i) language belongs to this area’.

7.2. Ownership

Land tenure was collective. The primary basis for land tenure in Bardi country was through the patrilineal estate, or *booroo*. McGregor (in press) characterizes land tenure of this type as being restricted to males, however the women I have worked with were fairly clear that they had rights to land through their father too. These rights appear to have been of several kinds (see also Sutton 2003). They included right of free access. One can visit and stay in one’s *booroo* without notifying the owners of that land, while those without rights must ask permission; this applies to both men and women. It also includes rights to the resources on that land, such as fish, and hunting; it probably also included the rights to conduct ceremonies on the *irrganyji* ‘lawground’ in that country.

In addition to rights to one's *booroo*, there were also secondary rights to one's mother's country, or *ningalmoo*.³⁵ The boundaries to the patrilineal estates seem not to have been clearly marked. The *booroo* consist of one or more focal camps, places surrounding them, and the area between.

I do not have good data on the inheritance of patrilineal estates when the line dies out: senior Bardi men made provisions for who can assume the management of such estates when the family has all died out in accordance with traditional law, but I don't know what they are.

There are numerous defined camps within Bardi country, which people would travel between. Some were only good at certain times of the year. For example, some places were infested with mosquitoes at some times, so would not be used. Others were particularly used at the time of year when the community would be on the lookout for mating turtles. Other camps are talked of in terms of 'holidays'; that is, of places where small family groups would go for a time to hunt and fish, and where the kids would play. Bessie Ejai says that most of the traveling happened in the dry season.

7.3. Place names

A detailed discussion of Bardi place names is given in Bowern (2009) and so only a cursory summary is provided here.³⁶ I concentrate on salient features of the toponym system.

The term *Wardiyabulu* refers to the Dampierland groups (or sometimes just the most northern ones) and their country. It is a Nyikina or Yawuru term in origin. Within Bardi country, place names are organized hierarchically.

7.3.1. Areas

There are seven named *areas* within the country; these were given in Map 0.3 on page xxxvii above. The mainland area is divided into four roughly equal quadrants. *Goolarrgoon* is the north-western area comprising the modern resort area of Cape Leveque and environs. *Goowalgar* is the area south of Goolarrgoon, on the western side of the Peninsula as far as Pender Bay. An alternative name for this area in Robinson (1973:103) is *Olonggon*, which means 'in the south'. On the eastern side of the peninsula, there is *Ardiyol*, the area including the community of One Arm Point, and *Baanarrad*, centered around *Galan* (Skeleton Point). The interior of the Dampier Peninsula was uninhabited and is sometimes talked about as not belonging to any area.

The other three areas pertain to the islands off the tip of the Dampier Peninsula. The fifth ‘area’ is *Iwany*, which comprises the three islands together called Sunday Island on English maps. It also includes the islands immediately to the north (such as *Ralooraloo*) and the islands/rocks in Sunday Strait. The sixth area is *Iinalabooloo*, the islands between Sunday Island and the mainland. The seventh area name is *Mayala*, the islands of the Buccaneer Archipelago east-north-east of Sunday Island.

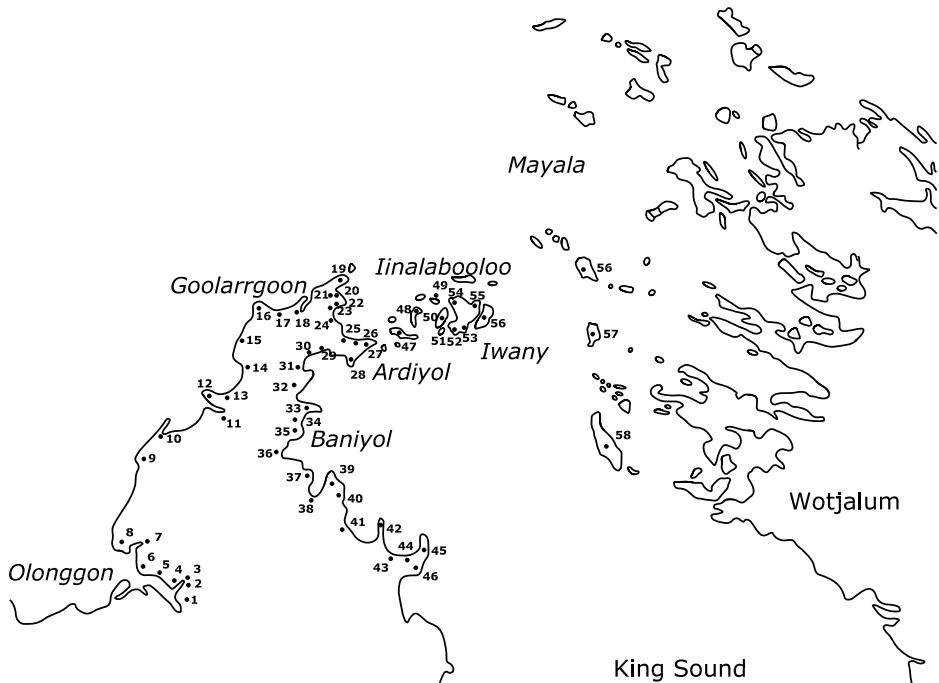
7.3.2. Booroo (patrilineal estates)

Within each area, there are a number of *booroo*. The word translates as ‘camp, ground, place’. It refers to a patrilineal estate, a place which would be owned by a group which formed an important part of Bardi social organization. Booroo are geographically much smaller than areas; for example, there are at least 20 *booroo* in the *Goolarrgoon* area. The *booroo* names are often also island names; thus *Jayirri* is both an island and a booroo, as is *Jalan*. Other islands may contain several *booroo*, as for example Sunday Island (*Iwany*). In some cases the location of the *booroo* has been lost and is recorded only in the name. In other cases, such as *Albooloogoona* and *Narrigoon*, the location is known. These days some *booroo* names are well known, but many have been lost. The *booroo* names on Sunday Island (*Iwany*) are only known to the oldest Bardi people. In this case, *Iwany* is now used the way that the name *Jayirri* is used, even though *Jayirri* was a *booroo*/island name and *Iwany* was an area term. Several mainland *booroo* names, such as *Ngamoogoon*, *Gambarnan* and *Boolgin*, are still frequently used.

Booroo names for Bardi country are given in map 2.4, and the key to the map is given in Table 2.8. Data for the map is taken from Aklif’s and my field notes, and supplemented by Robinson (1973:112ff). The placement of some of these *booroo* differs between the map in Robinson (1973:112) and my own notes. *Jamalalgoon*, for example, is given as a *booroo* name on the northern shore of Pender Bay by Robinson (1973); in my notes, however, it is the name for the tidal creek (*iidarr*) behind the large sandbar on the southern entrance to Pender Bay. Since Robinson was working 25 years before me, with older people, his placements may be considered more accurate; on the other hand, I checked locations using Google Earth satellite imagery for places which we could not visit in person. I do not know if Robinson’s *booroo* location fieldwork was done with maps or by traveling to sites. Note

also that not all names here were confirmed by me as being *booroo* names. Unconfirmed names are asterisked. The area around Garramal (Cunningham Point) has few names in my field notes; speakers thought that there were more names but did not recall them. Spelling is from my field notes, since Robinson's phonemicization is unreliable. I take Robinson's assignment of *booroo* to areas as definitive on the mainland. Robinson does not distinguish Iinalabooloo from Iwany and Mayala areas; I have distinguished them here. There were most probably more Mayala *booroo* than are given here.

Figure 2.4. Booroo (patilineal estates) in Bardi country



7.3.3. Locality names

Each *booroo* contains multiple specifically named places within it. These may refer to different topological features, such as tidal creeks (*iidarra*), rocks (*goolboo*), reefs (*marnany*), caves (*gardin*), hills (*garrin*), or small bays, or they may refer to a piece of land behind the shore. Occasionally they also refer to man-made features, such as the large permanent fish traps

Table 2.8a. Booroo (patilineal estates) in Bardi country: key to Figure 2.4

Area	No.	Name	Comment
Olonggon	1	<i>Bolg</i>	shared with Nyulnyul?
	2	<i>Loomadarrjin</i>	<i>Lambardajin</i> in Robinson (1973)
	3	<i>Boorroonggooloon</i>	
	4*	<i>Birlirlirl</i>	called <i>Jambalanan</i> in my notes
	5	<i>Jamalalgoon</i>	placement uncertain
	6	<i>Ngalangorron</i>	
	7	<i>Jambalanan</i>	placement uncertain
	8	<i>Joordood(oo)</i>	
	9	<i>Joolbard</i>	
Goolarrgoon	10	<i>Loomadinarr</i>	
	11	<i>Jilirr</i>	also known as Chili Creek
	12	<i>Boolginarr</i>	given in Robinson as <i>Buldinara</i>
	13	<i>Jarinyan</i>	also known as Djarinjin
	14	<i>Jalmbarn</i>	
	15	<i>Ngamoogoona</i>	
	16	<i>Gooljiman</i>	Cape Leveque
	17	<i>Miidaloon</i>	placed South, in Baniyol, by Robinson
	18	<i>Boolgin</i>	
	19	<i>Barinybarr</i>	Swan Point
	20	<i>Gardiman</i>	
	21*	<i>Jambarnnginy</i>	not confirmed as booroo
	22	<i>Ngarrinarr</i>	
	23*	<i>Lirramarr</i>	not confirmed as booroo
Ardiyol	24	<i>Gambarnan</i>	
	25	<i>Marraljinan</i>	
	26	<i>Maalamboo</i>	
	27	<i>Ardiyooloon</i>	
	28	<i>Nilangan</i>	
	29	<i>Borrgoron</i>	Cygnet Bay
	30	<i>Balanganan</i>	
	31	<i>Noomoordany</i>	

Table 2.8b. *Booroo* (patilineal estates) in Bardi country: key to Figure 2.4 (continued)

Area	No.	Name	Comment
Baniyol	32	<i>Garrambang</i>	
	33	<i>Mardnan</i>	
	34*	<i>Janalarr</i>	<i>Jangala</i> on my map; <i>booroo</i> status uncertain
	35*	<i>Mirrgooloon</i>	name appears only in Robinson
	36	<i>Miligoon</i>	
	37	<i>Joolbany</i>	named <i>Joowan</i> in Robinson
	38	<i>Ngililing(a)</i>	Willie Creek
	39	<i>Maljin</i>	
	40*	<i>Lambilambon</i>	
	41	<i>Goonyalin</i>	
	42*	<i>Goolboon</i>	Deep Water Point; called <i>Balinggoon</i> in my notes
	43*	<i>Nooloorrood</i>	not recorded by me
	44*	<i>Wa:rra</i>	not recorded by me
	45	<i>Garramal</i>	Cunningham Point
	46*	<i>Bijingan</i>	
Iinalabooloo	47	<i>Jayirri</i>	
	48	<i>Jalan</i>	
Iwany	49	<i>Boolnginy</i>	
	50	<i>Ngolorron</i>	
	51	<i>Ganirriny</i>	unconfirmed as <i>booroo</i> name
	52	<i>Nilagoon</i>	
	53	<i>Gawirrgoon</i>	
	54	<i>Bilinybiliny</i>	<i>booroo</i> is unnamed in my notes, but location of this place is given as far to the south on Iwany.
	55	<i>Ngaloon</i>	
	56	<i>Oombinarr</i>	East Sunday Island
Mayala	57	<i>Oolarla</i>	High Island
	58	<i>Gararr</i>	Mermaid Island
	59	<i>Oonggaliyan</i>	Long Island

(*mayoorroo*) around One Arm Point. Locality names typically refer to a feature, but the name will also be applied to the ground surrounding that feature. Thus *Jaybimilj* refers specifically to two submarine depressions (where fish congregate) in the tidal channel between *Iwany* and *Oombinarr*; however it also refers to the stretch of the passage where the depressions are located (the passage as a whole is called *Jaybi*).

Place names are heavily concentrated around the coast. In the Laves texts, for example, places inland are usually referred to by their *booroo* name, whereas more specific locality names are used for areas along the coast. Bardi people are primarily coastal dwellers and seemed to have seldom camped inland. This makes sense in an area where the sea is a far more fruitful resource than the land, and where there is no permanent surface water.

While *booroo* names are unique within Bardi country, locality names are not. Thus there is only one *booroo* called *Albooloogoon*, but there are multiple places called *Mardaj*. Where disambiguation is necessary, the *booroo* name is given as well. Thus *Jayirri Mardaj* is the *Mardaj* on *Jayirri*. *Ilon* is another common name. The places named *Mardaj* are all reefs, and places named *Ilon* are all valleys inland, away from the coast.

8. Ceremonial and religious life

8.1. Mythology

Much documentation of Bardi spiritual and supernatural stories has occurred over the last hundred years. This part of the culture straddles the restricted and public: from what I understand, most of this information exists in several layers depending on the appropriate audience. For example, the bad spirit stories are used to frighten children and are freely told, but they are also part of the adult belief system with additional layers of meaning. Some types of spirits appear to men in dreams and give them songs. Some of those songs are restricted. Doctors are able to pass between this world and the shadow world and many aspects of their knowledge also involve restricted topics.

Some of these stories and spirit beings are common throughout the Kimberley region, whereas others seem to be restricted to Bardi. Conception totems or ‘spirit children’ (*raya*; see below) are widespread and the same term is also used throughout the Western and Northern Kimberley (Coate 1966). The concept of Dreaming stories is also extremely widespread. The

Rainbow Serpent figure is of course famous (*ingoodoog*), but is not seen to be typical in Bardi (this is an esoteric story in northern Kimberley cultures). It does not appear to be a central part of Bardi law, unlike some of the Desert cultures. Doctors and shadow worlds also appear to vary across the region, but elements of the Bardi culture and stories are also found at least in Bunuba, for instance in the Jandamarra resistance stories (Pedersen and Woorunmurra 1995).

8.2. Spirit beings

In traditional Bardi culture there were two types of spirit beings: benevolent spirits and evil spirits. The bad spirits are the spirits of dead people and attack people, particularly children, while the good or neutral spirits are a different type of being. They do not attack people.

There are four different types of good or neutral spirits. *Ingarda* live in mangroves and underground. They are the spirits who bring *ilma* to singers (see below). *Raya* are conception totems (see further Coate 1966), also called ‘spirit children.’ Conception totems are the totems which are associated with a child’s birth or conception. They take several forms. For example, if a man spears a fish with a distinctive mark and his child is later born with that same distinctive mark, this is evidence that the fish was a *raya* spirit and the fish is the conception totem for the child. In other cases, the conception totem might be an animal associated with the particular place where a woman first found out she was pregnant. Another word for *raya* is *ngarrgalala*.

Mirridid spirits are little people from a long time ago. They lived in *giidoonoo* (little grass huts). Laves text 75 (see texts in Appendix E) is about this spirit. *Mirrididi* were fairy children who lived all through the area. When a stranger came to a new place, the *mirridid* would come up to him at night asking for their father. They could take the form of animals, just like *raya* spirit children. If someone killed a *mirridi*/kangaroo during the day, at night in the camp the kangaroo would change back to a *mirridid* and say ‘now I’ll call you dad, because you speared me.’ They mostly came to men, but they could come to women too. They are a little like *raya* spirits, except that *raya* can still be felt and seen on the islands in Bardi country, but the *mirrididi* have all gone now.

Gòowa are mermaid-like creatures. They are fair-colored women with long hair, and used to help people when they went fishing, for example by

duplicating spears as they were thrown so that two spears would hit the fish rather than one. Bessie Ejai saw them when she was a little girl. If someone sees a *gōowa* and then tells someone else that they have seen one, they will not see her again.

The bad spirits are *ngaarri* and *layoordoo*. *Ngaarri* is the usual translation for ‘devil’ these days. It also formerly had a technical meaning of the ghost of a person who has not yet left the area and gone to *Looman*, the land of the dead, far to the west of Bardi country. They take the form of curlews (*iindoo*). *Layoordoo* spirits steal wives and cut the cheeks off children.

8.3. Songs and song language

Bardi music is mostly sung, and there are several types of songs, both accompanied and unaccompanied. Bardi music is not polyphonic. There are six main types of music:

- (2.3) a. Sacred restricted songs; initiation songs (the names of which include *mangali*, *arnkooy*, *oololoong*, and *iinbala*; these songs not further discussed here)
- b. Public sacred music (*ilma*)
- c. Increase songs (e.g. *nganynginy*)
- d. Entertainment songs; ‘made-in-the-head’ songs (*loodin*)
- e. Christian hymns
- f. Country music and pop music

Songs may be either restricted or non-restricted. The restricted songs include those sung in certain parts of initiation ceremonies. There are also public songs that also have a restricted meaning. An important song type is the *ilma*, which are a set of song cycles for public performance. It is the main genre of ceremonial music performed today. *Ilma* are not composed by individuals; rather they are ‘dreamt’ – that is, given to people in a dream, and their task is to interpret the spirit song into the language of *ilma*. There are only two named *ilma* cycles currently known: Ruby’s *ilma* and Billy Ah Choo’s *ilma*. Ruby’s *ilma* seems to have had a greater restricted component than Billy Ah Choo’s does. See A’Choo (c. 1991), Bowern (2007a) for more information.

Ilma language is similar to regular spoken Bardi, though there are a few differences (some of these are performance differences). Verbs are typically

suffixless in *ilma*, though they may contain a past tense marker or the filler syllable suffix *-ngay*. They are telegraphic and there is a lot of metaphor in song language. There is also stress shift and vowel centralization.

There are some ‘increase’ songs recorded by Alice Moyle in 1968. These are songs which are sung in order to ensure a good catch of turtle or fish. Such songs were not rerecorded by me and seem to have been lost as a performance type, though the texts and context of the songs are still known.

There were also songs for cutting up dugong or turtle, such as (2.4) below:

(2.4) *joordoobi jordoo, ngananggalama...*

The words are not identifiable as Bardi, though they have Bardi phonotactics, and the last word looks like a transitive verb inflected in the past tense with a first person subject, but the root is not identifiable.

Another major genre of song text is *loodin*. Unlike *ilma* songs, which are not composed but given to their owners in a dream, *loodin* songs are composed by individuals in response to an event or image that is deemed to be song-worthy. There are a number of *loodin* songs from the Second World War, when Broome was bombed and the Sunday Island Mission was evacuated. *Loodin* songs are typically fairly short (a few minutes in length) and have at most a few verses. Subject matter for the verses include things like the sight of a wallaby swimming in the sea to a nearby island, the sound of bomber planes overhead, or the pain at being stung by a stonefish. A feature of both *ilma* and *loodin* songs is a device which I have called ‘telescoping’ (Bowern 2007a). An event is described by a single component, which becomes evocative of the scene as a whole.

More recently, several Christian hymns have been translated into Bardi and are still regularly sung. The Broome-based Pigram Brothers band includes Bardi lyrics in some of their songs.

8.4. Initiation grades

Bardi male initiation is still practiced. There are several stages of the ceremonies, and they include both restricted and public components; both men and women participate in the ceremonies, but with different roles. Information on traditional ceremonies (considerably more information than would be released today) has been published in articles from the 1940s and 1950s.

The stages of initiation have public names; the entries from Aklif (1999) are summarized here. The first initiation stage is called *arnkooy*, while the second is *oololoong*. Within each ceremony, there are a number of stages that the boys pass through. Some of the terms are used back in camp to refer to the boys while they are in seclusion in the lawground (called *irrganyji* in Bardi).

- (2.5) a. *niyamniyam*: Boy who is ready for the *arnkooy* ceremony; the term applies particularly to when the boy is in the *irrganyji* ‘law ground’;
- b. *layanyarr*: Boy who has been painted all over with fat and black paint for the *arnkooy* ceremony;
- c. *balili*: Boy who has finished the *arnkooy* (first initiation stage) ceremony, after he has come out from the *irrganyji* (lawground);
- d. *joodoor(oo)*: Boy who is in the Oololoong ceremony;
- e. *jamoonoonggoorr*: Boy who has finished the *oololoong* (second initiation stage) ceremony;
- f. *gambil*: In another *oololoong* ceremony, *gambil* boys get hand-strings to wear. They cannot eat fish at this stage;
- g. *roonggoorr*: The following year, they get eagle feathers in their hair, and become *roonggoorr*;
- h. *boongan(a)*: Once the boy has a hair belt and pearlshell, he is *boongana*;
- i. *ilyboorr* : This is the stage at which they get red paint;
- j. *mambangan*: The final stage, after they have been painted with red paint, the boy is fully initiated. They are allowed to marry after this.

The names of the ceremonial grades are based on a variety of different strategies; some are atomistic, others are analytical (e.g. *layanyarr* means ‘fat-COM’).

8.5. Funerals

Bardi funeral practices traditionally involved exposing the body for a period of time by placing it upright in a ‘cradle’ mounted on a platform in the fork

of a tree. This is the ‘tree coffin.’ The bones are later placed in a pillow made of paperbark, or left, with just a piece of hair being preserved. People would have to avoid the area with the *jarrgandiny* ‘tree coffin’ for three days.

8.6. Rock art

There is rock art in Bardi country. It is restricted, and so precise locations are not given here. Metcalfe recorded a story about magical rock art in the area of Swan Point. The pictures cannot be erased; they return if they are rubbed out or washed away. In the early days of European settlement in the area, someone tried to take a photograph of a cave painting, but the ground collapsed under the camera before the photograph could be taken (Nancy Isaac, BOW3/47, 2001); this was seen as an indication that the art was special and photos of it should not be taken.

9. Personal names

Bardi people traditionally had several different names. In addition to their ‘bush’ name, they would commonly be known by their *booroo* name; that is, the *booroo* or area that their family owns, and a nickname. After the missions were founded, most people had and used a European name too. Gibson (1951) mentions that men would also receive a secret name at initiation, which would be used only during ceremonies.

Nicknames are formed with several different strategies. They might be given after an event, or based on baby-talk, or someone can be named for another person with the same nickname. For example, Gedda Aklif’s nickname was *Janjan* because she is very tall, just like someone else with that name, while my nickname among some Bardi people is *langijmijij* (lit. ‘language woman’). The nickname is also used when the person can be spoken to but the name is taboo; there is no general term which replaces necronyms, such as *kumanytyayi* in Central Australia.

Names (apart from nicknames) were seldom used. People were seldom addressed directly with their name; instead, a kinship term or a vocative address such as *oy*, *anggaba* ‘hey you’ (lit. ‘who/someone’) is used. Older Bardi people still use *you anggaba* as a way of addressing people. Some relatives cannot call others by name directly. It is also not permitted for someone who

has the same name to use that name with someone else; the word for ‘name-sake’ is *goombali* and such people are referred to as ‘my *goombali*’ even in English. Name taboos are still generally observed, especially by older people.

English names do not have the same usage restrictions that Bardi names do (it was more than 5 years before I was told the Bardi names of some of the people I had worked with very closely). Bardi names are special; they are not used for address these days, although they are found in the Laves texts when talking about people. Names are used with talking about people, but nicknames are more common. Nicknames are used to address people directly, if the person can be addressed. Some names cannot be said if they are a taboo relative; opposite sex sibling names are usually not used, particularly the names of a woman’s elder brother, though younger brothers seem not to be subject to quite the same stricture.

10. Language use

10.1. Ancillary languages

Bardi does not have a public ancillary language such as ‘mother-in-law’ language. I have no information about initiation language use. I do not have enough data to draw any conclusions for respect registers, except that there are definitely intonation and volume differences when talking to someone with whom there is a respect relationship.

10.2. Baby talk

Bardi has a baby talk register. It is not used much these days, as child-directed speech tends to be in English, and when asked about it, speakers preferred to record adult speech as a better model for the children to follow. Baby talk is characterized by higher pitch (F0) of the utterance and greater variation in intonation contours. There is considerable repetition of lexical items. There are some phonological substitutions, with *l* for *r* being the most common (see (2.6) below). There are some lexical substitutions, including *nyamnyam* ‘food’ for regular Bardi *aarlimayi*, *boojbooj* ‘fat’ for *laya*, and *gajoo* ‘father’s father’ for *galoongoord*. In complex predicate constructions, the preverb is used without the inflecting (light) verb, as in (2.6):

- (2.6) Baby talk: *loowil!*
 Adult Bardi: *roowil a-n-nya*
 walk 2-TR-'catch'
 'Walk!'

Such constructions are not at all a feature of the adult register, where there are no general conditions under which light verbs are omitted. Finally, ergative case marking tends to be omitted in this register.

10.3. Greetings, thanks, and leave taking

Modern greetings in Bardi are calqued on the English ones, with the exception of *anggi jawal* 'what's new', which seems to be older, and is used as a greeting like 'hello'. Other greetings are given in (2.7).

- (2.7) a. *gorna mooyoon*
 good morning
 'good morning'
 b. *gorna injooloolin*
 good afternoon
 'good afternoon'
 c. *nyirroogoordoo mi-n-kal*
 how 2-TR-go
 'How are you?'

There are no Bardi words for please or thank you, but *gala gorna* 'it's good' is used to express appreciation.

The word for good-bye is *joorrgo*. It is used when the people will not meet again for a long time. For example, it is appropriate to say *joorrgo* at the end of a field season, but not at the end of a day's work, when something like the phrases in (2.8) are appropriate. They are probably also calques from English.

- (2.8) a. *Garrma ngankalarri.*
Garrma nga-n-k-al-a=rri
 later 1-TR-FUT-see-FUT=2M.DO
 'I'll see you later.'

- b. *Ngooriji ngankalarri.*
Ngooriji nga-n-k-al-a=rri
 tomorrow 1-TR-FUT-see-FUT=2M.DO
 'I'll see you tomorrow.'

10.4. View of surrounding languages

McGregor (in press) notes in his Nyulnyul grammar that Nyulnyul people viewed the Bardi language as something of a local ‘killer’ language; that is, one that people were expected to talk in. There is some mention of Bardi borrowings, and the default assumption for words of unknown origin is that they “must be Bardi.” This fits the anecdotal reports from Sunday Island that Oowini wives of Sunday Island Bardi men were expected to learn Bardi.

It is interesting to compare the languages which are defaulted to as the “it must be a word of language X,” if a word is not recognized as being Bardi. For Bardi people, unknown words are presumed to be either from Oowini (a Worrorran language of the islands adjacent to Bardi country) or occasionally Nyikina. The Nyikina words were given as responses to words in Nekes and Worms (1953) and Metcalfe (1975a); some of the words are indeed found in Nyikina, though others did not appear in the Nyikina materials available to me. Very little is known of the Oowini language. It is quite possible that some Nyikina words entered Bardi in the 1960s and 1970s, after the Sunday Island mission closed and Bardi people moved to Derby.³⁷

Although Bardi people appear on the whole to have been monolingual,³⁸ they were not exclusively so, and they did trade and interact with their neighbors. Some Bardi people knew at least some Nyulnyul too. David Wiggan recorded a narrative about life on Sunday Island in the Mission period where he comments that different groups lived ‘with their own people’:

- (2.9) *Arar gard angarralanan Baardi minyjin agal Jawi, Oowin, Oogarrang ginyingg jardirr ambooriny, ginyingg arrmoonggoonirr.*

Arar gard a-ng-arr-ala-na-n Baardi minyjin agal
 others still 1-PST-AUG-live-CONT-REM.PST B. only and
Jawi, Oowin, Oogarrang ginyingg jard-irr ambooriny,
 J. Oo. Oo. 3MIN 1A.POSS-3A people
ginyingg arr-moonggoon=irr.
 3MIN 1AUG-know=3A.PRED

‘We lived with our own people—Bardi, Jawi, Oowin and Oogarrangg people. We knew who were which people.’ (DW-LSI.024)

11. Recent history of the Dampier Peninsula

This section gives a brief history of the region, both Indigenous and European.

11.1. Bardi origin stories

Dixon (1996) quotes a Bardi origin myth which gives the view that Bardi people's ancestors originally came from the northwest of Bardi country. This would be a place over the Indian Ocean, assuming the current location of Bardi territory. The myth might have been told by the late David Wiggan to Gedda Aklif; however I have been unable to substantiate this story from other Bardi speakers and it is not among Aklif's recorded or transcribed stories, nor any other transcribed texts that I have been able to find. When I asked about the story, I was told that such a story is not part of Bardi culture, and Bardi people have always lived in the area. There is a common view amongst Aboriginal people (at least in the Kimberley) that origin myths such as the one mentioned by Dixon (1996) were recently invented by Europeans in order to invalidate Native Title claims.³⁹ Bardi people traditionally believe that the culture hero Galaloong brought the Bardi language to the area by walking over the whole of Bardi country, naming all the places.

11.2. Archaeology of the Western Kimberley

Archaeological work in the general region of the coastal Western Kimberley indicates that there has been human settlement in the area for at least 30,000 years (Mulvaney and Kamminga 1999). The oldest shell middens on Koolan Island, in the extreme north of the Buccaneer Archipelago, are of approximately this age. O'Connor (1999) is a study of mainland coastal and island sites in this area; she found that sites on Koolan and High Clifffy Island had been abandoned around 23,000 BP and resettled around 10,000 BP.

There is no published archaeological work which relates directly to Bardi traditional country. Although a confidential site report does exist (Bindon 1978), I have not had access to it, and it probably does not contain dated materials. Work on the land claim over Bardi/Jawi traditional country perhaps involved carbon or thermo-luminescence dating of sites in Bardi country, but is *sub judice* even though the claim is now resolved.

11.3. First contacts with Europeans

The people whom William Dampier met when he landed to scrape his boat in Cygnet Bay (just inside King Sound) in 1687 were Bardi people. The episode is described in some detail in *A New Voyage round the World*, (Dampier 1699). Compare also Katie W. Drysdale's telling of the story in December 2001 (field tape 36/3). This encounter also provides us with the earliest known recording of a word in an Australian Aboriginal language: *gaari!*, probably *ngaarri*, i.e. 'devil'.

Dampier's description includes the use of stone weirs, or fish traps (*ayin* or *mayoorroo*) for catching fish at low tide. Dampier's comment that the people he saw were eating only fish and nothing else probably reflects the time of year; he landed in March, at the very end of the wet season, when turtle, dugong and stingray (and many fish species) cannot be hunted and when almost no bush fruit is ripe. This is *ngaladany* season.

11.4. Pearlers and blackbirding

Northern Australia's pearl industry began in the late nineteenth century, centered around Broome and the shallow warm waters of King Sound. The industry had a devastating effect on the Aboriginal groups since they were often coerced into working on the boats, and several pearlers left their crew on the Lacepede islands⁴⁰ to starve to death at the end of each season. Yawuru, Karajarri and Jawi people were particularly affected, although all the coastal groups suffered raids. The Lacepedes were also used to 'break' recalcitrant potential pearl divers.

11.5. Mission period

The next period of contact began towards the end of the 19th Century, when the Durack family (and a few others) began bringing cattle into northern Western Australia overland from Queensland and the Northern Territory. A Mission was established at Beagle Bay (in Nyulnyul Country) in 1890, on Sunday Island before 1900, and at Lombadina in 1911 (Nekes and Worms 1953:19-20). Durack (1969) is a historical novel of the mission period (1878–1967), but is based on original sources and gives the missionary perspective.

The missions seem to have been set up in this area partly to offer shelter to Aboriginal people from the pearlers and from the punitive police raids.

Much could be said about the integration of Christianity into Bardi traditional culture. It seems that in the early years, the missionaries made some attempt to learn Bardi, and to find parallels between Christianity and Bardi belief systems. This has led to a series of Bardi narratives in which figures from the Bible are equated with Bardi Culture Heroes and their activities are placed within Bardi country. For example, there are stories about the effects of Noah's flood on Bardi country, and Bessie Ejai and David Wiggan have recorded narratives about the Culture Hero and law figure Galaloong, who ascended into Heaven on Jooloom Island.

The Mission period continued until the 1960s. Drysdale, Durack, and Bauers (1974) describes life on the Sunday Island Mission. The Sunday Island Mission was closed in 1962 (the reason given was that the island was too small for an air strip, which would be needed to evacuate any severely ill Aboriginal people on the island). The Aboriginal people living on Sunday Island were forcibly removed to Mowanjun Community, a predominantly Ngarinyin community in Warrwa country, on the outskirts of Derby. It was at this time that many Bardi people started to speak only English (sometimes by choice, sometimes by force). Almost all Bardi people born after the move to Derby do not speak Bardi fluently.

11.6. One Arm Point Community

The community at One Arm Point (Ardiyooloon ['adjiyulun]) was founded in about 1974, following pressure on the Western Australian Department of Native Affairs by David Drysdale (a missionary based in Derby and husband of the late Katie Wiggan-Drysdale, a Bardi woman) and members of the Bardi community after a few Bardi families moved back to Bardi country from Derby. They initially camped on the beach at Middle Beach (*Galbarrnginy*) until houses, a shop, and a school could be built. The community now has a school which takes pupils from kindergarten to Year 10 (students go to a high school in Broome or boarding school for the final years of school), a shop, a turtle hatchery program, council offices, a clinic, an unpaved air-strip, and a workshop staffed by the Bardi-Jaawi rangers.

11.7. The current language program

The Bardi language is currently taught as a subject to all students at One Arm Point community school, as part of the language and culture curriculum. There are also language programs at schools in the area (at Lombadina/Djarrindjin Community and Broome, for example), which involve Bardi. The One Arm Point program has been in place since 1990, and is likely to be one of the longest continually running language programs in Western Australia. These days, the language program focuses on cultural activities and the language required to talk about those activities in Bardi. The younger children also learn Bardi songs and English nursery songs in Bardi, such as ‘heads, shoulders, knees and toes’ (*ngalma, langana, ngaamidi, ngayambala* in Bardi). By fieldwork has resulted in some teaching materials for the school program, such as a digital Bardi dictionary, a few story books, and readers for intermediate to advanced language learners, but the vast majority of the work for the language program has been done by local teachers and members of the Bardi community.

Chapter 3

Phonetics and Phonology

Bardi is, in terms of phonology, the least conservative of the Nyulnyulan languages. Although contrastive vowel length is retained from Proto-Nyulnyulan, additional long vowels and an additional phoneme *o* have arisen through the lenition of intervocalic stops and deletion of intervocalic glides. Nasal dissimilation and cluster reduction have created a new series of intervocalic obstruents and vowel elision has created new consonant clusters. These changes make some Bardi words appear rather different from their Nyulnyulan cognates, and have led to complex alternations in the morphology which obscure root boundaries.

This chapter covers three areas. The first is a general description of the phonetic realization of segments, a description of the phoneme system, and phonotactics (§3.1 and following). The second is an analysis of morphophonology, including affix interaction and morphophonemic alternations which have resulted from the morphologization of certain sound changes. There are regular processes which occur throughout Bardi, although in addition there are some morphologized and lexicalized alternations (not strictly phonologically ‘regular’) and a few alternations which apply only to verbal prefixes. These are discussed in §3.6. Bardi has no lexical tone system. In §3.9 I give some information about the intonation system. Finally, in §3.10 I give a description of loanword adaptation.⁴¹

1. Consonants

1.1. Phoneme inventory

As previously described in Aklif (1999) and Metcalfe (1971), Bardi has seventeen consonants and seven vowels.⁴² Bardi is typical for Australian languages in making a contrast between five places of articulation for consonants: there is a distinction in stops, nasals and laterals between apico-dental, apico-palatal/domal (retroflex) and lamino-palatal places of articulation. Stops and nasals are also contrasted at velar and labial positions. There are two rhotics, a tap/trill and a (retroflex) glide. There are two other glides,

y and w. There are no fricatives and voicing is not contrastive, although stops alternate allophonically and also frequently lenite intervocally (more on this below). In other ways, however, Bardi is less typical of Australian languages in phonology.

Table 3.1 gives the consonant phonemes in practical orthography, with IPA symbols in brackets where they differ from those used in the orthography. I have used the established orthography throughout rather than IPA or a modified orthography to ensure consistency between the chapters. While the standard orthography for Bardi uses voiced symbols for the stops, I follow Maddieson (1984) in assuming that the category is underlyingly unmarked for voice.

Table 3.1. Consonant phonemes

	labial	alveolar	apico-post-alveolar (retroflex)	lamino- palatal	velar
stops	b [p]	d [t]	rd [ʈ]	j [c]	g [k]
nasals	m	n	rn [ɳ]	ny [ɲ]	ng [ŋ]
laterals		l	rl [ɻ]	ly [ɬ]	
trill		rr [r]			
glides			r [ɻ]	y [j]	w

There are a few phonemic distinctions made in the language which are not reflected in the orthography. Most crucial is the difference between /u/ vs. /u:/. Words with /u:/ are considerably rarer than those with the short vowel; the long vowel is notated in examples as <oo>. The other ambiguity arises from the interpretation of digraphs. A distinction between /ŋ/ and /n.j/ occurs (very rarely) across morpheme boundaries. These are given in the Bardi dictionary as pronunciation notes.

The basic phonetic value of the consonants is straightforward; they have the values expected from the IPA. In the ‘retroflex’ series, the contact of the tongue with the roof of the mouth is just under the tip of the tongue; the tongue is not heavily curled back and this makes the retroflexion somewhat difficult to perceive, especially in fast speech.

1.2. Minimal pairs

Minimal, near minimal, and somewhat less than minimal pairs illustrating phonemic contrasts for consonants are given in Table 3.2. Minimal pairs are not easy to find for all segments. For example, there is a word *liyan* ‘heart’, but there is no word which differs from it by a single consonant or vowel; the closest words are *niyang* ‘backwards’ (cf. *niya* ‘back’) or *Biyana*, the name of an island between the mainland and Sunday Island. Pairs contrasting *r* and the trill *rr*, however, are relatively numerous; a few are shown in (3.1).

- (3.1) a. *jalarra* /calara/ ‘daybreak’ vs. *jalara* /calala/ ‘nothingness’
- b. *arra* /ara/ ‘no’ vs. *ara* /aɻa/ ‘other’
- c. *boorroo* /puru/ ‘kangaroo (generic)’ vs. *booroo* /puɻu/ ‘ground’
- d. *marr* /mar/ ‘flash’ vs. *mar(a)* /maɻa/ ‘far away’

Some minimal pairs are morphologically complex; that is, a morpheme is a single consonant which differentiates two forms; compare *ngalma* ‘my head’, *nyalma* ‘your [MIN] head’, and *nalma* ‘his/her/its head’. The palatal and apical nasal are also distinguished monomorphemically in the pair *goolany* ‘baby louse’ and *goolan* ‘bluebone’.

1.3. Canonical realization of consonants

Canonical realizations of the 17 consonant phonemes are given below.

/p/ is a bilabial stop unspecified for voice.

/t/ is an apico-alveolar stop unspecified for voice.

/t̪/ is a post-alveolar stop, produced with the tongue slightly retracted; the tongue contact appears to be mostly apical, rather than sub-apical. It is unspecified for voice.

/c/ is a lamino-palatal stop; it is unspecified for voice and often slightly affricated.

/k/ is a velar stop unspecified for voice.

/m/ is a bilabial nasal stop.

Table 3.2. Consonant minimal pairs

	initial	intervocalic	in clusters	final
b	<i>bandiid</i> ‘pimple’	<i>babili</i> ‘brother’	<i>dalboon</i> ‘dry place’	<i>yardab</i> ‘crawl’
d	—	- <i>badi-</i> ‘be satisfied’ <i>bidiny</i> ‘shrub (<i>Tephrosia aff. rosea</i>)’	<i>ooldoobal</i> ‘things’	<i>baad</i> ‘wrestle’
rd	<i>danggard</i> ‘face paint’	<i>bardi</i> ‘yesterday’	<i>marndal</i> ‘take aim’	<i>bard</i> ‘away’
j	<i>jankarr</i> ‘stingray (<i>Raja sp.</i>)’	<i>bajibaj -joo-</i> ‘rub together’	<i>booljarr</i> ‘suddenly’	<i>girrgij</i> ‘goshawk sp.’
g	<i>gandarr</i> ‘tiger shark’	- <i>bagi-</i> ‘make a mistake’	<i>aalga</i> ‘day’	<i>bardag</i> ‘tree, stick’
l	—	<i>jaala</i> ‘spear’	<i>dalboon</i> ‘dry’	<i>arragool</i> ‘whaler shark’
rl	<i>linymidi</i> ‘black wattle’	<i>jaarla</i> ‘beach’	<i>marlja</i> ‘mudwhelk’	<i>loonkoorl</i> ‘blue-tail mullet’
ly	—	<i>malyamalya</i> ‘emu feathers’	<i>alymin</i> ‘windward’	<i>boogooly</i> ‘feather-stick’
m	<i>marrga</i> ‘shield’	<i>gamarda</i> ‘grandmother’ (MM)	<i>garrrma</i> ‘later’	<i>jirrm</i> ‘sing’
n	—	<i>Ganirrin</i> ‘place on Sunday Island’	<i>gankarl</i> ‘clam sp.’	<i>liyan</i> ‘heart’
rn	<i>narrga</i> ‘yam-like roots’	<i>garnabin</i> ‘magic murderer’	<i>garnka</i> ‘raw’	<i>goowarn</i> ‘pearlshell’
ny	<i>nyalma</i> ‘your head’	- <i>ganyi</i> ‘to climb’	<i>gaanyga</i> ‘mainland’	<i>goowidany</i> ‘moonlight turtling’
ng	<i>ngalma</i> ‘my head’	<i>gangayi</i> ‘good looking’	<i>ganyji</i> ‘bone’ <i>anggi</i> ‘what’	<i>bardagang</i> ‘with a stick’
r	<i>raya</i> ‘spirit child’	<i>ara</i> ‘other’	<i>ngoorboo</i> ‘soft’	<i>gor</i> ‘scoop up’
rr	—	<i>arra</i> ‘not, no’	<i>rarrjin -ma-</i> ‘feel shame’	<i>lagoorr</i> ‘egg’
y	<i>yawiny</i> ‘grey stingray’	<i>raya</i> ‘spirit child’	<i>marrya</i> ‘smoke signal’	<i>ngirray</i> ‘humpy’
w	<i>warbili</i> ‘toe next to big toe’	<i>baawa</i> ‘child’	<i>goorrwal</i> ‘sky’	<i>jadijawij</i> ‘clothes’

/n/ is an apico-alveolar nasal stop.

/ɳ/ is a post-alveolar nasal stop which varies considerably in the degree of retroflexion it exhibits.

/ɲ/ is a lamino-palatal nasal stop. It frequently conditions prepalatalization on preceding vowels.

/ŋ/ is a velar nasal.

/l/ is an apico-alveolar lateral.

/ɿ/ is a post-alveolar lateral which varies considerably in the degree of retroflexion it exhibits.

/ʎ/ is a lamino-palatal lateral.

/r/ is an apical trill; it is also often realized as a tap.

/ɻ/ is an apico-alveolar or post-alveolar glide. Speakers vary in its realization; for most, it is a retroflex (or post-alveolar) glide [ɻ], while for others, it is an apical glide [r].

/j/ is a palatal glide.

/w/ is a labio-velar glide.

1.4. Allophonic variation

There is substantial allophonic variation in the Bardi sound system. Most of the variation in the system can be described in terms of positional allophony (that is, it is dependent on the environment in which the phone appears); there is also some speaker-dependent variation and some ‘free’ variation (that is, variation which is not conditioned by any as yet identifiable feature).

1.4.1. *Realization of obstruents*

1.4.1.1. *Voicing*

Bardi has a single series of stops unspecified for voice. Voicing in obstruents is, however, allophonically variable. Stops are always voiceless word finally,

usually voiceless (and unaspirated) initially, and voiced elsewhere; see Figure 3.1 for illustrations of these positions. Intervocally, stops are almost always voiced. They are also often slightly fricated. After nasals they are usually (but not consistently) voiced, and in other clusters voicing appears variable. (All spectrograms here show a range of 5000 Hz.)

Figure 3.1a. Spectrogram of *goorbal* /kurpal/ ‘throat’ showing an initial voiceless stop

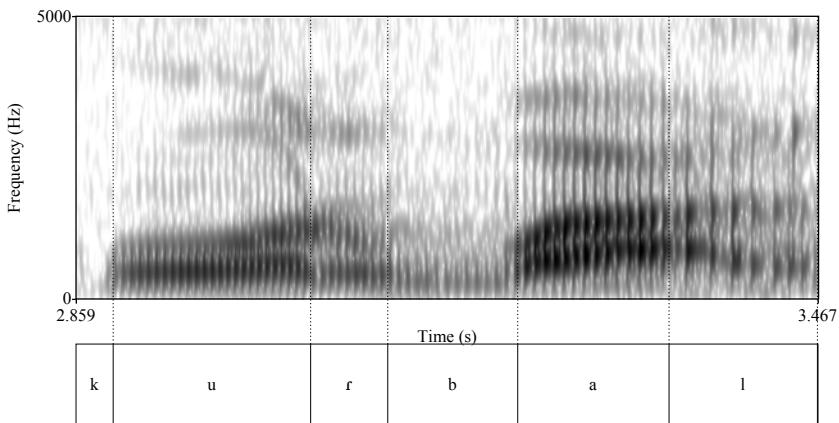


Figure 3.1b. Spectrogram of *daaga* /ta:gə/ ‘sleep’ showing an intervocalic voiced stop

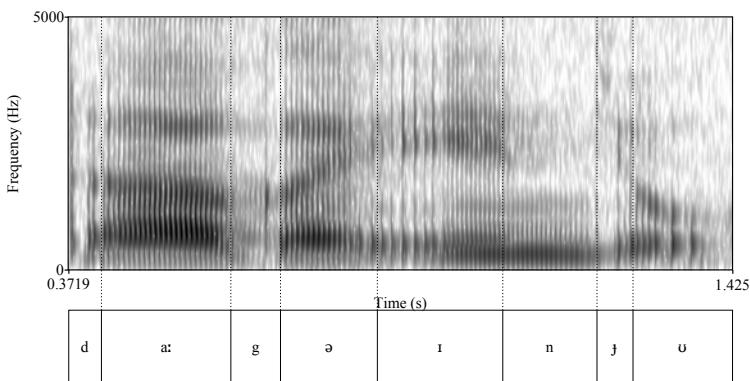
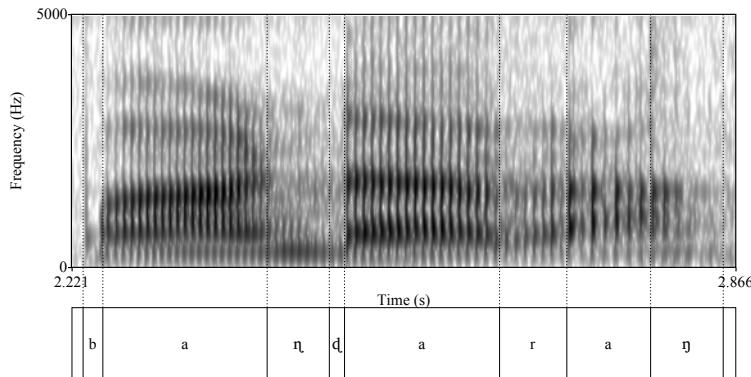
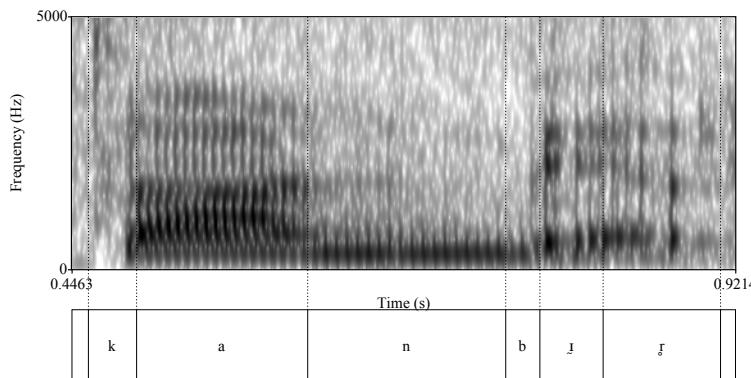


Figure 3.1c. Spectrogram of *barndarrang* /panṭaraŋ/ ‘club’ showing a post-nasal stop



All segments, whether consonantal or vocalic, are regularly devoiced word-finally in citation forms and prepausally. Aklif, in her description of Bardi consonant variation, gives *s* as an allomorph of the trill word finally; however, I have only found heavily devoiced trills. Figure 3.2 provides an illustration of a final partially devoiced segment. Obstruents may also be partially unvoiced in this position, with the voicing from the preceding vowel continuing into the stop for approximately one third to half of the length of the stop closure.

Figure 3.2. Spectrogram of a final devoiced trill in *ganbirr* /kanbir/ ‘wound (n)’



While voicing is not contrastive, using the right amount of voicing in each consonant position is an important part of speaking Bardi correctly, and the variants are not in ‘free variation’ in the usual sense of the term. I was corrected as sounding wrong if I produced unvoiced obstruents intervocally, for example. This is in contrast to what Dixon (1972:260ff) notes for Dyirbal, where both the voiceless and voiced allophone were accepted and said to sound natural.

1.4.1.2. Lenition

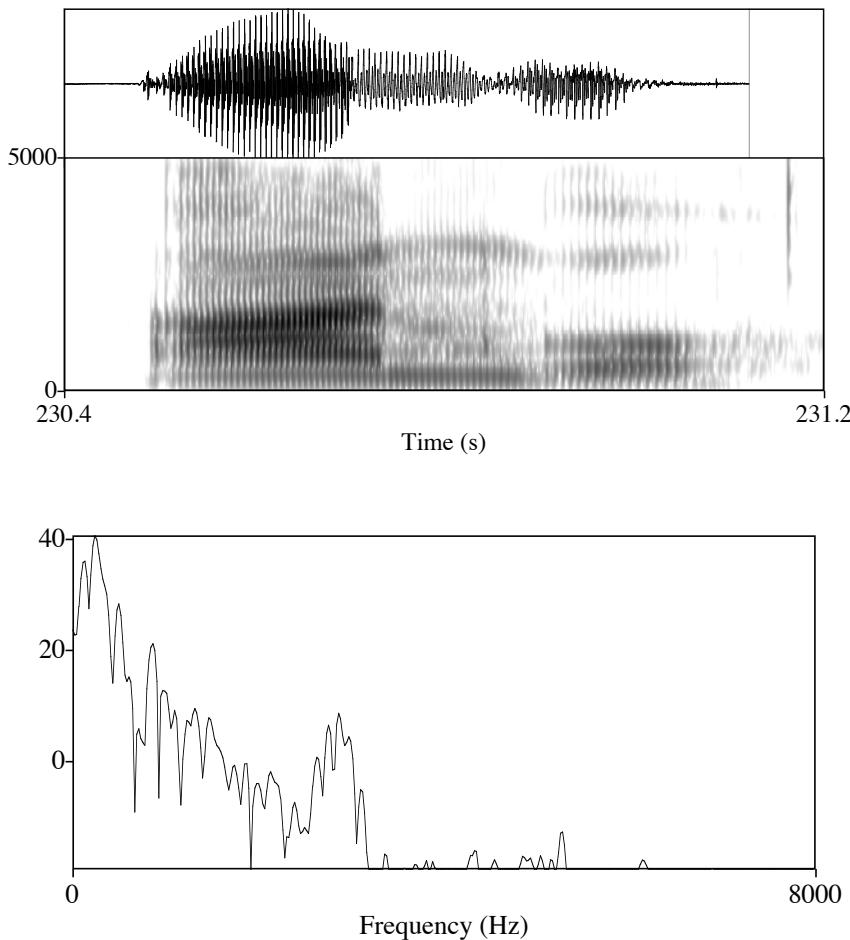
Intervocalic stops are often weakly lenited; that is, there is no clear closure in the spectrogram. Bowern, McDonough, and Kelliher (in press) describe this as a type of debuccalization; in this case, the stop closure is weakened, but the stop does not show the acoustic qualities of a fricative. There is minimal turbulence, for example and no fricative energy in the lenited stop. That is, the stop is leniting to a type of approximant or glide rather than to a fricative. This is illustrated in Figure 3.3, taken from Bowern, McDonough, and Kelliher (in press:Figure 2). Note the difference between the closure in the nasal and the lack of closure in the following stop.

The lenition produced allophonically is distinct from the phonologized and morphologized lenition which is a feature of Bardi nominal and verbal paradigms (see further §3.6.2 below). The outcome of morphologized lenition is a phonemic glide, which is quite distinct from the phonetic lenition discussed here.

1.4.1.3. Aspiration

The velar stop is sometimes voiceless and aspirated (that is, it is realized as [k^h]). It appears to be a feature of men’s speech in particular (that is, recordings of men feature this more frequently than recordings of women do), although most speakers are recorded with this feature in at least some words. It is most common in the Coate recordings of Jawi. The aspiration appears to be confined to initial and absolute word-final position. It is possible that it is a careful speech phenomenon; it certainly appears to be more common in my wordlist elicitations and citation than in connected speech, though it is also found in some narrative recordings made by older men. Some of the

Figure 3.3. Debuccalized plosive in a heterorganic nasal-stop cluster in *aankoo* /a:nku/ ‘a little while’, with spectral slice of plosive



narrative texts could also be considered careful speech examples, however, since the speakers’ speech rates are slow, and phrases appear in some cases to have been planned quite carefully before being uttered. This is in keeping with views of narrative recordings as being important records of the language. Figure 3.4 shows an example.

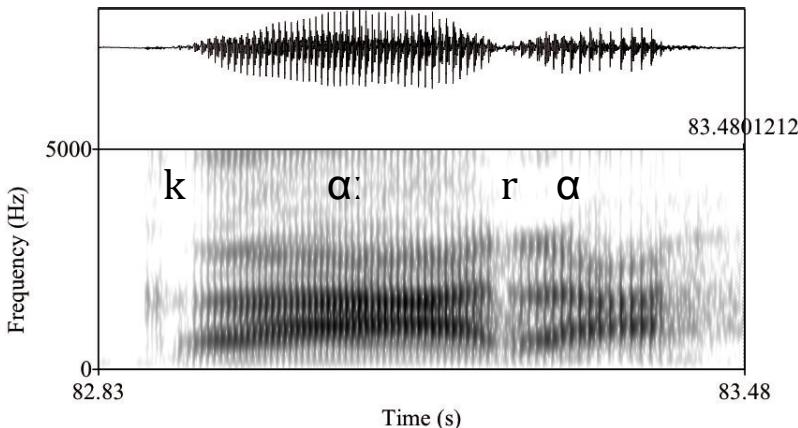
Aklif did not find this allophone in her recordings (Aklif 1993a):

Metcalfe (1971:88) posited a voiceless aspirated allophone for the velar stop phoneme before short and long low vowels, for example /gara/ (i.e. *gaarra*,

[C.B.]) ‘mother’s brother’ is realized as [k^hara]. This was not borne out by my informants.

I did not find the aspiration confined to stops before low vowels, however. I have also recorded this allophone in words such as *gooloo* [k^hu:lɔ] ‘father’.

Figure 3.4. An initial aspirated stop in *gaarra* /ka:rra/ ‘mother’s brother’



1.4.1.4. Laminalization

In the Jawi recordings, the palatal stop *j* /c/ is occasionally lamino-dental rather than lamino-palatal. Early recordings of place names provide evidence that this variation may be long-standing and may even represent a phoneme merger. On survey maps, the islands called *Jayirri* and *Jalan* are written ‘Tyra’ and ‘Tallon’ respectively. Moreover, a few words in Metcalfe (1975a) are recorded with initial *d*, but were rejected and given with initial *j* instead by my consultants. These included *dool* ~ *jool* ‘kneel’.

1.4.1.5. Fortition or lenition following trills

In Bardi the sequence *rrj* alternates with *rry* in some words, particularly following a stressed syllable:

- (3.2) a. *garrja* /karca/ ~ *garrya* /karja/ ‘sharp’
 b. *barrja* /parca/ ~ *barrya* /parja/ ‘saliva’
 c. *marrja* /marca/ ~ *marrya* /marja/ ‘smoke signal’

Not all words with the sequence *rrj* show this alternation. This includes *rarrjin+* ‘shame’, which is never pronounced as **arryin*. Moreover, the variants are not equally distributed. For example, *marrya* ‘smoke signal’ is rather more common in the corpus than *marrja* is, but the reverse is true for *barrja* ‘saliva’.⁴³ Therefore we could either assume that the forms underlyingly have a cluster *rry* which hardens to a stop, or that *rry* and *rrj* show overlapping allophonic realizations (that is, they are partially merging).⁴⁴

1.4.2. Trills

There is also variation in the production of trills. The trill /rr/ is often realized as a tap intervocally, though not by all speakers, and not in all environments. It does not occur initially. After the stressed syllable of a word, it is usually a short trill. This is also the pronunciation word-finally, where it is commonly devoiced. Before apical nasals, a trill is optionally realized as an apical stop *d* or tap [ɾ]. This is particularly common in fast speech. The tap allophone of trills does not occur before nasals at other places of articulation. For example, *rr+ng* /rŋ/ clusters do not show the tap.

- (3.3) a. *irr* [ɪr] ‘they (3AUG)-ABS’
 b. *irrnim* [ɪdnim] ~ [ɪnim] ‘they-ERG’
 (3.4) *angarramarra* [anjaramara] ‘we cooked it’

Palatalization of /rr/ occurs in palatal clusters; *Yarrjarn* (name of a spirit devil), for example, is pronounced [jær̩jɛn̩].

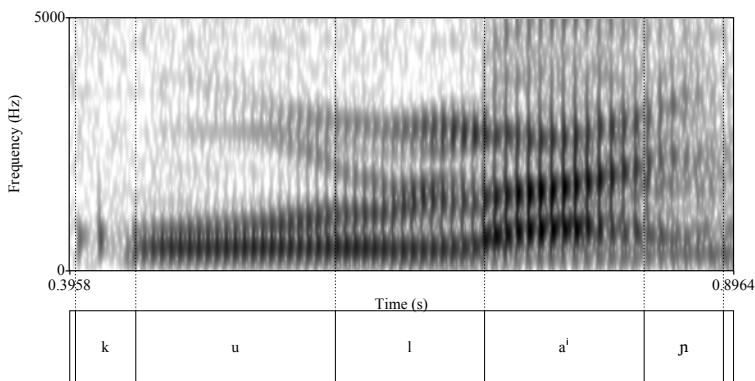
There is some variation in the production of trill–obstruent clusters. One speaker (BE) tends to insert a schwa between the trill and the stop; that is, there is a micro-vowel which breaks up the cluster. The periodicity of trill vibrations can approximate that of the shortest vowels, and so what appear in spectrograms (and auditorially) to be inserted schwas could be simply the final vibration in the trill. However, since this process is speaker-dependent, and since there are other processes of vowel deletion which are also potentially speaker dependent, I prefer to treat it as a real vowel.

Finally, some of the oldest speakers do not produce a trill; instead, *rr* is often realized rather glide-like. That is, it merges partially with the glide /ɹ/. I take this to be a physiological effect of aging.

1.4.3. *Palatals*

Palatal consonants have a strong effect on a preceding vowel, particularly /a/. In such environments, /a/ is often fronted to [æ]; there is also frequently a noticeable offglide to the vowel. This can be seen in Figure 3.5, where there is clear formant spreading (raising of F2, lowering of F1) in the final third of the vowel. Palatal consonants also have a degree of coarticulation with the following vowel; that is, there is often an onglide to a following vowel, though it is less noticeable than the offglide, such as that illustrated in Figure 3.5.

Figure 3.5. Spectrogram of goolany ‘baby louse’ showing prepalatalization



1.4.4. *Laterals*

One speaker (BE) tends to vocalize word-final /l/; other speakers do not do this. However, there is a quality to final laterals which make them sound rather retroflex. In careful speech word-final retroflex and apical laterals are distinct; however, I suspect there is some velarization of the lateral, even among speakers who do not vocalize the consonant, which leads to a retroflex quality.

1.4.5. Absent variation

It is worth noting that there are some crosslinguistically common phonetic processes which appear to be absent in Bardi. Apart from the morphological assimilation of /ŋ/ in the past tense (for which see §3.6.3), nasals do not assimilate to the place of articulation of the following stop. For example, clusters of *nyj* (homorganic; IPA [ŋc]) and *nj* (heterorganic; IPA [nc]) nasal-stop clusters contrast both phonemically and phonetically:

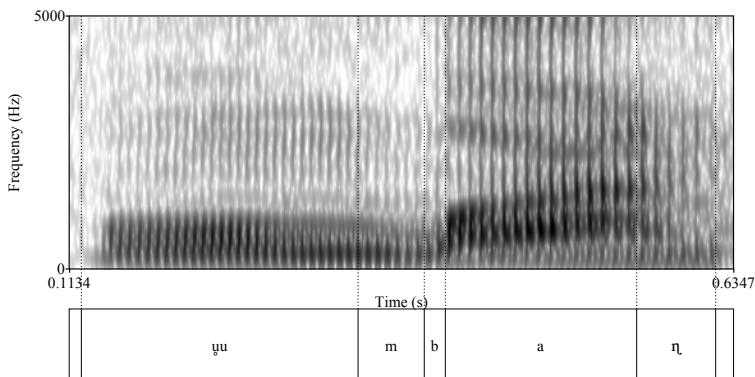
- (3.5) a. *inyjoogoolij* /iŋcukulic/ ‘it broke’
- b. *injoogoolij* /incukulic/ ‘he broke it’
- (3.6) a. *maanka* /ma:nka/ ‘black’
- b. *maangga* /ma:nŋka/ ‘ochre’

Some Australian languages have prestopped allophones of nasals or laterals (Hercus 1972). In Bardi, there is no regular prestopping. I have recorded a few isolated tokens where a nasal following a stressed syllable was weakly prestopped, but it is not a regular feature of the language.

Vowel-initial words occasionally begin with a glottal stop. (Most tokens of this type were recorded from a single speaker.) More frequently, however, the word begins with a voiceless vowel. Thus *aamba* ‘man’ in close transcription is often pronounced as [ɬɛmbɔ], with considerable initial and final devoicing; a typical example of the word *oombarn* with an initial voiceless portion of the vowel is given in Figure 3.6.

1.5. Variation in source transcription

Because there are so many diverse written sources for Bardi words spanning the last hundred years, it is possible to draw some conclusions regarding the segments that transcribers of the language have found particularly difficult to hear. Retroflexion is a consistent cause of difficulty. It is systematically overlooked in the early sources (e.g. Bird 1910, 1915). Intriguingly, Laves (working in the 1920s) tends to over-annotate retroflexion rather than underannotate it, especially around *a* and *aa*. It is unclear whether the early sources were able to discern differences in the rhotics. Later sources note them consistently, although sequences of *r* and *rr* in adjacent syllables are notated variably. Vowel length is also missing from the early sources and is inconsistent in Laves and

Figure 3.6. Initial vowel devoicing in *oombarn* ‘older brother’

Metcalfe. Note that Laves had linguistic training (he was a student of Edward Sapir at the University of Chicago), but Bird did not.

There is some variation in whether final vowels are transcribed. Nicolas tends to write them as schwa (implying perhaps that she considers schwa a distinct phoneme, since her transcription is otherwise phonemic). Aklif and Bowern write them as full vowels when present and omit them when absent. This is an area where there is considerable dialectal and speaker variation in the language; see §3.4.4 for more discussion. The notation of unstressed vowels varies a little, but is largely consistent among the recorders with linguistic training. There is some tendency among the untrained recorders to write such vowels as *a*, probably reflecting the English tendency to perceive unstressed vowels as schwa. Note that Figure 3.8b in §3.2.4.2 below shows that unstressed vowels are a little more centralized than stressed vowels, though nowhere near neutralized. This is in contrast to some Australian languages (such as Ngalakgan; see Baker 2008), where stressed vowels are more centralized than unstressed ones. There is some variation in whether a palatal or apical stop (*/d/* ~ */c/*) appears in some words; see §3.1.4.1.4 for more information. I suspect that this is real allophony (or a sound change in progress) and not a misperception.

2. Vowels

2.1. Inventory

Bardi has seven vowel phonemes: there are three peripheral vowels (a, i, u), each contrasting in length, and a central rounded back vowel /o/. The inventory is given in Table 3.3 below. As previously, the table gives orthographic conventions. There is considerable allophony. Furthermore, consonant–vowel coarticulation leads to considerable variation phoneme realization.

Table 3.3. Vowel phonemes

i ii	oo (u, uu)
[e]	o
a aa	

Note that long and short u are both written as *oo* in the practical orthography. Some sources suggest that [e] is also a phoneme, though there are good reasons for excluding it, which are discussed below.

2.2. Minimal pairs

Table 3.4 gives some minimal and near-minimal pairs for Bardi vowels. In order to make clearer the phonemic distinction between /u/ and /uu/ (both written as <oo> in the community-approved orthography), I have used *u* and *uu* in the transcriptions in this table instead of *oo* to avoid ambiguity.

2.3. Status of mid vowels

The vowel *o* is an independent phoneme in Bardi, although in the other Nyulnyulan languages it is an allophone of *u* (cf. the minimal pairs in Table 3.4).

The status of the phoneme *e*, however, is more difficult to determine. It is found in the word *iigem*, a type of plant, but this is a loan from Worrorra (where *e* is phonemic). Allophonically, it appears as the surface manifestation of a number of different underlying forms. It is the result of fronting of *a* before *y*; I have transcribed this often as [æ] but it is also realized as [ɛ] on occasion. Some speakers realize /iya/ as a long close front vowel (it is

Table 3.4. Vowel minimal pairs

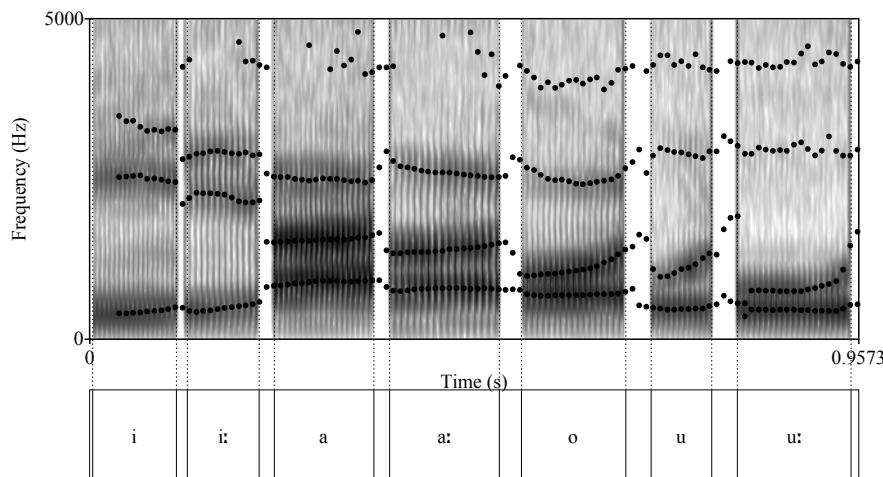
	Short		Long	
a ~ aa	<i>aman</i>	'a little'	<i>aaman</i>	'as soon as'
	<i>ngarri</i>	'white cockatoo'	<i>ngaarri</i>	'type of spirit'
	<i>arlin</i>	'we two eat'	<i>aalin</i>	'sea eagle'
	<i>bardi</i>	'yesterday'	<i>Baardi</i>	'Bardi language'
	<i>barnkarda</i>	'enough'	<i>baarmka</i>	'outside'
	<i>Balarra</i>	'place name'	<i>nalaarrad</i>	'turtle egg'
	<i>inanggana</i>	'he carried it'	<i>gaanagaana</i>	'drift'
i ~ ii	<i>bidiny</i>	'type of plant'	<i>biidin</i>	'waterhole'
	<i>idul</i>	'type of shell'	<i>iidul</i>	'pandanus'
	<i>wirr(ja)+</i>	'jump'	<i>wiirri</i>	'fish trap'
	<i>arramilan</i>	'we're searching'	<i>arramiimin</i>	'we're looking for it'
o ~ u	<i>bola</i>	'neap tide'	<i>bula</i>	'head of turtle'
	<i>mowali</i>	'kind of turtle'	<i>muwarn</i>	'head of hair'
	<i>morrga</i>	'brackish water'	<i>moorrgard+</i>	'feel satiated'
u ~ uu	<i>gulin</i>	'sleep'	<i>uulin</i>	place name
	<i>mulu</i>	'nerite shell'	<i>muulu</i>	'louse'
	<i>jurdun</i>	'dust'	<i>juurdu</i>	'dugong kidney'

recorded as such both by me and occasionally in Nekes and Worms 1953). Also, *ii* is lowered to [e:] or [ɛ:] before trills and retroflex consonants.

Aklif gives three near-minimal pairs involving *e* (the forms are quoted as she transcribed them):

(3.7)	Phonemic	Close transcription	Orthography	Gloss
	/bi:la/	[bi:le]	biila	'again'
	/ela/	[ele]	iila	'dog'
(3.8)	phonemic	close transcription	Orthography	gloss
	/nemi/	[ne:mi]	niimi	'his eye'
	/bi:ni/	[bi:ni]	biini	'rotten'
(3.9)	phonemic	close transcription	Orthography	gloss
	/liramar/	[liremar]	Lirramarr	'place name'
	/leramaŋ/	[leremaaŋ]	liirramar	'black cockatoo'

Figure 3.7. Spectrograms of typical realization of Bardi vowel phonemes



I was unable to elicit these pairs, however. The *e* sound in the first vowel of *liirramar* ‘black cockatoo’ is expected if the underlying first vowel is *iː*, as it would be lowered before the trill. The other words were not, in my recordings, produced with consistently different vowels; I could not reproduce the minimal pairs. I am satisfied that *e* can be regarded as an allophone of *iː*.⁴⁵

2.4. Vowel realization and allophony

2.4.1. Canonical realizations

Since there is considerable consonant-vowel coarticulation, it makes limited sense to talk about ‘canonical’ realization of Bardi vowels. Figure 3.7 shows spectrograms of typical Bardi vowels in steady state and in initial (stressed) position, with formant tracks overlayed. There is, however, considerable variation in the realization of the vowels. The peripheral high vowels /i/ and /u/ (and their long counterparts) are somewhat lower than cardinal vowels 1 and 8 (that is, IPA [i] and [u]); they are closer to [ɪ] and [ʊ]. The back, rounded, mid vowel *o* is fairly stable, and is closest to [ɔ].

/i/ is a short, high, front, vowel. It is a little lower than cardinal vowel 1 in

most contexts, and for most speakers. It is also diphthongized for some speakers, and is realized as [i^ø] or [ɪ^ø] in such contexts. It is backed before [ɔ] in contexts such as *milon* [milɔn] ‘long ago’.

/i:/ is a long, high, front, vowel. It is a little higher than its short counterpart.

/a/ has considerable variation in realization, from [æ] to [ɒ].

/a:/ is a long, low, somewhat back vowel, close to [a:].

/o/ is a mid, back, rounded vowel [ɔ]. Some tokens of *o* overlap with *u*, especially when they are the result of vowel harmony (see below §3.7).

/u/ is most commonly realized as [ʊ] or [o].

/u:/ is a long, high, back vowel. Its realization is closest to IPA [o:].

2.4.2. *Allophonic variation*

The placement of vowels varies considerably over the vowel space, as is expected for a language with a fairly small inventory. Figure 3.8a gives the average values for F1 against F2 for Bardi vowels (taken from Bowern, McDonough, and Kelliher (in press:fig. 6)) in all contexts, while Figure 3.8b plots stressed vowels versus unstressed ones. The plots were compiled from approximately 500 tokens from one speaker’s (Jessie Sampi) reading of a prepared wordlist.

Bardi shows several other processes of allophony which are familiar from other languages. Short vowels are slightly lengthened under stress. Short vowels in initial syllables have an average length of 125ms (n=26) while short vowels in second syllables have an average length of 95ms (n=32).⁴⁶

In unstressed syllables, vowels are somewhat centralized; this is also reflected in Figure 3.16, where the stressed vowels are more peripheral than the unstressed ones. The vowels /i/ and /a/ are neutralized to [ə] or [ɜ]. Round vowels are also lowered and centralized (and somewhat less rounded). They are not neutralized, however, as witnessed by minimal pairs such as *ingirrij* ‘they said it’ and *ingarrij* ‘they gave it (to someone)’. There are also realizations of short vowels in unstressed syllables which are unreduced.

- (3.10) a. *bangalon* ~ *bangolon* [panʒlɔn] ~ [panjelɔn] ‘in reef crevices’

Figure 3.8a. Mean values and 1 StD of Bardi Vowels

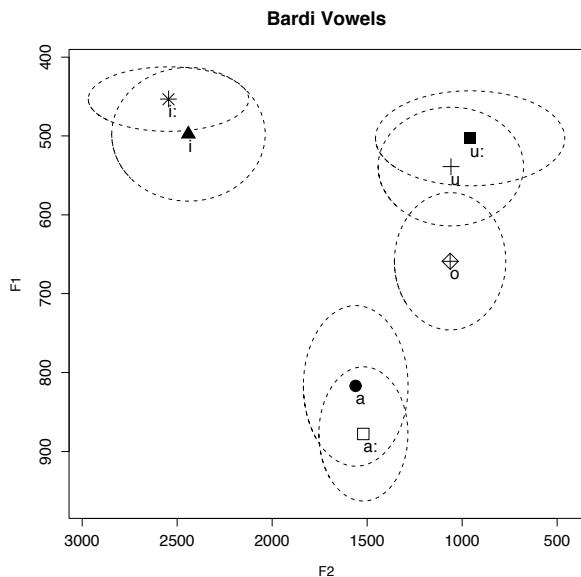
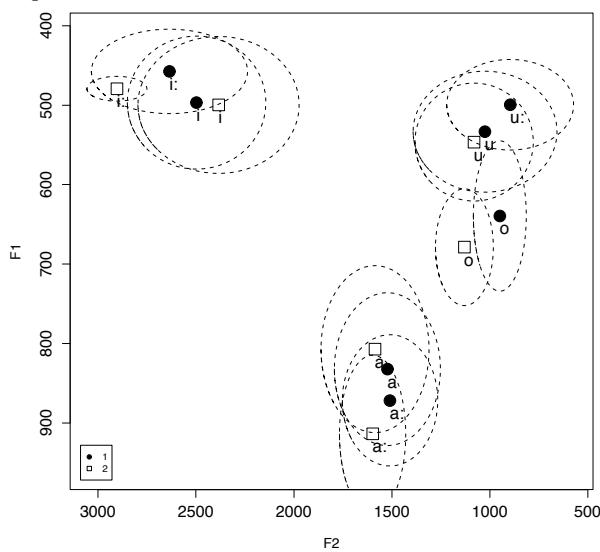


Figure 3.8b. Vowels in stressed (1) vs. unstressed (2) syllables



- b. *gamarda* [kam3d̪ə] ‘mother’s mother’
- c. *ongorrona* [oŋerɔnə] ‘they speared him’

Long vowels in unstressed syllables are shorter than they are when they occur in stressed ones. There is still a significant difference between phonemically long and short vowels in unstressed syllables, however.

Before retroflex consonants and trills, high vowels are regularly lowered. The effect is particularly clear when the consonant closes the syllable, although it can also be observed in words such as *moorrooloo* ‘small’, where the vowel and trill are not tautosyllabic. Some examples with close transcription are given in (3.11).

- (3.11) a. *moorrooloo* ‘small’ ['morelʊ]
 b. *moorrgoal* ‘work’ ['morkvʊ]
 c. *wiirri* ‘rib of human’ ['we:ri]

The vowel *a* is fronted considerably in the region of palatals (some discussion of prepalatalization was given in §3.1.4.3 above).

- (3.12) a. *oorany* [ɔ:ræŋ] ‘woman’
 b. *mayi* [mæjɪ] ‘tucker (vegetable food)’
 c. *Gayginy* [kægɪŋ] ‘Island near Sunday Island’

Finally, *a* is rounded and backed a little after *w*, although it does not fall together with *o* or *u*. Note that all words with initial *w* are loans, since Proto-Nyulnyulan *wa- > *a-* in Bardi. Impressionistically, the rounding and backing in Bardi is much less pronounced than it is in some other Australian languages, such as Arabana (Hercus 1994) and Wati languages, but this has not been measured acoustically.

- (3.13) a. *wanggay* ‘wattle sp.’ [wəŋgæj]
 b. *wanggid* ‘crow’ [wəŋgit]

2.4.3. Vowel length

Bardi has a length distinction for all vowels except *o* (that is, there is no phonemic ‘long *o*’ to match *a* : *aa*, *i* : *ii*, and *u* : *uu*). There are phonetic realizations of [o:] or [ɔ], however these all appear to come either from sequences of *owu* or *ow*, or from lowering of *uu*.

Long vowels are very rare outside initial syllables, although they do occur in some words.

- (3.14) a. *birrii* /piri:/ ‘mother’
 b. *nalaarrad* /nala:rat/ ‘turtle eggs’

Birrii ‘mother’ is from Proto-Western Nyulnyulan **birray* or **birrayi*, so although the word is phonetically realized as [birri:] it may be tempting to phonologize it as /birriyi/. Such a solution is not available for words like *nalaarrad*, however, so I analyze all such words as containing long vowels. The rarity of non-initial final vowels is probably related to a sound change which led to their shortening or deletion in most environments. To my knowledge, the only Nyulnyulan language which consistently preserves long vowels in this environment is Nimanburru (Bowern 2010a), but the materials for Nimanburru contain fewer than 500 lexical items, which makes systematic comparison difficult.

2.4.4. Vowel reduction and deletion

Some speakers have full syncope in open medial syllables of trisyllabic words (especially when the second vowel is /i/ and the third syllable is heavy). The most frequent example in the corpus is the place name *Ardinoogoon*, which is often pronounced as *Ardnoogoon* [adnʊkʊn]. This has been claimed to be non-existent in Australian languages (Blevins 2001b), and it is certainly rare, but Bardi does exhibit a case of it.

There is also vowel reduction in some other environments. One categorical environment is for high front vowels between a stop and the glide *r* to be rhoticized and reduced:

- (3.15) *birarr* [pr̩jpr̩] ‘leave behind’

The vowel is still present, however, and it still bears stress; these are not consonant clusters.

A major part of Bardi morphology and prosody (and also of dialectal differences between Baard and Bardi) involves the deletion or non-deletion of final vowels in morphological words. This is both a phonetic and a phonological process; furthermore, Bardi dialects differ as to the citation forms of many words and whether the final vowel is present or absent. Speakers of the Western dialects usually omit them (though a copy vowel may reappear in some

environments), while speakers of the Eastern and Island dialects and Jawi cite forms with the final vowel. Final vowels are also present in the Laves materials in much higher frequency than in the modern materials, even in some words where both Eastern and Western dialect speakers have forms which end in a consonant. The ergative case marker, for example, is often given as *-nimə* in Laves, especially in texts from speakers who identify as Jawi.

Phonetically, final vowels are often partially or fully devoiced, even when they are present. One could see this as part of a more general process of devoicing in the language, which was discussed for consonants above in §3.1.4.1.1.

3. Orthographic conventions

The orthography in use here was approved at a community workshop at One Arm Point in 1990, following previous informal suggestions and trial materials at One Arm Point School. The principles of the orthography design included a wish to keep Bardi orthography as similar as possible to other Aboriginal languages of the Kimberley (particularly the Northern Kimberley region), and to make it as simple as possible for Bardi learners with English literacy to transfer those skills to reading Bardi. There was also a wish to make the orthography fairly phonemic, but to distinguish as many phonemes as possible in the system. It also had to be easy to type, without the use of special fonts.

The 1990 workshop did not make specific decisions beyond which letters to use in individual words; that is, they did not make rulings about further writing conventions (such as whether to use hyphens in writing clitics, or to write them as separate words), though in sentence punctuation it was assumed that English conventions would be followed. Some items were deliberately left underspecified so that the One Arm Point School program could experiment with different options.⁴⁷

Punctuation is as for Australian English for comma placement, sentence punctuation, and capitalization. For example, proper names are capitalized, and direct speech is placed in quotation marks. In giving examples in the grammar, I have followed these conventions for the first line of each example.

Clitics and affixes are written with the preceding word. Morpheme and clitic boundaries are not usually written, though I have departed from this convention in the grammar in glossing example sentences (though not in the

initial line of each example). In the School program, clitics are always written separately, and increasingly, case affixes are also written as separate from the word to which they attach. I have written them together here, however, because it shows more clearly how different parts of a word influence each other (that is, it shows the morphophonological changes that occur within words, but not between words).

In general, surface morphological forms are written, not underlying forms. That is, if a consonant is deleted as part of a morphophonemic process, it is not written in the surface orthography. Vowel harmony is written; final vowels are variably written depending on the source. The one exception to this is if two identical consonants occur across a clitic boundary (such as a verb form inflected with the middle perfect *-ij*, followed by a topic-marked direct object marker). In such a case, both *js* would be written, even though they are not both pronounced.

Reduplicated forms are not hyphenated. If a reduplicated form begins with an apical post-alveolar consonant, the reduplicant is spelled the same way as the base. That is, the word for ‘pelican’ is written as *lirlalirla*, not *lirlarlirla*, even though the third lateral is retroflex and the word is pronounced /lɪlalɪlɪlə/. English loan words are spelled in the Bardi orthography, except when they are examples of codeswitched (unassimilated) loans or personal names.

With respect to final vowels, in texts I have transcribed them as present or absent according to what the speaker said. In citation forms I have usually included them in parentheses, and in the dictionary I have listed forms as variable if the word is recorded in the corpus both with and without a final vowel. Some forms end in a consonant underlyingly, even in the vowel-final dialects and Jawi, and some words do not seem to vary in my corpus and are consistently pronounced with a final vowel. In this grammar, I have generally included citation forms with final vowels. It should be understood that the Baard citation forms would not have these vowels.

4. Phonotactics

In this section I give an overview of distribution and frequency of phonemes in the lexicon. Counts of frequency were done on the Bardi dictionary as at January, 2012, and include head words and variant pronunciations. Counts are based on 5010 tokens. The counts are based on material which is transcribed in the practical orthography, and so differences between /u/ and /u:/

are not recoverable using this data set. The other orthographic conflations (/nj/ vs. /p/ and /rt/ vs. /textrtailt/ are sufficiently rare within roots that overall relative frequencies are not affected. Claims about the phonotactics of the language are based on the same dataset.

4.1. Distribution of phonemes

Any consonant or vowel can appear word-finally in both surface and underlying forms. The frequent dropping of final vowels creates many examples of surface final consonants.

Several consonants cannot appear word-initially. No words begin with the trill *rr* /r/ or the palatal lateral *ly* /ʎ/. The restriction also holds for other Nyulnyulan languages. Unlike most other languages of the region, however, words in Western Nyulnyulan languages may begin with vowels, including in Bardi, where a historical sound change of loss of /w/ and /y/ word-initially has created many vowel-initial words. Words with these initial consonants do appear in the language, as a result of subsequent loans; however, they are quite rare.

There is complete phonemic neutralization of the apical-dental and apical-alveolar consonant series word-initially (that is, there is no distinction between *d* and *rd*, *n* and *rn*, etc.). The neutralization is in favor of the retroflex (apico-alveolar) series; thus words like *daag+* ‘sleep’ are phonetically [ta:k]. The retroflexion is particularly salient when the word is reduplicated (to *daagadaag*) and the *d* appears intervocally. In the orthography, apical stops are written without the ‘initial’ *r*; thus the orthographic representation of /*rdaagardaag*/ /ta:kta:k/ is <*daagadaag*>. There seems to be more variability with initial apical nasals and laterals, where realizations of both [n] and [ɳ] (and [l] and [ɿ]) have been recorded. Note that this neutralization is the opposite of what happens in other languages outside Australia (e.g. in Dravidian languages) where there is retroflex neutralization word initially but it is in the direction of the plain apical.

Verb roots, although they are not word-initial, show mostly the same distribution of initial consonants as morphological words do. That is, there are no verb roots which begin with *rr* or *ly*; there is, however, a retroflexion difference in initial laterals; -*rlabar-* ‘kiss’ has a retroflex lateral, while -*labar-* ‘hold, possess’ has an apical one. There are no roots which begin with apical or retroflex stops *d*, *rd* or nasals *n*, *rn*, apart from one allomorph of the

suppletive root *-joo* ‘do, say’, which has the form *-di-*.

Only vowels can be syllable nuclei. Long vowels are rarely attested in unstressed positions, and they are rarer than short vowels even under stress. There are no word-internal vowels in hiatus. When these arise through affixation, a glide is inserted or one vowel deletes (see further below); the treatment depends on the type of affix.

4.2. Phoneme frequency

4.2.1. *Consonant frequencies*

Table 3.5 shows the frequency of consonants in initial position, post-stress (C2) position, and C3 (the onset to the third syllable in the word). As can be seen, the distribution of consonants is not symmetrical, either within a given position or between positions. This is illustrated in the histogram in Figure 3.9.

The stops *b*, *g*, and *j* are considerably more frequent initially than they are in other places in the word. This is not surprising given that we can reconstruct a sound change where intervocalic stops either lenited to glides or disappeared completely, depending on the position in the word. What is surprising, however, is why in that case glides are not noticeably more frequent in C2 and C3 positions than other consonants. Another surprising pattern is that *m* is rather more frequent initially than in other positions; more so than other nasals. The figures of 0% for onsetless syllables in C2 and C3 reflect the fact that no vowels appear in hiatus.

Within manners of articulation, stops are highly asymmetric, with *rd* (the neutralized outcome of *d* and *rd*) being much rarer than other stops in initial position. Palatal nasals are also much rarer than other nasals. There are no striking asymmetries between C2 and C3, except that *w* is half as common in C3 position as it is in C2.

Frequencies of consonants clusters in Bardi are highly asymmetric; they are also very diverse. Figure 3.10 gives the frequency of consonant clusters, ordered from greatest to least. In order to enhance legibility of the table, clusters attested fewer than three times are omitted from the histogram. An additional 45 clusters were found either once or twice in the lexicon. Clusters as syllable contact possibilities are discussed in §3.4.3 below, where data from the full lexical dataset is taken into account.

Figure 3.9. Histogram showing frequencies of consonants by position

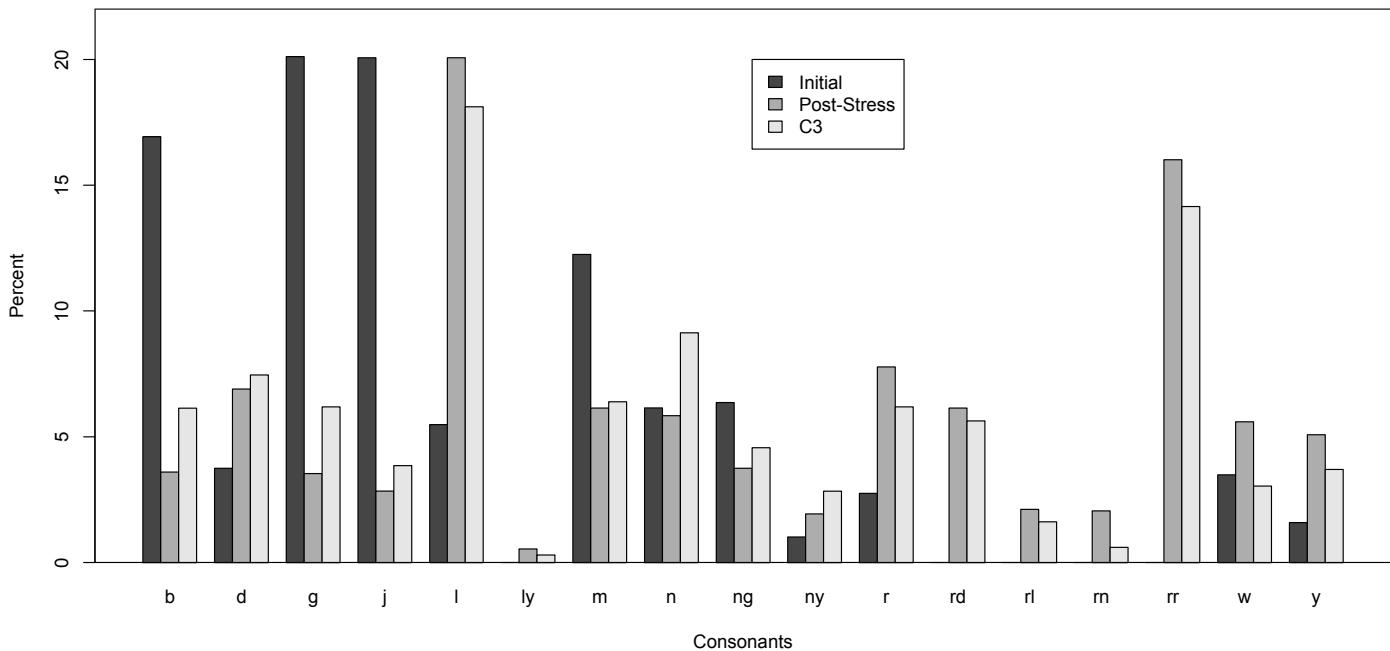


Figure 3.10. Histogram showing frequencies of consonant clusters

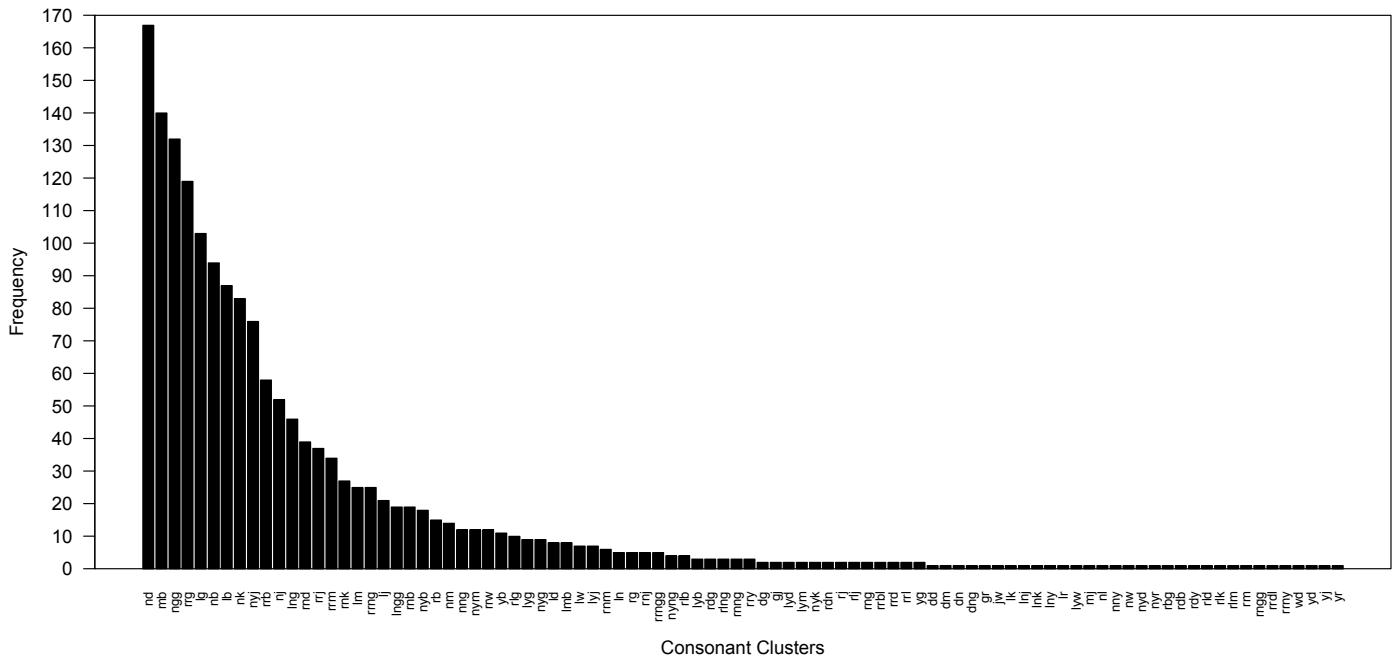


Table 3.5. Frequency of consonants

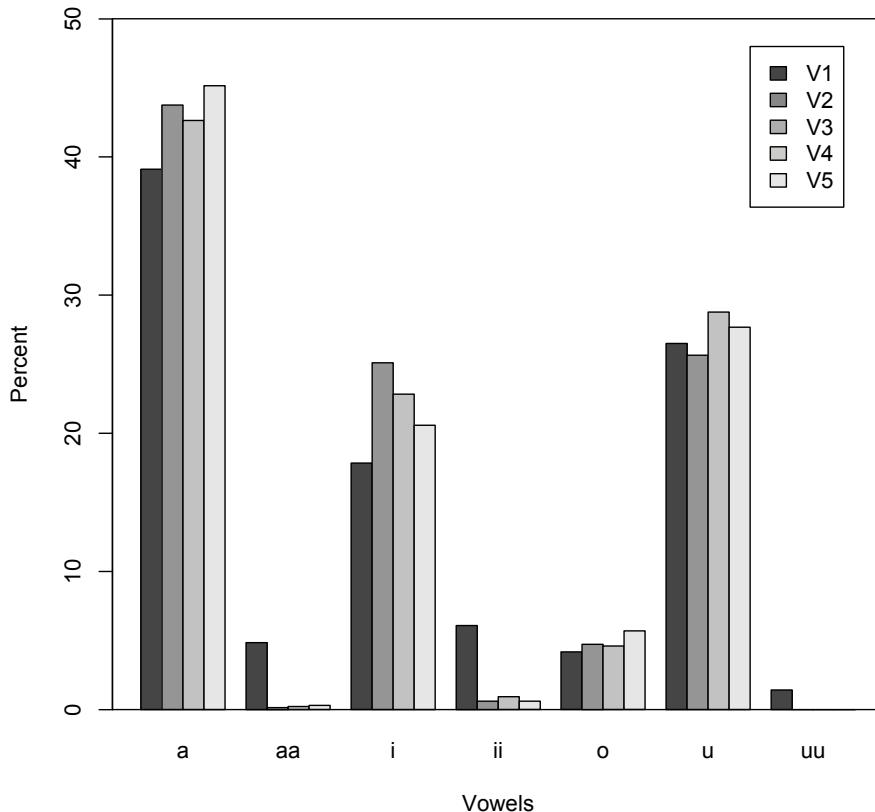
	Initial	C2 (Post-stress)	C3		
b	713	14.27%	119	2.40%	134
d	0	0.00%	234	4.72%	188
rd	158	3.16%	210	4.23%	162
g	847	16.95%	120	2.42%	148
j	845	16.91%	95	1.91%	113
m	516	10.33%	344	6.93%	209
n	0	0.00%	618	12.45%	549
rn	259	5.18%	167	3.37%	57
ny	43	0.86%	187	3.77%	227
ng	268	5.36%	256	5.16%	229
l	0	0.00%	997	20.09%	741
rl	231	4.62%	92	1.85%	82
ly	0	0.00%	42	0.85%	25
r	116	2.32%	281	5.66%	235
rr	0	0.00%	830	16.73%	665
w	147	2.94%	186	3.75%	64
y	67	1.34%	184	3.71%	107
[null]	787	15.75%	0	0.00%	0
Total	4997	Total	4962	Total	3935

4.2.2. *Vowel frequencies*

In contrast to the consonant frequencies, the frequencies of vowels are rather similar from position to position overall, with the exception of long vowels. That is, the frequency of a particular short vowel does not differ markedly from syllable to syllable. The overall counts are given in Table 3.6 and they are graphed in Figure 3.11. This histogram shows that *a* is rather more common than the other vowels, and there there is a strong asymmetry between short and long vowels. The long vowels bear a very low functional load in the language.

Although the overall distribution of vowels is quite similar from syllable to syllable, there are marked differences in the incidences of vowel transitions.

Figure 3.11. Histogram showing frequencies of vowels by position



For example, when one considers the distribution of vowels in V2 position given the vowels in V1, there is a strong tendency for the V2 vowel to be identical to the V1 vowel. This is illustrated in Table 3.7, where the actual frequency of vowels in V1 and V2 position is presented as a ratio. Values greater than 1 (that is, where the number of observed tokens of a vowel in a particular position is greater than expected by the general distribution of vowels in the language) are given in bold.

Table 3.7 shows statistical support for vowel harmony in Bardi, even in words where vowel harmony has not been identified as a morphological process. In §3.7 I describe harmony processes involving morphological alter-

Table 3.6. Frequency of vowels by position

V1	V2	V3	V4				
a	1958	39.11%	2073	43.76%	1141	42.64%	452
aa	243	4.85%	7	0.15%	6	0.22%	3
i	893	17.84%	1189	25.10%	611	22.83%	206
ii	305	6.09%	29	0.61%	25	0.93%	6
o	209	4.17%	224	4.73%	123	4.60%	57
oo	1398	27.93%	1215	25.65%	770	28.77%	277
Total	5006		4737		2676		1001

Table 3.7. Ratio of observed : expected frequencies of vowels in V1 and V2

	V2			
	a	i	o	u
a	1.34	1.16	0.3	0.7
i	0.96	1.98	0.93	0.48
o	0.56	0.36	13.02	0.33
u	0.74	0.66	0.52	1.97

ations which create sequences of high vowels and *o*; interestingly, Table 3.7 provides some support that harmony applies to *a* as well.

4.3. Clusters

There are no underlying word-initial clusters. There is a place name *Blog*, however this is in *Mayala* country and is almost certainly not a Bardi word in origin. No other Nyulnyulan language, with the possible exception of Warrwa, allows initial clusters (McGregor 1994b). The same is largely true for neighboring languages, although the one cluster typically allowed in Worrora is *br* or *bl* (Clendon 2000).

Bardi allows an array of different consonant clusters across syllable boundaries; however, within a syllable coda, the only possibility is /l/, /ɻ/, or /r/ followed by a nasal which is homorganic with the following stop. These clusters are further discussed below. Example (3.16) gives the syllable template for Bardi.

(3.16) (C) V (L) (C)

As Round (2009:107ff) and Hamilton (1996:182) have discussed, the contact possibilities across syllables in Australian languages are not always unproblematically captured using principles such as sonority sequencing. With a number of interesting exceptions, the possibilities for word-internal clusters in Bardi can be mostly described using the sonority hierarchy of Clements (1990). The same discussion applies to word-final clusters as well, since all surface word-final clusters are the result of final vowel dropping and conform to the same considerations as word-internal clusters. Clusters across morpheme boundaries strictly follow the sonority hierarchy (with only one morphological exception). Clusters within roots show the same tendencies, although more clusters are allowed. However, sonority does not adequately capture all the interactions between consonants across syllables. Not only are there some exceptions, such as glide–stop clusters (which violate the sonority hierarchy); the place of articulation is also important in determining the licitness of consonant clusters.

In the post-stress (C2) position, clusters occur in one third (33.43%) of words in the dictionary. That number rises to 50% for the C3 position, but falls to 11% for the C4 position. Following C4, there are not enough tokens to get comparable figures.

4.3.1. *Permissible clusters*

Counts of attested clusters are given in Table 3.8. These are the clusters attested within roots in a count of the Bardi dictionary as at January, 2012. This shows that stops and peripheral nasals (*m* and *ng*) make up 95% of the second members of consonant clusters. Clusters with *l*, *r*, or *n* as the initial members account for 64% of the attested clusters in the data; with the palatal and velar nasals, this accounts for 79.25% of the data. Cluster distribution is thus very asymmetric in the language.⁴⁸

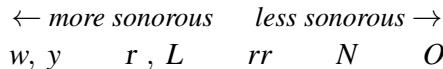
There are several possible types of consonant clusters, both within words and word-finally (through final vowel dropping). Sonority usually decreases between the coda of the syllable and the following onset. Figure 3.12 shows the sonority scale applicable to Bardi. For the placement of the trill, and its different behavior from the other rhotic, see McGregor (1988). L stands for the class of laterals, N for nasals and O for obstruents (stops). Discussion

Table 3.8. Counts of consonant clusters within roots

		Second Member																					
		w	y	r	l	rl	ly	rr	m	n	rn	ny	ng	b	d	rd	j	g	mb	ngg	nd	nyj	
	w														1						1		
	y						1							11			1	2				15	
	r								1				2	15			2	5		1		26	
First	l	7		1					25			1	46	87	8		21	104	8	19		1	328
First Member	rl								1				3	4	1		2	11				22	
	ly	1							2				3	2			7	9				24	
	rr	12	3		2				34			1	25	58	2		37	119		5		298	
	m													140				1				141	
	n	1			1				14			1	12	94	167		52	83				425	
	rn								6				3	19		39	5	27				99	
	ny				1				12				4	18	1		76	11				123	
	ng																	132				132	
	b																				0		
	d								1	1			1					2				5	
	rd									2				1				3				6	
	j	1																			1		
	g				1												1				2		
Total		22	3	4	3	0	0	0	96	3	0	3	96	450	182	39	205	508	8	25	0	1	1648

here focuses on the well-attested clusters in the data; there are also a number of clusters which occur in single words. Many of these are loans or attested only in historically reduplicated forms where there is no unreduplicated form (for example, the only example of a cluster *lny* is in the word *Nyoolnyool*, the Bardi spelling of the name *Nyulnyul*).

Figure 3.12. Bardi sonority hierarchy



These facts can be formalized using a version of the syllable contact law (Clendon 1988).⁴⁹ Clusters with glides as a second member violate the syllable contact law; in other cases, there is plateauing or decreasing sonority between the first and second members of the cluster. This is summarized in Figure 3.13. Here, L stands for laterals, N for nasals, and O for obstruents.

Figure 3.13. Summary of the Syllable Contact Law in Bardi

$$\left\{ \begin{array}{c} rr \\ L \end{array} \right\} \quad G$$

$$\left\{ \begin{array}{c} rr \\ L \\ O \end{array} \right\} \quad N$$

$$\left\{ \begin{array}{c} r \\ L \\ rr \\ N \\ O \end{array} \right\} \quad O$$

$$\left\{ \begin{array}{c} rr \\ l \end{array} \right\} \quad NO$$

4.3.2. Triconsonantal clusters

Although the vast majority of clusters in Bardi occur with contact across a syllable boundary, there are clusters with *l* or *rr* as the first member and a homorganic nasal-stop cluster as the second member. Nineteen of the examples are *lngg* clusters; there are also eight *lmb* clusters and five *rrngg* clusters. The examples of *rngg* clusters are variants of *rrngg* clusters (in, for example, *ngoorrmnganiimid* ~ *ngoorngganiimid* ‘knee cap’).

Such clusters raise questions regarding syllabification. To treat the nasal-stop cluster as tautosyllabic would introduce a highly restricted set of exceptions to the generalization that onsets must be simple. However, if the clusters are syllabified as *lm.b* or *rrng.g*, it would be odd if the only clusters underlyingly present in codas were of this shape.

4.3.3. Additional comments on clusters

There appears to be a difference in the spectrograms of /ɻ/, /t/, /ʈ/, and /ʈ̪/—that is, it appears that they all contrast phonemically, though it is impossible to find near minimal pairs. There is a large drop in F3 for both /ʈ/ and /t/. The main difference between the two, which one would of course expect, is the duration of the drop. For the cluster, the drop takes longer and the other acoustic correlates of a retroflex glide are visible in the spectrogram, such as loss of intensity in higher formants. Establishing this has been complicated, however, by speakers’ differing degrees of retroflexion.

There are some gaps in possible consonant clusters and some exceptions to the sonority hierarchy. The clusters /ʈt/ or /ʈʈ/ are not attested in any words. Cognate words in other Nyulnyulan languages which show the cluster /ʈt/ have /rt/ in Bardi. Given the likely etymology of /ooldoobal/ /ultupal/ ‘things’ from */oolardabal/ ‘container-INDF’, we can see the outcome of /ʈt/ clusters (*-lat- > (*ʈt >) /ʈt/). The sequence /ʈt/ is rare, however, and attested in only eight words (compare /lp/ clusters, with 87 instances, or /lk/, with 104).

4.4. Final vowel deletion

Many of the Western Nyulnyulan languages show final vowel deletion. In Nyulnyul, the final vowel of words has been regularly lost, as illustrated

in (3.17). In Bardi, however, the situation is much more complex, and this has considerable consequences for the synchronic analysis of word structure and the description of morphophonological processes. Vowel deletion involves a maze of dialectal, personal, stylistic, and transcription variation. Aklif (1994a:E0/9a) notes that final vowels are especially likely to be deleted on trisyllabic (and longer) words, and only surface when a case marker follows. Disyllabic words typically retain their vowels unless they are preverbs. My data show other processes as well.

(3.17)	Reconstruction	Bardi	Nyulnyul	Gloss
	(PN) * <i>waamba</i>	<i>aamba</i>	<i>wamb</i>	'man'
	(PWN) * <i>barndidi</i>	<i>barndidi</i>	<i>barndid</i>	'boil'
	(PWN) * <i>babagun</i>	<i>baboogoonoo</i>	<i>babagon</i>	'yellow ochre'

In order to understand Bardi vowel deletion, we must consider three distinct processes. First, there is a sound change in some Bardi dialects (but not others) which deletes many final vowels. Secondly, there is some dialect mixing by individual speakers, which leads to words with deleted final vowels appearing in contexts that might be unexpected through sound change. Thirdly, there are prosodic and sandhi rules for synchronic vowel deletion even in the dialects which do not have word-level vowel deletion as a sound change. Finally, speakers with dialect final vowel deletion may also have a prosodic rule of vowel insertion.

Historically, the Mainland Eastern and Sunday Island dialects of Bardi retained final vowels, while the Goolarrgoon (the north-eastern part of the Dampier Peninsula) and Pender Bay dialects (that is, the dialects closest to Nyulnyul) deleted them. This pattern holds in the Laves texts, for example, and in the Nyindinyindi materials recorded by Peile.

In the last half-century there has been a great deal of movement of people between dialect areas (as well as speakers of different dialects being moved together outside Bardi country) and this has resulted in many of the current speakers having a hybrid system. For example, Jessie Sampi, who married a man from Lombadina (in a final-vowel-dropping area), gives the citation form of words with no final vowel much more frequently than her sister, who spent more time with Sunday Island speakers and married a Jawi/Mayala man. Bessie Ejai, whose primary Bardi affiliation is with the Sunday Island area, also tends to use final vowels in citation forms. All the speakers, however, also devoice final vowels when they are present. The presence or absence of final vowels thus varies greatly with the speaker. Forms with and

without final vowels are both considered correct Bardi by Bardi speakers and so are listed both ways in the Bardi dictionary (Aklif 1999).

Thirdly, there are prosodic and word sandhi factors which lead to vowel deletion. If a word ends in a vowel and the following vowel begins with with a vowel, the final vowel is deleted. This occurs even in the speech of speakers with particular associations to Sunday Island and other non-dropping dialects. In (3.18), for example, both *iil* ‘dog’ and *miidabaaw* ‘boy’ appear without final vowels (these words are also recorded as *iila* and *miidabaawa* respectively).

- (3.18) *Iil agal miidabaaw ingarrjarrala barda.*

Iil agal miida-baaw i-ngr-arr-jarrala barda.

dog and male-child 3PST-AUG-run off

‘The dog and the boy ran off.’

(CB52.1/BE)

Whether a word ends in a vowel is also tied to syntax. There are a few morphemes of the shape -V, such as the predicative marker *-a* and the place location *-i*. These vowels are never subject to prosodic or dialect-based deletion.

- (3.19) a. *Jarr aamba boorrboorriida.*

Jarr aamba boorrboorr-iid-a.

this man dance-EXP-PRED

‘This man’s a dancer.’; cf.

boorrboorriidi ‘a dancer’

(Aklif 1994a:E0/11)

- b. *Boorrboorriidigija jarr aamba.*

Boorrboorr-iidi-gij-a jarr aamba.

dance-EXP-VERY-PRED this man.

‘This man’s a really good dancer.’

- (3.20) *Jalan-i*

J.-LOC

‘at Jalan’

Constituency also affects the presence or absence of final vowels. In (3.21), for example, there is a difference between the use of *gorna* and *gorn* (both ‘good’). In (3.21a) *gorn* is used in a complex predicate with the inflecting verb *-ma-* ‘make’; in (3.21b), however, *gorna* is a secondary predicate (‘make ... good’).

- (3.21) a. *Gorn nganamagal booroo.*

Gorn nga-na-ma-gal booroo.
good 1-TR-make-REC.PST place

‘I cleaned the place.’ (*gorn -ma-* complex predicate)

- b. *Gorna nganamagal booroo.*

Gorna nga-na-ma-gal booroo.
good 1-TR-make-REC.PST place

‘I made the place good/nice.’ (*gorna* secondary predicate)

(Aklif 1994a:E0/4)

A final tendency we see in the Bardi data is the regularizing of final vowels to an unetymological final vowel. The final vowel which is deleted is often the same as the penultimate vowel; cf. *gajoord(oo)* ‘ashes’, *goonkoord(oo)* ‘smoke’, *bardag(a)* ‘tree’, for example. Recall from Table 3.7 above that Bardi has a strong tendency to have identical vowels following one another. However there are many words where the deleted vowel is not predictable, such as *ilngam(oo)* ‘fish poison (*Tephrosia sp.*)’,⁵⁰ *ganban(i)* ‘short oar’ and *gambaj(oo)* ‘woman whose child has died; bereaved mother’. Regularizing is probably found in *anangarr(a)* ‘pumpkin-headed fish’, which is cognate with Yawuru, Nyikina and Warrwa *wanangarri* ‘money, pebbles, stones’.⁵¹

4.5. Coda glide analysis

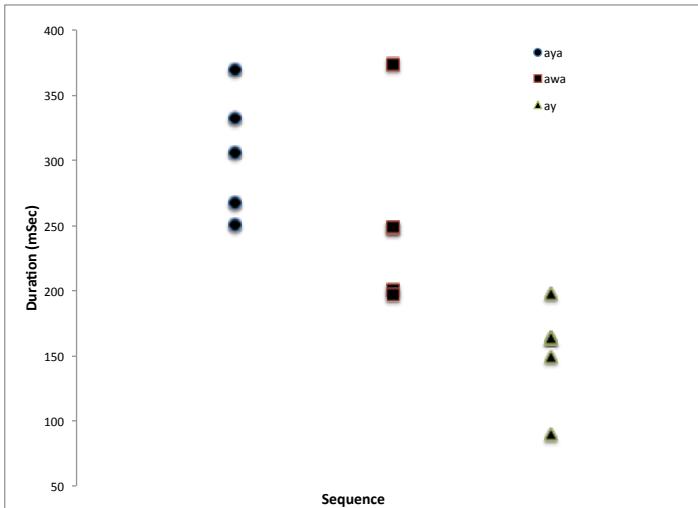
Several descriptions of Australian languages have treated phonetic sequences of vowel + vowel as underlying vowel-glide-vowel sequences (see Round 2009:85ff for references and Dixon (1972) and Austin (1981) for examples from the Pama-Nyungan languages Dyirbal and Diyari respectively). McGregor (2006b:359) states that ‘in most Australian languages phonetic diphthongs such as these [i.e., *ai* or *au*: CB] can be accounted for as realizations of underlying VG or VGV sequences, where G is a glide (y or w).’ However, Round (2009) has shown that for Kayardild, there is a distinction between VV and VGV sequences. There is no reason why Australian languages should behave identically in this regard.⁵²

In Bardi, the main interest here are the sequences *ay(i)* and *aw(oo)*. Those of other potential vowels in hiatus, such as *oowa* or *iya* are not in doubt; there is a clear glide in most tokens. That is, are such sequences underlyingly *ayi*

or *ay* (or *awoo* or *aw* or *ai* and *au*), or are all possibilities attested? We can divide the discussion into phonetic evidence and phonological evidence.

Phonetically, we would expect sequences of *ayi* and *awoo* to be longer than *ay* and *aw* (or *ai* and *au*); specifically, VGV sequences should all have roughly the same duration. This is not the case. As shown in Figure 3.14, putative *ay* sequences in words such as *baybirr* ‘behind’ are on average 100 ms shorter than *awa* sequences, and 150 ms shorter than *aya* sequences. Figures are based on 5 tokens per sequence from words spoken in isolation. Sequences of putative *awC* were not included here due to the difficulty of identifying sufficient tokens.

Figure 3.14. Durations of awa, aya, and ayC sequences



A second piece of phonetic evidence comes from vowel fronting and coarticulation; in sequences of *ayC*, the vowel *a* is fronted and raised; this does not occur to the same extent for tokens of *ayi*. Compare the spectrogram of *gayar-yoon* ‘white.person-SOURCE’ (IPA [kajɑɻjʊŋ]) in Figure 3.15a, where the first vowel has steady formant readings at F1 824, F2 1464 and F3 2540, with Figure 3.15b and the example of *baybirr* ‘behind’ ([pejpir]), where there is a very small glide and the formants are steady at F1 572, F2 2215, F3 2961. Both clips are from the same speaker, from words spoken in isolation.

There are also phonological reasons to treat the two sequences as distinct, although the evidence is not as clear-cut. The first piece of evidence comes from final vowel dropping. Words which would otherwise end in sequences of *ayoo*, *awa*, *awoo*, and the like, can undergo final vowel dropping; this produces surface sequences such as *baaw* ‘boy’ and *ngay* ‘1MIN’. Secondly,

Figure 3.15a. Example of *aya* (IPA /aja/) sequence in *gayaryoon* /kajaɻjun/ ‘white person’s’

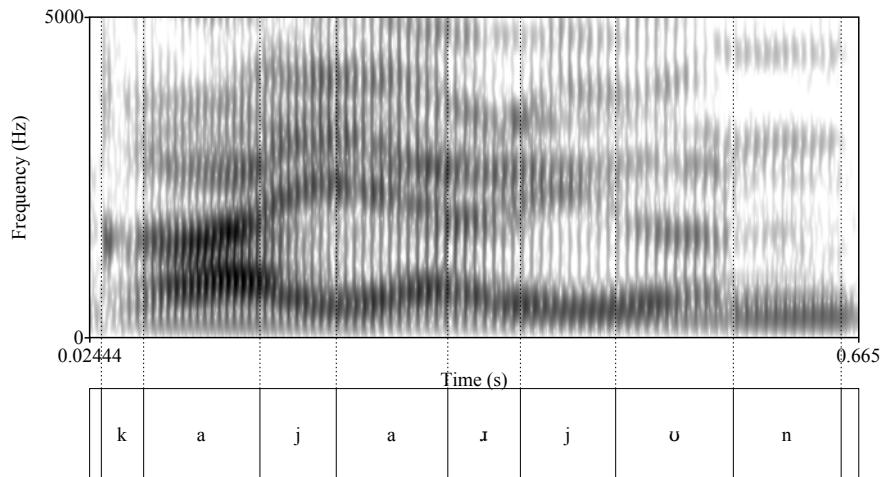
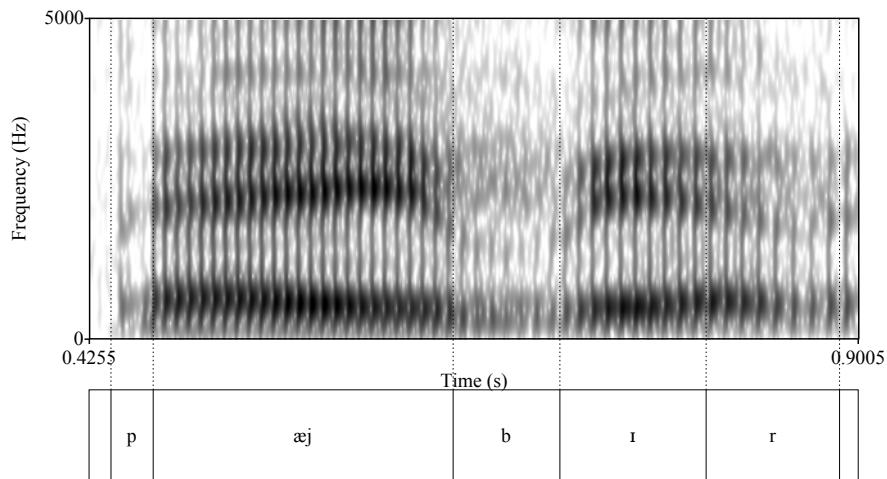


Figure 3.15b. Example of *ay* (IPA /aj/) sequence in *baybirr* ‘behind’



words ending in *ay(i)* and *uy(i)* appear to take the case allomorphs appropriate

to vowel-final stems. That is, they show lenition.

- (3.22) a. *mayi* ‘tucker’, -*joon* source: ‘from tucker’ *mayoon* < *mayi-joon*; not **mayjoon*
- b. *mooy(i)* ‘darkness’, -*goon* locative: ‘in the morning’ *mooyoona* < *mooyi-goon*; not **moogyoon*
- c. *birrii* ‘mother’, -*go* ablative: ‘from mum’ *birriiyo*

The behavior of such roots stands in contrast to Nyikina, where there are glide-final words (e.g. *larrgidiy* ‘boab tree’) which do take consonant-final stem allomorphs of case morphemes. This might imply that glides in Bardi should be treated as vowels for the purposes of morphophonological rules. Alternatively, it could simply mean that glide-final words take vocalic allomorphs; in Yolŋu languages such as Yan-nhangu (Baymarrwaŋa et al. 2005), for example, there is one set of allomorphs for nasal-final stems, one for stop-final ones, and lateral-, glide- and vowel-final stems take a third set of (lenited) forms.

There is evidence from reduplication that *ay* sequences should be treated as a single syllable in words such as *-jaybi-* ‘ask’. Reduplication of disyllabic verb roots copies the vowel of the first syllable and the second consonant (or cluster if one exists; thus *-barndi-* ‘cover’ reduplicated to *-barnd-arnd-i-*, and *-jala-* ‘see’ reduplicated to *-jal-al-a-* ‘stare’. Crucially, *-jaybi-* reduplicates to *-jayb-ayb-i-*; if the *ay* sequence were, in fact, *ayi*, we would expect the reduplicant to be **jay-ay-ibi-*.

Thus in conclusion, *ay* and *aw* sequences are distinct from *ayi* and *awoo* sequences in Bardi on both phonetic and phonological grounds.

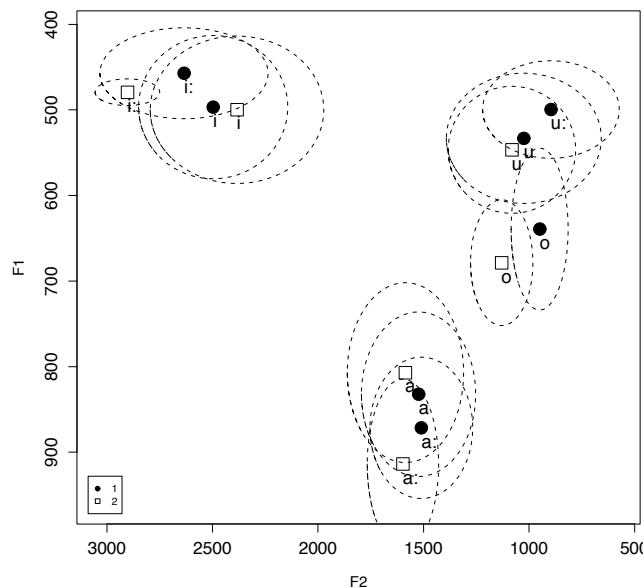
5. Stress

5.1. Primary stress

Bardi has a demarcative stress system. Primary stress is regular and appears consistently on the initial syllable of the word. All previous detailed analyses of Bardi stress have noted primary stress in this position. Stressed vowels are characterized phonetically by increased length compared to unstressed vowels; see Katsika (2008). There are also increases in intensity and, in some cases, pitch, likely related to the intonational system. Furthermore, unstressed

vowels are somewhat more centralized than stressed vowels. This is shown in Figure 3.16).

Figure 3.16. Vowels in stressed (1) vs. unstressed (2) syllables



Stress is manifested as a combination of intensity (loudness), raised pitch and slight lengthening of the vowel. It is also characterized by shortening and some centralization of the vowel in the syllable following the stressed vowel, particularly when that syllable is open. Some of the early sources notated this quite consistently as vowel loss. Laves (n.d.:vol 10), for example, writes the bird name *goorroodood(oo)* as *gurrdudu*, with a cluster; cf. also Laves' *arrdil* for *arridil*; cf. also *irrgil(i)* 'boomerang, yellow hakea (*Hakea arborescens*)', cognate with Jukun *yirragulu* 'wattle (*Acacia sp.*)'. In my recordings, the vowel is still present, though quite short. When the second vowel of the word is *o*, however, vowel harmony results and the vowel does not reduce.

There are cases where the vowel of the following syllable is not neutralized, and there are examples in the corpus where the intensity peak does not coincide with the pitch peak. In such examples, the pitch peak is delayed into the second syllable of the word. The mismatch between intensity peak and pitch peak is subject to ongoing research. It is found sporadically in all speakers, and appears to be a result of interaction between prosodic phrasal intonation and word stress. Pitch peak delay has been noted in Kayardild by

Round (2009), but not in the same environments as are found in Bardi.

All phonological words receive a primary stress. This includes pronouns, preverbs, adverbs, and non-clitic conjunctions. At the phrase level, word stress may be subordinated to intonational phrase level accent, where the first content word of the phrase receives the pitch peak of the entire phrasal unit. Stress is also attracted to the first syllable in loanwords, even when the English word would not have had stress in this position. The phrase ‘kerosene tin’, for example, is loaned into Bardi as a single word and pronounced ‘karcindin’ (Bardi spelling *garrjindin*). The phrase ‘old woman’ is borrowed with the stress pattern /'uluman/, even though the English phrase has the highest stress peak on the first syllable of ‘woman’. Loan words with epenthetic vowels to break up initial clusters also receive a stress on that epenthetic vowel; *goorrooj* ‘cross’, for example, is pronounced [‘kuruc].

5.2. Secondary stress

While defining primary stress is straightforward, the rules for secondary stress are complex. The rules for stress assignment are sensitive to morphological structure, prosodic vowel deletion, and syllable weight. A light syllable is an open syllable with a short vowel; syllables with codas and long vowels are heavy. With respect to morphology, there is a split between nouns and verbs: verbs receive a stress on the initial root syllable, while prefixed nouns do not receive a comparable root stress. Some morphemes with closed syllables receive stress: for instance the case markers such as the ergative *-nim* and allative *-ngan* and monosyllabic clitics such as the third person singular possessive marker *=jin* and the sentence connective *=min*, receive secondary stress; these are all heavy syllables. Agreement clitics carry stress; subject person agreement prefixes are stressed by virtue of occurring first in the word; they thus automatically receive primary stress. Speakers seem to differ as to whether they produce consecutive underlyingly stressed syllables where clitics follow case markers; some stress both (as in 3.23a) while others stress only the last (as in 3.23b), or the first (as in 3.23c).

- (3.23) a. *'gooloo -nim =jin*
'gooloo -nim =jin
 father -ERG =3MIN.POSS
 ‘his/her father [did something]’

- b. '*gooloo -nim =jin*
gooloo -nim =jin
 father -ERG =3MIN.POSS
 'his/her father [did something]'
- c. '*gooloo -nim =jin*
gooloo -nim =jin
 father -ERG =3MIN.POSS
 'his/her father [did something]'

For morphologically simple words, the generalizations are as follows. In disyllabic and underlyingly trisyllabic words, there is a single primary stress on the initial syllable. In trisyllabic words where a final vowel has been deleted, there is secondary stress on the 3rd syllable. In tetrasyllabic words, the secondary stress is on the third syllable if the fourth is light and on the fourth if the fourth is heavy. These patterns are illustrated in (3.24) below.

- (3.24) a. *gooloo* 'father' /'ku:lu/
- b. *nimoonggoon* 'his knowledge' /'nimujkun/
- c. i. *milimili, milimil* 'paper' /'mili,mili/ ['mili,mili] ~ ['mili,mil]
- ii. *Galaloongoo* (name of culture hero) /'kala,luju/ ['kala,luju] ~ ['kala,luj]
- iii. *bilanggamarr* 'helicopter tree' /'pilaŋka,mar/

In (3.24b), *nimoonggoon* 'knowledge' has a single stress on the initial syllable; this word does not underlyingly end in a final vowel. In contrast, words such as *milimili* 'paper', which are underlyingly four syllables in length, with an open final syllable, receive a secondary stress on the third syllable; this stress remains when the final vowel is deleted. Tetrasyllabic words with a heavy final syllable, such as *bilanggamarr* 'helicopter tree', also receive a secondary stress on their final syllable.

Subsequent secondary stresses are assigned in the same manner; on the final syllable if heavy, or otherwise to the penult, and then alternating stress.

- (3.25) a. *Bilingbilinggoon* place name /'piliŋ,piliŋ,kun/
- b. *jawoorrgawoorrqa* 'whirlpool' (song language word)
 /'cawurka,wurka/

There are no words longer than this which are underived; words with more than five syllables are either reduplicated or morphologically complex in other ways (exhibiting prefixes, suffixes, and/or clitics). Reduplicated words show several reduplication patterns (see §3.8 for more details) but in terms of stress show the expected patterns based on the above generalizations. Reduplicated trisyllabic words usually reduplicate partially; however, a few show total reduplication. The words with total reduplication have secondary stress on the first syllable of the reduplicand.

- (3.26) a. *birralabirrala* ['pirala,pirala] 'shake head'
- b. *yooboorrooyooboorr* ['jupuru,jupur] 'delicate mouse' (*Leggadina delicatula*)
- c. *dirrayindirrayin* ['tirajin,tirajin] 'going this way and that'
- d. *Odorrnyarronggoon* ['otor,paron,kun] 'Place name'
- e. *gooloonggooloowarr* ['kuluj,kulu,war] 'magabala vine' (*Marsdenia viridiflora*)

As far as can be determined, secondary stress does not interact with lenition in underived words. While primary stress does interact with a number of phonological processes, including the results of lenition, the same does not appear to be true for secondary stress. The only interaction is the word-final vowel loss described above.

Note that Bardi stress differs from Yawuru (Hosokawa 1991). For example, the weight of the initial syllable does not seem to affect the placement of secondary stress, though secondary stress itself is sensitive to syllable weight. In Yawuru, dimoraic initial syllables allow a secondary stress on the second syllable (i.e. the third mora) of the word:

- (3.27) Yawuru /'wir.,ka:raju/ 'matches'

In Bardi, underived words with equivalent structure have secondary stress on their third syllable, not the second.

5.3. Stress assignment and morphology

The alternation pattern described above may be broken by morphologically assigned stress (i.e. verb roots and some affixes and clitics with heavy syllables), sometimes resulting in stress clash as noted above. There also appears to be some speaker variation.⁵³

5.3.1. Nominals

In compounds, the first member of the compound receives primary stress and the second member receives a secondary stress on the root. Since there are not very many compounds, there are no examples of very long compounds.

- (3.28) a. *jamoo-gamarda* ['camu-kamata] ‘mother’s parents; maternal grandparents’
 b. *aarlimay* ['a:li-maj] ‘food’
 c. *birriigoołoo* ['piri:-ku:lu] ‘parents’

As in the case of underived forms, case-inflected disyllabic and underlyingly trisyllabic words receive a single stress, as shown in (3.29):

- (3.29) a. *gaarragoon* ['ka:ra-kun] ‘sea-LOC’
 b. *gooljoongan* ['kulcu-njan] ‘grass-ALL’
 c. *nidnga* ['nit-ŋa] ‘net-INS’

A few trisyllabic words show variation in whether the suffix receives a secondary stress or not.⁵⁴ I do not currently have enough examples to tell whether this is the result of this affix in particular, or of case-marked disyllabic words more generally.

- (3.30) *goolin-ko* ‘sleep-ABL’ ['kulinko] ~ ['kulinko]

For words which show vowel contraction, and which are underlyingly four syllables in length, there are two treatments. Some words vary as to whether they receive a final secondary stress; many do, but it is absent from some tokens. For example, *biliŋ-ŋ* ‘leaf-INS’ is found in pronunciations of both ['piliŋŋ] and ['piliŋŋ] (that is, both with and without secondary stress).

Some words are recorded as not alternating, having a single primary stress and no secondary stress:

- (3.31) a. *boolngoorroob* ['pulŋuru=b] ‘middle=REL’
 b. *bardogo* ['padoko] (< *bardaga-go) ‘tree-ABL’
 c. *ginyinggon* ['kipiŋkon] (< *ginyinggi-goon) ‘then’

Disyllabic suffixes and clitics receive a secondary stress on their initial syllable.

- (3.32) *janamadan* ['cana-,matan] 'where-DIR'

If this word were underived, it would have the stress pattern *[canama,dan] (like [pilajka,mar] 'helicopter tree' in (3.24b) above). This can be compared with (3.33), which has secondary stress on the final syllable of the word (on the comitative case marker).

- (3.33) a. *irrjarinyarr* ['irca,jɪ-,nar] 3-COM
 b. *barnamboo-nim* ['paɳampu-,nim] 'stingray-ERG'

For inflected nominals of more than three syllables, words which receive a secondary stress within the stem keep that stress, even if it leads to adjacent stressed syllables. In Bardi there is no general prohibition against stress clash.

- (3.34) a. *Galaloongoonim* ['kala,loongoo-,nim] ~ ['kala,luŋ,nim] 'Galaloong-ERG' (culture hero name)
 b. *jarrgandinykoon* ['carjan,dɪŋ-,kun] 'tree-coffin-LOC'
 c. *yandilybarmarr* ['jandiŋ,pajə-,mar] 'boat-SEMB'

Where there is more than one suffix, or a suffix and a clitic, there seems to be some variation about how many secondary stresses occur. All can be stressed, or just the first, or just the last.

- (3.35) a. *oorroolkoonjin* ['urul,-kun=jin] 'nail-LOC=3M.POSS
 b. *booroojirronngan* ['puŋu-,cir-on-,jan] 'place-3A-LOC-ALL'

5.3.2. Verbs

As mentioned above, verbs (both monosyllabic and longer) mostly take a secondary stress on the first syllable of their root. Note that this occurs even where this results in the assignment of secondary stress on a syllable adjacent to the primary stress, as in (3.36) below. Verbs with other prefix combinations have secondary stress on the root up to two syllables away from the primary stress.

- (3.36) a. *Ingankanj.*
 'i-,ŋanka-n-j
 3-speak-CONT-SIMUL
 'while he's talking'

- b. *Arra ngalinyan aarli.*
 'ara 'ŋa-,l-ŋa-n 'a:li
 NEG 1-IRR-catch-CONT fish
 'I didn't catch a fish.'

There are two exceptions to this rule. The first is the verb 'give', which has a phonologically null root.⁵⁵ The secondary stress of inflected forms of 'give' falls on the tense marker, as in (3.37).

- (3.37) *Galnga inagaljarrngay.*
 kalŋa i-na-,kal=carŋay
 even.though 3-tr-[give]-REC.PST=1M.DO.TOP
 '... even though he gave it to me.'

The second exception is where the fully inflected verb is disyllabic. In such cases, there is no stress on the verb root (which is given in boldface):

- (3.38) a. *Inman.*
 '**i-n-ma-n.**
 3-TR-put-CONT
 'He/she put it [somewhere].'
 b. *Injal.*
 '**i-n-cal.**
 3-TR-see
 'He/she/it is looking (at it).'

There are rare examples where every syllable in the word has a stress. They tend to occur phrase finally.

- (3.39) a. *Ngannyagalirr.*
 'ŋa-n-,ŋa-,kal=,ir
 1M-TR-catch-REC.PST=3ADO
 'I caught them.'
 b. *Boor injaljirr.*
 'pur '**i-n-,cal=,cir**
 look 3-TR-see-3A.IO
 'He looks at them.'

5.3.3. Agreement clitics

Agreement clitics may also take secondary stress, as shown in (3.40). It appears from the current data that clitics participate in the same rules for alternating secondary stress that case markers do; that is, while stress clashes are not ruled out and tokens with secondary stress on adjacent syllables are certainly produced, such stress sequences are dispreferred.

- (3.40) a. *irramanjirriri*

[i-r-a-.ma-n=cir-.ir]

3-AUG-TR-put-CONT=3A.IO=3A.DO

‘They put theirs there.’ (OR: they put THEM there, in which case jirriri is a single morpheme)

- b. 'i-na-ŋ-ka-na=_cin

3-TR-PST-carry-REM.PST=3M.IO

‘He/she carried it for him/her.’

5.4. Stress in song poetry

A comment is warranted on word stress in song poetry. In many lines, word stress is subordinated to the rhythm of the accompaniment. Worms (1957:222) (a compilation of Bardi *ilma* and *loodin* song texts) also marks stress on the second syllable. An example is given in (3.41).⁵⁶

- (3.41) a. (Spoken language word stress)

Booroo ngankalan ngay jarrgandany bilbil innya(n)

'Booroo 'nga-n-'kala-n ngay 'jarrgandany 'bilbil

ground 1-TR-wander-CONT tree.coffin flash

'i-n-'nya-(n)

3-TR-catch-CONT

‘I’m treading on the ground, tree coffin, [lightning is] flashing.’

- b. (Song stress)

Booroo 'nga-n-'kala-n ngay jarr'gandany bil'bil

ground 1-TR-wander-CONT tree.coffin flash

i-n- 'nya-y

3-TR-catch-CONT

Stress shift delayed off the initial syllable is also found occasionally in storytelling. I have only noted this shift of stress in stories told by men. (e.g. D.W. ‘life on Sunday Island’, noted also by Aklif). Its use in narratives may mark a boundary in episodes in the story, since it mostly occurs on the last few words before a pause and shift in the action of the story.

6. Morphophonology: affixal interaction

There are sufficient regularities in Bardi affixal interaction that much can be captured by generalizations based on lenition rules, sonority, and other phonetic-phonological motivations. However, there are sufficient numbers of irregularities and exceptions in the system that a single set of rules across all domains is not possible without ad-hoc stipulations.

In Bardi verbs, the relationship between a surface form and an underlying form is not straightforward. Many of the prefixes are monosegmental and consonantal (compare the singular future transitive forms which contain *-n-ngg-C*). Underlying clusters of up to four consonants result from the concatenation of prefixes in underlying forms. These are not compatible with Bardi syllable structure, and the rules for parsing these prefixes interact with sonority and place of articulation constraints. Thus there is a great deal of allomorphy in verb paradigms if a morphological analysis is pursued. Moreover, the allomorphy rules are in some cases either arbitrary, or rely on phonological environments for allomorphy which do not have clear phonetic or phonological motivation.

An alternative approach would be to describe the prefixes paradigmatically. Appendix B gives the relevant paradigms for the inflecting verbs; however, many of the same alternations can be seen in nominal paradigms (both in the possessive prefixation and in suffixation), though given the shape of the affixes, the interactions are less complex. In this section I describe those alternations.

Many of the alternations presented here are the outcomes of sound change creating allomorphy. Lenition, for example, can be reconstructed with different outcomes in various environments, and since many affixes appear in different lenition environments by virtue of appearing on stems of different shapes, they have several different forms in the language. There are other cases, however, where the most plausible synchronic phonological rule does not reflect sound change, even though the environment for the rule is phoneti-

cally conditioned. For example, I do not reconstruct epenthesis as a historical sound change in Bardi, but it is the most parsimonious analysis of the synchronic state of the modern language. Comparative reconstruction using data from other languages shows this; see Bowern (2012) for discussion.

6.1. Geminate simplification: $C_\alpha C_\alpha \rightarrow C_\alpha$

Clusters of identical consonants are simplified to a single consonant across a morpheme boundary. They are pronounced without lengthening. (Clusters of identical consonants never appear within roots.)

- (3.42) a. *Ingalgan*.

i- **ng-** *ngalga -n*
 3- pst- CRY -pst
 ‘He cried.’

- b. *aalin -nim*

aalin -**nim**
 sea.eagle -ERG

- c. *Gaaranim inambardijarrngay*.

Gaara-nim i-n-am-bard-ij=jarrngay.
 sand-ERG 3-TR-PST-cover-MID.PFV=1MIN.DO
 ‘The sand covered me.’

Note that as a result of the change illustrated in example (3.42a), the present and past tenses of *-ngalga-* are homophonous. One is derived from *i-ŋ-ŋalga-* and the other from *i-ŋalga-*. There is no consensus on whether to show both consonants in the orthography. I write both consonants across clitic boundaries (as in (3.42c)) and where the suffix does not otherwise alternate (e.g. (3.42b), where *-nim* is the usual surface form); elsewhere I write a single consonant.

6.2. Lenition

Obstruent-glide alternation is very common in Bardi. The minimal present tense of verbs and the minimal number of inalienably possessed nouns show intervocalic lenition as a synchronic process. Intervocally a glide appears;

however, when the stop is preceded by a trill (as in augmented forms), the stop appears.

- (3.43) a. *ni-yambala* ‘his foot’, cf. *irr-jambala* ‘their foot/feet’
- b. *i-yama* ‘he is laughing’, cf. *irr-gama* ‘they are laughing’
- c. *i-wanyi* ‘it’s finishing’, cf. *irr-banyi* ‘they are finishing’

In the cases above, *b* lenited to *w* and *j* and *g* lenited to *y*. This is the usual pattern in prefixes, though there is some influence of the surrounding vowels. If the vowel following the *g* is *oo* (IPA /u/), the lenition outcome is *w*:

- (3.44) a. *i-woodala-n*
3-get.lost-CONT
‘He’s (always) getting lost.’
- b. *i-ng-goodal-ij*
3-PST-get.lost-PFV
‘He got lost.’

Lenition is also seen in case endings. The locative *-goon* has allomorphs *-oon* and *-on*, reflecting vowel harmony and the loss of the initial consonant of the suffix when it is intervocalic. This is illustrated in (3.45).

- (3.45) a. *ambooriny-goon* ‘person-LOC’ > *amboorinygoon*
- b. *goolboo-goon* ‘rock-LOC’ > *goolboon*
- c. *gaara-goon* ‘sand-LOC’ > *goron*
- d. *nimanyi-goon* ‘throat-LOC’ > *nimanyon*

The case markers and noun and verb roots bring up our first problem in lenition. The lenition product of *g* has several outcomes. In the verb and noun roots, it is regularly *y*, while in the suffix, it is lost entirely; there is also a vowel change in (3.45c) and (3.45d). The lenition product of *g* in suffixes is never *y* or *w*, though it is usually the outcome in the prefixes. The synchronic rules for obstruents are the same as the historical change in this case; obstruents in post-tonic syllables are lenited to glides, while later in the word they are deleted.⁵⁷

Some alternations between consonantal and vocalic environments produce not deletion, but vowel alternations. For example, the proprietive derivational marker *-goord(oo)* has an allomorph *-orda*. Such forms are regular for stems

which end in *a*; this is the result of a historical sound change where sequences of *agoo* and *aboo* were monophthongized to *o*. The sound change created two allomorphs of suffixes which began with -*goo*:

- (3.46) a. *CVC-*goord* > CVC-*goord*
 b. (*)CVCa-*goord* > CVC-*ord*

At some point this alternation was generalized to all stems ending in vowels, not just to ones ending in *a*, which would have been the domain for the original sound change. (Low vowels are about as frequent as the two high vowels combined, as seen from Table 3.6 above.)

A third lenition pattern is seen in some clitics, where the initial obstruent of the clitic is either present or absent, but no glides are formed and vowels in hiatus are resolved by deletion of the stem vowel. The clitic =(*j*)*amb* ‘thus’, for example, has two forms:

- (3.47) a. *milon=jamb*
 long.ago=THUS
 b. *ginyingi =jamb* > *ginyingg=amb*
 3MIN =THUS
 c. *gooyarra =barda* > *gooyarr=arda*
 two =INTERROG

As will be seen in §14.6.2, clitic lenition is rather unlike the other lenition patterns discussed above. It applies only to clitics beginning with *j* and *b*⁵⁸ and, moreover, is optional in some contexts. There is some indication that the presence of absence of lenition in the clitic =(*j*)*angarr* can signal a difference in meaning. Jessie Sampi, for example, gave example (3.48a), but then added that one could say (3.48b) if one were absolutely sure that the story was true:

- (3.48) a. *Darrgalangarr jawal jarri.*
 Darrgal=angarr jawal jarri.
 true=ONLY story this
 ‘It’s a true story.’
 b. *Darrgaljangarr jawal jarri.*
 Darrgal=jangarr jawal jarri.
 true=ONLY story this
 ‘It’s a true story (I’m sure of it).’

(CB-FN3/67a)

I do not have an explanation for such pairs at present.

Jawi (but not Bardi) shows an additional lenition alternation. The velar nasal lenites to zero intervocally in non-post-stress positions; the resulting hiatus leads to vowel coalescence, with the vowel of the suffix replacing the vowel of the stem.

- (3.49) *biili-ngan* ‘cheeky-ALL’ > *biil-an*

6.3. Nasal assimilation

Velar nasals assimilate to the place of articulation of the following stop. Nasals at other places of articulation do not assimilate. This rule only applies to the past tense morpheme *ng(a)-* in minimal verb forms synchronically; however, there are no examples of clusters within roots with *ng* as the first member, apart from those where a velar stop follows, implying that this alternation is the result of sound change.

- (3.50) a. *i-n-ŋ-gama-gal* ‘he was mocking him’ > *inanggamagal*
 b. *i-n-ŋ-barra-gal* ‘he was dreaming it’ > *inambarragal*
 c. *i-ŋ-jarrala-gal* ‘he was running’ > *inyjarralagal*

6.4. Nasal-stop dissimilation

There is an alternation between a nasal-stop cluster and a plain stop in some verb paradigms. We see in the forms in (3.51), for example, that the verb root appears as both *-jimbi-* and *-jibi-*.⁵⁹

- (3.51) a. *inyjibina* ‘he died’
 b. *ingirrjimbinana* ‘they died’

There are also roots where dissimilation seems to have created morphological doublets, and some where the two forms are in free variation, with some speakers preferring one variant over the other.

- (3.52) a. *-bardi-* ‘be covered’
 b. *-barndi-* ‘cover’

- (3.53) *nimoonggoon* ~ *nimoogoon* ‘she/he knows’ (lit. ‘her/his knowledge’)

Finally, we occasionally see such alternations in the future prefix *ngg-*. For example, the future form of the verb ‘sit down’ is recorded both as *nganggalanda* and as *ngagalanda* (the root is *-galanda*):

- (3.54) Underlying: *nga- ngg- galanda -a*
1- FUT- sit.down -FUT

In the form *nganggalanda*, the final stop of the future prefix deletes since the verb root begins with an identical consonant (as per the geminate simplification rule discussed in §3.6.1 above). In the form *ngagalanda*, in addition to the geminate simplification, we also have nasal dissimilation; this thus deletes the entire prefix, but the absence of lenition in the root stop indicates that a prefix must have been deleted.

The origin of nasal dissimilation is probably a historical change, although the conditioning environment is difficult to state. The change is most regular when the nasal appears in the coda of the second syllable, although there are exceptions. Two examples of overapplication of the rule are given in (3.55), and an underapplication in (3.56). In (3.55), we see the cluster simplification even though there is no nasal in the preceding syllable; in (3.56), the rule does not apply, even though the conditioning environment is correct. I suspect that dialect mixing has obscured the proper restricted environment conditioning the change.

- (3.55) a. **bardangka* ‘tree’ > *bardaga*
b. **karrambal* ‘bird’ > *garrabal*
- (3.56) **nundurr* ‘sweat’ > *noondoorr*

This change appears to be spreading. In earlier recordings (before 2008) the past tense marker nasal in forms such as *nga-ny-jarrmin* ‘I got up’ was always present; it now seems to have been lost for some speakers, at least some of the time. This has resulted in the creation of a new paradigm where the present tense *nga-yarrmi-n* stands in opposition to *nga-jarrm-in*.

Such alternations have been noted in several other Australian languages; see Blevins (2001a:32), McConvell (1988) and Butcher (2006) for details.

6.5. Apical dissimilation

Some Bardi speakers have a rule of apical dissimilation. That is, in sequences of apical + apical consonants in adjacent syllables (such as *lVd*, *lVl*, and *lVn*), the second apical is pronounced as retroflex. Speakers differ in how strong the retroflexion is on the second apical; it ranges from quite strong to almost non-existent. The intervening vowel also appears to play a role, with retroflexion being heavier (or at least more acoustically salient) when a low vowel intervenes. I thus treat the dissimilation as a phonetic rather than a phonological process.

6.6. Unsyllabifiable consonant clusters

Two types of unsyllabifiable clusters are created regularly across prefixal morpheme boundaries, where several single consonant prefixes are concatenated. The first is those of two members where the second member of the cluster is more sonorous than the first. The second is clusters of three or more members. Recall that there are very limited situations in which codas or onsets can be complex, and these involve sequences of *l* or *rr* plus a peripheral homorganic nasal-stop cluster.

The analysis of underlying clusters depends a great deal on how we analyze the form of the transitivity marker. Aklif (1993a) analyzes the transitivity marker as an invariant *n-*, which appears in two positions. Etymologically, the transitivity marker is *n-* in the minimal forms and *a-* in the augment forms, and appears after the augment marker. In the modern language, however, there is no way to tell that the augment transitivity marker is *a-*; it could just as well be *n-*, or any other segment which will trigger deletion of the initial consonant of the root. It is not clear what the best synchronic solution is; we can either assume a variant of the overt morpheme *n-*, which will always be deleted, or a vowel *a-*, which is the historically ‘correct’ morpheme but which is also always deleted. If we assume that the modern underlying form of the augment transitivity marker is *a-*, root obstruent deletion proceeds according to the historical rules given in §3.6.2 above—that is, post-tonic glide formation, and otherwise deletion in intervocalic environments. I assume here that the minimal form is *n-* and the augment form is *a-*.

Some examples with underlyingly unsyllabifiable clusters are given in (3.57).

- (3.57) a.
- miliba*

mi- n- l- ibi -a
 2- TR- IRR- drink -FUT

‘Might be you’ll drink it./ It’s possible that you’ll drink it.’

- b.
- inambarrana*

i- n- ng- barra -na
 3 TR- PST- dream -REM.PST

‘She/he dreamt it.’

We can go a long way towards describing the alternations in Bardi verb paradigms by proposing a rule that in disharmonic clusters the consonant of *least sonority* deletes. In the case of *miliba* (from underlying *mi-n-l-ibi-a*), the sequence *n+l* violates the syllable contact law (which states that sonority must decrease between a coda and following onset), and *n* is less sonorant than the *l* (recall the diagram in Figure 3.12). This rule correctly generates the forms in (3.57a), and in all the forms in Table B.1 and Table B.2 where there are two member clusters of unequal sonority. (3.58) shows the derivational steps required to parse the form *miliba* assuming underlying *mi-n-l-ibi-a*.

Such a rule also accounts for the present forms of the verb *-rli-* ‘eat’, and other lateral-initial roots. In these cases, the transitive marker *n-* would be adjacent to the initial consonant of the verb root, and in the same environment as the unsyllabifiable *nl* cluster described in (3.58). The present forms of ‘eat’ are *ngarli*, *mirla*, and *irla* for first, second and third minimal respectively.

- (3.58)
- mi-n-l-ibi-a*
- ‘you might drink it’

1	[i.bi]	syllabification of root
2	[l[i.bi]]	resyllabification; two well-formed syllables
3	n[.li.bi]	can’t be syllabified - violates SCL. [nasal].[liquid] → [liquid]
→	[libi]	
4	[mi[.li.bi]]	fine.
5	[mi.li.bi.]a	can’t syllabify. No vowels in hiatus V ₁ V ₂ → V ₁
	mi.li.ba	

Now, consider cases where the cluster members have the same sonority (two nasals is by far the most common case). In some (but not all) of these

cases we find not deletion but epenthesis. A rule which says ‘delete the segment of least sonority’ fails in this case, as the sonority of the segments is equal. A rule of this type accounts for the forms of the transitive minimal past verbs beginning with *b* and *g*, as shown in (3.59). The correct formulation of the rule seems to be ‘when unsyllabifiable segments are equal in sonority, epenthesize.’

- (3.59) *i-n-ŋ-barra-na* ‘he dreamt it’ > *inambarrana*

1	[bara]	root syllabification
2	[ŋ.[bara]]	no problem with sonority
3	[n[ŋ.bara]]	can’t syllabify; no sonority deletion rule applies [nasal] _α place [nasal] _β place → [nasal]a[nasal]
→	[na[ŋbara]]	
4	i[nanŋbara]	fine
5	[[inanŋbara]n]	fine
6	[[inanŋbaran]a]	fine
	inambarana	post-lexical nasal assimilation

The epenthetic vowel is subject to vowel harmony, discussed below in §3.7.

While an epenthesis rule accounts for verb roots beginning with *b* and *g*, it does not apply to roots which begin with the palatal stop *j*, even though such roots are otherwise identical to those beginning with *b* or *g*. Verb forms beginning with *j* do not have the expected form *inany-* in the third person minimal past prefix bundle. Instead, they have *in-*; that is, their past form is identical to the present.

- (3.60) a. *injalagal*
i- n- jala -gal
 3- TR- see -REC.PST
- b. * *i- n- any- jala -gal*
 3- TR- PST- see -REC.PST
 ‘He/she saw it.’

A few solutions are possible. One would be to treat unsyllabifiable *n+ny* sequences as distinct from *n+m* or *n+ng*, though such a solution appears ad hoc. The facts in (3.60) would appear to be a case of a condition which can be described by the phonological environment of the rule, but where the rule is not itself phonologically conditioned. Alternatively, one could treat *j*-initial

roots as a morphological class in which past prefixes are disallowed. I treat this as a morphological problem and give full paradigms in the interest of clarity for the reader.

Secondly, a general phonological rule of epenthesis in the case of sonority plateau is too strong, since nasal-nasal clusters are found in several forms. In the present of *m*-initial roots, for example, forms such as *inman* ‘he/she puts it [somewhere]’ are well formed. In fact, they contrast with past forms which show epenthesis; compare *inamana* ‘he/she put it [somewhere]’. Clusters of *n*-*ng* are also attested outside of the verb prefix system; in affixation of the allative case *-ngan*, for example, there is no epenthesis (or deletion) with the allatives of *n*-final roots.

One solution would be to assume that where coda velar nasals might occur, they assimilate to the place of articulation of the following consonant, but retain their nasality. This would lead to geminate clusters for nasal-initial roots, which would then simplify by the process described in §3.6.1 above. This is illustrated in (3.61) below:

- (3.61) *i-n-ŋ-ma-na* ‘he/she put it’ > *inamana*

1	[ma]	root syllabification
2	[ŋ.[ma]]	
3	[n[ŋ.ma]]	can't syllabify; sonority deletion rule doesn't apply [nasal] _α place [nasal] _β place → [nasal]a[nasal]
→	[na[ŋma]]	
4	i[najma]	fine
5	[[inajma]n]	fine
6	[[inajman]a]	fine
	inamana	post-lexical assimilation and geminate simplification

This solution too, however, presents problems. Roots which begin with *ny* show a different pattern from other nasal-initial roots; like the roots beginning with the palatal stop *j*, they have the same form in present and past, with a nasal cluster and no epenthesis:

- (3.62) *innyan*

i-n-nya-n
3-TR-catch-CONT

‘She/he catches it.’ or ‘He/she caught it.’

There are two additional cases which do not fit the rules described above.

In the minimal number forms of verbs marked for irrealis mood, the distinction between transitive and intransitive is neutralized. For stop-initial roots, the initial consonant of the root deletes in both the transitive and intransitive forms. Deletion is regular in the transitive if we assume a rule of least sonority deletion, but there is no phonological motivation for the deletion in the intransitive. Examples are given in (3.63) below, using the root *-gama*—‘laugh, mock’, which may take both transitive and intransitive prefix sets.⁶⁰

(3.63) *oolama*

- a. *u-* *n-* *l-* *kama -a*
3.FUT/IRR- TR- IRR- laugh -FUT
‘He might mock him.’
- b. *u-* *l-* ***kama -a***
3.FUT/IRR- IRR- laugh -FUT
‘He might laugh.’

In (3.63a), the triple cluster is simplified by the deletion of the least sonorant member (*g*), but the remaining cluster is still unsyllabifiable and *n+l* is reduced to *l*. In (3.63b), however, *lg* is an acceptable cluster. The fact that deletion of *g* still occurs (despite no phonological motivation) must be by analogy to the transitive forms.

As a final example, consider the verbs in (3.64):

(3.64) a. *inanggaman*

- i-* *n-* *ŋ-* ***kama*** *-n*
3- tr- pst- MOCK -pst
‘He mocked him.’

b. *oonkama*

- u-* *n-* *ŋk-* ***kama***
3.fut- tr- fut- MOCK
‘He will mock him.’

We seem here to have two treatments of the same sequence *ŋg*—one morphemically *n-ŋ-g-* and the other *n-ŋg-g-*. I see of no way to capture the different behavior of these two sequences without the stipulation of allomorphy; that is, that the future morpheme has two allomorphs *ŋg* ~ *g* which vary according to transitivity.

Thus in summary, while there is considerable phonological regularity to the Bardi prefix system, there are sufficient irregularities that we cannot derive all forms without reference to paradigm forms.

6.7. Vowels in hiatus

Vowels can occur in hiatus in the underlying form, but not in the surface form in all but a few limited cases. Resolution of hiatus varies. In the situations where hiatus arises in verb prefixes, one vowel is always stressed and the unstressed vowel is deleted (which results in all cases in deletion of the right-most vowel). The plural marker is *arr-*; in the present tense the vowel of the plural marker comes into hiatus with the vowel of the person marker.

- (3.65) *irrgama*

i- *φ-* *arr-* ***gama***
3- PRS- AUG- laugh

‘They laugh.’

In vowel-initial suffixes, the vowel of the suffix is retained and the stem vowel is deleted. This is true both for V-only suffixes such as the predicative marker illustrated in (3.66a), and for longer suffixes such as the middle perfect marker *-ij*.

- (3.66) a. *boorrboorriida*

boorrboorr -iidi -a
dance -NOM.AG -PRED
‘dancer’ (predicate form)

- b. *inyjalgij*

i- *ng-* *jalgoo -ij*
3- PST- fall -PFV
‘he/she/it fell.’

A different treatment of vowel hiatus is found in the possessive prefixes of nouns, however. In this case, the vowel of the prefix deletes, not the vowel of the stem. For example, given the third person minimal prefix *ni-* and the root *alma* ‘head’, the form ‘his/her head’ is *nalma*, not **nilma*, which would be

expected if the rules for vowel deletion in nouns followed those of verbs. The generalization appears to be that stem vowels are deleted preferentially over affix vowels; in the case of multiple prefixes or suffixes, the vowel closest to the root deletes.

There are a few cases where hiatus is preserved, though these are very rare. One is the suffix *-injoon* discussed in §5.1.7 below, which is usually *-injoon* without glide insertion.⁶¹ The word for a ‘pair’ of something is *gooyarra-injoon*, without resolution of the hiatus. Another class of exceptions come from certain collective compounds, such as *marrga-irrgil* ‘shield-boomerang’, where the vowel of the first member of the compound does not delete (there are other words where the final vowel of the first word *does* delete). Thirdly, some monosyllabic verb roots exhibit glide insertion rather than vowel deletion; the future of the verb ‘hit’, for example, is *oonkowa* rather than the expected **oonka*. Other roots show both forms. The future of the root *-ga-* ‘carry’, for example, has been recorded variously as *oonkaa*, *oonka* and *oonkaya*. I have no information about what governs the appearance of different allomorphs here. Not all speakers produced all forms, and in elicitation speakers only gave *oonkaa* as the future for ‘carry’. Aklif notes that *oonkarliya* ‘he/she will eat it’ (root *-rli-*) alternates with *oonkarla*, but speakers only give the former in elicitation.

7. Vowel harmony

Bardi shows vowel harmony in some affixes. There are examples of both progressive (left-to-right) and regressive (right-to-left) harmony, though they occur in different domains. Harmony processes apply to *a* (both underlying and epenthetic) and are triggered by high vowels and *o*.

The vowel *o* is spread leftward over *a*. We see harmony both in case alternations and in verb paradigms. *u* (orthographic *oo*) is also lowered to *o* in the locative *-goon* when following low vowels. In these cases, harmony is controlled by the suffix.⁶²

- (3.67) a. *alang* ‘south’; *olonggon* ‘in the south’ (south-LOC).
- | | |
|------------|----------|
| /alaj-kun/ | |
| /alaj-kon/ | lowering |
| /oloj-kon/ | harmony |

- b. *balab(oo)* ‘here, towards speaker’ *bolobo* ‘from here’ (here-ABL)
 palapu-ko
 palapo regular case/stem reduction
 polopo harmony

The rule for harmony can be stated as follows:

- (3.68) a > o / _ C* o

The rule applies iteratively but is blocked by a non-low vowel. Note that it applies to the first person augmented subject agreement marker *a-*; for example, in *o-rr-o-n=irr* ‘we spear them’. The verb root here is *o*, the lenited form of *-boo-* ‘hit, pierce, strike, spear’. For the alternation, see §9.2.1.

High vowels are also spread leftward over *a*. This is found particularly in verb prefixes. In such cases, the vowel of the augment marker *arr-* and the vowel of the transitive marker *a-* are raised to *i* and *oo* (IPA /u/) depending on the following vowel. (3.69a) shows harmony across the augment prefix. (3.69b) illustrates harmony spreading from a suffix (although harmony in this root is optional). In (3.69c) we see an example of the spreading of *o* affecting the person prefix, and (3.69d) provides an instance of the non-spreading of /u/ to the person marker.

- (3.69) a. *i-n̩g-arr-a-n̩goorribi-na* ‘they chased him’ > *ingoorroongoorribina*
 b. *i-n̩g-arr-(a)-(ga)-ij* ‘they carried it’ > *ingarrij* ~ *ingirrij*
 c. *a-n̩g-arr-o-na-n=irr* ‘we speared them’ > *ongorronananirr*
 d. *a-n̩-jool-ang-a* ‘collect it! (imperative) * > **oonjoolanga*

There are also some examples of rightward harmony, though these are rarer. They occur when the vowel of the root is *a* and the first (stressed) vowel of the word is *i* or *oo*. As can be seen from the examples in (3.70), rightward high vowel harmony is sensitive to morphemic structure, and does not spread across verb roots.

- (3.70) a. *oo-n̩gg-oorr-andoor-a*
 3-FUT-AUG-wade.across-FUT
 ‘He/she will wade across.’

- b. *Daab i-ng-irr-a-na*
 climb 3-PST-AUG-TR-[carry]-PST
 ‘They climbed up.’

Rightward harmony controlled by the verb root is also found on some verb suffixes. For example, the third person minimal remote past of the verb ‘do’ or ‘say’ is recorded variably as *injoona* and *injoonoo*, and the third person augment appears as both *ingirrina* and *ingirrini*. In the minimal number case, the unharmonized forms are considerably more frequent (544 vs. 382); in the augmented forms, however, the frequency is fairly equal (232 without harmony vs. 253 with harmony).

Some words do not undergo harmony, however. In some cases, we can point to dialectal variation as the cause of harmony non-application; the harmony rules are different in the Jawi texts recorded by Laves. The verb root *-boo-* ‘hit, poke’ does not trigger harmony in the epenthetic vowel which appears between the transitivity marker and the tense marker in singular verb prefixes ((3.71b)). In contexts where the root consonant lenites, the verb root appears as *-o-* (cf. *oonkowa* ‘he/she’ll poke it’); in such forms, harmony rules do still apply, however.

- (3.71) a. *nalma* ‘(his) hand’; *nalmanon* ‘in his hand’ (**nolmonon*)
 b. *inamboogal* ‘he poked it’ (**inoomboogal*)

8. Reduplication

Verb roots, preverbs, adjectives, and some nouns may be reduplicated. Reduplication is not completely productive and some verb roots which might be expected to take reduplication are ungrammatical with it. In this section I survey the reduplication patterns found in Bardi and show that what appears to be infixal reduplication can be shown to be the result of a historical sound change.

8.1. Monosyllabic words and roots

There are three patterns to monosyllabic reduplication. They are illustrated in Table 3.9 below. No monosyllabic inflecting verb roots admit reduplication in

Bardi, although they do in some other Nyulnyulan languages, such as Nyikina (cf. Stokes 1982a:231).

Table 3.9. Monosyllabic verb reduplication

base	reduplicant	gloss
<i>garr</i>	<i>garrgarr/garragarr</i>	rub (pv)
<i>yoorr</i>	<i>yoorryoorr</i>	come down
<i>daab</i>	<i>daabidaab</i>	climb (pv)
<i>doob</i>	<i>dooboodoob(oo)</i>	flash (pv)
<i>rarr</i>	<i>rararr</i>	noise of something creeping through the bush

The first pattern instantiates straightforward ‘doubling’ of the word, such as *garr* > *garrgarr* ‘rub/keep on rubbing’. The second pattern results in tri-syllabic outputs, illustrated by the words which have a link vowel between the base and the reduplicant. These words were probably historically disyllabic and the ‘link vowel’ (which is unpredictable) is just a stranded former part of the base. Recall from §3.4.4 that final vowel loss is regular in several dialects of Bardi.

(3.72)	Unreduplicated	Reduplicated
I	* <i>daabi</i>	* <i>daabidaabi</i>
II	<i>daab</i>	<i>daabidaab</i>

Some words have two patterns, either identity reduplication $\sigma > \sigma\sigma$, where the output is disyllabic, or a trisyllabic output with an epenthetic vowel between the base and the reduplicant. *Garr* ‘rub’, for example, can be reduplicated as *garrgarr* or as *garragarr*. In this case, however, the attested pattern does not conform to the sound changes we can reconstruct historically. For example, we would expect lenition to apply in the case of the trisyllabic output *garragarr*; *garrarr* would be the phonologically regular outcome. In these cases the reduplicated form may have been remodeled to preserve transparency between base and reduplicant; alternatively, the trisyllabic alternant may post-date the intervocalic obstruent lenition rule.

There are some reduplicants, however, that do show the expected sound changes. The form *rararr*, from *rarr*, for example, shows the expected outcome from **rarr-rarr*.

8.2. Disyllabic roots

Disyllabic roots reduplicate fully if the first consonant of the word is not an obstruent, or if the word is of the shape CVCVC. The root *-marra-* ‘cook’, for example, reduplicates to *-marramarra-*, where it means either ‘keep on cooking’ or ‘tempt (someone)’, and *bawin* ‘cut’ reduplicates to *bawinbawin*. These are illustrated in Table 3.10.

Table 3.10. Disyllabic reduplication patterns

base	reduplicant	gloss of reduplicant
<i>amboon</i>	<i>amboonamboon</i>	together
<i>bawin</i>	<i>bawinbawin</i>	cut (pv)
<i>birrjarr</i>	<i>birrjarrbirrjarr</i>	flash of disturbed water (pv)
<i>-linyji-</i>	<i>-linyjilinyji-</i>	wait for
<i>-marra-</i>	<i>-marramarra-</i>	cook/tempt

Vowel-initial roots such as *+alma* ‘head’⁶³ undergo vowel coalescence, as expected. Thus *alma-⟨alma⟩* regularly becomes *almalma* ‘attentiveness’.

Just as some monosyllabic reduplicated forms had three syllables rather than two, so too in disyllabic reduplication, some forms have an additional syllable, though these are rare. One of the stages of the *arnkooy* initiation ceremony, for example is called *mayooloomayool*.

The final set of patterns is illustrated below in Table 3.11. In previous examples, the reduplicant has been prefixal. In these examples, however, the pattern appears infixal, as though CVCCV reduplicates to C⟨VCC⟩VCCV.

This apparent pattern results from the historical sound change which lenited intervocalic **g*, **j* and **b* (see §3.6.2 above). That is, we can reconstruct the reduplicants as **bardi-bardi* and **janboo-janboo*. In the case of **bardi-bardi-*, lenition will regularly result in *bardardi*, the attested form. The same is true for **janboojanboo* > *janbanboo* and many of the other cases listed in (3.10) above.⁶⁴

In some cases, however, the result is not as expected. The reconstructed **gardigardi*, for example, should give **gardiyardi*, not the attested *gardardi*. We have two possible solutions here. One is vowel lowering; **gardigardi* > **gardagardi*, in which case *gardardi* is predicted. There are not enough tokens to establish or rule out such a sound change.⁶⁵ The other (and not necessarily incompatible) solution is that a model for reduplication was established

Table 3.11. Infixal reduplication patterns

base	reduplicant	gloss of reduplicant
- <i>bardi-</i>	- <i>bardardi-</i>	be covered
- <i>gardi-</i>	- <i>gardardi-</i>	enter/go in and out
- <i>jarrboo-</i>	- <i>jarrbarrboo-</i>	go back/send off
- <i>janboo-</i>	- <i>janbanboo-</i>	tread/straighten spears
- <i>garnboo-</i>	- <i>garnbarnboo-</i>	scold/imitate
- <i>galga-</i>	- <i>galgalga-</i>	move
- <i>jalala-</i>	- <i>jalala-</i>	look/watch
- <i>barnji-</i>	- <i>barnjarnji-</i>	share/divide amongst a group
- <i>jinbi-</i>	- <i>jinbinbi-</i>	count/ think about someone
- <i>loorroo-</i>	- <i>looloorroo-</i>	burn/light fires

on the basis of the regular examples (with deletion of the obstruent), and that model extended analogically to other roots in which deletion of the obstruent would not normally have occurred.

There are some examples of stop-cluster simplification of inherently reduplicated roots. The form *bilimbilingg* ‘sunlight, sun’s rays’, for example, is clearly underlyingly a reduplicated form, though *bilingg* does not exist independently.

8.3. Trisyllabic and higher roots

Trisyllabic roots follow the same patterns as disyllabic ones, although the target of reduplication may be complicated by historical morpheme boundaries. This has produced a number of sub-patterns; which pattern a given root takes is not predictable from the modern grammar. Table 3.12 below gives illustrative forms.

For all the roots illustrated except -*bilirri-* ‘rock to and fro’, the reduplicant is disyllabic, the first two syllables of the root. The sound changes delineated above for disyllabic roots have also occurred here, and they have obscured the reduplicant in some cases. That is, obstruent deletion has occurred, producing a pattern which appears infixal when the initial consonant of the root is an obstruent. Compare the behavior of -*ngoorribi-* ‘chase’ and -*bamarra-* ‘shiver’.

Table 3.12. Trisyllabic reduplication patterns

base	reduplicant	gloss of reduplicant
2-syll base		
-goondoorra-	-goondoondoorra-	cross over
-joogooloo-	-joogoogooloo-	break
-ngoorribi-	-ngoorringoorribi-	chase
-jarrada-	-jarrarrada-inyji-	stretch one's legs
-jalgama-	-jalgalgama-	cut up <i>aarli</i> (dugong, fish or turtle meat)
-gorndorrma-	-gorndorndorrma-	hold something
-garndarra-	-gandarnndarra-	sweep/roll (of waves)
-boondarra-	-boondoondarra-	chew
-bamarra-	-bamamarra-	shiver
-balama-	-balalama-	gather together
<i>mayoorr</i>	<i>mayoomayoorroo</i>	make a tour of the fish traps (cf. <i>mayoorr</i> fish trap type)
<i>nyalibinko</i>	<i>nyalinnyalibinko</i>	here and there
<i>alngarda</i>	<i>alngalngarda</i>	very sheltered place
historically 3-syll base		
-bilarri-	-bilirrilirri-	rock to and fro

- (3.73) a. -ngoorribi- > -ngoorri-<ngoorri>-bi

- b. -bamarra- > b-<ama>-ma-rra, historically from *bama-<bama>-rra (*aba > *aa > a)

Returning now to -bilarri- 'rock to and fro', on the basis of the reduplication pattern established above we would expect *-bililirri-, not the attested -bilirrilirri-. I have no explanation for the difference in pattern, or for why this root should have a trisyllabic base while the other roots show disyllabic reduplication. No other examples of root trisyllabic reduplication are attested in the corpus, although trisyllabic reduplication is attested in a few nominals.

8.4. Irregular reduplicants

While the discussion above accounts for almost all the data, there are three exceptions. Alongside the regular reduplicant of *bawin* ‘cut up *aarli* meat’, *bawinbawin*, there is also an irregular archaic form *bawaninbawin*. Secondly, there is a word *boojamana* ‘things, belongings’, which reduplicates to *boojamanamana*, with final reduplication rather than initial reduplication (the expected form is **boojoojamana*). Finally, *jaala* ‘spear’ can be used as a preverb with the light verb *-ma-* ‘put’, where the meaning is to string fish on a spear. The form of the reduplication is *jaalajala*, not **jaalala* as would be expected by the above rules.⁶⁶

9. Intonation

Evidence from intonation is used in a number of areas in the grammar in order to provide evidence for phrasal demarcation. Here I summarize the major patterns of intonation found in the data. The data should be treated with caution, however, since it has not been analyzed quantitatively. This section draws extensively on the sketch of Bardi intonation in Bowern, McDonough, and Kelliher (in press). Note that I have made no attempt to exhaustively annotate each extract, and only the main intonational points discussed here are marked. That is, this is not by any means an exhaustive study of Bardi intonation and the absence of discussion of any particular point should not be taken to imply its absence in the language.

9.1. Intonation in declarative sentences

In declarative sentences, the Bardi intonational system is demarcative, with a pitch peak (notated here as H*) aligned with the first syllable of the first word of the clause, and a fall to the end of the utterance. Alignment tends to be early in the utterance, with the peak early in the first syllable of the word; it may, however, drift later in the first syllable or even into the following syllable, though this is rare. Final topics receive a sharp fall which begins slightly higher than the pitch of the previous constituent. Figure 3.17a is an example of a typical declarative clause with initial pitch peak and falling intonation, while Figure 3.17b shows a slight H* spike on the place name *Jarrinyan*, near the end of the utterance.

Figure 3.17a. Typical declarative intonation with falling contour

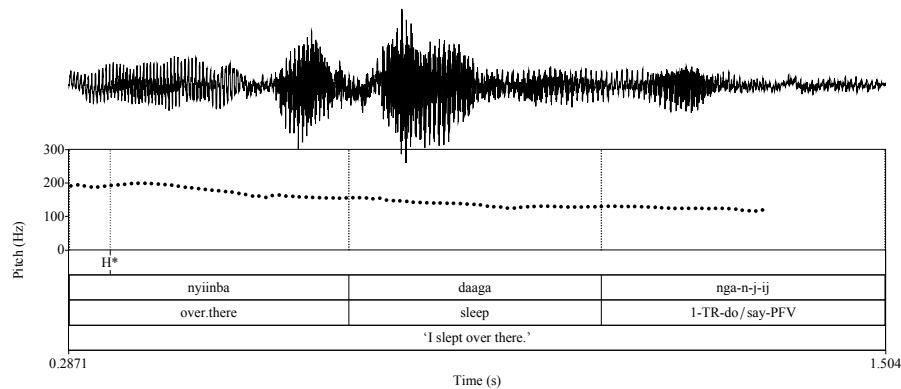
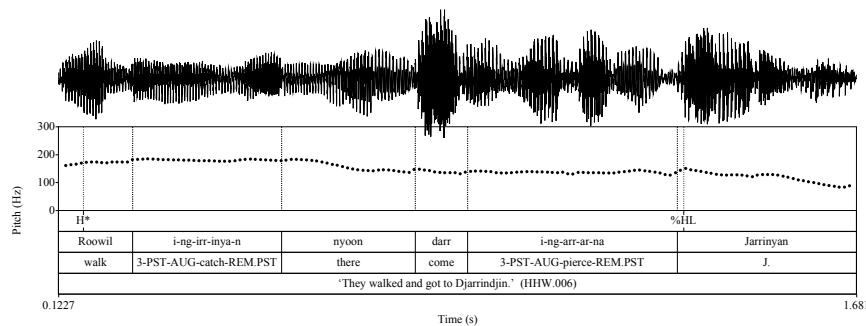
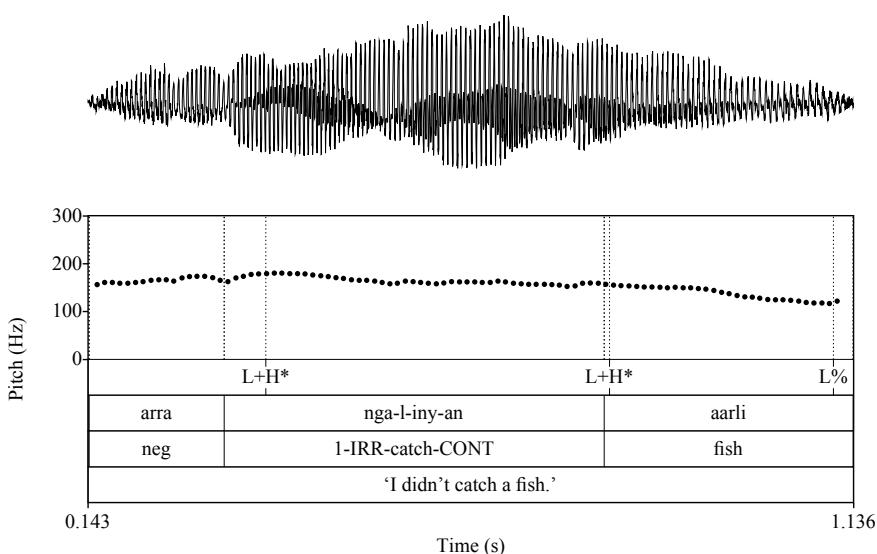


Figure 3.17b. Typical declarative intonation contour with final topic



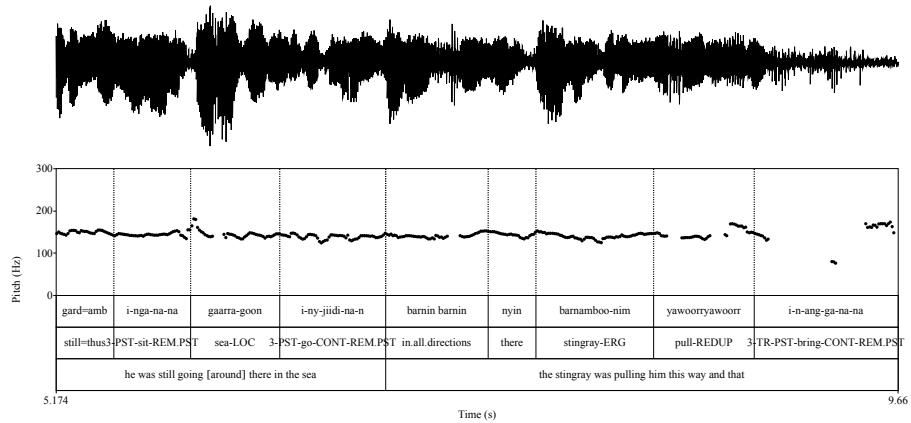
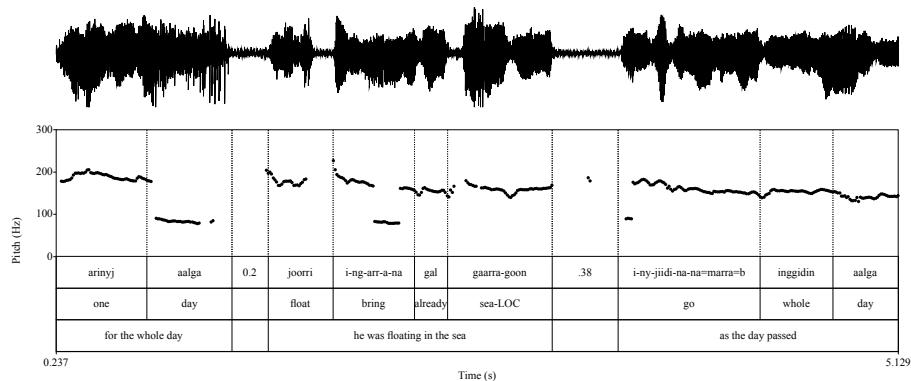
When the first word of the clause is a grammatical word rather than a content word, the pitch peak is realized on the first content word of the clause. This is illustrated in Figure 3.18, where the first word of the clause is the negation marker *arra* ‘not’. The initial reset mark (R%) indicates that the utterance begins near the top of the speaker’s pitch range.

Figure 3.18. Typical statement contour beginning with a grammatical word

The contours can stretch over quite long items with no pauses, and cover several syntactic units with little to no evidence of peaks and valleys. This is illustrated in Figure 3.19. The sudden apparent drops in the pitch track in Figure 3.19 (for example on the second word, *aalga* ‘day’) are errors in the pitch trace, due to the pitch trace algorithm halving or doubling the period of F0. This is a common error. The speaker (Nancy Isaac) has a great deal of vocal fry which may be interfering with the F0 extraction. The gaps in the pitch trace are due either to silence or to the absence of voicing, where F0 is undefined. Two glosses in Figure 3.19 were omitted due to the inflexibility of Praat’s TextGrid spacing which led to them spilling onto adjacent annotations. They are *i-ng-arr-a-na* ‘bring’, which is 3-PST-AUG-bring-REM.PST, and *i-ny-jiidi-na-na=marra=b* ‘go’, which is properly 3-PST-go-CONT-REM.PST=SEML=REL.

Another narrative style, found particularly (although by no means exclusively) with older male speakers, involves very short intonational phrases and long pauses which may not coincide with noun phrases. An example is given in Figure 3.20a. I consider this a speech style rather than an example of speakers simply planning speech because all the male speakers who have been recorded (from the 1970s to 2003) use this style, while it occurs much

Figure 3.19. Example of extended clause sequence with level intonation



less frequently in the women's recordings, and because the placement of the pauses implies to me that they are not associated purely with speech planning.

In this style, one finds quite long pauses which do not disrupt the overall intonation contour. Figure 3.20b is typical in that there is a long pause (of nearly 800 ms.) which occurs between the pronoun and the noun (which are part of the same noun phrase). A pause before the final word of a clause is common, but pauses in other positions are also frequent. The pause before a final word usually serves to mark a topic. The final constituent may be either a single word or a phrase.

There is a defined list intonation pattern, with lists of clauses having their own intonation contour. The final verb in the sequence has falling intonation,

Figure 3.20a. Extract from David Wiggan's narrative 'Life on Sunday Island' showing short intonational phrases and pausing

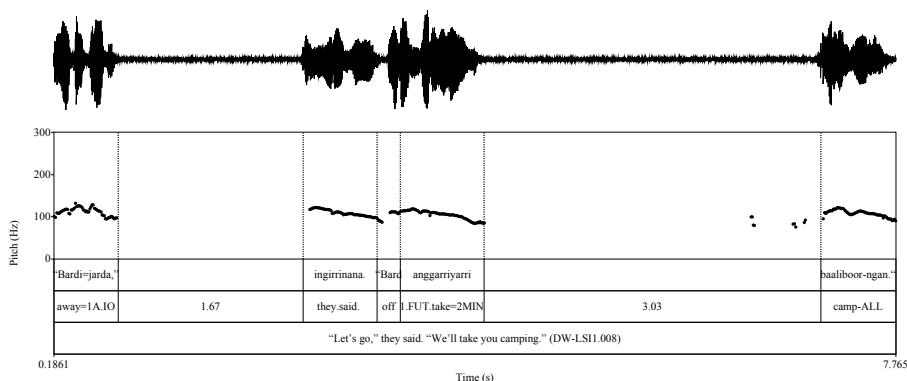
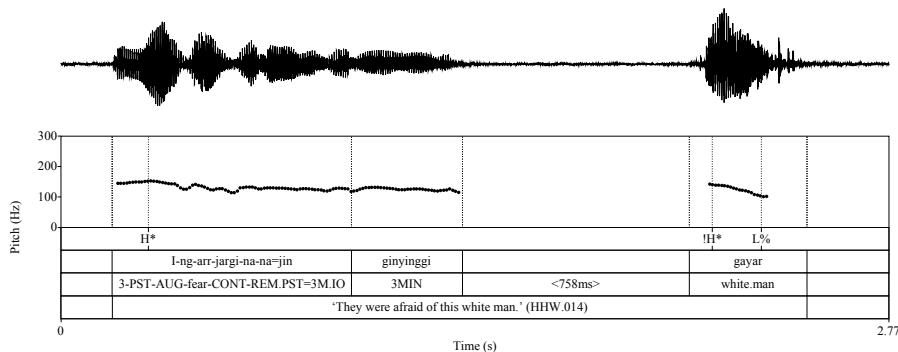


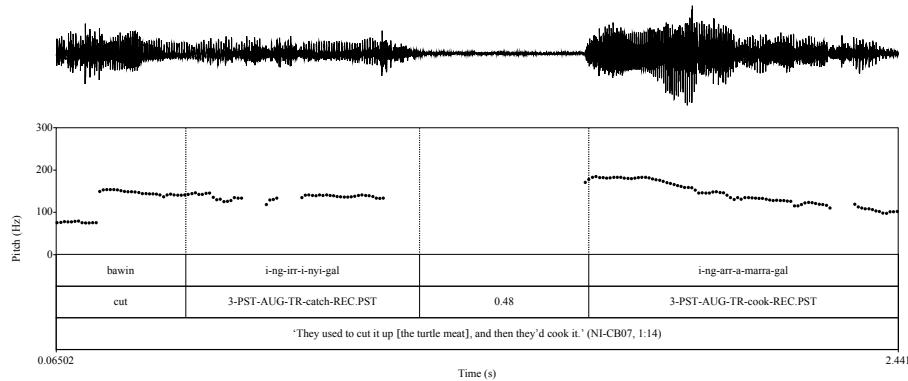
Figure 3.20b. Pitch track showing a pause within a noun phrase



and frequently an initially lengthened vowel. This is the case of the final verb in Figure 3.21, where the duration of the initial vowel of the final word, *ingarramarragal* 'they'd cook it' is 159 m.sec, within the range of phonemic long vowels. Intermediate constituents have no fall on the final syllable, as is also illustrated in Figure 3.21.

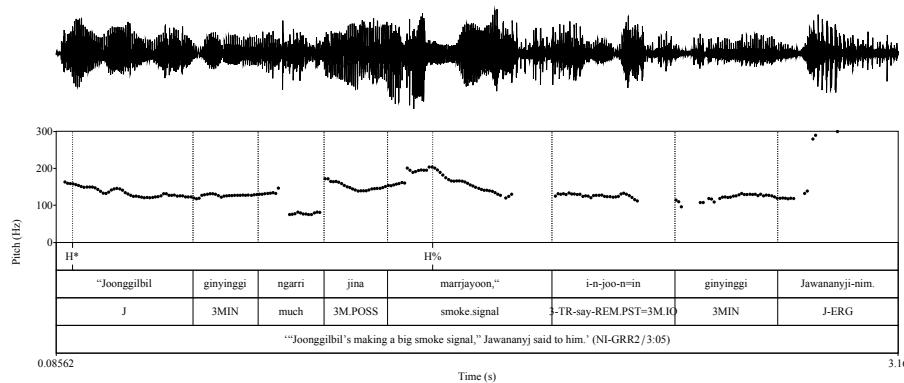
More than one item can be in focus in the same clause, in which case there are two main pitch peaks. An example of this is shown in Figure 3.22, where the initial constituent *Joonggilbil* has the typical pitch peak associated with initial position, but there is a second, larger peak on *marrjayoon* 'smoke signal'. Impressionistically, items with this second intonation peak are always in final position; that is, when there are two elements of focal information in

Figure 3.21. Pitch track showing list intonation



the clause, one is always initial and the other is final. This part of the clause is quoted speech. The remainder of the clause is the verb of speech, *injoonoojin*, and the subject of that verb.

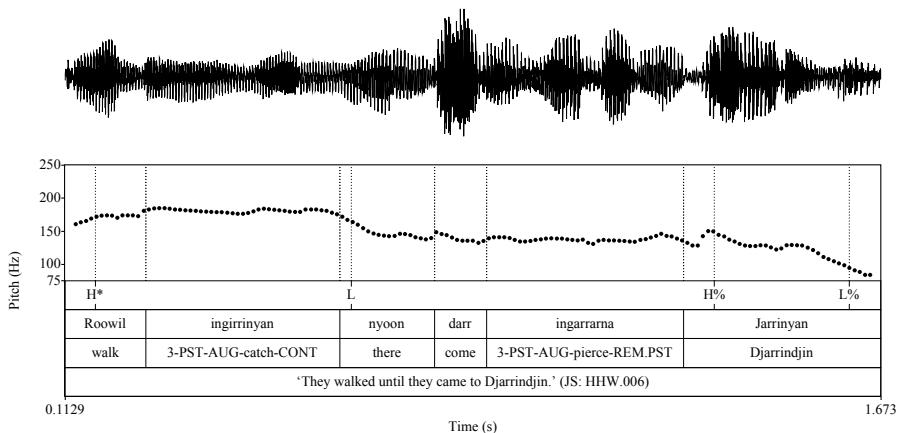
Figure 3.22. Pitch track showing clause with two pitch peaks



A salient feature of Bardi narration is a type of ‘terracing’ in intonational phrases. These melodies are characterized by a series of level high-toned phrases, interspersed with phrases with lower tone. This intonation pattern typically begins several clauses into narrative and may continue for quite some time in the story. This style of speech is particularly associated with female speakers. All the women who have been recorded have narratives which involve this style. More research is required to determine what types

of boundaries are marked by the switch from high to low (and vice versa). A short example of this narrative type is given in Figure 3.23. These sequences have a final sharp fall from the upper range at the end of the episode (also seen in the example in Figure 3.23, where the fall is on *Jarrinyan*).

Figure 3.23. ‘Terracing’ intonation pitch track



9.2. Intonation in non-declarative contexts

Like declarative intonation, the intonation of content questions also begins with a H* tone on the initial item of the clause, which is usually the question word. Interrogative phrases have a rapid rise in pitch at the end of the phrase, as in Figure 3.24.

Polar questions with the interrogative marker *nganyji* have the same structure, as illustrated in Figure 3.25; the interrogative marker carries the first H* tone and the final word of the phrase has a rapid intonational rise. Finally, Figure 3.26 shows a single word clarification question, where the initial high and final rise occur on the same word. This is the same pattern as the other interrogative melodies, realized over a single word rather than a multi-word clause.

Intonation in imperatives is still the subject of research. Many of the examples of morphological imperatives in narratives do not have intonation structures which are perceptibly different from declarative clauses; moreover, they are often embedded within larger narrative structures. Figure 3.27a, for exam-

Figure 3.24. Pitch trace of a content question

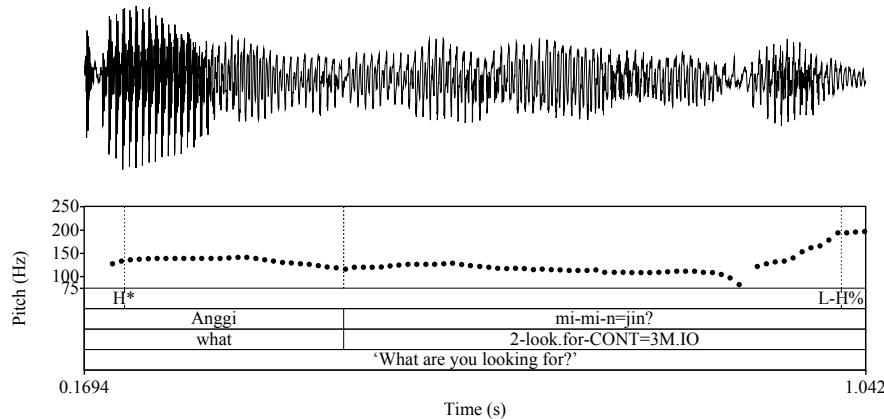
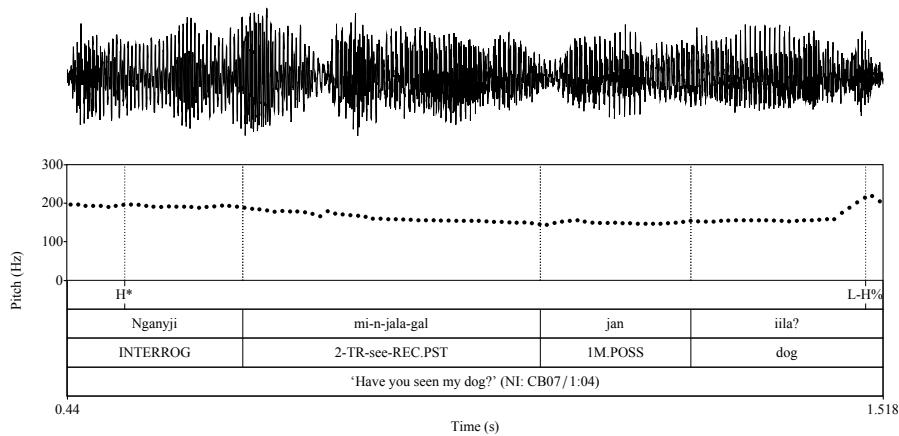


Figure 3.25. Pitch trace of a polar question



ple, appears very similar, if not identical, to a declarative clause, with initial H* and fall to the end of the utterance. (The speaker of this example is David Wiggan.) An example of a more natural imperative intonation comes from Bessie Ejai's telling of a story of the time when Kung-Fu Stumpagee rode a bicycle off the jetty on Sunday Island, the pitch track of which is illustrated in Figure 3.27b.

The imperative starts higher in the speaker's pitch range than declarative phrases do, and may drop further; note that the track in Figure 3.27b stays

Figure 3.26. Pitch trace of a polar clarification question (JS-BA-CB68.1)

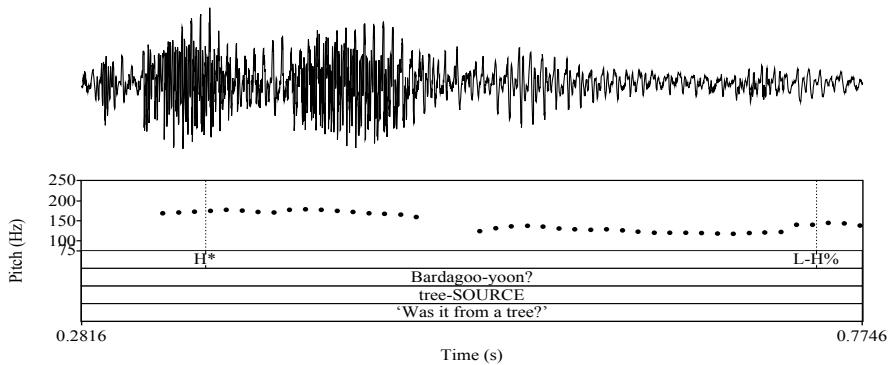
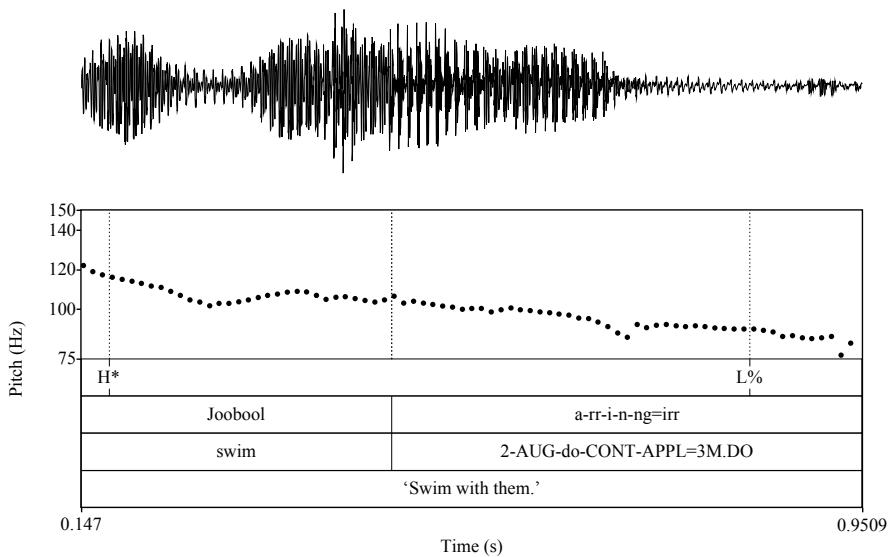
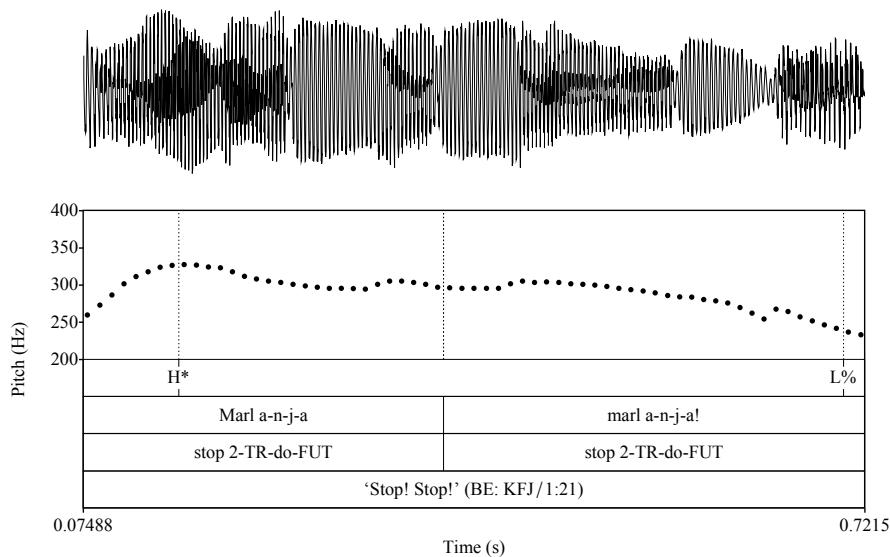


Figure 3.27a. Pitch trace of an imperative in narrative



high, however. For now it seems best to conclude that the difference in intonation between declarative and imperative tunes is one of range rather than of structure.

Figure 3.27b. Pitch trace of an imperative



10. Loan phonology

This section describes loan adaptations between English, Kriol and Bardi. The Bardi dictionary is tagged for loans, where known, and currently contains about 100 examples. By far the largest number of these come from English or Kriol. There are also loans from other Aboriginal languages from the region, particularly in the area of material culture and ceremonial items.

10.1. English and Kriol loans

Speakers of Bardi have traditionally grown up in areas where English, rather than Kriol, was the major contact language (unlike, for example, Nyikina or the East Kimberley, where Kriol is dominant). However, it is impossible to tell in many cases whether the loan has come into Bardi directly from Standard English, or whether it is from Kriol (which has a lexicon predominantly with English source), or whether it is from an intermediate contact language, such as Aboriginal English. For most words the outcome in phonology would be identical. Some words are identified as coming from Kriol because of their

semantics or morphology; for example, it is likely that *boojoom* ‘push ’im’ and *loojim* ‘pass away’ (< ‘lose ’im’) are from Kriol because of the presence of the characteristic Kriol transitivity marker *’im* (for which see Koch 2000). However, using *’im* is also a feature of broader Aboriginal English, including many of the older people at One Arm Point. Other words are more common in Kriol than in Standard English nowadays, such as *pannikin*, although they are likely to be fairly early loans and so may have entered from English.

10.1.1. Stress

English loans into Bardi have initial stress, whatever their stress in English. In this they conform to Bardi stress patterns (see §3.5). This is a feature of many words in Aboriginal English as well; compare [‘bijain] for ‘behind’ (BOW-FN).

Some phrases have been reanalyzed as compounds and given initial stress. Thus:

- (3.74) a. *oolooman* [‘vləmən] ‘old woman’
- b. *garrjindin* [‘karcɪndɪn] ‘kerosene tin’
- c. *boolawayi* [‘pʊləwaj] ‘pull away’ (single stress, no secondary stress)
- d. *dinamid* [‘tnəmit] tin of meat
- e. *doowalbaglag* [‘tuwelbaglak] twelve o’clock (no secondary stress)

10.1.2. Segment adaptation

In the earliest loans from English and Kriol, loans are fully adapted to Bardi phonology. Table 3.13 gives the mappings for consonants; Bardi is on the upper line, English on the lower. English phonemes in the same cell are mapped to the equivalent Bardi phoneme; for example, /tʃ/, /dʒ/, /ʃ/, /ʒ/, and sometimes /t/ are all mapped onto Bardi *j*.

English /s/, /ʃ/, and optionally /t/ are realized as [c] or [j], as in *bij* ‘fish’, *joobaga* ‘tobacco’, and *jooga* ‘sugar’. Initial /s/ in clusters is dropped in older loans (e.g. *boon* ‘spoon’) or may be retained with an epenthetic schwa, as in *jagool* [jəgul] ‘school’. School also appears as *gool*, showing the other loan treatment of initial /s/ in clusters.

Table 3.13. English—Bardi consonant mappings

	labial	alveolar	apico-post-alveolar (retroflex)	laminopalatal	velar
stops	b (p) b, p, f, v	d (t) d, t, θ, ð	rd (ʈ)	j (c) s, ſ, dʒ, tʃ, t	g (k) k, g
nasals	m m	n n	rn (ɳ)	ny (ɲ) ni	ng (ŋ) ŋ
laterals		l l	rl (ɭ)	ly (ʎ) li	
trill		rr (r)			
glides			r (ɻ) r	y (j) j	w w

English /t/ is sometimes phonologized as a trill, e.g. *jarridi* 'Saturday'. I assume this is because the /t/ is flapped in this position, and one of the allophones of the trill in Bardi is a tap or flap. While the English /r/ is usually reflected in Bardi as /ɻ/ ([ɻ] or [ɹ]), there are some loans that have a trill instead. One is *gandoorman*, from 'countryman'. Another is *warrgam* 'work'; this word is widespread in Aboriginal languages, and perhaps implies that early English speakers in the area came from English dialects with rhotics in coda syllables (unlike Southern British English and unlike modern Standard Australian English). Other loans are *r*-less, however, such as *boobala* 'poor fellow' and *alibala* 'early morning' (lit. 'early-fellow').

Nasal-Stop clusters are frequently simplified; thus ['wm̥mal] for 'windmill' (although this loan might be from an English dialect where the *d* is not pronounced). Another example is *ilaban* 'elephant'. Word-initial /h/ is practically always absent, especially in loans.⁶⁷

10.1.3. Vowels

English vowels are borrowed as Bardi *i*, *ii*, *o*, *a*, *aa* and short *oo*. I have no examples of a long high back vowel in the loans in the dictionary.

The mapping for vowels is considerably less straightforward than it is for consonants. In general, high front vowels map to *i*, or very occasionally *ii*,

high back vowels to *oo* (IPA /u/), mid back vowels to *o*, and the rest to *a*. Some tokens of /ɛ/ become *i* in Bardi, however. Examples follow:

- (3.75) a. *bagid* ‘bucket’
- b. *gograj* ‘cockroach’
- c. *awoojoo* ‘house’
- d. *nid* ‘net’
- e. *riiba* ‘river’
- f. *binjil* ‘pencil’
- g. *boolood* ‘bullet’
- h. *booloo* ‘flu’ (influenza)
- i. *gidil* ‘kettle’
- j. *jaabi* ‘sharp’
- k. *giliya* ‘clear’ (*giliyan inan* ‘settle a score’)

A few words show paragogic vowels, though most do not. Those that do include *jaabi* ‘sharp’ and *awoojoo* ‘house’. *Bagid* ‘bucket’ also has a variant *bagidi*.

10.2. Loans from other languages

I do not have enough data on loans between Bardi and other Aboriginal languages to make any detailed comments at present. Loans in basic vocabulary are minimal (well under 10%; see Bowern et al. 2011). Loans in the region in other domains are more common, but most of the loans appear to be from Bardi into other languages in the region, rather than the reverse. I thus do not have enough tokens to provide generalizations about segment adaption in loans from other Aboriginal languages. I do not know, for example, how the long vowel phonemes in Worrora which are not found in Bardi phonology are borrowed into Bardi. There are some differences in forms between loans and the donor language, such as Worrora *warlbirri injá* ‘pubic covering for women’ (Clendon 2001:warlbirri), which is borrowed into Bardi as *walbiri*, but with a different rhotic.

Chapter 4

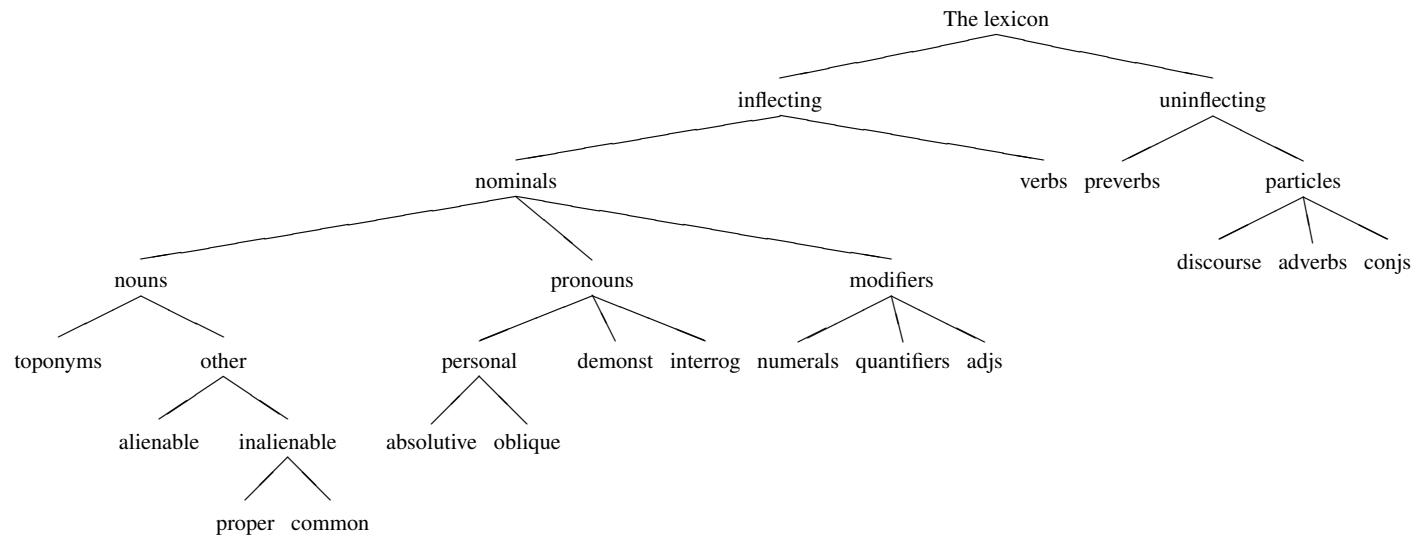
Word Classes, Wordhood, and the Lexicon

In this chapter I set out the evidence for the lexical classes of Bardi and provide discussion of word formation and word boundary types. Bardi word classes can be divided into those items that take inflection and those that do not. This is, in part, a division of convenience, since there is no behavior of inflecting words that unites them apart from their ability to take affixes of different types. In comparison to the descriptions of some other Australian (and particularly non-Pama-Nyungan) languages, Bardi provides evidence for a relatively large number of word classes. Merlan (1994:57), for example, finds a small number of word classes in Wardaman; in Bardi we have evidence for a distinction between nouns and adjectives, and between adverbs (and adjectives) and preverbs.

1. Overview of word classes

Bardi has four major word classes, each with several subclasses. The four major classes are nominals, verb roots, preverbs and particles. These major classes are defined on both distributional and morphological criteria, which are elaborated in the following sections; that is, they are defined both on the basis of inflectional possibilities and of constituency (what other words they can combine with, and the syntax of that combination). Verb roots and particles are closed classes, while nouns and preverbs are open. Figure 4.1 gives a summary of the word classes and sub-classes. These classes are elaborated in the following sections, and form the basis for discussion of aspects of Bardi morphology and syntax in the proceeding chapters. All four of the primary word classes can be distinguished on distributional criteria and three of the four can be distinguished on inflectional criteria as well.⁶⁸

Figure 4.1. Word classes



We should also note which types of word class do not exist in the language. There are no auxiliary verbs and no articles (though some of the demonstratives can have article-like functions).

2. Nominals

Nominals are subdivided into nouns, pronouns, and modifiers (including adjectives); furthermore, nouns can be divided into two classes: inalienably and alienably possessed. Inalienably possessed nouns are defined by their obligatory co-occurrence with a prefix denoting the noun's possessor. Note that the class of 'inalienable' items is rather broad, but does not define a particular semantic domain. For example, some body parts take the 'inalienable' marking, while others do not. Some inalienable items are also rather abstract, such as *+moonggoon* 'knowledge'.

2.1. Nouns

Nouns in Bardi can appear as the subjects of transitive sentences (where they take ergative case marking and trigger verbal agreement). That is, nouns can be arguments of verbs, but verbs cannot appear as arguments of other verbs. Nouns can be replaced by pronouns, such as *ginyinggi* 'he, she, it' or *irr* 'they'. Bardi nouns take case marking, but verbs cannot. Verbs are marked for tense and aspect, for the person and number of their subject (and object, if present), and for transitivity; noun roots take none of these affixes. Nouns can be modified by derivational marking (whereas pronouns cannot). Nouns can take the predicative ending *-a*; other word classes do not receive this ending.

2.1.1. Alienability

A subset of Bardi nouns take prefixes for the person and number of their possessor; these are discussed further in §7.5. Nouns may be divided into alienably and inalienably possessed categories on the basis of their co-occurrence with a possessive prefix. Approximately 30 nouns (mostly body parts) take this prefix. Table 4.1 shows the nouns and their glosses. Note that almost all of these nouns can be reconstructed to Proto-Nyulnyulan with possessive

Table 4.1. Inalienably possessed nouns

Third singular	Stem	Gloss
<i>nalma</i>	+ <i>alma</i>	head
<i>nankarra</i>	+ <i>ankarr(a)</i>	forehead
<i>nanmoorroo</i>	+ <i>anmoorr(oo)</i>	thigh, lap
<i>niimal</i>	+ <i>imal</i>	nose
<i>niimar</i>	+ <i>imar</i>	chest
<i>niimarl</i>	+ <i>marl(a)</i>	hand, lower arm
<i>niimbala</i>	+ <i>jambal(a)</i>	foot
<i>niimi</i>	+ <i>mi</i>	eye
<i>niimid</i>	+ <i>imid(i)</i>	knee
<i>niimoonggool</i>	+ <i>imoonggool</i>	lower back
<i>niinbal</i>	+ <i>janbal</i>	appearance, color
<i>nilamarr</i>	+ <i>lamarr</i>	ear
<i>nilar</i>	+ <i>lar</i>	lower leg
<i>nilirr</i>	+ <i>lirr</i>	mouth, lip
<i>nimany</i>	+ <i>many(i)</i>	throat
<i>nimarryi</i>	+ <i>marryi</i>	gill
<i>niminggarr</i>	+ <i>minggarr</i>	shadow, spirit of dead person
<i>nimoonggoon</i>	+ <i>moonggoon</i>	knowledge
<i>nimoonoorr</i>	+ <i>moonoorr</i>	smell
<i>ninga</i>	+ <i>nga</i>	name
<i>ningarrarda</i>	+ <i>ngarrarda</i>	spirit
<i>ninganyboo</i>	+ <i>nganyboo</i>	armpit
<i>niya</i>	+ <i>ga</i>	back, spine
<i>niyalanggoon</i>	+ <i>jalanggoon</i>	elbow
<i>niyangala</i>	+ <i>jangala</i>	tongue
<i>niyarda</i>	+ <i>garda</i>	body, size
<i>niyorda</i>	+ <i>jorda</i>	chin
<i>noonggan</i>	+ <i>nggan/+nggoon</i>	nape
<i>noongoo</i>	+ <i>ngoo</i>	stomach
<i>noongoong</i>	+ <i>ngoong</i>	like
<i>nooroo</i>	+ <i>ooroo</i>	anus
<i>nooroonggooroongg</i>	+ <i>roonggooroongg</i>	navel

prefixation, and although only a small number of nouns take such marking in each Nyulnyulan language, the category is robust.

For the majority of words that take possessive prefixes, there is no possibility of using the word without it; however there are some exceptions, a few of which are listed in Table 4.2. These words appear both with and without an inalienable prefix, in distinct (though related) meanings. These forms are rare in Bardi and not found to my knowledge in the other languages in the family.

Table 4.2. Inalienably possessed nouns without prefixes

Inalienable term	Gloss	Alienable term	Gloss
+ <i>alma</i>	head	<i>alma</i>	attentiveness
+ <i>jambala</i>	foot	<i>jambala</i>	dugong flipper
+ <i>anmurru</i>	thigh	<i>moonmooroo</i>	side by side

Doubled with the forms which show the alternation in Table 4.2 are forms with the inalienable possessive marker that do not contain any semantic notion of possession. A few forms are given in (4.1), where the first meaning denotes an item which is inalienably possessed; the second is not possessed.

- (4.1) a. *nankarra* ‘forehead; promontory’
 b. *niyalanga* ‘tongue; flame’
 c. *niya* ‘back’; *niyamarr* ‘ridge of hill’

Some body parts seem to be able to take (at least historically) double marking of locative inflection; *nalm-on-on* ~ *nalmanon* ‘on his/her/its head’ is one example. It is possible that some other words also take this inflection, but the forms are rare with anything other than body parts. They are discussed further in §5.4.2.1.

Inalienably possessed nouns cannot take the alienable possession marking; this is illustrated in (4.2) and (4.3). The former shows the lack of possibility of doubling the possessive nominal prefix with a possessive pronoun; (4.3) shows another example with a full sentence.

- (4.2) **ginyinggi jina n-alma*
 3M 3POSS 3M-head
 (Intended:) ‘his/her head’

- (4.3) a. *gorna ni-yarra*
 good 3M-taste
 ‘It’s got a good taste.’
- b. **gorna jina niyarra*

2.1.2. Proper nouns

There are proper (personal) names in Bardi, which, as far as can be determined, behave as nouns. As far as can be determined, names are their own closed set and not related to everyday common nouns. This is different from some other Australian language groups, where personal names are also words for plants or animals. Personal names appear to be seldom used as direct address terms, however, apart from in possessive constructions (such as naming a person’s *ilma* or song cycle; see further §2.9).⁶⁹

2.1.3. Place names

Bardi has several different subtypes of nouns which mark location. The subtypes are associated with different morphological behavior. Place names (proper nouns) form their own class; in addition, we can recognize a larger class of location nouns which show some (but not all) of the same behavior as place names.

Place names have some peculiar syntax and morphology which sets them apart from other nouns. For example, only place names can take the locative *-i*. Examples are given in §5.4.9 and include *Galan-i* ‘at Galan’.

Location nouns and many place names are different from other inalienable nouns in that they take no locative marker *-goon*. These are fairly common, and include place names historically comprising the locative *-goon* and several other location nouns including *morr* ‘road’, *boordan* ‘thick scrub’, and *biindan* ‘open scrub’. Place names which do not historically include the locative case do tend to take locative inflection, however. This is further discussed in §5.4.2.

In (4.4), we see that *ginyingg morr* ‘this road’ denotes the location where the action of the clause takes place, although it is not marked with the locative case *-goon*. In (4.5) we see a similar example with a place name. (4.4) shows

that the lack of case marking is a syntactic rule here and not a morphological requirement on these particular nouns, since we would expect any case marker to appear on *ginyinggon* in this phrase.

- (4.4) *Wayibalajininim jagoord ingirrini biila ginyingg morr.*

Wayibala-jini-nim *jagoord i-ng-irr-i-ni*
 white.people-GROUP-ERG return 3-PST-AUG-do/say-REM.PST
biila ginyingg morr.
 also that road.

‘The group of white people returned on that path.’

(Metcalfe 1975b:83: ex 71, fn 2)

- (4.5) *Niimana jarda aarli Ardiyooloon. Gorna aarli marlinngan.*

Niimana jarda *aarli Ardiyooloon.* *Gorna aarli*
 many 1AUG.poss fish One.Arm.Point. good fish
ma-rli-n-ngan.
 GER-eat-CONT-ALL.

‘We have many fish at One Arm Point. They are good fish for eating.’

2.2. Pronouns

Pronouns are distinct from nouns in that they have different referential properties. Pronouns acquire their reference from context, whereas nouns do not. Personal pronouns are also morphologically distinct from nouns in that they have suppletive oblique forms (which can cliticize to nouns); nouns do not have a distinct oblique form.

There are three main types of pronouns in Bardi: personal pronouns, demonstrative pronouns, which mark deixis and anaphora, and interrogative/indefinite pronouns. There are also a few inalienably possessed nouns that are used as emphatic markers, which are discussed in §7.3. Personal pronouns are marked for number, whereas nouns do not take such marking (though neither do interrogative/indefinite pronouns or demonstratives).

The case marking possibilities for demonstratives and pronouns are, as far as can be determined, identical to those for nouns. Thus the evidence that pronouns are a distinct word class from nouns is fairly slight. (Pronouns are discussed in detail in Chapter 7.)

2.3. Modifiers

Items can modify nouns in a phrase. Here adjectives, numerals, and quantifiers are grouped together as a single type of ‘modifier’ (though with different subtypes based on morphology and preferences for order and discontinuity). Nouns can also behave as modifiers of other nouns.

There is a distinction in word class between nouns and adjectives in the language, although it is not very robust. That is, while we can define a syntactic position of ‘modifier’, and group together several different types of words which may modify nouns, there is also evidence that modifiers such as adjectives do not form a single constituent type with nouns. While both nouns and adjectives may modify other nouns, only nouns can head phrases. Unlike in some languages, one cannot use an adjective without an accompanying nominal head unless context is previously established. One can omit the noun in context, but the context must be established. Thus (4.6b) is an unacceptable paraphrase for (4.6a) in context, but (4.6b) is ungrammatical without a previously established referent of *moorrooloo*.

- (4.6) a. *moorrooloo baawa* ‘little child’
- b. *moorrooloo* ‘little <one>’

Another difference in the syntax of nouns and adjectives is also to be found in noun phrases. In a NP which contains an adjective, the nominal head can be elided and the modifier used alone to refer to the whole phrase. This is only grammatical if the modifier is an adjective. (4.7) is the parallel of (4.6) above and shows the situation with the adjective; *moorrooloo* ‘little’ may stand in context for *moorrooloo baawa* ‘little child’; the same is not true for (4.8). In (4.8) the modifier of the noun *baawa* ‘child’ is *aamba* ‘man, male’, which is a noun. The phrase as a whole means ‘(the) male child’. Unlike in (4.7), however, one cannot elide the head of the NP and use the modifier alone if the modifier is a noun.

- (4.7) *moorrooloo baawa* ‘little child’ > *moorrooloo* ‘the little one’
but
- (4.8) *aamba baawa* ‘male child’ *> *aamba* (intended) ‘the male one’

The order of elements is usually modifier + head, although the alternative order is also sometimes found in narrative materials.

Numerals and quantifiers behave much like other modifiers, except that numerals can take some morphology that other modifiers cannot, and numerals and quantifiers are the only modifiers that occur easily separated from the rest of the noun phrase.

Further information about the morphology and syntax of modifiers can be found in Chapter 6 and §8.2.

3. Inflecting verb roots

Verb roots in Bardi are inflected for prefixes and suffixes. There are about 230 verb roots in Bardi. Verb roots form a closed class (although a somewhat large one). For details and an overview of analyses of the morphology, see §9.1. Bardi verbs are easily recognizable because of their inflection; syntactically, a subset of verbs are also able to combine with preverbs (see following).

4. Preverbs

The Nyulnyulan languages have complex predicates, formed with an uninfecting preverb and an inflecting matrix verb, and Bardi is no exception. The syntax of preverbs and the identification of complex predicates are discussed in detail in Chapter 13, so only brief comments will be made here, so that the class can be defined, and so that readers can follow examples in the grammar.

Preverbs form their own word class on syntactic rather than inflectional grounds. Syntactically, they appear immediately before the inflecting root (and they must always appear in this position). Preverbs are the only element which can appear between the negative marker *arra* and the inflecting verb (see (4.9), where the preverb here is *liyan* ‘heart’).

- (4.9) *Arra liyan ngalama.*

Arra liyan nga-la-ma.

NEG heart 1-IRR-put

‘I don’t want to.’

(L56.10)

They take no inflectional morphology, and reduplication of preverbs gives an iterative or pluractional reading to the predicate (see §9.5); this distinguishes preverbs from other word classes. Preverbs are an open word class. English verbs, for example, are borrowed into Bardi as preverbs:

- (4.10) a. **warrkam** -joo- ‘work’
 b. **gadigad** -(i)nya- ‘cut’ (< ‘cut cut’)

Preverbs themselves have several different etymological and derivational sources in Bardi. Preverbs are the only word class for which members are frequently (if not productively) derived. (4.11) contains a list of the sources of preverbs.

- (4.11) a. nouns: (*girringg* ‘a cough’; *girringg* -ar- ‘to cough’)
 b. adjectives: (*ngaada* ‘short’; *ngaada* -*joogooloo*- ‘to break in half’)
 c. adverbs: (*angan* ‘close by’; *angan* -*ganyi*- ‘to come up close’)
 d. loans from other languages: (*boojoom* ‘push’im’ (Kriol); *boojoom* -*ma*- ‘to push off (a boat)’)
 e. words with no cognates in other word classes—function **only** as preverbs: (*marl* -joo- ‘to stop’)

That is, the label ‘preverb’ could be said to refer to both a structural position in the verbal complex (see §9.1.1) and to a type of word which occupies that position.

In Bardi, preverbs cannot be used without an inflecting verb. This is different from some other North Australian languages such as Yawuru (Hosokawa 1991), or Wagiman (Wilson 1999). It differs from some other Nyulnyulan languages in this regard as well. McConvell and Bowern (2011a) and Bowern (in prep.a) provide some overview of complex predicate differences among northern Australian languages, and Bowern (2010b) discusses Bardi complex predicate syntax in particular in the context of Australian languages.

5. Other uninflecting words

The remaining word class, termed ‘particles’ here, comprises adverbs, conjunctions, interjections and the various ‘discourse particles’ that are a prominent feature of Bardi texts.⁷⁰ Bardi has temporal, location, degree, attitude, and manner adverbs, amongst other items. Temporal and location adverbs tend to appear clause peripherally, although they do not have to. Manner adverbs tend to form complex predicates. The expression of adverbial meanings is split between adverbs proper and preverbs in complex predicate constructions. Most adverbs are morphologically simple, though there are derived words which have a similar function.

6. Wordhood

There are not the problems for defining words that there are in some morphologically complex languages. e.g. Eskimo-Aleut languages (Woodbury 2002). There are clear phonological criteria, and several straightforward morphological criteria. The ‘word’ in Bardi can be defined in different ways (with similar answers); here I consider phonological, morphological, and syntactic criteria for word status (following Bresnan and Mchombo (1993), Matsumoto (1996) and others).

6.1. Phonological criteria

Phonological words receive a single primary stress, which is consistently on the initial syllable of the word. There is thus a clear intonational demarcation of wordhood at the phonological level. Stress (including the markers of primary stress) is discussed in more detail in §3.5.1.

There are restrictions on consonant clusters which apply within words but not across word boundaries. There are no stop-lateral clusters within phonological words, for example. That is, there are no words with syllable contact of the form *abla*, but the sequence *bl* is licit across word boundaries.

Phonological words may not contain vowels in hiatus, either within a single syllable or across successive syllables. This is not a very useful test, however, because of the external sandhi and metrical rules which cause deletion of many word-final vowels across word boundaries. That is, while these criteria define a possible phonological word and hiatus resolution rules apply obligatorily within a word, they also apply optionally to many sequences of words within a phrase.

Finally, there are certain morphophonological processes which apply solely within a word. There are lenition processes which apply to affixes but not to clitic boundaries (some of these processes apply optionally to clitics) or between words. For example, stop-initial suffixes such as the locative case marker *-goon* lenite when they are affixed to a vowel-final stem, whereas the clitic =*gid* never lenites. It should be noted, however, that there are exceptions to the lenition rules (both in that there are a few affixes which do not lenite, and a few clitics which do lenite) and so this test is not as easy to apply consistently as the other tests for phonological wordhood.

6.2. Grammatical criteria

While a phonological word can only have one stress (and must have a single primary stress) and phonological criteria for wordhood are thus transparent, morphological criteria are less straightforward. Affixal definitions of wordhood are dependent on the word class of the item. That is, different word classes have different affixal structures, with nouns being, for the most part, limited to a single suffix, while verbs have extensive affixation on both sides of the root.

One criterion that appears to hold across word classes is that a morphological word is a host for a Wackernagel (second position) clitic. That is, Bardi clitics attach to morphological words and become part of the same phonological word. A sequential clausal clitic such as *=min* can attach to words of any class; (4.12) illustrates this with a noun, verb, and adverb.

- (4.12) a. *Joorroomin ginyinggi*
Joorroo=**min** *ginyinggi*
 snake=THEN 3MIN
 ‘Then the snake...’
- b. *Ingarralamankamin...*
I-*ng*-*arr*-*a*-*lamanka*=**min**
 3-PST-AUG-TR-hear=THEN
 ‘Then (s)he heard it...’
- c. *Nyalamin arr injoonana...*
Nyala=**min** *arr i-n-joo-na-na*
 here=THEN come 3-TR-do-CONT-REM.PST
 ‘Then (s)he was coming this way...’

Such clitics mark the right edge of a phonological word. The left edge of a verb word is always marked by a subject agreement marker.

One of the criteria for wordhood given in Dixon and Aikhenvald (2003:24) is that a ‘word may constitute a complete utterance, all by itself.’ This definition would apply to Bardi words in all cases except for complex predicates, where speakers, though willing to identify the preverbal component of a complex predicate as distinct from the inflecting verb, say that it does not constitute a complete utterance; that is, the preverb on its own is not complete without an inflecting verb. This comment also applies to clitics, which

are identified by speakers in isolation, but not felt to be full words. Note that Dixon and Aikhenvald (2003) argue against the representation of clitics as a distinct inflectional type in the syntax. Here I follow Zwicky (1985) and Anderson (2005:9ff.) in treating clitics as usefully distinct from ‘prosodically deficient’ words.

7. Word structure

I use a morpheme-based theory of wordhood in this grammar. That is, I assume that form-meaning correspondences apply to levels smaller than the phonological word. Such assumptions are made, at least in part, for convenience of description. Given the number of lexical exceptions to the morphological rules proposed here, and given the complexity of interaction within affixes and between affixes and roots, some argument could be made for describing Bardi in terms of paradigmatic theories of word formation, or by using word formation rules rather than affixes. In this grammar, where the interactions are complex, I have also given full paradigms, both as a guide to how the rules work and to help language learners. I also highlight areas where morphological representations are particularly interesting or problematic theoretically.

Bardi morphemes can be divided into roots, affixes (prefixes and suffixes), and clitics. Approximately 4,100 roots are recorded in the Bardi dictionary as at January, 2012. Bardi has both prefixes and suffixes. Verbs take extensive prefixing, while a subset of nouns take a single prefix. Case marking is suffixal, and there is also extensive verbal suffixation. At points in the grammar I also make use the concept of a ‘stem,’ that is, a root with some affixal marking.

Some have argued that clitics are not necessary in grammar. Dixon and Aikhenvald (2003), for example, describe clitics as simply a type of mismatch between phonological and grammatical word. Clitics can be usefully defined in Bardi. They can be defined phonologically by their different lenition patterns from affixes; while affixes have one lenition pattern, clitics have a different set of patterns (see §9.1.5 and §4.6.1). They can also be defined by their scope; there are both clausal and phrasal clitics in Bardi. Clausal clitics appear on the first word of the clause and join clauses to each other. More importantly, however, clitics are not just prosodically deficient words; they are the only words in Bardi which must occur in a particular position in the

clause. Other ‘word’ order is much more flexible. If clitics were simply words which were unable to stand alone, we would expect them to be able to join to any words which could act as a host.

Bardi shows two of Anderson’s (2005) clitic types: special and bound.⁷¹ Most clausal clitics are bound words; that is, they are always unaccented and are syntactically associated with a whole phrase. There are also special clitics; that is, clitics which are variants of free forms and which display a syntax different from that of the free forms. The object and oblique agreement markers are of this form, for example (see further §10.3), as are the clitic possessive pronouns.

8. Polysynthesis

Since Bardi has a great deal of morphology, it is worth considering whether Bardi shows aspects of polysynthesis in both the traditional sense and in the technical definition of Baker (1996) and other work. Baker (1996:488–489) describes the following criteria as being defining of polysynthesis (properties which Bardi exhibits are in bold):⁷²

- (4.13) a. syntactic noun incorporation (NI)
- b. **obligatory object agreement**
- c. **free pro-drop**
- d. **free word order**
- e. **no NP reflexive**
- f. no true quantifiers
- g. obligatory WH-movement
- h. N agrees with R arguments
- i. **no true determiners**
- j. **N agrees with possessor**
- k. **restricted morphocausative**
- l. NI or agreement in PP [**no PPs**]
- m. CP arguments only if nominal
- n. no infinitives

Most importantly, Bardi lacks noun incorporation; thus it does not qualify to be called a polysynthetic language under traditional definitions. There is

some evidence that Proto-Nyulnyulan might have had noun incorporation; this was described in Bowern (2004a:Ch5). However, it is absent from the modern language. Thus though Bardi is morphologically complex, it is rather different from true polysynthetic languages such as Navajo.

Bardi has free argument omission ('pro-drop'), free word order, obligatory agreement, and reflexive marking by morphology in the verb. In possession, the possessum can agree with the possessor (and the pronominal possessives are also marked for features of the possessum). The causative is also restricted. Bardi has no true prepositional phrases, so (4.13l) is not applicable.

More generally, however, Bardi does not provide evidence for a language in which all argument marking is contained in the verb. While there is a lot of evidence that Bardi's 'agreement' markers can be the sole marking of arguments in the verb, and that they saturate argument-roles and thus fulfill many of the functions of pronominal argument markers, there is other evidence that the agreement markers are not behaving as one would expect in a typical pronominal argument language. There is evidence, for example, for an argument/adjunct distinction in free noun phrases (for which see §12.1); this is not expected if the true 'arguments' of the clause are the verb agreement markers. Bardi also has infinitival forms (§11.3), that is, verbal forms which are non-finite but which nonetheless co-occur with free noun phrases. Finally, agreement in third person objects is sensitive to definiteness; that is, the presence of agreement signals information other than the presence or absence of arguments of particular persons and numbers.

Therefore while there are some features of polysynthetic languages which Bardi shares, and many aspects of the pronominal argument hypothesis that Bardi supports, the analysis is not straightforward.

9. Changing word class

There is, on the whole, not much changing of word classes for roots in Bardi. That is, roots belong to one noun class and there is little derivational morphology which can change their word class. The one exception to this is preverbs, which may have sources in nouns, adjectives, and adverbs, as well as being underived. There are also cognates in Nyulnyulan languages which cross word class boundaries. There are, however, some frozen items which perhaps indicate that changing word class used to be more free than it is now.

There are also some alternations between verb roots and nominal roots

where one has extra, unidentifiable morphology. Some examples are given in (4.14). Witchetty grubs (*Endoxyla leucomochla*) are found in hollow logs, so a name etymologically related to a verb meaning ‘hollowed out’ and the denizen suffix (see §5.5.2) is plausible.⁷³

- (4.14) a. *-galboo-* ‘dig out, hollow out’; cf. *galbajoon* ‘witchetty grub’
 b. *-jinbinbin-* ‘think of something’; cf. *jinbinjin* ‘clever, wise’
 c. *-loomoo-* ‘crawl’; cf. *loomi-(yoon) baawa* ‘orphaned/neglected child’

There are ways of deriving inchoatives and factitives from adjectives by using the adjective in a complex predicate. These are productive. Stative deadjectival predicates are formed by placing the adjective as a preverb and using the inflecting verb *-ni-* ‘sit, be at a place’. The inchoative is formed with the verb *-joo-* ‘do, say’. The causative is formed with the verb *-ma-* ‘put’. An example showing all of these is given in (4.15) below (Note that the alternation *garrja* ~ *garrya* is regular.)

- (4.15) *garrja* ‘sharp’:
- a. *garrja jamooyoona* ‘a sharp axe’
 - b. *garrja -ni-* ‘be sharp’:
Garrja i-ni-n ginyinggi jamooyoona.
 sharp 3-sit-CONT 3MIN knife
 ‘This knife’s sharp.’
 - c. *garrja -joo-* ‘get sharp’:
Garrja i-n-joo-na.
 sharp 3-TR-do/say-REM.PST
 ‘It got sharp.’
 - d. *garrja -ma-* ‘to sharpen something’:
Garrya nga-n-ka-ma jan jamooyoona nòorroo gadim
 sharp 3-TR-FUT-put 1M.POSS knife wood cut
nga-n-ka-ma=jan.
 1-TR-FUT-put=1M.POSS
 ‘I’ll sharpen my knife and then I’ll cut my wood.’

Many nouns can be used as modifiers of other nouns without any overt derivational morphology. Some nouns, however, require an adnominal case

suffix to function as a modifier. In some cases, there are derived and underived pairs which have different meanings. This also applies to some attributive adjectives.

- (4.16) a. *loomi baawa* ‘an orphaned child’
- b. *loomiyoona baawa* ‘a neglected child’
- (4.17) a. *garnk(a) aarli* ‘raw fish’
- b. *garnkagij aarli* ‘fish that hasn’t been cooked properly’
- (4.18) a. *miida baawa* ‘male child’
- b. i. *aamba baawa* ‘male child’
- ii. *aamba* ‘a man’

A few adverbs are formed by the reduplication of nouns, though this is not a productive process. The word *jaalany* is a noun meaning ‘cliff’; when reduplicated, however, *jaalanyjaalany* means ‘along the cliffs’ or by extension, ‘along the outer edge of something.’

- (4.19) *Anjoola mayi jaalanyjaalany.*
- | | | |
|----------------------|----------------|------------------------|
| <i>A-n-jool-a</i> | <i>mayi</i> | <i>jaalany-jaalany</i> |
| 2-FUT-TR-collect-FUT | vegetable.food | along.the.edge |
- ‘Pick the fruit from the outer branches.’ (MDict)

Finally, a few words can be used with zero derivation in more than one class. One such word is *joornk(oo)*, which can be used as a noun (as in (4.20a)), a preverb (as in (4.20b)), or an adverb (as in (4.20c)). Such words are unusual, however.

- (4.20) a. *Joornkoonim boolj inamagal.*
Joornkoo-nim boolj i-na-ma-gal.
running-ERG tired 3-TR-put-REC.PST
‘Running made him tired.’ (BA-CB61.2/B/E)
- b. *Iila joornk innyajarran bardi, jaalo nyalab baalingan.*
Iila joornk i-n-nya=jarran bardi, jaal-o
dog run 3-TR-catch=1M.POSS yesterday beach-ABL
nyalab baali-ngan.
this.way home-ALL
‘My dog ran away from me yesterday. It ran home from the beach.’

- c. *Angan andan joornk?*
Angan a-n-d-an *joornk?*
 why come-TR-do/say-CONT fast
 ‘Why is he running fast?’

10. Composition of the lexicon

The contribution to the lexicon by word class is given in Table 4.3. Counts were made from the Bardi dictionary file in January, 2012. Words are still being added sporadically to the dictionary as texts are processed but most of the new words are falling fairly equally into the categories of nouns and preverbs (that is, the two largest word classes).

Table 4.3. The lexicon by word class

Part of Speech	Number	%age of Total
Adjectives	219	4.6%
Adverbs	352	7.3%
Clitics	19	0.4%
Conjunctions	13	0.3%
Interjections	13	0.4%
Nouns	2855	59.4%
Particles	17	0.4%
Pronouns	40	0.8%
Preverbs	975	20.3%
Verb roots	304	6.3%
Total:	4807	

Bardi word classes, as can be seen from Table 4.3, are very asymmetrical. Nouns account for almost 60% of the total number of roots in the lexicon, while preverbs and inflecting verb roots account for 20% and 6% respectively. Just over 350 adverbs are recorded in the corpus, which make it a fairly numerous word class (more so than inflecting verbs or adjectives); adjectives account for just under 5% of the total.

Chapter 5

Nouns and Nominal Morphology

This chapter is the first of four which present the morphology and syntax of words in the nominal domain. This chapter discusses nouns, nominal derivational morphology, and case. Chapter 6 contains information about nominal modifiers: adjectives, quantifiers, and numerals. Chapter 7 discusses pronouns and demonstratives, while Chapter 8 analyzes the syntax of noun phrases and phrasal morphology and clitics not previously described elsewhere.

Bardi nominal morphology is almost entirely suffixal. The only synchronically active prefixes in the nominal system are the possessor prefixes which occur on some body parts and other inalienably possessed nouns, which are discussed with pronominal morphology in §7.5.

Unlike some other non-Pama-Nyungan languages, nouns in Bardi do not receive or govern marking for semantic categories (cf. Harvey and Reid 1997). There is no gender marking and number marking is not productive, but rather appears to fit the definition of a derivational marker. Nouns do not trigger agreement with other elements in the noun phrase. There is, however, a minor pseudo-classification system (the term is due to Wilkins 1996) whereby generic and specific nouns combine in phrasal compounds. This is further discussed in §5.6.1.3. Animacy is not marked in the system but does play a role in forms of certain agreement markers, and in case frames. Definiteness is not marked overtly, though there are quantificational clitics in the verb which provide information about the noun through cross-reference.

Bardi has both inflectional and derivational morphology. The derivational morphology is not productive and shows several highly idiosyncratic patterns and unexpected meaning changes. The major derivational suffixes are given in §5.1.

Noun phrases inflect for case. Case is marked once in the phrase, on the first word. There is no optional concord. In most of the languages—such as Djapu (Morphy 1983) or Gooniyandi (McGregor 1990)—which allow case to be marked solely on the initial element of the phrase, this pattern co-exists with full agreement; Bardi is quite different in this respect, in that marking on the initial element is the only way in which case is instantiated in the phrase. It does not co-exist with other patterns as a type of reduced marking.

This highly unusual pattern is shared by the other Nyulnyulan languages, along with Kuuk Thaayorre (Hall 1972), Anindilyakwa (Leeding 1989), and Bunuba (Rumsey 2000), but is not found, to my knowledge, in other parts of Australia or elsewhere.⁷⁴ Chapter 8 provides more information about this and other syntactic topics.

Following Dench and Evans (1988), it is useful to distinguish between adnominal, relational and complementizing case functions in Bardi. That is, there are suffixes which have the functional role of ‘case’ (Blake 1993) which are also used in other functions, not only to relate nouns to a predicate, but also to relate nouns to one another. However, Bardi also seems to admit an analysis of core and oblique case markers, as described in Andrews (2007), and that categorization is followed here for convenience.

Adnominal case functions mark complements of N or N'. Many Australian languages have cases that appear only in this function, so it is useful to distinguish it from relational case marking, which provides information about the roles of arguments and adjuncts in the clause. Bardi has cases in both these functions. Complementizing case links clauses, and marks a secondary clause as an adjunct to the matrix clause.⁷⁵ Complementizing case is found in Bardi, though much less commonly than in other Nyulnyulan languages such as Nyulnyul. Some Bardi cases can have all three functions, though typically they have only one or two (relational and adnominal). For example, the comitative case *-nyarr* has both an adnominal function (in phrases like ‘the man with a beard’) and a relational function (‘I went to the shop with my mother.’)

Nominal roots can be marked in three main ways. First, they can take a derivational marker (see §5.1). These derivational morphemes are all non-productive and many have somewhat opaque semantic relations with their underived counterparts. Second, they can take a case marker. Nouns may take two case markers if the first is adnominal in a derivational use; otherwise only a single case marker appears. Thirdly, they can take a possession marker (either a prefix or, in some cases, a suffixed pronoun). A subset of nouns take a possessive prefix, and other nouns appear more commonly with a possessive suffix. Possessive affixation is described with pronominal marking in §7.5. In addition, nouns may host sentential and predicational clitics. This chapter describes the morphology of Bardi nouns, while Chapter 8 focuses on the syntax of noun phrases. Much of the morphological description of nouns also applies to pronouns; types of pronoun roots and free pronominal syntax is discussed in Chapter 7.

1. Derivational morphology

Bardi has little (if any) productive derivational morphology, and little involving a change of word class (see also §4.9 above). There is no multiple derivation; nouns can only take a single derivational suffix.

By way of an introduction to the problem, consider the pairs of words given in (5.1) through (5.4):

- (5.1) a. *ardi* ‘North(-East)’
 b. *ardiyān* ‘North-East wind’
- (5.2) a. *oola* ‘water’
 b. *oolal* ‘watery stuff, melt-water’
- (5.3) a. *jalngg(a)* ‘magic powers’
 b. *jalngganggoorroo* ‘doctorman’
- (5.4) a. *goowidi* ‘moon’
 b. *goowidany* ‘by moonlight’

The formal and semantic relationship between the words is clear, yet with the possible exception of *-al*, none of the morphology appears frequently.⁷⁶ We have a few indications that perhaps some of this morphology was once more productive. For example, *garrgoyan* ‘right there’ (related to *garrgooy* ‘completely’) is attested in the Laves corpus, but it is not accepted by modern speakers. In addition to the transparent cases exemplified in (5.1), Bardi has additional derivational morphology which shows several highly idiosyncratic patterns and unexpected meaning changes. The derivational morphemes that can appear on Bardi nominals are given in Table 5.1. Not all items can appear on all subclasses of nominals; the distribution is discussed under the individual morpheme.

§5.1.1 gives information about number marking. §5.2 and following describes the major derivational morphemes and gives examples. Also included here are some suffixes listed in Metcalfe (1975a) which are given there without example, and which I could not confirm in the field. One form requires comment: Metcalfe (1975a) has *-ngoonjoon* ‘only’ as a suffix; I have this as a separate word, so it is discussed in §16.3.3. There are not very many examples where we disagree on the affix status of items, though I make a more systematic distinction between affixes and clitics than the other authors. See

Table 5.1. Nominal derivational morphemes

Form	Gloss	Example	Reference
-al	indefinite/adj'1	<i>oolal</i> 'watery stuff, icemelt' (<i>óola</i> = 'water')	§5.1.2
-al	contrastive	(Metcalfe (1975a))	§5.1.2
-arr ~ -orr	'the one'	(Metcalfe 1975a)	§5.1.11.1
(-arranga)	'very'	(Metcalfe 1975a)	§5.1.11
-booloo ~ -ol	region term	<i>Ardiol</i>	§5.1.8
-dany		<i>aalgadany</i> 'in the sun'	§5.1.11
(-goorr)	'the very one'	only in <i>joodagoor</i>	(Metcalfe 1975a), §5.1.11
-iidi	agent nominal	<i>ilmiidi</i> 'a singer of <i>ilmá</i> songs'	§5.1.3
-inyan	unidentifiably		§5.1.11.2
-injoon			
-ja	specifying	<i>midijinnganja</i> 'that's the medicine (I asked for)'	(Metcalfe 1975a); §5.1.11
-jin	group plural	<i>waybalajin</i> 'white people'	§5.1.1.2
-mil(j)	'just, only'		§5.1.9
-(g)arda	privative	<i>iilarda</i> 'without dogs' (<i>iila</i>)	§5.1.5
-(g)oordoo	proprietary	<i>galoorrgoordoo</i> 'beer' (<i>galoorr</i> = 'froth')	§5.1.6
-goyarr	reflexive	(on personal pronouns)	§7.3
-ngandarr	reflexive	(on pronouns);	(Metcalfe 1975a), §5.1.11
-ngarr(a)	-ward	<i>ardingarr</i> 'to the north'	§5.1.10
-ngiid(a)	'good for'		§5.1.4
-wadin	unknown		§5.1.11.5

§6.3 for the derivational suffixes which occur on adjectives, and §6.4.3 for those which are confined to numerals.

1.1. Number marking

1.1.1. Number in the noun phrase

Bardi has no regular dual or plural affixal marking on nominals. Number is cross-referenced on the verb or the predicate. If plurality is marked in the noun phrase, it is by the third person augmented pronoun *irr* ‘they’. In (5.5a) below, number is marked both on the verb (*irlinirr* ‘they eat them’) and in the object phrase *loonggoord* ... *irr aarli* ‘blue tongue lizards’ meat’. In (5.5b) number is marked on the fronted predicate *gornagijarr* and with the pronoun *irr*.⁷⁷

The pronouns *ginyinggi* and *irr* are not solely number markers in such phrases; there are also definiteness effects. These are described in §7.8.

Number marking of this kind is optional. In (5.6a), for example, the verb and the possessor complex are not marked for a plural object even though the sense shows that *baawa* ‘child/children’ is plural. It is non-specific, though, as is (5.6b), which provides a further example. Non-specific or non-individuated objects receive singular agreement in object position. (Contrasting examples were given in (5.5) above.)

- (5.6) a. *Barda ingirriloonganana maanka aambooriny jirr baawa.*
Barda i-ng-irr-i-loonga-na-na *maanka aambooriny*
away 3-PST-AUG-pick.up-CONT-REM.PST black people
jirr *baawa.*
3A.POSS child.
'They used to take away black people's children.' (Aklif 1994d:12)

b. *Aalinnim irroomoogarn maalbarnd garndi goolboon.*
Aalin-nim *i-rr-oo-moogar-n* *maalbarnd garndi*
sea.eagle-ERG 3-AUG-TR-make-CONT nest high
goolboo-n.
rock-LOC
'Eagles make their nests on top of rocks.'

Finally, the plurality of possessed items can be marked in the possessor head, as a suffix to the possessive pronoun. (See §7.4 for discussion and paradigms.)

1.1.2. *Group terms*

The only other marking of plurality outside of verbal marking is the ‘group’ marker *-jin* ~ *-in*. Group marking is not productive in Bardi, and seems to be restricted to human terms. The words in (5.8) are those that can occur with the group marker *-jin*:

- (5.8) *nyoongoorl* ‘old person’, *nyoongoorljin* ‘group of old people’;
 wangalangin ‘young man/men’
 majoonggooloo ‘girl’, *majoonggoolin* ‘young women’

waybalin ~ *waybalajin* ‘white people’ (Metcalfe 1975b)
gayarjin ‘white people’ (DW: POA)

1.1.3. Notional agreement

The marking of notional agreement for number has changed between the recording of the Laves texts and my fieldwork. Numerals take plural agreement now; they regularly (although not exclusively) take singular agreement in the Laves corpus from the 1920s:

- (5.9) *Gooyarra agal gooyerarra agal gooyerarra agal gooyerarra galgarriny inyjalgoon.*
Gooyerarra agal gooyerarra agal gooyerarra agal gooyerarra
 2 and 2 and 2 and 2
galgarriny i-ny-jalgoon-n.
 swim.breast.stroke 3M-PST-fall-CONT
 ‘Eight of them jumped swimming into the water.’ (Laves n.d.:103/13)

Note also that a few nouns, such as *gaalwa* ‘mangrove raft’, regularly take plural agreement in the Laves texts. Now they take singular agreement:

- (5.10) *Ginyinggon gaalwa ingarrjagoolinajinirr gaalwa.*
Ginyinggon gaalwa
 then raft
i-ng-arr-jagooli-na=jin=irr gaalwa.
 3-PST-AUG-break-REM.PST=3MIN.IO=3A.DO raft
 ‘Then their raft broke up.’

Some nouns have default plural interpretation but can sometimes be singular. *Ambooriny* usually means ‘people’ and usually takes plural agreement, although there are cases in both the Laves texts and Metcalfe’s recordings where it is used to mean ‘a person’ or ‘some person’ (indefinite, nonspecific) and takes singular agreement (for which see further §7.7).

- (5.11) *Ar amboorinynim injal.*
Ar ambooriny-nim i-n-jal.
 other person-ERG 3-TR-see
 ‘Another person saw him.’ (A1839a/132)

- (5.12) *Ambooriny oonggimbin arr oonkin Loomanngan.*

Ambooriny oo-ngg-imbi-n arr oo-nk-i-n
 person 3-FUT-die-CONT go 3-TR-FUT-do-CONT
Looman-ngan.
 L.-ALL

‘[When] a person dies, they go to Looman.’ (L74.001)

There are a few other words with irregular plurals. *Ara* ‘other’ has a plural *arang(a)*, which means either ‘others, the others’ or ‘some’. This suffix is not found on any other word.

- (5.13) *Ingilirrmanajirr aranga.*

I-ngi-lirrma-na=jirr aranga.
 3-PST-call.out-REM.PST=3A.IO others

‘He sang out to the others.’ (L53.004)

The word *iinalang* ‘island’ has the plural *iniinalang* ‘islands’; to my knowledge it is the only noun that reduplicates to form a plural in this way. Bernard Comrie (pers. comm.) suggests that the reduplication might signal a collective reading (closer to English ‘archipelago’). Some examples do suggest a collective reading, such as (5.14a); however, (5.14b) provides a counter-example, where *iniinalang* receives plural cross-referencing on the verb (and is also modified by *boonyja* ‘all, every’), implying that *iniinalang* is not a true collective.

- (5.14) a. *Barda jana iniinalangan baaliboorngan.*

Barda jana iniinalang-ngan baaliboor-ngan.
 off 1MIN.IO islands-ALL camping-ALL

‘I am going to the islands for camping.’

- b. *Jarr aamba inanggalanananirr iniinalang Ardiyooloon boonyja iniinalang inanirr aarlimalayi boonyja imbanjin.*

Jarr aamba i-na-ŋ-gala-na-n=irr
 this man 3-TR-PST-visit-CONT-REM.PST=3A.DO
iniinalang Ardiyooloon boonyja iniinalang
 islands A all islands

<i>i-n-an=irr</i>	<i>aarlimayi boonyja</i>
3-TR-[give]-CONT=3A.DO	food all
<i>i-m-banji-n.</i>	
3-PST-share-CONT	
‘This man [Galaloong] visited all the islands, he gave food to all the islands, he shared it.’	
	(GAL3.008)

There are other rare instances of nominal reduplication attested in the corpus, but in each case, the reduplication derives an adverb from the noun; for example, the reduplicated form of *bardag* ‘tree’, *bardagardag*, means ‘tree by tree’ (e.g. describing the way in which someone who is stalking a hunter might approach his target).

1.2. ‘Indefinite’: *-al*

There is a marker of indefiniteness of the form *-al* which appears to be derivational; it is rare, though there are a few examples in Metcalfe (1975a). It occurs in words such as *ool-al* ‘watery stuff’ (cf. *oola* ‘water’). It is recognized by speakers but not used much. It marks items as being associated in some indefinite way with the head noun. The only spontaneous use in a sentence which I have recorded is given in (5.15), where *-al* is attaching to the oblique clitic *=jirr* ‘their’.

- (5.15) *Niimana iila nganjalgirr manyjaljirral.*

<i>Niimana iila nga-n-jal=jirr</i>	<i>manyjal=jirr-al.</i>
many dog 1-TR-see-3A.IO	hungry=3A.IO-INDEF

‘I see many hungry dogs.’ (BOW-FN3/46)

There is another use of a form *-al*, which is recorded only in the Metcalfe corpus. It is translated as though it has a contrastive use; the example from Metcalfe (1975a) is given in (5.16).

- (5.16) *Rayal irr gardinon.*

<i>Ray-al</i>	<i>irr</i>	<i>gardin-on.</i>
raya.spirit-AL	3AUG	cave-LOC

‘Spirit children, on the other hand, live in caves.’ (M.Dict)

This seems to be old Bardi. It is not used these days. It is not certain that this use of *-al* is the same suffix as the indefinite one.

1.3. ‘Expert’: *-iid(i)*

The suffix *-iidi* is added to nouns and is used to denote people who have the noun as a major characteristic. Thus *ilmiidi* is ‘someone who is associated with *ilmá*, someone who is an expert at *ilmá* (public songs).’

The expert suffix can only appear on nouns, though it can appear on process-like nouns like *laanybi* ‘thieving’.⁷⁸ It is ungrammatical on adjectives such as *gorna* ‘good’. Table 5.2 gives the *-iidi* words recorded in the corpus.

- (5.17) * *gorn-iidi* ‘a good man, an expert in goodness’

Although this suffix is the most common of the Bardi derivational morphemes, it is not productive in current Bardi; *ilmiidi*, for example, is accepted, but **loodiniidi* was rejected by BE and NI.⁷⁹ *Inbaliidi* was ungrammatical (*inbal* is a type of song style), but *mangaliidi* (a different type of song) was grammatical. However, there is some evidence that the suffix used to be more productive, and could be used to derive words for new items; cf. *baarliidi* ‘bank manager’, which was recorded by Metcalfe (1975a).⁸⁰

The suffix can also be used on some gerunds, but not all of them; for example, *mayarginiid* ‘frightened person’ (cf. *-jargi-* ‘be scared’) was accepted, but **mamarraniid* ‘cook, someone who cooks’ was not. I could find no systematic pattern as to which forms were allowed and which were not; it was not based on transitivity, grammatical relations, or any other obvious way of classifying verb roots.

A few words for flowers also appear to contain this suffix, although the vowel is recorded as short:

- (5.18) a. *ganboorridi* ‘paperbark tree flowers’ (cf. *ganboorr* ‘paperbark (*Melaleuca spp.*)’)
 b. *gaardgidi* ‘bloodwood tree flowers’ (cf. *gaardga* ‘bloodwood’)

Table 5.2. Words recorded with *-iidi*

Root	Gloss	Derived form	Gloss
<i>aanya</i>	'return'	<i>aanyijiidi</i>	'generous person'
<i>baarl</i>	'paper bark'	<i>baarliidi</i>	'bank manager'
<i>bandoorr</i>	'strength'	<i>bandooriidi</i>	'strong person'
<i>bayilgarr</i>	'swear word'	<i>bayilgarriidi</i>	'swearer'
<i>biili</i>	'angry, cheeky'	<i>biiliidi</i>	'angry person'
<i>biini</i>	'maggot'	<i>biiniidi</i>	'an extremely deviant person'
<i>boojool</i>	'staring'	<i>boojooliidi</i>	'starer'
<i>boorrboorr</i>	'dance'	<i>boorrboorriidi</i>	'dancer'
<i>goolgarr</i>	'laughing'	<i>goolgarriidi</i>	'someone who laughs a lot'
<i>goolin</i>	'sleep'	<i>gooliniidi</i>	'sleepyhead'
<i>goora</i>	'game'	<i>gooriidi</i>	'playful person'
<i>jagool</i>	'dance'	<i>jagooliidi</i>	'a dancer'
<i>jawal</i>	'story'	<i>jawaliidi</i>	'storyteller'
<i>jinggarr</i>	'play, joke'	<i>jinggarriidi</i>	'funny person'
<i>jirrma</i>	'sing'	<i>jirrmiidi</i>	'singer'
<i>joornk</i>	'fast'	<i>joornkiidi</i>	'runner'
<i>laalboo</i>	'earth oven'	<i>laalbiidi</i>	'cook'
<i>laanybi</i>	'thieving'	<i>laanybiidi</i>	'thief'
<i>laya</i>	'fat'	<i>layiidi</i>	'fatty'
<i>loorrh</i>	'against s.one's wishes'	<i>loorrbiidi</i>	'someone who doesn't listen'
<i>mangoolman</i>	'joke'	<i>mangoolmaniidi</i>	'idiot'
<i>mararr</i>	'fighting'	<i>mararriidi</i>	'fighter'
<i>marday</i>	'deaf(ness)'	<i>mardayiidi</i>	'disobedient person'
<i>marrir</i>	'sister'	<i>marririidi</i>	'incestuous person'
<i>mayirrirran</i>	'teasing'	<i>mayirrirraniidi</i>	'teaser'
<i>mayargin</i>	'to fear'	<i>mayarginiid</i>	'frightened person'
<i>miila</i>	'lie'	<i>miiliidi</i>	'liar'
<i>ngaanka</i>	'language'	<i>ngaankiidi</i>	'talker'
<i>niyarniyar</i>		<i>niyarniyariidi</i>	'selfish person'

1.4. ‘Good for, pertaining to’: *-ngiid*

In addition to the ‘expert’ suffix, there is a derivational marker of the form *-ngiid* or *-ngiidi* which means ‘good for’ or ‘pertaining to’; that is, the affixed noun is something that pertains to, is appropriate for, or good for something.

- (5.19) *Goolay jabijabingiid.*

Goolay jabijabi-ngiid.
cocky.apple itching-ABOUT

‘Cocky apple tree is good for itches.’

It is not commonly used, but there are some examples in Metcalfe’s dictionary, speakers produced some examples spontaneously when asked about them, and there are a few examples in the Laves corpus.⁸¹

- (5.20) *Anggooriny ngiidi aarlimayijirra?*

Anggooriny ngiidi aarlimayi=jirra?
what.for ABOUT food=3A.POSS

‘What do you need food for?’

(L158.007)

Laves writes the form in the text as two words, but he has a note at this point in the text of further examples of the suffix, including the forms *aarlimay-ngiidi* ‘food-ABOUT’, *goorlilngiid* ‘turtle-ABOUT’, and *jóorroongiid* ‘snake-ABOUT’, where the items are written as a single word.

1.5. ‘Privative’: *-(g)arda*

The privative suffix is used to denote someone or something ‘without X.’ Although many authors (such as Hercus 1994) call the privative a case because it patterns with the other adnominal cases in languages such as Arabana, I have included it in the derivational morphology for Bardi because it seems very unproductive, and could not be said to function as a real adnominal case. The productive functions of marking of lacking are taken in Bardi by the ‘adverb’ *arrajina/arrijina* ‘without’ (for which see §15.3.4.1); the adverb which is a better correspondent of the item that patterns as a case in some other languages. (5.21) provides examples.

This suffix was not used by my consultants and all examples are recorded from Metcalfe (1975a) and Metcalfe (1975b). There are also sentential clitics =(*b*)ard and =(*g*)ard, but they have a different function; however, because of the initial consonant dropping of these clitics, they appear identical in form many words.

1.6. Qualitative, ‘having’, proprietive: *-goord(oo)*

The suffix in Bardi is *-goordoo* after consonants and *-orda* after vowels. The vowel of the stem is deleted before the vowel of the suffix. The proprietary forms adjectives from nouns In (5.23), for example, Jimijanyji is walking around looking for a tree ‘with a hollow’ (*galandarrgoordoo bardaga*) to put a corpse in:

- (5.23) *Bard roowil innyana inamoonkarna ginyingg aamba inanggana barda galandarrgoordoo bardaga ingiminanjin.*

Bard roowil i-n-nya-na *i-na-moonkar-na*
 away walk 3-TR-[PST]-catch-REM.PST 3-TR-carry-REM.PST
ginyingg aamba i-na-ng-ga-na *barda*
 this man 3-TR-PST-carry-REM.PST away
galandarr-goordoo bardaga
 hollow-QUAL tree
i-ngi-mi-na-n=jin.
 3-PST-look.for-CONT-REM.PST=3M.IO

'He walked, carrying this man, looking for a hollow tree for him [to put him in].'

(JMI.014)

- (5.24) *Nyirroogoordoo minkal?*

Nyirroo-goordoo mi-n-kal?
how-QUAL 2-TR-walk.around

‘How are you?’

- (5.25) *galoorr-goordoo*

froth-QUAL

‘beer’

Like many of the derivational and case suffixes to be discussed in this chapter, there are some forms which fail to show the expected lenition and must be lexically specified. The word *nyirroogoordoo* ‘how’, for example, ends in a vowel, but does not show the expected form **nyirrordoo*.

Bardi’s *-goordoo* is etymologically related to the comitative case in Nyikina and the other Eastern Nyulnyulan languages, i.e. *-goordany*. It shows the regular loss of final *-ny.⁸²

- (5.26) Nyikina

Gunydyu-gudany yi-nga-n.
secret-HAVING 3SG(II)-sit-PRS

‘He’s keeping it a secret.’ (Stokes 1982a:108, ex 188 (SN))

The suffix is not very productive, and these days the comitative *-nyarr* (see §5.5.1) also functions as the regular proprietive; *-nyarr* is a case marker and thus fits the definition of an adnominal marker.

In Nyulnyul, the cognate proprietive suffix is said to have an impermanent quality to it (McGregor in press). That is, it is used of items where the proprietive marked attribute does not denote a permanent characteristic. It is hard to argue for that reading in Bardi, though; it appears to be a neutral suffix. For example, a form such as *diyilgoorda* ‘hole-PROP’ was glossed in Bardi as *riiwa ilaban* ‘it’s got holes’. It is used to describe a reef or piece of coral, where the holes are permanent. Another example, *diyildiyilorda* ‘spotted’, was used of freckles, or spots on the fur of a dog, both of which are permanent.

1.7. ‘Together’: *-injoon(a)*

There is a suffix of the form *-injoon*, *-injoonoo*, or *-injoona*, which occurs a number of times in the older sources. It is rather unclear what it means; some examples are given below. It also occurs fossilized in the word *aalaboorinjoon* ‘elders’ and in *balgnarinjoon* ‘take in marriage.’

- (5.27) *Arinyjon aamba ingorrorrgorrgorndin gooyarrinjoonanim joorroo.*

Arinyj-on aamba i-ngrorr-orrgorrgorndi-n gooyarr-injoona-nim
 one-LOC man 3-PST-AUG-tie.up-PST two-INJOON-ERG
jòorroo.
 snake

‘The two snakes together tied up the one man.’ (L155.017)

- (5.28) *Bili ingirrjirdin irrjarinjoonoo aambanim inanggana norla irrgoord aarlingan mayin.*

Bili i-ngr-irr-jiidi-n irrjar-injoonoo aamba-nim
 also 3-PST-AUG-go-CONT three-INJOON man-ERG
i-na-ng-ga-na norla irrgoord aarli-ngan ma-yi-n.
 3-TR-PST-carry-PST club some.way fish-ALL GER-hit-CONT

‘The three of them went and the man carried a club for hitting fish.’ (L70.004)

- (5.29) *Ginyinggarra ingorronirr irr gooyarrainjoona.*

Ginyinggarra i-ngr-orr-o-n=irr irr
 then 3-PST-AUG-kill-PST=3A.DO 3AUG
gooyarra-injoona.
 two-INJOON

‘Then they killed two of them.’ (L103.047)

In some cases, the translations of the suffixes imply that *-injoon* means ‘together’, and one retranslation of a word from the Laves collection, *boonganinjoon* ‘initiation.grade-INJOON’, as *boonganinamilji* ‘initiation.grade-TOGETHER’ would imply such a gloss (see (5.30)).⁸³

- (5.30) *Irrjara baawa ingorrolonirr, gooyarra aamba ingirrin boonganinamilji, ara baawa.*

*Irrjara baawa i-n̩g-orr-olo-n=irr, gooyarra aamba
 three child 3PST-AUG-??-CONT=3A.DO two man
 i-n̩g-irr-i-n boonganinjoon boonganina-milji,
 3-PST-AUG-become-PST boongana-INJOON boonganina-TOG
 ara baawa.
 other child*

‘They had three children, two of them were both *boonganina* men, and another was [still] a child.’ (L93.002)

However, other examples imply that the suffix rather implies that the referent (or referents) is being chosen from a set; that is, that *gooyarrinjoon* would mean ‘two out of a potential pool of a number larger than two.’ It has not been possible to confirm this with current speakers, however.

This suffix in the Laves texts does not appear to cause vowel coalescence; for example, we have the form *gooyarra-injoon* in the Laves texts without deletion or glide insertion, and this pronunciation was confirmed by current speakers. The alternative form *gooyarrinjoon*, with vowel deletion, occurs in (5.27) above. This is the only affix which allows hiatus in this way.

1.8. Region terms: *-ol* ~ *-booloo*

Another unproductive derivational suffix appears on the compass points *ardi* ‘(North)-East’ and *baarni* ‘South-East’, on some island names, and in the word *Iinalabooloo* ‘islander’. It forms the name which refers to the people who come from a particular area, as well as the area itself. Thus *Ardiyol* refers to the people who live in the *ardi* direction, that is the northeastern end of the Dampier Peninsula. It also refers to the region itself; that is, *Ardiyol* is also the name of the area which is *ardi* ‘northeast’ in Bardi country. *Baarniyol* is the name of the region that encompasses the South-Eastern *booroo*, bordering Nyulnyul and Nimanburru country on the Eastern side of King Sound. Older speakers also used forms such as *Jalan-ola* ‘people from Jalan’ (Maggie Davey, 2003) and *Nilagoonola* ‘people from Nilagoon’. Others are attested in the Laves’ materials.

Bardi’s *-ol* is regularly from **a-booloo*, and is cognate with *-bulu* in Nyikina and Yawuru. I assume that the region terms are formed not directly

from the compass points but from the longer stems *ardiya* and *baarniya*. *Wardiyabulu* ‘People from One Arm Point’ is a term that is wide-spread in the Western Kimberley; it is from Nyikina or Yawuru and shows the full form of the suffix.

The form *Iinalabooloo* ‘islander’, which refers to someone who belongs to the islands around Jayirri, between the mainland and Sunday Island, also shows the full form of the suffix. The word for ‘island’ is *iinalang*; presumably the word *iinalabooloo* comes from **iinalang-bulu* with loss of the nasal.⁸⁴

1.9. ‘Only, just’: -*mil(j(i))*

The suffix meaning ‘only’ or ‘just’ is given in Metcalfe (1975b) and Metcalfe (1975a) as a ‘comparative’ and ‘semblative’ suffix, of the form -*mil*. Aklif and I have both recorded the suffix as -*mil*, -*milj*, or -*milji*. I treat -*mil* and -*milj* as equivalent since I have no reason to separate them; see below for discussion of interpretations of the extra syllable.

In current Bardi, the only time this form is used regularly is in expressions such as the following (5.31):

- (5.31) *Birriibo arinyjimil irrganbala.*
Birrii-bo arinyji-mil irr-ganbala.
 mother-daughter one-MIL 3A.-appearance
 ‘Mother and daughter look the same.’

Further evidence for the suffix comes from examples such as (5.32):

- (5.32) a. *Ngaadamiljarr irr golinyarr.*
Ngaada-milj=arr irr goli-nyarr.
 short-JUST-AUG 3A FM-COM/DYAD
 ‘They’re just short, grandmother and her grandchild.’
 (BOW-FN.3/30)
- b. *Wiliwili nganimbidigal aarlingan, gooyarramilj nganyagalirr.*
Wiliwili nga-ni-m-bidi-gal aarli-ngan,
 fishing.line 1-TR-PST-throw-REC.PST fish-ALL
gooyarramilj nga-n-nya-gal=irr.
 two-ONLY 1-TR-catch-REC.PST=3A.DO
 ‘I threw my lines, I only got two fish.’ (Aklif 1999:-bidi-)

There are also some examples where the form *-milji* refers specifically to a pair of animals, and might be better glossed as ‘pair’:

- (5.33) *Nyina gooyarra ingarrinan joorroomilji naloorroo ngarri jirra biili.*

Nyina gooyarra i-ŋg-arr-i-n-an jōorroo-milji naloorroo
there two 3-PST-AUGbe-CONT-PST snake-PAIR plenty
ngarri jirra biili.
very 3A.POSS anger

‘But there were two lying there, a pair of snakes two together. They were really cheeky ones.’ (L155.010)

- (5.34) *Inkanamilji raanan injanajirri jinal inambidinijirr arinyjinga jinal.*

Inkana-milji *raanan* *i-n-ja-na=jirri* *jinal*
 tiger.snake-'PAIR' straightaway 3-TR?-PST=3A.IO spear
i-na-m-bidi-ni=jirr *arinyji-nga jinal.*
 3-TR-PST-hit-PST=3A.IO one-INS spear

‘Straightaway he threw his spear at the pair of tiger snakes and hit both of them with the single spear.’ (L155.011)

Here the word inflected with *mil(j)* takes plural agreement (the oblique clitics =*jirr(i)*), and the context of the narrative indicates that it is a pair of snakes that are discussed. This suffix also alternates with *-injoon* (see §5.1.7), as in the following:

- (5.35) *Arinyjon aamba ingorrorgorndin gooyarrinjoonanim joorroo.*

*Arinyj-on aamba i-ŋg-orr-orrgorrgorndi-n gooyarr-**injoona-nim***
one-LOC man 3-PST-AUG-tie.up-PST two-INJOON-ERG
jōorroo.
snake

‘The two snakes together tied up the one man.’ (L155.017)

This is the only suffix that appears both with and without a final *-j*. One option would be to treat the *-j* as a separate suffix of unknown meaning; however, that solution is arbitrary. Another option would be to equate it with the simultaneous action marker *-j* (§11.2.7). However, that suffix otherwise occurs only on verbs. There are a few preverbs which are recorded both with

and without a final *j*, for example ‘fill up’ is recorded both as *wiiny* and as *wiinyj*; see §13.6.7.3. Lastly, if the *-j* is morphological, it could be a reflex of the suffix *-ja* identified by Metcalfe (1975a) but not found elsewhere in my data; see §5.1.11.3.

1.10. ‘-ward’: *-ngarr(a)* on compass points

Bardi has a marker *-ngarr*, which occurs only on compass points; *alangarr* means ‘southward’, for example (cf. *alang* ‘south’), and *ardingarr* ‘northwards’. This is not to be confused with the emphasis marker *=angarr*, which is an allomorph of *=jangarr* (cf. §10.5).

- (5.36) *Darr inarna marlarrjina innyanan malarrnimarla gala garrgooy inargana nyalaboo jarrgany inamana ardingarra.*

Darr i-n-ar-na *marlarr=jina* *i-n-nya-na*
 come 1-3-TR-spear-REM.PST wife=3M.POSS 3-TR-catch-REM.PST
[malarr-nimarla] gala garrgooy *i-n-arga-na* *nyalaboo*
 wife-hand thus completely 3-TR-go.up-TEM.PST that.way
jarrgany i-na-ma-na *ardi-ngaṛra.*
 cross 3-TR-put-REM.PST north-WARDS

‘He came and caught his wife by the hand and married her (lit, ‘picked her up’), then they crossed over to the north.’ (L98.008)

This suffix is recognized but not preferred in usage these days. I have very few spontaneously produced examples. Instead, speakers tend to use the allative case marker *-ngan* (see §5.4.4) in this function.

1.11. Minor derivational morphemes

The older sources for Bardi, particularly Metcalfe (1975a) and Nekes and Worms (1953), list several morphemes that I have been unable to confirm with current speakers. They do not appear in my corpus and were not recognized when discussed in elicitation sessions. I list them here with the examples known to me. In some cases there is indication that the affixes were fossilized or barely known even in Metcalfe’s time. Some additional morphemes in Nekes and Worms (1953) were identified as Nyulnyul rather than Bardi; they are not discussed here.

1.11.1. ‘Emphatic’ markers: -arr, -orr, -goorr, -arranga

There are a few items in the Metcalfe corpus glossed as ‘emphatic’ which current speakers recognize but do not use themselves, and are hard-put to define. One of these is *-arr*, which is glossed as an ‘emphatic’ marker. It may be related to a cliticized or fast speech form of the interjection *arra*, which is an expression of surprise. There are two other examples of a suffix *-arra* or *-rra*; one in the word *baawarra* ‘childhood’ (cf. *baawa* ‘child’) and the other in *ginyinggarra* ‘then’; I assume this is a frozen relic of the Nyulnyulan temporal suffix **-karra*, which is otherwise not found in Bardi (see Nekes and Worms 1953). Another example is found in (7.74).⁸⁵

Metcalfe (1975a) also has an item *-orr* which occurs on pronouns:

- (5.37) *joo-orr* ‘only you’

There is one example of an intensifier *-jodorr*:

- (5.38) *Gooyarra boordij-jodorr aarli.*
 two big-JODORR fish
 ‘Two really large fish.’ (Metcalfe 1975a)

Metcalfe gives a suffix *-arranga* and says it means ‘very’, but there are no examples. I suspect that this might be an error for *=angarr*, which could be glossed as ‘just’ or ‘very’ in phrases like *moorroolangarr jawal* ‘it’s just a story,’ or ‘it’s only a little story;’ see further §10.5. Finally, there is *-goorr*, also found only in Metcalfe (1975a) and given as a ‘specifying’ suffix ‘that one’; the only word given as an example is *joodagoorr* ‘that’s the one’, and while this was recognized by speakers in 2008, it was said to be obsolete; people would say *gardi ginyinggi* ‘still 3MIN’ ‘just this one’ instead.

1.11.2. Meaning unknown: -inyan

This suffix is found frozen on a number of forms. It is given only on the word *marrooliniyan* ‘facing in the opposite direction’ in Aklif’s notes. Metcalfe (1975a) has a note that it is a fossilized suffix which appears to occur on some nouns, with unknown meaning. Metcalfe also lists a suffix *-nyan* ‘across’ but I have been unable to confirm this. In my data, *nyan* is a deictic stem; see §7.8 and the word *nyanbirronony* ‘the other side’.

These are the nouns which end in *-inyan* in Aklif (1999) and Metcalfe (1975a):

- (5.39) *birrinyan* ‘queenfish (*Scomeroides tol*, *tala*, *commersonnianus*, *lysan*)’
 Jinbiidinyan ‘place name (Brown’s camp)’
 Jarrinyan One Arm Point Bardi name for Djarridjin community
 loorroonbiidinyan ‘flying fish (*Cypselurus sp.*)’
 Loorroordinan ‘place name’
 mangalinyan ‘helper’
 marrinyan ‘greedy person’
 orronbidinyan ‘water insect’
 marroolinyan ‘facing the other way’
 Rarrmalinyan ‘place name’
 Rirrgalinyan ‘place name (cf. *rirrga* ‘hot coals’)’
 walwaldinyan ‘sea snake species (probably *Astrotia stokesii*)’

Evidence for a frozen suffix in these words comes from stress patterns; words such as *marrooliniyan* have a secondary stress on their penultimate syllable (IPA '/maru.lipan/), which is irregular. Words of this shape normally have a secondary stress on the final syllable of the word, as discussed in §3.5.2.

1.11.3. ‘Specifying’: -ja

Metcalfe (1975a) gives a suffix *-ja*, in the following example:

- (5.40) *midijinnganja*
midijin-ngan-ja
 medicin-ALL-JA
 ‘This is the medicine I asked for.’ (Metcalfe 1975a)

Nothing further is known about this suffix. There are a few items which appear with or without a final *-j* (or occasionally *-ji* in the Laves materials) but they do not appear to have a ‘specific’ meaning. Current speakers did not recognize it. It may be related to the suffix *-jV* discussed in §6.3.2.

1.11.4. ‘Product’: -dany

The suffix *-dany* is found on the word *aalgadany* ‘in the sunshine’ (cf. *aalga* ‘sun’), *goowidany* ‘in moonlight’ (cf. *goowidi* ‘moon’) and the deictic *jiibadany* ~ *jiibordany* ‘this way’ (cf. *jiiba* ‘this’). While the relationship between the derived words and their roots is fairly clear in these individual cases, the suffix is not productive and is not found elsewhere in the corpus.

1.11.5. ‘Group’: -wadin

This suffix is found in a few names, such as *Injawadin* (also recorded as *Injawardin*), a name for the Sunday Island dialect of Bardi, or *Mayoowadin*, the word for ‘mainlanders’ or ‘mainland Bardi’ people. It is only recorded in Laves and Metcalfe and there is no etymology for the stems to which it attaches. The presence of a *w* in the suffix strongly implies that it is a loan, since both *b* and *w* lenite to zero in this position historically in Bardi.

1.11.6. *Frozen case marking*

There are occasional items which have a case marker absorbed into the stem. They function as nouns or adverbs.

- (5.41) a. *oonkoolgo* ‘clouds which come from the north-west’ (noun),
 from *oonkool* ‘open ocean’ + ABLATIVE
- b. *joodinygo* ‘forever’ (adverb), cf. *joodiny*, which has the same
 meaning

(5.41b) shows a doublet both with and without a case marker; both mean ‘forever’ or ‘always’ and appear to be exchangable.

The adverb *bornko* ‘around’ seems to be no longer felt to be the ablative of *baarnka* ‘outside’, even though that’s what it must be etymologically. There is also a lative-marked form *bornkony* with the same meaning as *bornko*.

In some cases, there are doublets of derived and underived modifiers.

- (5.42) a. *loomi baawa* ‘an orphaned child’
- b. *loomiyoona baawa* ‘a neglected child’
- (5.43) a. *garnk(a) aarli* ‘raw fish’

- b. *garnkagij aarli* ‘fish that hasn’t been cooked properly’

1.12. Remnant prefixal marking

While the only productive nominal prefixing in Bardi is found in the realm of possessive marking (§7.5), there are a few words which appear to be related but which have slightly different first syllables. The pair *alboorr* ‘plenty’ and *jalboorr* ‘few’ is probably coincidental, since there is no systematic relationship between words with *j*- and those without.

A second set of prefixal terms, however, do appear to show a frozen prefix. These are collective kinship terms which appear with and without an initial *oo*- . Forms are given in Table 5.3. Some of these terms are associated with particular dialects; for example, *oomalarr* is said to be particularly associated with Jawi, and the regular Bardi word is *yagoo* (which is a loan from a Pama-Nyungan language).

Table 5.3. Prefixed kinship terms

Unprefixed	Gloss	Prefixed	Gloss
<i>rangan</i>	husband’s parents	<i>oo-rangan</i>	husband’s mother and son’s wives
<i>malarr</i>	wife	<i>oo-malarr</i>	man and his wife’s brothers
<i>rambarr</i>	wife’s mother’s brother	<i>oo-rambarr</i>	uncle-in-law and nephew-in-law

This marking is not found to my knowledge in other Nyulnyulan language and I can find no etymological source of the prefix.

2. Case morphology: Preliminaries

In the following sections I give the forms (and allomorphs) and usage illustrations of the cases recorded in Bardi. McGregor (1990) and McGregor and Stokes (2004) argue that the languages of the Kimberley region do not have case inflection; they call these markers ‘postpositions.’ Dryer (2011) classifies the Bardi type of inflection as cliticization. However, there are differences between the languages and as I show here, what we have in Bardi is clearly

case inflection. Syntactic arguments are presented in §8.5.1 and §5.2.2 below. Table 5.4 gives the a summary of Bardi case forms and references to where they are discussed in this chapter.

Table 5.4. Bardi cases

CASES		Reference
Core cases		
Ergative	-nim	§5.3.1
Absolutive,	-∅	§5.3.2
Dative		§5.3.3
Instrumental	-nga ~ -ng	§5.3.4
Local cases		
Locative	-goon ~ -oon ~ -on	§5.4.2
Local Allative	-goondarr	§5.4.3
Allative	-ngan	§5.4.4
Ablative	-go ~ -o	§5.4.5
Lative	-gony(i) ~ -ony(i)	§5.4.6
Directional	-madan	§5.4.7
Periative	-jarr	§5.4.8
Toponym Locative	-i	§5.4.9
Adnominal cases		
Comitative	-nyarr	§5.5.1
Source	-joon ~ -yoon	§5.5.2
Semblative	-marr	§5.5.3
‘Reason’	-ganiny	§5.5.4
Causal	-yi	§5.3.3

2.1. Position of case marking

Case marking is phrasal; the case marker appears after the first element of the phrase. See, for example, the sentences in (5.44) below, where successive more complex ergative-marked noun phrases all have the ergative case marker *-nim* on their first constituent. This is an unusual pattern; it is a type

of second position group inflection. It is consistent with other second position phenomena in the language (such as the placement of sentential clitics).

- (5.44) a. *Aambanim aarli inamboona.*

[*Aamba-nim*] *aarli i-na-m-boo-na.*

man-ERG fish 3-TR-PST-poke-REM.PST

‘The man speared a fish.’

- b. *Ginyingginim aamba aarli inamboona.*

[*Ginyinggi-nim aamba*] *aarli i-na-m-boo-na.*

this-ERG man fish 3-TR-PST-poke-REM.PST

‘This man speared a fish.’

- c. *Boordijinim niiwandi aamba inamboona aarli.*

[*Boordiji-nim niiwandi aamba*] *i-na-m-boo-na*

fat-ERG tall man 3-TR-PST-poke-REM.PST

aarli.

fish.

‘The tall fat man speared a fish.’

- d. *Gilinim ingarramananirr ginyinggi niyalboon bardoonoo ingoorroomoornanajin, ginyinggi ingarranana Jawananyj, Arriyananim jinirr malarr.*

Gilinim i-ng-arr-a-ma-na-n=irr ginyinggi niyalboon

clean’im 3-PST-put-REM.PST-3A.DO this bush.onion

bardoonoo i-ng-oorr-oo-moor-na-na=jin, ginyinggi

skin 3-PST-clean-CONT-REM.PST=3MIO, this

i-ng-arr-a-na-na Jawananyj, [Arriyana-nim

3-PST-give-CONT.REM.PST J. A.-ERG

jin-irr malarr].

3M.POSS-3AUG wife.

‘They used to clean those bush onions. Arriyana’s wives would take off the skin for him and give them to Jawananyj.’(JWA.006)

We might therefore consider case morphology to be another instance of a second position phenomenon in Bardi. Second position clitics pervade the clausal syntax and are important in other types of phrasal marking as well. Further discussion of the syntax of case marking is provided in §8.5.2.

2.2. Case as a theoretical term

There is considerable variation among Australianists as to what is considered a ‘case marker’ and what counts as ‘derivation.’ The adnominal cases in particular are subject to this variation. The problem is compounded in Nyulnyulan languages by the distribution of case markers, which has led McGregor (1990) to treat them as postpositions. However, such an analysis then requires derivational uses of case marking to be analyzed as phrasal or compounded.

Many Australianists do not use the label ‘case’ simply for marking the dependents of verbs in a clause; rather, they extend it to certain types of adnominal and derivational relations as well, such as the comitative and privative (see Blake (1993), Dench and Evans (1988), Evans (2003c), Round (2009) and others for discussion). This is a plausible analysis for languages which otherwise have little derivational morphology.

As described earlier, Bardi has extensive derivational morphology in comparison to many other Australian languages, although most of it is not productive. The adnominal cases do not have the same distribution as the cases which mark grammatical relations, but they do not exhibit the behavior of the other derivational morphology either. There are items which are both case-like, in that they have relational functions to other nouns (and signal argument status in the clause) but also have derivational qualities. Examples in Bardi include the ‘source’ case *-joon*, which marks denizens, sources of materials, amongst other functions, but it also has a limited role in deriving nouns (e.g. *daamanjoon* ‘murderer’ from *daaman* ‘raiding party’, or *gaariyoona* ‘drunk’ from *gaari* ‘alcohol, grog’). The comitative case *-nyarr* has a similar dual role in phrasal or adnominal marking on the one hand, and in kinship dyad derivation on the other. Bardi is thus an interesting instance of a language which shows not only derivational affixation but also derivational uses of case.⁸⁶

McGregor (1990) and McGregor and Stokes (2004) treat Nyulnyulan case markers as postpositions rather than affixes. Evidence comes primarily from their unusual distribution as second position clitics; McGregor (in press:§2.1) also argues that ‘although these are bound morphemes, they enter into syntagmatic relations with phrases or clauses rather than words, and mark the grammatical relations of these units to other units.’

That analysis is not correct for Bardi. There are several reasons why an inflectional case analysis is a preferable approach to the Bardi data. First is the morphophonological processes which the markers undergo. The locative

and ablative cases condition vowel harmony (see §5.4.2 and §5.4.5) and undergo lenition processes, just as derivational affixes do (see §3.6.2). Clitics do not show this behavior. The recent past tense suffix *-gal*, for example, never lenites, and some other clitics show different lenition patterns from those of affixes.

The second piece of evidence comes from lexically conditioned exceptions to allomorphy; for example, some words fail to trigger lenition. The locative of *gaarra* ‘sea’ is always *gaarra-goon*, without lenition of the suffix. We would normally expect the form of this word to be *gaarron* or *gorron* (cf. *goron* ‘in the sand’). This is behavior which is consistent with an analysis of the items as affixes which interact with their lexical stems, but not as clitics or independent words.

Finally, Bardi has an additional set of nascent adpositions; see §8.5.1.7 for more details. That is, there are adverbial markers which are in the process of grammaticalizing into adpositions. Therefore while the adposition analysis may apply to other Nyulnyulan languages, it clearly does not apply to Bardi on morphological grounds.

McGregor’s other argument against a case analysis—that is, that the inflected words enter into syntagmatic relations with phrases or clauses rather than words—is also problematic for Bardi. First, not all cases satisfy McGregor’s definition. As mentioned above, several cases have minor roles in derivation; this applies at the word level. Secondly, there is no general prohibition on affixation marking clausal or phrasal relations. Much verbal inflection fulfills this role, for example.

3. Core cases

Following Andrews (2007) and others I split Bardi cases into core and non-core. Core cases mark argument relations in the clause (all core arguments can be cross-referenced in the verb). Bardi has extensive marking of spatial relations through case; these are described in §5.4. Other oblique cases are given in §5.5.

3.1. Ergative: *-nim*

The ergative case is a relational affix which marks the subject of a transitive verb. Bardi case morphology is purely ergative without split. Nouns, pronouns and demonstratives all take ergative case marking when they appear as

the subject of a transitive verb. There is no tense or aspect split either. There are, however, additional functions of the ergative case which are described in §5.3.1.2.

3.1.1. Form

The ergative case is *-nim*. It is invariant in Modern Bardi, although it causes a stem-final *rr* to be realized as a stop *d* or as a tap, for example in the third person augment pronoun *irr* ‘they’, which has an ergative /idnim/.⁸⁷ Bardi is morphologically ergative but not syntactically so. It is not split-ergative; all types of nouns and pronouns receive ergative case if they are the subject of a transitive verb.

Laves occasionally records the ergative as *-nim3*. It is not clear if this represents an archaism (since the Proto-Nyulnyulan ergative was probably *-*nima*), metrical final vowel alternation, or simply careful final consonant articulation.

3.1.2. Usage

3.1.2.1. Subjects of verbs

In its most typical use, the ergative marks the subject of a transitive clause. (5.45) provides an example. Note that word order is extremely flexible in Bardi and the relative ordering of constituents provides no information on grammatical function (see §15.1 for more details).

- (5.45) *Aambanim aarli inamboona.*

Aamba-nim aarli i-na-m-boo-na.
man-ERG fish-ABS 3-TR-PST-spear-REM.PST

‘The man speared the fish.’

Ergative subjects are not required to be either animate or personal; there are also a considerable number of examples of inanimate subjects, such as *gaarra* ‘the sea’ in (5.46), which take ergative marking:

- (5.46) *Ngarri boolji gaarranim innyana niyarda.*

Ngarri boolji gaarra-nim i-n-nya-na ni-yarda.
much tired sea-ERG 3-TR-catch-REM.PST 3-body

‘The sea had made his body worn out.’

(L117.016)

- (5.47) *Yoorr inaman gaarrangan aarlingan inggardinana bangala inam-boonana ganyinim.*

Yoorr i-na-ma-n gaarra-ngan aarli-ngan
 go.down 3-TR-put-REM.PST sea-ALL fish-ALL
i-ng-gardi-na-na bangala
 3-PST-enter-CONT-REM.PST reef.hole
i-n-am-boo-na-na ganyi-nim.
 3-TR-PST-poke-CONT-REM.PST barb-ERG

‘He went to the sea for fish; he put his hand in a hole in the reef and a fish barb poked him.’ (L77.001)

While the most common case pattern for transitive clauses has the subject in the ergative and object in the absolutive, there is also a limited set of verbs where the subject is ergative and the other argument is cross-referenced on the verb with oblique marking. Verbs such as *-lirrmi-* ‘call out to’ and *-jargi-* ‘fear’ are formally intransitive (that is, they take the intransitive set of prefixes; see §12.2.1.2) but nonetheless have an ergative-marked subject.

- (5.48) *Iindoонim ingilirrmigaljard.*

Iindoо-nim ingilirrmigal=jard.
 curlew-ERG 3-PST-call.out-REC.PST=1A.IO

‘The curlew called out to us.’⁸⁸ (Aklif 1994d:3)

3.1.2.2. ‘Unexpected’ subjects

The ergative is occasionally used on intransitive subjects with monovalent verbs, where the agent is either unexpected or highly involved. The canonical subject marking of *daag-joo-* ‘sleep’ is absolutive, as seen in (5.49b). In (5.49a), however, the subject *góowa* ‘mermaid’ is marked by the ergative. (5.50) is another example of an intransitive verb (*-jimbi-* ‘die’) where the subject appears with the ergative case.

- (5.49) a. *Nyalab daag injoonoo goowanim.*

Nyalab daag i-n-joo-noo góowa-nim.
 there sleep 3-TR-[PST]-do/say-REM.PST mermaid-ERG

‘[Upon waking, he realized that] a mermaid had slept there.’ (Aklif 1994b:4)

- b. *Jooljoolngarragid darr ingarrarnana ginyingg aamba daag in-girrini boor ingananagoonjirr ginyingg ingarramanabalirr.*
Jooljoolngarra=gid darr i-ng-arr-ar-na-na
 J.=THEN come 3-PST-AUG-spear-CONT-REM.PST
[ginyingg aamba] daag i-ng-irr-i-ni boor
 this man sleep 3-PST-AUG-do/say-REM.PST place
i-nga-na-na-goon=jirr ginyingg
 3-PST-give-CONT-REM.PST=LOC=3A.IO this
i-ng-arr-a-ma-na=balirr.
 3-PST-AUG-put-REM.PST-REL-INDF-3A.DO
 ‘Those men went and camped at Jooljoolngarr Creek, and they slept in the sleeping holes which they had put there.’ (DUG.003)
- (5.50) *Alamanka goorr boonyj ambooriny. Gala goorrmoonggoon Jesus-nim inyjibinajard.*
A-lamank-a goorr boonyj ambooriny. Gala goorr-moonggoon
 2-listen-FUT 2AUG all people. well 2AUG-know
Jesus-nim i-ny-jibi-na=jard.
 Jesus-ERG 3-PST-die-REM.PST=1A.IO
 ‘Listen everyone. You know that Jesus died for us.’ (BE: CB52.1)

This type of ergative marking is very rare in Bardi, and further examples have proven impossible to elicit, though examples are occasionally found in spontaneous speech, such as (5.49a) and (5.50) above. It is more common in the other Nyulnyulan languages to the South, especially the Eastern languages Yawuru and Nyikina. In Nyikina, the case cognate with Bardi’s *-nim* is described by Stokes (1982a:128–131) as an ‘active’ marker; it is optional with canonical ‘subjects’ and can be used with intransitive verbs. Its use is closely tied to the degree of ‘agency’ the subject can control, and the amount of volitionality. McGregor (2006a) provides further information.

3.1.2.3. *Low-animacy causers*

The other major use of the ergative is to mark low-animacy causers. In this case the subject is the high-animacy patient and it takes the subject agreement marker on the verb. In (5.51), for example, ‘cold’ is third person, but the agreement marking for subject on the verb is first person. This construction

is used for cases where there is a mismatch between agenthood and animacy. That is, it is particularly common when low-animacy causers act on high-animacy patients.

- (5.51) *Inkoorrnim alig ngandan.*

Inkoorr-nim alig nga-n-d-an.

cold-ERG pain 1-TR-do/say-CONT

'I feel cold.'

(Aklif 1994d:3)

- (5.52) *Boolyja nganjij moorrgooloonim.*

Boolyja nga-n-j-ij moorrgooloo-nim.

exhausted 1-TR-do/say-MID.PFV work-ERG

'I am exhausted from work.'

(Aklif 1999)

- (5.53) *Goolinnim alig ngandan, bardajiya gala booroongan.*

Goolin-nim alig nga-n-d-an, barda=jiya gala

sleep-ERG feel.bad 1-TR-do/say-CONT away=2M.IO well

booroongan.

home-ALL

'I'm really tired, you go home now.'

(CB53.2)

Bardi also has an instrumental case, which can be used in some circumstances which overlap with the causal ergative use. Some examples are given in §5.3.4. Speakers differ as to how widely this construction can be used. Some speakers allow constructions such as that illustrated in (5.54a), where the subject is *gaara* 'ground' and the causer, *nòorroo* 'fire' receives ergative case. Others prefer a different complex predicate, with the light verb *-ma-* 'put', as illustrated in (5.54b), where there is no misalignment between subject marking and ergative case.

- (5.54) a. *Maanka injoogal gaara noorroonim.*

Maanka i-n-joo-gal gaara nòorroo-nim.

black 3-[PST]-TR-do/say-REC.PST sand fire-ERG

'The ground got black from the fire.'

(Aklif 1994b:4)

- b. *Maanka inamana gaara noorroonim.*

Maanka i-na-ma-na gaara nòorroo-nim.

black 3-[PST]-TR-put-PST sand fire-ERG

'The ground got black from the fire; the fire blackened the ground.'

Bardi has a set of verbs which allow several argument frames; they are discussed in detail in §12.2.3. It is possible to use high animacy ergative causers with alternative prefixing verbs, but they never occur in texts. Elicited examples were judged grammatical, however. In (5.55a), for example, the verb is intransitive and shows third person minimal agreement, agreeing with *joongoorr* ‘woman’s fishing spear’. Example (5.55b) provides a contrastive sentence, where the verb is transitive (as shown by the transitive prefix *n-*) and verb agreement is with the ergative-marked subject. (5.55a) is translated as passive to provide a contrast, but I make no claim that this construction is truly a passive.

- (5.55) a. *Joongoorr inyjoogoolij ngayoonim.*
Joongoorr *i-ny-joogool-ij* *ngayoo-nim.*
 woman's.fishing.spear 3-PST-break-MID.PFV 1MIN-ERG
 'The *joongoorr* got broken by me.' (Aklif 1994a:S1/14)

b. *Joongoorr nganjoogoolij ngayoonim.*
Joongoorr *nga-n-joogool-ij* *ngayoo-nim.*
 woman's.fishing.spear 1-TR-break-MID.PFV 1MIN-ERG
 'I broke the *joongoorr*.'

3.1.2.4. With +moonggoon ‘knowledge’

Ergative marking is used in ‘knowing’ constructions with the inalienable noun *+moonggoon* ‘knowledge’. The word is a noun and takes the nominal agreement pattern for possessor, not the verbal one. The ‘knower’ takes ergative case, like possessors in examples such as (5.57) below.

- (5.56) *Ngayoonim ngamoonggoon milimilingan mawoon Barding ngaanka.*
Ngayoo-nim nga-moonggoon milimili-ngan ma-woo-n Bardi-ng
1MIN-ERG 1-know paper-ALL INF-poke Bardi-INS
ngaanka.
language
‘I know how to write in Bardi.’

We might be tempted to argue that sentences such as (5.56) show an elided verb which is triggering ergative case; the verb of possession *-laba-* ‘hold,

possess' takes an ergative subject, for example; however, there is no alternation in this phrase between examples with a full verb and those without. Another analysis would be to assume that *ngamoonggoon* is a preverb in a complex predicate construction (see Chapter 13). The construction that is used to translate the English verb 'learn' is +*moonggoon*-*joo-*, and could be translated literally as 'come to know' or 'become knowledgeable'; however, light verbs in complex predicates are not normally omitted. Therefore it is probably preferable to treat this pattern as an example of a noun assigning case to a complement.

3.1.2.5. With possession

The ergative in Bardi is also used with possessors when the possessum is elided.

- (5.57) *Liinanimjin*

Liina-nim=jin
Lena-ERG-3M.POSS

'It's Lena's.' (overheard)

- (5.58) *Nganynginy jarri gaanyganim ambooriny jirra.*

Nganynginy jarri gaanyga-nim ambooriny jirra.
song.type this mainland-ERG people 3AUG

'*Nganynginy* [turtle increase song] is mainland people's.'
(BE:SNG1/6)

This is another instance of a construction where it might be appealing to argue for an elided verb. However, while such an analysis would explain the presence of case marking, it is unclear why we should posit the presence of an elided verb only in instances where the possessum is also elided.

3.1.3. Optionality in ergative marking

When a matrix clause object is coreferential with an embedded clause subject, no ergative marking appears:

- (5.59) *Nyalab ingalamankan iindoo ingilirrmana.*

Nyalab i-nга-lamanka-n iindoo-∅
 here 3-PST-aug-hear-CONT curlew-ABS
i-ngi-lirrma-na.
 3-PST-call.out-REM.PST.

‘There they heard the curlew singing out.’ (Aklif 1994d:4)

It is not possible to show for certain which clause the argument *iindoo* ‘curlew’ is in; it could be either a null-marked ergative subject or an object (in which case we would not expect ergative marking, of course). Intonation does not help because these chained clauses tend to have a single flat intonation contour; they resemble serial verb constructions in their intonation.

There are a few other places where ergative marking is optional in Bardi. When the actor is clear from context, for example, the ergative marker is occasionally omitted, especially if the NP is a complex one:

- (5.60) a. *Ngajana bo inambij goorlil.*

Ngajana bo i-na-m-b-ij goorlil.
 1M.POSS woman’s child 3-TR-PST-poke-MID.PFV turtle.
 ‘My child speared a turtle.’

- b. *Ngayoonim jana bo inambij goorlil.*

Ngayoo-nim jana bo
 1M-ERG 1M.POSS woman’s child
i-n-am-b-ij goorlil.
 3-TR-PST-poke-MID.PFV turtle.

‘My child speared a turtle.’

(Aklif 1994a:E0/9)

Ergative marking is also regularly omitted when the ergative-marked argument is relativized; further examples can be found in §16.7. The third case where we might expect an ergative to appear is on the subjects of second person minimal imperatives. In those cases, the ergative is most frequently absent (though there are examples with the ergative present); these are given in (5.61).

- (5.61) a. *Joo anarli moorrgard anjoonginji.*
Joo a-n-arli moorrgard a-n-joo-nginji.
 2MIN 2IMP-TR-eat full 2IMP-TR-do/say-APPL₃
 ‘You eat enough until you’re full.’ (L70.021)
- b. *Loogal injij, anjalala joonim.*
Loogal i-n-j-ij, a-n-jal-al-a
 bad 3-TR-do/say-PFV 2IMP-TRlook.after-REDUP-FUT
joo-nim.
 2MIN-ERG
 ‘She is sick, you look after her.’

I assume here that the 2MIN pronoun *joo* in (5.61a) is a vocative pronoun rather than a subject.

3.2. Absolutive

The absolute case is unmarked. It is used for the subject of an intransitive clause, the direct and indirect (oblique) objects of a verb, and possessed noun phrases which receive verbal cross-reference marking. (See also (5.65) in §5.3.3.)

- (5.62) a. *Ginyinggarra inyjarrmin Moordoorr.* (Intransitive subject)
Ginyinggarra i-ny-jarrmi-n Moordoorr-∅.
 then 3-PST-get.up-REM.PST M.-ABS
 ‘Then Moordoorr got up.’ (L85.016)
- b. *Ingoorrooloonganirr aambanim baawa oorany boolngoorroo ingarramanirr.* (Direct object)
I-ng-oorr-ooloonga-n=irr aamba-nim baawa-∅
 3-PST-AUG-pick.up-REM.PST=3ADO man-ERG child-ABS
oorany-∅ boolngoorroo i-ng-arr-a-ma-n=irr.
 woman-ABS in.the.middle 3-PST-AUG-put-REM.PST=3ADO
 ‘The men picked up the kids and women and put them in the middle [of the circle to protect them from the devils].’
 (Aklif 1994d:3)

- c. *Ganbalinynimamba barn injoonajin Giido aamba jin...*
 (Indirect (oblique) object)
- Ganbaliny-nim=amba barn i-n-joo-na=jin*
 G.-ERG=THUS tell 3-TR-do/say-REM.PST=3M.IO
Giido-∅ aamba jin...
 G.-ABS husband 3M.POSS
 ‘... when Ganbaliny said to her husband Giido...’ (GGG.009)
- d. *Malarr inalabananajin Goorrbi ninga.* (Possessor)
Malarr-∅ i-na-laba-na-na=jin *Goorrbi-∅*
 wife-ABS 3-TR-have-CONT-REM.PST=3M.POSS G-ABS
ni-nга.
 3-name
 ‘His wife’s name was Goorrbi.’ (BGM.002)

Absolutive forms are also used for verbless sentences, except in the cases described elsewhere, for example with the noun *+moonggoon* ‘knowledge’ and possessors with an elided possessum.

3.3. Dative/Causal: *-ji* ~ *-i*

Bardi has no distinct dative case, although it does have a reflex of the Proto-Nyulnyulan dative case in ‘causal’ meaning. The causal has a very limited distribution and is used regularly only with the verb *-monyji-* ‘fight one another’ (see (5.63)).

- (5.63) *irrmonyji ooranyji.*
I-rr-m-o-nyji *oorany-ji.*
 3-AUG-REFL₁-hit-REFL₂ woman-CAUS.
 ‘They are fighting each other over a woman.’

Another possible example is found in the Laves corpus, with the lenited variant of the suffix:⁸⁹

- (5.64) *Inamboonangarra Lirribanim ginyinggi ngaarri goorralgari may.*
I-n-am-boo-n=angarra *Lirriba-nim ginyinggi ngaarri*
 3-TR-PST-spear-PST=JUST L.-ERG 3MIN spirit
goorralgar-i *may.*
Flueggea.virosa-CAUS fruit
 ‘Lirribi speared the *ngaarri* spirit over/for the raisin fruit.’ (L149.018)

Dative arguments (that is, arguments that are marked with the dative case in other Nyulnyulan languages) are expressed with the absolute in Bardi, with oblique cross-referencing on the verb. The oblique free pronoun is not used when there is IO marking on the verb, however. Free pronouns appear in the absolute in this function too, even though they have a distinct oblique form. For an example see (5.65).

- (5.65) a. *Arra barn oolirrijarda arroodoo.*
Arra barn oo-li-rr-ii=jarda arroodoo.
 NEG tell 3-IRR-AUG-say-1A.IO 1a
 ‘They don’t tell us [what’s going on].’ (Aklif 1994d:14)
- b. **Arra barn oolirrii-jarda jarda.*
 NEG tell 3-IRR-AUG-say-1A.IO 1a.IO
- (5.66) *Nganyjiidigaljin Marbiddy.*
Nga-ny-jiidi-gal=jin Marbiddy.
 1-PST-go-REC.PST=3M.IO M.
 ‘I went to Marbiddy (e.g. to see her).’

One further piece of evidence that the dative is no longer a case in Bardi is that the word *anggi* ‘what’ means both ‘what’ and ‘why.’ Nyulnyul uses *angkij* ‘what-DAT’—with dative marking—to mean ‘why,’ but Bardi uses the absolute in both meanings.

3.4. Instrumental: *-ng(a)*

Bardi is a little unusual (although not alone; cf. Heath (1986:379) for Ngandi and Heath (1984) for Nunggubuyu) amongst Australian languages in having distinct ergative and instrumental cases.⁹⁰ In most of the languages of the continent, particularly in Pama-Nyungan languages, they are homophonous. We saw in §5.3.1 above that there were some constructions where the ergative and instrumental could alternate; the contexts in which this is possible are quite restricted, however.

The instrumental is not a core case under most functional definitions of case. However, it is included here under the label ‘core’ because of my definition that core cases are those who arguments may receive cross-reference agreement marking on the verb. In applicative constructions, instrumentals

may be promoted to object and receive agreement on the verb (see §12.4.2); in such contexts, however, the case marking may remain.

3.4.1. Form

Bardi's instrumental case has two forms, *-nga* and *-ng*. The form with the final vowel is used when the stem ends in a consonant, while the form in *-ng* is used with vowel-final stems.⁹¹ Some examples are given in (5.67)–(5.68).

(5.67) Vowel-final stems:

- a. *bardaga-*ng** 'tree-INS'
- b. *irrolo-*ng** 'spear-INS'
- c. *goolboo-*ng** 'rock-INS'

(5.68) Consonant-final stems:

- a. *nimal-*nga** 'nose-INS'
- b. *nilamarr-*nga** 'axe-INS'
- c. *langar-*nga** 'bait-INS'

Final vowels which have been lost in citation forms surface when the instrumental is suffixed to the noun. The word *ilngam* 'fish poison', for example, appears as *ilngamoong* in the instrumental, not **ilngamnga*.

(5.69) *Ilngamoong ingirrjimbij niimana aarli.*

<i>Ilngamoo-<i>ng</i></i>	<i>ingirrjimbij</i>	<i>niimana aarli.</i>
fish.poison-INS	3-PST-AUG-die-MID.PFV	many fish

'Many fish died from fish poison.' (Aklif 1994b:6)

In my 2008 and 2011 field trips, speakers were producing some examples of the vowel-final stem allomorphs with consonant-final stems. This reanalysis of allomorphy resulted in consonant clusters in words such as *nilirr-*ng** 'lips-INS'. This would appear to be a change due to language death; such forms are never found in the materials before 2008.

3.4.2. Function

The functions of the instrumental case are diverse.

3.4.2.1. Means of carrying out an action

The instrumental encodes the instrument or means by which an action was carried out. The following examples are typical.⁹²

- (5.70) *Jardinkool arranirr bornko bardagang irrolong,*

Jardinkool a-rr-a-n=irr bornko bardaga-**ng**
round.up 1-AUG-do/say-CONT=3A.DO around stick-INS
*irrolo-**ng***.
spear-INS.

'We round them [the fish] up [in the fish trap] with sticks and spears.'
(Aklif 1994d:4)

- (5.71) *Ingoorrooloonganajin ooldoobalnga.*

I-ŋg-oorr-ooongoona-na=jin ooldoobal-nga.
3-PST-AUG-TR-throw-APPL-PST=3M.IO things-INS

‘They threw things at him.’

- (5.72) *Nimalnga liyan innyanana.*

Nimal-nga liyan i-n-nya-na-na.
3M.POSS-nose-INS breathe 3-TR-catch-CONT-REM.PST

'He was breathing through his nose.' (BMF.011)

Instruments are always inanimate. Animate ‘instruments’—that is, animate entities who carry out actions, with or without agency and volitionality—are either marked with the ergative (as agents or quasi-agents) or use the comitative.

The ‘instrumental’ can also be metaphorical (this example is from the Laves corpus and the lack of final vowel loss is one piece of evidence that this is representative of an Island dialect).

- (5.73) *Biili inimbina ngarringa bandoorr.*

Biili i-n-im-bi-na ngarri-NGA bandoorr.
cheeky 3-TR-PST hit.w.hand-PST too.much-INS strength.

‘He hit with too much power.’ (L55.005)

3.4.2.2. Means of transport

Instrumental case is used for vehicles used in transport, or other means of getting from one place to another, such as floating with the tide, as illustrated in (5.74).

- (5.74) *Mayoodinnga inanggana joodarrarra Iwanyi loowa.*

Mayoodin-nga i-n-ang-ga-na joodarrarra
ebb.tide-INS 3-TR-PST-carry-REM.PST with.the.tide
Iwanyi loowa.
Sunday.Island current

'It [the raft] carried them on the ebb tide to the tidal current channel near Sunday Island.' (L100.005)

- (5.75) *Baalnga ingorrondiningirr.*

Baal-nga i-ngo-rr-ondi-ni-ng=irr.
bark-INS 3-PST-AUG-TR-cover-REM.PST-APPLIC=3A.DO

'They covered them with bark.' (Aklif 1994b:6)

3.4.2.3. Material used in process

The instrumental may denote material used in a process, as in (5.76) below. Note that the material something is made out of is usually marked by the source case *-joon* (§5.5.2) rather than the instrumental.

- (5.76) *Joolboong gaalwa ingoorroomoogarnanirr.*

*Joolboo-**ng*** *gaalwa*
kapok.mangrove-INS raft
*i-**ng-oorr-oo-moogarn-an=irr.***
3-PST-AUG-[TR]-make-CONT-REM.PST=3A.DO

'They used to make rafts out of kapok mangrove [*Camptostemon schultzii*].' (Aklif 1994b:6)

- (5.77) *Noorroo gooljooyoon, gooljoong noorroo ... gooljoong inamalanirr.*

*Nòorroo gooljoo-yoon, gooljoo-**ng** nòorroo ... gooljoo-**ng***

fire grass-SOURCE grass-INS fire grass-INS

i-na-mala-n=irr.

3-TR-light-REM.PST=3A.DO

‘A grass-fire, fire made with grass; he’d light them with grass.’

(BE: CB52.2)

The instrumental is used for doing things *in* a particular language:⁹³

- (5.78) *Ngayoonim ngamoonggoon milimilingan mawoon Barding ngaanka.*

Ngayoo-nim nga-moonggoon milimili-ngan ma-woo-n

1m-ERG know paper-ALL INF-poke-INF

*Bardi-**ng** ngaanka.*

Bardi-INS language

‘I know how to write in Bardi.’

3.4.2.4. Applicative marking

The instrumental is also used on the verb, in forming applicatives. In the canonical examples, the instrumental noun is promoted from adjunct to direct object and the verb takes a suffix *-ng*, homophonous with the instrumental. Some verb pairs are formed in this way. The verb root *-jiidi-* ‘go’, for example, takes the applicative suffix, and the resulting derived stem *-jiidi-*ng** means ‘to touch’ or ‘to feel around for’. Note that *-jiidi-* is intransitive, whereas *-jiidi-*ng** takes not only an ergative subject (*baawanim* in (5.79) below) but also transitive prefixal morphology.

- (5.79) *Baawanim injiiding jan ooldoobal.*

*Baawa-nim i-n-jiidi-**ng** jan ooldoobal.*

child-ERG 3-TR-‘go’-APPL 1M.POSS things.

‘The child is touching my things.’

(Aklif 1999:-jiiding-)

The applicative argument can remain in the instrumental; that is, there is instrumental marking on the verb *but also* on the noun that is theoretically promoted. Applicatives are discussed in §12.4.

3.4.2.5. Body parts and instrumental marking

The instrumental can be used with body parts to denote means by which an action is achieved. In some Australian languages body-part instruments are unmarked, and quasi-incorporated (i.e. the equivalent of either ‘I hand-hit him’ or ‘I, my hand, hit him.’) In Bardi, however, they are not treated differently from other nouns, and receive regular instrumental marking, as in (5.80).

- (5.80) *Ngamarlang nganangajimgal.*

*Ngamarla-**ng*** *nga-na-**ngajim-gal**.*
1M.POSS-hand-INS 1-TR-PST-hit-REC.PST

‘I hit him with my hand.’

There are a few examples in the Laves corpus where the location of hitting on a body is marked in the instrumental rather than (as would be expected) by the locative:

It is unclear whether these are errors for locative marking (which would be expected from Modern Bardi), slips of the tongue, or a real phenomenon representing a change in the language between the older language and current speakers. The fact that there is more than one example suggests that it is not an error, but the construction was unknown to current speakers.

3.4.2.6. *Frozen instrumentals*

There are a few other examples of forms which have frozen instrumental marking but which are opaque, or appear to be so, and are therefore probably not synchronically related to the case marking. The most common of these is *arranga* ‘without’, which is clearly etymologically the negator particle *arra* suffixed with the instrumental case. §15.3.4 provides more discussion of this word and its syntax, which is that of an adverb.⁹⁴

- (5.82) *Ngooraji ingarrinan arranga noorroo.*

Ngooraji i-n̄g-arr-i-n-an arranga nōorroo.
camp-?? 3-PST-AUG-sit-CONT-PST without fire.

‘They sat down without fire.’ (L58b.001)

4. Local cases

Bardi has a set of cases which mark static location, motion, and direction (and sometimes more than one of these). They are discussed in this section.

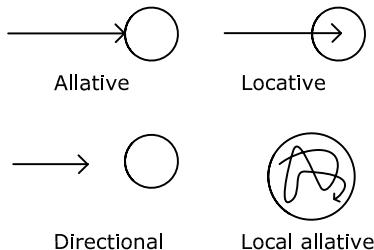
4.1. Preliminaries

4.1.1. *Differences in ‘goal’ marking*

Three local cases—the allative (§5.4.4), the locative (§5.4.2), and the directional (§5.4.7)—can be used in different circumstances to translate the notion of motion towards a goal. There are, however, clear differences between the cases. They are summarized here; the relevant subsections provide more information. The allative *-ngan* is used to mark motion directly towards a goal; in many examples in the corpus, the goal is actually reached, though other examples indicate that this is not an entailment of the case marker. The locative case *-goon*, in contrast, is used to mark motion that not only approaches a goal, but reaches it and goes inside it (literally or metaphorically). The directional *-madan* is used for motion that approaches a goal, but which misses the target, either by passing to one side, or by stopping short. Finally, the local allative *-goondarr* marks motion which occurs inside the goal. Figure 5.1

gives a schematic representation of the differences between the types of goal marking. In each case, the circle represents the goal. There are other local cases which have some overlap in meaning (such as the perlicative *-jarra* and lative *-gonyi*), but they are more straightforward.

Figure 5.1. Schematic representation of case use for marking goals of motion



4.1.2. *Multiple case marking*

Bardi has two compound cases: the local allative *-goondarr* and the form *-ngandarr*, though its wordhood status is unconfirmed. These cases appear to be built on the locative and allative respectively, but they also contain an extra element *-darr*. (There is a preverb *darr* which means ‘come’, but it cannot be synchronically related to the form which appears in these case markers.) Since *-darr* does not combine freely with other case markers and is not clearly etymologizable, I treat these two local cases synchronically as monomorphemic. One of the Jawi texts recorded in the Laves collection has a form with the allative and directional cases inflecting a single word; there is only a single example, however. The perlicative *-jarr* is attested both alone and in combination with the allative *-ngan*. Finally, there are a few examples of ablative case markers which appear to be affixed to a stem which has already been inflected with the locative, as in (5.83). All such examples come from the Laves texts apart from one from Nancy Isaac in 2001, though they were not judged ungrammatical by modern speakers.

- (5.83) *mor-on-ko*
 far-LOC-ABL
 ‘from far away’ (L56.34)

The rarity of examples makes it difficult to come to any clear conclusions regarding the status of these forms. I see three possibilities; however I lack the necessary data to choose between them (and there is little likelihood that further data on this topic will become available). The first option would be to treat these affixes as compound cases. In some Kardanic languages (Bowern 1998), local cases such as the ablative are affixed not directly to the root, but to a stem inflected for the dative or locative case. It is difficult to argue for such an analysis for Bardi, since the examples are so rare.

A second possibility is that the examples are real case doubling. Nordlinger (1997) discusses examples of multiple case marking in Australian languages and shows several syntactic contexts where doubling is possible. For example, Wangka-yuturu allows both ablative and accusative case marking in examples such as (5.84) below.

(5.84) Wangka-yuturu

PungkuwaRi-minya-nha kathi-nha kutu-Ru!
bag-ABL-ACC meat-ACC pull-IMPER

‘Pull the meat out of the bag!’ (Blake and Breen 1971)

The Bardi examples do not fit this pattern either, however. In (5.84), the ablative-marked phrase is also part of the direct object noun phrase, and thus receives accusative case marking in agreement with *kathi-nha* ‘meat-ACC’. The small number of Bardi examples clearly do not fit this pattern, as (5.85) shows:

(5.85) *Roowil ingirrinya nyalab booronko nyalab daabamb ingirrinyan Gaalgoondarr.*

Roowil i-ng-irr-inya nyalab boor-on-ko nyalab
walk 3-PST-AUG-catch that.way camp-LOC-ABL that.way
daab=amb i-ng-irr-inya-n Gaalgoondarr.
climb=THEN 3-PST-AUG-catch-REM.PST G.

‘They were walking from his camp and they went up at Gaalgoondarr.’ (TRS.005)

The double-marked word *booronko* in (5.85) is not part of any other phrase; moreover, the types of cases which stack in Bardi are different from

the ones in Wangka-yutyuru, where core cases such as the accusative are doubled with local cases. This does not happen in Bardi, where the only possibilities for case combination involve locative followed by ablative or allative. If this is case stacking, it must have a different syntactic distribution from the types of stacking described by Nordlinger (1997).

An alternative analysis would be to treat *-darr*, *-jarr* and *-madan* as directional clitics, rather than case affixes. There is little evidence against such a treatment, except for the fact that such clitics would be the only clitics in the language that required a host in a particular case form (and from a particular word class). In favor of such an analysis is the fact that *-jarr* apparently does not lenite on vowel-vowel stems. This makes it phonologically unlike other *j-* initial suffixes. However, such a solution is unavailable for the locative + allative or locative + ablative marked words, as illustrated in (5.85).

I have not been able to establish for certain whether the double-marked forms in the texts alternate with the expected forms; there is one example of *boor-on-ko* ‘place-LOC-ABL’, and one example of *booro* ‘place-ABL’, but no other examples have been recorded. If the examples do not regularly alternate, one could perhaps treat the doubled suffix as a lexically specified allomorph of the ablative *-go*. Otherwise, it would be best to tentatively conclude that Bardi may show case stacking in local cases. See further §8.5.3 for a further apparent case of local case stacking, involving possessive pronouns.

Local cases can be combined with phrasal locational adverbs such as *boogoon* ‘inside’ and *jiimbin* ‘underneath’. Further discussion of the syntax of these items is given in §8.5.1.7.

4.2. Locative: *-goon*

The locative undergoes lenition and triggers vowel harmony. It therefore has several realizations.

4.2.1. *Forms*

Allomorphs of the locative case are given in Table 5.5. The basic pattern is that the consonant-initial allomorph is used when the stem ends in a consonant; the consonant deletes if the stem ends in a vowel. If the stem ends in *oo*, the form of the locative is *-oon*; otherwise, it is *-on*. The allomorphy of the

locative is somewhat irregular, as the phonological pattern described in Table 5.5 is clouded by several classes of exceptions. There is also some speaker variation.

Table 5.5. Allomorphs of the locative case

Allomorphy	Environment	Examples	
<i>-goon</i>	consonant	<i>malarr-goon</i>	‘wife-LOC’
		<i>garrjandiny-goon</i>	‘tree coffin-LOC’
<i>-oon</i>	high back vowel	<i>goolj-oon</i>	‘grass-LOC (<i>gooljoo</i>)
		<i>goolb-oon</i>	‘rock-LOC’ (<i>goolboo</i>)
		<i>ngay-oon</i>	‘1 MIN-LOC’ (<i>ngayoo</i>)
<i>-on</i>	other vowel	<i>bardogon</i>	‘tree-LOC’ (<i>bardaga</i>)
		<i>oolon</i>	‘water-LOC’ (<i>oola</i>)

The first set of exceptions relates to the presence or absence of final vowels in stems. Some words can take either the vowel-final or consonant-final allomorphs. While we saw in §3.4.4 that prosodic and dialectal factors play an important role in whether a final vowel is deleted or not, some of those same factors apply to the stem on which case is affixed as well as to fully inflected words. That is, some speakers use vowel-final stems, while others tend to use consonant-final forms.⁹⁵

Aklif (1999) gives the allomorphy condition of the locative with a slightly different rule. She says that the *-oon* allomorph of the suffix occurs on high vowels. In my data, however, all examples of stems ending in *-i* take the allomorph of the locative in *-on*. Some examples are given in (5.86).

- (5.86) a. *gardin* ~ *gardini* ‘cave’ > *gardin-on* ‘cave-LOC’
 b. *arinyji* ~ *arinyj* ‘one’ > *arinyj-on* ‘one-LOC’
 c. *ginyinggi* ~ *ginyinggg* ‘3MIN’ > *ginyinggg-on* ‘3-MIN-LOC’
 d. *goowil* ‘baler shell (*Melo amphora*)’ > *goowilon* ‘baler shell-LOC’

A few exceptions in the opposite direction also exist; that is, there are stems which end in non-high vowels but which have *-oon* as their locative form, rather than *-on* as expected from Table 5.5 above.⁹⁶ Some vowel-final words take *-goon*, rather than the expected *-oon* or *-on*. The same stems are

exceptional in the ablative as well, in taking *-go* rather than *-o*; see §5.4.5. The exceptions thus far discovered are given in Table 5.6. Some forms are attested only with exceptional ablatives, but they are listed here as well so as to give a more complete set of the forms which do not show the expected lenition patterns.

Table 5.6. Non-leniting locatives and ablatives

Form	Gloss
<i>gaarragoon</i>	'in the sea'
<i>nòorroogoon</i>	'in the fire'
<i>nankarragoon</i>	'headland' (lit. 'at the forehead')
<i>garrgagoon</i>	'in a string bundle' (cf. <i>garrga</i>)
<i>gabagoon</i>	'in the cup' (also <i>gabgoon</i>)
<i>booroogoon</i>	'in the ground'
<i>dinggigoon</i>	'in the dinghy' (~ <i>dinggon</i> ~ <i>dinggiyoona</i>)
<i>Iwanyigoon</i>	'on Sunday Island'
<i>nimanyigoon</i>	'in [his] throat'
<i>noongoogoon</i>	'in/on [his] stomach'
<i>irrganyjigo</i>	'from the law ground'
<i>janabooroogo</i>	'where from'
<i>Mayalago</i>	'from Mayala'
<i>yandilybarago</i>	'from the boat'
<i>niwardago</i>	'from the small rock oyster'

These words must be listed as lexical exceptions; there is no pattern that can be discerned. Nor is there a historical reason for the exception. Some apparently exceptional non-leniting items are explicable etymologically. For example, the form *Iinalabooloo* 'islanders' (rather than expected **Iinolongolo*, with lenition) is explicable if we take the base form to be *iinalang-booloo*. Here, the presence of the nasal blocks the stop from deletion, though the nasal itself is subsequently deleted. No such arguments are possible here for all forms; there is no historically recoverable consonant which would block lenition in the forms in Table 5.6. Some of these examples might be the result of epenthesis, but not all can be. A few might be loans, but loans can also take the regular alternating forms of the locative (e.g. the locative of *bagidi* 'bucket' is either *bagidgoon* or *bagidon*). Another exceptional loan in the list is *gab* 'cup', which has both regular *gabgoon* and irregular *gabagoon* as

attested locatives.

There is a possible morphological explanation for the lack of lenition in some forms. If there is an additional morpheme of the form *-ng* in such words which appeared immediately before the locative marker, in many environments this suffix would be lost; it would not appear in the surface form of the word, but it would protect the stop of the root from lenition. There are numerous examples of such morphemes in this grammar, as well as active alternations where a nasal-stop cluster alternates with a plain unlenited stop (cf. *janabooroo* ~ *janambooroo* ‘where’). The trouble with proposing such a solution for the non-leniting locatives and ablatives in Table 5.6, however, is that there is no direct evidence for such an additional morpheme. Moreover, most words do not alternate; they receive either one allomorph of the locative or the other. This makes a morphological explanation unlikely.

A few nouns have augmented stems in the locative, where the locative is regularly added not to the root but to a lengthened form. The most common is the locative *n-alma* ‘3M-head’: *nalmanon* ~ *nalmonon*. The lengthened stem is also found with the ablative case. It is tempting to relate the lengthened stem to the examples of case stacking described in §5.4.1.2 above. It is difficult to argue that the lengthened stem is double-locative marking, however, as evidence from dialects without extensive vowel harmony suggests that the ‘extra’ stem formative is *-an*, which is not an allomorph of the locative case.

4.2.2. Functions of the locative

4.2.2.1. Location

The most common use of the locative case is to mark the static location of an item. The item can be ‘inside’ (as in (5.87)), at a location—as in (5.88)—or ‘on’ a place, as in (5.89).

- (5.87) *Inin baaloon.*

I-ni-n baal-oon.
3-be-CONT boughshed-LOC

‘It’s in the boughshed.’

(Aklif 1994b:8)

The location of the item can be specific, as in the examples above, or it can be more vague. The locative is also used to express location in the general vicinity of an object:

The locative can be phrasal, as in the previous examples, and introduce an adjunct to the clause. There are also examples (although they are rarer) where the locative introduces a complement to a noun, and thus functions adnominally:

- (5.92) *Ginyingga inanggoomboon bardaga arra oolool innyan ginyingga bardaga niyambalon bardaga.*

*Ginyingga-o i-n-ang-goomboonboo-n bardaga arra ool
3MIN-ABL 3-TR-PST-try.REDUP-CONT stick NEG pull.out
oo-l-inya-n ginyingga bardaga **ni-yambal-on** bardaga.
3-IRR-catch-CONT 33MIN stick 3-foot-LOC stick*

‘From there he tried unsuccessfully to move the stick, but he couldn’t budge the stick in his foot.’ (L71.021)

4.2.2.2. Motion

The locative is also used to denote movement towards a place. The allative case (see §5.4.4) is also used for motion towards a location, but the two cases contrast in meaning. The allative marks a goal of motion that is reached. The locative marks motion into or onto a well-defined object, such as motion into a confined space. Place names, for example, take the allative case rather than the locative, but bounded spaces such as ‘camps’ or ‘caves’ are marked with the locative.

- (5.93) *Lool inggardina gardinon boogoon.*

*Lool i-ng-gardi-na gardin-on boogoon.
enter 3-PST-enter-REM.PST cave-LOC inside.*

‘He entered the cave.’ (WIR.007)

- (5.94) *Gala garrgooy inargana marlarrjini darr inarna booroogooin jini Boolnginyi.*

*Gala garrgooy i-n-arga-na marlarr=jini darr
well completely 3-TR-pick.up wife=3M.POSS come
i-n-ar-na booroo-gooin jini Boolnginy-i.
3-TR-pierce-REM.PST place-LOC 3M.POSS B.-PLACE.LOC*

‘So he married his wife and brought her to his country Boolnginy.’ (L98.009)

- (5.95) *Rali booroogooin inamanirr.*

*Rali booroo-gooin i-na-ma-n=irr.
straightaway camp-LOC 3-TR-put-REM.PST=3A.DO*

‘He put them in [his] camp.’ (L54.004)

Some examples have the notions of both motion and location in the path:

- (5.96) *Ginyinggo angarramananirr irrolon.*

Ginyinggo a-n̄g-arr-a-ma-na-n=irr *irrol-on.*

then 1-PST-AUG-TR-put-CONT-REM.PST=3A.DO spear-LOC

‘After that, we used to put them on spears.’ (Aklif 1994d:8)

- (5.97) *Ginyinggon arroomoon ginyinggi ilngam boogoon bangalon, aarli min irrjimbinjardirr.*

Ginyinggon a-rr-oo-moor-n *ginyinggi ilngam* *boogoon*

then 1-AUG-TR-pour-CONT 3MIN fish.poison inside

bangal-on, *aarli=min i-rr-jimbi-n=jard=irr:*

reef.hole-LOC fish=THEN 3-AUG-die-CONT=1A.IO=3A.DO

‘Then we put the fish poison inside holes [in the reef], so that the fish die (for us).’

In the Laves texts there are examples where the locative is used for generalized or serialized motion. In (5.98), for example, the protagonist of the story is going from island to island and camp to camp, talking to people as he goes.⁹⁷ In this case, if the allative case had been used, it would mostly likely mean that the protagonist had gone to all the people as a single group.

- (5.98) *Ginyinggarra daab innyan boonyjon ambooriny.*

Ginyinggarra daab *i-n-nya-n* *boonyj-on* *ambooriny.*

then go.ashore 3-TR-catch-CONT all-LOC person

‘Then he went ashore to all the people.’

(L112.007)

4.2.2.3. Temporal uses of the locative

The most common use of the locative in a temporal function is in the connective *ginyinggon* ‘then’, which is morphologically the third person minimal pronoun in the locative case, though it is most probably a fossilized form.⁹⁸

- (5.99) *Ginyinggon laanybi ingirriminjin noorroo.*

Ginyinggon laanybi *i-n̄g-irr-i-minyji-n* *nòorroo.*

then thieving 3-PST-AUG-TR-grab-PST fire

‘Then he stole that fire.’

(L58b.004)

The word *mooyoon* ‘in the morning’ also historically contains the locative case; most probably so does *milon* ‘a long time ago’.⁹⁹ My corpus contains few productive uses of temporal locative marking. This is in part because time expressions are quite rare, apart from underived temporal adverbs. The only common example with a locative involves *iidanngoorroon* ‘at night’ (cf. *iidanngoorroo* ‘night’).

- (5.100) *Baawanimgid irranganjimanirr irramarranirr iidanngoorroon.*

*Baawa-nim=gid i-rr-a-ngajima-n=irr
child-ERG=THEN 3-AUG-TR kill.by.hitting-CONT=3A.DO
i-rr-a-marra-n=irr iidanngoorr-oon.
3-AUG-TR-cook-CONT=3A.DO night-LOC*

‘Kids kill them [flying foxes] and cook them at night.’

Finally, there is an example in Metcalfe (1975a) where the locative is used on *barnanggarr* ‘now’ to mean ‘right now.’

- (5.101) *Barnanggoorroon gorna inam.*

Barnanggoorr-oon gorna i-na-m.
now-LOC good 3-TR-make

'He's fixing it right now.' (mdict)

One example of the locative in a temporal meaning was recorded on the English loan ‘January.’ In most other expressions of time in which an action is done, however, null marking is used.

- (5.102) *Jarri gamaloon ninga may ginyinggamb arrooloongan January-goon arrarlinjamb.*

Jarri gamaloon n-inga may ginyingg=amb a-rr-ooloonga-n
this g. 3-name food 3MIN=THUS 1-AUG-collect-CONT
January-goon a-rr-a-rli-n=jamb.
J.-LOC 1-AUG-TR-eat-CONT=THUS

'This (green) fruit is called *gamaloon*; we pick them in January and eat them.'

4.2.3. Null marking of location

Some nouns do not take a locative suffix when they are used in locative adjuncts. Instead, the bare noun appears. These were mentioned in Chapter 4. A list of the words which behave this way is given in (5.103), and some examples are given in (5.104). The word *booroo* is variable; it occurs both with and without the locative marker.

There is evidence that the null marking of location in these items is phrasal rather than morphological. When one of the words in (5.103) is modified, the modifier is not marked for the locative either. If null marking were a purely lexical restriction on the surfacing of case on these particular nouns, we would expect locative marking on the word *arinyji* in examples such as (5.105).

- (5.105) *Mangir ingarralanana arinyji boora.*

Mangir i-n̄g-arr-ala-na-na arinyji boora.
always 3-PST-AUG-live-CONT-PST one place

‘They always stayed in the one country.’ (L152.002)

The location case constraint applies only to the locative case; other local cases such as the ablative and allative are used with these nouns:

- (5.106) *Goolboo garrinko ngaynim nganangajingajimigal.*

Goolboo garrin-ko ngay-nim nga-na-ngaingajingajimi-gal.
rock hill-ABL 1-MIN-ERG 1-TR-REDUP-slug?-REC.PST

‘I threw a bunch of rocks from the hill.’ (GGG.019)

Another group of nouns which take null locative marking are place names which contain a historical locative. Place names which have been recorded with a null locative include *Balalagoon*, *Ardinoogoon*, *Galinoogoon* and *Ngarrigoon*.¹⁰⁰

- (5.107) *Ginyinggon “gala arr ngandan barda,” ingarralalan Boolgoon nyoonoo Iwanyi garrin.*

Ginyinggon “gala arr nga-n-d-an barda,”
then well go 1-TR-do.say-CONT away
i-n̄g-arr-alal-an Boolgoon nyoonoo Iwanyi garrin.
3-PST-AUG-see-REM.PST B there I hill

‘Then ‘I’m going away,’ [he said] and they saw him at Boolgoon, there on the hill on Sunday Island.’ (GAL3.015)

Place names which do not contain historical locative affixation tend to take locative marking; for example, *Iwany(i)* ‘Sunday Island’ is recorded in the locative *Iwanyoon*.

4.3. Local allative: *-goondarr*

The suffix is apparently a compound of the locative case (§5.4.2) and an element *-darr*, as discussed above in §5.4.1.2. It shows the same allomorphy

conditions as the locative. It marks a type of distributed location. I have called this case a ‘local allative’ because it appears to be used in particular for motion paths which are restricted in some way. That is, it is used when the motion is in a well delimited space, such as a hole in a reef or a stand of mangroves. This interpretation certainly fits examples such as (5.108) and (5.109). It is also used for multiple actors moving in restricted motion paths in a defined area, such as a school of fish swimming around holes in a reef.

- (5.108) *Barnanggarragij irralgalmidi bigibigi ngoorngoolondarr.*

Barnanggarra=gij i-rr-al-gal=nidi bigibigi
now=VERY 3-AUG-be-REC.PST=GROUP pigs
ngoorrngool-ondarr.
mangrove-L.ALL

‘Just now all the pigs were in the mangroves.’ (Metcalfe 1975b:4:(24))

- (5.109) *Booroob iyardinjirr galamb arr irrin nyalab baaloondarr arr irrin mayingan irrmimin mango irrarlin jardirr.*

Booroo=b i-yardi-n=jirr *gala=mb arr*
time=REL 3-go.down-CONT=3A.IO well=THUS come
i-rr-i-n *nyalab baal-oondarr arr*
3-AUG-do/say-CONT that.way shelter-L.ALL come
i-rr-i-n *mayi-ngan i-rr-mimi-n*
3-AUG-do/say-CONT food-ALL 3-AUG-REDUP-look.for-CONT
manggo i-rr-arli-n *jard=irr.*
mango 3-AUG-eat-CONT 1A.POSS=3A

‘When the sun goes down, they [flying foxes] fly around the houses looking for food, they eat our mangoes.’

Nekes and Worms (1953:74) mention a suffix *-dar* in Bardi and *-dari* in Nyikina and Yawuru meaning ‘along’. Their example in Bardi is *meridj-on-dar* ‘tight-rope-LOC-PER’ (*mirrijondarr* in the community orthography).

4.4. Allative: *-ngan*

4.4.1. Form

The allative is *-ngan*. It is invariant in Modern Bardi, though in Jawi it undergoes lenition to *-an* when the stem ends in a vowel.¹⁰¹ (5.110) shows an example of the Jawi form of the locative. In the Laves texts, the form is sometimes *-ŋanə*, with an additional vowel, however none of the recordings from Metcalfe onward show anything other than *-ngan*.

- (5.110) *Yarr ingirrana garrinan.*

Yarr i-n̩g-irr-a-na garrin-an.
drag 3-PST-AUG-carry-PST hill-ALL

‘He dragged it up high.’ (L57.002)

4.4.2. Usage

The allative primarily marks goals of different types; it can mark the goal of motion, or of an action; it thus also has the functions of a purposive case.

Allatives mark non-core arguments and are not cross-referenced on the verb. Note, for example, the alternation in marking in (5.111). In (5.111a), *nyami* ‘mother’s father’ is cross-referenced on the verb by the clitic *=jin*, while in (5.111b), there is no oblique agreement marking and the interpretation is that the food should be taken to grandfather’s house, rather than to grandfather himself.

- (5.111) a. *Aarlimayi arrayajin nyami!*

Aarlimayi a-rr-a-ya=jin nyami!
food 2-AUG-take-3M.IO mother’s.father

‘Take food to grandfather!’

- b. *Aarlimayi arraya nyamingan!*

Aarlimayi a-rr-a-ya nyami-ŋan!
food 2-AUG-take mother’s.father-ALL

‘Take food to grandfather’s place!’ (Aklif 1994b:9)

4.4.2.1. Goal of motion

The allative can mark a goal of motion. The allative-marked phrase is usually a goal that is actually reached; movement of the figure alone is marked instead with the directional case, discussed below. In (5.112), for example, the allative-marked goals are actually reached.

- (5.112) a. *Janabooroongan ingooloomoogal baawa?*
Janabooroo-nGAN i-nGOO-loomoo-gal baawa?
 where-ALL 3M-PST-crawl-REC.PST child
 ‘Where did the child crawl to?’
- b. *Booroongan jana.*
Booroo-nGAN jana.
 place-ALL 1MIN.IO
 ‘I’m going home.’

Example (5.113), however, shows that the goal does not have to be reached.

- (5.113) *Oonkooloonkool barda ganygangan boolngoorroo noolgoo inang-gana.*
Oonkooloonkool barda ganya-nGAN boolngoorroo noolgoo
 rain.storm off mainland-ALL halfway tide
i-n-ang-ga-na.
 3-TR-PST-carry-REM.PST
 ‘There was a rainstorm while they were halfway to the mainland,
 drifting on the tide.’ (L100.002)

4.4.2.2. Upward motion

The allative is also used specifically for upward motion—that is, for climbing or traveling up something. In such cases, the locative is ungrammatical, as shown in (5.114).

- (5.114) a. *Lagal ingganyigal bardagangan.*
Lagal i-ng-ganyi-gal bardaga-nGAN.
 climb 3-PST-climb-REC.PST tree-ALL
 ‘He climbed up the tree.’

- b. * *Lagal i-ng-ganyi-gal bardag-on.*
 climb 3-PST-climb-REC.PST tree-LOC
 ‘He climbed up the tree.’

(5.115) *Garrinngan daab innyagal.*

*Garrin-**ngan** daab i-n-nya-gal.*
 hill-ALL go.up.to 3-TR-catch-REC.PST

‘He went up the hill.’ (Aklif 1994b:8)

4.4.2.3. Purpose

The allative case is also used to mark the purpose or goal of an action. This purpose can be a noun phrase, such as an object one is aiming to get, or it can be a whole clause. (5.116) provides examples with noun phrases as purposes (for example, the purpose of a journey), while (5.117) shows a whole clause. (5.116b) shows an object of desire, which is also commonly expressed with the allative.

(5.116) a. *Bard arr arrin aarlingan.*

*Bard arr a-rr-i-n aarli-**ngan**.*
 away go 1-AUG-do/say-CONT fish-ALL
 ‘We are going fishing.’ (Aklif 1994b:10)

b. *Malarrngan liyan inamanirr.*

*Malarr-**ngan** liyan i-na-ma-n=irr.*
 wife-ALL feeling 3-TR-put-REM/PST=3A.DO
 ‘He [the devil] wanted them for wives.’ (Aklif 1994b:10)

c. *Baarnka ingarramanirr inkoorrngan.*

Baarnka i-ng-arr-a-ma-n=irr
 outside 3-PST-AUG-[TR]-put-REM.PST=3A.DO
*inkoorr-**ngan**.*
 cold-ALL

‘They put them outside for cooling.’ (Aklif 1994b:10)

- (5.117) a. *Bili ingirrjirdin irrjarinjoonoo aambanim inanggana norla irrgoord aarlingan mayin.*

Biili i-n-g-irr-jiidi-n irrjar-injoonoo aamba-nim
 cheeky 3-PST-AUG-go-CONT 3-INJOON man-ERG
*i-n-ang-ga-na norla irrgoord aarli-**ngan***
 3TR-PST-carry-REM.PST club somehow fish-PURP
ma-yi-n.
ger-hit-CONT.

‘The three of them went angrily and the man carried a club for hitting fish or something.’ (L70.004)

- b. *Biligi jarda inanggalana ambooriny nyoonoo goolboongan ma-minyjin.*

Bili=gij=arda i-n-ang-gala-na ambooriny
 again-VERY=STILL 1-TR-PST-visit-REM.PST person
*nyoonoo goolboo-**ngan** ma-minyji-n.*
 there rock-ALL GER-grab-CONT

‘He went to the person again to grab some rocks.’ (MDR.016)

It is possible to have more than one allative-marked adjunct in a clause. For example, it is possible to use both a motion goal and another goal:

- (5.118) *Yoorr inaman gaarrangan aarlingan ingardinana bangala inam-boonana ganyinim.*

*Yoorr i-na-ma-n gaarra-**ngan** aarli-**ngan***
 go.down 3-TR-put-REM.PST sea-ALL fish-ALL
i-ng-gardi-na-na bangala
 3-PST-enter-CONT-REM.PST reef.hole
i-n-am-boo-na-na ganyi-nim.
 3-TR-PST-poke-CONT-REM.PST barb-ERG

‘He went to the sea for fish; he put his hand in a hole in the reef and a fish barb poked him.’ (L77.001)

4.4.2.4. Change of state

The allative is also used for the goal of change of state, for example with the verb *-joo-* ‘do/say’ to mark an object into which something changes.

4.4.2.5. Infinitival complements

Embedded infinitival complements are marked with the allative. Objects of wanting and knowing are marked with the allative; examples are given in (5.120). Verbs in these clauses are non-finite, with gerundial marking (see §11.3). Like all case markers, the allative appears on the first word of the phrase. In bipartite (complex predicate) verb constructions, the preverb is the host for the case marker if the complex predicate is first in the phrase; this is illustrated in (5.120b).

- (5.120) a. *Ginyinggonkid liyan ingarramana gala marlinngan.*
Ginyinggon=*kid liyan i-ngr-arr-a-ma-na*
then=DISC feeling 3-PST-AUG-[TR]-put-REM.PST
*gala [m-arli-n-**ngan**].*
RIGHT INFIN-eat-CONT-ALL.
‘Then they wanted to eat it.’ (Aklif 1994b:11)

b. *Arra nimoonggoon daabangan barda manyan.*
*Arra ni-moonggoon [daaba-**ngan***
NEG 3M.POSS-knowledge climb-ALL-REL-INTERROG
barda ma-nya-n].
INFIN-climb-CONT
‘He didn’t know if he could climb ashore.’ (Aklif 1994b:10)

c. *Analangjarrngay garndingan maman.*
*A-n-alang=jarrngay garndi-**ngan** ma-ma-n*
2-TR-help=1M.DO on.top-ALL GER-put-CONT
‘Help me to put it up.’ (AKL.syn/63)

(5.121) is an example of a purpose clause with an infinitival complement; in this case, the allative is on a time word and the verb is not first in the clause.

- (5.121) *Jiiba angarramananjardirr bardag mooyoonngan malan.*

<i>Jiiba a-n̄g-arr-a-ma-na-n=jard=irr</i>	<i>bardag</i>
here 1-PST-AUG-TRput-CONT-REM.PST=1A.IO=3A.DO	stick
<i>mooyoon-n̄gan m-ala-n.</i>	
morning-ALL GER-see-CONT	

'We used to put pegs (sticks) there so that we would find them next morning.' (NWY.004)

Further information on subordination and embedded clauses is given in §16.5. Embedded clauses can also be finite, in which case they can also be introduced by allative case marking. This is further discussed in the syntax of subordination.

4.4.2.6. *Temporal uses*

I have not found any temporal uses of the allative; examples where it might occur all use different strategies. For example, the way to say 'for tomorrow' or 'for another day' (e.g., 'he put the food aside for another day') is with *ngoorrijarri*, which is clearly related to *ngoorrij* 'tomorrow'. Extent of time (e.g. 'for two days') phrases are marked without case; see §14.4.

4.4.2.7. *Fossilized forms*

The adverb *ngoodringan* 'alone' contains the allative case (cf. *ngoodi* 'different'), but that is the only fossilized example of this case in the corpus, to my knowledge.

4.5. Ablative: -(g)o

4.5.1. *Forms*

Like the other *g*-initial case markers, the ablative has two allomorphs. The ablative is *-go* ~ *-o*. Exceptions were noted under discussion of the locative

and the same items which are exceptional for locative marking are also exceptional in the ablative (cf. §5.6). The ablative also conditions vowel harmony. Stems containing *a* harmonize to the *o* of the suffix; this is, however, variable, not only in the words which undergo harmony but also in the number of vowels which harmonize for the words that do show the process. The word *bardaga* ‘tree, stick’, for example, has been recorded with ablative case forms of *bardago*, *bardogo*, and *bordogo*. There is more harmony in fast speech, and some speakers preferred forms with more harmony. This has not been standardized in transcriptions.

4.5.2. Usage

4.5.2.1. Location and point of origin

The ablative marks the origin point of motion. This point can be a location, such as a tree (in (5.122a)), a place name, as in (5.122c), or a ‘surface’, as in (5.122b). The ablative translates English ‘from’ and ‘out of’ in most cases.

- (5.122) a. *Baawa inyjalgij bardago.*
Baawa i-ny-jalg-ij bardag-o.
 child 3-PST-fell-MID.PFV tree-ABL
 ‘The kid fell from the tree.’ (Aklif 1994b:11)
- b. *Ingamana jiiwa nimorlo.*
I-na-ma-na jiiwa ni-morl-o.
 3-TR-put-REM.PST boomerang 3-hand-ABL
 ‘He dropped the boomerang from his hand.’ (L91.031)
- c. *Miroorroonoo irr nyalala ingarralana Inyjonogo nirirr inang-ganana.*
Miroorroonoo irr nyalala i-ng-arr-a-la-na
 shadow.men 3AUG that.way 3-PST-AUG-TR-see-REM.PST
Inyjono-go nirirr i-n-ang-ga-na-na.
 I.-ABL along.the.shore 3-TR-PST-carry-CONT-REM.PST
 ‘The shadow men saw it moving along the coast from Inyjaanoo.’ (L117.003)

4.5.2.2. *Denizens*

While most examples of phrases denoting where someone has come from are marked with the ‘source’ or denizen case *-joon*, there are a few examples where the ablative is used instead.

- (5.123) *Ngajana gandoorrman arinyjo booroo darr angarrarna.*
Ngajana gandoorrman arinyj-o booroo darr
 1M.POSS countryman one-ABL place come
a-ng-arr-ar-na.
 1-PST-AUG-pierce-REM.PST

Examples are also found in the Laves materials, which makes it unlikely that the use of the ablative here is due to influence from English.

4.5.2.3. Extent of space

The ablative can be used in conjunction with an allative-marked phrase to indicate how much space something takes up:

- (5.124) *Nilar miilygo niimidingan.*

Nilar miily-go niimidi-ngan.
lower.leg ankle-ABL knee-ALL

‘The lower leg is from the ankle to the knee.’

4.5.2.4. Comparatives

The ablative is also found in comparative constructions. Examples are difficult to elicit and they do not appear in spontaneous speech. A few good examples appear in Aklif’s materials.

- (5.125) *Jalnggoon boordijamba niwardago.*

Jalnggoon boordij=amba niwarda-go.
J big-THUS n.-ABL

‘*Jalnggoon* oysters are bigger than *niwarda* oysters.’ (Aklif 1994b:11)

The adverb ‘alone’, *ngoordin*, can receive ablative marking when it is used in constructions which denote that people are ‘different’ from one another. Examples are given in (5.126).

- (5.126) a. *Aamba nyoonoo aala arajin ginyingg gala ngoordinko.*

Aamba nyoonoo aala arajin ginyingg gala
man that man’s.child other=3M.POSS 3MIN well
ngoordin-ko.
different-ABL

‘This man is different from his son.’

- b. *Jarrgarda morr ngoordinko.*

Jarr=garda morr ngoordin-ko.
this=GARDA road different-ABL

‘We are different people.’ (NI: BOW-FN.5/85 (tape 15, 2:51))

4.5.2.5. Construction material

A further rare use of the ablative is also found in marking the materials used in construction of an object. This is another meaning that is usually covered

by the ‘source’ case *-joon*. It is not known whether there is any difference in semantics between the ablative and the source case in such examples.

- (5.127) *Inamoogarnkid oorany ngiyilo.*

I-na-mooga-rn=kid oorany ngiyil-o
3-TR-make-REM.PST=THEN woman clay-ABL

‘Then he made a woman from clay.’ (MIL2.001)

4.5.2.6. *Temporal uses*

Unlike the other locational cases discussed so far in §5.4, the ablative is quite well attested in examples which have a temporal reference rather than a locational one. Like the locative, the ablative can be used with the third person minimal pronoun *ginyinggi* to connect clauses; the form is *ginyinggo* ‘then, from that time’. There are other examples of ablative marking of time, however; some examples are given in (5.128).

- (5.128) a. *Jalbanygo ngoonjoon ngangimigaljinin.*
Jalbany-go ngoonjoon
early-ABL since
nga-ngi-mi-gal=jin=in.
1-PST-look.for-REC.PST=3M.IO=3M.POSS
'I've been looking for him since very early [this morning].'

b. *Ngamingaljirri mooyoонко ngoonjoon.*
Nga-mi-n-kal=jirri mooyoон-ko ngoonjoon.
1-look.for-CONT-REC.PST=2M.IO morning-ABL since
'I have been looking for you since this morning.'

c. *Milonko ngoonjoon arr injoonana ambooriny jiiba morr.*
Milon-ko ngoonjoon arr i-n-joo-na-na
old.days-ABL since come 3-TR-do/say-CONT-REM.PST
ambooriny jiiba morr.
people this road
'From olden times they have been using this road.'

As can be seen from these examples, many of the temporal uses of the ablative case appear in conjunction with the temporal adverb *ngoonjoon* ‘since’.

4.5.2.7. Fossilized uses

Just as the other local cases showed some examples of fossilized uses in adverbs, so too does the ablative. It is found in the formation of the adverb *malyginko* ‘secretly’, for example, from the adjective *malygin* ‘secret’.

- (5.129) *Layoordoonimgid injalalan malyginko nyalab, aarlimarr injoolanganan.*

Layoordoo-nim=gid i-n-jalala-na-n
 L.-ERG=THEN 3-TR-REDUP-watch-CONT-REM.PST
malygin-ko nyalab, aarli-marr i-n-joolanga-na-n.
 secret-ABL there fish-SEMB 3-TR-collect-CONT-REM.PST

‘The *layoordoo* spirit was watching her secretly there, while she was picking up fish.’ (WIR.004)

4.6. Lative: *-gony(i)*

The lative case means ‘to or at the side of.’ It has two forms: *-gony* ~ *-ony*; it thus varies like the ablative case. Moreover, like the ablative, it conditions vowel harmony. This can be seen in (5.130). In addition (and unlike the ablative), it shows variation in the presence or absence of the final vowel.

- (5.130) *Jooroorr anja bangal balab aarligid dorrol oonggoorrbool jorrony.*

Jooroorr a-n-ja *bangal* *balab* *aarli=gid*
 push 2M.IMP-do/say-FUT reef.crevice this.way fish=THEN
dorrol oo-ngg-oorr-boot *jorr-ony.*
 come.out 3.FUT-FUT-AUG-come this-LAT.

‘Push [the stick] towards me into the crevice of the reef, and then the fish will come out this side.’ (Aklif 1993b)

- (5.131) *Bilooloorr gorndony bardoon arramoornjin, boogoonkony joony arrinyan arramarraan . . .*

Bilooloorr gornd-ony bardoon a-rr-a-moor-n=jin,
 sandalwood above-LAT skin 1-AUG-throw.away-3M.IO,
boogoon-kony joony a-rr-inya-n
 inside-LAT scoop.out 1-AUG-TR-get-CONT

a-rr-a-marra-n ...
 1-AUG-TR-cook-CONT.

'We throw the outside of the sandalwood bark away, and we scoop out the inside bit and boil it ...' (Aklif 1993b)

- (5.132) *Girrgirr ana biijib goorlil! Oronggony anaya joo barda oronggony-gid ngayoo anamajan.*

Girrgirr a-n-a *biijib goorlil! Orong-gony*
 cut.up 2M.IMP-give-FUT this turtle other.side-LAT
a-n-a-ya *joo barda orong-gony=gid ngayoo*
 2M.IMP-take-FUT 2.MIN away, other.side=THEN 1MIN
a-na-ma=jan.
 2M.IMP-put-FUT=1M.IO

'You cut the turtle! You take one side with you, and you leave the other side for me!' (Aklif 1993b)

Example (5.132) shows that the lative is a case, rather than a directional clitic. If it had been a clitic, the sentential clitic *=gid* 'then' would have been placed before *-gony*.

The lative case marker can be used metaphorically. The 'bad side' described by DW in (5.133), for example, refers to the current time, in contrast to earlier times before the use of alcohol at One Arm Point became more widespread.

- (5.133) *Gardamb arral loogalgony barnanggarr.*

Garda=mb a-rr-al *loogal-gony barnanggarr.*
 still=THUS 1-AUG-live bad-LAT now

'We are on the bad side now.' (LSI1.019)

The adverb *bornkony* 'on the side, on the other side' has the lative case fossilized; I assume that it is fossilized here since *baarnka* on its own means 'outside', but *bornkony* can be used for items where 'outside' or 'inside' is not relevant.

- (5.134) *Bornkony anama jan aarli laalboon!*

Bornkony a-na-ma jan *aarli laalboo-n!*
 over 2-TR-put 1M.POSS fish earth.oven-LOC

'Turn over my fish in the earth oven!' (Dictionary)

4.7. Directional: *-madan* ~ *-mardan(y)*

The suffix *-madan* appears in Bardi sources in a considerable array of spellings. My own notes vary in retroflection (*-madan* ~ *-mardan*); Aklif's and my notes also have a spelling *-mardany* in several places. This is the only suffix which shows apparent variation between *n* and *ny*. The variation in the recording of retroflection is unsurprising since it is quite difficult to hear Bardi retroflection, especially away from stressed positions in the word. There is an unproductive derivational morpheme *-dany* (e.g. *aalgadany* 'in the sunlight'; cf. *aalga* 'sun') and so it may have been that there was some confusion on previous researchers' part between that and the directional marker described here.

The directional contrasts with the lative *-gony* in that the lative means 'past' or 'to the side of' something, while *-madan* is described as 'straight there' to 'towards' an object. Jessie Sampi gave the minimal pair in (5.135), where (5.135a) is used if the person throwing the ball is not trying to hit the target, but is trying to throw it sideways, past the person. The sentence in (5.135b) would be used if the person is trying to throw the ball directly at the person.

- (5.135) a. *Ngaygonyi anangoola balab bal!*
Ngay-gonyi a-na-ngool-a balab bal!
 1M-LAT 2-TR-throw-FUT this.way ball
 'Throw the ball at me!'
- b. *Ngaymadan anangoola bal!*
Ngay-madan a-na-ngool-a bal!
 1M-DIR 2-TR-throw-FUT ball
 'Throw the ball at me!'

The directional suffix can be used to delimit an extent; in (5.136), for example, the speaker is describing pains in her arm.

- (5.136) *Ngamarl arrarr irlin langono ngoonjoon jiiba lardamadany.*
Nga-marl arrarr i-rli-n langon-o ngoonjoon jiiba
 1M-hand ache 3-eat-CONT shoulder-ABL since this
larda-madany.
 down-DIR
 'My arm's hurting from my shoulder down.' (NI CB/20 26:26)

- (5.137) *Niyalamardan joo jiya aarli.*

Niyala-mardan joo jiya aarli.
tail-DIR 2MIN 2M.POSS fish

'From the tail down is your [piece of] fish.'

The suffix seems to be more productive in the Laves texts, where there are forms such as *aramardan*:

- (5.138) *Biili joornk innyan aramardan.*

Biili joornk i-n-nya-na ara-mardan.
again run 3-TR-catch-REM.PST another-LAT

'Next he tried to run in another direction.' (L159.040)

In the Jawi materials recorded by Laves, there is an example of *-mardan* being affixed to an item which already has case marking. The sentence is given in (5.139), where *Mayalan* is the Jawi form of the allative-marked place name *Mayala* (this would be *Mayala-ngan* in Bardi). This is the only example of multiple marking of this type, however.

- (5.139) *Ginyinggarra nyarralnana booroogoona jina goona Mayalan-mardan.*

Ginyinggarra nyarralnana booroo-goon jina
then 3A.PST-go-CONT-REM.PST camp-LOC 3M.POSS
goona Mayala-n-mardan.
back M.-ALL-DIR

'Then they went to their camps in Mayala.' (L130.013)

The form *mardan* appears occasionally as a separate word in the texts recorded from DW by Gedda Aklif; this implies that the form might have recently grammaticalized.

- (5.140) *Goorr ginyingg mardan joogarra.*

Goorr ginyingg mardan=joogarra.
2AUG 3MIN DIR=2A.IO

'You go that way!' (NAF.029)

Although written as a separate word, *mardan* here is behaving as though it is attached to *ginyinggi*, since the two are forming a single constituent for the purposes of the placement of the oblique pronoun *joogarra*. If *mardan* was a fully independent word here, we would expect the order *ginyingg=joogarra mardan*.

The Nyulnyul cognate is *-mardikan* (McGregor in press:§5.11) and McGregor describes it as a type of allative. McGregor describes the meaning of the suffix in terms of ‘a place towards which motion is oriented; there is no implication that this point is a target to be reached.’ This description also fits the Bardi suffix, since the Bardi forms can also imply that the person went past the target, or otherwise fails to reach it.

McGregor says that for Nyulnyul this item can only have a spatial meaning, and is only attested on spatial adverbs. It is certainly most common in Bardi on forms such as *aanyjoomadan* ‘back’, *balamadan* ‘in this direction’, and *goonamadan* ‘backwards.’ In Bardi, however, there are also examples where the suffix appears on nouns:

- (5.141) *Anjoogoola boolngoorroo, niyalamardan joo jiya aarli, nalmamar-dan ngayoo jana aarli!*

A-n-joogool-a boolngoorroo, niyala-mardan joo jiya
 2-TR-break middle tail-DIR 2MIN 2M.POSS
aarli, nalma-mardan ngayoo jana aarli!
 fish head-DIR 1MIN 1M.POSS fish

‘Break it in the middle: the bit towards the tail is yours, and the meat towards the head is mine.’ (Dictionary)

Also unlike Nyulnyul, the Bardi directional suffix can be used with time words in temporal meanings. This is illustrated in (5.142) below.

- (5.142) a. *Aralga raanana ingalamankanjina jooloolinmardan.*

Aralga raanana i-nga-lamanka-n=jina
 one.day straightaway 3-PST-hear-CONT=3M.IO
jooloolin-mardan.
 afternoon-DIR

‘The next day, towards the afternoon, he heard him.’ (L155.002)

- b. *Inyjarralanagid yanbooran jooloolinmadan.*
I-ny-jarrala-na=gid yanbooran jooloolin-madan.
 3-PST-fun-REM.PST=THEN too.late afternoon-DIR
 ‘Then ran until very late in the afternoon.’ (BMF.006)

4.8. Perlative: *-jarr(a)*

The perlative is a rare form, and I am not certain that it should be analyzed as a case marker. It occurs in examples such as the following:

- (5.143) *Warrga injoon morrjarr.*

Warrga i-n-joo-n morr-jarr.
 walk 3-TR-do/say-CONT path-PERL

‘He went along his path.’ (L72.019)

It is tempting to analyze such examples as instances of a cliticized demonstrative *jarr(i)* ‘this’, however, speakers say that this is not correct. Examples such as (5.144) also argue against it, since the demonstrative ‘this’ would make little sense in this example, in the presence of the locative adverb *goona* ‘back’.

- (5.144) *Goonajarr lool ingarrgardini, gaara gala ngoorb injoona.*

Goona-jarr lool i-ng-arr-gardi-ni, gaara gala ngoorb
 back-PERL enter 3-PST-AUG-enter-REM.PST sand well soft
i-n-joo-na.
 3-TR-do/say-REM.PST

‘They went in even more, since the sand was really soft.’ (LIZ2.010)

In the absence of further examples, there is little more that can be said about this case.

4.9. Toponym locative: *-i*

In Bardi place names have some peculiar properties which other nouns do not share. They take null locative marking, as described above. They also take a

locational case which is only found on place names. The morpheme *-i* seems to be used to indicate action at a particular location.

- (5.145) *Lalamigid ingarralanirr daag ingirrin.*

Lalam-i=gid i-ng-arr-ala-n=irr daag
 L.-LOC=THEN 3-PST-AUG-visit-CONT=3A.DO sleep
i-ng-irr-i-n.
 3-PST-AUG-do/say-CONT.

‘They made their camp at Lalam.’ (DNG.002)

It is sporadically but solidly attested in both texts and elicited examples. It is also found in the Laves texts, though its identification in that corpus is more difficult, as Laves writes more final vowels than other recorders of the language.

- (5.146) *Gala garrgooy inargana marlarrjini darr inarna booroogoon jini Boolnginyi.*

Gala garrgooy i-n-arga-na marlarr=jini darr
 well completely 3-TR-pick.up wife=3M.POSS come
i-n-ar-na booroo-goon jini Boolnginy-i.
 3-TR-pierce-REM.PST place-LOC 3M.POSS B.-PLACE.LOC

‘So he married his wife and brought her to his country Boolnginy.’ (L98.009)

Some place names appear with the regular locative case *-goon*, while others appear only with the toponym locative *-i*. A third set of place names take null inflection, as in (5.147a). The name *Iwany* can also take the toponym locative, as in (5.147b).

- (5.147) a. *Bard arr injoonin jin aal agal malarr Iwanyoon.*

Bard arr i-n-joo-n=in jin aal agal
 off come 3-TR-do/say-CONT=3M.IO 3M.POSS son and
malarr Iwany-oon.
 wife Sunday.Island-LOC

‘He came to his son and wife on Sunday Island.’ (JNB.012)

- b. *Nganjal irrgoordoo lalin inanggalanan Iwanyi.*
Nganjal irrgoordoo lalin
INTERROG how year
i-na-ng-gala-n-an *Iwanyi-i.*
3-TR-PST-wander-CONT-REM.PST Sunday.Island-TOP.LOC
‘We don’t know how many years he stayed on Sunday Island.’
(GAL1.038)

It is not known what difference in meaning (if any) exists between the toponym locative and the regular locative in such forms.

5. Other cases

In this section I include the remaining Bardi cases. These include the comitative, source case, and the ‘reason’ marker *-ganiny*.

5.1. Comitative *-nyarr*

5.1.1. Form

The comitative case is *-nyarr*. It is invariant in the modern language, although Laves occasionally writes it with a final schwa. From the Laves and Metcalfe sources the form might be better described as *-inyarr*, and that is etymologically correct. However, modern Bardi speakers use both *-nyarr* and *-inyarr*. Laves has forms such as *jiiwa-nyarra* (L110.007) ‘boomerang-COM’, where the case marker has a final vowel. This allomorph is not recorded by other researchers, and appears alongside *nyarr* in Laves. It is quite possible that the final vowel is simply epenthetic, an auditory effect resulting from a fully articulated trill.

5.1.2. Usage

The comitative has a broad array of uses, both phrasal and adnominal. The main function of this case is to mark accompaniment; however, there are also many other minor uses, including certain types of possession. This case is also used derivationally.

5.1.2.1. Accompaniment

The most common marking of comitative case denotes accompaniment, where one participant does something along with another participant. This is illustrated below. There is no requirement that both participants be equal in animacy. This is a difference between Bardi and its close neighbor Nyulnyul, where the cognate morpheme *-nyirr* is only used when the item is at an equal or lower rank on the animacy hierarchy (McGregor in press:§5.4).¹⁰²

- (5.148) *Ambooriny noolgoo ingarranana lalin goorlilnyarr—anggooboor—loolool ininj.*

Ambooriny noolgoo i-n-g-arr-a-na-na
 people drift.with.tide 3-PST-AUG-TR-give-CONT-REM.PST
lalin goorlil-nyarr — anggooboor — loolool
 married.turtle.season turtle-COM somewhere Loolooloo
i-ni-n-j.
 3-be-CONT-SIMUL.

‘Whenever people drifted with a turtle at married turtle season—what’s the name of the place—where Loolooloo is.’ (Aklif 1994d:5)

- (5.149) *Aarlingan arr indan malarrnyarr.*

Aarli-ngan arr i-n-d-an malarr-nyarr.
 fish-ALL go 3-TR-do/say-CONT wife-COM

‘He goes fishing with his wife.’ (Aklif 1994b:7)

While (5.149) shows a typical example of an accompaniment phrase, where the verb takes singular agreement for the subject, some speakers also allow notional augmented agreement in similar phrases. Jessie Sampi gave the example in (5.150), for example, where even though the *-nyarr*-marked phrase is an adjunct.

- (5.150) *Boogoontoonnim oorany aambanyarr ingarranboogal joorroo.*

Boogoontoon-nim oorany aamba-nyarr
 pregnant-ERG woman husband-COM
i-n-g-arr-anboo-gal joorroo.
 3-PST-AUG-step.on-REC.PST snake

‘The pregnant woman and her husband stepped on a snake.’

(JS: 2011, p14)

5.1.2.2. Possession and attributes

The comitative is used in the formation of kinship dyads, as described in §2.6.2.3 above and §5.5.1.2.5 below. The dyad of *goli* ‘father’s mother’, for example, is *goli-nyarr*. It is also used to mark attributes of a head; this is an adnominal use. For example, the way to describe a married person is to use the comitative marker, as in (5.151):

- (5.151) *aambanyarr oorany*
aamba-nyarr oorany
 man-COM woman
 ‘a married woman’

The attribute reading is clear in (5.152), where the attribute is ‘cheekiness’ or ‘anger’. In this way, the Bardi comitative resembles a proprietive case.

- (5.152) “*Aamba jiboordan biilinyarr*,” *injoonin*.
 “*Aamba jiboordan biili-nyarr*,” *i-n-joo-n=in*.
 man this.way cheeky-COM 3-TR-do/say-REM.PST=3M.IO
 “There’s a man coming this way with a fight,” he said.’ (L91.016)

Note that some languages contrast these two readings and use different cases. For example, in the Kurnai language Arabana, the equivalent of (5.151) is translated with the proprietive, while the comitative is used strictly for accompaniment.

- (5.153) Arabana
- a. *nhupa -mara*
 spouse -COM
 ‘accompanied by a spouse’ (i.e. husband and wife dyad)
 - b. *nhupa -purru*
 spouse -PROP
 ‘having a spouse’ (i.e. a married person)

(Hercus 1994:93)

Such a distinction does not obtain in Bardi, where the proprietive *-goordoo* (see §5.1.6) is restricted in use. (5.154) provides another example of *-nyarr* signaling an attribute.

- (5.154) *jiidinyarr aamba*
jiidi-nyarr aamba
 beard-COM man
 ‘a man who has a beard, a bearded man’

Attributes of this kind can only be temporary ones, however. Attributes which are state descriptions can be marked with the comitative; inalienable properties of items, however, are not compatible with the derivational use of this case, as shown in (5.155).

- (5.155) a. * *goolboo-nyarr jaala*
 rock-COM beach
 ‘a rocky beach’ (Aklif 1994a:L91/5)
 cf.
 b. *alboorroo goolboo nyoonoo jaala*
alboorroo goolboo nyoonoo jaala
 many rock there beach
 ‘There are many rocks on the beach.’

Metcalfe has an example with *ara* ‘other’ where the comitative functions as a delimiter, and is glossed as ‘only one’.

- (5.156) *Arinyarr jinal ngannyagal.*
Ari-nyarr jinal nga-n-nya-gal.
 ‘only one’ spear 1-TR-catch/pick.up-REC.PST
 ‘I only picked up one spear.’ (Metcalfe 1975a:arinyarr)

I have no further examples of a similar type in the corpus, however.

When the comitative is used derivationally, the inflected noun may also receive phrasal case marking, as illustrated in (5.157). Such examples are all elicited, but they were independently judged grammatical.

- (5.157) a. *Jiidinyarrnim aamba boorroo jiiwang inangajimij.*
Jiidi-nyarr-nim aamba boorroo jiiwa-ng
 mustache-COM-ERG man kangaroo boomerang-INS
i-na-ngajim-ij.
 3-TR-hit-PFV
 ‘The man with a mustache hit the kangaroo with the boomerang.’
 (BOW-FN12)

- b. *Yaawardanyarr nim aamba inangajimij boorroo.*
Yaawarda-nyarr-nim aamba i-na-ngajim-ij boorroo.
 horse-COM-ERG man 3-TR-hit-PFV kangaroo
 ‘The man on the horse hit the kangaroo.’
- c. *Jiidinyarrngan aamba inyjarralij.*
Jiidi-nyarr-ngan aamba i-ny-jarral-ij.
 beard-COM-ALL man 3-PST-run-MID.PFV
 ‘He ran toward the man with a beard.’

(BOW-FN12/1)

5.1.2.3. *Means of transport*

Unlike in Nyulnyul (McGregor in press), where the comitative can mark instrumental functions, the comitative in Bardi is never used for instruments. The only situation in which the comitative marks anything resembling an ‘instrumental’ use is when discussing means of transportation, where both comitatives and instrumentals are possible options as case markers. This is illustrated in (5.159); (5.159a) shows the comitative example, which is the preferred case usage for means of transport. (5.159b) is also possible and means approximately the same thing. (5.159c) could also be used in this situation, but the meaning focuses on the location of the person. Speakers suggested that (5.159c) carries the implication that the person is still on the horse at the speech reference moment.

- (5.158) *Bard arr injoona barrawarnyarr Iwanyingan.*

Bard arr i-n-joo-na barrawar-nyarr
 away go 3-TR-do/say-REM.PST canoe-COM
Iwanyi-ngan.
 Sunday.Island-ALL

‘He went to Sunday Island by canoe.’

(Aklif 1994b:7)

- (5.159) a. *Yaawardanyarr darr inarij.*

Yaawarda-nyarr darr i-n-ar-ij.
 horse-COM come 3-TR-spear-PFV
 ‘He came on a horse.’

- b. *Yaawardang darr inarij.*
Yaawarda-n^g darr i-n-ar-ij.
 horse-INS come 3-TR-spear-PFV
 ‘He came on a horse.’
- c. *Yaawordon darr inarij.*
Yaaword-on darr i-n-ar-ij.
 horse-LOC come 3-TR-spear-PFV
 ‘He came on a horse (and he’s still seated on it).’

(BOW-FN12)

In this case, the ‘means of transport’ reading seems to rule out a reading in (5.159a) where a man and horse arrive together.

5.1.2.4. Proximity, perlativity

Finally, the comitative can be used to indicate the proximity of two items or the direction of travel.

- (5.160) *Biinybanyarr arr injoonoo.*
Biinyba-nyarr arr injoonoo.
 marsh-COM go 3-TR-[PST]-do/say-REM.PST
 ‘He went along the side of the marsh.’ (Aklif 1994b:7)

When older Bardi people are describing the routes they used to take to get from one place to another, they very frequently describe the route in terms of the path required to get form one place to another. (5.160) is an example of this. This suffix appears to be somewhat similar in this reading to the perative case marker *-jarr*, for which see §5.4.8.

5.1.2.5. Kinship dyads

The comitative case *-nyarr* derives some kinship dyadic pairs. Dyads are terms which refer to groups of people based on their relationship, such as ‘group of brothers’ or ‘grandmother and her grandchildren’ (see further Evans 2003b for detailed definitions). Bardi has several ways of forming such dyads,

including unanalyzable stems, the fossilized prefix *oo-*, and the comitative case. A full list of dyads is given in §2.6.2; the syntax of the comitative-based dyads is discussed here.

Comitative-based dyads include the following:

- (5.161) a. *golinyarr* ‘father’s mother and her grandchildren (that is, her son’s children)’
 b. *gamardanyarr* ‘mother’s mother and her daughter’s children’
 c. *galoongoordoonyarr* ‘father’s father and his son’s kids’
 d. *jamoonyarr* ‘mother’s father and his daughter’s kids’

Agreement marking signals whether the meaning of the word is compositional (‘with X’) or dyadic (‘X-DYAD’); if singular, the meaning is compositional (as in (5.162a)); if plural, the meaning is dyadic, as in (5.161) above.

- (5.162) a. *Golinyarrjin arr injoogal barda aarlingan, niimana aarli in-oongoooloonkal.*

Goli-nyarr=jin arr i-n-joo-gal barda
 FM-COM=3M.POSS go 3-TR-do/say-REC.PST away
aarli-ngan, niimana aarli i-noo-ngooloo-n-kal.
 fish-ALL, many fish 3-TR-catch-CONT-REC.PST.

‘He went fishing with his grandmother and caught lots of fish.’
 (BOW-FN.3/30)

- b. *Golinyarr arr ingirrigal barda.*

Goli-nyarr arr i-ng-irr-i-gal barda.
 FM-COM/DYAD go 3-PST-AUG-do/say-REC.PST away
 ‘Grandmother has gone away with her grandchildren.’
 (Aklif 1999:golinyarr)

5.2. Source/denizen *-joon*

5.2.1. Forms

The suffix *-joon* has two forms: it is *-joon* after consonants and *-yoona* after vowels.¹⁰³ There are a few examples which imply that *-joon* has an origin with something that originally had a final vowel. This allomorph is more common in Metcalfe but rare in the speech I recorded.

- (5.163) a. *mara-yoonoo* ‘a stranger’ (far-SOURCE)
 b. *jiwarra-yoonoo* ‘belonging to the dead’ (dead-SOURCE)
 c. *gaarra-yoonoo* ‘sea-people’ (sea-SOURCE)

5.2.2. Usage

5.2.2.1. Source/denizen

This suffix is used to mark the source of something.

- (5.164) a. *gaarrijoon joorroo* ‘shark’ (biting thing **from the sea**)
 b. *gaarrijoon bardag* ‘mangrove’ (tree **from the sea**)
 c. *joorrooyoon laanbirr* ‘scar from a shark (bite)’
 d. *irrolayoon laanbirr* ‘scar from a spear’
 e. *milonjoon jawal* ‘story from long ago’
 f. *jimbinjoon aamba* mythological being from ‘underneath’
- (5.165) *Ngoorrmajin banyjarryoon yaalngan arrinyan.*
Ngoorrmajin banyjarr-yoon yaalngan arrinyan.
 mollusc.hinge/foot clamshell-SOURCE grease-PURP we.get
 ‘We get the hinge and foot part of clamshells for grease.’

There is some overlap with the ergative in marking of sources; however, the source case is always adnominal, whereas the ergative marking of sources is always phrasal. For example, in (5.164d), it is not possible to use the ergative; **joorroonim laanbirr* is ungrammatical in this meaning.

5.2.2.2. Derivational uses

The source case can be used derivationally. It forms both nouns and adjectives.

- (5.166) a. *gaari-yoon* ‘drunkard’ (*gaari* ‘grog, alcohol-SOURCE’)
 b. *Mooyoonyoonoo ilma inamanajirri Goolyinimi.*
Mooyoonyoonoo ilma inamanajirri Goolyinimi
 morning-SOURCE song.cycle put G.
 ‘Goolyi put on a morning *ilma*.’ (L146.005)

- c. *miilayoon jarroonggoo*
miila-yoon jarroonggoo
 liar-SOURCE teeth
 ‘false teeth’

5.2.2.3. *Result of process*

The source case can be used to mark the result of a process. This usage is found in particular with gerunds.

- (5.167) *Monyjinjoon linygoorrnim inarligal aamba.*

Monyjin-joon linygoorr-nim i-na-rli-gal aamba.
 speared-SOURCE crocodile-ERG 3-TR-eat-REC.PST man

‘The crocodile which had been speared ate the man.’ (CBFN)

Example (5.167) is interesting syntactically. The ergative case marker is on the head noun *linygoorr* rather than on *monyjinjoon*, which implies that the two words are not part of the same phrase. Case marking occurs regularly on the first word of the phrase; since *monyjin* does not receive that marker, it cannot be part of the same phrase as *linygoorrnim*. The gerund is therefore unlikely to be a direct syntactic modifier. However, an alternative phrasing of *monyjinjoon-nim linygoorr* is also possible, as is *linygoorrnim monyjinjoon*; all are said to mean a ‘speared crocodile’. It thus appears that the case-marked gerund can be both a direct modifier of the noun and a secondary predicate within the clause.

5.2.2.4. *Temporal uses*

The source case is attested in temporal functions. (5.168) shows the source case in the sense of ‘month after month’ (or, more literally, ‘from moon and still from another moon’).

- (5.168) *Bawaninbawin ingirrinyanana ginyingg miinimbi gardi ara ariyoon goowidi agal ariyoond goowid garda.*

Bawanin-bawin i-ngi-rr-i-nya-na-na ginyingg
 cut.up-REDUP 3-PST-AUG-TR-catch-CONT-REM.PST 3MIN
miinimbi gardi ara ari-yoon goowidi agal
 whale still another another-SOURCE month and
ari-yoon goowid garda.
 another-SOURCE month still

‘They cut up that whale month after month.’ (HHW.031)

- (5.169) *Jarri ginyinggi niimbal ngoorrayoon.*

Jarri ginyinggi n-iimbal ngoorra-yoon.
 this 3MIN 3-track last.night-SOURCE

‘These tracks here are from last night.’

(5.169) is a more typical example of a ‘source’ use, but where the source item is a temporal word.

5.3. Semblative: *-marr*

The form of the semblative ‘like’ case is an invariant suffix *-marr*. It is not very common in my corpus as a simple case marker, although there are some examples on noun phrases. It occurs fairly frequently on temporal adverbs such as *barnanggarr* ‘now’, where *barnanggarr-marr* means ‘these days’, and is used in clause chaining.

As a phrasal marker, *-marr* is used to mark items which are similar to other items. In (5.170), for example, David Wiggan is comparing traditional fishing techniques to those currently used by Bardi people. (5.171) is a further example.

- (5.170) *Gala gayarmarr irral wiliwil irroongooloong agal anggirrgoord gayarmarr.*

Gala gayar-marr i-rr-al wiliwil
 well Europeans-SEMB 3-AUG-visit fishing.line
i-rr-oo-ngooloo-ng agal anggirrgoord gayar-marr.
 3-AUG-TR-throw.in-APPL and any.kind Europeans-SEMB

‘They fish and throw their lines and do other things like white people.’ (BDI1.010)

- (5.171) *Biila irrarlin niwarda Giidomarr.*

Biila i-rr-a-rli-n *niwarda Giido-marr.*
also 3-AUG-eat-CONT oysters G.-SEMB

‘They also ate oysters like *Giido* sooty oystercatchers (*Haematopus fuliginosus*).’

The semblative in Bardi has taken over many of the functions of the Nyulnyulan temporal case marker **-karra*. That is, it is used to express the time at which something happened, as in (5.172).

- (5.172) *Ngay moorrooloomarrngay.*

Ngay moorrooloo-marr=ngay.
1 MIN little-SEMB=1 MIN.PRED

‘It was when I was little.’ [the story took place when I was a little child] (NGJ.001)

The temporal marking is also found clausally. In that case, the semblative is marked on the first word of the clause.

- (5.173) *Bayalbarr arralanjirr irrgoordoomarr booroo bardab arrjiidin ja-mala gaarrangan.*

Bayalbarr a-rr-ala-n=jirr irrgoordoo-marr booroo bardab
dolphins we.see every.time-SEMB time there
a-rr-jiidi-n jamala gaarra-ngan.
we.go walking sea-ALL

‘We see dolphins every time we walk down to the water.’

- (5.174) *Ginyinggon inyjalgoon ginyinggi baawa ilngamoongmarr ingarra-manirr aarli.*

Ginyinggon i-ny-jalgoo-n ginyinggi baawa
then he.hid 3MIN child
ilngamoo-ng-marr i-ng-arr-a-ma-n=irr aarli.
fish.poison-INS-SEMLB they.got fish

‘Then the boy hid while they were poisoning the fish.’ (WIR.032)

5.4. Reason: *-ganiny(a)*

This case marker has not been recorded by Aklif and does not appear in Nicolas' work or my field notes before 2008, though I was able to get a few examples in 2008. I was unable to elicit examples such as this in 2003 and was always given 'don't do X, Y might happen'; that is, speakers rephrased the prompts to give biclausal answers. There are, however, several examples under *-aniny* or *-ganiny* of a 'reason' case in Metcalfe (1975a), and so it is discussed here. The suffix has both vowel-final and consonant-final allomorphs.

- (5.175) *Arra miliidinga marrga maangganinya.*

Arra mi-l-iidi-nга *marrga maangg-ganinya.*
NEG 2-IRR-touch-FUT shield white.paint-REASON

'Don't touch the shield because of the (wet) paint.'

(Metcalfe 1975a: -aniny)

- (5.176) *Arra milanbanba mangarlaninya.*

Arra mi-l-anbanb-a *mangarl-aninya.*
NEG 2-IRR-step.on-FUT barb-REASON.

'Don't step on [the stingray] because of the spine [the sharp spine on the tail that can cause nasty injuries].'

(Note in Aklif's handwriting in Metcalfe (1975a))

- (5.177) *Arra roowil alinya booroo marrgoorrganiny.*

Arra roowil a-l-iny-a *booroo marrgoorr-ganiny.*
NEG walk 1+2-IRR-catch-FUT place sharp.reef.coral-REASON

'Don't let's us two walk in that place because of the sharp reef.'

(Metcalfe 1975a:-ganiny)

Metcalfe (1975a) glosses the forms as 'reason' but it looks very much like the equivalent of forms which are glossed as 'aversive' in other Australian languages. Compare the following example from Walmajarri.

- (5.178) Walmajarri

Yapa-warnti pa-lu jurtu-karrarla laparn-kanya naji-karti.
 child-PL.ABS INDIC-3PLS dust-AVERS ran.away cave-ALL

‘The children ran into the cave because of the dust storm.’

(Hudson 1978:31)

There is a possible cognate in Nyikina’s *-gananya* ‘including’ suffix (Stokes 1982a:108-109). The suffix in Nyikina is used on a less prominent or more peripheral participant.

- (5.179) Nyikina

Malbulu yi-m-badigi-n wila-gananya.
 coolamon 3SG(II)-be.full-PRS water-INCL

‘The coolamon is full of water.’ (Stokes 1982a:109, ex 192 (SN))

In 2008, *gaaraniny dii* ‘sandy tea’ was given as a better way of expressing my suggestion of *gaarorda dii* (tea with sand in it). The suffix is also found occasionally in the Laves materials.¹⁰⁴

- (5.180)
- Barda arr injoonana gala iilanjoona jiwaniny garda barnyjangarra irrgoordoo.*

Barda arr i-n-joo-na-na gala iilan-joona
 off come 3-TR-do.say-CONT-REM.PST well sick-SOURCE
jiw-aniny garda barnyjangarra irrgoordoo.
 boomerang-CAUS still ?? anything

‘He went off, injured and sick from the boomerangs, and that was the end of it.’ (L137.017)

6. Compounds

Bardi has compounding of several different types. Since most of these compounds involve nouns in some way, they are discussed in this section. Compounds are not particularly numerous in the corpus, and they appear to lack the productivity of compounding in some other languages (such as English).

They also appear to have quite specific interpretations, which is also unlike languages such as English. Bowern and Borgwaldt (2008), for example, point out that a phrasal compound like English ‘banana bag’ can be interpreted with many different relations between the compounded items (a bag shaped or colored like a banana, a bag for carrying bananas (or that has had bananas in it), a type of nutritional supplement given in hospitals, and so on). Bardi compounds are not like that.

As is quite common in languages, it can be difficult to tell apart true compounding from nominal juxtaposition. In Bardi there are two tests: juxtaposed items have two primary stresses, whereas compounds have a primary stress on the initial syllable of the word and a secondary stress on the initial syllable of the second compounded root.

Case marking is also indicative: if the items are juxtaposed, the case marker must appear on the initial element. In compounds, however, the marker appears on the end of the second item. In (5.181), for example, (5.181a) shows a phrase with the case marker on the end of the first word, while (5.181b) shows case placement in a compound.

- (5.181) a. *Barding ngaanka*
*Bardi-**ng** ngaanka*
 Bardi-INS language
 ‘in Bardi’
- b. *jamoogamardanim*
*jamoo-gamarda-**nim***
 mother’s.father-mother’s.mother-ERG
 ‘grandparents’

Finally, there are phonological processes which apply across compound root boundaries but not between words in a phrase. In (5.182), for example, the fact that Laves writes *malad-nimarla* with a *d* rather than *malarr nimarla* (without the trill going to a *d*) shows that this is a single phonological word.

- (5.182) *Darr inarna marlarrjina innyana [maladnimarla] gala garrgooy inarganana nyalaboo jarrgany inamana ardingarra.*
Darr i-n-ar-na marlarr=jina i-n-nya-na
 come 3-TR-spear-PST wife=3M.POSS 3-TR-catch-tscpst
[malad-nimarla] gala garrgooy i-n-arga-na nyalaboo
 wife-hand thus completely 3-TR-cross-PST this.way

jarrgany i-na-ma-na ardi-ngarra.
 across 3-TR-take-PST north.east-WARDS

‘He came and caught his wife by the hand and married her (lit, ‘picked her up’), then they crossed over to the north.’ (L98.008)

I do not have any examples of recursive compounding in the data; the maximum number of items in a compound is two.¹⁰⁵

6.1. Noun-Noun compounds

Only Noun + Noun compounds are at all productive. Verb stems may not be compounded, and neither can adjectives or preverbs. Neither can there be compounds of different word classes, it seems, unless some types of idiomatic complex predicates are treated as compounds.

There are several types of noun+noun compounds, including conjunctive (*dvandva*) compounds, descriptive (exocentric) compounds, and modificational compounds, which are endocentric and where the first member of the compound modifies the second member.

6.1.1. *Conjunctive (dvandva) compounds*

The most common type of compounds to appear in the corpus are conjunctive; that is, they are of the form AB and denote a group which comprises As and Bs. For example, *goli-gamini* means ‘grandmothers’, and is composed of the terms for father’s mother and mother’s mother respectively. Compounds of this type are also attested in the Laves corpus. Example (5.183) provides several instances.

(5.183) *Jaalborlajinirr agal gaarragooloojinirr. Birriirrmooroojinirr.*

Jaal-borla=jinirr agal
 cross.cousin-cousin.brother-3M.P=3A.P’E and
gaarra-gòoloo=jinirr. Birr-iirrmooroo=jinirr.
 mother’s.brother-father-3M.P=3A.P’E mother-aunt-3M.P=3A.P’E

‘Cousins, uncles, mothers, and aunties.’ (L158.041)

Table 5.7. Kinship compounds

Form	Gloss		First Member		Second Member
<i>birrii-gooloo</i>	parents	<i>birrii</i>	mother	<i>gooloo</i>	father
<i>aala-bo</i>	children	<i>aala</i>	man's child	<i>bo</i>	woman's child
<i>jaal-borla</i>	cousins	<i>jaala</i>	cross cousin	<i>borla</i>	(younger) parallel cousin
<i>marrir-borla</i>	sisters	<i>marrir</i>	older sister	<i>borla</i>	younger sibling
<i>gaarra-gooloo</i>	uncles	<i>gaarra</i>	mother's brother	<i>gooloo</i>	father, father's brother
<i>birrii-irmooro</i>	aunties	<i>birrii</i>	mother, mother's sister	<i>irmooro</i>	father's sister
<i>goli-gamarda</i>	grandmothers	<i>goli</i>	father's mother	<i>gamarda</i>	mother's mother
<i>galoo-galoongoordoo</i>	grandfather	<i>galoo</i>	father's father (address)	<i>galoongoordoo</i>	father's father (reference)
<i>jamoo-gamarda</i>	maternal grandparents	<i>jamoo</i>	mother's father	<i>gamarda</i>	mother's mother
<i>nyami-gamarda</i>	maternal grandparents	<i>nyami</i>	mother's father	<i>gamarda</i>	mother's mother
<i>gamarda-jamoo</i>	maternal grandparents	<i>gamarda</i>	mother's mother	<i>jamoo</i>	mother's father

This example is illustrative of a tendency in kinship compounds for the members of the compound to be either of the same gender or the same generation (or at least harmonic generations; see §2.6.2). The examples in the table also show that at least for some compounds, the items can occur in either order, and with both reference and address kinship terms. Many kinship terms form compounds like this; a non-exhaustive list is given in Table 5.7.

In the Laves texts we find some examples of conjunctive phrases with the word *agal* ‘and’, for example *gooloo agal birrii* ‘father and mother’. Nancy Isaac reported that these phrases sounded rather unnatural to her, and the compound *birrii-gooloo* was a much more natural way of phrasing such sentences. The compound triggers plural rather than singular agreement, as shown in (5.184).

- (5.184) *Bardamb ingarranana aarlingan birriigoooloonim jinirr.*

<i>Bardamb i-n̄g-arr-a-na-na</i>	<i>aarli-ŋgan birrii-góoloo-nim</i>
off=THUS go	fish-ALL mother-father-ERG
<i>jin-irr.</i>	
3M.POSS-3AUG	

‘His mother and father went off for fish.’ (BAL2.003)

There is one kinship compound which does not follow this pattern. *Aala-malarr* is a man’s son’s (or sons’) wives (*aala* ‘man’s child’, *malarr* ‘wife’). This compound is thus possessive rather than conjunctive. It is attested once, at L99.018.

Compounds of this type are found outside the realm of kinship too. One example is *garndi-jimbin* ‘above-below’, which means ‘the world’. These compounds are also found in the structure of generic flora/fauna terms, such as *aarlibarnangg* ‘seafood’ (fish and shellfish) and *aarlimay* ‘food’ (fish and plant food). These are collective compounds, in that their referent is the sum of each of the compound’s members.

- (5.185) *jiiw-irrola* ‘boomerang-spear’ (i.e., fighting equipment)

6.1.2. *Descriptive (exocentric) compounds*

Exocentric compounds such as *jaala-niimarl* ‘index finger’ (lit. ‘spear-finger’) are also found. These metaphoric compounds describe an item in terms of

something else; in this case, the *jaala-niimarl* is the finger (especially the fingertips, the part of the finger between the tip and the first joint), metaphorically the ‘spear of the hand’ (the bit that juts out). Another example is *goowidi-nalma* ‘pith helmet’, which is a compound of ‘moon’ and ‘head’. These compounds are rarer. They are exocentrically headed, in that the meaning of the compound is not contained in a single element in the compound.

- (5.186) a. *gola-gamarda* ‘someone with a lot of grandkids’ (because they do the work of *goli* ‘father’s mother’ and *gamarda* ‘mother’s mother’ together)
- b. *maandi-niimi* ‘eyebrow ridge’ (*maandoo* ‘brain’, *niimi* ‘eye’)
- c. *noongoo-nimarla* ‘palm’ (*noongoo* ‘stomach’, *nimarl* ‘hand’)
- d. *nalma-noonggan* ‘base of the skull’ (*nalma* ‘head’, *noonggan* ‘nape’)

Compounds of this type are quite common in some Australian languages; Simpson (2009:611), for example, lists a number for Warlpiri, particularly in the sphere of flora and fauna (though she notes that Nash (1986:39) considers such compounds frozen). Bardi is noticeable in having very few plant and animal names of this type. There are imitative or onomatopoeic names, some loans, and many unanalyzable names, but very few compounds of this type. Like Warlpiri, they are also absent from toponyms.

6.1.3. Generic/modificational (endocentric) compounds

Part-whole compounding (or generic-specific) is the most common and productive; such compounding or pseudo-compounding is found across Australia (Wilkins 2000), although not universally. An example is *mayala gooljoo* ‘Mayala grass, spinifex’; a further possible example is *jabiyang jöorroo* ‘jabiyang sharks’. Case marking appears on the second word of the phrase, implying that the phrase is a compound:

- (5.187) *Mayala gooljooyoon ingoorromoogarnanarr ngirray milon.*

[*Mayala gooljoo-yoon*]

spinifex

i-ng-oorr-oo-moogar-na-na=rr *ngirray milon.*

3-PST-AUG-TR-make-CONT-REM.PST=3A.DO huts long.ago

‘Long ago, they used to make huts from spinifex grass.’

Possibly also grouped with these compounds are forms such as *oorany-baawa* ‘girl’ (woman child) and *miida-baawa* ‘male, boy-child’. These compounds can all be paraphrased with ‘an X which is also a Y.’ Alternatively, they could be considered examples of modificational generic-specific compounds, with *oorany* and *miida* providing more information about the type of *baawa* referred to in the compound.

Further examples follow:

- (5.188) a. *baaliboor* ‘camp’ (*baali* ‘boughshed’, *boor* ‘place’)
- b. *aboogajaamba* ‘mixed race person’ (*aboogaj* ‘half-caste’, *aamba* ‘man’)

There is a way of naming places which involves either phrases or modificational compounds. Several places in Bardi country have the same name; for example, there are several reefs with the name *Mardaj*. If further disambiguation is required, one can refer to *Jayirri Mardaj*.

6.1.4. Compounds with -booroo

The word *booroo*, which means ‘time, place, tide,’ or ‘camp,’¹⁰⁶ also appears as an element to some personal names, such as *Ngarrigoonbooroo*. McGregor (in press) treats this as a compound, however I am not convinced that it fits the pattern of other compounded elements in Bardi; rather, it appears closer to a suffix, and is a type of denizen suffix which appears on *booroo* names. See also §2.9.

6.2. Frozen compounds

6.2.1. Nominal compounds

Finally, there are a number of words which are transparently frozen compounds, but which do not participate in the productive (or other unproductive) compounding processes described above.

Some of these have unidentified components, such as *marrgaliny* ‘hammerhead shark’ (*Sphyrnidae sp.*), which gets its name because of a Dreamtime story where a shield (*marrga*) is embedded in his nose. The second component of the name (-*liny*) is unidentifiable. Some other flora and fauna names also have this structure.

6.2.2. Grammatical compounded words

There is some evidence for some grammatical words which are either historically compounds, or phrasal. These are given in (5.189).

- (5.189) a. *ginyinggi* ‘this’ < *kinya ‘3sg’ + *angki ‘what, something’
 b. *jana(m)booroo* ‘where’ < *jana ‘where’ + *booroo ‘place’
 c. *barnanggarra* ‘now, when’, < *ba(a)rni ‘now’ + *angki ‘what, something’ + *-karra temporal case (see below)

The first two items are clearly former compounds; *ginya is reconstructible as the third person minimal pronoun and other Nyulnyulan languages have equivalent forms.¹⁰⁷ ‘Where’ is also straightforward. The third example, *barnanggarra*, is less certain; the first element is clearly related to the reconstructible word for ‘now’, but it could be an inflected form with the temporal case marker (in that case, the nasal is unexplained). If such items are not compounds, they could be analyzed as synchronically univerbated but historically phrasal. There is some evidence for this process in recent years in Bardi. For example, the word for God is *garndib inin*, a phrase which is losing its second stress and becoming univerbated. It is analyzable as a relative clause.

- (5.190) *garndib inin*

garndi=b i-ni-n
 above=REL 3-sit-cont

Lit: ‘he who is above’

6.2.3. Noun–Verb compounds

There are two types of (non-productive) items in Bardi which might be described as noun + verb compounds. The first is where the noun acts as a coverb in a complex predicate (see §4.4 and Chapter 13 for definitions and details). In such constructions, the noun in combination with the inflecting verb provides the predicational meaning of the clause. An example is given in (5.191).

- (5.191) *Boor inboo.*

Boor i-n-boo.
look.at 3-TR-hit

Other authors (e.g. Schultze-Berndt 2000, Simpson 2009) have treated such items as compounds, however here I do not treat them as such. Complex predicates have two primary stresses; one is on the coverb, the other on the first syllable of the inflecting verb. (See §13.2 for examples where the coverb and inflecting verb coalesce.) Furthermore, noun + inflecting verb complex predicates do not define a specific type of complex predicate (though some other types of derivational coverbs do). Finally, complex predicates can act as a single phonological word with respect to clitic placement, but they do not have to. That is, a sentential clitic may appear either on the preverb or on the inflecting verb. Nominal compounds do not show this alternation. Thus for Bardi, we do not gain anything in the analysis by treating complex verb constructions as compounds.

The second type of potential N + V compound is fossilized and not identified as compounds with analyzable parts by speakers. This type comprises a noun compounded with a light verb; together this forms a complex inflecting verb root.

- (5.192) a. *-mirdi-bi-* ‘run’ (knee-hit)
b. *-nganka-ma-* ‘say goodbye’ (speech-put)

Chapter 6

Adjectives and Other Modifiers

As briefly described in Chapter 4, noun heads can be modified by several different types of words. These are nouns, adjectives, other adjective-like modifiers such as numerals and quantifiers, and pronouns. Adjectives are a small part of the Bardi lexicon compared to nouns or preverbs; just under 5% of the Bardi dictionary headwords are adjectives, with just over 200 underived adjectives listed in the Bardi dictionary. Adjectives can also be derived through case and derivational morphology.

In this chapter I describe adjectives and other modifiers of nouns. I begin with an in-depth discussion of the criteria for distinguishing adjectives from nouns in §6.1.1 and composition of the adjective class (§6.1.2). In §6.2 I outline the quantifier system and provide some discussion of the syntax of quantification. §6.3 gives information about the morphology which is specific to modifiers. Finally, §6.4 discusses the numeral system, including cardinal and ordinal numbers, and morphology specific to numerals.

1. Adjectives

Bardi has adjectives which may occur in both attributive and predicative positions. There is often no difference in the shape of the adjective, though predicate adjectives may receive the marker *-a* (for which see further §6.3.3 and §8.3.3). (6.1) shows two adjectives in predicative positions.

- (6.1) *Langgoorr boordiji, ari moorrooloo.*

L big, A small

‘*Langgoorr* (*Solanum cuninghamii*) is big, *ari* (*Solanum* species, shrub-like tree) is small.’

1.1. Identification

There are several ways in which adjectives differ from nouns. First, while both nouns and adjectives may modify other nouns, only nouns can head phrases. That is, unlike in some languages, one cannot use an ‘adjective’

without a head out of context. One can omit the noun in context, but the context must be established. Thus (6.2b) is an acceptable paraphrase for (6.2a) in context, although (6.2b) is ungrammatical without a previously established referent of *moorrooloo*.

- (6.2) a. *moorrooloo baawa* ‘little child’
- b. *moorrooloo* ‘little <one>’

Another difference in the syntax of nouns and adjectives is also to be found in noun phrases. In a NP which contains an adjective, the nominal head can be elided and the modifier used alone to refer to the whole phrase. This is only grammatical if the modifier is an adjective. (6.3a) is the parallel of (4.6) above and shows the situation with the adjective. *Moorrooloo* ‘little’ may stand in context for *moorrooloo baawa* ‘little child’; the same is not true for (6.3b). In (6.3b) the modifier of the noun *baawa* ‘child’ is *aamba* ‘man, male’. The phrase as a whole means ‘(the) male child’. Unlike in (6.3a), however, one cannot elide the head of the NP and use the modifier alone without changing the meaning. *Aamba* on its own is a noun and means ‘man’, not ‘male something’.

- (6.3) a. *moorrooloo baawa* ‘little child’ > *moorrooloo* ‘the little one’
- b. *aamba baawa* ‘male child’ *> *aamba* (intended) ‘the male one’

The order of elements is usually modifier + head, although the alternative order is found in texts when the modifier is an adjective. When it is a noun, however, the order is fixed.

Adjectives may combine with complex predicates to form inchoative, stative, and causative predicates. This is fully productive. Nouns cannot do this. In (6.4), the adjective *boordiji* ‘big’ is combining with the light verbs *-ni-* ‘sit’, *-joo-* ‘do/say’, and *-ma-* ‘make’. This set of complex predicate formation is possible with all items that are identifiable as adjectives. The combination of nouns with these light verbs in these constructions is ungrammatical.

- (6.4) a. *boordiji i-ni-n*
 big 3-sit-CONT
 ‘It’s big.’
- b. *boordiji i-n-joo-n*
 big 3-TR-do/say-CONT
 ‘It got big.’

- c. *boordiji i-n-ma-n*
big 3-TR-make-CONT
'He/she/it made it big.'
- (6.5) a. **iila i-ni-n*
dog 3-sit-CONT
- b. **iila i-n-joo-n*
dog 3-TR-do/say-CONT

The way to say that someone ‘becomes’ a noun is to use the allative case, as described in §5.4.4.

Another property that distinguishes adjectives from nouns is that adjectives, but not nouns, can be modified by *giija* ‘very’.

- (6.6) a. *boordiji giija*
big very
'very big'
- b. **iila giija*
dog very
'very dog'

Finally, adjectives can be questioned with *nyirra* ‘how’ or *jana* ‘which’, whereas nouns are questioned with *anggi* ‘what’. In (6.7), for example, the question with *anggi* ‘what’ expects a noun as an answer, such as the type of fish caught (bluebone, trevally, etc). The question with *jana* (6.7b), however, asks for either a description of the fish (a ‘big’ one, etc) or identification of the fish (e.g. ‘that one’).

- (6.7) a. *Anggi aarli minnyagal bardi?*
Anggi aarli mi-n-nya-gal bardi?
what fish 2-TR-catch-REC.PST yesterday
'What type of fish did you catch yesterday?'
- b. *Jana aarli minnyagal bardi?*
Jana aarli mi-n-nya-gal bardi?
which fish 2-TR-catch-REC.PST yesterday
'Which fish did you catch yesterday?'

Further examples are given in §7.6.

1.2. Types of adjectives

Adjectives can be divided into several semantic classes, based on those in Dixon (1982). Examples are given in (6.8)–(6.14).

- (6.8) Dimension adjectives: *boordiji* ‘big’, *irrgadarr* ‘big’, *moorrooloo* ‘small, narrow’, *moonyooloo* ‘small’, *goolarr* ‘small’, *niwandi* ‘long’, *ngaada* ‘short’, *ilil* ‘wide’, *jooloojooloo* ‘narrow’, *joondooloo* ‘narrow’, *joong-goorr* ‘narrow’, *gaanyji* ‘thin’, *joorroonggoo* ‘straight’

There are several synonyms for some of the dimension adjectives. It is not known how they differ. Some have fallen out of use between items recorded in Metcalfe’s dictionary and my fieldwork; *goordoogoordoo* ‘short’ is given in that work, but not recognized by current speakers, for example. All the examples of words for ‘narrow’, though collected independently, have the example of ‘narrow road’ as exemplar sentences, so it is not known how they might differ. The word *goolarr* ‘small’ occurs only with plural items. Laves noted it as a specifically Jawi word, but this has not been confirmed. Likewise, it seems that *irrgadarr* ‘big’ is only attested with plural items.

- (6.9) Age: *gorna* ‘new’, *nyoongoorl* ‘old (person)’, *oowa* ‘young’ as young of living thing

Coate gives the form *baragarriyoonoo* ‘new’ as a derived adjective in Jawi but it is not used by other speakers. Likewise, Metcalfe gives *rijang* ‘new’ but this was not recognized these days. The adjective *moorrooloo* ‘little’ can be used of something that is ‘young’; the word *oowa* is also used to denote the young of an animal. The word *nyoongoorl* ‘old’ is used only of people, not of things. To talk about the age of an object, *loogal* ‘bad, dried up’, is used, in which case the word also has a negative connotation.

- (6.10) Value: *gorna* ‘good’, *darrgal* ‘true’, *loogal* ‘bad’, *liinyja* ‘sour, stinging, bad’, *malygin* ‘secret’, *aab* ‘exciting’

Both *gorna* ‘good’ and *loogal* ‘bad’ are quite broad adjectives and can be applied to many different items. *Gorna*, for example, is applied not only to items that are ‘good’ as a value judgment, but also to descriptions of music to mean ‘in tune’. The word *aab* ‘exciting’ is recorded in the older sources but cannot be used on its own in Modern Bardi as a regular adjective; instead, it is used only as a preverb in the complex predicate *aab -joo-* ‘be excited’.

- (6.11) Human propensity: *ngoorimban* ‘slack, lazy’, *noonyji* ‘alive’, *biiwi* ‘dead’, *ongorr* ‘cheerful’, *olboor* ‘upset, depressed, unsettled’, *nyinyi* ‘cunning, tricky’ (used when someone is trying to pull a trick on someone), *laanybi* ‘thieving’

Bardi has a number of emotion terms. Glosses should be considered approximate here; I do not have detailed information about the conditions under which these terms would be used, or the types of behavior which would be considered to be illustrative of these emotions.

Bardi has three basic color terms and a few terms which can also be used to refer to hue, though their primary meaning does not refer to color. The primary meaning of the word is given in parentheses. The word *niinbal* ‘appearance’ is used specifically to refer to color.

(6.12) Color:

- a. Underived: *maanka* ‘black’, *boolgar* ‘white’, *lamarr* ‘brown-yellow’;
- b. Derived: *goororr* ‘red (blood)’, *jarryn* ‘green (unripe)’, *bilil irrganbalamil* ‘green (leaf-like)’

I do not have good data on the ranges and focal colors of each of these terms; I did some informal investigation of this using both objects in the natural environment, and sample cards showing different paint colors. *Maanka* is usually translated as ‘black’, but can also be used for colors which would be called shades of dark gray or dark blue in English. *Lamarr* covers the range of English brown and yellow. Shades called ‘light gray’ in English (such as items like the color of ash) are referred to as *boolgar* ‘white’. For items with colors in the range of English ‘blue’, such as the sea, such objects are generally not described in terms of hue. Instead, speakers make reference to the reflectiveness of the surface of the object.

(6.13) Physical properties: *ngoorboo* ‘soft’, *raaga* ‘loose’, *wiinyma* ‘wrinkled’, *moola* ‘hot, ripe, cooked’, *inkoorr* ‘cold’, *ardid* ‘crooked’, *baybay* ‘light’

Physical property adjectives are quite extensive in the language; the list given here is a small sample. Some adjectives are marked for aspectual qualities. For example, *laalga* ‘dry’ is only used for items which were once wet and have become dry, and *binyja* ‘cool’ is only for items which have cooled

down. That is, they are resultant states, not permanent characteristics. Another example is *nooloon* ‘bitten off’. Such forms are all underived.

- (6.14) Speed: *oombal* ‘slow’, *joornkoo* ‘fast’

In contrast to the physical description adjectives, there are few adjectives referring to speed. In fact, it is doubtful whether *joornkoo* ‘fast’ is an adjective at all, since it can take nominal derivational morphology such as the ‘expert’ suffix *-iidi* (a *joornkiidi* is a fast runner).

Finally, some adjectives are confined to modification of particular referents. A few examples specific to humans were noted above. Another is *nillirr* ‘strong’, which is used of tides to refer to the strength of a tidal current.

1.3. Argument-taking adjectives

Thus far there are no unambiguous examples of adjectives which take arguments. Adjectives which in English take complements are all members of other word classes in Bardi.

Words such as ‘hungry’ and ‘thirsty’ are primarily nouns in Bardi, not adjectives. To express that one is hungry or thirsty, a causal construction is used, with the noun in the ergative and the experiencer as the subject.

- (6.15) a. *Anangay may! Manyjalnim alig nganjij.*

A-n-a=n_g_ay may! Manyjal-nim alig
 2(IMP)-TR-give=1M.DO food hunger-ERG feel.bad
nga-n-j-ij.
 1-TR-do/say-PFV

‘Give me food! I am hungry.’

- b. *Aranga gala ingarrnana ilogo manyarrnim.*

Aranga gala i-_ng-arr-na-na ilogo manyarr-nim.
 others well 3-PST-AUG-sit-REM.PST on.side thirst-ERG

‘Some lay down because of their thirst.’

(L103.025)

To say that one is hungry or thirsty for something, two clauses are used (that is, ‘I’m thirsty, I want water’, or ‘I’m hungry, give me something to eat’).

Other English adjectives, such as ‘ashamed’ and ‘frightened’, are complex predicates in Bardi. To say that one is ashamed of something, the phrase is

literally *rarrjin -ma- =DO* ‘X shames me,’ using a transitive complex predicate with the experiencer as a direct object (DO) and the cause of shame as the subject.

Spatial adjectives that take complements in English (e.g. ‘far from X, close to X’) are adverbial in Bardi. They are discussed in §14.2 below.

1.4. Adverbial modification of adjectives

Adjectives can be modified by the word *gijja* ‘very’ or its clitic counterpart *=gij*. There is also a quantifier word *ngarri* which also can be translated as ‘very’ or ‘much’. The latter also has a somewhat negative connotation that something is too much of a quality (or done too much). It is also often used with nouns in the expression *ngarri jina X* ‘much is his/her X’, as in (6.17), in which case the ‘very much’ reading can be positive as well as negative.

- (6.16) *Ngarri boolji gaarranim innyana niyarda.*

Ngarri *boolji* *gaarranim* *i-n-nya-na* *niyarda.*
too.much exhausted sea.water-ERG 3-TR-catch-REM.PST 3-body

‘The sea had made his body worn out.’ (lit: ‘he was really tired, the sea had picked up his body.’) (L117.016)

- (6.17) *Balgarraniny gorna aarli, ngarri jirra laya agal ngarri jirra baangga.*

Balgarraniny *gorna aarli, ngarri* *jirra* *laya agal*
small-toothed.cod good fish, too.much 3AUG.POSS fat and
ngarri *jirra* *baangga.*
too.much 3AUG.POSS flesh.

‘Small-toothed cod (*Epinephelus microdon*) is good to eat; it has lots of fat and flesh.’

While *ngarri* always goes before the adjective, *gijja* or *=gij* follows it. Furthermore, while *ngarri* is a general adverb which can both stand on its own in a predicate and modify verbs and adjectives, *gijja* is attested only with adjectives. There is further discussion of *ngarri* in the following section, including the phrase ‘*ngarri jina X*,’ ‘there’s a lot of X’, which is only found with nouns.

- (6.18) *Arinyji, malbarr rambin giija roowilngan mannyana.*
*Arinyji, malbarr rambin **giija** roowil-*ngan* ma-nya-na.*
 one bottom heavy very walk-ALL GER-catch-CONT
 ‘One, his bottom was too heavy for him to move!’ (DNG.009)
- (6.19) *Aalala giija boora jarri. Nyirroogoord lagal ankinya garndingan?*
*Aalala **giija** boora jarri. Nyirroogoord lagal*
 steep very place this how climb
a-n-k-iny-a *garndi-*ngan*?*
 1+2-TR-FUT-climb-FUT top-ALL
 ‘This place is very steep. How are we going to climb up?’

2. Quantifiers

There are twelve quantifiers in Bardi. *Arrajina* is discussed in §15.3.4.1 below, and *aankoo* is listed here for completeness but is discussed in Chapter 14. The other items in Table 6.1 are discussed here with other modifiers because their distribution is very similar to adjectives. They can co-occur with pronominal modifiers, for example, like the adjectives discussed above.

- (6.20) *Ginyinggamba ginyinggi gaarranimbi inambarndining ginyingg boonyja booroo ginyingg gaarra.*
Ginyinggamba ginyinggi gaarra-nim=bi
 thus 3MIN sea.water-ERG=REL
i-na-m-barndi-n=ing *ginyingg boonyja booroo ginyingg*
 3-TR-PST-cover-REM.PST-APPL 3MIN whole place 3MIN
gaarra.
 water
 ‘That’s where it was, this water, that covered the whole country.’ (FLD2.012)

It seems that quantifiers do not have much special syntax or any unique distributional restrictions in Bardi, at least on the basis of the information available at present.

Most of these quantifiers can be used either as attributive modifiers or as substantives, as shown in (6.21).

Table 6.1. Quantifiers

Bardi	English
<i>boonyja</i>	all, every, everyone, everything
<i>niimana</i>	plenty, many
<i>ngarri</i>	a lot, much
<i>alboorr(oo)</i>	plenty, many
<i>ara</i>	(an)other
<i>arang(a)</i>	some
<i>arinyjarinyj</i>	each
<i>irrgoordoo</i>	everyone, each one
<i>alabooroo</i>	each (place)
<i>jalboorr(oo)</i>	few, a little
<i>aankoo</i>	a little while (adv)
<i>arrajina</i>	none, nothing

- (6.21) a. *Jalboorr goolji injoolaana inaman janbay.*
Jalboorr goolji i-n-joola-a-na i-na-ma-n
 little grass 3-TR-put-APPL-REM.PST 3-TR-put-REM.PST
janbay.
 on.top
 ‘He put a little grass on top.’ (L72.013)

b. *Jalboorr anangay, joo anayarr arang.*
Jalboorr a-n-a=ngay, *joo* a-n-ay-a=rr
 a.little 2-TR-give=1M.DO 2MIN 2-tr-take-FUT=3A.DO
arang.
 others
 ‘Give me a little, and you take the rest.’

2.1. ‘All, every, whole’: *boonyja*

The quantifier *boonyja* translated English ‘all’, ‘every’ and ‘whole’. It can also be substantivized to mean ‘everyone’ or ‘everything’, as in (6.22c).

- (6.22) a. *Ginyinggomin orronbalirr, arrarlinjambalirr boonyja irr barnamb.*
Ginyinggo=min o-rr-o-n=bal=irr,
 once=THEN 1-AUG-spear-CONT=INDEF=3A.DO
a-rr-a-rli-n=jamb=al=irr **boonyja irr**
 1-AUG-TR-eat-CONT=THUS=INDEF=3A.DO all 3AUG
barnamb.
 stingray
 ‘When we spear them, we eat the whole stingray.’ (STR.006)

b. *Boonyjagid ambooriny boonyja lagallagal ingarrganyinan barda.*
Boonyja=gid ambooriny boonyja lagal-lagal
 all=THEN people all climb-REDUP
i-nga-rr-ganyi-n-an **barda.**
 3-PST-AUG-climb-CONT-REM.PST away
 ‘Then all the people were climbing up [to get away from the rising water].’ (FLD2.010)

c. *Nyalaboo ingarralan boonyjanim.*
Nyalaboo i-ng-arr-ala-n **boonyja-nim.**
 there 3-PST-AUG-see-REM.PST all-ERG
 ‘Everyone saw him.’ (L91.020)

Note that in (6.22a), the object ‘stingray’ is marked twice as augmented; first on the verb with direct object agreement marking, and secondly within the NP with the pronoun *irr*. This shows that number marking can co-occur with other quantification

Boonyja can be modified with the clitic =*jangarr*, where it means ‘absolutely every(one)’:

- (6.23) *Ginyinggon inamboonirr boonyjangarr.*
Ginyinggon i-n-am-boo-n=irr *boonyj-angarr.*
then 3-TR-PST-spear-REM.PST=3A.IO all-ONLY
‘Then he speared absolutely everyone.’ (L59.013)

This word also participates in a number of different compounds, which are listed below:

- (6.24) a. *boonyjarrarr* ‘everyone’

- b. *boonyjamorrgoondarr* ‘in every way’
- c. *boonyjabooroo* ‘everywhere’
- d. *boonyambooriny* ‘everyone’

2.2. ‘Many, much, a lot’: *niimana* and *ngarri*

The meanings of *niimana* and *ngarri* are similar, though their syntax is a little different. *Niimana* is primarily attributive (§6.25a is representative), while *ngarri* is always either predicative or adverbial. A few examples were given above (e.g. in (6.17)).

- (6.25) a. *Niimana boongginy arralabanjirr Ardiyooloon.*
Niimana boongginy a-rra-laba-n=jirr
many eagles 1-AUG-have-CONT=1A.IO
Ardiyooloon.
One.Arm.Point
‘We have lots of eagles around One Arm Point.’ (GBL.004)
- b. *Niimana gooboolgoobool yardab irrin gooljon.*
Niimana gooboolgoobool yardab i-rr-i-n goolj-on.
many caterpillars crawl do grass-LOC
‘Lots of caterpillars are crawling in the grass.’ (GBB.014)

Niimana can precede or follow the noun:

- (6.26) “*Nyoonoomardiny ngarlin aarlimay niimana*,” *injoon*.
“*Nyoonoo-mardiny ng-arli-n aarlimay niimana*,”
there 1-eat-CONT food much
i-n-joo-n.
3-TR-do/say-CONT
‘Over there I’ll have plenty of food,’ he said. (MNJ.058)

The difference in semantics for the placement of *niimana* is very difficult to determine (as is also true for other adjectives, demonstratives, and quantifiers with variable placement) but one possible generalization is that postnominal uses are less neutral. In the examples available, it seems than

when the adjective is postnominal, it is contrastive.¹⁰⁸ In (6.26), for example, the speaker is deciding where to travel next, and he says that he will go back to his own country where he won't be hungry, as opposed to his current condition, where he doesn't have enough to eat. In that case, *aarlimay niimana* 'much food' is being implicitly contrasted with the speaker's current state of hunger. Other examples of postnominal adjectives include examples where someone is exhorted to give guests just a little food, rather than *aarlimayi niimana*.

It can also be used with other adjectives:

- (6.27) *niimana arar aarli.*
many different fish
‘many different (species of) fish’ (MRR/BE)

Niimana can be used with both mass and count nouns; examples with count nouns are in (6.25) above, while (6.26) and (6.28) provide examples of *niimana* with mass nouns.

- (6.28) *Mooyoona roowil ingirrinya niimana marrja bornkobornko nyoonooyoon aamba arragiji darr oolarnajirri.*

*Mooyoona roowil i-n*g*-irr-i-nya-n niimana marrja*
morning walk 3-PST-AUG-TR-catch-CONT much smoke
bornkobornko nyoonoo-yoon aamba arra=giji darr
around there-SOURCE man NEG=VERY come
oo-l-ar-na=jirri.
3-IRR-pierce-REM.PST=3A.IO

‘In the morning they walked again. Although there was the smoke from many fires all around, the men who belonged to that country didn’t come to them.’ (L103.011)

In contrast to *niimana*, *ngarri* is adverbial; in addition to its uses with adjectives described above, *ngarri* can modify verbs, as given in (6.29). As noted above, *ngarri* often has the sense of ‘too much’.

- (6.29) *Ngarri mingankij, jiiborjiibor minjij.*
Ngarri mi-ⁿgank-ⁱj, jiibor-jiibor mi-n-j-ij.
 too.much 2-talk-PFV noise-REDUP 2-TR-do/say-PFV
 ‘You talk too much, and you make too much noise.’

Finally, *ngarrigij* can be used adverbially, to denote how much a verb is done. It can also be used with the noun +*moonggoon* ‘knowledge’ to give information about how sure someone is about something.

- (6.30) *Arra nimoonggoon ngarrigij.*

Arra ni-moonggoon ngarrigij.

NEG 3-knowledge much

‘He didn’t know for sure.’

(JS: CB97.1/4:17)

2.3. ‘Many, much’: *jalborr* ‘few’ and *alboorr(oo)*

These two quantifiers are also adjectival. A few examples of *jalboorr* were given in (6.21) above. They are not specific to quantity but denote a few items and many items respectively. Like *niimana*, *alboorroo* can be used with both mass and count nouns.

- (6.31) a. *Niiman arralabanjirr garrabal alboorroo jirrarr ramb.*

Niiman a-rra-laba-n=jirr garrabal alboorroo
many 1-AUG-have-CONT=3A.IO bird much
jirr-arr ramb.
3A.POSS-3A color

‘We also have a lot of colorful birds.’ (GBL.007)

- b. *Arra ngamarl mirrjany marr alboorroo.*

Arra nga-marl mirrjany-marr alboorroo.
NEG 1-hand octopus-SEMB many

‘I don’t have lots of hands like an octopus.’ (Conversation)

2.4. ‘All, each’: *irrgoord(oo)*

Like *boonyja*, *irrgoord* ~ *irrgoordoo* is glossed as ‘all’. The two words can be used together in a phrase, and *irrgoordoo* combines with many indefinite pronouns (discussed in more detail in §12.3.7 below) to mean ‘any kind’; *anggirrgoordoo*, for example, is a compound of *anggi* ‘what’ and *irrgoordoo* and means ‘anything’.

- (6.32) “*Irr aamba janaboor irrgoord*,” *ingirrinijin*.

Irr aamba janaboor irrgoord,” *i-n̄g-irr-i-ni=jin*.
3AUG man where each,” 3-say

“Where are each/all of those men from?” they asked.’ (JOO.006)

- (6.33) *Barnanggarr boonyjirr maaja irrgoord boonyja ararangan (moorr-gool)*.

Barnanggarr boonyjirr maaja irrgoord boonyja arara-ngan
now all-3AUG boss each all different-ALL
(*moorr-gool*).
work

‘Today they are all bosses for each different job.’ (OAP.019)

- (6.34) *Gir angarral noorroonyarr irrgoord*.

Gir a-n̄g-arr-al n̄oorroo-nyarr irrgoord.
sit.down 1-PST-AUG-visit fire-COM each

‘We all sat down, each with a torch.’ (CAM1.052)

2.5. ‘Other’: *ara*

The word *ara* on its own means ‘another’ or ‘other’. It is also found with a number of derivatives, including a reduplicated form *arar* ‘different’.

- (6.35) *Inangoorribin aranim aamba*.

I-na-ngoorribi-n ara-nim aamba.
3-TR-chase-CONT other-ERG man

‘Another [some other] man chased him.’ (BE: CB52.1)

- (6.36) *Aamba nyoonoo aala arajin ginyingga gala ngoodinko*.

Aamba nyoonoo aala ara=jin ginyingga gala
man here man’s.child other=3M.POSS 3MIN thus
ngoodinko.
different.

‘This man is different from his brother’s child.’ (NI: BOW-FN/5/85)

It is possible that the numeral *arinyji* ‘one’ is a derivative of *ara* ‘other’, though the suffixal portion of the word is not identifiable.

Other compounds with *ara* include *aralga* ‘another day’ and *arabooroo* ‘another place’:

- (6.37) *Milimil ingorron amboorinynim araboorarda darr angarrarna.*

<i>Milimil i-ngr-orr-o-n</i>	<i>ambooriny-nim</i>
paper	3-PST-AUG-TR-poke-REM.PST people-ERG
<i>ara-boor=arda</i>	<i>darr a-ngr-arr-ar-na.</i>
other-place=PERHAPS come	1-PST-AUG-TR-pierce-REM.PST

‘People have written that we (Bardi people) came from somewhere else.’
(BDI1.001)

3. Inflection and derivation of modifiers

There are a few morphemes which appear to surface only on adjectives. None are productive.

3.1. Adjectival: *-an*

A suffix *-an* is found on the word *ardian* ‘north-eastern’ (cf. *ardi* ‘north-east’), as well as a few other items. It may be related to the Jawi form of the allative case marker (§5.4.4), which is *-an*.

3.2. *-jV* (meaning unknown)

There are a few examples of a morpheme *-jV* which appears variably on adjectives such as *booljarr* ‘tired’, on the noun *manyjal* ‘hunger’ (when used predicatively, as in ‘he went to bed hungry’), and without any apparent difference in meaning on a few preverbs, including *wirr* ~ *wirrja* ‘arise’ and *joowara* ‘sneak away’. The only set of examples where there appears to be any meaning difference is in the forms on *manyjal* ‘hunger’, where the suffix appears on secondary predicates but not elsewhere. There are three forms in Laves, each with a different vowel (*manyjalja*, *manyjalji*, and *manyjaljoo*). These might be dialectal differences.

- (6.38) *Ranggarr injoona(jirr) booroo gala yirr arligigiji ingirrinang in-joonardarra manyjaljoo niunga joobool ingirrina goorlilngan.*

Ranggarr i-n-joo-na=(jirr) *booroo gala yirr*
 dawn 3-TR-do/say-REM.PST=3A.IO time thus 3AUG
arligi=giji i-ng-irr-i-n-ang
 bad=very 3-PST-AUG-do.say-REM.PST-APPL
i-n-joo-n-ardarra ***manyjal-joo niunga joobool***
 3-TR-do.say-CONT-?? hungry-?? EMPH swim
i-ng-irr-i-na *goorlil-ngan.*
 3-PST-AUG-do/say-REM.PST turtle-ALL

‘In the morning they felt bad, and went swimming hungry for turtle.’
 (L151.011)

3.3. Predicative marker: =a

Adjectives, when predicative, take a clitic =a. It appears to be optional, in that only some speakers used it, and then not all the time. Examples are, however, well established in elicitation, and also found in narratives, such as (6.39). The suffix also occurs on nouns, as discussed in §8.4.

- (6.39) “*Loogal nyinda biindala*,” *injoonin Alboogoona booroonim.*
 “*Loogal nyi-nga* *biindal=a*,” *i-n-joo-n=in*
 bad 2MIN-emph weak=PRED 3-TR-do/say-CONT=3M.IO
Alboogoona booroo-nim.
 A.-ERG

“‘You’re really bad, you’re weak,’ said Alboogoona booroo.’(L91.026)

3.4. English ‘one’: -wan

In the field trips from 2008 and 2011, examples of the suffix -wan occurred sporadically on Bardi adjectives. This suffix is found on many adjectives in Kriol, and comes ultimately from English ‘one’ (as in the phrases ‘black one’ or ‘big one’). As seen from example (6.40), there is no number information

conveyed in the suffix. Example (6.40) also shows that *-wan* does not substantivize the adjective, since the adjective *irrgirrgadarr* ‘many’ is attributive to *aarli* ‘fish’.

- (6.40) ... (*jirral*) *namoordamba irrgirrgadarrwan aarli naloorr...*

(jirral) namoord=amba irrgirrgadarr-wan aarli naloorr
trevally just=THUS many-‘one’ fish plenty

‘There were an awful lot of trevally fish there.’ (NGM.008)

- (6.41) *Arragij oolardan namarda boor emptywan ingarran.*

Arragij òolarda namarda boor emptywan i-ng-arr-a-n.
NEG things just place empty 3-PST-AUG-be-CONT

‘There wasn’t anything, just an empty place.’ (AKL18 (MIL1)/00:32)

4. Numerals

Like many Australian languages, Bardi has a small system of numerals; only 1, 2 and 3 are uniquely identified. Four is ‘2+2’ and five is ‘hand’ (although not everyone accepts this as a term for ‘five’). This is about average for Australian systems, though systems up to 20 are known from languages such as Gamilaraay in Central New South Wales (Ash, Lissarrague, and Giacón 2003).

4.1. Cardinal numbers

The Bardi numeral system is given in Table 6.2.

Table 6.2. Bardi numerals

Numeral	Bardi	
1	<i>arinyj(i)</i>	
2	<i>gooyarr(a)</i>	
3	<i>irrjar(a)</i>	
4	<i>gooyarr(a) agal gooyarr(a)</i>	two and two
5	<i>(nimarla)</i>	‘hand’

For the word for ‘four’, we find examples of both *gooyarra gooyarra* and *gooyarra agal gooyarra*, though examples with the conjunction are more common.

Further examples of numerals in noun phrases follow:

- (6.42) a. *Daag ingirrinin arinyji iidanngoorroo.*

Daag i-ng-irr-i-n-in arinyji iidanngoorroo.

sleep 3-PST-AUG-do-CONT-REM.PST one night

‘They slept one night.’

(L76.002)

- (6.43) a. *Moordoorr alangarr diird injoona irrjara lalin.*

Moordoorr alangarr diird i-n-joo-na irrjara

M south-WARDS run.away 3-TR-do-REM.PST three

lalin.

year

‘Moordoorr ran away south for 3 years.’

(L85.025)

- b. *Ngajana rangan. Irrjarinyarr jirrirr aalabo roowil innyana Boolgino.*

Ngajana rangan. Irrjari-nyarr jirr-irr aalabo roowil

1M.POSS in.laws three-COM 3A.POSS=3A sons walk

i-n-nya-na Boolgin-o.

3-TR-catch-REM.PST B.-ABL

‘It’s a story about my in-law. He was walking from Boolgin with three of their sons.’

(HHW.001)

4.1.1. *Elaboration of the system*

These numbers can be combined to produce higher numbers in certain circumstances, but they are felt to be contrived, a way of counting that is not traditional. Further forms were given in a Bardi counting book but they were universally not accepted by older speakers. For numbers higher than five (and sometimes for five itself), English numerals are used. There are, however, occasional examples of numeral system elaboration in the Laves materials.

- (6.44) *Gooyarra agal gooyarra agal gooyarra agal gooyarra galgarriny inyjalgoon.*

*Gooyarra agal gooyarra agal gooyarra agal gooyarra
 2 and 2 and 2 and 2
 galgarriny i-ny-jal goo-n.
 swim.breast.stroke 3M-PST-fall-CONT*

‘Eight of them jumped swimming into the water.’ (L103.013)

When English numerals are used, Bardi numbers are not; that is, there is no mixing of the two systems. Bardi also has a number of phrases from English numerals, such as ‘ten dollars,’ which are borrowed as single words (*dindala*).

4.1.2. Polysemy of *arinyji* ‘one’

The word *arinyji* is polyfunctional and polysemous. The other numerals, however, are used only as numerals. The word for ‘one’, however, can be used to mean ‘same’, and reduplication gives a distributive (‘each’) reading:

- (6.45) *Ngajana gandoorrman arinyjo booroo darr angarrarna.*

*Ngajana gandoorrman arinyj-o booroo darr
 1M.POSS countryman one-ABL place come
 a-ng-arr-ar-na.
 1-PST-AUG-TR-pierce-REM.PST*

‘He is my countryman; we come from the same place.’

- (6.46) *Lali inananamoordoo arinyjarinyj.*

*Lali i-na-na-na=moordoo arinyj-arinyj.
 lolly 1-tr-give-CONT-REM.PST REDUP-one*

‘He gave us lollies (candy)—one each.’

4.1.3. Numerals and vague quantification

While it has been claimed that numerals in Australian languages are ‘vague’ quantifiers, and refer not to specific quantities but to approximate amounts,

this is not true for Bardi.¹⁰⁹ The quantities denoted by these numerals are not vague; *irrjar* means only ‘three’, not ‘three or a small number, several’. If one wishes to be vague about the exact quantity denoted, a compound *gooyarr-irrjar* ‘two-three’ is used.

- (6.47) *Ginyinggonmin gooyarr irrjar arraloonganirr.*

Ginyinggon=min gooyarr irrjar a-rr-loonga-n=irr.
then-THEN two three 1-AUG-collect-CONT=3A.DO

‘We get two or three more.’ (GLN.006)

4.2. Ordinal numbers

No ordinal numbers appear in my data. Three words are translated as ‘first’ in the dictionary, however they are not numerals. *Alaboor* ‘first’ refers to the person ‘in front’ in a line, the first item in a sequence, and contrasts with *bayburr* ‘behind’. *Inngoorr* ‘first’ occurs in the sense of ‘before’, as in temporal ordering. *Jorndi* also refers to the first item in a temporal sequence. *Ajimarr* is given as ‘second’ in Nekes and Worms (1953), but it also refers to relative location or position in a line and is not really a counting item. It also means ‘following’ (paralleled by the etymology of the English word ‘second,’ of course). It’s not a numeral because everything after the ‘first’ item can be called ‘second’, including the last in the sequence.

4.3. Morphology on numerals

Numerals can take their own morphology, and this defines them as a word sub-class.

4.3.1. *-nan* ‘times’

There are examples of a suffix *-nan* on numbers. It is also found occasionally on the quantifier *niimana* ‘many’, so its use may once have been broader than my examples indicate.

- (6.48) a. *niimananan* ‘many times’

b. *gooyarranan* ‘twice’

- (6.49) *Irrjarnan injaybigaljarrngay*, “*Jan injoogal jan baawa?*” *Arra ngamoonggoon, janamadan roowil innyal.*

Irrjar-nan i-n-jaybi-gal=jarrngay, “*Jan i-n-joo-gal*
 three.times 3-TR-ask=1M.DO where 3-TR-do/say-REC.PST
jan baawa?” *Arra nga-moonggoon, jana-madan roowil*
 1M.POSS child NEG 1-know where-DIR walk
i-n-nya-gal.
 3-TR-catch-REC.PST

‘He asked me three times, “Where is my child?” I don’t know, where he went.’

Note that ‘once’ is different: the form is *arinyjing*, presumably with a form of the instrumental case (see further §5.3.4).

- (6.50) *Arinyjing arr ngankiya barnanggarr, ngoorrij arramb arr ngaliya.*

Arinyj-ing arr nga-n-kiy-a barnanggarr, ngoorrij
 one-INS go 1-FUT-TR-do-FUT today tomorrow
arr=amb arr nga-l-iy-a.
 NEG=THUS go 1-IRR-do/say-FUT

‘I’ll go once today, but I won’t go tomorrow.’

4.3.2. Numeric: -mara

Metcalfe (1975a) records a suffix *-mara* which is used on loan numerals such as *seven-mara*. *mara* on its own means ‘far away’ but it is difficult to see how this is related. My consultants did not use English numerals with this suffix in Bardi.

Chapter 7

Pronouns and Demonstratives

This chapter outlines the free pronouns and demonstratives in the language. Pronominal categories are found in several places in the agreement and morphological system; these are summarized in (7.1). There are four types of pronouns: personal pronouns, emphatic pronouns, demonstrative pronouns, and interrogative/ignorative pronouns. There are free pronouns, affixes, and clitics, which establish or cross-reference pronominal categories; they are listed in (7.1a). Only the free pronouns are discussed here; the other areas of pronominal reference are discussed elsewhere in the grammar.

(7.1) a. Personal marking

- free ‘absolutive’ pronouns (the absolute stem is the basis for further case marking) §7.1;
- free oblique/possessive pronouns §7.4;
- possessive suffixing on nouns [transparently reduced forms of free oblique pronouns];
- indirect object/oblique agreement on verbs [related to the free oblique pronouns];
- subject agreement on verbs (see Chapter 9 and Chapter 10);
- object/predicate agreement on nouns, verbs and adjectives;
- possessive prefixing on nouns (see §7.5).

b. Emphatic ‘pronouns’ [*nimalgoyarr*] §7.3

c. Demonstrative pronouns (§7.8)

d. Interrogative/indefinite pronouns (§7.6)

Third person pronouns of several types, particularly the singular pronouns, have several additional discourse functions in addition to anaphoric reference. Anaphoric use of free pronouns is less important than their other uses. They mark focus and topic status, for example, but are seldom used in reference tracking. Bowern (2008a) provides some earlier discussion, and these functions are described below.

1. Personal pronouns

The evidence for pronouns as a word class distinct from nouns is not particularly strong. They do not show case marking paradigms distinct from nouns, for example. Their behavior in discourse shows properties of both nouns and pronouns, since most reference tracking is done with agreement or null anaphora rather than overt pronouns. They can take modifiers, just as nouns do (see §7.1.6). Like pronouns in other languages, however, they get their reference from the discourse context. Third person pronouns are also quite extensively used as determiners and modifiers of nouns. Person pronouns also have inherent number specification, whereas nouns in Bardi do not. The free pronouns are also inherently referential, unlike nouns, and unlike agreement markers. Therefore while I treat personal pronouns as a distinct class here, one should remember that there are no morphological (and few syntactic) differences between nouns and pronouns.

1.1. Number distinctions in personal pronouns

The Nyulnyulan languages (including Bardi) and many other non-Pama-Nyungan languages of the Kimberley region are described as having a four-person minimal/augment system, an analysis due to McGregor (1989a). McGregor (1989a) and Rumsey (1996) noticed several unusual facts about the pronominal systems of languages like Nyulnyul and Gooniyandi. These languages have (in familiar terminology) a first person dual inclusive pronoun, but no first person dual exclusive. The first person dual exclusive is marked by the first person plural. In many of the relevant languages there is no second or third person dual. Secondly, the first person dual inclusive seems to pattern more with the ‘singular’ pronouns than with non-singular ones. In Bardi, for example, the first person dual inclusive verb agreement is marked by *a-*, with no further number marking (cf. first person ‘singular’ *nga-*, second person singular *mi-*, third person singular *i-*); the ‘plural’ persons all have a trill *rr-* prefix.¹¹⁰

The categories of 1AUG and 1+2AUG are collapsed in Bardi inflectional morphology and are marked by a single form (a derivative of *arr-*). This system is known as an Assiniboine system (after Greenberg’s (1988) typology of first person dual marking). The Assiniboine system is schematized in (7.2).

(7.2) Assiniboine system

1min	1aug
1+2min	
2min	2aug
3min	3aug

The alternative system, where all pronominal forms in the minimal/augment system are marked differently, is known as an Ilocano system. This is in evidence in Bardi only in the free pronouns. The Ilocano system is illustrated in (7.3).

(7.3) Ilocano system

1min	1aug
1+2min	1+2aug
2min	2aug
3min	3aug

1.2. Forms of pronouns

The forms of Bardi free absolutive pronouns are given in Table 7.1. The free pronouns follow the Ilocano system illustrated in (7.3) above.

Table 7.1. Free absolutive pronouns

Person	Minimal	Augmented
1	<i>ngay(oo)</i>	<i>arroodoo</i>
1+2	<i>ayoo</i>	<i>arridil</i>
2	<i>joo</i>	<i>goorr</i>
3	<i>ginyingg(i)</i>	<i>irr</i>

The minimal forms are used for reference to a single person, or for the dual inclusive in the case of the 1+2MIN form *ayoo*. The augmented forms add one or more additional referents to the minimal forms; thus the form *arroodoo* means ‘first person and one or more third persons’ (i.e., first person dual/plural exclusive). The 1+2AUG and 2AUG forms have multiple second or third person addressees; that is, the 1+2AUG *arridil* means ‘you and me and others who may or may not be addressees’.

1.3. Usage

The pronouns labeled ‘absolutive’ are used in several contexts, which are summarized in (7.4) below:

- (7.4) a. as the subjects of clauses, cross-referenced by subject agreement
- b. as the objects of clauses, cross-referenced by object agreement
- c. as the indirect/oblique objects of clauses, cross-referenced by oblique agreement
- d. as coreferential with possessive pronouns
- e. as vocatives
- f. third persons are used as number/definiteness markers

Examples follow; (7.5a) shows a subject (marked by ergative case and cross-referenced by the subject pronoun *nga-*), (7.5b) is also a subject but of an intransitive verb. (7.6a) shows a copula clause, (7.6b) shows a direct object, (7.7a) an oblique, and (7.7b) a possessor doubling a possessive pronoun.

- (7.5) a. “*Oonkalalangoorr gorndo agal ngayoonim ngankalalangoorr gorn-do,*” *injoonoojirr*.
*Oo-n-kalala-n=koorr gornd-o agal **ngayoo-nim***
 3-FUT-look.after-CONT=2A.DO sky-ABL and 1MIN-ERG
nga-n-kalala-n=koorr gornd-o,”
 1-FUT-look.after-CONT=2A.DO sky-ABL
i-n-joo-noo=jirr.
 3-TR-do/say-PST=3A.IO
 “He’ll look after you from the sky and I’ll look after you from the sky,” he said to them. (GAL1.053)
- b. *Gooyarra oorany irrin borngony borngony, ngayoo boolngooroo nganin.*
*Gooyarra oorany i-rr-i-n bornkony bornkony, **ngayoo***
 two woman 3-AUG-sit-CONT one.side one.side 1MIN
boolngooroo nga-ni-n.
 middle 1-sit-CONT
 ‘Two women are sitting on each side of me, and I am sitting in the middle.’

- (7.6) a. “*Ngayoo*,” *injoonoojirr* “*joogarrangay gooloo ngay*,” *injoonajirr*.
Ngayoo,” *i-n-joo-noo=jirr* “*joogarra-ngay*
 1MIN 3-TR-do/say-REM.PST=3A.IO 2AUG.POSS=1MIN
gooloo ngay,” *i-n-joo-na=jirr*.
 father 1MIN 3-TR-do/say-REM.PST=3A.IO
 “‘I’m your father,’ he said.’ (L139.010)
- b. *Jiiba anangay ngayoo*, *nyiinkid joo anaya*.
Jiiba a-n-a=ngay *ngayoo*, *nyiin=kid joo a-na-ya*.
 this 2-TR-give-1M.DO 1MIN that=then 2min 2-TR-take.
 ‘You give me this one, and you take that one.’
- (7.7) a. *Ngarri ngay injilnganjan goolan*.
Ngarri ngay i-n-jilnga-n=jan *gōol-an*.
 much 1MIN 3-TR-tell-CONT=1M.IO father-1M.POSS
 ‘My father is telling me all the time.’ (L75.0004)
- b. *Ngayoo jana gandoorrman*.
Ngayoo jana gandoorrman.
 1MIN 1M.POSS country.man
 ‘He is my countryman.’

The absolute pronouns are also used in a subcase of possessive marking in (7.9e) below, where the possessor is marked on the noun itself as a prefix, and the free pronoun is coreferential (but does not receive additional marking).

As far as can be determined, there are no differences in register in using personal pronouns; that is, it is not impolite or disrespectful to address someone directly as *joo* ‘you’.

Pronouns can be modified by the emphatic use of *=ninga* ‘name’, as in *joo=ninga* ‘hey you’, or *ngay=ninga* ‘it’s ME! (see (7.8))’; in such cases, speakers vary as to whether *=ninga* receives person agreement. Most of the examples show it without agreement, as just quoted, but *joo=nyinga*, with the second person minimal agreement prefix, is also found. Impressionistically, agreement is more common with first person uses (*ngay=nganga*) than with other persons.

- (7.8) “*Arra ngay ninga ngay arr ngandan. Jarri ngay arr ngandan!*” *in-joonoo jiib ginyingginim aamba.*

“Arra ngay ninga ngay arr nga-n-d-an. Jarri ngay
 look! 1MIN ‘name’ 1MIN come 1MIN-TR-do/say-CONT this 1MIN
arr nga-n-d-an!” i-n-joo-noo jiib ginyinggi-nim
 come 1MIN-TR-do/say-CONT 3-TR-do/say this 3MIN-ERG
aamba.
 man.

“‘Hey, look! It’s me coming back! It’s me!’ the man said to these people.’ (BMF.017)

1.4. Case marking on pronouns

The pronouns take the same case affixes that appear on nouns, for which see §5.2 and following. Morphologically, there is a difference between the source case *-joon* and the locative *-goon* on the first person pronoun *ngay(oo)*; the form of the first is *ngayoon*, and the second is *ngayon*. This is regular, if we assume that glide-final stems take vocalic allomorphs, not consonantal ones. Case on the first item in the phrase ensures that there are all possibilities for case marking. This gives the inflectional form. It is a little unclear if all case inflections are licit if the pronoun is the head of the phrase, due to semantic restrictions. For example, animate referents do not take instrumental case marking as heads of phrases. (7.9) gives examples of each of the main Bardi cases attached to a personal pronoun. Comments follow.

- (7.9) a. *Ngay jana wiliwili minnyagal.* (Absolutive)
Ngay jana wiliwili mi-n-nya-gal.
 1MIN 1M.POSS fishing.line 2-TR-pick.up-REC.PST
 ‘You picked up my fishing line.’
- b. *Ngaynim jana bo inamoorgal irrol.* (Ergative)
ngay-nim jana bo i-na-moor-gal irrol.
 1MIN-ERG 1M.POSS woman’s.child 3-TR-make-REC.PST spear
 ‘My daughter made a spear.’

- c. *Ngayoong/ngaynga jan irrola inamboogal aarli.* (Instrumental)
*Ngayoo-**ng**/ngay-**nga** jan irrola i-na-m-boo-gal*
 1MIN-INS 1M.POSS spear 3TR-PST-hit-REC.PST
aarli.
 fish
 ‘He speared the fish with my spear.’
- Baawa-nim i-na-m-barndi-**ng**-gal n-ankarra*
 child-ERG 3TR-PST-cover-APPL-REC.PST 3-forehead
*ngay-**nga** nga-marl.*
 1MIN-INS 1MIN-hand
 ‘The child covered his forehead with my hand.’
- d. *Ngaynyarr roowil innyagal baawa.* (Comitative)
*Ngay-**nyarr** roowil i-n-nya-gal baawa.*
 1MIN-COM walk 3TR-catch-REC.PST child.
 ‘The child walked with me.’
- e. *Ngayon ngamarla inyjalgoogal anggarr.* (Locative)
*Ngay-**on** nga-marla i-ny-jalgoogal anggarr.*
 1MIN-LOC 1MIN-hand 3-PST-fall-REC.PST spider
 ‘A spider fell on my hand.’
*Anggarr i-ni-n ngay-**on** nga-marl.*
 spider 3-be-CONT 1MIN-LOC 1MIN-hand
 ‘There’s a spider on my hand.’
- f. *Ngaymarr ninbalajan bo.* (Semblative)
*Ngay-**marr** ninbala=jan bo.*
 1MIN appearance=1M.POSS woman’s.child
 ‘I look like my daughter.’
- g. *Ngayoonjan milimil inamboona jawal.* (Source)
*Ngay-**oon**=jan milimil i-na-m-boo-na jawal.*
 1MIN-SOURCE paper 3-TR-PST-poke-REM.PST story
 ‘She wrote down the story from me (that I told).’
- h. *Ngayangan jiya balab roowil annya!* (Allative)
*Ngay-**ngan** jiya balab roowil a-n-ny-a!*
 1min-all 2m.IO this.way walk 2-tr-catch-fut
 ‘Walk over to me!’

- i. *Ngaygonyi anangoola balab bal!* (Lative)
Ngay-gonyi a-na-ngool-a balab bal!
 1M-LAT 2-TR-throw-FUT this.way ball
 ‘Throw the ball at me (but don’t hit me)!’
- j. *Ngaymadan anangoola bal!* (Directional)
Ngay-madan a-na-ngool-a bal!
 1M-DIR 2-TR-throw-FUT ball
 ‘Throw the ball at me, in my direction!’

(JS: June 19. 2008)

In (7.9c), two forms are possible; both *ngayoong* and *ngaynga* were judged acceptable. The first uses the vowel-final allomorph of the pronoun, while the latter uses the consonantal one. In general, the speaker (JS) from whom these sentences were elicited prefers citation forms without final vowels; other speakers vary considerably in whether the final vowel of the first person is present or absent.

1.5. Conditions on appearance/use of free pronouns

Pronouns are never, to my knowledge, syntactically obligatory in the clause. They are not used for reference tracking, as shown in (7.10) for example, where argument continuity is inferred by the absence of free NPs or pronouns and the subject marking on the verb provides information about which participants. Context identifies the referent of the verb agreement.

- (7.10) *Roowil ingirrinyana Ngalngoorarra yoorr ingarraman Balalbalalngarr daab ingirrinyan goona goorriron.*

<i>Roowil i-n<i>g</i>-irr-i-nya-na</i>	<i>Ngalngoorarra yoorr</i>
walk 3-PST-AUG-TR-catch-REM.PST Ng.	come.down
<i>i-n<i>g</i>-arr-a-ma-n</i>	<i>Balalbalalngarr daab</i>
3-PST-AUG-TR-put-REM.PST B.	climb
<i>i-n<i>g</i>-irr-i-nya-n</i>	<i>goona goorrir-on.</i>
3-PST-AUG-TR-catch-REM.PST back	fig.tree-LOC

‘They walked to Ngalngoorarra and came down at Balalbalalngarr, and climbed up at the big fig tree.’ (GAL1.061)

(7.10) contains no argument NPs or pronouns at all; the only NPs are place names or locations.

Even in cases of potentially ambiguous argument tracking, free NPs or pronouns are seldom used. The ambiguity is tolerated, though there is some assumption of argument continuity (that is, that subjects continue subjects and objects continue objects); however, likelihood and real world knowledge are used to infer who is doing what. Confirmation of the ambiguity in such cases arose in working through the Laves materials from the 1920s with different speakers. It was not always possible to recover who was doing what from the syntax alone.

Most of the other cases where pronouns might be syntactically obligatory in other languages are not found in Bardi. Heads of relative clauses, for example, can be omitted. (Further discussion is in §16.7.) Both speech act participants can be omitted. Subjects and objects of gerunds can be omitted, even though they are not cross-referenced on the verb (see further §11.3). In Bowern (2008a) I argued that arguments in raising constructions must be expressed. That is, in examples such as ‘I saw the woman walking on the beach,’ the NP ‘the woman’ could not be omitted. This appeared to be the case from my elicited data, but similar examples exist in the older materials where there is no overt material representing the raised argument. In (7.11), from the Laves materials, there is no free noun phrase or pronoun in the relevant clause.

- (7.11) *Barna booroo injalarna darr inarna, injalanirri*

Barna [booroo i-n-jala-rna darr i-n-ar-na],
along see 3-TR-see-REM.PST come 3-TR-pierce-REM.PST
i-n-jala-n=irr.
3-TR-see-REM.PST=3A.DO

'He saw him coming; he saw them.' (L81.049)

This may have been a change in the language, or simply an artifact of the elicitation situation. Further discussion of this topic can be found in §16.5.1, where I discuss evidence for possible differences between verb serialization, subordination, and parataxis.

Pronouns (or free nouns) which are part of a coordinated phrase cannot be omitted:

- (7.12) *Monty, Lionel agal ngayoo angarrjarrarra barda Broomengan.*
Monty, Lionel agal ngayoo a-ŋg-arr-jarrarra barda Broome-ŋgan.
 M. L. and 1MIN 1-PST-AUG-get.up away B.-ALL
 ‘Monty, Lionel and I got up and went off to Broome.’ (LOM.020)

There are, however, pragmatic conditions on the appearance of free noun phrases, though these apply to nouns as well, and not just pronouns.

There are differences among persons for when the free pronouns appear. First and second person pronouns are largely confined to clauses where the involvement of the speech act participant is especially highlighted; in (7.13), for example, the speaker is singling out the recipient as the person who should be doing the activity.

- (7.13) a. *Loogal injij, anjalala joonim.*
Loogal i-n-j-ij, a-n-jalal-a joo-nim.
 bad 3-TR-do/say-PFV 2-TR-look.after-FUT 2MIN-ERG
 ‘She is sick: you look after her.’
- b. *Onondorrma joonim! Arra oolalamankangay!*
O-n-onddorm-a joo-nim! Arra oo-la-lamanka=ngay!
 tell.to.stop 2MIN-ERG NEG 3-IRR-listen.to=1M.DO
 ‘You tell him to stop here! He doesn’t listen to me.’

Many examples also involve a contrast in participants, although this does not necessarily trigger free pronoun use.

Pronouns cannot be omitted if the argument is in focus. But if they are in special focus (Kiss 1998), they may also get reinforcement, such as with the exclamative *arra*, as shown in (7.14).

- (7.14) *Arra ngay bard arr ngandan.*
Arra ngay bard arr nga-n-da-n.
 INTERJ 1MIN away come 1-TRdo/say-CONT
 ‘Hey look! It’s ME coming.’ (BMF.017)
- (7.15) *Ngayoonim ngananarri malarr.*
Ngayoo-nim nga-na-na=rri malarr.
 1MIN-ERG 1-CONT-REM.PST=2M.DO wife
 ‘I gave you wives.’ (L140.014)

Third person pronouns are different from first and second person pronouns. While they can be used to signal focus, they also have functions which do not involve focus. The third person plural *irr* is used to mark number in NPs, for example (see §5.1.1).

The third main use of free absolutive pronouns is in conjunction with the series of possessive pronouns (for which see §7.4 below). Although it is possible to use the possessive pronouns without an accompanying absolutive pronoun, it is more common for the absolutive pronoun to appear. If the pronoun is absent, the possessor tends to migrate either to the verb or to the possessum.

- (7.16) *Jiiba joo jiya, nyoonba ara baawa jina.*

Jiiba joo jiya, nyoonba ara baawa jina.
this 2MIN 2M.POSS that other child 3M.POSS

‘This one here is for you. That one there is for the other kid.’

1.6. Pronominal modification

Pronouns may be used with numerals in examples such as (7.17). In such examples, however, it is difficult to know what the head of the phrase is, since there is both pre- and post-head modification.

- (7.17) a. *Irr irrjar barnmiidan ingarrjarralana.*

Irr irrjar barnmiidan i-ng-arr-jarrala-na.

3AUG three that.way 3-PST-run-REM.PST

‘Those three ran that way.’ (JMI.042)

- b. *Ngoojinigidijirr, ngoojini agal boolgoo amboonamboon irr giny-ingg gooyarra.*

*Ngoojini=gidi=jirr; ngoojini agal boolgoo
guts=THEN=3A.POSS guts and small.intestine*

amboon-amboon irr ginyingg gooyarra.

REDUP-together 3AUG 3MIN two

‘There’s their guts too, the small intestine and the large (bitter)
intestine—both together.’ (NRM.008)

The problem of defining the modifier and the modified element is well shown in (7.17b), where it looks like both the third person minimal and augment

pronouns together are used in the same phrase. This could be a speech error, however. In all these cases, the pronoun precedes the numeral. When pronouns are marking number in a noun phrase more generally, they can precede or follow the head noun.

While numerals above one are mostly of the form *irr* ‘3AUG’ and the numeral, there are occasional examples of a numeral above ‘one’ combining with the third person minimal form *ginyinggi*.

- (7.18) *Ginyinggi irrjar barni ingoorroongoorribini Jimijanyji.*

Ginyinggi irrjar barni i-ngr-oorr-oo-ngoorribi-ni Jimijanyji.
3MIN three around 3-PST-AUG-TR-chase-REM.PST J.

‘Those three chased Jimijanyji.’ (JMI.045)

- (7.19) *Ingarrjarrmin ginyinggi irrjar joolboo wirr ingarrjarrmina.*

I-ngr-arr-jarrmi-n ginyinggi irrjar joolboo wirr
3-PST-AUG-arise-CONT 3MIN three mangrove get.up
i-ngr-arr-jarrmi-na.
3-PST-AUG-arise-REM.PST

‘The three pieces of mangrove wood lifted up.’ (JLN2.009)

The difference between *irr* and *ginyinggi* in such sentences is the topic of future research.

Pronouns can be modified by *jiiba* ‘this’, as in (7.20):

- (7.20) *Bijiiba boor anjala bardaga moongangan, ngayoo jiiba boor ngankala aron bardaga.*

Bijiiba boor a-n-jala bardaga moonga-ngan, ngayoo
here look.around 2-TR-look-FUT tree sugarbag-ALL 1MIN
jiiba boor nga-n-k-al-a ar-on bardaga.
this look.around 1-TR-FUT-look-FUT another-LOC tree

‘You look around here in this tree for sugarbag, and I’ll look around there in the other tree.’ (Dictionary)

In this case, *jiiba* gives a deixis reading, where the placement of the two people are in contrast.

Pronouns can also be modified by adverbs such as *minyjin* ‘only’. Such adverbs follow the item they are modifying.

- (7.21) *Ngayoo minyjin inagaljarrngay.*
Ngayoo minyjin i-n-a-gal=jarrngay.
 1MIN only 1-TR-[give]-REC.PST=1M.DO
 ‘She gave it to me (and only me).’ (Dict)

1.7. Pronouns as modifiers

The final function of personal pronouns is anaphoric, as modifiers in a noun phrase, though this is not their primary use. Some examples were discussed briefly in the previous section. This modificational use is mostly confined to third person minimal and augment pronouns. They may precede or follow the noun they are modifying. The difference between these two positions is unclear. In (7.22), the phrase *balili ginyingg* is an afterthought construction, co-referential with *baawa* ‘child’ (*balili* is an initiation grade). This example shows a postposed pronoun, while (7.23) shows an example where the pronoun precedes the noun.

- (7.22) *Baawagid nyoonoo daag injoonoo, balili ginyingg imbanyinijirr.*
Baawa=gid nyoonoo daag i-n-joo-noo, balili ginyingg,
 child=THEN there sleep 3-TR-do-REM.PST, b. 3MIN
i-m-banyi-ni=jirr ginyinggon
 3-PST-finish-REM.PST=3A.IO then
i-ng-orr-onyi=nid aarli biji.
 3-PST-AUG-spear-=QUANT fish right.there
 ‘Then the child slept there, this *balili*-boy, and the tide went out (“finished”) and then they speared all the fish right there.’ (BAL2.006)
- (7.23) *Goorr arra goormoonggoonj ginyingga jawal.*
Goorr arra goorr-moonggoon-j [ginyingga jawal].
 2AUG NEG 2AUG-know-SIMUL? 3MIN story
 ‘You don’t know anything about these things.’ (BIL.047)
- (7.24) *Ingirrminyjin irr irrjar.*
I-ng-irr-m-inyji-n irr irrjar.
 3-PST-AUG-REFL-say-REFL-CONT 3AUG three
 ‘The three of them spoke to each other.’

2. Predicate markers

Free pronouns are not generally reduced or cliticized to other constituents in the clause. There are, however, a set of predicative pronouns, which are clitics. They are most commonly found as direct object markers on verbs, and that function is discussed in detail in §10.3; however, they can also be used in some other situations. The forms are given in Table 7.2.

Table 7.2. Direct object forms

	Set I	Set II
1 MIN	=ngay	=jarrngay
2 MIN	=rri	=jirri
3 MIN	=∅	=∅
1+2 MIN	=way	=jarrway
1 AUG	=moord	=jarrmoord
2 AUG	=goorr	=jarrgoorr
3 AUG	=irr ~ =rr	[=irr, =jarrirr, =jirrirr]

In addition to their use on verbs to mark direct objects, the predicate clitic pronouns can also appear on predicative adjectives, where they agree with the subject, as in (7.25), which shows a first person example.

- (7.25) *Ngay moorrooloomarrngay.*

Ngay moorrooloomarr=ngay.

1 MIN little-SEMB=1 MIN.PRED

‘It was when I was little.’ [the story took place when I was a little child] (NGJ.001)

- (7.26) *(Joo) niiwandigijarri.*

(joo) niiwandi=gija=rri.

2.MIN tall=VERY=2M.DO

‘You’re very tall.’

The predicate markers can also appear on predicative nouns such as +moonggoon ‘knowledge’ in examples such as (7.27).

- (7.27) a. *Arra nyimoonggoonjarrngay jalnggagooroo ngayoo,” injoonin aambanim.*

Arra nyi-moonggoon=jarrngay jalnggagooroo ngayoo,”

NEG 2MIN-know-1M.DO doctorman 1MIN

i-n-joo-n=in aamba-nim.

3-TR-do/say-CONT=3M.IO man-ERG.

“You don’t know me, I’m a doctorman,” said the man.’ (or, ‘You don’t know that I am a doctorman.’)

(A1839a The ‘Magic’ Drunkard.033)

- b. *Arra nyooongoojarrngay.*

Arra nyoo-ngoo=jarrngay.

NEG 2-stomach=1M.DO

‘You don’t like me.’

(BGM.006)

Finally, these clitics can be used as clitics on free pronouns, in which case they add ‘emphasis.’ In (7.28), the speaker (Jessie Sampi) is giving the evidence that Bardi people have always lived in Bardi country. The text shows a high number of emphatic constructions which contrast Bardi people, especially the people of Mrs Sampi’s generation, with others.

- (7.28) *Arroodoomoordoo ginyingg arroodoo marrirborla, arrmoonggoon jawal ...*

Arroodoo=moordoo ginyingg arroodoo marrir-borla,

1AUG=1A.DO 3MIN 1AUG sister.cousins

arr-moonggoon jawal ...

1A-know story

‘Us people, my sisters and cousins, we know the stories....’ (BDI1.004)

For simplicity, the forms given in Table 7.2 are glossed as DO (for ‘direct object’) even in the contexts, such as those illustrated above, when they appear on a predicate other than a verbal one. The same principle applies to the glossing of ‘oblique’ markers, discussed in §7.4 below, which have functions other than indirect and oblique object marking.

3. Emphatic pronouns

There is no special series of emphatic pronouns; the free pronouns themselves convey a degree of emphasis by virtue of their presence. Unemphatic pro marking is null and carried by the verb agreement. Most of this ‘emphasis’ can be subsumed under a definition of unexpected information, information which is contrary to expectations, or exclusiveness (that is, that out of a set of possible referents, it is that one only that is meant).

Besides the regular pronouns, there are four ways that one can add emphasis to a pronoun. One is the use of the direct object/predicate clitics; an example was given in (7.28) above. Second, one can use the clitic or free word *=ninga* in conjunction with a regular pronoun. It means literally ‘name’, though in examples such as (7.29) below, it is bleached. We could perhaps assume in such contexts that the pronoun has an exhaustive or exclusive listing interpretation (that is, where the pronouns serve to emphasize that the particular participants in the action of the predicate are those ones *and no one else*).

- (7.29) *Ar aamba ginyingg ninga.*

Ar aamba ginyingg ninga.
other man 3MIN NINGA

‘This was one man.’

(L63.003)

The third emphatic form is (=)goyarr, either used on its own (in the Laves materials) or in the pronominal item *nimalgoyarr* ‘himself/herself’. The form is discussed in §12.3.1.2 because it is most commonly used in constructions where English uses a reflexive pronoun (as in ‘he did it himself’), and in other reflexive constructions where the speaker is emphasizing that an action is done other than by the person’s own volition. It is not, however, a genuine reflexive pronoun, since it does not reduce the valency of the clause and can also stand as the subject of a clause. The form is recorded both as a clitic and as an independent word.

- (7.30) *Ingamarlinyjin ginyingg goyarra.*

I-nga-marl-inyji-n ginyingg goyarrā.
hit 3MIN self.

‘He hit himself for shame.’

(L157.042)

“*Arra jarri ngamoonggoon . . . ,*” *injoonoo niimalgoyarr.*

- a. “*Arra jarri nga-moonggoon . . .*,” *i-n-joo-noo niimalgoyarr.*
 NEG this 1-know say self
 “I don’t know . . .,” he thought to himself. (JMI.027)

Finally, a form for first person only, *ngaybi*, is found in the exclusivity reading (that is, where the pronoun prefers specifically to the first person only, and no one else). In (7.31), for example, the sense of the sentence is that if the speaker drowns, the addressee will also drown (whereas if someone else drowns, that won’t happen).

- (7.31) *Ngaybi nganggarda joo biilamb ngayarda.*
Ngay-bi *nga-ngg-ard-a* *joo* *biilamb* *nga-yard-a.*
 1MIN-FOC 1-FUT-drown-FUT 2MIN also=THUS 2IMP-drown-FUT
 ‘If I drown, you’ll drown too.’ (BA-CB52.3/B/E)

4. Possessive and oblique pronouns

The other set of free pronominal forms (apart from the free absolute pronouns discussed above) is the set of oblique pronouns. They are used in possession constructions and a few other places, to be discussed below. Bardi free possessive pronouns take possessum agreement. The person marking in the possessive is different from the free pronouns; the possessives show an Assiniboine system, where there is no distinction in clusivity in the augmented forms (see Table 7.2 above). In this they are like affixal agreement.

4.1. Forms

The Bardi free possessive forms are given in Table 7.3. The free pronouns may also be used as clitics; those uses are discussed in §10.4 below.

When the free possessor pronouns are used as possessives, they take the form of compound pronouns, which specify information for the person and number of both possessor and possessum. Thus if there is a first person possessor and a third person augmented possessum, the form of the pronoun is *jan-irr*. The third person minimal possessum form is null; thus *jina* means ‘his/her/its (minimal) thing.’ Final vowels are optional on all the free possessive forms, and are deleted when a vowel-initial possessum marker follows,

Table 7.3. Possessor and possessum pronominal paradigms

Person	Free possessive	Possessum Marker
1MIN	(<i>nga</i>) <i>jana</i>	= <i>ngay</i>
2MIN	<i>jiya</i>	= <i>iy</i>
3MIN	<i>jina</i>	= \emptyset
1+2MIN	(<i>a</i>) <i>jowa</i>	= <i>ayoo</i>
1AUG	<i>jarda</i>	= <i>arr</i>
2AUG	<i>joogarra</i>	= <i>goorr</i>
3AUG	<i>jurra</i>	= <i>irr</i>

except for the second person minimal possessor/third person augment possessum, which is *jiyarr* rather than expected *jiyirr*. The forms are predictable, so full paradigms are not given here.

The 1MIN and 1+2MIN forms have short and long variants, *ngajana* and *jana* for the first person minimal and *ajowa* and *ajawa* or *jawa* for the 1+2 form. These forms are presumably contractions of the free pronoun and the possessive pronoun.

Free possessive forms are used both as pronouns (as in (7.32a)) and in marking possession where the noun is overt, as in (7.32b):

- (7.32) a. *ngajana irrol*
ngajana *irrol*
 1M.POSS spear
 ‘my spear’
- b. *boorroo agal larrood jurra jawal*
boorroo *agal* *larrood* *jurra* *jawal*
 kangaroo and hermit.crab 3A.POSS story
 ‘a story about the kangaroo and hermit crab’ (lit: ‘kangaroo and hermit crab their story’)

Further examples of possessors and possessed items with different persons and numbers follow in (7.33)–(7.35).

- (7.33) a. *joo jiyarr aarli*
joo *jiy-arr* *aarli*
 2MIN 2M.POSS fish
 ‘your fish (AUG)’

- b. *ginyinggi jina banigin*
 3MIN 3M.POSS cup
 ‘his/her/its cup’
- (7.34) *Arra goolarrjargajan ngay joogarrangay gooloo.*
- Arra goo-l-arr-jarg-a=jan* *ngay*
 NEG 2AUG-IRR-AUG-be.frightened-FUT=1MIN.IO 1MIN
joogarra-ngay gooloo.
 2AUG.POSS-1MIN father

‘Don’t be frightened of me—I’m your daddy.’ (BE: CB52.2)

- (7.35) *Ingirrinajirr “aalajanarrirr indankaljirr agal malarr janagoorroo indankalgarda boordardabina goongoorrogalji.”*

I-ng-irr-i-na=jirr
 3-PST-AUG-do/say-REM.PST=3A.IO
“aala=jana-rr=irr
 man’s.child=1M.POSS-3A=3A.PRED
i-n-d-an-kal=jirr *agal malarr jana-goorroo*
 3-TR-do/say-CONT-REC.PST=3A.IO and wife 1M.POSS-2A
i-n-d-an-kal=garda *boordardabina*
 3-TR-do/say-CONT-REC.PST=INTERROG properly
goo-ng-oorr-o-gal-ji.”
 2-PST-AUG-kill-REC.PST-?

‘The men told them, “it’s my kids he came for, and you, my wives, that he came for, and it’s good you killed him.”’ (L139.021)

- (7.35) is a good example of a form of the pronoun where both possessor and possessum are non-third person, and therefore clearly show the person agreement in these pronouns.

I am agnostic about whether the compound possessive/possessum pronouns represent genuine compounds, affixation, or cliticization of the possessum marking to the possessor pronoun. There is no way to distinguish between these analyses that I can determine. I gloss the forms as affixed because of forms such as *aala=jana-rr=irr* in (7.35) above, where the compound possessive *=janarr* is followed by a third person augment predicative clitic *=irr*. The hyphen for the third person augment possessum indicates that *-rr* is bound to *=jana* rather than to *aala*.

4.2. Possession suffixation

Possessive pronouns can cliticize to the possesum; in this case, they can show lenition, although it is optional. When the possessor cliticizes to the host noun, it does not show agreement with the possesum. They tend to occur with kinship terms, although not exclusively so. They are found more extensively in the Laves materials than in modern Bardi materials.

- (7.36) a. *bo=yin*
woman's.child=3M.POSS
'her son/daughter'
- b. *gool=an*
father=1M.POSS
'my father'

These pronominal clitics are found frequently on kinship terms in the Laves materials, and appear to be the default way of signaling possession in these items. They can also occur on body parts.

5. Possessive prefixation

As mentioned briefly in §4.2.1.1, Bardi has a set of nouns which inflect for possessive prefixation. The forms of the possessive prefixes are given in Table 7.4.

Table 7.4. Possessive prefixes

Person	Form
1MIN	<i>nga-</i>
1+2MIN	<i>a-</i>
2MIN	<i>nyi-</i>
3MIN	<i>ni-</i>
1AUG	<i>arr-</i>
2AUG	<i>goorr-</i>
3AUG	<i>irr-</i>

When the prefixed inalienably possessed nouns combine with an overt possessor, the possessor precedes the noun and takes no marking.

- (7.37) *Aamba ninga Ngoolumoongoolmoo.*

Aamba ni-nга Ngoolumoongoolmoo.
man 3-name Ng.

‘The man’s name was Ngoolumoongoolmoo.’ (L71.20)

6. Ignorative/interrogative pronouns

Bardi has a set of pronouns which could be best labeled ‘ignorative’ (the term is due to Wierzbicka 1980), in that they have dual functions of the indefinite and interrogative. The forms and associated semantics are discussed here; the syntax of question formation (which can include strategies other than the use of an ignorative pronoun) is discussed in Chapter 15. Some ignorative pronouns can also be used in indirect questions; such uses are further discussed in Chapter 16.

6.1. Forms

The ignorative pronouns do not form a neat paradigm. There are some roots which can be identified (and reconstructed to Proto-Nyulnyulan in many cases) but there is also extensive fossilized morphology. Table 7.5 gives the forms of ignorative pronouns in the language.

There are two words glossed as ‘why’: *angan* and *anggi*. *Angan* is probably not an ignorative in the true sense of the term, since unlike the other pronouns discussed here, it does not appear to have an indefinite (but non-interrogative) meaning. *Anggi* can mean either ‘what’ or ‘something’ in different circumstances, but to my knowledge, *angan* only means ‘why’, not ‘some reason’. There is also *goonban(kij)*, which also forms questions about reasons why, but differs from the others in that it expresses the speaker’s disbelief and disapproval that the interlocutor could have done what they did. It means something like ‘why on earth...’ and further discussion can be found in §15.4.2.2. The word *nganyji* in isolation is a particle which is used in one way of marking polar questions. It may also combine with other elements in the ignorative system (see further §15.4.1).

When used in isolation, the ignoratives have either interrogative or indefinite readings. However, several of the roots in Table 7.5 can combine with

Table 7.5. Ignorative pronouns

Bardi root	Bardi forms	English
<i>anggi-</i>	<i>anggaba</i>	who
	<i>anggi</i>	what, what kind of, why
	<i>anggarryny</i>	why (what purpose) so much
	<i>anggoobooroo</i>	somewhere
<i>jana-</i>	<i>jana(mbooroo)</i>	where
	<i>janaba mardiny</i>	how far
	<i>jana, nyirra</i>	which
<i>nyirra-</i>	<i>nyirroo(goordoo), nyirra</i>	how
	<i>nyirrirrgoordoo</i>	
	<i>nyirroogoordoo</i>	how (what manner)
	<i>nyirroo</i>	how come
<i>nganyji-</i>	<i>ngany(j)irrgoord</i>	how long
	<i>nganyjirrgoordoo,</i>	how many
	<i>nganyjal irrgoordoo</i>	
<i>baani</i>	<i>baanigarr</i>	when
<i>angan</i>	<i>angan</i>	why (what reason)

the indefinite derivational marker *-al*, in which case they only receive the indefinite reading. The forms attested with this suffix are given in (7.38) below.

- (7.38) a. *anggal* ‘what all, whatever, something’
 b. *janal* ‘wherever’
 c. *janambooral* ‘somewhere (else)’
 d. *nyirral* ‘however, whatever’

Nganyjal is also found, however it is only used in the ignorative system when combined with *irrgoordoo*, where it means ‘how many’. On its own, *nganyjal* means ‘hopefully’.

6.2. ‘Who’ and ‘what’: *anggi-*

Most Nyulnyulan languages have a single pronoun *yangg(i)* which means both ‘what’ and ‘who’. Bardi has innovated a distinction between *anggi*

‘what’ and *anggaba* ‘who’. The suffix *-ba* in this form is probably etymologically the cleft/relative clause marker. The development would thus parallel French *qu'est-ce que ... ?*, literally ‘what is it that ... ?’. Unusually, the ergative case marker can be omitted from *anggaba*; I assume that this is a reflection of its status as a former clefted pronoun (if the pronoun is clefted, we would not expect it to receive ergative case marking because it would not be part of the same clause as the verb). There are examples with *anggaba-nim*, however all the examples are from the modern corpus. There are no examples from the 1920s. Alternatively, it is possible to use *anggi-nim* ‘what/who-ERG’ in the meaning of ‘who’, instead of using *anggaba* without the ergative case. An example of this is given in (7.40).

6.2.1. Interrogative uses

Examples of ‘who’ and ‘what’ are given in (7.39). (7.39a) shows that *anggi* can also be used with nouns to mean ‘what kind of’, in the sense of what species.

- (7.39) a. *Angginim joorroo inarligalngay?*
Anggi-nim jōorroo i-na-rli-gal=ngay?
 what-ERG insect 3-TR-eat-REC.PST=1M.DO
 ‘What kind of insect bit me?’
- b. *Boorronim “anggaba joornkiidigij?,” injoonoojin larrood.*
Boorroo-nim “anggaba joornkiidi=gij?,”
 kangaroo-ERG who faster=VERY
i-n-joo-noo=jin larrood.
 3-TR-say-REM.PST=3M.IO hermit.crab
 ‘The kangaroo asked the hermit crab, “who’s the faster runner?”’
 (BLJ.001)

- (7.40) *Jarri ngankoogooli nyaa, angginim liyan minman nalma?*

Jarri nga-n-k-oogooli nyaa, anggi-nim liyan mi-n-ma-n
 this 1-TR-FUT-chop.up oh who-ERG want 2-TR-put-CONT
n-alma?
 3-head?

‘I’ll give you this bit... who of you wants the head?’ (SNG2.008)

With the word ‘name’, either *anggi* ‘what’ or *anggaba* ‘who’ can be used:

- (7.41) a. *Anggi ninga jiy baawa?*
Anggi ni-nга jiy baawa?
 what 3-name 2M.POSS child
 ‘What’s your child’s name?’
- b. *Anggaba ninga jarri aamba?*
Anggaba ni-nга jarri aamba?
 who 3-name this man
 ‘What’s this man’s name?’

It is not uncommon in Australian languages for the interrogative ‘who’ to be used in questioning a person’s name.

The pronoun *anggi* is also used in some idiomatic expressions, such as (7.42).

- (7.42) *Angginim inarligal?*
Anggi-nim i-na-rli-gal?
 what-ERG bit
 ‘What happened? [What bin happen?]’ (NI, conversation)

Anggi is also used in asking questions about the purpose of an action. It is one of several different ways of asking ‘why’ questions; reason questions are formed with *angan*, for which see §15.4.2.2 below. The use of *anggi* here in Bardi is parallel in Nyulnyul to the use of the equivalent question word marked with the dative case; since Bardi has no dative case, the form is uninflexed.

- (7.43) a. *Anggi miyarginjin(a)?*
Anggi mi-yargi-n=jin(a)?
 why 2-afraid.of-CONT=3M.IO
 ‘Why are you scared of him?’ (L56.058)
- b. *Anggi boor minjaljin bilimbilingg?*
Anggi boor mi-n-jal=jin bilimbilingg?
 what look.at 2-TR-see=3M.IO sun’s.rays
 ‘Why are you looking into the direction of the sun’s rays?’

Finally, *anggi* can be case-marked:

- (7.44) a. *Warday, anggon ngangalandagal?*
Warday, angg-on nga-nга-landa-gal?
 oh.no what-LOC 1-PST-sit-REC.PST
 ‘Oh dear, what have I been sitting on?’
- b. *Anggiyoon goonkoordoo darnarn?*
Anggi-yoon goonkoordoo da-rn-ar-n?
 what-SOURCE smoke come-TR-pierce-CONT
 ‘Why is there smoke?’” (GGG.004)

6.2.2. Indefinite uses

The previous examples of *anggi* and *anggaba* involved the interrogative uses of the pronoun. There are also indefinite uses, where the pronoun is best translated as ‘something’.¹¹¹ The form can be either *anggi* or *anggal* (see (7.46)), which is overtly marked for the indefinite reading.

- (7.45) *Jamb ginyinggi anggi inamana joorroonim.*
Jamb ginyinggi anggi i-na-ma-na joorroo-nim.
 thus 3MIN what 3-TR-put-REM.PST snake-ERG
 ‘The snake bite put something (some poison) in him.’ (JDW.011)
- (7.46) *Anggal injoogaljin, arra ngalamankana.*
Anggal i-n-joo-gal=jin, arra
 something 3-TR-do/say-REC.PST=3M.IO NEG
nga-la-lamanka-na.
 1-IRR-hear-REM.PST
 ‘He said something but I don’t know what he said, I didn’t hear him.’
 (Dictionary)

6.2.3. ‘What’s it’: *anggooriny*

The pronoun *anggoriny* is both indefinite and interrogative; it is clearly derived from *anggi* ‘what’ but the suffixal morpheme is not otherwise attested.

It is used most often when the name of something is forgotten, or occasionally, taboo in speech. In (7.47), for example, *anggooriny* is standing in for an item whose name is gender-restricted and which cannot be used in mixed company.

- (7.47) *Ginyinggarra boorroongg ingarramana anggooriny.*

Ginyinggarra boorroongg i-n-g-arr-a-ma-na
 then turn.over 3-PST-AUG-TR-put-REM.PST
anggooriny.
 what's-it

‘Then they turned over the what’s-it-called.’ (Metcalfe 1975a)

6.2.4. ‘Whatever (all)’: *anggirrgoordoo*

Another indefinite pronoun formed from the root *anggi* is *anggirrgoordoo* ‘whatever’. It would appear to be a compound of *anggi* and *irrgoordoo*, which on its own means ‘everyone’, which is found in conjunction with several ignorative roots. In (7.48), for example, *anggirrgoordoo* is used several times in David Wiggan’s description of the populating of Noah’s ark.

- (7.48) *Imbanyi, ginyinggo injooloonganid boonyja anggirrgoordoo inkal garrabal jarri boonyja anggirrgoord injidorron injidorron inamanirr boogoon yandilybaron.*

I-m-banyi, ginyingg-o i-n-jooloonga-na=nid boonyja
 3-PST-finish then-ABL 3-TR-collect-REM.PST=QUANT all
anggirrgoordoo i-n-kal garrabal jarri boonyja anggirrgoord
 whatever 3-TR-live bird this all whatever
injidorron injidorron i-na-ma-n=irr boogoon
 spouse spouse 3-TR-put-CONT=3A.DO inside
yandilybar-on.
 boat-LOC

‘He finished it, and he collected all the animals that live—all the birds and whatever, husband and wife, and put them inside the boat.’ (NAF.010)

Note that *anggirrgoordoo* can take minimal agreement marking, as it does in (7.48).

6.2.5. ‘Why so much’: anggarryny

The final derivative of *anggi* is *anggarryny* ‘why (do X) so much?’. The suffix is unknown and not found on other items.

- (7.49) *Anggarryny ngaakon minjoo. Marl anja!*
Anggarryny ngaak-on mi-n-joo. Marl a-n-j-a!
 why.so.much talk-LOC 2-TR-do quiet 2-TR-do/say-FUT
 ‘Why are you talking so much? Be quiet!’
Anggarryny minjididin?
 a. **Anggarryny** mi-n-jididi-ng?
 why.so.much 2-TR-touch.REDUP-APPL
 ‘Why are you fiddling around so much?’

6.3. ‘Where’ and ‘which’: *jana*

The second root found in the Bardi ignorative system is *jana*, which on its own means ‘which (one)’. It also combines with *booroo* ‘place’ in the word *janabooroo* or *janambooroo* ‘where’. There appears to be no difference in meaning between the two forms. This word can be further inflected for local cases such as the allative and ablative. The root *jana* is also sometimes used on its own in the meaning ‘where’ (e.g. (7.50)), but this is less common.

- (7.50) a. *Janangan arr mindan?*
Jana-ngan arr mi-n-d-an?
 where-ALL go 2-TR-do/say-CONT
 ‘Where are you going?’
 b. *Janabooroongan arr mindan?*
Janabooroo-ngan arr mi-n-d-an?
 where-ALL go 2-TR-do/say-CONT
 ‘Where are you going?’

The first question implies an answer which is a place name (not a general location); this is in contrast to *janambooroo* ‘where’ which has no such implication, and can be answered with either a place name or a general direction

term. This implies that *jana* on its own still has a lot of the sense of ‘which’ and there is a gapped noun meaning something like ‘place (name)’.

‘Where to’ and ‘where from’ are marked by the allative and ablative cases respectively.¹¹² For static location, a form uninflected for locative case is used. The locative does not combine with *janambooroo*.

- (7.51) a. *Algooroo janambooroongan minyjarrala?*
Algooroo janambooroo-nGAN mi-ny-jarrala?
brother where-ALL you.run?
‘Brother, where did you run to?’ (Dictionary)
- b. *Janaboorgo darr minargal?*
Janaboor-go darr mi-n-ar-gal?
where-ABL come 2m-TR-pierce-REC.PST
‘Where have you come from?’ (Dictionary)
- c. *Bardagonjirr gorondarr daag ingirrin gard almiidan boor janaboor daag irrin.*
Bardag-on=jirr gor-on-darr daag
tree-LOC=3A.POSS ground-LOC-LOC₂ sleep
i-ng-irr-i-n gard almiidan boor janaboor daag
3-PST-AUG-do/say-CONT just any time where sleep
i-rr-i-n.
3-AUG-do/say-CONT
‘They [kangaroos] sleep in trees and on the ground, they sleep anywhere, any time.’ (BUR.001)

The case placement here indicates that *janabooroo* ~ *janambooroo* is a compound and not a phrase. Such a compound also exists in the Laves materials. These texts from the 1920s, however, also contain overtly phrasal uses of *jana* and *booroo*. An example is given in (7.52), where *jan=arr* shows one of the ‘emphasis’ clitics identified in Metcalfe (1975a).

- (7.52) *Daab innyana janarr boora liyannga inamana ginyinggi booroo.*
Daab innyana janarr boora liyannga
go.ashore 3-TR-catch-REM.PST which=ARR place want
i-na-ma-na ginyinggi booroo.
3-TR-put-REM.PST 3MIN place
‘He climbed ashore at whatever place he could.’ (L147.011)

The word for ‘which’ is *jana*. It cannot be felicitously used on its own to mean ‘which [one]’; compare the following exchange:

- (7.53) a. *Anggaba jin banigin?*
 who 3sg.POSS cup
 ‘Whose cup is this?’
- b. *Jana *(banigin)?*
 which (cup)
 (Intended: ‘Which cup?’)

(conversation, 2003)

In the exchange in (7.53) (which happened on a camping trip) a speaker (me) attempted to use *jana* ‘which’ without a head; in this case *jana* was interpreted as ‘where’, which was not a clear answer (and not taken to be pragmatically equivalent to ‘which’).

6.4. ‘How’: *nyirra-* and *nyirroogoordoo*

The basic meaning of *nyirra* is ‘how’. This pronoun is used to ask the manner in which something is achieved. It can also be used for ‘how come’ questions, that is, questions that ask about the reasons of something, or the manner in which something is achieved.

- (7.54) *Wiliwili nyirra irrjimbinjanirr ngayoo?*

Wiliwili nyirra i-rr-jimbi-n=jan=irr ngayoo?
 fishing.line how 3-AUG-die-CONT=1M.POSS=3A.DO 1MIN

‘How come my fishing lines are there for nothing? (lit, ‘how come my fishing lines are dead on me?’)’

A more common form than *nyirra* is *nyirroogoordoo*. It is used in the phrase *nyirroogoordoo minkal* ‘how are you?’ (lit. ‘how are you living?’)¹¹³ This appears at first sight to be *nyirra* marked with the proprietive derivational marker *-goordoo*, for which see §5.1.6 above. However, if this is the case, we would expect lenition of the suffix to occur; that is, we would expect the form to be **nyirrorda* rather than *nyirroogoordoo*. A more likely alternative is that it is a haplological compound of *nyirra* and *irrgoordoo*.

- (7.55) *Aalala giija boora jarri. Nyirroogoord lagal ankinya garndingan?*

Aalala giija boora jarri. Nyirroogoord lagal a-n-k-iny-a
steep very place this how climb 2-TR-FUT-climb-FUT
garndi-ngan?
top-ALL

‘This place is very steep. How are we going to climb up?’ (Dictionary)

Nyirroogoordoo can also be used for tides to ask about the state of the tides (that is, whether they are ebbing or flowing, or how far up the tide has come). In such cases, the question in (7.56) is equivalent to *anggi gaarra* ‘what water?’

- (7.56) “*Gaarra nyirroogoord andan?*” “*Jolorrgoon andan jorndi.*”

- a. “*Gaarra nyirroogoord a-n-d-an?*”
water how go-TR-do/say-CONT
‘How is the tide going?’
- b. “*Jolorr-goon a-n-d-an jorndi.*”
mangroves-LOC go-TR-do/say-CONT soon
‘It’s going into the mangroves soon.’

This interrogative pronoun is used to question the quality of something. It thus serves as another test for a difference between nouns and adjectives. The answer to a question with *nyirroogoordoo* is an adjective, but the answer to a question with *anggi* ‘what’ is a noun.

- (7.57) a. *Nyirroogoord niinbal gaara?*

how appearance sand

‘What’s the color of the sand?’

- b. *Nyirroogoord niyarda goorlil minamboogal? Boordij niyarda.*

Nyirroogoord ni-yarda goorlil mi-na-m-boo-gal?

how 3-body turtle 3-TR-PSTspear-REC.PST

Boordij ni-yarda.

big 3-body

‘How big is the turtle you speared? It’s big.’

This ignorative root is found in the complex predicate *nyirra -joo-* ‘do what’? This is the closest form that Bardi has to an interrogative verb. It is

found mostly in the Laves corpus, but occasional examples are also found in more modern texts.¹¹⁴

- (7.58) *Manjarrji ngangganji baybirrny ngayoo nyirroogoordoo nganki.*

Manjarrji nga-n-gg-anji baybirrny ngayoo nyirroogoordoo
 thirsty 1-FUT-?? behind 1MIN how
nga-n-k-i.
 1-TR-FUT-do

‘I’ll be getting thirsty, what am I going to do?’ (L145.011)

Also in the Laves materials is the word *nyirrard* or *nyirrada*. It could be a form of *nyirra* with the privative case (see §5.1.5), which is not used in Modern Bardi, but is attested in the Metcalfe materials. This might be an allegro form of *nyirra arra* ‘how not’, though it does occur three times in the corpus and so is likely to be a real form. It is immediately preverbal in all examples in Laves. In modern speech the form *nyirra arra* is used instead.

- (7.59) *Injoorlooloona booroo ginyinggon nyirrada oolirrinajirri.*

I-n-joorlooloo-na booroo ginyinggon nyirrada
 sun.set time then
oo-li-rr-i-na=jirri.
 3-IRR-AUG-say=3A.IO

‘The sun was setting and they couldn’t tell them anything [to do anything].’ (L150.008)

We find some other derived forms of *nyirra-* with one or two examples each. Bessie Ejai uses *nyirra-gonyi* ‘how-LAT’ in the lative case in (7.60).

- (7.60) *Nyirragonyi boordoo ngankam?*

Nyirra-gonyi boordoo nga-n-ka-m?
 how-LAT proper 1-TR-FUT-put

‘Where should I put it.’ (BE)

There is also a form *nyirrirrgoordoo*, which is found only in Laves in sentences such as (7.61):

- (7.61) *Ginyinggon* “*nyirrirrgoordoo minama borlayii*,” *ingirrinina*.

Ginyinggon “***nyirrirrgoordoo mi-na-ma borla-yii***,”
 then how 2-TR-put younger.brother-2M.POSS
i-ngi-rr-i-ni-na.
 3-PST-AUG-TR-do/say-REM.PST

“Then they asked ‘what happened to your brother?’” (L131.028)

This form adds weight to the assumption that *nyirroogoordoo* in Modern Bardi is an allegro compound of *nyirra* and *irrgoordoo* rather than a stem inflected with the proprietive.

6.5. ‘How long’ or ‘how many’: *nganyji-*

The root *nganyji* is a question particle which marks polar interrogatives. In combination with *irrgoordoo*, however, it means ‘how long,’ ‘how many,’ or ‘how much time’. Both *nganyjirrgoordoo* and *nganyirrgoordoo* are recorded in the corpus, the latter being found mostly with men recorded by Aklif and Metcalfe.

- (7.62) *Arra ngamoonggoon nganyjirrgoordoo aalg inangganirr nyalab*.

Arra nga-moonggoon ***nganyjirrgoordoo aalg***
 NEG 1-know how.many day
i-na-ng-ga-n=irr *nyalab*.
 3-TR-PST-carry-REM.PST=3A.DO that.way

‘I don’t know how many days it took them.’ (TRS.006)

- (7.63) *Ginyinggarra injayboona* “*nganyjirrgoord jIRR aamba minngoorroongoorrobinanirr?*” *injooinin*.

Ginyinggarra i-n-jayboo-na “***nganyjirrgoord jIRR***
 then 3-TR-ask-REM.PST how.many 3A.POSS
aamba mi-n-ngoorroo-ngoorroobi-na-n=irr?”
 men 2-TR-REDUP-chase-CONT-REM.PST=3A.DO
i-n-joo-n=n=in.
 3-TR-do.say-REM.PST

‘He asked her, “how many men have you been chasing?”’ (L93.006)

- (7.64) *Ingananagid nganyirrgoordal aalga, gooyarra irrjara aalga.*

I-nga-na-na=gid *nganyirrgoordal aalga, gooyarra*
 3-PST-be-CONT-REM.PST=THEN how.many day two
irrjara aalga.
 three day

‘He was there I don’t know how many days, maybe two or three days.’ (COF1.003)

All my examples also include a time word such as *booroo* ‘time’ or *aalga* ‘day’. This form is also used as two separate words, with *nganyji* inflected with the indefinite marker *-al*.

- (7.65) a. *Nganyjal irrgoordoo aalga ingarralanana namard.*

Nganyjal irrgoordoo aalga i-ng-arr-ala-na-na
 how.long every day 3-PST-AUG-live-CONT-REM.PST
namard.
 just

‘We don’t know how long they lived without fire.’ (GGG.008)

- b. *Inoomoogarna garragarra nganyjal irrgoordoo booroo inoomoogarn.*

I-noo-moogar-na garragarra nganyjal irrgoordoo
 3-TR-make-REM.PST keep.on how.long time
booroo i-noo-moogar-n.
 3-TR-make-REM.PST

‘I don’t know how many days it took him to make it.’ (NAF.009)

6.6. ‘When’: *baanigarr*

We can reconstruct a root **baani* ‘when’ for Nyulnyulan languages, however in Bardi the only form for ‘when’ in the language is *baanigarr*, which means ‘when’ or ‘what time’.

- (7.66) *Indanjina. “Baanigarra jiy balaboo?”*

I-n-d-an=jina. **“Baanigarra jiy balaboo?”**
 3-TR-do/say-CONT=3M.IO when 2MIN.IO this.way

‘He says to him, “When are you coming?”’ (L75.0002)

- (7.67) *Baanigarr darr oonkara?*

Baanigarr darr oo-n-k-ar-a?
when come 3-TR-FUT-spear-FUT

‘What time is he coming?’

This form can also be used as an indefinite, where it means ‘any time’ or ‘always’:

- (7.68) *Baanigarr boojoogoon irrinngijarrmoord.*

Baanigarr boojool-goon i-rr-i-n-ngi=jarrmoord.
always stare-LOC 3-AUG-do/say-CONT-APPL=1A.DO

‘They are always staring at us.’

7. Indefinite pronouns

As noted above, Bardi has ‘ignorative’ pronouns (Wierzbicka 1980); that is, the interrogative pronouns are also used as indefinite, negative, and free choice pronouns. The indefinite uses of the ignorative/interrogative pronouns were discussed in the previous section. However, Bardi also has other items which can be used in indefinite pronominal functions, and these are described in this section and summarized in Table 7.6. Remember also that ignoratives can be used in this function and are not listed here.

Table 7.6. Indefinite pronouns

Bardi	English	Note
<i>ambooriny</i>	anyone	lit. ‘person’
<i>anggabaniimal</i>	something	
<i>ooldoobal</i>	something	
<i>almiidan</i>	anywhere	
<i>anggooboor</i>	somewhere	

It should be mentioned that the numeral *arinyj(i)* ‘one’ is not used for indefinite marking. It only means ‘one’ and cannot have a non-specific or indefinite reading.

7.1. Null marking

The first question is whether null marking (that is, agreement alone) may be indefinite. One problem with describing ‘ignoratives’ and indefinite pronouns in texts is that it is sometimes unclear what the assumptions of the speaker are regarding shared information. In recording oral historical narratives, for example, I was recording texts which were well-known to the audience, even if they were not well-known to me. Likewise, in the Laves texts, it is unclear what the information currency was behind the stories on the page. The first sentence for text 78 begins like this (example (7.69)):

- (7.69) *Ingarrana goorlil aranganim aamba.*

I-ŋg-arr-a-na *goorlil aranga-nim aamba.*
3-PST-AUG-TR-[give]-REM.PST turtle others-ERG man

‘Other men gave someone turtle.’ (L78.001)

In this sentence, the recipient of the turtle is unmarked. It appears that null marking can be used for indefinites. It is possible to background participants enough that they are omitted entirely. In this Bardi is different from some other languages with extensive null anaphora, such as Warlpiri, where omitted items are always shared knowledge. My elicitation data on this point are conflicting. In some cases speakers were adamant that null marked forms were not ‘complete’ unless there was an overt noun phrase, or that they were used only in cases where the participant was known. On the other hand, there are many examples in texts and free conversation which would argue against this. In (7.70), for example, the point of the question is that pregnant women are not allowed to be present at the particular ceremony that is about to be performed. Thus the point is not whether any specific person is pregnant, but whether there is a (non-specific) pregnant woman in the audience.

- (7.70) *Oongoolinyarr injoon ingarraybayboon boonyjanim ambooriny.*

Oongoolinyarr i-n-joo-n i-ŋg-arr-aybayboo-n
 pregnant 3-TR-do/say-CONT 3-PST-AUG-ask-CONT
boonyja-nim ambooriny.
 all-ERG people

'They all asked if anyone was pregnant.' (L81.002)

I tentatively assume that null marking may be used if the reference of the participant is either known through shared common ground in discourse, or if the reference of the participant is unimportant. This would explain the apparent difference between the elicited sentences and discussion, and the examples in text and observed conversation. Since I was asking about participants in the elicitation, that presumably created a context where the participant reference became important, thus destroying the conditions for felicitous omission.

A further use of null marking is where the noun is omitted, and an adjective or other derived modifier is used alone. An example is given in (7.71) where *ambooriny-marr* person-SEML means ‘something like a person’.

- (7.71) *Nyoon injalan an boorinymarr jiigir injoona bardaga niimoong-goolon.*

Nyoon i-n-jala-n-an ***ambooriny-marr*** *jigir*
 there 3-TR-see-CONT-REM.PST person-SEMB peep
i-n-joo-na *bardaga niimoonggool-on.*
 3-TR-do/say-CONT tree trunk-LOC

'He climbed out of the marsh and saw something like a person peeping out of a tree trunk.' (JMI.012)

7.2. Other indefinite markers

The word *ambooriny* ‘person’ can also be used to signal an indefinite specific referent.

- (7.72) *Ngoorra inanggalajarrngay amboorinynim. Arra ngamoonggoon oorany o aamba, maankaninga boora.*

Ngóorra i-n-ang-gala=jarrngay ambooriny-nim. Arra
 last.night 3-TR-PST-wander=1M.DO person-ERG NEG
nga-moonggoon oorany o aamba, maanka=ninga boora.
 1-know woman or man, black=EMPH time

'Last night someone sneaked up on me. I don't know if it was a man or woman—it was really dark.'

In negative contexts, the form *arrajin(a)* ‘no one, nothing, no one’ is used.

- (7.73) *Arrajin boor injalanajin bornkobornko arrajin.*

Arrajin boor i-n-jala-na=jin
 no.one look.at 3-TR-look.around-REM.PST=3M.DO
bornko-bornko arrajin.
 REDUP-around no.one

‘He kept looking but he didn’t see anyone.’ (MLL1.013)

A further indefinite form is *anggabaniimal* is used. This is literally a compound of *anggaba* ‘who’ and *niimal* ‘nose’.

- (7.74) *Angginimalarr inoongoorrboongay bardi jooloolinmadan, ginyinggamba arrarr darr ngaladan.*

Angginimal=arr i-noo-ngoorrboo=ngay bardi
 something=EMPH 3-TR-chase-1M.DO yesterday
jooloolin-madan, ginyinggamba arr-arr darr
 afternoon-UNTIL thus around? come
nga-la-da-n.
 1-IRR-do/say-REM.PST

‘Something chased me right through the afternoon, that’s why I came back.’ (BMF.023)

Finally, the word *ooldoobal* ‘thing’ can be used as an indefinite non-animate word.

- (7.75) *Loodinib jirrm ingirrinan, ingarralanab ooldoobal amboorinynim ingirrinbinanamba.*

Loodin=ib jirrm i-ng-irr-i-n-an,
 l=REL sing 3-PST-AUG-do/say-CONT-REM.PST
i-ng-arr-ala-na-na=b ooldoobal amboorin-y-nim
 3-PST-AUG-see-CONT-REM.PST=REL thing person-ERG
i-ng-irr-inbi-na-n=amba.
 3-PST-AUG-think.about-CONT-REM.PST=THUS

‘They would sing *loodin* when they saw something and thought about it.’ (SNG1.002)

8. Demonstratives and deixis markers

The final set of pronominal forms are demonstratives. I consider the demonstrative forms in Bardi to belong to the same system as other pronominal forms. The demonstratives have a textual and spatial deictic function. There are two levels in the system: proximal and distal. Deictic markers can be static or dynamic. The deixis markers can be divided into those that contain an element of motion and those that do not. The deixis markers may also be used adverbially. These are listed here but are further discussed in Chapter 14. The relevant forms are given in Table 7.7.

Table 7.7. Demonstratives and deictics

Demonstratives		
<i>jiiba/jiba</i>	'this'	old information + proximal deixis
<i>jarri</i>	'this'	previous information (reintroduced topic)
<i>nyiinba</i>	'that'	distal deixis
<i>nyoonba</i>	'that'	

Pure deixis markers		
Static:		
<i>biji(ba)</i>	'this'	close to speaker
<i>nyoonoo</i>	'that'	further away from speaker
<i>boonoo</i>	'that'	short distance from the speaker (Laves)
Dynamic:		
<i>balab(oo)</i>	'here'	this way, towards speaker/hearer
<i>nyalab(oo)</i>	'here'	towards hearer/speaker

Adverbial markers		
<i>barda</i>	'away'	away from speaker
<i>goona</i>	'back'	returning to speaker
<i>nyanbirrinonyi</i>	'other side'	
<i>baybirr(ony)</i>	'behind'	

The demonstratives are based on two stems, with *b-* forms marking proximal forms and *ny-* on distal ones. Neither the stem nor any other part of the word is synchronically analyzable, however.

Bardi people also use hand and face gestures to point, in conjunction with (or instead of) deixis markers. For older people, lip pointing (pursing lips and

moving the head slightly in the direction of pointing) is the most common pointing method. Hand pointing is also used.

8.1. Demonstratives

Demonstrative pronouns such as *jiiba* and *jarri* mark old information; *jiiba* ‘this’ also contains information on proximal deixis. *Jarri* seems to be primarily an anaphor, whereas *jiiba* seems to be primarily a deixis marker. Items marked with *jiiba* have to be visible to both speaker and hearer, whereas this is not true for *jarri*. The form *jiiba* is recorded with both a long and a short vowel. Examples of both follow in (7.76)–(7.77). *Jarri* could also be characterized as marking information which is presumed to be shared between speaker and hearer.

- (7.76) a. *Jarri laanybiid aamba.*
Jarri laanyb-iid aamba.
 this thieving-EXPERT man
 ‘This man is a thief.’
- b. *Goorlil nyalab arr injoon darr inarn jarron booroo.*
Goorlil nyalab arr i-n-joo-n darr
 turtle this.way come 3-TR-do/say-CONT come
i-n-ar-n jarr-on booroo.
 3-TR-pierce-CONT this-LOC place
 ‘A turtle came this way, it came into this place.’ (L57.008)
- c. *Aamba “jarrimarra” inganana “Joojiya goorlil ngankowa,” in-joonajina.*
Aamba “jarri-marra” i-ng-a-na-na
 man this-SEMB 3-PST-do.say-CONT-REM.PST
“Joo=jiya goorlil nga-n-k-ow-a,”
 2MIN=2M.POSS turtle 1-TR-FUT-spear-FUT
i-n-joo-na=jina.
 3-TR-do/say-REM.PST=3M.IO
 ‘The man told him “I’ll spear you a turtle THIS BIG.”’ (L102.003)

- d. *Alboorr joorloo arrooloongan jarri. Gornarr marlinngan.*
Alboorr joorloo a-rroo-loonga-n jarri. Gorna=rr
 plenty Spanish.flake 1-AUG-collect-CONT this good=3AUG
m-arli-n-ngan.

GER-eat-GER-ALL

‘We get plenty of Spanish flake around here. They are good to eat.’

- (7.77) a. *Jiiba aamba warrgam indanj gardinkoon.*

Jiiba aamba warrgam i-n-da-n-j gardin-koon.
 this man work 3-TR-do/day-CONT-SIMUL garden-LOC
 ‘This man is working in the garden.’

- b. *Jiiba inamana nilamarrgoon inangganina aranim inangarrjadamana boordijinga goolboo.*

Jiiba i-na-ma-na nilamarr-goon
 this 3-TR-put-REM.PST ear-LOC
i-n-ang-ga-ni-na ar-a-nim i-na-ngarrjadama-na
 3-TR-PST-put-CONT-REM.PST other-ERG 3-TR-hit-REM.PST
boordiji-nga goolboo.
 big-INS rock

‘One put it in his ear and another hit it with a big rock.’ (L139.014)

- c. *Jiiba anggi arr indan?*

Jiiba anggi arr i-n-d-an?
 this what come 3-TR-do/say-CONT

‘What’s this coming?’ (BMF.014)

- d. *Noondin inargal jiiba morr.*

Noondin i-n-ar-gal jiiba morr.
 across 3-TR-spear-REC.PST this road

‘He walked across this road.’

NPs with *jiiba* tend to be new or focused information and thus appear first in the clause. It is not a requirement, as there are examples of *jiiba* in other positions, but the majority of examples show *jiiba* as occurring first. Examples with *jarri* tend to occur in absolute contexts (either subjects of intransitive clause or objects of transitive ones). There is no syntactic prohibition on *jarri* in transitive subject position but its rarity in the corpus is striking. When it

does occur, it tends not to take the case marker; that is, *jarri* is one of the rare exceptions to case marking occurring on the first word of the phrase (see further §8.5.2). There are examples, however, where *jarri* is both first in the phrase and the host for case marking; (7.76b) is an example. *Jarri* is a literal marker of deixis. That is, the referent of *jarri* can be established independently of the discourse context.

Two words are translated as ‘that’; they are *nyiinba* and *nyoonba*. They are both distal demonstratives. Neither is particularly common in my corpus, with ten examples each. The difference is said to be dialectal, with *nyiinba* being Jawi and *nyoonba* Bardi.

- (7.78) a. *Nyiinba booroo aarli nilirr galaboorrgoon.*
Nyiinba booroo aarli nilirr galaboorr-goon.
 that place fish biting many.fish.biting
 ‘There are a lot of fish biting in that place.’
- b. *Nyiinba aamba mardayij.*
Nyiinba aamba mardayij.
 that man deaf
 ‘That man is deaf.’

- (7.79) *Nyoonba irrol ajawarr.*
Nyoonba irrol ajaw-arr.
 that spear 1+2.P'R-3A.P'E
 ‘Those spears over there are ours.’

8.2. Deixis markers

The demonstratives discussed in the previous section also have a deictic component. There are also two words—*biiji(ba)* ‘this’ and *nyoonoo* ‘that, there’—which are purely deixis markers.

- (7.80) *Bijib anangay anganab inin.*
Bijib a-n-a=ngay angana=b i-ni-n.
 this 2-TR-give=1M.DO close=REL 3-be-CONT
 ‘Give me this one here which is close by.’

When there is multiple deixis, everything up until the furthest item away is marked with the proximal marker.

The deixis marker *boona* or *boonoo* is rare in the corpus and, when it does appear, is usually not translated by speakers. It is glossed as both ‘this’ and ‘that’ and there are not enough examples to determine its function. When asked about this word, BE glossed it as *nyoonoo* and gave examples that implied it had the same meaning as *nyoonoo*. Another speaker said that *boonoo* was a Jawi dialectal form, and that it meant the same as *nyoonoo*. From the Laves materials, where it is glossed as ‘pointing to a short distance’, there is some indication that it may have represented a third level of (distal) deixis in the system, but modern Bardi speakers use just two levels.

Chapter 8

Noun Phrases and Their Syntax

This chapter describes syntactic phenomena at the level of the noun phrase that have not been detailed in the previous chapters. I describe the evidence for a noun phrase, its composition, interaction between modifiers, nominal predication, and review evidence for considering case marking as case, rather than postpositions, as has been argued for other Nyulnyulan languages. I do not distinguish a NP from a DP in this grammar, since I lack the relevant data to do so. It is quite possible that such a distinction would be useful in the analysis of Bardi and the relationship between agreement marking and number marking, for example, or the syntax of pronominals used as determiners (described in §7.1.7 above) to mark number. Bardi also appears to have interactions between nominal and determiner order and definiteness. These interactions are a topic of future research.

This is the first of three chapters on syntactic and configurational topics, and division of material between them is at times somewhat arbitrary. In this chapter I particularly focus on topics that are relevant to noun phrases and their constituents. In intra-clausal syntax (Chapter 15), focus is on the clause, constituents within it, and major clause types such as questions, and phenomena which affect the whole clause, such as negation. In Chapter 16, I move to ways in which clauses (and some phrases) can be combined.

1. Evidence for a noun phrase

The left edge of a noun phrase is well defined, since case marking occurs as a suffix to the initial word of the NP. §8.5.2 gives some examples, and this demarcation of the phrase edge is quite consistent in my data (with a few minor and systematic exceptions noted below). The right edge of the phrase, however, is less easy to determine. For the most part, the noun occurs last in the phrase; that is, noun phrases are usually head-final. There are, however, a number of exceptions to this generalization. One instance is where material appears to be part of the noun phrase, but follows the noun. Adjectives and pronominal markers, for example, can precede or follow the noun. Second is where the noun itself is omitted, and the phrase consists only of an adjective.

The third difficulty for constituency is where the noun phrase is discontinuous.

Standard tests for constituency primarily involve substitution, omission, and movability. That is, a group of items in a clause are a constituent if they may be replaced with another item (such as a pronoun), if they may be gapped, and if they may be moved as a single unit (Payne 1997). Such tests are difficult to apply in Bardi. Movement tests are inconclusive, since constituent order is discourse based (see Chapter 15). Substitution and omission tests produce ambiguous results. One test is that constituents form answers to content questions. Consider, however, the data in (8.1). In (8.1a), the possessor and possessive pronoun are the answer to the question ‘what do you want?’ In (8.1b), however, the answer is the possessive pronoun and the possessum (the thing being possessed).

(8.1) *Anggi liyan minman?*

Anggi liyan mi-n-ma-n?
what want 2-TR-put-CONT

‘What do you want?’

- a. *Lenanim jin.*
Lena-nim jin.
L.-ERG 3M.POSS
‘Lena’s.’
- b. *Jiya banigin.*
Jiya banigin.
2M.POSS cup
‘Your cup.’

Now, these cannot both be constituents, unless we assume that in each case there is a null argument (the possesum in (8.1a) and the possessor in (8.1b)) and that both the sentences in (8.1) are examples of an NP, rather than a lower-level phrase.

Movability tests are difficult to apply because Bardi allows some discontinuous phrases. In (8.2), for example, all sentences are grammatically equivalent, though they have different pragmatic entailments. In the first, there is focus on ‘two’ (that is, he speared two fish, not three); in the second, there is a neutral reading, while in the third, the implication is that fish were speared, rather than, for example, stingray.

- (8.2) a. *Gooyarra inamboona aarli.*
Gooyarra i-na-m-boo-na *aarli.*
two 3-TR-PST-spear-REM.PST fish
‘He speared two fish.’
- b. *Gooyarra aarli inamboona.*
Gooyarra aarli i-na-m-boo-na.
two fish 3-TR-PST-spear-REM.PST
‘He speared two fish.’
- c. *Aarli inamboona gooyarra.*
Aarli i-na-m-boo-na *goyyarrা.*
fish 3-TR-PST-spear-REM.PST two
‘He speared two fish.’

Some of these topics are discussed in more detail at the clausal level in Chapter 15. While discontinuity is allowed, the patterns of discontinuity found in the data are quite constrained. They are free enough, however, to interfere with substitution and movement tests for constituency.

Some arguments can be made, however. First, since case is only marked once per phrase, noun phrases in general must exist in Bardi, otherwise there would be no general prohibition on multiple constituents receiving case. Moreover, when transitive subject phrases are discontinuous, they usually receive two case markers:

- (8.3) *Boordijinim innyana alinggoonoonim barnimi booroo ingarralana.*

Boordiji-nim i-n-nya-na *alinggoonoo-nim barnimi*
big-ERG 3-TR-catch-REM.PST rainbow-ERG around
booroo i-ng-arr-ala-na.
look 3-PST-AUG-look-REM.PST

‘A big rainbow caught [her] and they looked around.’ (L160.016)

This implies that they belong to separate phrases. However, this is not universal in the corpus. There are also examples (though they are less numerous) where two discontinuous elements are clearly to be interpreted together, but only one exhibits case.

Secondly, the number of modifiers in a noun phrase is quite constrained. When modifiers are found in the data, there is usually only one, and never more than two. Attempts to elicit multiple modifiers of different types were not successful.¹¹⁵ We should not expect this to be the case if there is a flat structure within noun phrases (or no evidence for a noun phrase at all).

Conjunction tests also provide evidence for a noun phrase. Modified nouns can be conjoined with single nouns, as in (8.4) and (8.5) below:

- (8.4) *ginyinggijina aamba agal goowa*

ginyinggi=jina aamba agal góowa
3MIN=3.POSS man and mermaid

‘that man and mermaid’ (L67.008)

- (8.5) *Ginyinggarra imbanyanajirri ginyinggarra nimoonggoon inaman arara aambanim irrgoordoojini arraba nimoonggoon oorany(a)-nim agal baawanim.*

Ginyinggarra i-m-banya-na=jirri ginyinggarra
then 3-PST-finish-REM.PST=3A.IO then
ni-moonggoon i-na-ma-n ar-ara aamba-nim
3-know 3-TR-put-REM.PST REDUP-other man-ERG
irrgoordoo=jini arraba ni-moonggoon [oorany(a)-nim agal
all.kinds=3M.POSS NEG=REL 3-know woman-ERG and
baawa-nim].
child-ERG

‘When she finished, then he taught her all the stuff about men’s business, all the things that women and children don’t know about.’

(L113.007)

However, even conjunction data are not entirely straightforward. Consider (8.6), where the conjoined names *Ngoonyi* and *Ooloowa* are discontinuous; the object is split by the verb.

- (8.6) a. *Garnkarnnyarra Ngoonyi ingarrarrbarrboon agal Ooloowa ngarranggoo.*

Garnkarnnyarra Ngoonyi i-ng-arr-arrbarrboo-n agal
G. Ng. 3-PST-AUG-TR-send-CONT and
Ooloowa ngarranggoo.
Oo. crabs

‘They sent Ngoonyi and Ooloowa for crabs at Garnkarnnyarra.’

Literally: ‘At Garnkarnnyarra Ngoonyi they sent and Ooloowa for crabs.’

(L137.001)

- b. *Daag ingirrin mooyoon ingarrmilin, boorda ingarramananiidi jinal noorroogoon agal jimbila jinirr.*

Daag i-ng-irr-i-n mooyoon
 sleep 3-PST-AUG-do/say-CONT morning
i-ng-arr-mili-n, boorda
 3-PST-AUGget.up-CONT fix.properly
i-nga-rr-a-ma-na=niidi jinal nòorroo-goon agal
 3-PST-AUG-TR-make-REM.PST=COL spear fire-LOC and
jimbila jin-irr.
 spear.tip 3-M.POSS-3AUG

'They slept and in the morning they got up, and fixed all their spears and spear points in the fire.' (L155.006)

Thus in such cases either we assume that different types of phrases can be conjoined (in which case we have no test for constituency at all), or that phrases can be discontinuous.¹¹⁶

Thus in summary, we do have evidence for noun phrases in this language.

2. Order and number of modifiers

2.1. Types of modifiers in a noun phrase

The modifiers which are possible in a noun phrase are given in (8.7). They are unordered in this list; ordering discussion follows.

- (8.7) a. adjectives
- b. demonstrative and personal pronouns
- c. quantifiers
- d. possessors
- e. numerals
- f. derived modifiers (e.g. adnominal uses of case)
- g. place adverbials
- h. relative clauses

The syntax of relative clauses (including evidence for their ambiguous status as embedded within an NP or adjoined to it at a higher level) is discussed

in §16.7. Relative clauses follow the head noun, and may be separated from it.

As mentioned above, there are no good examples of nouns with more than two modifiers. There is a single example with three, given in (8.8) below:

- (8.8) *goolboo arinyji moorrool jin-irr*
 rock one little 3M.POSS=3A
 ‘his single little rocks’ (L156.001)

In this example I assume that *arinyji* means ‘single’ rather than ‘one’ because of the augmented number marker on the possessor, though I do not have any other examples of *arinyji* ‘one’ with augmented marking. This example is from the Laves texts, which occasionally show evidence of errors in dictation (for example, subject-verb agreement errors where Laves has clearly either skipped a word in transcription¹¹⁷ or the speaker rephrased the sentence). It cannot be certain, since this is the only such example, that it is not a transcription artifact.

2.2. Positions for modification

We can identify three positions in the noun phrase beyond the head. These are a possessive phrase, a pre-nominal ‘modifier’ position, and a postnominal modifier position. Both the prenominal and postnominal modifiers can comprise an adjective (underived or derived through case marking), quantifier, or numeral. Since numerous examples of such orders appear in the grammar already, further examples are not provided here.

(8.9)

Possessive (NP)	Modifer PossPro	Modifier Quant	Modifier Demonst	Noun	Modifier Adj	Modifer Quant	Modifer Demonst	Adj
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Elicited examples with multiple modifiers were permitted, but equivalent examples were not found in spontaneous speech. For example, (8.10) shows four adjectives modifying *lali* ‘lolly’ (= ‘candy’); the prompt was a suggested description for licorice sticks. Jessie Sampi accepted the adjectives in any order.

- (8.10) *boordiji niiwandi ngooboo maanka lali*
 big long soft black lolly
 ‘big, long, soft, black, lolly’

If the noun is possessed, it does not also co-occur with a number-marking pronoun (though it may occur with other demonstrative and deictic modifiers).

Possessive phrases may occur either in front of or following the head noun. Within the possessive phrase, the (elidable) possessor NP and the possessive pronoun may occur in either order. The usual order is Possessor > Possessive Pronoun > Possessum. An example of the alternative order is given in (8.11). It is not known what determines the order in such phrases.

- (8.11) *moowarn jinirr jiwarra*

moowarn jin-irr jiwarra
hair 3M.POSS-3A corpse

‘the corpse’s hairs’

(A1939a)

In all but one example in the corpus, the possessor phrase is outside of any other modifiers of the noun. In one example, however, a numeral precedes the possessor:

- (8.12) *gooyarrnim jinirr malarr*

gooyarr-nim jin-irr malarr
two-ERG 3M.POSS-3A wife

‘his [Arriyana’s] two wives/ both of his wives’

(GRR2.011)

The relevant character in the story (*arriyana* ‘wedge tail eagle’) has only two wives, so the phrase cannot mean ‘two of his wives;’ I assume it means ‘both;’ that is, the speaker is foregrounding the two wives’ acting together.

There is one intriguing dictionary example where the possessive pronoun is final, following both possessor and possessum:

- (8.13) *Ngayoo jamoo balbarr jana.*

Ngayoo jamoo balbarr jana.
1MIN mother’s.father bald 1M.POSS

‘My grandfather is bald.’

(Dictionary)

Let us turn now to other types of modifiers. In prenominal position, I have examples of two modifiers of different types (and also nouns modified by more than one adjective, such as (8.10) above). These occur in several different orders. Representative examples are given below.

(8.14) adjective demonstrative (in either order)

- a. *Ginyingg moorrooloo aarli ingarran boonyja gorr ingirrinirr ir-nim gardo goorriy.*

Ginyingg moorrooloo aarli i-ng-arr-a-n

3MIN little fish 3-PST-AUG-TR-[give]-CONT

boonyja gorr i-ng-irr-i-n=irr

all collect 3-PST-AUG-do/say-REM.PST=3A.DO

irr-nim gardo goorriy.

3AUG-ERG still greedy

‘Those greedy people gave him only a small fish. They had collected fish for themselves.’ (MNJ.035)

(8.15) demonstrative numeral

- a. *Irr gooyarra miidabaawa diird ingirrina nyalab baalabooro jirr.*

Irr gooyarra miidabaawa diird

3AUG two boy go.away

i-ng-irr-i-na nyalab baalaboor-o jirr.

3-PST-AUG-do/say-REM.PST that.way home-ABL 3A.POSS

‘Two boys ran away from their home.’ (NYL.001)

(8.16) quantifier nominal modifier

- a. *Joomoonyoon niimana joongoon bardag.*

Joomoonyoon niimana joongoon bardag.

J. many orange.spike.berry tree

‘Plenty of *joongoon* (orange spike berries; *Mimusops elengi*) trees grow at Joomoonyoon.’

In some discussion of relative orders of multiple modifiers, speakers such as Nancy Isaac could not identify any particular difference in meaning.¹¹⁸

(8.17) *gooyarra goolarr maalba / goolarr gooyarra maalba*

gooyarra goolarr maalba / goolarr gooyarra maalba
two small(AUG) baby / small(AUG) two baby

‘two small babies’

(NI CB/20 16:32)

2.3. Postnominal modification

Adjectives may precede or follow, although out of the blue (e.g. in elicited sentences) there is a prohibition on the Noun Adjective order. For example, (8.18) was judged ungrammatical out of the blue.

- (8.18) **Aamba niiwandi inyjarralij.*
 **Aamba niiwandi i-ny-jarral-iij.*
 man tall 3-PST-run-PFV

Such orders do occur in texts, however; the following examples are illustrative.

- (8.19) *Anggi goongorrogalirr waybal jarri gooyarra?*
Anggi goo-ngo-rr-o-gal=irr *waybal* *jarri*
why 2-PST-AUG-kill-REM.PST=3A.DO white.person this
gooyarra?
two

‘Why did you kill those two White men?’ (BIL.042)

- (8.20) *Gardamba arrarr indan iidool gooyarra moorrool.*
Gardamba arrarr i-n-d-an iidool gooyarra
 still stand 3-TR-do/say-CONT pandanus.palm two
moorrool.
 small

'The two small palms still stand there...' (IID1.033)

In examples with post-nominal quantifiers in §6.2, it was noted that the difference between prenominal and postnominal quantifiers appeared to be whether the quantifier was contrastive or not. That is, in the relevant examples, postnominal modification was used when ‘much food’ was being explicitly contrasted with ‘no food’. The ordering of modifiers in Bardi would also probably fit an analysis where the ordering reflects restriction; prenominal modifiers would be neutral or restrictive, while postnominal modifiers would be non-restrictive. It would also explain why such orders—as illustrated in (8.18)—are unacceptable in isolation, since they would be occurring

in a position where the referent of the nominal had not yet been established in discourse. It is also noteworthy in this regard that the overwhelming number of examples of postnominal modification occur when the relevant noun is not initial. This would be expected if the modifiers are being used non-restrictively and the reference of the nominal is already established in discourse.¹¹⁹

2.4. Headless noun phrases

As discussed elsewhere, modifiers such as adjectives, quantifiers, and numerals can appear without a head noun. (8.21) provides an example with an adjective. These examples are not particularly common and are only found when a head noun is clearly recoverable from discourse context. That is, adjectives do not automatically acquire nominal status when used without a head noun.

- (8.21) *Biili joornk innyana aramadan.*

Biili joornk i-n-nya-na *ara-madan.*
also run 3-TR-catch-REM.PST other-DIR

‘He also ran in another [direction].’

3. Discontinuous and multiple Noun Phrases

Discontinuous noun phrases are disfavored in isolation and in elicited sentences. They do appear in texts, however, particularly with a quantifier and a noun, as illustrated in (8.23). (8.22) was rejected as an elicited sentence, although equivalent sentences do appear in narratives.

- (8.22) * *Aambanim boordij i-na-m-b-iŋ aarli.*
 man-ERG big 3-TR-PST-poke-MID.PFV fish.
 ‘The man speared a big fish.’ (Aklif 1994a:BE: E0/1)

(8.23) *Gooyarra nganamboona aarli.*
 Gooyarra_i nga-na-m-boo-na aarli_i.
 two 1-TR-PST-poke-PST fish
 ‘I speared two fish.’

The following subsections investigate this topic in more detail.

3.1. Constraints on discontinuities

There are two common patterns among discontinuous noun phrases. The most well attested (in fact, the only well attested type) is where a verb splits an NP which contains a quantifier and a noun. (8.24) provides two examples, one with an object and the other with a subject. In the latter example, the noun is marked for ergative case but the numeral *arinyji* ‘one’ is not; this is unusual; more often (as in (8.3) above, for example) both elements in a discontinuous case-marked noun phrase would be marked.

- (8.24) a. *Jalboorroo ingirriloongan aarli bard diird ingirrin marangan araboora.*

Jalboorroo i-n*g*-irr-i-loonga-n aarli bard diird *i-n*g*-irr-i-n*
 little 3-collect-REM.PST meat off run do
*mara-n*g*an araboora.*
 far-ALL other.place

‘They picked up a little bit of meat and ran away to another place far away.’ (L103.006)

- b. *Gooyarra banigin anangay jooga.*

Gooyarra banigin a-n-a=ngay *jooga.*
 two cup 2-TR-[give]-FUT=1M.DO sugar
 ‘Give me two cups of sugar.’ (JS: BA-CB95)

- c. *Darr ingarrarna daamanjoonoo arinyji inamilginirr jinalanim.*

*Darr i-n*g*-arr-ar-na daamanjoonoo arinyji i-na-milgi-n=irr*
 come 3aug-pierce raiding.party one 3-wake.up=3a.DO
jinala-nim.
 spear-ERG

‘They came as a raiding party; one spear woke them up.’

(L102.038)

The alternative order, where the noun is first and the quantifier is second, is also found, but is much less common. Example (8.27) below has a further example of a discontinuity, although in that sentence the case is on the preverbal numeral rather than on the head noun, and (8.30) has the NP and numeral in the opposite order.

The second type of discontinuity is where one part of the Noun Phrase is at the front of the clause, and the rest of the NP is elsewhere (usually late in the clause). In (8.25), for example, the head of the NP *jawal* ‘story’ is first in the clause, while the possessive phrase is final.

- (8.25) *Jawal ngankilnga ngajana aamba jina.*

Jawal nga-n-k-ilng-a ngajana aamba jina.
story 1-tell my husband his

'I'll tell a STORY about my husband.' (AMB1.001)

3.2. Afterthoughts

A further area of apparent discontinuity occurs in afterthought constructions. These have different intonational properties from the other types of discontinuity already discussed. The afterthought (*wiliwiling* 'with a fishing line' in (8.26)) occurs in its own intonational unit and is often separated by a pause.

- (8.26) *Oognga ngamarndinyjigal wiliwiling.*

Oog-nga nga-m-arndi-nyji-gal wiliwili-ng.
hook-INS 1-REFL-catch-REFL-REC.PST fishing.line-INS

'I caught myself on my hook—on [my] line.'

3.3. Secondary predication

Bardi has secondary predicates. The typical order is illustrated in the first clause of (8.27), where the subject is first and the secondary predicate (here, *jooloonjoona* 'raiding party') is last in the clause.

- (8.27) *Garandi Ngarlgoony nyalaboo arr inggirrina jooloonjoona, niiman aamba ingarrjarrmina irr gooyarranimi ingarragoolina aamba.*

Garandi Ngarlgoony nyalaboo arr i-ng-irr-i-na
G Ng that.way come 3-PST-AUG-do-REM.PST
jooloonjoona, niiman aamba i-ng-arr-jarrmi-na irr
raiding.party many men 3-PST-AUG-rise-REM.PST 3.AUG
gooyarra-nimi i-ng-arr-agooli-na aamba.
two-ERG 3-PST-AUG-TR-'break'-REM.PST man.

'Garandi and Ngarlgoony came as a raiding party; many men got up and these two fought.' (L110.001)

The only examples I have of any number are depictive secondary predicates. They are all absolute arguments, though I do not know if that is a syntactic constraint or simply reflects the small number of examples. Two further illustrations follow. Note that by far the largest number of instances of this construction comes from the Laves collection.

- (8.28) *Garnka ingirrilina aarli.*

Garnka i-n̄g-irr-ili-na aarli.
raw 3-PST-AUG-eat-REM.PST fish

‘They ate their fish raw.’ (L58b.002)

- (8.29) *Ingamoolgoon manyjalji aralga inyijiidi biligiji lirrmarangan biindarn.*

*I-nga-moolgoo-n manyjalji aralga i-ny-jiidi biligiji
3-PST-sleep-CONT hungry another.day 3-PST-go again
lirrmara-ngan biindarn.
poison.root-ALL bush*

‘He went to sleep hungry and the next day he went again into the bush for poison.’ (L73.010)

(8.29) shows also that a few secondary predicate nouns (and adjectives) have a suffix *-ji* ~ *-j* (a similar presence or absence was noted on preverbs in §13.6.7.3).

I assume also that naming constructions are instances of secondary predicates. In this case, the form of the construction is usually X, Y ‘name’ (X with the name Y), as shown in (8.30).

- (8.30) *Jarri waybala jirrarr jawal ingorronarr gooyarra oombarnborla Biligin irrnga.*

*Jarri waybala jirrarr jawal
this white.people their story
i-n̄g-orr-o-na=rr gooyarra
3-PST-AUG-spear-REM.PST=3A.DO two
oombarn-borla Biligin irr-nga.
older.brother-younger.brother Billikin 3A-name*

‘This story concerns two White men (who were shelling in Bardi territory towards the end of the 19th century). They were brothers by the name of Bilikin.’ (BIL.001)

There are a few examples of resultative secondary predicates as well:

- (8.31) ... *barda inamboonoo irrolong biiwa.*

barda i-n-am-boo-noo irrolo-ng biiw=a.
must.have 3-TR-PST-spear-REM.PST spear-INS dead=PRED.

‘He killed her dead with a spear.’

(BE: CB51.2)

4. Nominal predication

Predicate nominals (including nouns and adjectives) can take a clitic =a. In (8.32) we see (in (a)) that the citation form is *boorrboorriidi* ‘dancer’. In the (b) sentence, however, the final vowel of the stem is replaced by =a. The same is true in (c), where the subject and predicate are in the opposite order. In the (d) sentence the intensive marker =gij is added to the predicate, which still takes =a.

- (8.32) a. *boorrboorriidi* ‘a dancer’

b. *Jarr aamba boorrboorriida.*

Jarr aamba boorrboorr-iid=a.
this man dance-EXP=PRED

‘This man’s a dancer.’

(Aklif 1994a:E0/11)

c. *Boorrboorriida jarr aamba.*

Boorrboorr-iid=a jarr aamba.
dance-EXP=PRE this man.

‘This man’s a dancer.’

d. *Boorrboorriidigija jarr aamba.*

Boorrboorr-iidi=gij=a jarr aamba.
dance-EXPERT=VERY=PRE this man.

‘This man’s a really good dancer.’

- (8.33) *Loomigij booroo. Arra. Dalboonkij boora.*

Loomi=gij booroo. Arra. Dalboon=kij boor=a.
abandoned-VERY place. NEG dried.up-VERY place=PRED

‘It’s a place that hasn’t been looked after. No, it’s just dried out.’

No similar clitic is noted for other Nyulnyulan languages. It is optional, though it is not known what governs its appearance, and not all speakers use it.

5. Syntax of case marking

The morphology and semantics of Bardi cases were thoroughly treated in §§5.2–5.5, and some mention was made in §5.2.2 that for most of the other Nyulnyulan languages, the case markers have been analyzed as postpositions (see e.g. McGregor 1994b, 1998, *in press*). The analysis has implications for Bardi’s place in head/dependent marking typology (Nichols 1986). If Bardi has postpositions, it is clearly a head marking language and would have very little dependent marking. If the language has case marking, however, we would analyze Bardi as being of mixed type. In this section I take up this question in more detail. I also provide an overview of case in the noun phrase and in the clause, and thirdly describe the constraints on multiple case marking.

5.1. Cases or postpositions?

There are several criteria we can use to decide between free adpositions and affixes (or clitics). These are given in (8.34) and are based on Zwicky and Pullum (1983) and Anderson (2005:33).

- (8.34)
- a. What are the relevant native speaker judgments about wordhood for the items in question?
 - b. What constraints are there on the host? (Clitics, but not affixes, can be attached to material already containing clitics.)
 - c. What type of alternations to the markers exhibit?
 - d. Do they have a high degree of selection with respect to their hosts?
 - e. Do they exhibit paradigmatic gaps?
 - f. Do they show idiosyncratic semantics?
 - g. Is the host + marker combination subject to lexical rules?
 - h. Are there syntactic rules that affect the host + marker combinations?

The answers to these questions give us mixed results; distributionally, the markers appear more like adpositions, with one per phrase in a fixed position (second in the phrase). However, on most of the remaining criteria, they appear much more like case markers, where the noun and the case form a single word in phonology, morphology, and syntax.

5.1.1. Native speaker judgments

I asked three native speakers of Bardi at different times about words and what formed a word. They were quite consistent in their answers. In Bardi, there are words that are grammatical on their own (e.g., *n-alma* ‘his/her head’), there are words that mean something on their own but need another word before or after them to allow them to be interpreted (clausal clitics like *=min* ‘and then’, as well as most preverbs, were in this category) and finally there are items that aren’t a word on their own. Most of these items were unrecognizable to speakers until they were placed in the appropriate inflectional context. For example, the verb root *-jiidi-* ‘go’ was not recognized, but *inyjiidigal* ‘he/she went’ was recognized.

Case markers were also systematically not recognized as either words or as items which meant something but needed a host to make them sound ‘complete’. For example, *goona* ‘backwards’ is a word, and so is *goonamadan*, but *madan* isn’t anything on its own. This is good evidence that case markers are not free words or clitics.

5.1.2. Constraints on the host

Bardi case markers can be attached to bare nouns, and (in certain very limited circumstances), to items which already have a case marker (see further §8.5.3 below). They may not, however, be attached to a word which contains a clausal or phrasal clitic.

- (8.35) a. * *ginyinggi=gid-nim aamba* ...

3MIN=THEN-ERG man
- b. *ginyinggi-nim=gid aamba* ...

3MIN-ERG=THEN man

‘then the man(ERG)...’

- (8.36) *Ngayoonim ngankayarr gaanyji barda Ardiyooloonjoon booronganjan.*

Ngayoonim ngankayarr gaanyji barda Ardiyooloonjoon
 1MINERG 1-TR-tak=3A.DO shell back A.-SOURCE
booroo-nGAN=jan.
 place-ALL=1M.POSS

‘I’ll take shell from One Arm Point to my country.’

- (8.37) a. *bo-nim=jin*
 woman’s.child-ERG=3MIN.POSS
 ‘her child’
- b. * *bo=yin-nim*
 woman’s.child=3MIN.POSS-ERG

(JS: BOW-FN.12, 2011)

As has been noted already in several places, the case marker appears on the first word of the phrase. This order makes the case look rather like an adposition distributionally. It is very rare in the world’s languages; Dryer (2011) finds only seven examples, all of which are languages spoken in Australia.¹²⁰ However, languages which mark all items in a noun phrase for case are, according to Blake (1994:100ff), in a minority in the world’s languages. Languages where case marking is predominantly phrasal (but inflectional) are found all over the world, including Tocharian, Quechua, and Kannada (Blake 1994:101). The Bardi realization of case on the initial element does not, therefore, automatically exclude it from consideration as affixal.¹²¹ Anderson et al. (2006) discuss two cases (Nias Selatan and Kuuk Thaayorre) where case is marked phrasally, but by morphology which is sensitive to the lexical item to which it attaches. That is, these languages show phrasal marking where the marker has all the properties of word-level inflection (rather than clitics or adpositional words). I argue that Bardi is another case of such a phenomenon.

5.1.3. Allomorphy

Case markers participate in phonological alternations that clitics do not. These alternations were described above in §3.6.2. A sample noun with case marking and a clausal clitic is given below.

- (8.38) a. *Gooljiman-ko*
 Kooljaman-ABL
 b. *oolo* < *oola-go* water-ABL
 cf.

- (8.39) *Oolagid inarij.*
 Öola=gid i-n-ar-ij.
 water=THEN 3-TR-pierce-PFV
 ‘Then it started raining.’

Bardi clausal clitics, for the most part, do not show lenition, and those that do have different patterns. When clitics lenite, they usually lose their initial stop completely. They also do not participate in vowel coalescence and the formation of a mid vowel *o*; this is a feature of affixal lenition and is found in both verbal prefixal morphology and in case markers.

Furthermore, remember from the discussion in Chapter 5 that some allomorphy is unpredictable; that is, there are optional applications of lenition which are governed by the particular lexical item. Consider the forms in (8.40). In the first case, lenition does not apply where we would expect it to, while in the second, it applies even though the relevant phonological environment is not present.

- (8.40) a. *gaarra-goon* sea-LOC (instead of the predicted **gaarron*, cf.
 goron < *gaara-goon* ‘sand-LOC’)
 b. *marnanyon* reef-locative (instead of **marnanykon*)

Finally, some nouns take null locative marking (a list is given in §5.4.2.3 above). This class is also lexically defined.

This sort of allomorphy is much more reminiscent of affixation than of postpositions. That is because it is lexically specified; the individual lexical item determines the form of the case marker, and these forms are idiosyncratic. Since cliticization is a post-lexical phenomenon (Anderson 2005:33ff), lexical phonological rules should not be applicable. As Anderson (2005:34) puts it, ‘Elements introduced in the lexicon ... can behave differently in construction with different lexical items, while elements introduced post-lexically (clitics) have no opportunity to refuse selectively to appear ... or to make item-specific modifications of form or content.’ This provides evidence that Bardi case markers are affixes. Further evidence is given in the next two sections.

5.1.4. Reduplication

A similar argument for the application of lexical rules to case-marked forms comes from reduplication. Reduplication patterns were discussed in §3.8 above. One of the patterns of reduplication involves the whole word. When case-marked words are reduplicated, the case marker is reduplicated too:

- (8.41) *Ginyinggonkid irrol innyanajin inamboonoogid irrolongirrolong. Ginyinggon inyjarralana layoordoo barda.*

Ginyinggon=kid irrol i-n-nya-na=jin
then=THEN spear 3-TR-catch-RE.PST=3M.IO
i-na-m-boo-noo=gid irrolo-ng-irrolo-ng. *Ginyinggon*
3-TR-PST-spear-REM.PST=THEN spear-INS-spear-INS. Then
i-ny-jarrala-na layoordoo barda.
3-PST-run-REM.PST spirit away.

'Then he got his spear, and speared him again and again. Then the *lavoordoo* spirit ran off.'

- (8.42) *Injarrbarrboonirr booroonganbooroongan.*

I-n-jarrb-arrboo-n=irr booroo-ngan-booroo-ngan.
3-TR-send-REDUP-CONT=3A.DO place-ALL-place-ALL

‘He sent them all off to their own homes.’ (M.Dict)

This also provides evidence that the noun and the case marker act as a single word, both in the syntax and for the purposes of further morphological inflection and derivation (such as reduplication).

5.1.5. Idiosyncratic semantics

There are items in Bardi which appear with either frozen case markers (that is, where the marker is felt to be part of the stem rather than a separate affix), or where the addition of case marking produces unexpected semantics. A good example of the latter comes from comitative marking, where some kinship terms form dyads with the comitative, while for others, the meaning is compositional.

- (8.43) a. *gooloo-nyarr* ‘father-COM’ = ‘with a father’

- b. *goli-nyarr* ‘father’s mother-COM’ = grandmother-grandchild dyad’

A further example is *marrga-nyarr* ‘murderer’ (lit. ‘shield-COM’).

5.1.6. Arguments from codeswitching

Another argument for the wordhood of case markers and their hosts is that when Bardi speakers codeswitch from English into Bardi, they tend to use Bardi case markers as well as English prepositions. This is further (though not uncontroversial) evidence that the markers are part of a single phonological word.

- (8.44) ‘... and he bin carry’im that far, I tell you, from *Oombinarr-go*
O-ABL
right up Janawan hill.’

- (8.45) [Who bin get’im that barnamb?] ‘*Anggaba-nim, Jandi-nim* bin poke it.’
[Who bin get’im that barnamb?] ‘**Anggaba-nim, Jandi-nim** bin
stingray someone-ERG Sandy-ERG
poke it.’
spear

(‘Who got that stingray? What’s his name, Sandy, speared it.’)

In the first example, the place name receives ablative case marking, even though there is already a preposition ‘from’ in the clause. In the second, the subject of ‘poke’ gets ergative case, even though English does not mark ergativity.

5.1.7. Nascent adpositions

Finally, it looks as though Bardi is developing adpositions of a sort, from locational adverbs and other items. The locational adverbs are discussed in §14.2.1 below. The locational adverb appears adjacent to the case-marked noun phrase in the vast majority of cases; in the example of *boogon* ‘inside’, 38 out of 42 instances involved the adverb being adjacent to the NP. Of the

cases where it was adjacent, it preceded the NP in 27 cases and followed it in 11 cases.

- (8.46) *Balaboo loolool ingarrardinana boogoon bangalon baawagid nyoonoo daag injoonoo.*

*Balaboo loolool i-n*g*-arr-gardi-na-na **boogoon** bangal-on
here enter 3a.pst-enter-pst.cont inside reef.crevice-loc
baawa=gid nyoonoo daag i-n-joo-noo.
child=then here sleep 3sg.pst-do.*

‘They went inside the crevice in the reef and the child went to sleep.’

Some examples of words that behave this way are *boogoon* ‘inside’, *jimbin* ‘inside under’, *lordony* ‘underneath’, and *bornko* ‘around’.¹²²

Items such as the ‘adverbial’ nascent adpositions in Bardi are also found in a few other Australian languages. In Iwaidja, for example, Pym and Larrimore (1979:161) describe a set of *relator-axis* phrases, where a noun combines with an adpositional item. In Iwaidja, items appear to be either preposed or postposed without variation; in Bardi, however, the same words can appear in either order.

5.1.8. Conclusions

Thus in summary, Bardi case is morphological case, not post-lexical adpositional marking. Case-marked words show different phonological rules from cliticized ones. Cases are subject to lexical selection criteria, which clitics are not. They show idiosyncratic semantics and paradigmatic gaps.

I do not have the information at present to determine whether the arguments made here apply also to other Nyulnyulan languages. The markers are mostly cognate (though there has been some semantic shift in some items; for example, the Western Nyulnyulan instrumental is cognate with the Eastern Nyulnyulan comitative). There are differences in case use among the languages; for example, Warrwa (McGregor 2006a) and Nyikina (Stokes 1982a) have focal ergative marking, where the ergative shows features of a discourse marker; this use of case marking is largely absent from Bardi.

5.2. Case positions in the clause

With a few well-defined exceptions, Bardi case marking is a second position phenomenon; that is, the case marker is attached to the end of the first element of the phrase regardless of word class.

- (8.47) a. *Aambanim aarli inamboona.*
[Aamba-nim] aarli i-na-m-boo-na.
 man-ERG fish 3-TR-PST-poke-REM.PST
 ‘The man speared a fish.’
- b. *Ginyingginim aamba aarli inamboona.*
[Ginyinggi-nim aamba] aarli i-n-am-boo-na.
 this-ERG man fish 3-TR-PST-poke-REM.PST
 ‘This man speared a fish.’
- c. *Boordijinim niiwandi aamba inamboona aarli.*
[Boordiji-nim niiwandi aamba] i-na-m-boo-na
 fat-ERG tall man 3-TR-PST-poke-REM.PST
aarli.
 fish.
 ‘The tall fat man speared a fish.’
- d. *Gilinim ingarramananirr ginyinggi niyalboon bardoonoo ingoor-roomoornanajin, ginyinggi ingarranana Jawananyj, [Arriyananim jinirr malarr].*
Gilinim i-ng-arr-a-ma-na-n=irr ginyinggi niyalboon
 clean’im 3-PST-put-REM.PST-3A.DO this bush.onion
bardoonoo i-ng-oorr-oo-moor-na-na=jin, ginyinggi
 skin 3-PST-clean-CONT-REM.PST=3MIO, this
i-ng-arr-a-na-na Jawananyj, [Arriyana-nim
 3-PST-give-CONT.REM.PST J. A.-ERG
jin-irr malarr].
 3M.POSS-3AUG wife.
 ‘They used to clean those bush onions. Arriyana’s wives would take off the skin for him and give them to Jawananyj.’

The examples in (8.47) (repeated from (5.44) above) illustrate the principle of second position with the ergative case. There are, however, a few very

minor exceptions to this rule. The exceptions to strict second position are of three types. Almost all my exceptional case marking occurs with the ergative. I do not know whether this is because of any fact about ergative marking, or because the ergative is the most commonly attested case. Exceptional case placement could not be explored through elicitation, because it is a colloquial speech phenomenon which speakers correct when it is pointed out.

5.2.1. *Names*

In the first instance, a few items do not ‘count’ as position-making constituents. Names with titles borrowed from English are treated as a single unit for the purposes of case inflection, for example; the case marker goes on the name, not the title.

- (8.48) *Mr. Crusty -nim.*
-ERG

It is not clear that names with titles are fully analyzable as multiple words, since they have a single stress (on the first syllable of the title) and the people tend to be always referred to with their title. That is, it’s as though the name is [mistakrasti]. I therefore do not consider these a real exception to the case placement rule.

5.2.2. *Demonstratives*

The second exception of this type involves the demonstrative *jarri* ‘this’, which may modify a noun in an NP. When it does, and when it occurs first in the phrase, its ergative marking is optional. Either the ergative appears on *jarri*, or it appears on the following noun, as in (8.49).

- (8.49) *Jarri ngaarrinim inanggalajarrmoordoo, angginim... layoordoonim?*
Jarri ngaarri-nim i-na-ng-gala=jarrmoordoo, anggi-nim...
 this spirit-ERG 3-TR-PSTvisit=1M.DO what-ERG
layoordoo-nim?
 l.spirit-ERG

‘What was this spirit came and visited us? Was it the what’s-it? a layoordoo spirit?’ (BBN1.018)

It remains to be seen whether such items are truly exceptions. It is possible that in these examples, *jarri* is adverbial rather than pronominal; alternatively, it could be referring to the object (in which case it would not be part of the subject NP at all). This is unlikely, since intonationally *jarri* often goes with the following noun. In such examples, *jarri* is almost procliticized to the following noun. There are examples of *jarri* taking clausal clitics, however:

- (8.50) *Jarrigid aamba goonab roowil innyana.*

Jarri=gid aamba goona=b roowil i-n-nya-na.
this=THEN man back=REL walk 3-TR-catch-REM.PST

‘This is the man who walked back.’ (M1939A.056)

This remains an exception, and a puzzle for further research.

5.2.3. Adnominal case-marked nouns

The third class of exceptions involves adnominal case marking. An adnominally case-marked noun may either receive further case marking, or the marking may be on the following noun (see further §8.5.3 below):

- (8.51) a. *ooranynyarrnim aamba ...*
oorany-nyarr-nim aamba ...
 woman-COM-ERG man
- b. *ooranynyarr aambanim*
oorany-nyarr aamba-nim
 woman-COM man-ERG

Such examples require further investigation. Since the comitative case may be used both phrasally and adnominally, it is not certain that the two phrases in (8.51) have the same meaning. The first means ‘the married man-ERG’, but it is not known whether the second also means ‘married man’, with adnominal use of the comitative, or whether it means ‘the man-ERG with the woman.’ In the latter case, the comitative-marked noun would not be part of the subject noun phrase.¹²³

5.2.4. Conjunction

Finally, nominal conjunctions sometimes cause ambiguity in case marking placement. Full noun phrases can be conjoined, in which case both items usually receive case marking, as in (8.52).

- (8.52) a. *Gala inggardiji booroo manjarlnim agal inkoordnim arra jina injoonajirr biligiji.*

*Gala i-ng-gard-iji booroo manjarl-nim **agal** inkoord-nim*
 well 3-PST-enter-PFV time hunger-ERG and cold-ERG
arra jina i-n-joo-na=jirr biligiji.
 NEG 3M.POSS 3-TR-do/say-REM.PST=3A.IO very.much.

‘The sun went down and they were cold and hungry.’ (L158.036)

- b. *Ginyinggon gala ingarrmarramarrinyjinanajini Mayala giny-inggi Inkananim agal Baankardanim.*

Ginyinggon gala
 then well
i-ng-arr-marra-marr-inyji-na-na=jini
 3-PST-AUG-taunt-REDUP-REFL-CONT-REM.PST=3M.IO
*Mayala ginyinggi Inkana-nim **agal** Baankarda-nim.*

M 3MIN I.-ERG and B.-ERG

‘Then Inkana and Baankarna taunted each other over Mayala.’
 (L152.006)

- c. *Boonyja may darr inarn bardagayoon agal gaarayoon.*

*Boonyja may darr i-n-ar-n bardaga-yoon **agal***
 all food come 3-TR-pierce-CONT tree-SOURCE and
gaara-yoon.
 ground-SOURCE

‘All food comes from the trees and from the ground.’

(Paddy, Paddy, and Smith 1987:1)

However, in some cases, only one of the conjoined nouns receives case marking. Sometimes it is the first, while in other cases, it is the last.

- (8.53) *Boorrgoorndanim agal Barlarramay ingirriloongan jinala nimana-jina roowil ingirrinya baybirraybirr darr ingarrarnajirr raanana ngoordoon.*

Boorrgoornda-nim agal Barlarramay
 B.-ERG and B
i-ng-irr-i-loonga-n *jinala nimana=jina roowil*
 3-PST-AUG-TR-collect-CONT spear many=3M.POSS walk
i-ng-irr-i-nya-na *baybirr-aybirr darr*
 3-PST-AUG-TR-catch-REM.PST behind-REDUP come
i-ng-arr-ar-na=jirr *raanana ngoordoon.*
 3-PST-AUG-poke-REM.PST=3A.IO straight.away right.place

‘Boorrgoornda and Balarrmay gathered together many of their spears; they followed behind [the women] and came to the right place for the meeting.’ (L150.028)

- (8.54) a. *Milon, Dayirr agal Nooninim ingarralanirr boonyja baawa Galanan-gan.*
Milon, Dayirr agal Nooni-nim
 long.ago D. and N.-ERG
i-ng-arr-ala-n=irr *boonyja baawa*
 3-PST-AUG-TR-visit-CONT=3A.DO all kids
Galana-ngan.
 G.-ALL
 ‘A long time ago, Dayirr and Nooni brought their children to Galan.’ (DNG.001)
- b. *Irralboonjirr nalaarrad birrii agal gooloonim.*
I-rr-alboo-n=jirr *nalaarrad birrii agal*
 3-AUG-TR-dig-CONT=3A.IO turtle.eggs mother and
gooloo-nim.
 father-ERG
 ‘Their mother and father dug up turtle eggs.’ (GRG5)
- c. *Arang biinyba agal dalboonkoon boor irramanjirr lagoorr. Arang bardagon garndi.*
Arang biinyba agal dalboon-koon boor i-rr-a-ma-n=jirr
 others marsh and dried.up-LOC place 3-put
lagoorr. Arang bardag-on garndi.
 eggs others tree-LOC on.top
 ‘Some birds make them in the marshes and dried-up places, but others make them in trees.’ (GBL.016)

Speakers differ in how grammatical they find such sentences. The sentences in (8.54) came from Nancy Isaac, but other speakers preferred either to put case marking on both the nouns or to rephrase so that one noun was in the comitative.

5.3. Multiple case marking

Bardi does not show the multiple case exponence that has been described for Australian languages such as Martuthunira and Kayardild (Blake 1994, Dench and Evans 1988, Evans 1995). A few examples are found, however. The first is the potential compound case marking described in §5.4.3. All other instances of multiple case involve interactions of different constituent levels. That is, it is possible for an item to receive both adnominal and phrasal case marking (or adnominal and clausal case, if the noun is in an infinitival clause).

(8.55) Adnominal and phrasal:

- a. *Jiidinyarrnim aamba inangajimgal.*
Jiidi-nyarr-nim aamba i-na-ngajim-gal.
 beard-COM-ERG man 3-TR-[PST]-hit-REC.PST
 ‘The man with the beard hit him.’ (Aklif 1994b:13)
- b. *Jiidinyarrngan aamba inyjarralij.*
Jiidi-nyarr-ngan aamba i-ny-jarral-ij.
 beard-COM-ALL man 3-PST-run-MID.PFV
 ‘He ran toward the man with a beard.’

(8.56) Phrasal and clausal: *Ginyinggon inyjalgoon ginyingga baawa ilng-amoongmarr ingarramanirr aarli.*

Ginyinggon i-ny-jal goo-n ginya nggi baawa
 then 3-PST-fall-REM.PST 3MIN child
ilngamoo-ng-marr i-nга-rr-a-ma-n=irr aarli.
 fish.poison-INS-TEMP 3-PST-AUG-put-REM.PST=3A.DO fish

‘Then the child was born (lit. ‘fell’) when they put out the fish poison for the fish.’ (WIR.032)

One other example is where the possessive pronoun is marked for case, such as in (8.57). The usual order in such examples is that the case marker

precedes the possessive pronoun (see (5.146) on page 241 for an example). In (8.58), the possessive pronoun appears to receive both locative and allative case marking. This particular type of case stacking is only possible when there is a possessive pronoun; it is not found on nouns (though see §5.4.1.2 for further discussion of multiple case marking in local cases). This implies that one case marker is associated with the pronoun, and the other with the noun; that is, that the structure of (8.58) is [*booroo=[jirr-on]-ngan*], and that the phrase might be translated literally ‘to the place at theirs’.

- (8.57) *Angginimal inarlingay ngoorra malbarra jonon.*
Anggi-nim-al i-n-arli=ngay ngóorra malbarra
 what-ERG-INDF 3-TR-bite-1M.DO last.night buttock
jon-on.
 1M.POSS-LOC

‘Something bit me on my bottom last night.’

- (8.58) ... *booroojirronngan.*
booroo=jirr-on-ngan.
 house=3A.POSS-LOC-ALL
 ‘to their place’ (conversation, many examples)

An alternative analysis would be to assume that the possessive pronoun is no longer a clitic in such constructions, but has rather become affixed to the noun. There is some evidence for this, since in the Laves materials, possessive ‘enclitic’ pronouns show lenition, at least when attached to kinship terms (compare *bo-yin* ‘her child (woman’s.child-3M.POSS)'). However, as (8.58) shows, modern speakers do not use lenited possessive forms here. I leave the clitic vs. affix status of the possessive markers as an open question.

6. Possession

Just as Hosokawa (1991:§6.2.2) noted for Yawuru, in Bardi the term ‘possession’ covers a wide range of semantic relationships between two lexical items, including true possession, alienable and inalienable, copyright, kinship, a topic of a story, as well as other meanings. These are signaled with several different types of morphology. The morphology of these strategies has been discussed elsewhere, but in this section I provide an overview of the semantics and syntax of the different strategies of possessive marking.

6.1. Overview of marking strategies

There are five ways in which possession is marked. The first is with a possessive pronoun; these forms were given in §7.4 above. This is the most general type of possessive marking. The second is that a subset of inalienable nouns take possessive prefixes; these were given in §7.5. Thirdly, the comitative case *-nyarr* may be used for certain types of attributes; the semantics of these were discussed in §5.5.1. Fourthly, a possessive pronoun may be cliticized to the verb; this alternates with a free possessive pronoun. Finally, there is also an independent verb *-laba-* ‘hold, have, possess’, which can also mark possession.

In the following sections, I discuss recursion, possessor/possessum feature marking, and alienability. There is, to my knowledge, no difference in possession dependent on permanence; that is, both temporary possession (such as ‘I have \$10’) and permanent possession (‘I have two shoulders’) are marked in the same way.

6.1.1. Recursive possession

Bardi allows recursive possession. Up to three possessors have been recorded in a row; some examples with two are given below.

- (8.59) *Ngayoo jana galongoordoo jina booroo, goolooniman jina booroo, ngayoo jana booroo biila.*

Ngayoo jana galongoordoo jina booroo,
 1MIN 1M.POSS father’s.father 3M.POSS country
gooloo-nim=an jina booroo, ngayoo jana booroo
 father-ERG=1M.POSS 3M.POSS country, 1MIN 1M.POSS country
biila.
 also.

‘This is my paternal grandfather’s country and my father’s country and it is also my country.’

- (8.60) *Ngayoo janarr gamarda irr jirra gamarda jirra goombali.*

Ngayoo jan=arr gamarda irr jirra
 1MIN 1M.POSS=3A.POSS’E daughter’s.child 3AUG 3A.POSS

gamarda *jirra* *goombali*.
mother's.mother 3A.POSS namesake

‘My grandchildren have the same names as their grandmother.’ (lit.
‘my grandchildren’s grandmothers are their namesakes.’)
(Conversation, 2008)

6.1.2. Number and person marking in possession

Possessive pronouns are marked for the number and person of both the possessor and the possesum. Most common in the corpus are examples with a third person augmented possesum, but examples such as (8.61), with a first person possesum, show that the possesum is marked for person as well as number.

- (8.61) *Arra goolarrjargajan ngay joogarrangay gooloo.*

Arra goo-l-arr-jarg-a=jan ngay
NEG 2AUG-IRR-AUG-be.frightened-FUT=1M.IO 1MIN
*joogarra-**ngay** góoloo.*
2A.POSS-1M father

‘Don’t be frightened of me, I’m your dad.’ (BE: CB52.2)

Augment marking may be omitted from the possessive pronoun if the possessum is non-individuated. This is the same condition under which augmented direct object marking is omitted (for this see §10.3 below).

- (8.62) *Barda ingirriloonganana maanka aambooriny jIRR baawa.*

Barda i-ŋ-irr-iloonga-na-na *maanka aambooriny*
away 3-PST-AUG-pick.up-CONT-REM.PST black people
jirr *baawa.*
3AUG.POSS child.

‘They used to take away black people’s children.’ (Aklif 1994d:12)

In the case of the inalienable possessive markers, however, the number of the possessum is not expressed. That is, forms such as *nga-marla* ‘1M-hand’ can mean both ‘my (one) hand’ and ‘my (two) hands’.

6.1.3. Alienability in possession

Although Bardi has a set of prefixes for nouns which are inalienably possessed, not all items which are semantically inalienable take them. The items which do take the marking are mostly body parts, but they also include words like *+nga* ‘name’ and *+ngarrarda* ‘shadow’, and a few properties such as *+jarra* ‘taste’:

- (8.63) a. *gorna niyarra*
gorna ni-yarra
 good 3M-taste
 b. *arra irr-jarra*
arra irr-jarra
 NEG 3A-taste
 ‘It’s tasteless.’

Other items which are inalienable do not take the prefixes. Only about half the body parts take them, for example; others, such as *langana* ‘shoulder’ and *gaanyji* ‘bone’, take regular possessive pronouns. Kinship words also take regular possessive marking.

Bardi does not have the appositive possessive construction that is found in a number of Australian languages. In this construction, the possessor pronoun is in the same case as the possessed item. It is particularly common with body parts, as this example from Yawuru illustrates; for an overview and discussion see McGregor (1999:429ff).

- (8.64) Yawuru

Ngaji juyu marru nyily mi-ny-ju-n?
 INTER 2MIN head headache 2-do/say-CONT

‘Do you have a headache?’ (Hosokawa 1991:428)

In such examples in Bardi, either a possessive pronoun or an inalienable prefix is always present.

Possessive pronouns may also cliticize to the noun denoting the possessum, in which case the *j-* of the stem shows lenition:

- (8.65) *boyin* < *bo-jin* ‘woman’s child =3M.POSS

Possessive cliticization is found particularly with kinship terms. Its full range has not been determined in the language. There is a striking asymmetry in distribution, in that although possessor and possessum can occur in any order, and although the possessive pronoun fairly frequently occurs after the noun when the possessor is gapped, only with kinship terms is the possessive pronoun regularly cliticized to the possessor.

Finally, possessors may be marked on the verb. In this case, there is no possessum person/number marking (to my knowledge) in the free noun phrase. In (8.66), for example, the third person minimal possessive clitic =*in* refers to the culture hero *Joołoo*. The literal translation of the sentence is ‘They—his [sons]—danced for them.’

- (8.66) *Boorrboorr ingirrinjirrirrin.*

Boorrboorr i-n̩g-irr-i-n=jirrirr=in.

dance 3PST-AUG-do-CONT=3A.IO=3M.POSS

‘They [Jooloo’s sons] danced for them [the people from Jalan].’
(BA-CB41/MD)

6.1.4. Non-literal possession

Possessive constructions can also be used in metaphorical or non-literal possession, or possession of attributes. For example, stories or songs which are ‘about’ someone or something are described with possessive pronouns:

- (8.67) a. *boorroo agal larrood jirra jawal*
kangaroo and hermit.crab 3AUG.POSS story
‘a story about a kangaroo and hermit crab’ (BLJ.001)
- b. *Nawayoon jawal gardiliny jina.*
N. story monkey.fish 3M.POSS
‘*Nawayoon* (a way of catching monkeyfish) is a story about monkey fish.’

To my knowledge, only the possessive pronouns are used in this construction.

Attributes can be marked with any of the possessive pronouns, comitative case, or inalienable prefix.

- (8.68) a. *gorna niyarra*
gorna ni-yarra
 good 3M-taste
- b. *ngarri jina laya.*
ngarri jina *laya.*
 much 3M.POSS fat
 ‘He’s got a lot of fat.’ = ‘He’s fat.’
- c. *Iila biila roowil innyana barda ngalganngalannyarr.*
Iila biila roowil i-n-nya-na *barda*
 dog also walk 3-TR-catch-REM.PST off
ngalganngalan-nyarr.
 wagging-COM
 ‘The dog also walked off with [his tail] wagging.’ (DRK.071)

6.2. Use of a full verb

There is also a verb, *-laba-*, which is used to mark possession.

- (8.69) a. *Roowil ingirrinya na nyalaboo garda* “*Warday angganim ila-banirr jardirri bo!*” *ingirrinajirri.*
Roowil i-ng-irr-i-nya-na *nyalaboo garda*
 walk 3-PST-AUG-TR-catch-REM.PST there thus
 “*Warday angga-nim i-laba-n=irr* *jard-irri*
 oh! who-ERG 3-have-CONT=3A.DO 1A.POSS=3AUG
bo! *i-ng-irr-i-na=jirri.*
 women’s.child
 ‘They went there and said “oh no! who’s that who’s got our kids?”’ (L139.009)
- b. *Arra ngalalaba goolboo.*
Arra nga-la-laba goolboo.
 NEG 1-IRR-have money
 ‘I don’t have any money.’
- c. *Jarrigidi aarli irralaban Boyo agal Lance-nim.*
Jarri=gidi aarli i-rr-a-laba-n *Boyo agal Lance-nim.*
 this=THEN fish 3-AUG-TR-have-CONT B. and L.-ERG
 ‘Here are Boyo and Lance: they have a fish.’ (PHO.003)

It is used where physical possession or holding is literally meant, especially in the Laves materials. Most of my own examples mean ‘have’ or ‘possess’, and ‘hold’ or ‘grab’ is denoted by *-inya-* ‘catch’. This is true for all the examples in (8.69), for example. (8.70) shows an example where the sense of ‘holding’ is literal.

- (8.70) *Garda ingarralabana ingarridinjirr raanana ingorronirr gooyarra-injoon.*

Garda i-ng-arr-a-laba-na-na
 still 3-PST-AUG-TR-hold-CONT-REM.PST
i-ng-arr-idi-n=jirr *raanana*
 3-PST-AUG-TR-throw.spear-CONT=3A.IO straightaway
i-ng-orr-o-n=irr *gooyarra-injoon.*
 3-PST-AUG-TR-hit-CONT=3A.DO two-PAIR

‘They [the snakes] still held [the man] and straightaway the men threw their spears at and hit the pair [of snakes].’ (L155.028)

Chapter 9

Verbal Predicate Structure

In the following several chapters I provide a description of the verbal system of Bardi. There are many interdependent systems where a knowledge of one part of the system relies on a knowledge of morphology from other parts, so in this chapter I give an overview of the verb system, the categories for which verbs inflect, and an outline of other analyses of Bardi (Aklif 1999, Metcalfe 1975b, Nicolas 2000) along with the crucial points on which they differ from what is presented here. I present an analysis of simplex roots in Bardi. The purpose is to introduce the reader to the forms and the categories marked on the verb. It will allow the reader to ‘unpack’ the verb forms presented in the chapters on tense and agreement (Chapters 10 and 11), which will in turn provide background for the issues in analyzing complex predicates.

§12.2 provides materials for the analysis of inflecting verb roots. The actual verbal affixal morphology of Bardi is discussed elsewhere. Chapter 10 contains information on the agreement marking system of affixes and clitics, including the forms, their usage, and their distribution. In Chapter 11 I present tense, aspect and mood marking. Chapter 12 is a discussion of morphologically-derived valence-changing devices. In Chapter 13 I discuss complex predicate formation and light verb semantics.

Neither morphemic theories of morphology nor word-and-paradigm approaches (Anderson 1992) allow us to account for Bardi morphology satisfactorily. Bardi verb morphology is quasi-agglutinative; that is, much of the morphology is segmentable, with fairly transparent morphophonological processes; however, such processes are also rather irregular in their application. There are dependencies between morphemes, apparent phonological processes with no phonetic triggers, and processes such as lenition which are lexically determined. For example, most affixes trigger lenition, but not all do. Bardi verb morphology also provides an interesting counterpoint to theories of prominence which place the root as the most prominent part of a word (e.g. de Lacy 2000, Zoll 2004); many deletion processes target the initial syllable of the root.

1. Overview of the system

Bardi verb morphology is arguably entirely inflectional. There is only one affix—the first applicative (discussed in §12.4.1)—which has any derivational properties.

1.1. Verbal morphemes

All verbal predicates comprise a verb which is inflected for prefixes, suffixes and clitics. Complex predicates also have an uninflecting preverb that always precedes the inflecting root.

(9.1) (Preverb) Prefixes-ROOT-Suffixes=Clitics

All inflecting verbs in Bardi show a person prefix, and are marked for tense; there are an additional ten optional prefix and suffix slots which mark transitivity, tense, aspect, applicatives and reflexive/reciprocal derivation. An expanded template is given in Figure 9.1 below. I make no attempt to show co-occurrence restrictions in Figure 9.1, although I do include the Tr(ansitivity) morpheme *n-* ~ *a-* twice (when the subject is minimal, it occurs before tense; when the subject is augmented, it occurs following the augment marker).¹²⁴

A diagram of the maximal verb is given in Figure 9.2 below, along with the shape of the morphemes that can occupy each affix slot. Because of the size of the diagram, prefixes, suffixes and clitics are each given on separate lines. Note that not all categories are instantiated in every form; which morphemes appear is conditioned by the tense and transitivity of the verb, and the initial consonant of the root. Further discussion of these dependencies is given in §9.1.6 and, for clarity, prefix bundles are presented in paradigms in §9.2.¹²⁵ There are also some dependencies in the clitic system; for example, the quantifier *=nid* cannot co-occur with third person augmented direct object marking. I treat those co-occurrence restrictions as semantic rather than morphological, however.

Finally, it should be noted that the template in Figure 9.2 applies only to finite verbs. Bardi also has gerunds (see §11.3) which have highly reduced affixal marking. They may still take the reflexive/reciprocal circumfix, the inner applicative, and clitics (direct objects and sentential clitics only are attested), but no tense or agreement marking.

Figure 9.1. Schematic of Bardi verbs

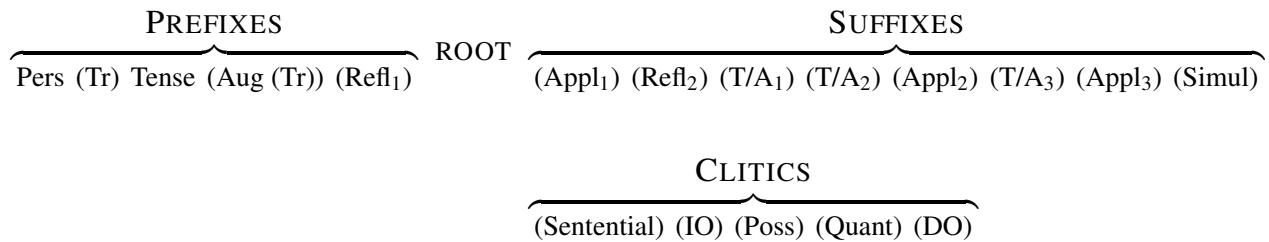
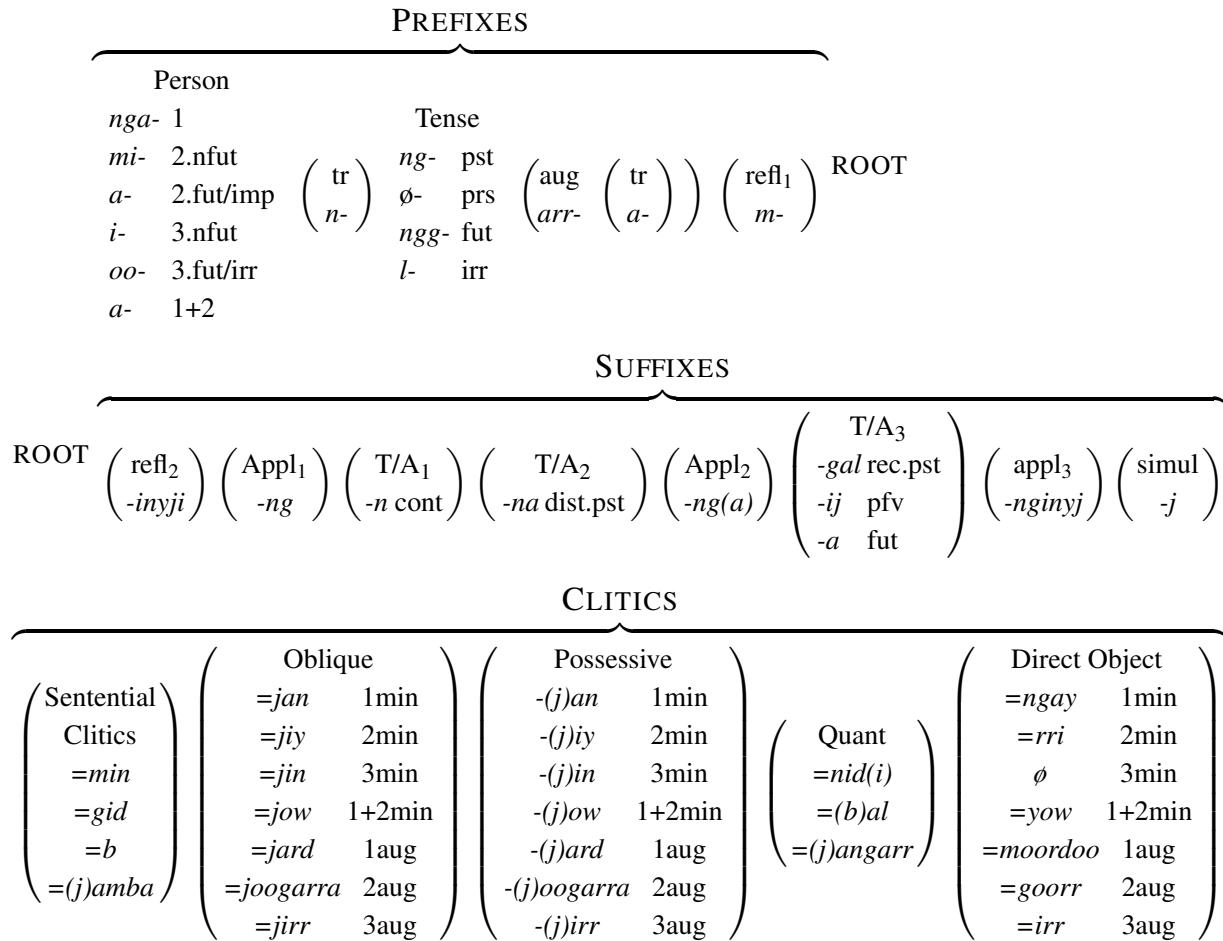


Figure 9.2. Full template of Bardi simple verbs



1.2. Morphological discontinuities and dependencies

There are several points to note with respect to the template in Figure 9.2. Firstly, person and number prefixes are discontinuous. Tense marking intervenes between the person marker (in (9.2), *a-*) and the augment marker *arr-*:¹²⁶

- (9.2) *a- ng- arr-* past
a- ngg- arr- future
 1- tense augment

Next, the second person (minimal) and third person (minimal and augmented) markers vary for tense; in the future and irrealis the third person marker is *oo-*, whereas in the present and past it is *i-*. The future and imperative (but not irrealis) of the second person is *a-* or *nga-*, it is *mi-* in the other tenses/moods. The second person future/imperative also shows variation for root valency. It is *nga-* on monovalent verbs and *a-* on bivalent verbs. (9.3) illustrates both prefixes with the root *-jiidi-* ‘go’, which forms a transitive stem *-jiidi-ng-* ‘touch’.

- (9.3) a. *ngayienda!* ‘go!’ (monovalent root *-jiidi-* ‘go’)
 b. *anjiidang!* ‘touch it!’ (transitive stem *-jiidi-ng-* ‘touch’)

Another dependency involves the transitivity prefix. The placement of the transitivity marker (which has the form *n- ~ a-*) is dependent on the number of the subject; it appears between the person and tense marking in the minimal forms, but after number marking in the augment. This is illustrated in (9.4).

- (9.4) a. *inanggana*
i- n- [a]ng- ga -na
 3- TR- PST- take -REM.PST
 person **transitivity** tense root tense suffix
 ‘He took it.’
- b. *ingarrana*
i- ng- arr- a- [ga] -na
 3- PST AUG- TR- take -REM.PST
 person tense number **transitivity** root tense suffix
 ‘They took it.’

1.3. Roots

The form of the root also varies according to the type of prefix. Obstruent-initial roots lose their initial consonant in some tenses, and lenite it to *w* (<*b*) or *y* (<*j* or *g*) in others. Sonorant-initial roots trigger epenthesis in many cases. These changes are morphologized artifacts of historical sound changes; for more detailed description see §9.2 and for the description of morphologized lenition, see §3.6.2. The *j*-initial roots have a further irregularity in that in the transitive the past tense morpheme does not appear, as illustrated in (9.5), which means either ‘he/she sees it’ or ‘he/she saw it’:¹²⁷

- (9.5) a. *injalana*: as though from *i- n- jala -na* with the -∅ present tense marker
- b. **inanyjalana*: as though from *i- n- ng- jala -na*, expected by analogy with other transitive verbs.

Glide-vowel interaction produces other quirks; thus the verb *-boo-* ‘hit’ has third person minimal *inamboona* but augmented *ingorrona*, from an underlying *i-n̩g-arr-a-boo-na*, where **abu* > *o* through sound change. This pattern has been extended to roots beginning with *ba-* and *ga-*, whereas it is proper etymologically only to those beginning with *boo-* and *goo-*). §3.6 provides full details.

1.4. Suffixes

Suffix forms are less complex phonologically, although the semantics are intricate and the morphophonemics are somewhat irregular. Further information about TAM marking is to be found in Chapter 11. A point to note is that unlike previous linguists who have worked on Bardi (e.g. Metcalfe 1975b), I recognize two slots for the applicative marker *-ng(a)*, whereas previous authors use only one. Forms such as (9.6) show that a stem can be doubly inflected for applicatives:

- (9.6) *Ingirrmiidinginyjinggal*

i- ng- [a]rr- m- [j]iidi -ng -inyi -ng -gal
 3- PST- AUG -REFL₁ go -APPL₁ -REFL₂ -APPL₂ -REC.PST

‘They were touching each other with it [a feather] recently.’¹²⁸

There are dependencies between the tense/mood prefixes and the tense/aspect suffixes. Multiple tense/aspect suffixes are possible, and they are interleaved between other suffixal morphology on the verb.

1.5. Clitics

There are three types of clitics in Bardi. Sentential clitics, such as the linker *=b(a)*, the relator *=(j)amb*, and contrastive and resumptive topic markers *=min* and *=gid* appear immediately following the verb stem. These clitics may take hosts other than verbs. They are second position clitics which appear on the first word of the phrase; if that word is a verb, they appear at the end of the stem, before any VP or verbal clitics. This is illustrated in (9.7). Agreement clitics follow sentential clitics; the order is oblique object before direct object. Possessors may also be marked as a clitic to the verb. Finally, there is marking for quantification in the verbal clitic complex which may refer to either grammatical subject or object (see §10.5 for discussion).

- (9.7) *Jiyaroong irrbardin goron, injanboongorrorirr amboorinynim irron-jamb ambooriny.*

Jiyaroong i-rr-barndi-n gor-on,
 stonefish 3AUG-bury-CONT sand-LOC
i-n-janboo-n=goror=irr ambooriny-nim
 3-TR-step.on-CONT=IF=3A.DO people-ERG
i-rr-o-n=jamb ambooriny.
 3-AUG-poke-CONT=THUS people

‘Stonefish (*Synanceia horrida*) bury themselves in the sand. They poke people (with the spines) if people step on them.’

Direct and oblique¹²⁹ objects are marked by suffixal clitics which follow any sentential clitics. Moreover, these clitics have topic forms (usually beginning with *jarr-*). In previous analyses these forms have either been omitted from discussion or have been assumed to be conditioned allomorphically (if the stem ends in a consonant, it takes a *jarr-* form; otherwise it takes a ‘plain’ form). I show in §10.3.2, however, that this conditioning is incidental to the actual factors dictating the use of *jarr-* forms, whose use is governed by considerations of topic continuity.

Bardi has possessor raising;¹³⁰ it is found in addition to the oblique marking. Previous analyses have treated possessor raising as a type of ‘oblique’ agreement. The analysis of possessor marking is complicated by the fact that although possessor morphemes are placed with the clitics, they show phonological behavior more typical of suffixes.

No verb with all three of the oblique object, raised possessor and direct object has been attested, although in principle there seems no reason why such a combination could not occur. ‘My mother brought those fish for me’, **birrii inangganajananirr aarli* would be an example, but is judged ungrammatical. Examples of two of three markers are fairly common in the corpus.

In Bardi there are also quantificational enclitics (such as *=nid*) which refer to the number of the subject. (9.8) and (9.9) provide examples. Both verbs are monovalent, so *=nid*, although apparently in the direct object clitic position on the verb, cannot be marking a direct object.

(9.8) *Angalandnid mayoon.*

<i>A-ng-aland=nid</i>	<i>may-oon.</i>
1-PST-[AUG]-sit.down-QUANT	food-SOURCE

‘We sat down to eat.’ (Aklif’s notes to DW:IWA/p. 117)

(9.9) *Barnanggarraigij irralgalnidi bigibigi ngoorrngoolondarr.*

<i>Barnanggarra=gij irralgal=nidi</i>	<i>bigibigi</i>
now=VERY	3-AUG-be-REC.PST-QUANT
<i>ngoorrngool-ondarr.</i>	pigs
mangrove-LOC ₂	

‘Just now all the pigs were in the mangroves.’ (Metcalfe 1975b:4: ex 24)

Another clitic in this position, *=(j)angarr* ‘only’, can have scope over the verb itself. In this way its use is parallel to other uses on other word classes; see §10.5 for more examples.

1.6. Co-occurrence restrictions

1.6.1. *Transitivity*

There are some clear co-occurrence restrictions in the Bardi verb. The transitivity marker *n-* ~ *a-* and the reflexive/reciprocal prefix may not co-occur,

as in (9.10), where there is no transitivity marking in the prefix complex in verbs which have reflexive/reciprocal marking.

- (9.10) *anggarrmalinyja*

a- ngga- rr- m- al -inyj -a
1- FUT- AUG- REFL see -REFL -FUT

‘We will see each other.’

In this example, if the verb were marked with a transitive prefix, we would expect to see a prefix *a-* following the augment marker *rr-*. Furthermore, reflexive/reciprocal verbs take the intransitive form of the second person minimal prefix, as illustrated in (9.11) below:

- (9.11) *Joo ngamalalinyja baybirrony bard arr ngandan.*

‘Look after yourself after I have gone.’

1.6.2. *Tense and mood*

Secondly, certain tense prefixes and tense/aspect suffixes have co-occurrence restrictions. The future suffix *-a* may only occur with the future, imperative, or irrealis prefixes. It is unacceptable with the past prefix:

- (9.12) a. *Anarlajiiba may!*
A-n-arl-a jiiba may!
 IMP-TR-eat-FUT this food.
 ‘Eat this food!’

b. **Nga-na-rl-a.*
 1 MIN-TR-[PST]-eat-FUT
 (Intended: ‘I shall have eaten it.’)

That is, there is no future perfect marking in the language.

There are other tense/mood and aspect co-occurrence restrictions. The irrealis prefix *l-*, for example, blocks the appearance of *-gal* ‘recent past’ or *-ij* ‘middle perfect’; the only suffixes that it can occur with are the future *-a*, the continuative *-n* and the remote/general past *-na*. Further information can be found in Chapter 11.

The future prefix *ngg-* may occur with the perfective suffix *-ij*, although it is rare:

- (9.13) *Ngaanka inonggonboojirri ngayoonyarr jarr aamb oonkalij.*

Ngaanka i-no-ng-gonboo=jirri ngayoo-nyarr jarr aamb
 message 3-TR-PAST-send=2M.DO 1MIN-COM this man
oo-n-k-al-ij.
 3-FUT-TR-see-PFV

‘The man sent a message with me that he will look for you.’ (Aklif field notes)

The morpheme in this example is ambiguous, however, and can be read either as the middle perfect *-ij* or as second person oblique agreement.¹³¹ (9.14), however, is unlikely to be anything other than the imperative/future and *-ij*:

- (9.14) *Ngayiidjingij!*

Nga-yiidi-ng-ij!
 2.IMP-go-APPL₂-PFV

‘Go with it!’ (NI: BOW-FN.11/28)

Finally, T/A₂ and T/A₃ suffixes cannot co-occur. That is, a verb cannot be simultaneously marked for remote (or general) past and a more specific tense/aspect suffix. Remote past marking can, however, occur with the continuous aspect marker.

1.6.3. Agreement marking

Another potential co-occurrence restriction is the presence of both an oblique object and a direct object in some verbs. Although many verbs take both morphological markers, and there appear to be no restrictions on the use of

oblique adjuncts, there seem to be no truly ditransitive verbs in Bardi. Verbs that we would expect on the basis of other languages to be candidates for ditransitives, such as ‘give’ and ‘show’, take only two arguments in Bardi: a subject (marked by a prefix) and a single clitic:

- (9.15) a. *Injoolngoo galjarran*
I-n-joolngoo-gal=jarran
 3-TR-tell-REC.PST=1MIN.IO.TOP
 ‘He/she told me [about them].’
- b. * *I-n-joolngoo-gal=jarran=irr*
 3-TR-tell-REC.PST=1MIN.IO.TOP=3A.DO
 (intended:) ‘He/she told me about them.’(NI: BOW-FN.11/29)

It does not seem to be possible to have all three of oblique and direct objects and possessives marked on a single verb in Bardi. For example, example (9.16a) was corrected to (9.16b) in the meaning ‘your children are frightened of my children:’

- (9.16) a. ?? *Joo-nim jiya-rr bo*
 2MIN-ERG 2M.POSS-3A woman’s.child
i-rr-jargi-n=jirr ngajana-rr bo.
 3-AUG-fear-CONT=3AUG.IO 1M.POSS-3A woman’s.child
 ‘Your children are frightened of my children.’
- b. *Joonim jiyarr bo irrarginjinan bo.*
Joo-nim jiya-rr bo
 2MIN-ERG 2M.POSS-3A woman’s.child
i-rr-jargi-n=jin=an bo.
 3-AUG-fear-CONT-3M.IO-1M.POSS woman’s.child
 ‘Your children are frightened of my children.’

Examples exist in the corpus of DO marking and possession, of possession and IO marking, and of DO and adjunct IO marking.

1.7. Templetic marking

As noted by Nordlinger (2010), many Northern Australian languages have systems of verbal morphology which are reminiscent of the ‘templetic’ systems of some North American families (see e.g. Rice 2000). Nordlinger

(2010:329ff) lists several properties as being particularly associated with templatic systems. One is ‘the lack of headed structure,’ that is, the interleaving of derivational and inflectional morphology, since in such cases, the outermost affix added to the word does not determine its syntactic class. Bardi verb morphology does not have this property. The only clearly derivational affix is the reflexive/reciprocal marker *m- -inyji*, which occurs adjacent to the verb root.¹³²

The second is multiple exponence, that is, the marking of a single morphological category in more than one place in the word. This is found to a limited extent in Bardi, for example with subject person and subject number. It is also found in the tense/aspect/mood system, where tense can be marked in three places in the verb: in the subject person allomorph, as a prefix, and as several suffixes. However, as Nordlinger (2010:329) and Stump (2001) note, many morphological systems have multiple exponence. It is not diagnostic of template morphology uniquely. Bardi does have some discontinuous dependencies, however, and these *are* associated with templatic systems.

Simpson and Withgott (1986) argue that null morphemes are more prevalent in templatic morphology than in other types of morphological systems. Bardi has a null present tense prefix, null suffixal agreement in third person, a null (or unmarked) tense suffix, and null intransitive marking. There are no true variable orderings of morphemes; they are all morphologically conditioned. For example, although transitivity and tense prefixes can occur in opposite orders, the conditioning factor is the presence or absence of the subject augmented number morpheme; the morpheme orders are not in true variation. The final feature of templatic marking is the lack of functional unity in affix positions. Bardi does not show this; there are not the co-occurrence restrictions that characterize templatic morphology such as those found in Murrinh-Patha. Thus overall, Bardi morphology does not appear to have the characteristics of templatic morphology, with the exception of null morphs and discontinuous multiple exponence.

2. Verb paradigms

To make the previous section clearer, this section presents partial paradigms of fully inflected Bardi verbs. The fully inflected verbs allow a better illustration of the interaction between the initial consonants of the root and the prefix bundle. While the template presented in Figure 9.2 holds as a whole, and can

be used to generate fully inflected verbs, there are numerous points where there are co-dependencies. Moreover, the lenition processes which affect the initial consonant of the root make it quite difficult to parse some roots.

Root behavior falls into three main classes; obstruent-initial roots (roots can begin with *b*, *j*, and *g*), vowel-initial roots (the vast majority of roots begin with *a*, *i*, or *ii*), and sonorant-initial roots (*m*, *ny*, *ng*, *r*, *rl*, or *l*). Tables 9.1 and 9.2 summarize the shapes of prefix complexes, using the verb roots *-jarrala-* ‘run’, *-jala-* ‘see’, *-gama-* ‘laugh/mock’, and *-marra-* ‘cook/burn’ as illustrations. Suffixes are much more straightforward, so are not illustrated separately here. The only important point of prefix morphology which is not captured by these tables is the exceptionality of second person future forms, which are listed in §10.2 and are spelled out in full in Aklif (1999).

2.1. Obstruent-initial roots

Roots which have an obstruent as their initial consonant undergo lenition. The outcome of the lenition is dependent on the syllable of the word in which the form occurs. In the present minimal forms, the root is the second syllable in the word; only the monosyllabic person prefix can occur before it. In this position, the lenition outcome is a glide: *y* if the root begins with *j-* or *g-*, and *w-* if it begins with *b*. There are no roots in the lexicon which begin with *d*. The other Nyulnyulan languages have a few such roots, but they do not have Bardi cognates. The root for ‘do/say’ shows a *d* in some forms, but it is irregular. See further §9.7. In the augment forms, the lenition outcome is zero; that is, the initial consonant of the root (and the initial vowel of the root) is deleted.

Roots beginning with *b* or *g* show an additional alternation. In the augmented forms of the present and past transitive, and in the future and irrealis (all numbers), the first CV of the stem is replaced with *o*. These are the positions where historically the sequence **agu* and **abu* would have been monophthongized to *o*; it appears that the alternation has been extended from roots which began only with *ku-* or *bu-* to most of the roots which begin with *g* and *b*. Support for the origin of the alternation in sound change comes from the cells of the paradigm in which the alternation occurs; they are the ones in which the initial stop of the root would have been preceded by a vowel. The change can be reconstructed from monomorphemic lexical items to have happened only between vowels.

Table 9.1. Prefix tables: intransitive roots

	set	3MIN				3AUG					
		pers	tr	tense	surface	pers	tense	aug	tr	surface	gloss
past	b	i	∅	ng	<i>im-banyi</i>	i	ng	rr	∅	<i>ingarr-banyi</i>	he/they finished
	j	i	∅	ng	<i>iny-jarrala</i>	i	ng	rr	∅	<i>ingarr-jarrala</i>	he/they ran
	g	i	∅	ng	<i>ing-gama</i>	i	ng	rr	∅	<i>ingarr-gama</i>	he/they laughed
	son	i	∅	ng	<i>inga-marra</i>	i	ng	rr	∅	<i>ingarr-marra</i>	it/they cooked
present	b	i	∅	∅	<i>i-wanyi</i>	i	∅	rr	∅	<i>irr-banyi</i>	he's they're finishing
	j	i	∅	∅	<i>i-yarrala</i>	i	∅	rr	∅	<i>irr-jarrala</i>	he/they run
	g	i	∅	∅	<i>i-yama</i>	i	∅	rr	∅	<i>irr-gama</i>	he/they laugh
	son	i	∅	∅	<i>i-marra</i>	i	∅	rr	∅	<i>irr-marra</i>	it/they cook
future	b	oo	∅	ngg	<i>oongg-onyi</i>	oo	ngg	rr	∅	<i>oonggarr-banyi</i>	he/they'll finish
	j	oo	∅	ngg	<i>oongg-arrala</i>	oo	ngg	rr	∅	<i>oonggarr-jarrala</i>	he/they'll run
	g	oo	∅	ngg	<i>oongg-ama</i>	oo	ngg	rr	∅	<i>oonggarr-gama</i>	he/they'll laugh
	son	oo	∅	ngg	<i>oongga-marra</i>	oo	ngg	rr	∅	<i>oonggarr-marra</i>	it/they'll cook
irrealis	b	oo	∅	l	<i>ool-onyi</i>	oo	l	rr	∅	<i>oolarr-banyi</i>	he/they might finish
	j	oo	∅	l	<i>ool-arrala</i>	oo	l	rr	∅	<i>oolarr-jarrala</i>	he/they might run
	g	oo	∅	l	<i>ool-ama</i>	oo	l	rr	∅	<i>oolarr-gama</i>	he/they might laugh
	son	oo	∅	l	<i>oola-marra</i>	oo	l	rr	∅	<i>oolarr-marra</i>	it/they might cook

Table 9.2. Prefix tables: transitive roots

		3MIN				3AUG					
	set	pers	tr	tense	surface	pers	tense	aug	tr	surface	gloss
past	b	i	n	ng	<i>inam-banyi</i>	i	ng	rr	a	<i>ingorr-onyi</i>	he/they killed it
	j	i	n	ng	<i>in-jala</i>	i	ng	rr	a	<i>ingarr-ala</i>	he/they saw it
	g	i	n	ng	<i>inang-gama</i>	i	ng	rr	a	<i>ingarr-ama</i>	he/they mocked him
	vow	i	n		<i>in-ibi</i>	i	ng	rr	a	<i>ingirr-ibi</i>	he/they drank it
	son	i	n	ng	<i>ina-marra</i>	i	ng	rr	a	<i>ingarra-marra</i>	he/they cooked it
present	b	i	n	∅	<i>in-banyi</i>	i	∅	rr	a	<i>irr-onyi</i>	he's/they're killing it
	j	i	n	∅	<i>in-jala</i>	i	∅	rr	a	<i>irr-ala</i>	he/they sees it
	g	i	n	∅	<i>in-kama</i>	i	∅	rr	a	<i>irr-ama</i>	he's/they're mocking him
	vow	i	n	∅	<i>in-ibi</i>	i	∅	rr	a	<i>irr-ibi</i>	he's/they're drinking (it)
	son	i	n	∅	<i>ina-marra</i>	i	∅	rr	a	<i>irra-marra</i>	he's/they're cooking it
future	b	oo	n	g	<i>oonk-onyi</i>	oo	ngg	rr	a	<i>oonggorr-onyi</i>	he/they'll kill it
	j	oo	n	g	<i>oonk-ala</i>	oo	ngg	rr	a	<i>oonggarr-ala</i>	he/they'll see it
	g	oo	n	g	<i>oonk-ama</i>	oo	ngg	rr	a	<i>oonggarr-ama</i>	he/they'll mock it
	vow	oo	n	g	<i>oonk-ib-a</i>	oo	ngg	rr	a	<i>onggirr-ib-a</i>	he/they'll drink (it)
	son	oo	n	g	<i>oonka-marra</i>	oo	ngg	rr	a	<i>oonggarra-marra</i>	he/they'll cook it
irrealis	b	oo	n	l	<i>ool-onyi</i>	oo	l	rr	a	<i>oolorr-onyi</i>	he/they might kill it
	j	oo	n	l	<i>ool-ala</i>	oo	l	rr	a	<i>oolarr-ala</i>	he/they might see it
	g	oo	n	l	<i>ool-ama</i>	oo	l	rr	a	<i>oolarr-ama</i>	he/they might mock it
	vow	oo	n	l	<i>ool-ib-a</i>	oo	l	rr	a	<i>oolirr-ib-a</i>	he/they might drink it
	son	oo	n	l	<i>oola-marra</i>	oo	l	rr	a	<i>oolarra-marra</i>	he/they might cook it

Some verbs show exceptions, however; for example, the transitive root *-barra-* ‘dream of something’ has third person augment *i-ng-arr-a-warra-na*, with lenition of the form that we would otherwise expect only in intransitive minimal forms. (The expected form here is **ingorrora-na*.) Exceptions such as these are listed in the dictionary.

2.2. Vowel-initial and sonorant-initial roots

Vowel- and sonorant-initial roots behave similarly in prefixation. Like the j-initial roots, they show no difference in transitive forms between present and past. There are no intransitive vowel-initial roots attested in the corpus, and vowel-initial roots are rare. Vowel initial roots are irregular in their gerund forms, in that they have an epenthetic *n*; thus the gerund of *-ibi-* ‘drink’ is *manibin*, not **mibin* or **mabin*. The example paradigm in Table 9.2 shows vowel harmony in the vowel of the augment.

3. Previous analyses of Bardi verb morphology

The template in (9.2) is my analysis of the forms and placement of morphemes in the Bardi verb. Others have drawn somewhat different conclusions as to the composition of Bardi verb roots (as well as the templates needed for other Nyulnyulan languages). In this section I summarize the main published analyses of Bardi (Aklif 1999, Metcalfe 1975b, Nicolas 1998) and describe how they differ from that presented here.

3.1. Metcalfe (1975b)

Metcalfe (1975b) is the published version of Metcalfe (1974), a dissertation on Bardi verb morphology (and the first formal analysis of the morphology of any Nyulnyulan language). It is cast within a transformational framework; the aim of Metcalfe’s thesis was to show that languages like Bardi, with complex quasi-agglutinative morphology, can be treated within a generative framework, and to bring into focus some of the difficulties that arise in such an analysis where the languages exhibit complex agreement strategies. Metcalfe (1975b) is an early version of the pronominal argument hypothesis (usually attributed to Jelinek 1984), in treating Bardi verbs as ‘clauses in miniature’

and analyzing the bound ‘agreement’ markers as the actual subcategorized arguments, as implied by notations such as the following:¹³³

(9.17)	[NP,S]	VP	[NP,PredP]
	<i>ijara-</i>	<i>ma-nana-</i>	<i>r</i>
	they-	put-used to	-them

‘They used to put them (in the tree-coffin).’ (Metcalfe 1975b:15)

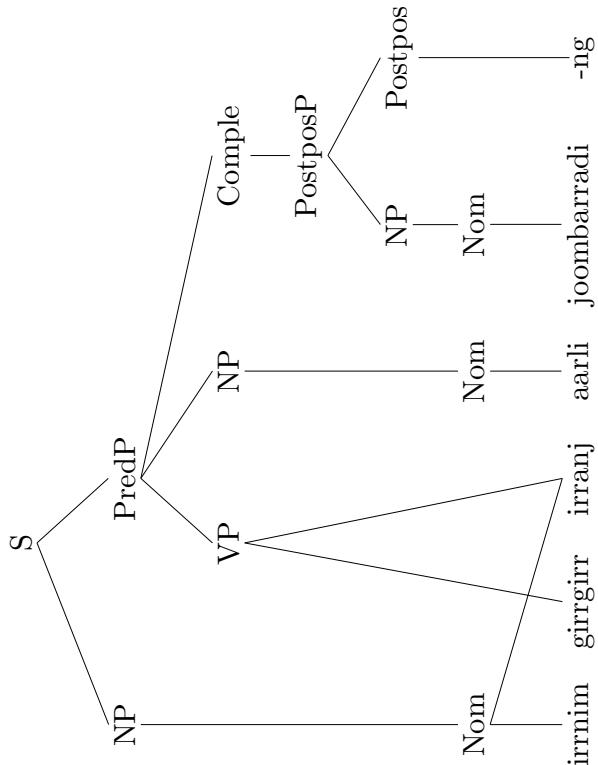
Metcalfe’s phrase structure trees also imply that he analyzes the bound ‘agreement’ markers as arguments. In Figure 9.3 (a tree of the sentence ‘They are cutting the fish with a knife.’), Metcalfe treats the pronominal argument as a nominal element. That is, the verb agreement marker is taken to be a terminal node within an NP, and is realized as a pronominal affix on the verb through a transformation.¹³⁴

Metcalfe’s analysis characterizes Bardi as having a series of slots within the verb. That is, his is not a strictly derivational analysis, but one more in the spirit of ‘templatic morphology’. Metcalfe (1975b) analyzes Bardi as having four preverbal slots and twenty-one further bound morpheme slots on the inflecting verb, in addition to the inflecting root itself. His slots are given in Figure 9.4, repeated from Metcalfe (1975b:4). Since Metcalfe’s analysis is very different from other descriptions of Bardi verb morphology, and is the only other detailed published treatment of the language basides this one, I have provided a key to the figure below, including the label Metcalfe gives, the form and corresponding label used here, and a reference to the section where it is discussed. Where no single form is given in Table 9.3, there is a paradigm associated with the slot, the forms of which are given elsewhere.

There are seven areas where Metcalfe’s analysis differs from later ones. First, he appears to make no distinction between affixes and clitics. Such a distinction is useful in the description of Bardi verbs, since it allows us to explain why some ‘verbal’ markers (such as agreement markers) appear to be able to be hosted by items other than verbs. Aklif (1999) also makes no overt distinction. Metcalfe’s slots make no indication of co-occurrence restrictions (although he does discuss these extensively in the text of the book). It is not clear, however, why tense and mood (slots 7 ‘potential’ and 8 ‘tense’) could not be combined.

Furthermore, this description of the verb does not distinguish between elements which occur only on verbs (or in the VP) and those that may also occur on other items. Of the authors who discuss the question, Metcalfe is the

Figure 9.3. Example from Metcalfe (1975b:166) showing treatment of agreement



Irr nim giirr irrang aarli joombarradi -ng.

Irr -nim giirr- giirr i- rr- a -n -j aarli -ø joombarradi -ng.
 3AUG -ERG REDUP- cut 3-AUG- give -CONT -SIMUL fish -ABS knife INST.

'They are cutting up the fish with a knife.'

(Metcalfe 1975:36)

Table 9.3. Explanatory table of Figure 9.4 with references to morphemes under discussion

No.	Slot Name	Form	Corresponding to	Reference
1	Negative	<i>arra</i>	Negative	§15.3.1
2	Neg.Emph	<i>arranga</i>	'without'	§15.3.4
3	Question	<i>nganyji</i>	Polar question particle	§15.4
4	PreStem		Preverb	§13
5	Subject		Subject Agreement	§10.2
6	ActionType	<i>n-</i>	Transitivity marker	§13.8
7	Potential	<i>l-</i>	Irrealis (Tense/Mood)	§11.1
8	Tense		Tense/Mood	§11.1
9	Number	<i>arr-</i>	Augment marker	§10.2
10	RetroActionI	<i>m-</i>	Reflexive/Reciprocal	§12.3
11	ClassMarker	<i>b, j, d, g, φ</i>	Initial consonant of root (not treated separately from rest of root here)	
12	InfinitiveI	<i>ma-</i>	Nonfinite verb/gerund	§11.3
13	Intensity		Root reduplicant	§3.8
14	STEM		Root	
15	InfinitiveII	<i>-n</i>	Continative	§11.2
16	RetroActionII	<i>-inyji</i>	Reflexive/Reciprocal Circumfix	§12.3
17	Aspect	<i>-n</i>	Aspect suffix	§11.2
18	Tense		Tense/Aspect suffix	§11.2
19	Emphatic	<i>=(j)angarr</i>	Emphatic clitic	§10.5, §14
20	AssociativeSuffix	<i>-ng</i>	Applicative	§12.4
21	QuestionMarker	<i>-(g)arda</i>	Interrogative Particle (discussed under clitics)	§4.7, §15.4
22	SequentialConj	<i>=jamba</i>	(Wackernagel clitic)	§14
23	ObjectPronoun		Object Agreement/Predicate Markers	§10.3
24	ReferentialPronoun		Oblique Agreement	§10.4
25	DiTransPronoun		Indirect and Direct Object Agreement	§10.3, §10.4
26	Relator	<i>-b(a)</i>		§14

Figure 9.4. Metcalfe's (1975b) analysis of Bardi verb morphology

(Free morphemes)				
Negative	Neg.Emph	Question	PreStem	
1	2	3	4	
(Bound morphemes)				
Subject	ActionType	Potential	Tense	Number
5	6	7	8	9
RetroActionI	ClassMarker	InfinitiveI	Intensity	
10	11	12	13	
STEM	InfinitiveII	RetroActionII	Aspect	Tense
14	15	16	17	18
Emphatic	AssocSuffix	QuestionMarker	SequConj	ObjectPronoun
19	20	21	22	23
Referential Pronoun	DiTransitivity Pronoun	Relator		
24	25	26		

only linguist to have worked on Bardi morphology to treat clausal clitics as part of the VP. In some cases, clausal clitics require special description in the verb, because they interact with other verbal clitics. In other cases, however, the sentential marker appears as expected. One example is the polar question particle *nganyji*, which tends to occur clause initially, although it is moveable. Thus Metcalfe's description of the particle as preverbal is only correct when the verb is second in the clause, and there are frequent examples where other orders appear. (9.18) shows Metcalfe's ordering, while (9.19) shows other permissible orders.

- (9.18) *Nganyji minjalagaljiyirr ooldoobal?*

Nganyji mi-n-jala-gal=jiiy=irr ooldoobal?
INTERROG 2-TR-see-REC.PST=2IO-3A.DO things

'Did you find my things?"

(Aklif 1999)

- (9.19) a. *Bardi minjooloongirr nganyji gooyarra aarli?*
Bardi mi-n-jooloong=irr nganyji gooyarra aarli?
yesterday 2-TR-collect=3A.DO INTERROG two fish
‘Yesterday did you [really] catch two fish?’ (BOW-FN.11/34)
- b. *Nganjangarrga nganjoogaljirri goolboo nganyji anangay.*
Nga-n-jangarrga nga-n-joo-gal=jirri goolboo
1-TR-ask 1-TR-do/say-REC.PST=2M.DO.TOP money
nganyji a-n-a=ngay.
INTERROG 2.IMP-TR-give=1M.DO
‘I was going to ask you to give me money.’

(9.19a) is grammatical but somewhat forced due to the fact that polar questions with a constituent in focus are usually marked by *=(b)ard(a)* rather than *nganyji* (for which see §15.4.1). Other acceptable orders of (9.19a) are *Nganyji bardi minjooloongirr gooyarra aarli?* and *Bardi nganyji minjooloongirr gooyarra aarli?*. There is a strong preference for verb second (following *nganyji*) in these clauses, which probably follows from the function of *nganyji* as a clausal polar interrogative (rather than a constituent interrogative). In such cases the action of the clause is the (new) focused information. Alternative orders would create a pragmatic mismatch between the sense of *nganyji* and the focal effects of non-verbal constituents in initial position.

The relative ordering of the question particle and negation in Metcalfe’s template is incorrect; they should be reversed. *Arra* cannot precede *nganyji*. Sequences of the form *arra nganyji* do appear, but in all cases *arra* here is the interjection ‘hey!’, not the negation marker. They can be distinguished by intonation, by meaning, and by the fact that negation triggers unrealis morphology on the verb, whereas the interjection does not. The inclusion of a separate ‘negative emphasis’ category is also odd. The ‘negative emphasis’ category is the word *arranga* ‘without’. Historically a case-marked quantifier in the instrumental which is now used as a preposition:¹³⁵

- (9.20) *arranga aarli*
without meat/fish
‘without meat/fish’

Metcalfe’s treatment of the initial consonant of the inflecting root as a separate morpheme is somewhat counterintuitive. True, the initial consonant of the root is one of the determinants of the form of the prefix chunk, and it does

interact with the prefix bundles and it sometimes disappears. We should not be led by this, however, to treat the initial consonant as a distinct morpheme. The behavior of Bardi verb roots can be captured by morphophonemic processes. Metcalfe also treats the final vowel of the verb root as ‘transitional’ (Metcalfe 1975b:55) and says that almost all verb stems end in a consonant. I treat most (if not all) roots as ending in a vowel, which is deleted when a vowel initial suffix follows, and which can harmonize. Since not all final vowels are predictable, an analysis which retains them in the underlying form is preferable.

Metcalfe takes reduplication as prefixal; I assume it is synchronically infixal/suffixal but historically targeted the whole root. I also treat it as a derivational process rather than inflectional, and do not include it in descriptions of affixal material (such as Table 9.2).

3.2. Aklif (1993a, 1999)

Aklif’s thesis analysis (Aklif 1993a) is similar to that adopted here. The main differences are terminological, or in a few cases reflect more complete information than that which was available to Aklif. The other difference is the treatment of plural transitive paradigms. While Aklif treats forms such as *angarra-* ‘first person augment past transitive’ as involving a deleted *n*-transitivity marker historically, I treat that analysis as a potential synchronic analysis only, a convenient trigger for cluster reduction (see Bowern 2001). This is not historically accurate, since we have comparative evidence that the transitivity marker was *n*- in minimal forms but *a*- in augmented ones. Thus for Aklif the underlying form is *a-ng-arr-n-*, whereas here I treat it as *a-ng-arr-a-*. This is also what I would reconstruct to Proto-Nyulnyulan, *muttatis mutandis*.

Aklif’s template of the Bardi verb is given in (9.21). There are 17 slots in the verb. The first 8 are prefixal, slot 9 is the root, and the remaining 8 are suffixal. The ‘slots’ in this analysis are morphemic, but also include items like the epenthetic vowel which appears before sonorant-initial verb roots in some forms. The template also contains two slots for transitivity marking, reflecting the difference between minimal and augmented roots. The ‘associative’ suffix is my applicative₂.

In Aklif (1999) the analysis presented is a little different. Aklif presents the prefix chunks as unanalyzable wholes, without further morpheme bound-

aries. This is designed to make the morphology seem less frightening to a learner approaching the language for the first time. Those paradigms have formed the basis for the presentation in Tables 9.1 and 9.2.

(9.21)

Ppxf	TR-	T-	IRR-	AUG-	TR-	REFp-	EP-	ROOT
1-	2-	3-	4-	5-	6-	7-	8-	9
-REFs	-PerT	-ASP	-MetT	-?	-ASS	-IO	-O	
-10	-11	-12	-13	-14	-15	-16	-17	

Abbreviations:

Ppxf	pronominal prefix	ROOT	verb root
TR	transitive marker	PerT	peripheral tense marker
T	tense prefix	ASP	aspect marker
IRR	irrealis mode marker	MetT	metrical tense marker
AUG	augmented marker	?	other morphemes
REFp	reflexive prefix	ASS	associative suffix
REFs	reflexive suffix	IO	oblique object suffix
EP	epenthetic vowel	O	direct object suffix

The other two differences between Aklif's analysis and that presented here are that possessor raising is treated by Aklif as oblique agreement, and some suffixes are not discussed, although the presence of slot 14, 'other suffixes,' implies that Aklif recognized other morphemes within the verb.

3.3. Nicolas (1998, 2000)

Nicolas' analysis is very similar to the others, although less detailed and less accurate. The template she gives in Nicolas (2000:158) is repeated below, in (9.22):¹³⁶

(9.22)

Prefixes	Root	Suffixes
PersSubj-(Tr)-T/M-(Num)-(reflx ₁)	Root	(reflx ₂)-(T)-(Asp)-(Val) // (persObj/Benef)

There are multiple inaccuracies in this diagram. Her tense and aspect morphemes are reversed, as forms such as *i-n-a-marra-n-gal* '(s)he was cooking

it' show. In that form, *-n* is the continuous aspect marker and *-gal* is a tense marker. She misses the dual placement of the transitivity morpheme. I also disagree with the characterization of certain morphemes as purely 'temporal' and others as only 'aspectual'; see further Chapter 11 on the relationship between tense, aspect, *Aktionsart*, and mood in Bardi.

Nicolas' persObj (personal object) and Benef(active) morphemes are not mutually exclusive, and the 'benefactive' (my 'Oblique') precedes the direct object, rather than following it, as Nicolas states.¹³⁷ Nicolas simply does not have enough places in her template to describe the morphology of Bardi verbs accurately. Finally, Nicolas does not formally distinguish suffixes from clitics in her analysis.

Nicolas is not explicit about the role she assumes for agreement prefixes, that is whether they are agreement prefixes or pronominal arguments.

4. Dialectal differences in verb morphology

From the small amount of Jawi data recorded it appears that verb inflection in Jawi is identical to Bardi, with one exception. Both the Coate tapes materials for Jawi and the Laves texts show third person augmented *nyarr-* and third person minimal *nyin-*. The forms do not vary for transitivity. This is illustrated in (9.23), where the same form is found on both intransitive and transitive verbs. All forms in the text are past tense, so it is not known whether there are other dialect-specific forms in other tenses, or whether the prefixes *nyin-* and *nyarr-* are marked for tense at all.

(9.23) Jawi

- a. *nyarrunujin* = Bardi *ingirrinijin* 'they spoke to him'
- b. *nyaramarrana* = Bardi *ingaramarrana* 'they cooked it'
- c. *nyarriiidina* = Bardi *ingirriiidina* 'they went'

Several forms in (9.23) require comment. (9.23a) shows that verbs with this prefix show initial root consonant deletion, as with regular prefix chains. However, the stem of the verb is different in this case; the verb *-joo-* 'do, say' has three stems—*joo-*, *-ji-*, and *-di-*, which are used in different tenses. Even though the Bardi form (and the Jawi form in this tense with the regular prefixes) takes the root form *-ji-* in this tense, when the irregular prefix appears, the root form is *-joo-*. From (9.23b), it seems that rules of vowel

epenthesis between prefix chain and root apply, as in the regularly inflected prefixed forms. (An alternative analysis is that the form *nyarr-* replaces all prefixes up to the transitive marker in the augmented forms.)

These prefix forms are not always used; they clearly alternate with prefix chains which reflect the template given in Table 9.1 above. Example (9.24) gives an example of the use of *nyarr-*, with the Bardi forms (where different) provided underneath for comparison. Glossing is schematic only, since the Bardi and Jawi morphemes do not line up exactly.

(9.24) Jawi:

Inoorrinybin Marligo layoordoo Marligo nyarringoorrinybinjin arinyji goolba bornko innyanina goolba goolarr goolboo inambirdin inoorriny ginyinggi goolbo.

I-n-oorrinybi-n Marligo layoordoo Marligo

I-noo-ngoorribi-n

he-chased M. spirit M.

nyarr-i-ngoorribi-n=jin arinyji goolba bornko

i-ng-oorr-oo-ngoorribi-n=jin goolboo

they-chased-refl? one rock around

i-n-nya-ni-na goolba goolarr goolboo i-na-m-birdi-n

i-n-nya-na-na goolboo goolarr-goolarr i-ni-m-birdi-n

he-grabbed rock little rock he-threw

i-n-oorriny ginyinggi goolb-o.

i-noo-ngoorribi-n

he-chased this rock-ABL

‘Marligoo chased the *layoord* spirit; they chased each other around a rock; he threw a little rock and he ran away from the rock.’

(Laves 128/7)

The etymology of the third person prefix *nyarr-* is unknown. It has no direct parallels in other Nyulnyulan languages. The closest item is in Warrwa, where the third person subject marker *i-* is dropped in most affix combinations; thus the third person augmented prefix bundle in Warrwa is *ngarr-*, rather than *ingarr-* (McGregor 1994b).

Another minor difference between Jawi and Bardi verb forms is the intervocalic loss of *ng* in Jawi, producing, for example, *inoorrinybin* for Bardi *inoongoorribin*¹³⁸ ‘he chased him’. The conditioning of this sound change

is impossible to state from the available data. It occurs, for example, in the allative; compare Jawi *biilan* ‘[he’s going] for fighting’ with Bardi *biilingan*. It is optional, however. Examples with *ng* unelided in Jawi could be register or dialect shift.

No other differences are recorded between Jawi and Bardi verb morphology. There are also no recorded differences in verb morphology in the other Bardi dialects, beyond what is expected from sound change (for example, both Baard verb roots and inflected forms tend not to end in final vowels, as expected in a dialect where final vowels are lost).

5. Reduplication of verb roots and preverbs

Reduplication is found in several word classes in Bardi. The morpho-phonological aspects of reduplication were discussed in §3.8; here I describe the semantics of reduplicated verb roots, along with coverbs, since the same semantic principles apply.

The function of reduplication in Australian languages was the subject of Fabricius (1998); she determined that the primary functions of verbal reduplication in these languages are iterative and distributive. That is, reduplicating a verb marks the action of the verb as iterative (done over and over again), or it implies that the action is done multiple times by different people. Bardi conforms to this pattern, although as Metcalfe (1975b:30) points out, reduplicating the verb root can produce different semantic results with different verbs. Reduplication is, however, primarily iterative, distributive, or pluractional. No one working on Bardi has done a detailed semantic study of this topic, to my knowledge.

5.1. Iteration and distribution

Example (9.25) illustrates the iterative use of reduplication. The unreduplicated root *-gardi-* means ‘enter’, while *-gardardi-* means ‘to enter over and over again, to keep on going in and out.’ This root is used of fish swimming in and out of a rock hole, for example.

- (9.25) *ingarrardardanana* (root: *-gardi-* ‘enter’)

i-n̩g-arr-ard-arda-na-na

3-PST-AUG-go.in-REDUP-CONT-REM.PST

‘They kept going in and out.’

(Metcalfe 1975b:33)

Example (9.25) could also be described as distributed, since the action of entering is being performed multiple times by multiple actors. In other cases, however, the action is performed multiple times by a single actor:

- (9.26) *Mayi gorrgorr injooloongan Joongoonoongoorr injooloongan inarlinamb.*

Mayi gorrgorr i-n-jooloo-ng-an Joongoonoongoorr
food collect.REDUP 3-TR-collect-APPL₁-CONT J.

i-n-jooloo-ng-an i-na-rli-n=amb.
3-TR-collect-APPL₁-CONT 3-TR-eat-CONT=THUS.

‘Joongoonoongoorr finished gathering food and then ate it.’ (L83.012)

As might be expected, reduplicated roots tend to co-occur with the continuous aspect marker; see further §11.2.2.

- (9.27) *Bawaninbawin ingirrinyanana joo injoonana ginyingg miinimbi gardi ara ariyoon goowidi agal ariyoon goowid garda.*

Bawaninbawin i-ng-irr-inya-na-na joo
cut.up-REDUP 3-PST-AUG-catch-CONT-REM.PST ??
i-n-joo-na-na ginyingg miinimbi gardi ara
3-TR-do/say-CONT-REM.PST 3MIN whale still one
ari-yoon goowidi agal ari-yoon goowid garda.
one-SOURCE month and one-SOURCE month still

‘They cut up that *miinimbi* (whale) month after month.’ (HHW.031)

5.2. Intensivity

Reduplication in roots occasionally results in giving an intensive meaning to the root, such as in (9.28). Speakers translating such sentences usually add ‘vigorously’, ‘very much’, and the like.

- (9.28) *inggalgalgamanana* (root: *-galgama-* ‘move around’)

I- ng- galg- algama -na -na
3 PST- REDUP- move.about -CONT -REM.PST

‘It kept moving about vigorously.’ (Metcalfe 1975b:30 (ex. 18))

5.3. Pluractionality

Pluractionality is another function of reduplication, illustrated in (9.29). Metcalfe (1975b) describes this use of reduplication as specifying further information about the subject of the clause; however it can also be seen as illustrating pluractionality, where multiple subjects engage in the same action, rather than the same group of people doing the action multiple times (see Wood 2008).

- (9.29) *Daagadaag ingirrini.*

Daaga-daag i-ng-irr-i-ni.

REDUP-sleep 3-PST-AUG-do/say-PST

‘They ALL slept.’ (Metcalfe’s gloss) (Metcalfe 1975b:32: ex 21)

Another function of reduplication described by Metcalfe is where the reduplication specifies further information about the object. Again, however, this is probably a case of pluractionality. Note that such examples all seem to appear with plural subjects, which we might expect if we are to distinguish pluractionality from iteration.¹³⁹

- (9.30) *Ingoorrooloooloorroonoo noorroo.*

I-ng-oorr-oo-loo-loorroo-noo nòorroo.

3PST-(TR)-REDUP-light-DIST.PST fire

‘They lit a LARGE fire.’ (Metcalfe 1975b:32: ex 22)

In Nyikina (Stokes 1982a:231) reduplication is also apparently used with inchoative meanings, as in (9.31) below, although this function has not been recorded for Bardi, and the equivalent form would mean ‘I’ll keep on burning the meat’.

- (9.31) Nyikina

Ngan-a-marra-marra warli-∅.

1M-FUT-REDUP-cook/burn meat-ABS

‘I’m going to start cooking the meat.’

(Stokes 1982a:231)

6. Light verbs

Verb roots in Nyulnyulan languages can also be classified according to their ability to function as light verbs in complex predicate constructions. The verbs in question are known as ‘light verbs’ because in some contexts they do not have the usual full meaning of the normal verb.¹⁴⁰ The verb is bleached of most of its meaning and contributes a more abstract notion to the clause. In Bardi light verbs are used in preverb + inflecting verb constructions (analyzed in detail in Chapter 13). The inflecting verb hosts agreement and tense/aspect morphology. The examples in (9.32) below show two light verbs in use. In (9.32a), the preverb *garr* combines with the light verb *-boo-* to form a complex predicate meaning ‘rub’. Example (9.32b) shows another example, this time intransitive. The preverb *roowil* combines with the inflecting verb *-inya-* to form a predicate meaning ‘walk’. Note that although glosses have been given for *roowil* and *garr*, neither item exists independently of the complex predicate construction.

- (9.32) a. *garr nganamboogal* ‘I rubbed him.’

Preverb: *garr* ‘rub’

Inflecting verb: *-boo-* ‘hit’

Entire predicate: ‘to rub (something) to stop the pain’.

- b. *roowil innyagal* ‘He was walking.’

Preverb: *roowil* ‘walk’

Inflecting verb: *-nya-* ‘pick up, catch’

Entire predicate: ‘to walk’

A list of Bardi light verbs is given in Table 9.4 and Table 9.5 below. First appear the light verbs which commonly appear with preverbs; following appear the inflecting verbs which only occur in collocation with a few preverbs.

Light verbs themselves are either monovalent or bivalent; none of the common light verbs are ambitransitive. Note that this statement does not apply to the complex predicate as a whole, as complex predicates can exhibit transitivity mismatches. These are discussed in §13.8 below (see also Bowern 2008b).

Table 9.4. Common light verbs

Root	Valency	Gloss	No.	Example	Gloss
-ar-	v.tr	kill/spear (lice)	34	<i>darr -ar-</i>	come (v.it)
-banji-	v.it	share	5	<i>dirray -banji-</i>	turn around
-bi-	v.tr	hit	9	<i>garr -bi-</i>	rub to stop pain
-boo-	v.tr	spear	15	<i>milimili -boo-</i>	write
-ga-	v.tr	bring s.th	27	<i>abarabarr -</i>	lead astray
-gal(a)-	v.it	walk, visit	20	<i>jarrman</i>	wade across
-gal-				<i>-gala-</i>	
-(i)nya-	v.tr	pick up	68	<i>yal -(i)nya-</i>	spread out
-jiidi-	v.it	go	27	<i>galgooriny -</i>	swim breast- stroke
-joo- ~	v.tr	do/say	208	<i>yardab -joo-</i>	crawl
-(d)i-					
-ma-	v.tr	put s.th s.w.	130	<i>wajim -ma-</i>	wash something
-ni-	v.it	sit	16	<i>wiliwilon -ni-</i>	be fishing
-φ-	v.tr	give	58	<i>wanilirr -φ-</i>	curse

7. Irregular roots

On the whole there are few truly ‘irregular’ verbs in Bardi; that is, verbs with suppletive morphology. More often, irregularity in the paradigm arises when aspectual combinations have unpredictable meaning, or when one tense serves for another. The root *-gal-* ‘visit, come and see’, for example, can be used in the present with future meaning, and the root *-ni-* often combines present prefixes with past tense suffixes in past meaning. Compare *irrinkal*, ‘they were there’, not **ingirrinkal*. A past tense of this verb does exist with prefix forms, but the root is deleted. A few verbs do not trigger vowel harmony; for example, the past tense of *-boo-* ‘hit’ is *inamboona*, not the expected **inoomboona*. Some of these irregularities could be the result of dialect borrowing between Bardi and Jawi. Jawi is known to have had a more

Table 9.5a. Other Bardi light verbs

Root		Gloss	No.	Example	'Gloss'
<i>-(a)rli-</i>	v.tr	eat	1	<i>ararr -(a)rli-</i>	'ache (v.it)'
<i>-arndi-</i>	v.tr	catch	1	<i>joomoonoonoo</i> <i>-arndi-</i>	'gamble (v.it)'
<i>-balama</i>	v.tr	entwine	1	<i>garga -balama-</i>	'betrothe'
<i>-banyi-</i>	v.it	finish	1	<i>nilirr -banyi-</i>	'slacken (of tide)'
<i>-boolmoo-</i>	v.it	smell	1	<i>gooroogooroo</i> <i>-boolmoo-</i>	'give off a nice smell'
<i>-booloo-</i>	v.it	come	1	<i>darral -booloo-</i>	'come out'
<i>-galala-</i>	v.tr	follow	2	<i>gorna -galala-</i>	'become physically well-developed'
<i>-gama-</i>	v.at	laugh	1	<i>goolgarr -gama-</i>	'laugh (v.it)'
<i>-ganyi-</i>	v.it	climb	5	<i>binbirr -ganyi-</i>	'drift somewhere'
<i>-gardi-</i>	v.at	go inside	6	<i>lool -gardi-</i>	'enter'
<i>-garnboo-</i>	v.tr	scold s.o.	1	<i>balygarr(a)</i> <i>-garnboo-</i>	'swear at someone'
<i>-gonboo-</i>	v.tr	send	1	<i>ngaanka -gonboo-</i>	'send a message'
<i>-jala-</i>	v.tr	see	2	<i>garrgooy -jala-</i>	'stare hard at someone'
<i>-jalgoo-</i>	v.it	fall	1	<i>doolii -jalgoo-</i>	'be prematurely born'
<i>-janboo-</i>	v.tr	tread	1	<i>gooljoo -janboo-</i>	'pull out grass'
<i>-jarrala-</i>	v.it	run	1	<i>joornk -jarrala-</i>	'take off with speed'

(continued)

restricted environment for harmony than Bardi has; compare, for example, Jawi *-jagooli-* with Bardi *-joogooli-* (PN *-jangguli-).

The only irregular root that can be reconstructed to Proto-Nyulnyulan is **-ju-* ~ *-di-* 'do/say'. The root has present and future tense forms in *d* and past forms in *j* (compare Bardi *indan* 'he says' but *injoona* 'he said').

A few monosyllabic roots have an extra syllable in some tense forms. The present of *-ga-* 'carry', for example is *inkajan*, not the expected **inkan*. This is not found in other Nyulnyulan languages and the source in Bardi is unknown. The future form of this root is *oonkaya*, which is also irregular; the *y*-insertion is not found with other roots. The verb root *-boo-* 'poke' is found with the present form *minboojan* in the present (BE, 57.1; DW). There is a further irregularity in that one verb, *-(a)rli-* 'eat', has a mixed monovalent and bivalent paradigm.¹⁴¹

Table 9.5b. Other Bardi light verbs (cont.)

Root		Gloss	No.	Example	'Gloss'
- <i>jarrmi-</i>	v.it	rise	1	<i>wirr-jarrmi-</i>	'jump into the air'
- <i>joogooloo-</i>	v.at	break	2	<i>ngaada</i> - <i>joogooloo-</i>	'break in half'
- <i>jooloo-ng-</i>	v.tr	collect	1	<i>boorrma</i> - <i>jooloong-</i>	'gut something'
- <i>joo-ng-</i>	v.tr	do/say (+ appl)	3	<i>birarr-joong-</i>	'leave behind'
- <i>malanda-</i>	v.it	go against tide	1	<i>arrinarr</i> - <i>malanda-</i>	'go against the tide'
- <i>minyji-</i>	v.tr	receive from	1	<i>rirran-minyji-</i>	'snatch'
- <i>moondoo-</i>	v.tr	wet s.th	1	<i>oola</i> - <i>moondoo-</i>	'wash oneself'
- <i>mooroo-</i>	v.tr	waste s.th	3	<i>barrja</i> - <i>mooroo-</i>	'spit something out'
- <i>nganka-</i>	v.it	speak	1	<i>balygarr</i> - <i>nganka-</i>	'swear'
- <i>ngooloo-</i>	v.tr	throw	4	<i>niimi-ngooloo-</i>	'keep watch (v.it)'
- <i>ngooloo-ng</i>	v.tr	throw at	1	<i>anyja</i> - <i>ngooloo-ng-</i>	'give away'

- (9.33) a. *irlin* 'he/she is eating' (as though from monovalent stem)
b. *inarli* 'he/she ate' (as though from bivalent stem)

I have not found any defective paradigms in my data set. There are, however, a few verbs that have different meanings in the singular and plural. For example, the complex predicate *gir-gal-* means 'live' when the subject is plural, but 'sleep with someone' when the subject is singular.

Some roots are lexically specified for the gender of one of their participants. For example, -*jarrarr-* 'stand up, get up' always has men as its subject, and in the Laves texts, -*jinmarra-* 'spear' is usually used for spearing a woman.

Chapter 10

Agreement Morphology

In this chapter I describe the agreement categories marked in Bardi, specifically on Bardi simple predicates. Agreement in Bardi is for person and number. There are four agreement positions on Bardi verbs: subject, direct object, oblique, and possessor. Inflecting verbs agree for the subject of the verb, whether intransitive or transitive. Transitive verbs also agree for the direct object. ‘Oblique’ agreement, the third type, covers a variety of functions and ranges from oblique/indirect objects to recipients. Possessors may also be marked on the verb. Subject agreement is prefixal and is bound with tense marking, while oblique, possessive, and direct object agreement is cliticized to the end of the verb stem. A curious (and possibly unique) feature of Bardi object agreement is its marking of personal objects and obliques for their status as ‘topic.’

In addition to the ‘agreement’ marking, there are other clitics—hosted by the verb—which provide information of various types about arguments in the clause. For example, there are quantificational suffixes which may refer to the number of the subject or object, depending on context; these occur in addition to the regular agreement markers.

Such marking raises questions about the argument status of the verbal markers. Work on languages from other families, including Mohawk (Baker 2000), Warlpiri (Austin and Bresnan 1996, Jelinek 1984), and Bininj Gunwok (Evans 1999), has provided discussion on whether the argument positions of complex verbs are likely to be manifestations of argument positions. Bardi can make a contribution here, since agreement is extensive; agreement is found for items which would not be considered arguments, and there are agreement feature mismatches. We can also consider the term ‘agreement’ to cover several different types of relations, from feature matching to anaphoric agreement and coreferentiality. These issues are explored in this chapter.

1. Domains of agreement

Agreement in the predicate is only one of several of domains of agreement or co-reference within Bardi, though it is the most extensive. Verbal predicates

show the most extensive agreement, though nominal, adjectival, and adverbial predicates can also act as hosts for agreement clitic marking, as shown in (10.1). Such predicates are discussed in §15.2, though much of the description of verbal marking given in this chapter also applies to types of non-verb predicates.

- (10.1) a. Verb as host: *Inamboonangay*.

I-na-m-boo-na=ngay.

3-TR-PST-hit-REM.PST=1M.DO

‘He/she/it hit me.’

- b. Adjective as host: *Joo ngaadajirri*.

Joo ngaada=jirri.

2MIN tall=2MIN.IO

‘You’re tall.’

- c. Noun as host: “*Arra nyimoonggoonjarrngay jalnggagoorroo ngayoo*,” *injoonin aambanim*.

“*Arra nyi-moonggoon=jarrngay jalnggagoorroo ngayoo*,”

NEG 2M-know=TOP.1MIN doctor.man 1MIN

i-n-joo-n=in aamba-nim.

3-TR-say-CONT=3M.IO man-ERG

“‘You don’t know me, I’m a doctorman,’ said the man.’

(A1839a The ‘Magic’ Drunkard.033)

As mentioned above, agreement in Bardi is for person (1, 2, 3, and 1+2), and number (minimal vs. augment; see §5.1.1 above). These categories are combined in portmanteau forms that inflect for both categories; note, however, that the augmented forms all contain a trill. Agreement patterns and person/number interaction are discussed above in Chapter 7.

2. Subject agreement

2.1. Subject prefixes

Prefixes most often display agreement for the subject of the clause. There are no null forms in subject agreement marking; every person and number has an exponent. Even though case marking is ergative/absolutive, agreement follows the more familiar pattern of ‘subject’ versus ‘object.’ This is illustrated

in (10.2) below, where the same prefix form *nga-* is used for intransitive and transitive first person minimal subjects.

- (10.2) a. *Ngayoo ngalirrmin.* (Intransitive)
Ngayoo nga-lirrmi-n
 1MIN 1-call.out-CONT
 ‘I’m calling out.’
- b. *Ngayoonim nganamboonirr.* (Transitive)
Ngayoo-nim nga-na-m-boo-n=irr
 1MIN-ERG 1-TR-PST-spear-REM.PST=3A.DO
 ‘I was spearing them.’

We see here that the case split does not mirror the usual agreement split. Case marking is ergative/absolutive (and marks transitive and intransitive subjects differently), agreement is for the subject of the clause (and treats transitive and intransitive subjects the same). Bardi shows morphological ergativity in case marking, but no syntactic ergativity. Other tests, such as pivot tests, confirm that Bardi is not syntactically ergative; see further Bowern (2008e) and §5.3.1 for further discussion of the ergative case and its functions.

Prefixal agreement is also found for the subject of imperatives; this is illustrated in (10.3). In this instance, the forms of the prefixes differ, as they are also marked for transitivity (see §11.1.3 below).

- (10.3) a. *Anjala!*
A-n-jal-a!
 2-TR-look.at-FUT
 ‘Look at it!’
- b. *Ngayarrala!*
Nga-yarral-a!
 2-run-FUT
 ‘Run!’

Examples (10.2) and (10.3) illustrate the regular pattern of agreement, which is found in the vast majority of clauses. There are, however, a few minor agreement patterns found in specialized constructions. In (10.4), for example, the ergative case-marked nominal is not cross-referenced by the subject; instead, the subject marker cross-references the first person singular

patient, and the verb is intransitive, as seen by the lack of transitivity prefixal marking.

- (10.4) *Aalganim ngangamarrana.*

Aalga-nim nga-nга-marra-na
sun-ERG 1-PST-cook-REM.PST

‘I got sun-burnt.’

The syntax of these constructions is further discussed in §5.3.1.2.3 and has been extensively discussed in Yawuru by Hosokawa (1991, 1996).

Just as in the free pronouns described in Chapter 7, the subject agreement forms are organized according a system of ‘minimal’ and ‘augment’ numbers. The forms of the Bardi subject agreement prefixes are given in Table 10.1 below.

Table 10.1. Subject agreement prefixes

	Form	Tense	GLOSS
Minimal	<i>nga-</i>	all	1 MIN
	<i>mi-</i>	present, past, unrealis	2 MIN
	<i>a-/ng-</i>	future, imperative	
	<i>i-</i>	present, past	
	<i>oo-</i>	future, unrealis	3 MIN
	<i>a-</i>	all	1+2 MIN
Augment	<i>a-</i>	<i>arr-</i>	all
	<i>goo-</i>	<i>arr-</i>	present, past, unrealis
	<i>a</i>	<i>rr-</i>	future, imperative
	<i>i-</i>	<i>arr-</i>	present, past
	<i>oo-</i>	<i>arr-</i>	future, unrealis

As noted above in §9.2, in the augmented forms, the tense/mood prefix intervenes between the person marking and the augment marker. Illustration of some forms is provided in (10.5), using the third person augmented *i/oo-[a]rr*. The tense/mood marker is underlined. The person and augment markers are in bold.

- (10.5) *i-[a]rr-marra-n* present ‘they are cooking’
i-ng-arr-a-marra-na past ‘they were cooking’
oo-ngg-arr-a-marr[a]-a future ‘they will be cooking’
oo-l-arr-a-marr[a]-a irrealis ‘they might be cooking’

Second minimal and third person subject agreement prefixes vary for tense and mood. In the future and irrealis, the third person marker is *oo-*, whereas in the present and past it is *i-*. The future and imperative (but not irrealis) of the second person is *a-* or *nga-*, whereas we find *mi-* in the other tenses/moods. The second person future/imperative also shows variation for root valency—it is *nga-* on monovalent verbs and *a-* on bivalent verbs. The second person augment future and imperative is *arr-*, built on the second person minimal (*a-*) with the augment marker.

Since copious examples of verbal subject agreement appear throughout the grammar, additional specific examples are not given here (see, for example, (10.2) and (10.3)). It is worth noting, however, that subject agreement can be anaphoric, as in (10.6), where the noun *gayarjin* ‘white people’ is cross-referenced with second person augmented agreement marking *goo-rr-*.

- (10.6) *Gayarjin arar aarlimay goorrarlin.*

Gayar-jin *arar* *aarlimay goo-rr-a-rli-n.*
 white.people-GROUP different food 2-AUG-TR-eat-CONT

‘You white people eat all different types of food.’ (Conversation)

Such agreement is also found in ‘inclusive’ constructions, where agreement is augmented, and one or more members of the group referred to are referenced explicitly. In (10.7), for example, the verb has augmented agreement, and the ergative-marked numeral *irrjaranim* ‘three-ERG’ gives us the number of people referred to by the subject agreement marking; however, only two of them are named, implying that they are included in the set of participants, but do not constitute the whole set.

- (10.7) *Ginyinggon ingarrangoorribina irrjaranim Garndalanyingoorroo Marnimbi.*

Ginyinggon i-ng-arr-a-ngoorribi-na *irrjara-nim*
 then 3-PST-AUG-TR-chase-REM.PST three-ERG
Garndalanyingoorroo Marnimbi.
 G. M.

‘Then three men chased it, including Garndalanyingoorroo and Marnimbi.’ (L118.003)

2.2. Subject suffixing

Subject agreement can also co-occur with quantificational cliticization to the verb. (10.8) is an example with the clitic *=nid(i)*. It shows one of a number of items that mark ‘agreement’ (or which cross-reference features of a free nominal on the verb). When the verb is transitive, the clitic is interpreted with respect to the number of the object, but the clitic is also compatible with intransitive verbs, where the number marking is interpreted as referring to the number of subject.

- (10.8) *Barnanggarragij irralgalnidi bigibigi ngoorrngoolondarr.*

Barnanggarra=gij i-rr-al-gal=nidi bigibigi
now=VERY 3-AUG-be-REC.PST=QUANT pigs
ngoorrngool-ondarr.
mangrove-LOC.ALL

‘Just now all the pigs were in the mangroves.’

(Metcalfe 1975b:4: ex 24)

I assume that the prefix provides the agreement features for person and number and the clitic is anaphoric, and provides more information about the features of its referent, but is not a true agreement marker. The clitic is never obligatory, and its reference is interpretable with respect to different arguments on the verb depending on the transitivity of the predicate. Further examples of quantificational agreement (for subject and object) are described in §10.5 below.

The quantificational suffixal marking in Bardi is reminiscent of the obligatory number marking that occurs on verbs in Eastern Nyulnyulan languages. In order to mark dual subjects, for example, a dual suffix obligatorily appears with the augmented number in prefix marking. This is shown with an example from Yawuru, but Nyikina has a parallel construction.

- ### (10.9) Yawuru

Ngi-rr-ma-yama-nyji-ny-bili.

3. INTR-AUG-REFL-argue-REF-PST-DU

‘They two argued together.’

(McGregor 2000:89)

The forms are *=wili* in Warrwa, *-bili* in Yawuru and *-mirri* in Nyikina.

3. Direct object agreement

Unlike the subject prefixes, the remainder of the verbal agreement types are enclitics, appearing at the end of the verbal word. The following sections describe object and oblique marking. Forms are given in Table 10.2 below.

3.1. Distribution of agreement marking

Bardi direct object markers are enclitic; they do not show the lenition patterns characteristic of suffixes. Sentential clitics also intervene between the verb stem and the direct object markers (see (10.10)), providing further evidence for their status as clitics rather than affixes. In (10.10), the third person augment object marker is *=irr*, and it is preceded by *=gid*, which connects clauses.

- (10.10) *Balnar biindoonoo nimoonggooloondarr arroogoolinirr, arramarran-kidirr gardo bardaganyarr noorroogoon.*

Balnar biindoonoo nimoonggool-oondarr
 oyster *Rhizophora.stylosa* tree.root-LOC.ALL
a-rr-oogooin=irr, a-rr-a-marra-n=kid=irr
 1-AUG-break-CONT=3A.DO 1-AUG-cook-CONT=THEN3A.DO
gardo bardaga-nyarr nōorroo-goon.
 still tree-COM fire-LOC

‘Mangrove oysters are on the roots of mangrove trees—we break them and we cook them on the fire, still on the roots.’

These agreement clitics mark the direct object of transitive verbs. Most often the direct object is a patient, but other roles are also possible. Some examples of different semantic roles are given in (10.11) below. (10.11a) shows a patient/undergoer, (10.11b) shows the direct object form as a recipient, (10.11c) as an object of swearing, and (10.11c) as a theme.

- (10.11) a. *Noolgoo inanggajarrngay Iwanyangan jarrgany nganamayji arri-jamba ngalinyan Iwanyoo.*
 “*Noolgoo i-na-ng-ga=jarrngay Iwanya-ngan*
 flood.tide 3TR-PST-carry-1M.DO Sunday.Island-ALL

jarrgany nga-na-may-iji arri=jamba nga-l-inya-n
 cross.over 1-TR-put-SIMUL NEG=THUS 1-IRR-catch-CONT
Iwanyoo."
 Sunday.Island

'The tide was carrying me to Sunday Island while I was crossing over, but I didn't reach Sunday Island.' (L135.13)

- b. "*Inajarrngay ginyinggi barnangga inajarrngay*," *injoonajirr*.
I-na=jarrngay ginyinggi barnangga
 3-TR-[give]=1M.DO 3MIN shellfish
i-na=jarrngay," *i-n-joo-na=jirr*.
 3-TR-[give]=1M.DO 3TR-sayREM.PST=3A.IO
 "Then he gave me the shellfish," he told them.' (L83.043)
- c. *Barnigarr bayilygarron indangjarrngay*.
Barnigarr bayilygarr-on i-n-da-ng=jarrngay.
 always swearing-LOC 3TR-say-APPL=1M.DO
 'He is always swearing at me.'
- d. *Arra boojoogoon milingjarrngay*.
Arra boojool-goon mi-l-i-ng=jarrngay.
 NEG stare-LOC 2-IRR-do-APPL=1M.DO
 'Don't stare at me.'

Bardi is unusual among Nyulnyulan languages in allowing multiple agreement clitics. In both Nyulnyul and Nyikina, for example, DO and IO agreement is not obligatory and only one of the markers can appear at any one time. While Bardi allows multiple clitics as long as only one of them is an argument, there are cases where direct objects are not coreferenced on the verb. The issue of obligatory agreement is taken up in some detail in Bowern (2008a) and will be addressed only briefly here. In Bowern (2008a) I argued that object agreement is correlated with definiteness. That is, if an object noun phrase is semantically plural but indefinite, it will be treated as singular, and hence receive the 3MIN agreement clitic, which is null. Collective objects (that is, objects which are plural but where the members of the group are not individuated) also receive singular agreement.

- (10.12) *Nganarlina niimana aarli.*

Nga-n-arli-na=φ niimana aarli.
1-TR-eat-REM.PST[=3MIN] many fish

‘I ate many fish.’

Finally, some (intransitive) sentences appear to contain an ‘extra’ DO agreement suffix; examples are given in (10.13) and (10.14) below. Example (10.13) is taken from a narrative in which the speaker has been presumed dead by his companions, and has just returned to camp covered in white ash and looking like a *ngaaṛri* spirit. The regular agreement pattern of the verb *-jargi* ‘fear’ is an ergative subject (the fearers) and an IO-marked object of fear. In this case, the ‘additional’ first person clitic *=jarrngay* is clearly emphatic.¹⁴² The form *nganga* is also used for emphasis to imply that ‘it’s me and no one else.’ See the following section for the form of the object markers in such examples.

- (10.13) “*Arra goolarrjargajanjarrngay nganga*,” *injoonoojirr*.

“*Arra goo-l-arr-jarga=jan=jarrngay nga-nга,*”
NEG 2A-IRR-AUG-fear=1M.IO=1M.DO 1-name
i-n-joo-noo=jirr.
1-TR-do-REM.PST=3A.IO

“Don’t be frightened of me!” he told them. (BMF2.015)

- (10.14) *Inkoornim ngangimilijarrngay.*

Inkoorr-nim nga-ngi-mili=jarrngay.
cold-ERG 1-PST-wake.up=1M.DO

‘Cold woke me up.’

In (10.14), there is an ‘extra’ agreement marker; this sentence is an example where the patient shows subject agreement marking and the causer is in the ergative case. However, in addition to the first person subject agreement marker, the verb also receives first person predicate marking. I assume that the predicate marker is not signaling agreement here, but is signaling topic status (as reflected in the *jarr-* form of the marker, for which see §10.3.2 below).

In summary, though the primary function of these markers is the syntactic marking of direct objects, there are also other functions relating to arguments of the clause.

3.2. Forms

Bardi has two sets of direct object clitics which vary in all persons but the third. The forms are given in Table 10.2. The third person singular forms are invariant and not marked; the equivalent of a Set II form for third person appears to be the use of the pronoun *jarri* (this is discussed further below). The third person augmented Set II forms were given in my 2008 field trip but were not accepted on earlier trips; in previous work, the third person augment was invariant and had the form $=\{i\}rr$ in both sets. The Set II forms are clearly derived from the Set I forms with the addition of *jarr*.

Table 10.2. Direct object forms

	Set I	Set II
1MIN	$=ngay$	$=jarrngay$
2MIN	$=rr\bar{i}$	$=jirri$
3MIN	$=\emptyset$	$=\emptyset$
1+2MIN	$=way$	$=jarrway$
1AUG	$=moord$	$=jarrmoord$
2AUG	$=goorr$	$=jarrgoorr$
3AUG	$=irr \sim =rr$	$[=irr, =jarrirr, =jirrirr]$

As mentioned above, these forms are also used for predicative pronouns and attach to nominal predicates. (10.15) is an example. (The semblative case is here used clausally to situate the event in time; see further §5.5.3.)

(10.15) *Ngay moorrooloomarrngay.*

Ngay moorrooloo-marr=ngay.

1MIN little-SEMB=1MIN.PRED

'It was when I was little.' [the story took place when I was a little child] (NGJ/1)

3.2.1. Allomorphy conditions on object markers

The two sets of direct object markers have the same syntactic functions, in that they both mark direct objects and occasionally other functions described

above. However, there has been some doubt in previous work on Bardi regarding the conditions on appearance of the agreement sets. In one account (Aklif 1993a), the forms are said to be conditioned by syllable structure: Set I forms are used following vowels, while Set II are used after consonants. This is illustrated in (10.16):

- (10.16) a. *Injalalagaljarrngay.*
I-n-jalala-gal=jarrngay.
 3-TR-see-REDUP-REC.PST=1M.DO
 ‘He’s staring at me.’
- b. *Inimbinangay.*
i-ni-m-bi-na=ngay
 3-TR-PST-poke-REM.PST=1M.DO
 ‘He poked me.’

Metcalfe (1975b) gives a different account, though still arguing for a phonological distribution. He argues that Set I forms are used on even-numbered syllabic stems, while Set II forms are used on odd-numbered stems. This generalization fits the data in (10.16), along with the forms in (10.17a).

- (10.17) a. “*Arra goolarrjargajanjarrngay nganga*,” *injoonoojirr.*
Arra goo-l-arr-jarga=jan=jarrngay
 NEG 2-IRR-AUG-fear-FUT=1MIN.IO=1M.DO
nga-nга, *i-n-joo-noo=jirr.*
 1MIN-‘name’ 3-TR-do/say-REM.PST=3AUG.IO
 “Don’t be scared, it’s me,” he said to them.’
- b. *Anyngarr minagaljarrngay goorlil.*
Anyngarr mi-na-gal=jarrngay *goorlil.*
 in.vain 2-TR-give-REC.PST=1M.DO turtle
 ‘You gave me turtle without getting anything in return.’

The phonological explanations of distributions do not account for all the data, however. Firstly, neither of the accounts which are based on phonological criteria account for all the data; there are numerous exceptions to both. Some are given in (10.18) and (10.19). In (10.18), for example, the stem does not have the correct number of syllables for the even/odd distribution rule to work, while in (10.19), the stem ends in the ‘incorrect’ segment for the

rule which explains allomorphy as dependent on whether the stems ends in a consonant or a vowel.

(10.18) Stem has ‘wrong’ number of syllables:

- a. *Baawanim abarrabarr inamagaljarrngay.*
Baawa-nim abarrabarr i-na-ma-gal=jarrngay.
 child-ERG confuse 3-TR-put-REC.PST=1M.DO
 ‘The child led me in the wrong direction.’
- b. *Ginyingginim garrgarr injijjarrngay ngaya gornamb injoo.*
Ginyinggi-nim garrgarr i-n-j-ij=jarrngay ngaya
 3MIN-ERG rub 3-TR-do/say-PFV=1M.DO me
gorn=amb i-n-joo.
 good=THUS 3-TR-do/say
 ‘He rubbed me and now I’m good.’

(10.19) Stem ends in ‘wrong’ segment:

- a. *Ngoojilinim inamboojarrngay.*
Ngoojili-nim i-na-m-boo=jarrngay.
 blue-ringed.octopus-ERG 3MIN-TR-PST-hit-1M.DO
 ‘A blue-ringed octopus stung me.’
- b. *Ngoorra inanggalajarrngay amboorinynim.*
Ngòorra i-na-ng-gala=jarrngay ambooriny-nim.
 last.night 3-TR-PST-visit-1M.DO person-ERG.
 ‘Someone visited me last night.’
- c. *Inkoorrnim ngangimilijarrngay.*
Inkoorr-nim nga-ngi-mili=jarrngay.
 cold-ERG 1-PST-wake.up=1M.DO
 ‘Cold woke me up.’

An additional argument against a phonological distribution is that the Set I forms have both vowel-initial and consonant-initial allomorphs, as given in Table 10.2 above. Finally, compare the sentences in (10.20). Here we have the same verb root, but different object agreement clitics.

(10.20) a. *Anangay oola!*

- A-n-a=ngay oola!*
 2.IMP-TR-give-FUT=1M.DO water
 ‘Give me [some] water!’

- b. *Anajarrngay!*
A-n-a=jarrngay!
 2.IMP-TR-give-FUT=1M.DO
 ‘Give it to me!’

This minimal pair points to a syntactic distribution of the two Sets rather than a phonological one. The conditions on distribution cannot be metrical; nor can they be based on the final segment of the stem, since in (10.20) the stems are identical. In (10.20a) the direct object is present. In (10.20b) the object is omitted or implied from context. In this command, using =*jarrngay* forms with the DO present leads to an ungrammatical (or at least pragmatically very odd) sentence:¹⁴³

- (10.21) */? *A-n-a=jarrngay öola!*
 2-give=1m.DO water
 ‘Give me water!’

This ungrammaticality is most easily explained by assuming the function of the Set II morphemes is to mark object prominence, and more specifically, topics. The *jarr* forms are used when the object is the topic of the clause. It is found especially when a topic is maintained over several clauses, where it is easier to see the topic continuity.¹⁴⁴ Some examples are given in (10.22) below. These examples illustrate the topical use of *jarr-* forms in texts. (10.22b) shows contrastive topic marking.

- (10.22) a. *Mangir inkalanjarrngay iiganim alig ngandan.*
Mangir i-n-kala-n=jarrngay iiga-nim alig
 always 3-TR-visit-1M.DO, sickness-ERG pain
nga-n-da-n.
 1-TR-do/say-CONT
 ‘She’s always visiting me when I’m sick.’
- b. *Niwandijarrngay, joo ngaadajirri.*
Niwandi=jarrngay, joo ngaada=jirri.
 tall-1M.DO 2MIN short-2M.DO
 ‘I’m tall, [but] you’re short.’

- c. *Marbiddynim inanggalajarrngay bardi, goyarr aalga inggoodal-ijarran arra darr oolarnajan.*

*Marbiddy-nim i-na-**ng-gala=jarrngay** bardi,*
 M.-ERG 3MIN-TR-PST-visit=1M.DO yesterday
*goyarr aalga i-**ng-goodali=jarran** arra darr*
 two day 3-PST-lost=1MIN.IO.TOP NEG come
oo-l-ar-na=jan.
 3-IRR-spear-PST=1.IO.

‘Marbiddy came to visit yesterday; for two days I didn’t know where she was, she didn’t come.’ (AKLFN)

In contrast, in (10.23) we see examples of the non-topic marked object agreement clitics. In (10.23a) we can see that the object agreement cannot be the topic of the clause. The next question in the text is ‘are you deaf?’, implying that the speaker is questioning whether the hearer is ‘listening’, not whether she is listening *to the speaker*. Furthermore, *nganyji* marks polar questions where topic of the sentence is the action of the clause, not an individual constituent. (=G)arda marks the topic of polar questions when individual constituents are questioned.)

- (10.23) a. *Nganyji milamankangay?*

*Nganyji mi-lamanka=**ngay**?*
 INTERROG 2-listen-1M.DO

‘Are you LISTENING to me?’

- b. *Aaman daaga ngandan, gala goorroomilginngay.*

Aaman daaga nga-n-da-n, gala
 as.soon.as sleep 1-TR-do/say-CONT all right
goo-rroo-milgi-n=ngay.
 2A-wake.up-CONT=1M.DO

‘Just as I was getting to sleep, you woke me up.’

- c. *Angginimal inarlingay ngoorra malbarra jonon.*

Anggi-nim-al i-n-arli=ngay ngòorra malbarra
 what-ERG-INDF 3-TR-bite-1M.DO last.night buttock
jon-on.
 1M.POSS-LOC

‘Something bit me on my bottom last night.’

- d. *Gala barnkard, arra milangay niimana.*

Gala barnkard, arra mi-la=ngay niimana.
 all.right finished NEG 2-IRR-give=1M.DO too.much
 ‘That’s enough, don’t give me too much.’

In (10.23d), the important part of the clause is the ‘too much’, not the recipient of the items, but the fact that the person is getting too much. This reflects the lack of Set II marking on the DO.

There are two questions remaining. Why do we not see these contrasts in third person forms, and why do we get both sets of marking in elicited sentences, where we would not expect topic marking to apply? That is, why did previous researchers assume that the use of Set I versus Set II is governed by phonology? I suspect that topic marking is not marked on the verb for third person objects because third person topic marking is usually marked by omission. That is, third person forms are only overtly realized when they are either focused or reintroduced topics. There are also other, rather complex, ways of marking topic-hood in third person forms, including the use of free pronouns and demonstratives such as *jarri* ‘this’ (for which see further below). See Bowern (2008a) for further discussion. Set II (*jarr*) forms appear fairly frequently in elicited sentences, and I assume that this is what led Aklif and Metcalfe to seek a phonological (rather than syntactic) solution to the use of these forms. Elicitation creates its own discourse contexts, however, especially when the sentences keep the same participants across clauses.

Set II *jarr*-marked forms also seem to occur more frequently when the subject of the clause is third person. (10.22a) above is an example of this; another example is (10.24).

- (10.24) “*Warrboonim innyan kaljarrngay*,” *injoonin aambina*.

“*Warrboo-nim i-n-nya-n-kal=jarrngay*,”
 W.-ERG 3-TR-catch-CONT.REC.PST=1M.DO
i-n-joo-n=in aamb=ina.
 3-TR-say-CONT=3M.IO husband=3M.POSS

“‘Warboo grabbed me,’ she told her husband.’ [That is, Warboo tried to take the woman as a wife.] (L85.014)

This example shows that the characterization of *jarr*- is not focus marking, even though the marker involves the marking of prominence of a sort. In

this example, the name Warrboo is in the clausal focus position. (For the interaction between clausal constituent order and focus marking, see Bowern (2008a) and §15.1.3.1 below.)

3.2.2. Relation to jarr(i) ‘this’

There is a demonstrative *jarr(i)* ‘this’ (or ‘these’) which functions as a topic tracker and discourse marker (it is discussed in §7.8). The Set II forms are transparently based on the Set I forms with the addition of *jarr*, so it is tempting to relate the Set II forms to a historical compound of the demonstrative and the DO agreement markers.¹⁴⁵

Jarri has some syntactic oddities. For example, almost all the exceptions to the case marking placement rules occur with it. Case marking consistently occurs on the first word of the noun phrase, except for phrases introduced by *jarri*, where it is possible (through not obligatory) for the case marker to occur on the following word. Thus there are examples such as *jarri aamba-nim* ‘this man-ERG’ which alternate with *jarri-nim aamba*). Some examples of the use of *jarri* as a free pronoun are given in (10.25) below. Note that in these sentences all the noun phrases containing *jarri* are also topics. This is consistent with the Set II agreement marking described above, in which the objects which showed the marking were also topics or exhibited prominence of some sort.

- c. “*Arra ngay ninga ngay arr ngandan. Jarri ngay arr ngandan!*”
injoonoo jiib ginyingginim aamba.

“*Arra ngay ninga ngay arr nga-n-d-an.* **Jarri**
look! 1MIN ‘name’ 1MIN come 1MIN-TR-do/say-CONT this
ngay arr nga-n-d-an!” *i-n-joo-noo jiib*
1MIN come 1MIN-TR-do/say-CONT 3-TR-do/say this
ginyinggi-nim aamba.
3MIN-ERG man.

“Hey, look! It’s me coming back! It’s me!” the man said to
these people.’ (BMF.017)

In (10.25a), a *balili* boy is a boy who has been through the *arnkooy* initiation ceremony. Although this is the first line of a text, the *balili* boys are already old information, as the storyteller had just been discussing them, and the narrative is a continuation in Bardi of the English conversation. In (10.25b), the topic is contrastive, in a discussion of different types of fish, this species of fish, in contrast to one or more of the others that we have been talking about, are not eaten by children alone. Example (10.25c) is also contrastive, with the speaker contrasting himself with the expectation of who might be coming back.

4. Oblique and possessive agreement

Nyulnyulan languages also have a set of oblique clitics. They fulfil a number of different functions, including indirect object marking and goal marking.¹⁴⁶ In Bardi, the oblique clitics fill two additional roles. The language does not have any dative case marking (which the other languages of the family do have). Arguments which are dative case-marked in other Nyulnyulan languages show oblique agreement in Bardi. Furthermore, possessors may be marked on the verb, and may co-occur with oblique agreement. Etymologically, the oblique clitics are closely related to the free dative/possessive pronouns, for which see §7.4 above. The oblique markers and possessives are formally identical.

4.1. Forms

The Bardi oblique paradigms are given in Table 10.3. Like direct object marking, oblique marking also shows two sets of forms which vary by topic status. Very few Set II forms have been recorded in spontaneous use. The free possessive forms are given for comparison.

Table 10.3. Oblique pronominal paradigms

Person	Free possessive	Verbal suffix	
		Set I	Set II
1MIN	<i>jana</i>	=(<i>j</i>)an	= <i>jarran</i>
2MIN	<i>jiya</i>	= <i>jiy</i>	
3MIN	<i>jina</i>	=(<i>j</i>)in	= <i>jirrin</i>
1+2MIN	<i>jowa</i>	= <i>jow</i>	= <i>jorrow?</i>
1A	<i>jarda</i>	= <i>jard</i>	= <i>jarrard</i>
2AUG	<i>joogarra</i>	= <i>joogarra</i>	
3AUG	<i>jirra</i>	= <i>jirr</i>	[= <i>jirrirr</i>]

It seems that the same rules that govern the *jarr-* forms for the predicate markers also govern the choice of oblique agreement. Note, however, that the predicate markers do not have a third person minimal Set II form, whereas the oblique markers do show such a form. The topic structures that were discussed for the direct object clitics in §10.3.2.1 also apply to these oblique forms. The topic continuity forms are much rarer for the oblique pronouns than they are for direct object forms. In Aklif (1999), the only attested forms were 1MIN and 3MIN. Subsequent elicitation increased the paradigm but not all forms could be recovered, and the form for the third person augmented Set II allomorph was not accepted by all speakers. Examples are given in (10.26).

- (10.26) a. *Ingilirrmigaljarran.*
I-n̩gi-lirrmi-gal=jarran.
 3-PST-call.out-REC.PST=1M.IO
 ‘He sang out to me.’ (Aklif 1994b:2)
- b. *Nganjargigaljirrin.*
Nga-n-jargi-gal=jirrin.
 1-TR-fear-REC.PST=3M.IO
 ‘I was frightened by him.’ (Metcalfe 1975b:110, ex 105b)

- c. “Imanyinkaljarran,” injoonajirr.
I-manyi-n-kal=jarran, *i-n-joo-na=jirr:*
 3-wave-CONT-REC.PST=1M.IO 3-TR-say-REM.PST=3A.IO
 “He kept on waving at me,” he told them.’
 (Metcalfe 1975b:110: ex 103b)

- (10.27) *Rarrba booroo injalarnajarrard daanarna diimi.*

Rarrba booroo i-n-jala-rna=jarrard
dawn time 3-TR-see-REM.PST=1A.IO
daa-n-ar-na diimi.
come-TR-pierce-REM.PST steamer

'It dawned for us, and a steamer came.' (L100.008)

First and third person minimal forms have been recorded both with and without their initial consonant. For example, the verb translating ‘he said to him’ is variably recorded as *injoonoojin*¹⁴⁷ and *injoonin*. Speakers are unable to point to any difference in meaning between the two verb forms and treat them as semantically identical.

4.2. Distribution and function

Oblique objects are characterized by an agreeing oblique pronominal clitic on the verb and zero marking on the free nominal or pronoun (if present). In (10.28) below, the oblique on the verb and its coreferential free noun are in bold.

- (10.28) *Baawanim inanggagaljin mayi aamba.*
Baawa-nim i-na-ŋg-a-gal=jin *mayi aamba.*
 child-ERG 3-TR-PST-bring-REC.PST=3MIN.IO tucker man.
 ‘The child brought food for the man.’ (Aklif 1994a:BE: E0/2)

The distribution of the oblique pronouns in Bardi is affected (and differentiated from the other Nyulnyulan languages) by the fact that dative marking is null. That is, in the Eastern languages, datives are marked by the suffix *-ji* (which only marks causals in Bardi; see §5.3.3). In Bardi, verbal cross-reference marking replaces the function of the case marker.

There are several functions of oblique agreement. The most common is the marking of animate goals, as shown in (10.29):

- (10.29) a. *Goolboong inoongooloogaljanan.*
*Goolboo-*ng* i-noo-*ngooloo-gal=janan.**
 rock-INS 1-TR-[PST]-throw-REC.PST=1MIN.IO
 ‘He threw a rock at me.’ (Aklif 1999:-*ngooloo-*)
- b. *Ngamijan barda gorror arr ngaliya.*
*Nga-mi=*jan* barda gorror arr*
 2M.IMP-look.for=1M.IO off if come
nga-li-ya.
 1-IRR-do/say-FUT
 ‘Look for me [before you go]—maybe I’ll go too.’
- c. *Anggi barnim mindanjan barningan ngaanka, joonim anyja mi-noongooloongngay.*
*Anggi barnim mi-n-d-an=*jan* barni-*ngan**
 why tell 2-TR-do/say-CONT=1M.IO this.way-ALL
ngaanka, joo-nim anyja
 speech 2MIN-ERG in.return
*mi-noo-*ngooloo-ng=ngay.**
 2-TR-throw.away-APPL=1M.DO
 ‘Why are you telling me this, you’re the one that gave me away?’ (BGM.008)

Another use is in the construction of an intransitive verb with ergative subject marking (discussion can be found in §5.3.1):

- (10.30) *Baawanim inyjargijin ngaarri.*
*Baawa-nim i-ny-jargi=*jìn* ngaarri.*
 child-ERG 3-PST-fear=3MIN.IO devil.
 ‘The child was afraid of the devil.’

In a few examples, the cause of the action appears with an oblique clitic. In (10.31), for example, the literal meaning is ‘you were not breaking yourselves over me’.

- (10.31) *Arra gooloorroomoogoolinyjinajan.*

Arra goo-loo-rroo-m-oogool-nyji-na=jan
NEG 2-IRR-AUG-REFL-break-REFL₂-REM.PST=1M.IO

‘You weren’t worried about me.’ (Metcalfe 1975b:5)

The IO marker is also used for human arguments who are affected in some way by the action of the clause, but who do not directly participate. The ablative, which is used for nonhuman participants in equivalent roles, is ungrammatical here.

- (10.32) a. *Diird injoogaljin aamba.*

Diird i-n-joo-gal=jin *aamba.*
run.away 3MIN-do/say-REC.PST=3MIN.IO man

‘He ran away from the man.’ (Aklif 1994a:S1/6f)

- b. * *Diird i-n-joo-gal=(jin)* *aamb-o.*
run.away 3MIN-do/say-REC.PST=3MIN.IO man-ABL
cf.

- c. *Diird injoogal booroojino.*

Diird i-n-joo-gal *booroo=jin-o.*
run.away 3min-do/say-rec.pst=3sgIO place=his-ABL
‘He ran away from his house’.

- (10.33) *Aarlingan arr nganjij bardi. Barni nganimbidi wiliwili namardamba ingarrinjanirr wiliwili, ingirrjimbin arranga marlinjan aarlinim.*

Aarli-angan arr nga-n-j-ij *bardi.* *Barni*
fish-ALL go 1-TR-do/say-MID.PFV yesterday. when
nga-ni-m-bidi *wiliwili* *namarda=amba*
1-TR-PST-throw.in fishing.line just=CAUSAL.REL
i-ng-arr-i-n=jan=irr *wiliwili,*
3-PST-AUG-sit=1M.POSS-3AUG fishing.line
i-ng-irr-jimbi-n *arranga m-arli-n=jan*
3-PST-AUG-die-CONT without GER-bite-CONT=1MIN.IO
aarli-nim.
fish-ERG.

‘I went fishing yesterday. I threw in my lines but they just lay there, they were dead without the fish biting.’

Oblique agreement can mark benefactive roles. In (10.34), for example, *=jirriri* cross-references the people for whom a dance is being performed.

- (10.34) *Boorrboorr ingirrinjirriri*.

Boorrboorr i-n-g-irr-i-n=jirriri=in.

dance 3-PST-AUG-do-CONT=3A.IO=3M.POSS

‘They [Jóoloo’s sons] danced for them [the people from Jalan].’
(BA-CB41/MD)

There are also forms which are ambiguous between possessives and benefactives:

- (10.35) *Mooloo anarajan!*

Mòoloo a-n-ar-a=jan!

lice 2.IMP-TR-spear-FUT=1MIN.IO

‘Spear lice for me/spear my lice.’

- (10.36) *Ooldoobal boonyja joowaljoowal ingirrijjanirr.*

Ooldoobal boonyja joowal-joowal

things all wet-REDUP

i-n-g-irr-i-j=jan=irr.

3PST-AUG-do-PFV=1M.POSS=3A.DO

‘All my things got all wet.’ [The things got wet on me.]

For possessives see §10.4.3 below.

However, there were also examples in Aklif’s notes where plain benefactives were said to be ungrammatical. This may be a change in the language, since similar sentences which I elicited (such as (10.38)) were said to be grammatical.

- (10.37) * *Store-ngan arr i-n-joo-gal=jan.*

store-ALL go 3min-do/say-pst=1m.IO

‘He went to the store for me.’

(Aklif 1994a:S1/6)

- (10.38) *Ooranynim inmarranjirr aarlimayi baawajirra.*

Oorany-nim i-n-marra-n=jirr aarli-mayi baawa=jirra.

woman-ERG 3-TR-cook-CONT=3A.IO food child=3A.POSS

‘The woman is cooking food for her kids.’

Finally, the oblique clitics mark ethic datives (that is, an affected argument, but not necessarily one which benefits from an action).

- (10.39) *Aambanim boor inamboogaljin goorlil.*

Aamba-nim boor i-na-m-boo-gal=jin goorlil.
man-ERG 'ground' 3-TR-PST-poke-REC.PST=3MIN.IO turtle.

'The man missed the turtle.'

- (10.40) *Jarri goolboo laanybi innyagaljirr jiibanim baawa.*

Jarri goolboo laanybi i-n-nya-gal=jirr jiiba-nim
this money steal 3-TR-catch-REC.PST=3A.IO this-ERG
baawa.
child.

'This kid stole the money from them.'

4.3. Possessors

Bardi exhibits an interesting phenomenon, not attested to my knowledge in other Nyulnyulan languages (and rare elsewhere in the world), that possessive pronouns migrate from the DP to the verb. The forms used for possessive marking on the verb are identical to the oblique pronouns, but the slot is different, since it is possible for oblique agreement and possessors to co-occur. As far as can be determined, the marking of possession on the verb is not obligatory, and it can alternate with marking within the noun phrase.

The most common example of possessor marking on verbs occurs with the possessor of a direct object, as in (10.41) below, where the first person minimal possessor =*jan* is cliticized to the verb.¹⁴⁸

- (10.41) *Ginyingginim injoogooloojan daanggoo.*

Ginyingga-nim i-n-joo-gooloo=jan daanggoo.
3MIN-ERG 3-TR-break-1M.POSS jaw

'He broke my jaw.'

While (10.41) shows a possessor with a direct object, cross-referencing of possessors of other arguments is also possible. (10.42a) shows a subject, and (10.42b) shows an oblique object. (10.42c) shows an example of a possessor combined with a goal.

Possessor raising is thus possible with several different types of arguments, although it does not seem to be grammatical with adjuncts.

5. Quantitative enclitics

In addition to the pronominal agreement described in the previous sections, we also find a type of marking on Bardi verbs which is sensitive to quantification. The two most common forms in my corpus are *=nid* and *=(b)al.* *=nid* refers to a large group, while *=al* or *=bal* denotes an indefinite number.

These clitics do not fit easily into the other types of agreement, since their reference is contextually determined (that is, they may refer to either subject or object arguments on occasion). They also appear to occupy the same slot in the verb as markers such as *=jangarr*, which may limit not only arguments but the scope of the verbal action itself. While the quantifiers most often appear on verbs, they may also occasionally occur on other items in the clause. Finally, such marking is not obligatory; this is unlike subject or oblique argument marking. It is thus better to treat these markers not strictly as ‘agreement’ markers, where features of nominal arguments cross-reference free arguments, but another type of marker which introduces quantification, which may attach pragmatically to more than one element in the clause. Such marking is reminiscent of the category of pluractionality (Conathan and Wood 2003, Wood 2008), in which event plurality may surface either as repetition

of the event with the same participants, or repetition of an event with multiple distinct participants.¹⁴⁹

5.1. ‘Group’: =nid

The clitic =nid means a ‘group’ or ‘heap’ of something, and is used to refer to items which occur in piles, or in large numbers. Usually =nid refers to the number of the object, and this is illustrated in (10.43):

- (10.43) a. *Irrnim gilgil ingarranananid joongoorr milon.*

Irr-nim gil-gil
3AUG-ERG chip.off-REDUP
i-ng-arr-a-na-na=nid
3-PST-AUG-TR-give-CONT-REM.PST=QUANT
joongoorr milon.
small.sharp.stick long.ago.

‘Long ago they used to shave the little sticks [in order to sharpen the points so they can be driven into the mangrove logs as nails to make a raft.]’ (ABC.014)

- b. *Baal angoorroomoogara, bardaga gadigadi angarranid.*

Baal a-ng-oorr-oo-moogara, bardaga gadi-gadi
boughshed 1-PST-AUG-TR-build tree cut-REDUP
a-ng-arr-a=nid.
1-PST-AUG-TR-[give]=GROUP

‘We built a boughshed, cutting up lots of sticks’ (CAM1.003)

Very occasionally (and only when the verb is intransitive) =nid may also appear, in which case the quantification applies to the subject.

- (10.44) *Nyoonoo Landandinyinngan arr angarrinannid.*

Nyoonoo Landandinyin-ngan arr
here L. go
a-ng-arr-i-na-n=nid.
1-PST-AUG-TR-do/say-CONT-REM.PST-GROUP

‘We used to go to Landandinyin.’ (LAW/2)

- (10.45) *Ooloomanjini gir oolarralanani.*

Oolooman-jini gir
 old.woman-GROUP live
oo-l-arr-a-la-na=nidi.
 3-IRR-AUG-walk-CONT-REM.PST-GROUP

‘Not a few of the old women were living there.’

(Metcalfe 1975b:40: ex 30b)

- (10.46) *Niyalboon goron irrbooloonnid.*

Niyalboon gor-on i-rr-boolo-n=nid.
 bus. onions ground-LOC 3-AUG-come-CONT=GROUP

‘Bush onions grow in the ground.’

Metcalfe (1975b:40) says that *=nid* is a separate word that triggers deletion of the object agreement clitic. It is also found in the Laves texts as a separate word, as shown in (10.47):

- (10.47) *Jindibirri inamanirr nidi goolboo arinyji moorrool jinirr ginyinggi jinirr oonggangga.*

Jindibirri i-na-ma-n=irr nidi goolboo arinyji
 J. 3-TR-put-CONT=3A.DO group stones one
moorrool jin-irr ginyinggi jin-irr
 little 3M.POSS-3AUG 3MIN 3M.POSS-3AUG
oonggangga.
 stuff.

‘Jindibirr put lots of stones in a single pile; it was a pile of his things.’ (L156.001)

There are no examples in my corpus of *=nid* co-occurring with overt object agreement marking. In both Metcalfe’s texts and the Laves materials, however, there are a few examples where the verb takes third person augment agreement and *nid* or *nidi* is a separate word. (10.47) above is from the Laves collection and shows this. An example from one of Metcalfe’s texts is given in (10.48) below:

In modern Bardi, however, arguments marked by *=nid* take singular marking and such examples are judged ungrammatical. This is shown in examples such as (10.49), where the argument appears as both an object and a subject of a neighboring verb. In this case, not only is augmented direct object agreement marking absent from the first verb, but subject agreement on the second verb is third person minimal.

- (10.49) *Alnggoonoor langarangan arroolaniid. Goolboon ininnid.*
Alnggoonoor langara-ngan a-rr-oola=nid.
Austrochlea.concamerata bait-ALL 1-AUG-collect=GROUP
Goolboo-n i-ni-n=nid.
rock-LOC 3-sit-CONT=GROUP

‘We collect *alnggoonoor* (*Austrochlea concamerata*) shells for bait.
They are on the rocks.’

While *=nid* in the modern corpus almost always occurs cliticized to the verb, it does occasionally occur on other parts of speech as well. Of the 82 examples in my text corpus, *=nid* appeared on verbs 73 times. The other examples were on possessive pronouns (once each on *jirra* ‘their’ and *jina* ‘his/hers/its’) and on the nominal *irrganbala* ‘appears, looks like’ (seven times). Examples are given below:

- (10.51) *Ginyinggamb ingarramananirr aarlidanangga ooldoobal jinnid, mayala jarri, loonggoordoo, jabarra.*

Ginyingg=amb i-n̩g-arr-a-ma-na-n=irr
 then=THUS 3-PST-AUG-TR-put-CONT-REM.PST=3A.DO
aarli-barnangga ooldoobal jin=nid, mayala jarri,
 fish-shellfish things 3M.POSS=GROUP lizard this
loonggoordoo, jabarra.
 blue.tongued.lizard jew.lizard

‘Then he put down all his meat, shellfish, the lizard, blue-tongued lizard, and jew lizard.’ (OOL.013)

5.2. ‘Indefinite’: =(b)al

A second type of quantifier on verbs marks the object as unindividuated and/or indefinite. This clitic =(b)al possibly comprises two clitics, =b and =al, at least historically. -al is attested on nouns as a marker of indefiniteness (see §5.1 above for examples), and =b(a) is the relative clause marker; however, although there is no clear phonological conditioning for when =al occurs and when the form is =bal, there is no clear syntactic conditioning either. Here they are treated as the same morpheme, though it is possible that two morphemes have been conflated.¹⁵⁰

Semantically, =(b)al marks objects which are both indefinite and non-individuated. In (10.52), for example, the object *lagoorr* ‘egg(s)’ is non-referential; this is a generic statement about lizard eggs, not any particular eggs.

- (10.52) *Jabarra jinarr lagoorr arrarlinjambal.*

Jabarra jin-arr lagoorr
 j. 3M.POSS=3A.POSS’E egg
a-rr-a-rl̩i-n=jamb=al.
 1AUG-TR-eat-CONT=THUS=INDEF

‘We eat the eggs of *jabarra* lizards.’

Unlike =nid, this quantifier can co-occur with third person augment agreement marking. In (10.53), for example, the verb *-ngoorribi-* ‘chase’ is inflected for both =bal and the object agreement =irr:

- (10.53) *Inyjarralan bard ambooriny, bard iilanim ingarralaninirr ingoor-roongoorribinanabalirr.*

I-ny-jarrala-n bard ambooriny, bard iila-nim

3-PST-run-CONT off person, off dog-ERG

i-ng-arr-ala-n-in=irr

1-PST-AUG-TR-see-CONT-REM.PST=3A.DO

i-ng-oorr-oo-ngoorribi-na-na=bal=irr.

3-PST-AUG-TR-chase-CONT-REM.PST=INDEF=3A.DO

‘The [group of] people ran off, and the dogs caught sight of them and chased them.’ (BUR.004)

This clitic is also found in the Laves materials, where it is written as attached to the verb. However, its meaning is unclear; in (10.54), for example, the object of the verb is *gooyarra aamba* ‘two men’; the object is specific and individuated. In this case, it is the subject *baybirrarranim* ‘the people behind’ which is indefinite.

- (10.54) *Nyina aranga baybirronya Looli ingorrorgoorroon gaalwa arra ir-rmoonggoon gooyarra aamba ingorronobalirri irr baybirrarranim.*

Nyina aranga baybirronya Looli

other.side others behind L.

i-ng-oorr-goorroo-n gaalwa arra irr-moonggoon

3PST-AUG-pass.through?-CONT raft NEG 3A-know

gooyarra aamba i-ng-orr-o-no=balirri irr

two men 3-PST-AUG-spear-REM.PST=INDEF 3AUG

baybirrarra-nim.

behind-ERG

‘The people coming behind through Looli by raft didn’t know that the two men had been speared by those following them.’ (L103.052)

Laves’ materials (as well as a few of the modern texts) also exhibit examples of this clitic where they occur on items other than a verb. In (10.55), *baybirr* ‘behind, following’ is most probably an adverb.¹⁵¹

- (10.55) *Roowil ingirrinyan baybirbalirr aamba.*

Roowil i-ng-irr-inya-n baybirr=balirr aamba.

walk 3-PST-AUG-catch-CONT behind=INDEF men

‘They walked behind the men.’

(L76.016)

(10.56) shows another example; this is clearly an example of secondary predication. It is thus possible that (10.55) also exhibits a secondary predicate structure, in which case the clitic is attaching to the first word of the predicate.

- (10.56) *Niimanboorr arrinjirr maankabalirr, lamarrbalirr wajoonoo.*

Niimanboorr a-rr-i-n=jirr *maanka=balirr,*
n. 1-AUG-say-CONT=3A.IO black=INDEF
lamarr=balirr wajoonoo.
brown=INDEF w.

‘We call the black ones [flying foxes] *niimanboorr* and the brown ones *wajoon*.’

Chapter 11

Tense, Aspect, and Mood Marking

Bardi verbs exhibit multiple affixes marking tense, aspect, and mood, both prefixal and suffixal. There is a single TAM prefix slot, but multiple markers for tense/aspect suffixes. The system of tense marking in Bardi is based on a four-way temporal/modal split in the prefixes and a more nuanced tense/aspect system in the suffixes. The tense, aspect, and mood of a verb also conditions the form of some of the person agreement markers. In prefixation, tense and mood are mutually exclusive and are marked morphologically in the same places in the paradigm, while in the verbal suffixes, tense and aspect are bound together but can be marked in several ways. There are co-occurrence restrictions between prefixes and suffixes. Contrastive suffixal marking of aspect, for example, appears to be neutralized in the irrealis.

There is also aspect marking by choice of light verb in complex predicates; that is, in some cases the choice of light verb forces a particular aspectual interpretation. This chapter primarily describes morphological marking within simple verbs. The chapter is organized around the morphology of the Bardi verbal word. §11.1 describes the prefixes, while §11.2 describes the suffixes. §11.3 describes gerundial verb forms, which neutralize the TAM system.

1. Tense and mood prefixation

Recall from Figure 9.2 and §9.1.1 above that there are four tense/mood prefixes in the verb: present (null), past *ng-*, future *ngg-*, and irrealis *la-*. Recall also that person marking can interact with tense/mood; that is, there are different allomorphs of the second and third person future/irrealis forms. The following sections recap the forms of the prefixes and describe the semantics of tense/mood marking. Tense/aspect/mood prefix and suffix interactions are described with the suffixes, in §11.2.

1.1. Past

The past tense prefix is *ng-* or *nga-* in Bardi, as in all Western Nyulnyulan languages. In the minimal forms of stop-initial roots, the morpheme assim-

ilates in place of articulation to a following stop, as shown in (11.1). Some basic description was also given in §9.2 above.

- (11.1) a. *inambarndinggał* ‘He covered it with something.’ (root: *-barndi-*)
 b. *inyjarralana* ‘He was running.’ (root: *-jarrala-*)

Remember that in *j*-initial roots, only the intransitive forms show the assimilation, since the *j*-initial transitive roots are irregularly marked only for the transitivity prefix in both present and past.

- (11.2) *injoogoolij* ‘he/she/it broke it, he/she/it is breaking it.’

In transitive *l*-initial roots there is a difference between present and past tense forms, but the difference does not appear in the tense marker directly; rather, the difference is marked in whether the transitive prefix *n(a)-* appears. For example, the third person minimal present of *-lamanka-* ‘listen to’ is *i-lamanka*, while the past is *i-na-lamanka*. Likewise, the present of *-laba-* ‘have, hold, possess’ is *i-laba-n*, while the past is *i-na-laba-n(a)*. Thus there is still a paradigmatic distinction between present and past forms, though it is not marked directly through the past tense prefix. In examples in the grammar which contain verbs like this, I have glossed the morphemes as they appear. Thus *i-laba-n* is glossed as 3-have-CONT and *i-na-laba-n* as 3-TR-have-CONT, and the reader must infer from the translation that the first is present and the second past¹⁵² (free translations also disambiguate). Presumably the difference in forms results from a sound change where nasals were deleted before a following lateral, and **inlaban* > *ilaban* while **inanglaban* > *inalaban*. If these forms are the result of sound change rather than morphological regularization or suppletion, however, the change must have occurred in Proto-Nyulnyulan, since similar irregularities are found in other languages.

Present and past forms are distinct in all intransitive roots apart from those beginning with *ng* (e.g. *-ngalga-* ‘cry’), but *ng*-initial roots are very infrequent. In such roots the past tense marker coalesces with the initial consonant of the root:

- (11.3) *ingalgan* ‘he was crying/he is crying’
 < *i-ŋg-ŋalga-n* (past) or *i-ŋalga-n* (present)

For other nasal-initial roots, the forms are irregular. Mostly, present forms show a nasal-nasal cluster, and the past forms have an epenthetic nasal, as illustrated in (11.4):

- (11.4) a. *I-n-marra-n*
 3-TR-cook-CONT
 ‘He/she is cooking it.’
- b. *I-na-marra-n*
 3-TR-cook-CONT
 ‘He/she cooked it.’

All *m*-initial and transitive *ng*-initial roots behave this way, and the majority of nasal-initial roots begin with *m*. I assume that the prefix bundle underlying the present forms is *i-n-*, that is, person marker and transitive marker, and that underlying the past forms is *i-na-ŋ-*, with the velar nasal assimilating to the place of articulation of the nasal of the root, as in (11.1) and (11.3). However, roots beginning with *ny* show a third pattern; they show the transitive marker *n-* in both present and past forms:

- (11.5) *i-n-nya-n*
 3-TR-catch-CONT
 ‘he/she/it catches/caught it.’

There are no roots beginning with *n* or *rn* in Bardi. There are some in the other Nyulnyulan languages, but they do not have Bardi cognates.

The past prefix is used straightforwardly to mark past time. Prefixed forms may occur either in conjunction with a tense suffix, or without one. When they occur without a tense suffix, they have generic past reference.

1.2. Present

The form of the present prefix marker is null in all forms. For stop-initial intransitive roots, this causes lenition of that stop; orthographically, *b* becomes *w*, and *j* and *g* become *y*.

- (11.6) a. *i-yama*
 3-laugh
 ‘he/she/it is laughing’ (root *-gama-* ‘laugh’)
- b. *nga-warra*
 1-dream
 ‘I’m dreaming’ (root *-barra-* ‘dream’)

In the augment forms, the person and number occur immediately adjacent to each other:

- (11.7) *i-rr-irli-n*
 3-AUG-eat-CONT
 ‘They are eating.’

Present forms are used for present time (that is, time at the moment of speech) and can also be used for aoristic statements (that is, those expressing general truths), though the future is also found in such cases. Further discussion is provided under the section on null suffixing, in §11.2.1.1 below.

1.3. Future and imperative

The Bardi ‘future’ prefix is used to mark future time and some types of wishes. It is also used for imperative marking, and probably also for deontic marking more generally (though this function is split between the future and the irrealis, described in §11.1.4).

1.3.1. Form

In the augmented forms, where the future prefix is clear between the person marker and the augment marker, the prefix has the form *n*gg-. ‘We will cook it,’ for example, is *a-n*gg-*arr-a-marra*. Intransitive forms are also straightforward and point to a morpheme of this shape. In transitive minimal forms, however, the future marker appears to combine with the transitive morpheme *n*-, and the marker is *nk*-. Stem changes are also triggered in stop-initial verbs. In *oonkowa*, for example, the marker of future is *k* rather than *n*gg.

- (11.8) *oonkowa*
oo-n-k-o-wa
 3-TR-FUT-poke-FUT
 ‘He/she’ll poke it.’

Second person minimal and third person (both minimal and augmented) forms vary for future marking. Second person forms also vary for transitivity.

The prefix is *a-* for transitive verbs, and *nga-* for intransitive ones, as illustrated by the pair in (11.9). Second person augment imperatives and futures have the form *arr-*.

- (11.9) a. *a-n-jala!* ‘look at it!’
 b. *nga-yarrala!* ‘run!’

The third person marker is *oo-* in the future (and irrealis) rather than *i-*, which is used in the present and past.

Finally, there is one phonological condition under which the future marker can be deleted. When there is a first or second person minimal subject with an intransitive verb beginning with *g-*, the future prefix is in the position where it is the target of deletion through nasal dissimilation (discussed in §3.6.4). In that case, the nasal of the prefix is deleted when a nasal appears in the previous syllable, and the stop of the prefix is deleted because it is identical to the initial stop of the verb root. (11.10) provides an example. The underlying morphemic structure is given beneath the verb.

- (11.10) *Aalgana ngagalanda, inkoorrnim alig ngandan.*

<i>Aalgana</i>	<i>nga-galand-a,</i>	<i>inkoorr-nim alig</i>
	<i>nga-n-galanda-a</i>	
in.the.sun	1-sit-FUT,	cold-ERG feel.bad
	<i>nga-n-d-an.</i>	

1-TR-do-CONT

‘I am going to sit in the sun, as I am feeling cold.’

This rule is optional, and is more common in some speakers than others; thus there are forms in the corpus which show the regular future marking in such cases (an example of the same verb, where the future marker is present, can be seen in (11.21) below).

1.3.2. Future meanings

The main use of the future prefix is to refer to a time that has not yet happened. This time may be in the remote future, or closer to the present. That is, the future prefix is also used for events which are about to happen. (This

is in contrast to some Australian languages where immediate future events receive present verbal marking.) (11.11) shows a general future statement, while (11.12) show examples of future markers which are much closer to the moment of speaking.

- (11.11) *Nyoongangarr anggarr malinyja Ardiyooloon.*

*Nyoon=angarr a-**ngg**-arr-m-al-inyj-a Ardiyooloon.*
there=JUST 1-FUT-AUG-REFL-see-REFL-FUT A.

‘We’ll just see each other over there in One Arm Point.’

- (11.12) a. *Alig nganjij, daag ngankiya.*

Alig nga-n-j-ij, daag nga-n-k-i-ya.
feel.bad 1-TR-do-PFV sleep 1-TR-FUT-do

'I am tired, I am going to bed.' (Dictionary)

- b. *Arinyjing arr ngankiya barnanggarr; ngoorrij arramb arr ngaliya.*

Arinyjing arr nga-n-k-i-ya barnanggarr, ngoorrij
once go 1-TR-FUT-do-FUT today tomorrow
arr=amb arr nga-l-i-ya.

NEG=THUS go 1-IRR-do-FUT

‘I’ll go once today, but I won’t go tomorrow.’

For the use of the future in (11.12b), see below.

The second main group of ‘future’ uses do not directly involve temporal reference. Some examples of future tense prefixing mark statements of general fact and do not appear to refer specifically to future time, though the future is included in the scope of the temporal reference. In (11.13), for example, the statement that when a person dies, their spirit travels to Looman (the land of the dead, in the West), can be presumed to apply not only to future deaths, but to past ones as well. Many of the gnomic future examples (including the one illustrated in (11.13) below) occur in the Laves texts, and while they were accepted, equivalent sentences were seldom produced spontaneously; instead, the present was used. However, there are many examples of futures used in the sense exemplified by (11.14), where the sense of the clause is not just that the action must take place for this specific turtle, but this is the right way to cook all turtles.

- (11.13) *Ambooriny oonggimbin arr oonkin Loomanngan.*

Ambooriny oo-n^{gg}-imbi-n arr oo-n-k-i-n
 person 3-FUT-die-CONT go 3-TR-FUT-do-CONT
Looman-ngan.
 L.-ALL

‘[When] a person dies, they go to Looman.’ (L74.001)

- (11.14) *Goorlil anggarramarra laalboon niimanyigoon.*

Goorlil a-n^{gg}-arr-a-marr-a laalboo-n nimanyi-goon.
 turtle 1-FUT-AUG-TR-cook-FUT earth.oven-LOC throat-LOC.

‘We have got to cook the turtle “laalboo nimanyigoon-style”: in an earth oven with hot rocks inside.’

A slightly different type of example is given in (11.15) below, where the statement expressed is something like an expectation, rather than a statement of what usually happens in such circumstances.

- (11.15) *Oonkoomoonggoorrambbali gambana.*

Oo-n-koo-moonggoorr=amb=bali gambana.
 3-TR-FUT-hold.up-=THUS=INDEF paddle

‘The paddle will keep you up. [Metcalfe’s gloss]’ (M.Dict)

Future tense forms are also common after imperative clauses, where the future describes the result of the action in the imperative. In (11.16), for example, there is no overt marker for the result clause.

- (11.16) *Yaalnga anama yaaga aarli ankalangjirr.*

Yaal-nga a-na-m-a yaaga aarli
 grease-INS 2.IMP-TR-put-FUT pool fish
a-n-k-ala-ng=jirr.
 2IMP-TR-FUT-see-APPL=3A.IO

‘Chuck the grease in the pool so we two will be able to see the fish in the pool.’

The future can be used for hypothetical statements. This is particularly common after verbs of asking, as shown in (11.17). In these examples, I do

not have the requisite information to be able to determine whether the second verb is syntactically dependent on the first. Given the agreement facts in sentences such as (11.17), it would appear that these clauses have more in common with indirect questions than with juxtaposed clauses. In (11.17b), for example, the verb of the second clause is third person minimal (that is ‘ask him if **he** will lend me...’); if the request were direct, we would expect second person subject marking (‘ask him: (you) lend me the tape’). Both examples are also marked with the allative/purposive case.

- (11.17) a. *Anggaba ngankangarrga goolboongan oonkoomoolbangay, bi-ilamb nganka anyjimadan.*

Anggaba nga-n-k-angarrg-a goolboo-ngan
 who 1-TR-FUT-ask-FUT money-ALL
oo-n-koo-moolb-a=ngay, biil=amb
 3-TR-FUT-lend-FUT=1M.DO again=THUS
nga-n-k-a anyjimadan.
 1-TR-FUT-(give)-FUT return.

‘Who can I ask to lend me money, I will give it back.’

- b. *Anjangarrga videotapengan oonkoomoolbangay!*

A-n-jangarrg-a videotape-ngan
 2.IMP-TR-ask-FUT video.tape-ALL
oo-n-koo-moolb-a=ngay!
 3-TR-FUT-lend-FUT=1M.DO

‘Ask him if he will lend me the videotape!’

The final use of future prefixing in the corpus involves sequence of tense marking. In (11.18), there are three clauses. The first is expository (‘here is a turtle track’), the second explains where the turtle went, and the third (dependent on the second and introduced by =*jamb* ‘thus’) explains the purpose of the event in the second clause. In this case, although the event is in the past, the verb of the last clause is marked for future, because the time is relative with respect to the second clause.

- (11.18) *Goorlil jiib inin niinbil, daab innyagal garndingan lagoorramb oonkoomoorirr.*

Goorlil jiib i-ni-n ni-inbil, daab i-n-nya-gal
 turtle this 3-sit/be-CONT 3M-track climb 3-TR-catch-REC.PST

garndi-ngan lagoorr=amb oo-n-koo-moor=irr.

up.top-ALL egg=THUS 3-TR-FUT-'spill'=3A.DO

'Here is a turtle track; the turtle went up the beach to lay its eggs.'

It is probable that the same sequence of tense parameters are responsible for the future marking in (11.19):

- (11.19) *Arragambard darr ngalara nganggiimba.*

Arra=gam=bard darr nga-l-ar-a nga-n^gg-iimb-a.

NEG=?=IF arrive 1-IRR-pierce-FUT 1-FUT-die-FUT

'If I don't show up, I've passed away.'

(L145.016)

1.3.3. Imperative and hortative meanings

Imperatives and futures are not distinguished morphologically; however, they are distinguished intonationally. Subjects may surface (and they receive ergative marking where appropriate). That is, imperative sentences behave just like regular future clauses syntactically (see also (12.77) below). Most often the subject is omitted, however, as in (11.16). (11.20) shows an example where the free subject pronoun is present:

- (11.20) *Onondorrma joonim! Arra oolalamankangay.*

O-n-ondorrm-a joo-nim! Arra

2IMP-TR-tell.to.stop-FUT 2MIN-ERG. NEG

oo-la-lamank-a=ngay.

3MIN.FUT-IRR-listen.to-1M.DO

'[You] tell him to stop; he doesn't listen to me.' (Aklif 1993b:3)

Second person imperatives are the most common; first and third person forms (also identical to the future) were elicited, and usually translated with 'I gotta' or 'he gotta.'

- (11.21) *Naalaloon nganggalanda.*

Naalal-oon n^gg-a-alanda.

shelter-LOC 1-FUT-sit.down-FUT

'I'll sit down in the shelter.' / 'I gotta sit down in the shade.'

Such forms are also found in the Laves collection.

- (11.22) “*Bambi moonda anggarrama*,” *ingirrinijirr*. “*Iigamba oonki*,” *in-girrinin* “*nimarla*.”

“*Bambi moonda a-n^{gg}-arr-a-m-a*,”

B. spell 1-FUT-AUG-TR-put-FUT

i-n^g-irr-i-ni=jirr. “*Iiga=amba oo-n-ki*,”

3-PST-AUG-do-REM.PST=3A.IO sick=THUS 3-TR-FUT-do/say

*i-n^g-irr-i-n=i*n “*ni-marla*.”

3-PST-AUG-do-PST=3M.IO 3-hand

“Let’s cast a spell on Bambi,” they said. “His hand will get sick.”

(L81.080)

It should be noted that although positive imperatives are formed with future prefixes, negative imperatives are distinct. Negative imperatives follow regular negative marking and are treated as negative unrealis future clauses. Thus they do not receive future prefixing.

- (11.23) *Arra joonbool mila gaarragoon!*

Arra joonbool mi-l-a *gaarra-goon!*

NEG dip 2-IRR-give-FUT water-LOC

‘Don’t dip it in the water!’

- (11.24) *Arra boojoogoon milingjarrngay.*

*Arra boojool-goon mi-l-i-n*g*=jarrngay.*

NEG stare-LOC 2-IRR-do-APPL=1M.DO

‘Don’t stare at me.’

1.4. Irrealis

Irrealis-marked verbs are rather common. All clausal negation forces the verb into the irrealis, for example (see (11.20) above). In form, the irrealis is marked with the prefix *l(a)-*, which occupies the same slot in the prefix complex as the tense markers. Irrealis is also marked within the subject person marker, where the third person form is *i-* in present and past but *oo-* in future and irrealis.

The irrealis has a number of different functions in Nyulnyulan languages. Wagner (1997) and McGregor and Wagner (2006) provide a detailed discussion and analysis for Nyulnyulan languages in general, including examples from Bardi.

1.4.1. Possible worlds

Apart from its use in negated clauses (discussed in §11.1.4.3 below), the most common use of the irrealis is to describe possible worlds, that is, things that might happen, or unrealizable wishes, as illustrated in (11.25) below:

- (11.25) *Anjala! Joorroonim oolarlarri.*

<i>A-n-jal-a!</i>	<i>Joorroo-nim oo-la-rl-a=rri.</i>
2.IMP-TR-look-FUT	snake-ERG 3-IRR-eat/bite-2M.DO

‘Look out! The snake might bite you.’

The irrealis is also used to express wishes. I have no data on whether there is any difference in marking between attainable and unattainable wishes. I suspect there is no difference in Bardi, at least in the morphology.

- (11.26) *Gaadiliny ngalarlin laalbooyoon.*

<i>Gaadiliny</i>	<i>nga-la-rli-n</i>	<i>laalboo-yoon.</i>
monkey.fish	1-IRR-eat-CONT	earth.oven-SOURCE

‘I would like to eat monkey fish from an earth oven.’

McGregor and Wagner (2006) provide a range of semantic contexts for irrealis marking, including counterfactuals, wishes, and hypothesized events (as discussed here). They suggest from data from other Nyulnyulan languages that there is a difference between irrealis present marking and irrealis future marking for signaling wishes, and that the future irrealis marking suggests that the occurrence of the event is undesirable. I have no data on whether this is true for Bardi.

The irrealis is also used for hypotheses. McGregor and Wagner (2006:356) describe this use as ‘uninformed expectation’; that is, the speaker is uncommitted to the occurrence of the situation. There are no examples in the corpus that fit this meaning exactly, though Bardi does have cases where speakers discuss hypotheses about particular events, as in (11.27):

- (11.27) *Rinyi oolirrinjirr yirrnim rooban malarrngannim irrmarpa.*
Rinyi oo-li-rr-i-n=jirr *yirr-nim* *rooban*
 think 3-IRR-AUG-do/say-CONT=3A.IO 3AUG-AUG in.return
malarr-ngan-nim irr-marla.
 wife-ALL-ERG 3A-hand

‘They must have thought that they were a wife exchange.’(L150.016)

1.4.2. Counterfactual

Events that could have happened, but didn’t (that is, past counterfactuals) are also marked with the irrealis. Counterfactuals are rare in the corpus, but examples appear in both the older and modern texts, as exemplified below. I have no information about tense interactions with counterfactual readings. Example (11.28) is a past counterfactual, with remote past suffixal marking, while (11.29) is an unrealized wish, with continuous aspect marking. It differs from (11.26), however, by the fact that the wish expressed in (11.26) is realizable (at least in principle), while that in (11.29) is not.¹⁵³

- (11.28) *Gala ingarrgarnboonyjinan “Joonima abarrabarr minamagal mi-lalararna joonim boordagiji nganjoogaljiy.”*

Gala i-ng-arr-garnboo-nyji-n-an “*Joo-nima*
 well 3-PST-AUG-growl-REFL/RECIP-CONT-REM.PST 2MIN-ERG
abarrabarr mi-na-ma-gal ***mi-l-alarar-na***
 confused 3-TR-put-REC.PST 2-IRR-look.after-REM.PST
joo-nim boordagiji nga-n-joo-gal=jiy.”
 2MIN-ERG properly 3-TR-do/say-REC.PST=2M.IO

‘Then they started to scold each other, “you’re confused, I say you should have watched [him] properly, like I told you.”’ (L132.015)

- (11.29) *Janinmarr ngalalabanjirrin miinybal.*

Janin-marr ***nga-la-laba-n=jirr=in***
 bird.sp.-SEMBL 1-IRR-have-CONT/PAST=3MIN.FOC.IO
miinybal.
 wing

‘I wish I had wings like a *janin*¹⁵⁴ bird’s [because then I would fly to see my wife, but I don’t].’ (JNB.014)

1.4.3. Negation

The most frequent use of the irrealis, however, is in negated clauses. All sentential negation forces irrealis marking on the verb, in all tenses. The examples in (11.30) are representative.

- (11.30) a. *Barn ingiminyjin*, “*Arra ngalalaliyarr, loogal jirr ambooriny.*”
Barn i-ngi-m-i-nyji-n, “*Arra*
 think 3-PST-REFL-say-REFL-CONT NEG
nga-la-lali=yarr, *loogal jirr ambooriny.*”
 1-IRR-follow-FUT=3A.DO bad 3AUG.POSS person
 ‘He told himself, “I won’t follow them, they are bad people.”’
- b. *Biligij anjilngajan. Arra ngalamakanarri.*
Biligij a-n-jilng-a=jan. *Arra*
 again 2IMP-TR-say-FUT=1MIN.IO. NEG
nga-la-lamanka-na=rri.
 1-IRR-hear-PAST=2M.DO
 ‘Tell me again. I didn’t hear you.’
- c. *Arra ngalalaba goolboo.*
Arra nga-la-laba goolboo.
 NEG 1-IRR-have money.
 ‘I don’t have any money.’

I follow McGregor and Wagner (2006) in assuming that the negative function of irrealis marking follows from its connection with ‘non-actual’ world marking. That is, if an event did not happen, it is not part of the real world, and so is marked with irrealis, just as counterfactuals and other statements about possible and un-real worlds. Negation strategies are further discussed in §15.3.1.

2. Tense/aspect suffixation

The tense/aspect suffixes in Bardi (as in all Nyulnyulan languages) are portmanteau morphemes which signal a combination of tense and aspect. There are several slots for these affixes; applicative marking, for example, intervenes between them. Several tense/aspect suffixes can appear simultaneously,

to produce finer distinctions. They are thus quite different from the prefixes, which are purely time/mood markers.

There is a reduction of tense/aspect suffix use in the future and irrealis. In the future, only *-a* or *-∅* can be used. In the irrealis, suffixation is confined to remote past *-na*, the future *-a*, zero marking, and the continuative *-n*. That is, the finer aspectual distinctions found in present and past forms are not found in the future and irrealis. The forms for Bardi are given in Table 11.1. (The use of the term ‘slot’ here is informal.) The first two markers also have allo-morphs; when they combine, the form is *-na-n* or *-na-na* (see further below). The future suffix usually replaces the final vowel of the stem, but not always; monosyllabic verbs with a vowel in *i* or *oo* may retain their vowel and in that case there is glide insertion between the root and the future suffix.

Table 11.1. Tense/aspect suffixes

Slot	Form	Meaning	Abbrev.	Example	Gloss
1	<i>-n</i>	continuative	CONT	<i>iyaman</i>	‘s/he’s laughing’
2	<i>-na</i>	remote past	REM.PST	<i>inggamana</i>	‘s/he laughed’
3	<i>-gal</i>	recent past	REC.PST	<i>inggamagal</i>	‘s/he laughed (recently)’
3	<i>-ij</i>	middle perfect	PFV	<i>inarlij</i>	‘s/he bit it’
3	<i>-a</i>	future	FUT	<i>oonkarla</i>	‘s/he’ll eat it’
4	<i>-j</i>	simultaneous, inceptive	SIM	<i>inggamagalj</i>	‘s/he was laughing (while ...)’

In addition to the suffixes here, very occasionally verb roots (whether further inflected or not) end in *-i* rather than their usual stem vowel. An example is given in (11.31). The verb root ‘catch’ is usually *-nya-*, but here it appears in the form *nyi* instead. Such examples are not frequent enough to suggest that there is another suffix in play, and they occur almost entirely in the speech of David Wiggan, suggesting that this might be a feature of his speech style.

- (11.31) *Ngoorra daab innyi!*

Ngōorra daab i-n-nyi!
last.night climb.up 3-TR-catch

‘He climbed up (here) last night.’

2.1. Usage of suffixes

Most of the data on Bardi tense/aspect marking comes from narratives and elicited sentences. Thus we have extensive examples of various past tense markers and their relation to aspect marking, but only elicited data and the conversations reported in stories for other tense/aspect combinations.

As mentioned above, there is some evidence for a relative tense system in Bardi, and certain subordinate clause types appear to show sequence of tense effects (contra McGregor and Wagner 2006). Data are somewhat limited, however, since subordination is quite rare, and clause chaining is a much more frequent device for showing dependency relations between clauses.

2.1.1. Zero marking

Unsuffixed verb forms are quite rare in my data. They are much more common in closely related languages (e.g. Nyulnyul: see numerous examples in McGregor (in press) and Nekes and Worms (1953)). Examples in Bardi appear to occur particularly in clause chaining, although they do not have to (furthermore, clause chaining verbs are often marked with a tense suffix). Additionally, they can describe a general state of affairs, one that holds not only in the present, but in general. They are also fairly common in song language. More examples in spontaneous speech appeared in my 2008 field trip, which may imply that they are associated with language attrition. Null suffixed forms are not atemporal; they always have the tense prefix, and thus temporal marking of a sort. Finally, null suffixed forms occur with past tense prefixes to signal a form which is not further specified for aspect, as in §11.32b below.

- (11.32) a. *Inmarra*.

I-n-marra.

3-TR-cook

‘He/she cooks.’

- b. *Ginyinggonb inanggangangay barnamboonim nyoonoomboo*.

Ginyinggon=b i-na-ng-ga-nga=ngay barnamboo-nim

then=REL 3-TR-PST-take-APPL=1M.DO stingray-ERG

nyoonoomboo

there.

‘The stingray took me with him to his home.’ (JNK.015)

Null-suffixed items occur on occasion in my elicitation data (and also in the data of Gedda Aklif); these are found for events when there is no particular time statement, such as (11.33), where the statement refers to past time (as signaled by the tense prefix), but there is no further information.

- (11.33) a. *Baawa inyjargijin.*

Baawa i-ny-jargi=jin.

child 3-PST-be.frightened=3M.IO

‘He was frightened of the child.’

- b. *Baawanim inyjargijin.*

Baawa-nim i-ny-jargi=jin.

child-ERG 3M-PST-be.frightened=3M.IO

‘The child was frightened of him.’

(Aklif 1994c:3)

While null suffixal marking can be used to mark general states of affairs, the continuous marker is more usually used for such cases; that is, for events with general relevance, or gnomic statements, as in (11.34).

- (11.34) *Goonkoonoongg namardamb bool irrjiidin wiiny indan jooroor irr-ngoogoon.*

Goonkoonoongg namard=amb bool i-rr-jiidi-n wiiny
 puffer.fish just=THUS blow.up 3-AUG-go-CONT fill
i-n-d-an jooroor i-rr-ngoog-oon.
 3-TR-do/say-CONT wind 3aug-stomach-LOC

‘When pufferfish blow up, their stomachs fill up with air.’

Most of the examples of null suffixal marking occur with present or past prefixes. It is very rare for future/irrealis prefixes to be unmodified with suffixal marking, though it is possible. (11.35) is an example; if the verb had future suffixation, the verb form would be *ngamiyajan*.

- (11.35) *Ngamijan barda gorror arr ngaliya.*

Nga-mi=jan barda gorror arr nga-li-ya.
 2MIN.IMP-look.for=1M.IO off if come 1-IRR-do/say-FUT

‘Look for me [before you go], and maybe I’ll go too.’

Interestingly, tense/affix suffixation is almost non-existent in Bardi song texts. One occasionally finds *-n* or *-na* used, as in (11.36a), but most verbs are unsuffixed (for an example see (11.36b). Many songs are in the present tense, which accounts for some of the lack of suffixation, although the lack of any suffixes is still striking. The following verse of Billy Ah Choo's *ilma* shows this; some forms show continuous marking (though in performance not all speakers use the continuous marker here) while other verbs, include *birdbag* *-(i)nya-* 'flash (of lightning)' exhibit no suffixation.¹⁵⁵

- (11.36) a. *Booroo nganjanboon ngayoo /*
Booroo nga-n-janboo-n ngayoo /
 ground 1-TR-tread-CONT 1MIN
 'I'm stepping on the ground.' (BAI, 1.1)
- b. *Ngalaj inngooloon ngayoo birdbag innya /*
Ngalaj i-n-ngooloo-n ngayoo birdbag
 lightning 3-TR-throw-CONT — sheet.lightning
i-n-nya- /
 3-TR-catch-∅
 'Lightning's flashing, lightning's flashing.' (BAI, 2.2)

Such verses do not express general truths; they are short descriptions of specific events in a story, and so should be seen as different from the gnomic use of null suffixation.

2.2. Continuative: *-n*

The continuative marker, *-n*, is used for prolonged actions and for states. When the Aktionsart of the verb is inherently punctual (e.g. *-bi-* 'strike'), using the continuative forces an iterative reading. Some examples are given in (11.37), both alone and in combination with other temporal and aspectual suffixes.

- (11.37) a. *Iyaman.*
I-yama-n.
 3-laugh-CONT
 'He's laughing.'

- b. *Nimalnga liyan innyanana.*

Nimal-nga liyan i-n-nya-na-na.
nose-INS breathe 3-TR-catch-CONT-PST

‘He was breathing through his nose.’ (BMF.011)

- c. *Biila innyanana jina marrga, inkana inamboonana gala.*

Biila i-n-nya-na jina marrga, inkana
again 3-TR-catch-REM.PST 3M.POSS shield tiger.snake
i-na-m-boo-na-na gala.
3-TR-PST-hit-CONT-REM.PST finish.

‘He picked up his shield again and kept on hitting Inkana [with it].’

(L128.018)

While the primary form of the suffix is *-n*, there is some evidence for allomorphs *-na*, *-an*, and *-in* in different contexts. The form *-na* appears when the remote past tense marker follows. This is the only case in which *-na* is found for *-n*. The other allomorphs are more difficult to describe. For example, we find both *injalin* and *injalan* (as well as remote past forms *injalina* and *injalana*) for the verb ‘he/she/it saw something’. On the basis of other evidence, we would say that the root is *-jala-* ‘see’. Some variation in suffix vowels can be explained by vowel harmony; for example, verb forms which are followed by the third person augmented direct object clitic *=irr* can exhibit harmony, with the final vowel of the suffix becoming *i*, though this is rare. The rules for harmony are, however, rather variable. Some instances of *-in* are probably null suffixed verbs with the lenited form of the third person oblique marker *=(j)in*; thus they exhibit a clitic rather than the continuative suffix. Others may be transcription errors, but there are sufficient examples which cannot be explained by either of these arguments that the vowel variation appears to be a real phenomenon. There is, however, no clear conditioning factor, and there is no semantic difference between the two that I can discover. (McGregor (in press) notes a similar problem for Nyulnyul.)

Two conditions cause the suffix to be realized as *-rn* rather than as *-n*. The first is when the last consonant of the root is the glide *-r* (e.g. *-moonggar-* ‘work’); the other is when there is an apical consonant as the last consonant in the root, there is optional retroflex dissimilation (not all speakers have this rule) and the apical of the continuative marker appears as retroflex.

The continuative marker is obligatory on the gerund (see §11.3), leading Metcalfe (1975b) to argue that the gerund is a circumfix. I would prefer to equate the *-n* suffixal portion of the gerund with the continuative aspect marker, however, although nothing depends on this point. There are no other true circumfixes in the language (see arguments regarding the reflexive/reciprocal markers in §12.3). One might argue that if the words in question are truly gerunds, we would expect that they are nouns, and therefore without internal temporal structure. Therefore having an aspect marker on them is contradictory, if the suffix is functioning as true aspect marking in those cases. This would be an argument against equating the continuous marker with the suffixal *-n* of the gerund. On the other hand, if the function of the continuative marker is really to mark the event as *not* having internal structure, continuous marking is compatible with gerundial marking.

The continuative cannot be used in the future and is confined to co-occurrence with the present, past and gerundial prefixes. It can combine with the remote part *-na* and recent past *-gal*, and there is a form *-inj* which is probably the continuative plus the simultaneous action suffix.

- (11.38) *Aarlingan arr nganjnjn bardi. Langar arrajana, arra ngalinyan aarli.*

*Aarli-ngan arr nga-n-ji-n-j bardi. Langar
fish-ALL go 1-TR-do/say-CONT-SIMUL yesterday. bait
arra=jana, *arra nga-l-inya-n* aarli.
NEG=1M.POSS, NEG 1-IRR-catch-CONT fish.*

'I went fishing yesterday. I didn't have any bait [there weren't any shellfish to be found], [so] I didn't catch any fish.'

When *-gal* is used with the continuative, it implies that the event lasted a while but is now over. This past use of *-n-kal* can be compared to the use of *-n-kal* with present tense prefixing, as described in §11.51b.

- (11.39) *Inamarrankal.*

I-na-marra-n-kal.
3-TR-cook-CONT-REC.PST

‘He was cooking for a while, but now he’s stopped [e.g. because the fish is done.]’

The continuative does not normally co-occur with the future, though there are one or two examples, such as (11.40) below (repeated from (11.13) above). It appears to be more common in the older texts, and in the speech of David Wiggan.

- (11.40) *Ambooriny oonggimbin arr oonkin Loomanngan.*

*Ambooriny oo-**ngg-imbi-n** arr oo-n-k-i-n*
 person 3-FUT-die-CONT go 3-TR-FUT-do-CONT
Looman-ngan.

L.-ALL

'[When] a person dies, they go to Looman.' (L74.001)

The combination of the continuative *-n* with the remote past *-na* results in *-nana* or *-nan*, with both apocope and epenthesis. This affix combination is used for events that had a duration but finished in the remote past. It is very common in mythological stories.

- (11.41) *Gard inanana bardag jarr injalanan inyjalgoonan garndo bordogo ginyingga laarda.*

Gard i-na-na-na *bardag jarr i-n-jala-na-n*
 still 3-be-CONT-REM.PST tree that 3-TR-see-CONT-REM.PST
i-ny-jalgoo-na-n *garnd-o bordog-o ginyingga*
 3-PST-fall-CONT-REM.PST high-ABL tree-ABL 3MIN
laarda.
 downward

'He saw something fall from the tree to the bottom.' (BMF.004)

- (11.42) *Nimalnga liyan innyanana. Inganana garda, rarrb injoonoo booroo, inamanan injalanana aalga gardimbin injoonoo.*

Nimal-nga liyan i-n-nya-na-na.
 nose-INS breathe 3-TR-catch-CONT-REM.PST
I-nga-na-na *garda, rarrb i-n-joo-noo* *booroo,*
 3-be-CONT-REM.PST still dawn 3-TR-do/say-REM.PST place

i-na-ma-na-n *i-n-jala-na-na* *aalga*
 3-TR-put-CONT-REM.PST 3-TR-see-CONT-REM.PST sun
gardimbin i-n-joo-noo.
 rise 3-TR-do/say-REM.PST

'He was breathing through his nose. He stayed there until the sun came up; he watched the sun rise.' (BMF.11-12)

Occasionally in both the Laves texts and later narratives, verbs appear to have an ‘extra’ tense suffix; there are verb forms such as *inanggalananana* (parsed in (11.43) below) which appear to have three remote past and continuous suffixes rather than two. I assume that these are either transcription errors or speech errors. The forms that I was able to check against sound files were transcription errors, but these forms were not commented on by speakers as being incorrect when texts were edited.

- (11.43) *Inanggalananana.*
I-na-n̄g-gala-na-na-na.
 3M-TR-PST-move-CONT-REM.PST-?
 ‘He/she/it was moving.’ (L142.003)

(11.44) *Jarr aamba inanggalanananirr iniinalang Ardiyooloon boonyja iniinalang inanirr aarlimayi boonyja imbanjin.*
Jarr aamba i-na-n̄g-gala-na-na-n=irr iniinalang
 this man 3-TR-PST-visit-CONT-REM.PST-?=3A.DO islands
Ardiyooloon boonyja iniinalang i-n-an=irr
 A. all islands 3-TR-[give]-CONT=3A.DO
aarlimayi boonyja i-m-banji-n.
 food all 3-PST-share-CONT
 ‘This man [Galaloong] visited all the islands. He gave food to all the islands, he shared it.’ (GAL3.008)

2.3. Remote past: *-na*

It's hard to define the exact form of this suffix. Most commonly it appears as *-na*, though allomorphs of the forms *-an*, *-in*, and *-ana* are also recorded. The

forms without final vowels are straightforwardly the result of prosodic final vowel deletion, but as in the case of the continuative marker, the variation in the epenthetic vowels (that is in forms such as *-in* and *-an*) is not explicable at present. Note that final vowel loss on a form which contains the remote past but not the continuous suffix results in ambiguity as to which suffix has been used. Continuous and remote past verbs are homophonous in such cases.

In my recent data, the remote past is also the default past tense suffix. It is a purely temporal suffix and appears to provide no aspectual information. While it is especially common in Dreamtime narratives, *-na* is also the unmarked past tense suffix. It may co-occur with the continuative *-n*, as seen from (11.41)–(11.42) above.

- (11.45) *Bardi roowil innyana aarlimayingan.*

Bard *roowil i-n-nya-na* *aarli-mayi-ngan.*
off walk 3-TR-catch-REM.PST meat-tucker-ALL

‘He walked off for food.’¹⁵⁶

The suffix is glossed as ‘remote’ past for two reasons. One is to distinguish it from the recent past tense marker *-gal* or the perfective marker *-ij*, which it cannot co-occur with. Speakers say that *-gal* is used for events which are ‘close-up’; *-ij* is used for ‘middling’ events, while *-na* is used for ‘long time’ (ago). There is thus some salience to temporal gradience between the three suffixes. The other reason is that speakers described the suffix to Gedda Aklif in the early 1990s as being more remote; thus while I have some more recent examples of the suffix being a fairly neutral, general past tense suffix (used in narration of Frog Story descriptions (Mayer 1969), for example), there is other evidence that until recently ‘remote past’ was a better categorization.

2.4. Recent past: *-gal*

The morpheme *-gal* is the grammaticalized form of the independent temporal particle *gala*, and marks recent past. *Gala* is very difficult to gloss exactly; translation equivalents include ‘well then’, ‘done!’ or ‘already’. It is the common way to end narrative stories. It is used especially by older people when telling stories to non-fluent researchers, who might otherwise be unable to tell when the story has drawn to a close and they need to turn off the tape recorder:¹⁵⁷

- (11.46) *Gala barnkarda!*
 all.right finished
 ‘It’s finished. That’s the end.’

The grammaticalization of *-gal* as an aspectual morpheme probably arises from sentences such as (11.47a) below. (11.47) shows the grammaticalized and ungrammaticalized uses of *-gal/gala*. In (11.47a) there are two words, with a slight pause between them, and an intonational rise on the final syllable of *inamarran*, with a sharp fall on *gala*. In (11.47b), however, there is a single word with falling intonation across the word.

- (11.47) a. *Inamarran gala.*
I-na-marra-n gala.
 3-TR-cook-CONT finished
 ‘She was cooking, then she stopped.’
- b. *Inamarrankal.*
I-na-marra-n-kal.
 3-TR-cook-CONT-REC.PST
 ‘She was cooking for a while [but she isn’t now].’

The suffix is unleniting and unalternating. It is always *-gal*; in that it is exceptional, in comparison with other suffixes which begin with an obstruent, such as the ‘reason’ marker *-ganiny*.

2.4.1. Temporal and aspectual semantics of -gal

The morpheme *-gal* has both temporal and aspectual properties. In temporal terms, it is always used of events that occurred within a day or two of the speech reference. Thus it is incompatible with remote temporal adverbs such as *milon* ‘a long time ago’, and is frequently used with adverbs such as *bardi* ‘yesterday’.

- (11.48) *Ngangganyjigaljarran joombaradi wiliwilon nganinkal bardi.*

Nga-ng-ganyji-gal=jarran *joombaradi wiliwil-on*
 1PST-forget-REC.PST=1MIN.IO.TOP knife fishing
nga-ni-n-kal ***bardi.***
 1-sit-CONT-REC.PST yesterday.

‘I forgot my knife when I was fishing yesterday.’

Aspectually, verbs marked with *-gal* and the past tense prefix are always completed. For example, in (11.49), which is a series of sentences from a text, the events have just taken place, but they *are* completed. (The character in the story has just returned after seeing a crocodile.) Because of the sense of completed action, the recent past is also used for habitual or customary actions in the past which are no longer done (that is, actions translated by English ‘used to’).

- (11.49) a. ‘*Angan minyjarragal joornk?*’ *angirriijjin.*

‘*Angan mi-ny-jarrala-gal joornk?*’
 why 2-PST-run-REC.PST with.speed
a-ng-irr-i-ij=jin.
 1-PST-AUG-do/say-PFV=3MIN.IO

“‘Why were you running so fast?’ we asked him.”

(CAM1.037)

- b. ‘*Arra linygoorroo banimbin inggidinajard nganjegal gal jiib.*

‘*Arra linygoorroo banimbin inggidina=jard*
 oh! crocodile close.up still=1AUG.IO
nga-n-jala-gal jiib.
 1-TR-see-REC.PST this.

‘Oh! I just saw this crocodile—he’s close up.’ (CAM1.038)

- c. *Yaaga ininkalj garanygaranymin ingalamankagaljan nganjala-galmin inyjoordoogal nalma.*’

Yaaga i-ni-n-kal-j *garanygarany=min*
 hole 3-sit-CONT-REC.PST-SIMUL footsteps=CONTEMP
i-nga-lamanka-gal=jan
 1-PST-hear-REC.PST=1MIN.IO
nga-n-jala-gal=min *i-ny-joordoo-gal*
 1-TR-see-REC.PST=CONTEMP 3-PST-get.dry-REC.PST

n-alma.'

3-head.

'He was in a hole when he heard my footsteps and I saw him bring his head up [out of the water].'
(CAM1.039)

In (11.49a), the person has just run up to his family, but he has stopped running by the time they ask the question in (11.49a). In (11.49b), he says how he has just seen a crocodile, but he can't see it anymore. (The person has climbed the hill from the shore where he was down fishing.) In (11.49c), he is describing the situation before he ran away.

The recent past *-gal* is used particularly often in enumerating events, for example, in listing what a speaker has just done, as in (11.50) below, where each step in the list is complete before the one following.

- (11.50) *Ginyinggon wirr inyjarrmigal aalga, roowilgidi ngannyagal gaarrangan. Jagoordgidi nganjoogal booroonganjan. Ooldoobal nganjooloonggaljanirr, roowilgid ngannyagal moorrgalnganjan.*

Ginyinggon wirr i-ny-jarrmi-gal aalga, roowil=gidi
then get up 3-PST-rise-REC.PST sun walk=THEN
nga-n-nya-gal gaarra-ngan. Jagoord=gidi
1-TR-catch-REC.PST sea-ALL return=THEN
nga-n-joo-gal booroo-ngan=jan. Ooldoobal
1-TR-do/say-REC.PST place-ALL=1M.POSS things
nga-n-jooloo-ng-gal=jan-irr, roowil=gid
1-TR-collect-APPL₁-REC.PST=1MIN.IO=3A.DO walk=THEN
nga-n-nya-gal moorrgal-ngan=jan.
1-TR-catch-REC.PST work-ALL=1M.POSS

'Then, when it got light, I walked to the sea. Then I returned to my house. I got my things, then I walked to work.'

While verbs marked with *-gal* are always completed, and thus perfective in a sense, they are not marked for 'perfect' (that is, continuing relevance into the present). This seems to be one of the main differences between verbs marked with *-gal* and those marked by the perfect suffix *-ij*, for the latter can be used, in certain circumstances, with a resultative meaning.

2.4.2. -gal and present marking

There is a further occasional use of *-gal* in contexts which imply present reference rather than past. All such examples are used in conjunction with the continuative *-n* in complex sentences (see §11.2.2). In such cases, *-n-kal* combines with the present prefix.

In (11.51a) the second clause (*arra nimoonggoon morr booroongan*) contains no overt indication of tense; there is no verb (*nimoonggoon* is an inalienably possessed noun meaning ‘knowledge’). There is no overt past tense copula, however. In (11.51b) we see present morphology in the first clause, and past in the second (*ngangimiligal*). Almost all the examples of *-n-kal* sequences

are part of complex sentences and I assume that this represents a sequence of tense effect.

In effect, the distinction between the uses of *-n*, *-nkal*, or *-gal* seems to be a focus on whether the event has an endpoint (*-gal*), or whether it continues for any length of time (*-n*), or both (or neither).

2.5. Middle perfect: *-ij*

In Aklif (1999) and Metcalfe (1975b), the suffix *-ij* is glossed as a ‘middle perfect,’ implying that the action of the verb is complete and happened earlier than the day of the speech act, but not long enough ago to use the remote past *-na*. I retain this terminology. Events marked with *-ij* have a flavor of ‘relevance’, like many perfects. With the exception of (11.55) below, all examples of the middle perfect take past tense prefixation.

- (11.52) *Wirr inyjarrmij goolboon.*

Wirr i-ny-jarrm-ij goolb-oon.
get.up 3-PST-rise-PFV rock-LOC

‘It got up from the rock.’

- (11.53) *Boolman imboolmij aarli, anoongoola!*

Boolman i-m-boolm-ij aarli, a-noo-ngoool-a!
rotten 3-PST-smell-PFV fish, 2-TR-throw-FUT

‘The fish is rotten—throw it away.’

The middle perfect is used with many emotion verbs to denote continuing resultative states:

- (11.54) *Loogal injij, anjalala joonim.*

Loogal i-n-j-ij, a-n-jalal-a
bad 3-TR-do/say-MID.PFV, 2.IMP-TR-look.after-FUT
joo-nim.
2MIN-ERG

‘She is sick, you look after her.’

I have a single example of the middle perfect being used with a future prefix, given in (11.55) below. Both clauses are in future time, but the second appears to be overtly marked for perfectivity.

- (11.55) *Ngayoo inngoorr oonggarraya ngay, joogid garrma oonggarrargij.*

Ngayoo inngoorr oo-ngg-arr-a-y-a ngay, joo=gid
 1MIN first 3-FUT-AUG-TR-take-FUT 1MIN 2MIN=THEN
garrma oo-ngg-arr-arg-ij.
 later 3-FUT-AUG-pick.up-PFV

‘They’ll take me first, and they’ll come and pick you up later.’

2.6. Future: -a

The future tense suffix *-a* may be used with the future or irrealis prefixes. It also appears when the future is used as an imperative.

- (11.56) a. *Marl arriya!* (Imperative)
Marl a-rr-iy-a!
 stop 2-AUG-do/say-FUT
 ‘You mob stop it!’

b. *Boowanim oolarrarlagoorr.* (Irrealis (potential))
Boowa-nim oo-la-rr-arl-a=goorr.
 ant-ERG 3-IRR-AUG-bite/eat-FUT=2A.DO
 ‘The ants might bite you.’

c. *Ngayoo inngoorr oonggarrayangay, joogid garrma oonggar-rargij.* (Future)
Ngayoo inngoorr oo-ngg-arr-a-ya=ngay,
 1MIN in.front 3-FUT-AUG-TR-take-FUT=1M.DO
joo=gid garrma oo-ngg-arr-argi-j.
 2MIN=THEN later 3-FUT-AUG-TR-pick.up-SIMUL
 ‘They’ll take me first, and they’ll come and pick you up later.’

The future gives a purely temporal interpretation to irrealis clauses (that is, it appears to be unmarked for aspect). In the irrealis it alternates with the

past tense *-na*. In the future clauses, it sometimes alternates with *-ij*, where *-ij* has something of the flavor of a perfect.

No other Nyulnyulan language has a future tense suffix (although Nyikina does have a future habitual *-ngani*); I have no etymology for Bardi *-a*. As noted in examples such as (11.35) and (16.27), it can be omitted without loss of future reference, though such examples are rare.

2.7. Simultaneous action: *-j* ~ *-ji*

There is a further suffix which I have termed ‘simultaneous action’. It never occurs without another tense/aspect marker. It is fused with the continuative *-n* or the recent past *-gal* in all my examples. This suffix is used to mark actions that occur during (or overlapping with) the action of another related clause. It usually has the form *-j*, though variants with the form *-ji* are also recorded, especially in the Laves materials. Unlike most affixes with both vowel- and consonant-final allomorphs, however, the forms with the consonant-final allomorph are considerably more common than those with the vowel.

The description of the distribution of the simultaneous action suffix may imply that it is a subordinator, and indeed, it is frequently used on verbs which are dependent on another clause (for example, (11.57)). It is, however, also frequently used in main clauses without subordinating function. (11.58) provides an example of this type of use.

- (11.57) *Jaminybarr inarligalj may, iniminggigaljamb.*

Jaminybarr i-na-rli-gal-j *may,*
 quickly 3-TR/PST-eat-REC.PST-SIMUL tucker
i-ni-mingga-gal=jamb.
 3-TR-choke-REC.PST=CAUS

‘He ate the food too quickly, which made him choke.’

- (11.58) “*Irrjarnan nganjala galj gala*,” *injoonoojin, biligidmin roowil in-nyana boonoogij biligij injalana inyjarrnganana ginyinggi bardag.*

“*Irrjar-nan nga-n-jala-gal-j* *gala*,”
 three-TIMES 1-TR-see-REC.PST-SIMUL thus
i-n-joo-noo=jin, *bili=gid=min* *roowil*
 3-TR-do/say-REM.PST=3MIN.IO again=THEN=CONJ walk

i-n-nya-na *boonoo=gij* *bili=gij*
3-TR-catch-REM.PST that.way-INTENS again-INTENS
i-n-jala-na *i-ny-jarrnga-na-na* *ginyinggi*
3-TR-see-REM.PST 3-PST-stand-CONT-REM.PST 3MIN
bardag.
tree.

"I've seen it three times," he said. He kept on walking further, and saw the same tree standing there.' (JMI.024)

This suffix is frequently used in elicited sentences, particularly by the oldest speakers, but is rare in texts.

The simultaneous marker is used in conjunction with the continuous marker -n as an inceptive, in translations of 'X started to do something.'

(11.59) *Nganamarrinji, bilarr nganamarrinj aarli.*

Nga-na-marr-in-ji, bila=rr nga-na-marr-in-ji
1-TR-cook-CONT-SIMUL also=3AUG 1-TR-cook-CONT-SIMUL
aarli.
fish

‘I started to cook the fish.’

3. Gerunds *ma- -n*

In addition to the inflection for tense and subject agreement, Bardi verbs may also be inflected with the prefix *m(a)-*, which replaces all other agreement, transitivity, and tense inflection. The verbs also have the suffix *-n* (discussed briefly above under the continuative marker).

3.1. Forms of the affix

The gerund marker has a prefixal and a suffixal component, neither of which alternates (though the vowel of the prefix component can coalesce; see below). The *ma-* prefix induces lenition in Bardi roots (e.g. *mawoon* ‘hitting’ < *ma-boo-n* ‘hit’), which is regular. Some verbs have two forms: compare

mawooloongan ~ *moloongan* from *ma-bulu-nga-n* ‘to enter’. This appears to show both lenition treatments of **abu*; I assume these are dialectal differences. Polysyllabic roots beginning with *ba-* take the form *o-* in the gerund; thus the gerund of *-banji-* ‘share’ is *m-onji-n*, and has no alternate form **mawanjin*.

An additional irregularity in the morphology of gerunds is that vowel-initial roots appear to be inflected for the transitivity marker *n-*.

- (11.60) a. *-ibi-* ‘drink’ : *manibin* ‘to drink, drinking’
 b. *-ar-/ra-*: *manaran* ‘to spear’
 c. *-argi-*: *manargin* ‘to pick up’

We could argue that these roots start with *n* and are not in fact vowel-initial. It would not be possible to tell in any other forms except perhaps the reflexive/reciprocal. The reflexive of *-ar-* in Bardi is *m-ar-inyji-*, not *m-nar-inyji-* or *ma-n-arinyji-*, implying that the root is vowel-initial and the *n-* in the gerund is epenthetic.¹⁵⁸

There is indirect evidence that the *n-* is truly epenthetic in Bardi. There are several Bardi roots which historically began with consonants, usually **w-*. The two most common are **-wa-* ‘give’ and **-warki-* ‘pick up’. In Bardi these roots behave like the other historically vowel-initial roots (e.g. **ibi-* ‘drink’), implying that the ‘epenthetic’ rule has been generalized to roots that it would not have originally applied to.

3.2. Word class of gerunds

The word class of gerunds is problematic. Many of their characteristics are held in common with nominals, however there are also verbal characteristics. On the one hand, they exhibit no tense or transitivity marking or subject agreement. This makes them unlike finite verbs. They take some nominal derivation (such as the ‘expert’ suffix *-iid* (see §5.1.3 and (11.61)), and case marking, such as the comitative case, as illustrated in (11.62). This makes them rather noun-like.

- (11.61) *mayarginiid*
ma-yargi-n=iid
 GER-fear-CONT-EXPERT
 ‘frightened person’

- (11.62) *mayirrirrannyarr*
ma-yirrirra-n-nyarr
 GER-tease-CONT-COM
 ‘with teasing’

Gerunds can also be arguments of verbs, and of the word *arranga* ‘without’ (see (11.63a)), another characteristic of nouns.

Although gerunds are noun-like in a number of respects, they are rather un-nounlike in others. While they do not take subject marking, other verbal morphology can be present. Moreover, they also govern arguments. Ergative-marked subjects can appear, and direct object cliticization is also possible. (11.63a) gives an example where the direct object free pronoun *irr* ‘they’ is doubled by a clitic on the gerund. In (11.63b), the gerund’s object argument is not present, but is implied from the agreement on the inflected matrix verb. (11.64) shows an ergative case-marked subject of a gerund.

- (11.63) a. ... *arranga maalanirr irr* ...
 ... *arranga ma-ala-n=irr* *irr* ...
 without GER-see-CONT=3AUG.DO 3AUG
 'without seeing them' (Metcalfe 1975b:103)

b. *Irrolong ingoorroomoonoongojinirr arranga monjin.*
 Irrol-ong i-ng-oorroo-moonoo-ngoo=jin=irr
 spear-INS 3-PST-AUG-throw-APPL₂=3MIN.IO=3A.DO
 arranga m-onji-n
 without GER-spear-CONT
 'They threw spears at them without hitting them.' (Metcalfe 1975b:103)

(11.64) *Aarlingan arr nganjij bardi. Barni nganimbidi wiliwili namardaamba ingarrinjanirr wiliwili, ingirrjimbin arranga marlinjan aarlinim.*
 Aarli-nga arr nga-n-j-ij *bardi.* *Barni*
 fish-ALL go 1-TR-do/say-MID.PFV yesterday. when
 nga-n-im-bidi *wiliwili* *namarda=amba*
 1-TR-PST-throw.in fishing.line just=CAUSAL.REL
 i-ng-arr-i-n=jan=irr *wiliwili,*
 3-PST-AUG-sit=1M.POSS-3AUG fishing.line

i-n̩-irr-jimbi-n arranga m-arli-n=jan
 3-PST-AUG-die-CONT without GER-bite-CONT=1MIN.IO
aarli-nim.
 fish-ERG.

‘I went fishing yesterday. I threw in my lines but they just lay there, they were dead without the fish biting.’

3.3. Functions of gerunds

Gerunds can be used with adnominal case marking to derive modifiers. All such examples are resultative. There are not very many examples and they were difficult to elicit; there appear to be complex constraints on the verbal argument structure which makes a lot of verbs incompatible with this marking (this is a topic for future research).¹⁵⁹

- (11.65) *Manibinjoon oola jard.*

Man-ibi-n-joon oola jard.
 GER-drink-CONT-SOURCE water 1A.POSS

‘That’s our water that got drunk.’ (BOW-FN.2011)

Gerunds are also used in the construction *+oongoong ma-X-n* ‘to like’ (literally ‘be with-stomach for’) and *liyan -ma-*, which also means ‘like’. As shown in (11.67), *+oongoong* ‘stomach-INS’ can be used without a light verb; instead, the experiencer (*baawa-nim* ‘children-ERG’ in (11.67)) appears with ergative case, and an oblique marker appears cliticized to the noun.

- (11.66) *Goorlil liyan nganman laalbooyoon marlinngan gorna giija.*

Goorlil liyan nga-n-m-an laalboo-yoon
 turtle like 1-TR-put-CONT earth.oven-SOURCE
ma-rli-n-ngan gorna giija.
 GER-eat-CONT-ALL good very

‘I like eating turtle cooked in (lit. ‘from’) an earth oven: it’s very good.’

- (11.67) *Moolinj ngarri irrngoongjirr baawanim gorna may marlinngan.*

Moolinj ngarri i-rr-ngoong=jirr baawa-nim gorna may
 m very 3-AUG-stomach-3A.IO child-ERG good food
m-arli-n-ngan.

GER-eat-GER-ALL

‘The kids like *moolinj* (*Glycosmis trifoliata*) fruit a lot: it’s good to eat.’

Example (11.66) raises an interesting point about the status of clauses with gerund-marked verbs. The object of *marlinngan* ‘eating’ is *goorlil* ‘turtle’, which is initial in the clause. This could imply that the initial focus position is not strictly clause-bound; that is, that arguments from subordinate clauses might be able to be extracted out of their clause.¹⁶⁰ Alternatively, it could imply that *marlinngan* is a noun whose arguments can be individually focused. Individual items in a noun phrase can be focused under certain circumstances (and thus appear as discontinuous), as seen in (8.3); arguments of gerunds could be another example.

Other gerunds are fossilized, and are used just as regular nouns. Speakers do not perceive a relationship between such words and their inflecting verbal counterparts.

- (11.68) *mawooloonngan*

ma-wooloo-n-ngan
 GER-come.in-CONT-ALL

‘flood tide, coming in tide’

The word *mawooloonngan* is historically a gerund, but in the modern language it acts as a regular noun, as though it were uncompositional.

In Nyulnyul, gerunds are found inflected with the *nomen agentis* *-id*. There is a form *ma-damaned* /*ma-dam-an-id*/ ‘hitter’ in Nekes and Worms (1953), for example, formed from the verb root *-dam-* ‘hit’. Further examples are found with the source case *-joon*. This formation is not productive in Bardi, although a few forms do exist (illustrated e.g. in (11.69)). All the inflected forms seem to be found in Nekes and Worms (1953), which may imply that they are calqued from neighboring languages, or that they have fallen out of use. Some of these forms were confirmed in elicitation in 2008 but are not found in my corpus of spontaneous speech. A rare example is

mayooloonganjoon ‘stuff’, which is the gerund of the root *-jooloong-* ‘collect’ and the source case *-joon*. It means literally ‘things which have been collected.’

- (11.69) Nyulnyul: *majanggolenjono*

<i>ma-</i>	<i>janggole</i>	<i>-n</i>	<i>-jono</i>
<i>ma-</i>	<i>janggula</i>	<i>-n</i>	<i>-junu</i>
GER-	break	-CONT	-SRCE

‘a broken thing’

(Nekes and Worms 1953:146)

3.4. Inflection

The gerunds are morphologically simpler than inflected forms. They have no tense prefixes, and only the continuative aspect suffix (which is obligatory). Gerunds are not inflected for the transitivity prefix. For example, the gerund *mamarran* means both ‘to cook something’ and ‘to cook (intransitive)’. Bivalent roots omit the transitivity marker in the gerund. The gerund thus replaces all prefixal marking on the verb (except for reflexive prefixes, for which see below).

- (11.70) a. *Liyan nganman mamarrangan aarlimay.*

Liyan nga-n-ma-n ma-marra-n-ngan aarli-may.
feeling 1-TR-put-CONT GER-cook-CONT-ALL food.

‘I want to cook food.’

- b. * *Liyan nga-n-ma-n ma-na-marra-n-ngan*

feeling 1-TR-put-CONT GER-TR-cook-CONT-ALL
aarlimay.
food.

‘I want to cook food.’

(Bowern 2011:3/89)

Reflexive marking can also occur on gerunds. Spontaneous examples such as (11.71) occur, and elicited examples were also produced.

Chapter 12

Argumenthood, Valency, and Transitivity

Nyulnyulan languages do not have common valency-changing derivations, such as passives and antipassives, although they do have several different morphological and syntactic means of changing the transitivity of a verb stem and the argument structure of a predicate. Reflexive/reciprocal marking is morphologically marked on the verb, and there are several applicative suffixes which alter the valency of the root or the transitivity of the stem.

Valency and transitivity are thorny areas of Bardi syntax. The problems of analysis are compounded by several different factors. The free omission of arguments (especially topics) makes it difficult to determine whether a verb such as *inarlīj* means ‘s/he ate [it]’ (transitive with omitted object) or ‘s/he ate’ (semitransitive). These questions were discussed with speakers but the results were not conclusive. The presence of multiple case frame possibilities for both superficially transitive and intransitive verbs means that it is impossible to use case marking as a simple diagnostic for transitivity. Finally, there are mismatches between the morphology of the predicate (in complex predicates) and the number of arguments which appear to be licensed in the clause.

Just as in other areas of the grammar, valency-changing morphology shows some irregularity and unproductivity. In this case it has clearly been compounded by language attrition in the last speakers. When I returned to One Arm Point in 2008 to check materials from field trips in 2001 and 2003, applicative marked verbs were systematically rejected as being ‘unacceptable’ Bardi. This applied not only to sentences I had made up, but also to sentences which I had recorded on earlier trips and replayed.

§12.1 provides evidence for an argument/adjunct distinction in Bardi. §12.2 discusses valency in Bardi roots, and classifies simple predicates by transitivity types. §12.3 contains a discussion of the different ways of marking reflexive and reciprocal forms in Bardi, while §12.4 gives details of the syntax and functions of the several applicatives.

1. Argumenthood

As noted elsewhere, the distinction between arguments and adjuncts is difficult to establish in Bardi. Traditional tests (see, e.g. Carnie 2002) rely mostly on omissibility; that is, adjuncts are optional, and can always be omitted from a clause, while arguments must be present. However, because Bardi has free noun phrase omission, this test fails. This is shown in (12.1), where any non-verbal constituent of the clause may be omitted without loss of grammaticality.

- (12.1) *Ooranynam injalagal aamba bardi garndi bardagon.*

Oorany-nim i-n-jala-gal aamba bardi garndi
 woman-ERG 3-TR-see-REC.PST man yesterday on.top
bardag-on.
 tree-LOC

‘The woman saw the man yesterday at the top of a tree.’

- a. *Oorany-nim i-n-jala-gal aamba bardi garndi.*
 woman-ERG 3-TR-see-REC.PST man yesterday on.top
 ‘The woman saw the man yesterday at the top [of something].’
- b. *Oorany-nim i-n-jala-gal aamba bardi.*
 woman-ERG 3-TR-see-REC.PST man yesterday
 ‘The woman saw the man yesterday.’
- c. *Oorany-nim i-n-jala-gal aamba.*
 woman-ERG 3-TR-see-REC.PST man
 ‘The woman saw the man.’
- d. *Oorany-nim i-n-jala-gal.*
 woman-ERG 3-TR-see-REC.PST
 ‘The woman saw [someone].’
- e. *I-n-jala-gal aamba.*
 3-TR-see-REC.PST man
 ‘He/she saw the man.’
- f. *I-n-jala-gal.*
 3-TR-see-REC.PST
 ‘He/she saw him/her.’

A second test for some types of arguments involves movement. In English, for example, objects usually appear immediately after their verbs; thus ‘pandas eat bamboo’ is grammatical, but ‘*pandas bamboo eat’ is not. This test fails in Bardi too, as word order is pragmatically determined, with the focus constituent in initial position and non-omitted topics in final position. See further §15.1.2 for further discussion.

A third test for argument status is agreement. This is a better test for Bardi. Subjects and objects receive agreement marking on the verb. Copious examples are found in the grammar, particularly in Chapter 10 and §10.1, and so are not repeated here. It should be noted, however, that agreement is not an entirely straightforward diagnostic of agreement, since a) some agreement is optional; b) some items which are clearly not arguments (e.g. possessors of subjects or objects) may receive agreement marking on the verb; and c) some verbs are impersonal, and show invariant agreement.

Given that the only area where arguments can be fairly clearly distinguished is in agreement, it is tempting to argue that the ‘agreement’ markers on the verb are themselves the arguments of the verb, and the free nominals are coreferential, anaphoric adjuncts. This assumption is known as the Pronominal Argument Hypothesis, see Austin and Bresnan (1996), Baker (2000), Hale (1983, 1989), Jelinek (1984) for discussion, amongst others. Bardi agreement marking does show many of the properties of arguments. It is mostly obligatory and it behaves as expected with respect to reflexive/reciprocal marking, for example. However, there are also reasons to believe that agreement marking does not satisfy the argument properties of the verb alone. For example, there are contexts under which free noun phrases appear not to be ommissible (see §7.1.5 for some potential examples). Gerunds (§11.3) take no agreement marking, but nonetheless allow for the appearance of subjects marked with ergative case. This is not expected if the free noun phrase is simply anaphorically related to the agreement marker. Finally, there are two other areas where free noun phrases appear sensitive to a distinction between arguments and adjuncts. The first is in double interrogative marking; see §15.4.3 for the data. The second is that it appears that possessives within arguments (subject and object) can be marked on the verb, but possessives within adjuncts cannot. These findings are unexpected if all free noun phrases are adjunct-like.

Thus in summary, there is evidence for a distinction between adjunct and argument noun phrases, though it is slight. Other evidence may come from speaker intuitions about arguments which are omitted and understood from

context, versus cases where there are no arguments (that is, distinctions between sentences like ‘he’s eating [cake]’ and ‘*we put the table’).

2. Inflecting root valency

Bardi’s approximately 300 inflecting verb roots form a closed class.¹⁶¹ There are no productive modern derivational patterns and no ways of forming new roots in the grammar. Loan verbs, for example, are borrowed as uninflecting preverbs and assigned an appropriate light verb (see Chapter 13).

Following previous descriptions of Nyulnyulan languages (for example, Hosokawa 1991, McGregor 1994b, Stokes 1982a) I recognize three classes of verb roots on the basis of root valency: monovalent, bivalent, and ambitransitive. The class of verb root affects the form of the imperative prefix and the presence or absence of the valency prefix *n-* ~ *a-*.¹⁶² Nyulnyulan roots have been historically described in terms of ‘transitivity’ (that is, intransitive, transitive or ambitransitive); however, I wish to draw a distinction (following Van Valin and LaPolla 1997:147 ff., Margetts 1999 and others) between root valency and predicate/clausal transitivity. Valency is a lexical property and refers to the number of arguments which appear with a particular verb. Transitivity is a property of the clause and refers to the interaction between argument structure, case marking and agreement. This distinction is necessary in Bardi for two reasons, first because the number of arguments that a verb may take does not entirely determine case marking and agreement forms, and second because there are differences between simple and complex predicates, where the valency of the inflecting root is different from the transitivity of the predicate.

As might be gleaned from this description, the identification of valency types in Bardi is not entirely straightforward. While there are general tendencies which adequately describe most of the verbs in the corpus, there are also some exceptions; for example, monovalent roots can be adequately defined by their ability to take a single argument which is marked in absolute case and cross-referenced by subject prefixal agreement, but the small class of impersonal verbs also have a subject marker (though it is obligatorily third person, and so does not behave in the same way as the monovalent agreement markers).

Of the verbs in the Bardi lexicon for which precise information on transitivity is available, 16 are semi-transitive (taking object objects and ergative

case-marked subjects), 186 are bivalent, 86 are monovalent, and 21 are ambitransitive. 16 roots are listed as taking reflexive/reciprocal marking with a change in meaning, but these roots are also found without reflexive/reciprocal marking.

McGregor (2002) argues that Nyulnyulan languages also have ‘avalent’ roots, that is, roots that do not have an inherent valency but can take either one or two arguments, according to necessity. The category is different from the ambitransitive roots; the members of the supposed aivalent class are light verbs which are sometimes transitive and sometimes intransitive (see further §13.8 for examples and discussion). In McGregor’s framework, verbs such as *-joo-* ‘do, say’ are not underlyingly specified for argument structure (which McGregor argues is determined by the preverb). The inflecting verb is simply a host for morphology. I treat these roots as inherently bivalent and have a different solution for dealing with apparently intransitive complex predicates, which are the source of McGregor’s need for the category. Thus I do not recognize a class of aivalent roots in Nyulnyulan languages.

2.1. Monovalent roots

2.1.1. *The regular pattern*

Monovalent roots are those which take a single (subject) argument, which receives absolute case. They show subject agreement and cannot take Direct Object agreement clitics. They can also appear with the ‘intransitive’ imperative *nga-*. Furthermore, these verbs cannot appear with the transitivity prefix *n-*. Some examples of regular monovalent roots are given in (12.2) below.

- (12.2) a. *Imboonkoonkoomana jiirlanboo.*
I-m-boonkoonkooma-na jiirlanboo.
 3-PST-swell.up-REM.PST porcupine.fish
 ‘The porcupine fish swelled up.’
- b. *Nganyjiidigal arangan booroo.*
Nga-ny-jiidi-gal ara-ngan booroo
 1-PST-go-REC.PST another-ALL camp
 ‘I went to another camp.’

- c. *Ingarrjalgij gaalwo.*
I-n̄g-arr-jalg-ij gaalw-o.
 3-PST-AUG-fall-MID.PFV raft-ABL
 ‘They fell off the raft.’

2.1.2. Exceptionally case-marked arguments

There are a few exceptions to the regular pattern of monovalent verbs. Some verb roots are formally intransitive (that is, they take no *n-* prefix) but nonetheless can appear with two arguments, both of which appear in absolute case. The root *-golo-* ‘wear’, for example, can take an absolute object referring to the thing being worn. *-banji-* ‘share’ is another root that can appear with this frame. These are illustrated in (12.3) (which shows an overt direct object NP) and (12.4), which has two full NPs for subject and object.

- (12.3) *Bardi ngonggolij jiiba anmarr.*

Bardi ngo-n̄g-gol-ij jiiba anmarr.
 yesterday 1-PST-wear PFV those clothes.

‘I wore these clothes yesterday.’

- (12.4) *Milon ambooriny ingarrbanjanjinan aarlimay.*

Milon ambooriny-∅ i-n̄g-arr-banjanji-n-an
 long.ago people-ABS 3-PST-AUG-share.REDUP-CONT-REM.PST
aarlimay-∅.
 food-ABS

‘In the old days people used to share food.’

Another small set of verb roots take oblique object agreement. In (12.5), for example, the verb shows oblique agreement for third person minimal =*jin*; a third person direct object would not be overtly marked in the verb.

- (12.5) *Imbalanin.*

(Metcalfe 1975a:-*bala-*)

I-m-bala-n=in.
 3-PST-believe-REM.PST=3MIN.IO

‘He believed him.’

Another example is the verb *manggarra* ‘be ignored’, where the person being ignored is the subject and the ignorers are marked with oblique marking:

- (12.6) *Ngangamanggarrananajirr.*

Nga-nga-manggarra-na-na=jirr.
1-PST-be.ignored-CONT-REM.PST=3A.IO

‘I was continually ignored by them.’ (Metcalfe 1975a)

Finally, among the monovalent verbs which take oblique agreement, five inflecting verbs also appear with an ergative subject. In (12.7), for example, there are two arguments—*baawa* ‘child’, which shows ergative marking, and *ngaarri* ‘devil’, in the absolute—even though the verb is ‘monovalent’ in that it does not show the transitive prefix *n-/a-*. (12.7b) shows that the ergative differentiates subject from oblique; it is not ommissible even when the semantic roles are clear from context.

- (12.7) a. *Baawanim inyjargijin ngaarri.*

Baawa-nim i-ny-jargi=jin ngaarri-∅.
child-ERG 3-PST-fear=3MIN.IO devil-ABS

‘The child was afraid of the devil.’

- b. *Inyjargijin ngaarri.*

I-ny-jargi=jin ngaarri-∅.
3-PST-fear=3MIN.IO devil-ABS

‘He was afraid of the devil.’

*‘The devil was afraid of him.’

Verbs with this frame, like *-jargi-* ‘fear’, typically have an experiencer subject (or other subject which is not highly agentive). A few other verbs in Bardi also take this pattern or ergative/oblique case marking with a formally monovalent verb. They are listed in (12.8) below. There are possibly significantly more verbs which take this pattern, but are not attested with overt subjects, so it cannot be determined whether they take absolute or ergative subjects. Also listed here are complex predicates with identical argument frames. Other Nyulnyulan languages also have simplex verbs which take this pattern, although the inventory of the class varies from language to language.

(12.8)	<i>-jargi-</i>	‘fear’
	<i>-lirrmi-</i>	‘call out to someone’
	<i>-mi-</i>	‘look for someone’
	<i>-midoordoo-</i>	‘turn around and look at’
	<i>-joorrgoo-</i>	‘run away from’
	<i>jiin -ar-</i>	‘point out something’
	<i>marndal -nya-</i>	‘take aim at’
	<i>yalji -ma-</i>	‘crave something’

A few examples of these verbs are given in (12.9) below:

- (12.9) a. *Niimananim ambooriny ingilirrmuinjin.*
Niimana-nim ambooriny i-ngi-lirrmi-n=jin.
many-ERG person 3-PST-call.out-CONT=3M.IO
‘A lot of people called out for him.’

- b. *Iindoonim ingilirrmigaljard.*
Iindoo-nim i-ngi-lirrmi-gal=jard.
curlew-ERG 3-PST-call.out-REC.PST=1A.IO
‘The curlew called out to us.’

- (12.10) *Nyoonamba jiin nganarjin booroo.*
Nyoonamba jiin nga-n-ar=jin booroo.
there point.out 1-TR-pierce=3MIN.IO place
‘I pointed out a place.’ (LPB.003)

It is possible that this type of verbal marking should be equated with the unexpected ergative subjects of intransitive verbs described in §5.3.1.2.2 above. In that construction, normally intransitive verbs receive subjects in the ergative case if the subject is particularly unusual. While the construction is not productive in modern Bardi, it is found in other Nyulnyulan languages and is more productive there. Perhaps this case frame was generalized for some verbs from exceptionally case-marked subjects.

2.1.3. *Impersonal verbs*

Bardi has a few impersonal verbs; that is, verbs which neither take personal agreement nor coreference arguments. They are all complex predicates (see Chapter 13).

- (12.11) a. *Oola inarn.*

Óola i-n-ar-n
water 3-TR-‘spear’-CONT

‘It’s raining.’

- b. *Jidily inggala.*

Jidily i-ng-gala
coals.explode 3-PST-wander

‘It’s sparking.’ (This verb refers to the way sparks jump from coals when a fire is stoked.)

- c. *Winwin inanggalij.*

Winwin i-n-ang-gal-ij
get.late 3-TR-PST-wander-PFV

‘It’s getting late.’

- d. *Goonkoordoo innyana gardoo moorrool lordony.*

Goonkoordoo i-n-nya-na gardoo moorrool
smoke 3-TR-catch-REM.PST still little
lordony.
underneath

‘It was still catching fire a little underneath.’ (M.Dict)

Example (12.11a) has the derived preverb *óola* ‘water’; that word is not the subject of the verb, however, because it cannot appear in any position other than the immediately preverbal one, including in the case of negation, where the negative marker occurs before the word. Thus *oola* behaves as a regular preverb, and not as a subject noun phrase, in such constructions.

These verbs have an unchanging third person minimal agreement prefix *i-*. There is an additional verb in Metcalfe (1975a) which appears to be impersonal, but the preverb takes inalienable possessive marking which corresponds to the person who is forbidden to do something.¹⁶³

- (12.12) *Ngayam indanj.*

Nga-yam i-n-d-an-j.
1-‘must’ 3-TR-do/say-CONT-SIMUL

‘I mustn’t do it.’

(M.Dict)

Four other complex predicates take no personal subjects, but may take personal objects. The most common is *rarrjin*+ ‘be ashamed of’, which has impersonal (third person minimal) subject agreement, and person direct object marking, as in (12.13).

- (12.13) *Rarrjin inmanjarrngay.*

Rarrjin i-n-ma-n=jarrngay.
shame 3-TR-put-CONT=1M.DO

‘I’m ashamed of it.’

2.2. Bivalent roots

2.2.1. *The regular pattern*

Bivalent roots regularly agree for two arguments, the subject and the (direct) object. They take the ‘transitive’ imperative *a-* rather than the intransitive *nga-*. The usual case marking pattern is ergative subject and absolute object. Some examples are given below. In (12.14) the subject is *aalin* ‘sea eagle(s)’, marked for ergative case; subject agreement is shown by *i-* for third person and *rr-* for an augmented (non-singular) subject. *Maalbarnd* ‘nest(s)’ is the object; generic third person objects are not overtly marked in the verb.

- (12.14) *Aalinnim irroomoogarn maalbarnd garndi goolboon.*

Aalin-nim i-rr-oo-moogar-n maalbarnd-∅ garndi
sea.eagle-ERG 3-AUG-TR-make-CONT nest-ABS on.top
goolb-oon.
rock-LOC

‘Eagles make their nests on top of rocks.’

- (12.15) *Ginyingginim injooloonggal ajawirr irrol.*

Ginyinggi-nim i-n-jooloong-gal ajaw-irr
3MIN-ERG 3-TR-PST-pick.up-REC.PST 1+2M.POSS-3AUG
irrol-∅.
spear-ABS

‘He picked up our spears.’

An example showing overt object agreement is given below. The form of the first person singular object marker is *=jarrngay*.

- (12.16) *Ginyingginim aamba injangarrgagaljarrngay goolboongan.*

Ginyingga-nim aamba-∅ i-n-jangarrga-gal=jarrngay
 3MIN-ERG man 3-TR-ask-REC.PST=1M.DO
goolboo-ngan.
 money-ALL

‘This man asked me for money.’

2.2.2. Exceptions

Some bivalent verbs take ergative subject marking and oblique object marking. The root *-marniny-* ‘wave at’, for example, takes the prefix *n- ~ a-* (and is bivalent), but takes ergative subject marking and oblique object marking, as shown in (12.17).

- (12.17) *Ingaramarninyjin boonyjanim baawa gala arr injin joodinygo.*

I-ng-arr-a-marniny=jin boonyja-nim baawa gala arr
 3-PST-AUG-TR-wave=3M.DO all-ERG child already go
i-n-ji-n joodinygo.
 3-TR-say/do-CONT for.good

‘All the kids waved at him, he was going away for good.’

(Aklif 1999:*-marniny-*)

Just as in the case of monovalent roots, a few bivalent roots also show a mismatch between expected valency on the basis of the root morphology and actual surface number of arguments. Some verbs can take several argument structures but do not belong to the morphological class of ambitransitive verbs. The only securely attested verb of this type is *-gala-* ‘visit, follow, walk around’, which can be monovalent or bivalent, but always takes the prefix marker *n- ~ a-*. In (12.19), for example, the verb is *irralj*, showing transitive morphology. If it were intransitive the form would be *irrgalj*.

- (12.18) *Ginyingginim inanggalalajarrngay.*

Ginyinggi-nim i-na-ng-galala=jarrngay.

3MIN-ERG 3-TR-PST-REDUP.follow=1M.DO

‘She followed me.’

- (12.19) *Layoord boordan irralj.*

Layoord-∅ boordan-∅ i-rr-al-j.

spirit-ABS scrub-NULL.LOC 3-AUG-stay-SIMUL.

‘*Layoord* spirits live in the scrub.’

2.2.3. Trivalent roots

Roots which in some languages are trivalent (or ditransitive), such as English ‘show’, ‘tell’ and ‘give’, are probably bivalent in Bardi, although it is difficult to tell for certain. No verb in Bardi obligatorily takes more than two agreement markers (though remember that up to three markers can appear if one is marking an adjunct).

The phonologically null root ‘give’ (-∅-) agrees for two arguments; the agent ('giver') and the recipient, which is encoded as a direct object. For example, the form of ‘give it to me’ is *ana=ngay* with DO marking for first person, not **ana=jan* or **ana=jan=irr* (with oblique marking, or both DO and IO marking). The most plausible analysis is to treat -∅- as bivalent and to analyze the theme as an adjunct, the same analysis (*mutatis mutandis*) as for -*golo-* ‘wear’ in §12.2.1.2 above, which would also have a theme as adjunct. Another potential trivalent verb, -*jilngi-* ~ -*joolngoo-* ‘tell’, shows exceptional case marking in that it takes an ergative subject and oblique agreement (but no direct object), like -*marnany-* ‘wave’ above.

It is difficult to test for adjunct or argument status in the absence of agreement, since arguments may be freely omitted without deterioration of grammaticality. In some Australian languages we have the evidence of implicatures when there is a null argument; in Warlpiri (Austin and Bresnan 1996), for example, third persons are obligatorily definite, even when not cross-referenced on the agreement clitic complex. This is not the case in Bardi, however, where null arguments are not obligatorily definite. Indefinite third person plural objects, for example, receive null agreement, as discussed in

§5.1.1. It seems most parsimonious to assume that Bardi does not have any trivalent roots, since the agreement patterns found with them can be subsumed under known patterns for bivalent roots.

2.3. Ambitransitive/alternative prefixing roots

Most roots in Nyulnyulan languages take either transitive or intransitive agreement prefix bundles, but not both. That is, they appear either with or without the valency marker *n-* ~ *a-* in all contexts. However, all the Nyulnyulan languages have a set of about twenty verb roots which can take either transitive or intransitive subject prefixes. They are called ‘alternative prefixing’ or ‘ambitransitive’ verbs in the other grammars of Nyulnyulan languages (e.g. Hosokawa 1991, Stokes 1982a, and in some detail Stokes 1985). Roots which show valency alternations without overt derivation are seldom found in Australian languages; Dixon (2002:176), for example, states that they do not exist, and argues that every root in every Australian language is strictly transitive or intransitive. Valency alternations, he states, are accomplished only by overt derivation. Bardi is a counterexample in that there is no overt derivational marking of ambitransitive verbs; we cannot call the transitivity marker ‘derivational,’ since in most cases it does not derive bivalent roots from monovalent ones; it is either obligatorily present or absent, like a conjugation marker.

The examples in (12.20) and (12.21) below show two ambitransitive roots, *-gama-* ‘laugh/mock’ and *-banyi-* ‘finish/kill’. In (12.20), the root in sentence (a) is monovalent and appears in the meaning ‘laugh’, while in (b) it is bivalent, showing the prefix *n-*. (The agreement marker *=(ji)rri* is not repeated from the first part of the clause in example (b), but co-reference is understood from the simultaneity marker *-j*.)

- (12.20) a. *Nomordon iyaman, loogalbard indan nalma.*

Nomordon i-yama-n, loogal=b=ard
 just 3-laugh-CONT, bad=REL=PROB
i-n-d-an n-alma.
 3-TR-do/say-CONT 3M-head

‘He’s just laughing; he’s sick in the head.’

- b. *Jinininan inkajanirri ginyinggi aamba inanggamagalj.*
Jinininan i-n-kaja-n=jirri ginyinggi aamba
 make fun of 3-TR-put-CONT=2M.DO that man
i-na-ang-gama-gal-j.
 3-TR-PST-laugh-REC.PST-SIMUL.
 ‘That man’s making fun of you, he’s been mocking you.’

In (12.21) the bivalent verb means to ‘finish’ or ‘kill’ something, while the monovalent root is the unaccusative counterpart, ‘finish’ or by metaphorical extension ‘die’.¹⁶⁴ (12.21b) shows the bivalent pattern, with ergative subject (*Liinyja* ‘policemen’), augmented transitive prefix *a-*, and direct object agreement *=(i)rr*. (12.21a) is monovalent.

- (12.21) a. *Nyoongool aamba jiiba bardi gorna inginin ngoorramb im-banyij.*
Nyoongool-∅ aamba jiiba bardi gorna i-ngi-ni-n
 old-ABS man this yesterday good 3-PST-be/sit-CONT
ngoorr=amb i-m-bany-ij.
 last.night=REL 3-PST-finish/die-MID.PFV
 ‘The old man was alright yesterday but last night he died.’
- b. *Liinyjanim ingorronyinarr jirrurr iila.*
Liinyja-nim i-ng-orr-onyi-na=rr
 policeman-ERG 3-PST-AUG-TR-finish/kill-REM.PST=3A.DO
jirr-irr iila-∅.
 3A.POSS-3A dog-ABS
 ‘The policemen killed all their dogs.’

Table 12.1 gives the alternative prefixing verbs which occur in Bardi. There is a good deal of overlap between the class of Bardi ambitransitives and English ‘middle’ verbs (those which have two readings, one transitive one intransitive unaccusative).¹⁶⁵ As can be seen from Table 12.1, there are several sets of argument structure alternations in the ambitransitive verbs. One is where the object of the bivalent verb is the sole argument of the monovalent verb. The majority of ambitransitive verbs show this pattern.

One verb, *-gama-* ‘laugh/mock’, is subject-preserving; that is, the subject of the monovalent verb is the same as the subject of the bivalent verb.¹⁶⁶ Finally, a few verbs show tenuous semantic links between the monovalent and bivalent roots.

Table 12.1. Alternative prefixing verbs

Root	Bival. gloss	Monoval. gloss	Reconstruction
<i>-banyi-</i>	finish something	die, finish	PN *- <i>banyi-</i> ‘extinguish/be extinguished’
<i>-bar(n)di-</i>	cover (esp. with sand), bury	be covered	PN *- <i>barndi-</i> ‘cover/be covered’
<i>-bindi-</i>	put something forward	get better	
<i>-birrili-</i>	fly	swing	
<i>-booloo-</i>	have one’s wife give birth	to come	PN *- <i>bulu-</i> ‘come’
<i>-galgalgama-</i>	shake (s.th)	shake	—
<i>-gama-</i>	mock	laugh	PN *- <i>gama-</i> ‘laugh/mock’
<i>-gardi-</i>	grow someone up	enter (+ loc)	PN *- <i>gardi-</i> ‘enter’
<i>-garn-</i>	lodge something	lodge	
<i>-golo-</i>	dress someone	wear something	PN *- <i>gulu-</i> ‘tie/get dressed’
<i>-goodala-</i>	lose something, spin hair	get lost, disappear	PN *- <i>gudalV-</i> ‘lose/get lost’
<i>-jalgi-</i>	hide something	conceal oneself, hide from something	
<i>-joogooloo-</i>	break something	break	PN *- <i>jangguli-</i> ‘break something/break’
<i>-loorroo-</i>	burn/light something	be lit	PN *- <i>lurru-</i> ‘burn/be burned’
<i>-mala-</i>	burn something	be burned	
<i>-marra-</i>	cook something	cook, be burned	PN *- <i>marra-</i> ‘cook’
<i>-mooroo-</i>	waste, neglect something	spill	
<i>-ngoorrma-</i>	soak (s.th.)	soak	

3. Reflexives and reciprocals

Bardi has a true morphological reflexive/reciprocal construction, which is a circumfix to the verb root and which interacts with the other morphology; this is discussed in §12.3.2. There are also lexical means by which speakers realize concepts of reciprocity, which are discussed below.

In some Australian languages, the reflexive/reciprocal marking does more than alter the valency of the inflected verb. It can be used to signal aspectual differences, and to denote inclusivity of the action of the verb beyond strict grammatical reflexivity or reciprocity (see Evans 2008 and Levinson et al. 2011 for more information). The reciprocal in these languages can be also used in these non-valency-changing functions on intransitive verbs. This is not the case in Bardi. The reflexive/reciprocal is quite strictly a valence-changing process.

Data for this section come from the corpus, but also from discussion of the MPI 2004 field manual stimulus materials for reciprocals, which I played to Bessie Ejai in 2008. Discussion of the video prompts took place in both Bardi and English, with extensive codeswitching in some places. The same forms are used both for morphological reflexive and reciprocal marking. My impression is that reciprocal interpretations are more common than reflexives but I have no direct data to confirm this impression, since so much of the data on this topic is elicited.

3.1. Lexical realizations

Before the morphological realizations of reflexive/reciprocal marking are discussed, it is worth detailing a few of the lexical ways in which concepts of reciprocation can be expressed by lexical items and in ways other than morphological affixation on the verb. There are three ways in which this is done. There are adverbs of reciprocation; there are also emphatic pronouns such as *niimalgoyarr* and *niimalgang*. Finally, there are some inherently reflexive/reciprocal verb roots.

3.1.1. *Adverbs of reciprocation: rooban and anyjimadan*

Adverbs of reciprocation are listed in §16.98b where there is more general discussion of adverbs. There are a few examples where *rooban* ‘in return’ or

anyjimadan ‘back’ are used to paraphrase reciprocal marking. Examples are given below.

- (12.22) *Jiiba langanalangana, injiidingjin langan [then] arnim injiidingjin langan rooban.*

Jiiba langana-langana, i-n-jiidi-ng=jin langan
 this shoulder.to.shoulder 3-TR-touch-APPL=3M.IO shoulder
[then] ar-nim i-n-jiidi-ng=jin langan rooban.
 other-ERG 3-TR-touch-APPL=3M.IO shoulder back.

‘They are shoulder to shoulder, and he touched her shoulder, then she touched his shoulder back.’ (CB56.1)

- (12.23) *Aranim aamba inoongooloong, ar aamba ginyinggi ingoorroon-gooongoor oo ran anyjimardan milimil.*

Ara-nim aamba i-noo-ngooloong, ar aamba ginyinggi,
 other-ERG man 3-TR-throw, other man 3MIN
i-ng-oorr-oo-ngoooloo-ng oo ran anyjimardan milimil.
 3-PST-AUG-TR-throw-APPL woman back book

‘This other man threw it to the other man, and they threw the book back to the woman.’ (BA-CB56.1)

The adverb *amboon* ‘together’ can be used when reduplicated to imply an action that is done reciprocally.

- (12.24) *Amboonamboon roowil ingirrinyinj.*

Amboon-amboon *roowil i-ngr-irr-i-nyi-n-j.*
 together-REDUP walk 3-PST-AUG-TR-catch-CONT-SIMUL

‘They walked with each other.’ (BOW-FN.11/28)

3.1.2. Niimalgoyarr and overt pronouns

There are two items which appear to behave somewhat like reflexive pronouns. They take agreement prefix marking (and so are technically nouns in terms of word class); they translate as ‘self’ and were briefly discussed in §7.3

on emphatic pronouns (and pronominal items) above. Not all emphatic pronouns can be used in reflexive/reciprocal contexts, however. The most common item in my corpus is *niimalgoyarr*, but *nimalga* is found in the Laves corpus with the same function, and Metcalfe gives a form *nimarlgang*. Some examples are given below. Note that the pronouns can also combine with the morphological verbal reflexive marking in examples such as (12.25b).

- (12.25) a. *Baawanim arra oolarrarlirr jarri aarli irrmalgoyarr.*
Baawa-nim arra oo-l-arr-arl=irr jarri aarli
 kids-ERG NEG 3-IRR-AUG-eat=3M.DO this fish
irr-malgoyarr.
 3AUG-self
 ‘Kids don’t eat this fish (*irrarriny*) by themselves.’
- b. *Bardag ingoomoogoolinyjigal nimolgoyarr.*
Bardag i-ngoo-m-oogoool-inyji-gal ni-molgoyarr.
 stick 3-PST-REFL-break-REFL-REC.PST self
 ‘The branch broke by itself.’
- (12.26) *Nimalgijina abarrabarr oorany.*
Nimalgijina abarrabarr oorany.
 self fault woman
 ‘It was her own fault.’ (L93.015)

There is also a form *nimalgijina* (see (12.26)) in the Laves materials, which was unknown to current speakers but could be analyzed either as *nimalga=jina* ‘self=3M.POSS’ or perhaps as *nimal-gij-jina* ‘self=VERY=3MIN’; the former is more likely.

As illustrated in (12.25a), these markers take the possessive prefix marking described above in §7.5 above. Laves’ form, *nimalga*, also shows this behavior:

- (12.27) “*Nyimalga garnd anama,*” *ingirrin.*
“*Nyi-malga* garnd a-na-m-a,”
 2M-self above 2TR.IMP-TR-put-FUT
i-ng-irr-i-n.
 3-PST-AUG-do/say-CONT
 “Put her up yourself (in a tree coffin),” they said.’

The reflexive/reciprocal pronouns pick out the agent as a member of a set of potential participants, and imply that they are the sole person doing the action (e.g. that X did something him/herself and did not wait for others to do it). For example, in (12.28), the implication of the use of *irrmolgoyarr* is that the fish are not dying through the use of fish poison, but just of their own accord.

- (12.28) *Irralb mool injoonana jard aalga, gaarra moola biila, aarligid ingirrjimbinan irrmolgoyarr.*

Irralb mool i-n-joo-na-na jard aalga,
 hot.season hot 3-TR-do/say-CONT-REM.PST 1AUG day
gaarra moola biila, aarli=gid i-ng-irr-jimbi-na-n
 sea.water hot too fish=THUS 3-PST-AUG-die-CONT-REM.PST
irr-molgoyarr.
 3AUG-self

'In the *irralb* season the sun got hot and the sea got very hot and fish were dying by themselves, of their own accord.' (MLB.002)

Unlike the morphological marking of reflexivity, these pronouns do not make a verb intransitive. They can also be used with intransitive verbs, as in (12.28). Furthermore, *niimalgoyarr* does not have the binding properties of true reflexive pronouns, as examples such as (12.29) show.

- (12.29) *Niimalgoyarr jina abarr.*

Nii-malgoyarr jina abarr.
 3-self 3M.POSS fault

'It was his own fault.' (Lit: '[It was] himself his fault, it was himself's fault.') (conversation, 2008)

In this case, *niimalgoyarr* 'his own' is binding (that is, creating a coreference context for) the possessive pronoun *jina*. We would not expect this sentence to be grammatical if *niimalgoyarr* were a true reflexive pronoun. Reflexive pronouns, by definition, receive their interpretation from (that is, are 'bound' by) another item in the clause. Crosslinguistically, reflexive pronouns may appear as direct objects, where they are interpreted as coreferential with the subject; however, the opposite configuration does not obtain. In English, for example, '*Mary_i sees herself_i*' is grammatical, but '**Herself_i sees Mary_i*' is

not. In (12.29), there is no item for the pronoun *niimalgoyarr* to receive interpretation from (and note that the literal English translation is ungrammatical with a reflexive pronoun). This implies that *niimalgoyarr* is not a true reflexive pronoun.

3.1.3. Verbs with inherently reciprocal meanings

A few verbs are formally intransitive but with plural subjects contain an inherent meaning of reciprocity. For example, in (12.30) the verb *-nganka-* ‘talk’ is interpreted as inherently involving participants who are participating in a reciprocal action. In such cases, the morphological reciprocal is ungrammatical.

- (12.30) a. *Irrngankanjamb.*

i-rr-ŋanka-n=jamb

3-AUG-talk-CONT=THUS

‘They’re [just] talking to each other.’

- b. * *Irrngankinyji*

- c. * *Irramankinyji*

(Intended: ‘they were talking to each other.’)

3.2. Morphological marking: *m(a)- -inyji*

The primary reflexive/reciprocal marker in Bardi is a verbal circumfix of the form *m(a)- -inyj(i)*. The morphemes are immediately adjacent to the verb root in simplex verbs. Verbs marked for the reflexive/reciprocal are formally intransitive—they take the intransitive second person imperative *nga-* and there is no transitivity marker *n- ~ a-*.

- (12.31) *Oognga ngamarndinyjigal wiliwiling.*

*Oog-nga nga-**m**-arnd-**inyji**-gal wiliwili-*ng*.*

hook-INS 1-REFL-catch-REFL-REC.PST fishing.line-INS

‘I caught myself on my fishing hook.’

(Conversation)

- (12.32) *Darr ingarrmarinyjin.*

Darr i-ng-arr-m-ar-inyji-n.
come 3-PST-AUG-REFL-pierce-REFL-CONT

‘They met each other.’ (L51A.002)

The reciprocal meaning can be paraphrased as ‘X did something, and then Y did the same thing,’ as in (12.33a) (repeated from (12.22) above); the reciprocal sentence is in (12.33b):

- (12.33) a. *Jiiba langanalangana, injiidingjin langan [then] arnim injiidingjin langan rooban.*

Jiiba langana-langana, i-n-jiidi-ng=jin langan
this shoulder.to.shoulder 3-TR-touch-APPL=3M.IO shoulder
[then] ar-nim i-n-jiidi-ng=jin langan rooban.
other-ERG 3-TR-touch-APPL=3M.IO shoulder back.

‘They are shoulder to shoulder, and he touched her shoulder, then she touched his shoulder back.’ (CB56.1)

- b. *Yeah in anotherway, langan injiidinggaljin, langan ingirrimidinginyjigal.*

[yeah in anotherway], langan
shoulder
i-n-jiidi-ng-gal=jin, langan
3-TR-touch(go-APPL)-REC.PST=3M.IO shoulder
i-ng-irr-m-idi-ng-inyji-gal.
3-PST-AUG-REFL-touch-REFL-REC.PST

‘And there’s another way [to say it], he touched her shoulder, they touched each other’s shoulders.’ (CB56.1)

The prefix component *m-* interacts phonologically with the initial consonant of the root. Initial obstruents are deleted, while epenthesis occurs between *m-* and initial sonorants. Thus the reflexive stem of the root *-jala-* ‘see, look at’ is *-m-al-inyji-* (< **ma-jala-inyji-*) (see, for example, (12.34b)), while the reflexive form of *-marra-* ‘cook, burn’ is *-ma-marr-inyji-*. Some examples are given in (12.34). As seen from these examples, the suffixal portion of the reflexive/reciprocal marker is vowel-initial, and that vowel deletes the final vowel of the verb root.

- (12.34) a. *Nyoongool oorany gardi imalalinyjin niimalgoyarr.*
Nyoongool oorany gardi i-m-alal-nyji-n
old woman still 1-REFL₁look.after-REFL₂-CONT
nimalgoyarr.
self
‘The old woman is (still) looking after herself.’
- b. *Nyoonangarr anggarmalinyja Ardiyooloon.*
Nyoon=angarr a-ngg-arr-m-al-nyj-a
here=JUST 1-FUT-AUG-REFL₁see-REFL₂-FUT
Ardiyooloon.
One.Arm.Point-LOC
‘We’ll see each other over there at One Arm Point.’
- c. *Bardag ingoomoogoolinyjigal niimalgoyarr.*
Bardag i-ngoo-m-oogool-nyji-gal ni-morlgojarr.
tree 1-PST-REFL₁-break-REFL₂-REC.PST 3M-self
‘The tree broke on its own.’

Nekes and Worms (1953:150) describe the reflexive/reciprocal as *ma-/me-* and *-djen* for all Nyulnyulan languages. They have misanalyzed forms such as *ma-madjalen-djen* ‘to look at each other’ (Jabirr-Jabirr) (the form is quoted with their morpheme boundaries); they place the reflexive suffix portion following the tense marker. The correct morpheme division is *ma-ma-jala-nyji-n* GER-REFL₁-see-REFL₂-CONT. Perhaps Nekes and Worms were confused by the use of the third minimal oblique *=jin* as reflexive with the verb *-joo-* ‘do/say’ (for this see further §12.3.7 below).

Many verbs are ambiguous between reflexive and reciprocal interpretations when plural. When the subject is minimal, of course, there is no ambiguity, as interpretation can only be reflexive. Though I do not have systematic data on this point, it appears that some verbs allow only the reciprocal reading, and are not compatible with reflexives. An example of this is given in (12.36). The cause of the unacceptability of (12.36) is probably semantics.

- (12.35) *ingoorroomooloolooginyjigal*
i-ng-oorroo-m-oolooloog-nyji-gal
3-PST-AUG-REFL₁-break-REFL₂-REC.PST
a. ‘They were washing themselves.’
b. ‘They were washing each other.’

- (12.36) a. **Imarginyjin.*
I-m-arg-inyji-n.
 3-REFL-fear-REFL-CONT
 Intended: ‘He’s afraid of himself.’
- b. *Ingarrmarginsyjigal.*
I-ng-arr-m-arg-inyji-gal.
 3-PST-AUG-REFL-fear-REFL-REC.PST
 ‘They’re afraid of each other.’

See further McGregor (2000) for detailed discussion of the semantics and argument structure of reflexive/reciprocal constructions.

3.3. Suffixal reflexive marking

In all the well-attested Nyulnyulan languages, the reflexive suffix can appear without the prefixal component. Some examples for Bardi are given in (12.37), and for Nyikina (in comparison) in (12.38):

- (12.37) a. *Mingamarrynyjigalj.*
*Mi-nga-marr-**inyji**-gal-j.*
 2-PST-cook/burn-REFL₂-REC.PST-SIMUL
 ‘You burnt yourself.’ (Metcalfe 1975b:94)
- b. *Anggoorrngoorroobinyja.*
*A-ngg-arr-ngoorroob-**inyj**-a.*
 1-FUT-AUG-chase-REFL₂-FUT
 ‘We’ll chase each other.’ (Metcalfe 1975b:95)
- c. *Minimb irrmoodoomoondinyjinj.*
*Minimb i-rr-moondoomoond-**inyji**-n-j.*
 whale 3-AUG-REDUP-wet-REFL₂-CONT-SIMUL
 ‘The whales are wetting themselves.’ (Aklif 1999:-moondoo-)

- (12.38) Nyikina
Ngunydyin-nil ma-ra-nydyi-n.
 inclined-many GER-spear-REFL₂-CONT
 ‘They’re inclined to spear each other.’ (Stokes 1982a:291)

Hosokawa (1991:§4.8.3) argues for Yawuru that suffix-only examples are obligatorily analyzed as reciprocals, and do not admit the reflexive interpretation. He points to pairs such as those illustrated in (12.39) below. In (12.39a), only the reciprocal reading is allowed, while (12.39b) is ambiguous between reflexive and reciprocal interpretations.

(12.39) Yawuru

- a. *Inga-rr-a-bura-nji-n* *kamba-rri.*
 3-AUG-TR-see-REFL-IMPFV that-DU
 ‘They two see each other.’
- b. *Inga-rr-ma-bura-nji-n* *kamba-rri.*
 3-AUG-REFL-see-REFL-IMPFV that-DU
 ‘They two see themselves/each other.’

(Hosokawa 1991:§4.6.6.1)

My data for Bardi confirm this interpretation to a certain extent, although the judgments are not entirely clear. In (12.37c) above, for example, the translation given was reflexive, not reciprocal¹⁶⁷ but the reduplication of the root also implies pluractionality. In this example it is clearly not the case that each whale is splashing itself, taking care not to get any water on its companions. The action is not directed reciprocally either, however, for the whales are presumably not deliberately having a water fight. Further research is required in this area.

Bardi also has a few pairs of verbs that differ only in the presence or absence of the initial or final component of the reflexive. These are lexical pairs; that is, these verbs exhibit frozen reflexive/reciprocal affixation. In the case of (12.40b), Metcalfe (1975b:96) has this verb marked as obligatorily suffixed, and records an example *ingimilbirinyijj* ‘it echoed’, although I have only *ingimilbirigal*, with no reflexive/reciprocal suffixation.

- (12.40) a. *-jilbira-* ‘sing’
 b. *-milbira-* ‘echo’

- (12.41) a. *Imandandina.* ‘He’s scratching himself.’ (root: *-mandanda-*)
 b. *Imandandinyjin.* ‘He’s scratching himself.’

In the case of (12.40) it is likely that the form with the reflexive prefixal component *m-* is fossilized, since *-milbira-* is not felt by speakers to be derived from *-jilbira-*.

3.4. Reflexive of *-joo-* ‘do/say’

Many complex predicates can be made reflexive/reciprocal by using the reflexive/reciprocal of the verb *-joo-* ‘do/say’, whatever the light verb of the non-reflexive complex predicate. The form is underlyingly *m-joo-inyji*, and due to deletion rules it surfaces as *-minyji-*. Examples of this construction were mostly collected from a single speaker in 2008, and did not occur in previous field trips. Therefore I am unable to judge how productive this might have been in the earlier language. These verbs admit both reflexive and reciprocal readings, and some, like (12.43), are idiomatic.

- (12.42) reflexives of *bany inamagal* ‘he shot (something)’

- a. *bany i-m-banji-gal*
shoot 3-PST-share-REC.PST
- b. *bany i-ngi-m-i-nyji-gal*
shoot 3-PST-REFL-do/say-REFL-REC.PST
‘He shot himself.’
- c. **bany i-nга-mа-m-inyji-gal*
shoot 3-PST-REFL-put-REFL-REC.PST

- (12.43) *anganangan injij* ‘she/he approached (something)’

- a. *anganangan i-nг-irr-m-i-nyji-gal*
approach 3-PST-AUG-REFL-do/say-REFL-REC.PST
‘She bumped into her *aloorr* (taboo relative).’

In some cases, the verb will admit reflexivization with the reflexive of *-joo-* ‘do/say’ but not with *-banji-* ‘share’. In other cases, such as (12.42) above, both are possible. It is not known what governs the difference.

- (12.44) *ankoorrankoorr inamagal* ‘s/he comforted someone’

- a. **ankoorrankoorr i-nг-arr-banji-gal*
mourn 3-PST-AUG-share-REC.PST
- b. *ankoorrankoorr i-nг-irr-m-i-nyji-gal*
mourn 3-PST-AUG-REFL-do/say-REFL-REC.PST

3.5. Monovalent roots and reflexive marking

Some monovalent stems in Nyulnyulan languages can take reflexive/reciprocal derivations, especially in conjunction with applicative morphemes. A example sentence from Nyikina is given in (12.45):

- (12.45) Nyikina

<i>Yi-ma-bula-nydyi-na-ngany</i>	<i>yibirrr</i>	... <i>inydya</i>
3-REFL ₁ -come-REFL ₂ -PST-APPL	king.brown	going
<i>yin-ba-na.</i>		
3-TR-see-PAST		

‘He came across a King Brown snake (*Pseudechis australis*) ... he saw it moving.’ (Stokes 1982a:288)

Stokes (1982a:287ff) describes this use of the reflexive as denoting ‘self-contained’ events; that is, actions that only significantly involve action between the subject and object. The only data I have on equivalent uses of the reflexive/reciprocal with monovalent roots in Bardi are the two forms given in (12.46) to (12.48) below.

- (12.46) *Lol ingirrmiidinyjigal.*

<i>Lol i-ngr-arr-m-iid-nyji-gal.</i>
burn 3-PST-AUG-REFL ₁ -go-REFL ₂ -REC.PST

‘They set each other on fire.’ (BOW-FN.12/26)

- (12.47) *Joodarrarr ingarrmalalinyjigal.*

<i>Joodarrarr i-ngr-arr-m-alal-nyji-gal.</i>
go.with.the.tide 3-PST-AUG-REFL ₁ wander-REFL ₂ -REC.PST

‘They went with each other, floating along with the tide.’

(BOW-FN.12/26)

Although the complex predicate in (12.47) is intransitive, and takes a single subject argument, the light verb it is derived from, *-galala-* ‘follow’, is bivalent. Thus this is not an unambiguous example of intransitive reflexive/reciprocal marking in Bardi. The example in (12.46) is from a monovalent light verb (and an intransitive complex predicate), but it is not unambiguously grammatical. One speaker accepted it, but another did not.

There is one further example:

- (12.48) *Darr ingarrmarinyjigal.*

*Darr i-n̪g-arr-**m**-ar-inyjī-gal.*
come 3-PST-AUG-REFL₁-spear-REFL₂-PAST

‘They met each other.’ (L51a.003)

This is the reflexive/reciprocal of the complex predicate *darr+ -ar-* ‘come’, which is intransitive, although the light verb root itself is bivalent (see further §13.8). However, although this form does indicate that reflexive/reciprocal marking may be compatible with intransitive predicates in some circumstances, it is very unclear whether the construction is equivalent to the one described by Stokes for Nyikina. There are too few examples to tell whether there is any notion of ‘containment’ in the actions denoted by the verbs (and how this would differ from other examples of reciprocal marking).

3.6. -*banji*- ‘share’

Reflexive/reciprocal morphology on an inflecting verb is generally used only in simple predicates. In complex predicates, the light verb -*banji*- ‘share’ provides the reflexive or reciprocal meaning. This is also found in other Nyulnyulan languages (an example is given from Nyikina in (12.49)¹⁶⁸).

- (12.49) Nyikina

*Dyub ngam-**barnji**-ny.*
cut 1(IT)-share-PST

‘I cut myself.’ (Stokes 1982a:291)

Examples (12.50) and (12.51) illustrate equivalent forms in Bardi. The first member of the pair is the regular verb, while the second form is the reflexive. In (12.51), we see an example with *both* the reflexive verb -*banji*- ‘share’ and the reflexive prefix *m*-.

- (12.50) a. *Maanka inamana.*

Maanka i-na-ma-na.
black 3-TR-put-REM.PST
‘He made it black.’

- b. *Maanka imbanjij.*
Maanka i-m-banj-ij.
 black 3-PST-share-REM.PST
 ‘He made/painted himself black.’
- (12.51) a. *loorrbooloorrboo inanggana* ‘he was talking past him, not listening’
 b. *loorrbloorrb ingarrbanjij* ‘they were arguing with each other’
 c. *loorrbloorrb ingorrmonjij* ‘they were arguing with each other’

While marking with *-banji-* is the most common way to form reflexive/reciprocal complex predicates, some complex predicates do admit morphological reflexive/reciprocal marking. A few examples are given below. In (12.52) the complex predicate *barn -joo-* is reflexivized with reflexive/reciprocal marking on the verb. In (12.53) the reflexive/reciprocal prefix is used on the verb *-banji-*.

- (12.52) *Barn ingiminyjin*, “*Arra ngalalaliyarr, loogal jirr ambooriny.*”

Barn i-ngi-m-inyji-n, “*Arra*
 think 3-PST-REFL₁-say-REFL₂-CONT NEG
nga-l-alali-ya=rr, loogal jirr ambooriny.”
 1-IRR-follow-FUT=3A.DO bad 3AUG.POSS person

‘He told himself, “I won’t follow them. They are bad people.”’

- (12.53) *Loorrbooloorrboo ingorrmonjij.*

Loorrbooloorrboo i-ng-orr-m-onj-ij.
 REDUP-argue 3-PST-AUG-REFL₁-share-MID.PFV

‘They are arguing with each other.’

3.7. Indirect reflexives: *=jin* ‘3M.IO’

The third person oblique clitic *=jin* can be used with a reflexive meaning. Examples are most common with *-joo-* ‘say’ and complex predicate derivatives which are also speech verbs (such as *barn -joo-* ‘think, tell oneself something’).

- (12.54) “*Jan injoogal?*” *angirrijin.*

“*Jan i-n-joo-gal?*” *a-ng-irr-i=jin.*

where 3-TR-do/say-REC.PST 1-PST-A-do/say-3MIN.IO

“Where did he go?” we asked (ourselves). (CT/26)

As shown by (12.54), =jin does not have to agree in person and number with its antecedent when used in this way. If it were agreeing with the subject, the verb form would be *angirrijarda* instead.

There are a few examples where =jin is used to mark reflexives of verbs which have dative objects. An example is given in (12.55). Note that the valency of this verb is not altered here, as the subject, *mayala* ‘goanna’, takes ergative case marking.

- (12.55) *Mayalanim inanggalbijin irdi.*

Mayala-nim i-na-ng-galbi=jin irdi.

goanna-ERG 3-TR-PST-dig=3MIN.IO burrow

‘The goanna dug himself a hole.’

Sentences such as (12.56) show that the third person minimal oblique pronouns are used more generally for indirect reflexives.

- (12.56) *Barnanggarr ginyingg ngaynimba ngamoonggoon gardamb nganjål agal ngankon ngandanjin mangir.*

Barnanggarr ginyingg ngay-nim=ba nga-moonggoon

now 3MIN 1MIN-ERG=REL 1-know

gard=amb nga-n-jal agal ngaank-on nga-n-d-an=jin

still 1-TR-see and language-LOC 1-TR-do/say-CONT=IO

mangir

always

‘I still see it in my mind and I always talk to myself about it.’

(LSI1.034)

- (12.57) *Gala ingarrgarnboonjinan.*

Gala i-ng-arr-garnboo-n=jinan.

well 3-PST-AUG-scold-CONT=3M.IO

‘They scolded each other.’

(L132.015)

4. Applicatives

The other valency-changing process in Nyulnyulan languages is applicative marking. Its basic function is to promote an oblique argument or an adjunct to the direct object position. In Bardi, the argument status of applied items is a little unclear, since although they may receive agreement marking on the verb, they do not have to lose their instrumental case marking. Moreover, though one case of applicatives alters transitivity marking on the verb, the most common applicative (applicative_2 , discussed in §12.4.2) does not.

The form of the applicative marker is *-ng* or *-nga*. There is a further (possibly compound) suffix *-nginj*, to be discussed further below. Some examples are given in (12.58) and (12.59).

- (12.58) *Roowil ingirrinyanang barda Iilonko barda Jawanan daab ingirrinyan jarri.*

*Roowil i-ng-irr-inya-na-**ng*** *barda Iilon-ko barda*
 walk 3-PST-AUG-catch-REM.PST-APPL away I.-ABL away
Jawanan daab i-ng-irr-inya-n *jarri.*
 J.-LOC climb 3-PST-AUG-catch-REM.PST this.

‘They walked off with [him] from Ilion and climbed up at Jawanan (a hill on Sunday Island).’ (GAL1.059)

- (12.59) “*Bilamb anggoorroomoogara biil ara noorroo, anggoorrooloor-roonginj noorroo.*”

*“Bilamb a-n^gg-oorr-oo-moogar-a biil ara nòorroo,
AGAIN-LINK 1-FUT-AUG-TR-make-FUT again other fire
a-n^gg-oorr-ooloorroo-**nginj** nòorroo.”
1-FUT-AUG-TR-kindle-APPL fire.*

‘We’ll make another fire and we’ll kindle another fire with it.’
(BNY)

Bardi is unusual in having two positions in which the applicative marker can appear. This does not occur to my knowledge in other Nyulnyulan languages, although it is found cross-linguistically (O’Herin 2001, Polinsky 2005). The two applicatives exhibit different syntactic behavior, although the form of the morpheme is identical. The first applicative transitivizes the verb (if it is underlyingly intransitive) and affects prefix morphology. Thus a verb

stem inflected with applicative₁ usually takes transitive imperative marking. This does not happen when the verb takes applicative₂ marking; in such cases, the verb prefixation remains intransitive. Some verbs can take both applicatives. Compare the difference in imperatives for the two applicatives of *-jiidi* ‘go’. The verb in (a) shows the transitive imperative prefix, while the (b) verb shows the intransitive one.

- (12.60) a. *an-jiidi-ng!* ‘touch it!’ (Applicative₁)
 b. *nga-yiidi-ng!* ‘go with him!’ (Applicative₂)

The second applicative has parallels in Abaza’s applicative construction (O’Herin 2001), which likewise does not alter the valency of the verb root. Applicative₁ appears only with monovalent roots, and serves to transitivize them, while applicative₂ may appear with either monovalent or bivalent roots.

The applicative₁ suffix often changes the meaning of the verb root. Neither applicative appears to be very productive, although this may be a feature of language loss. For example, speakers varied in which applicative verbs they would accept. Furthermore, grammaticality judgments were not consistent; speakers disagreed over which verbs were grammatical with the applicative₂ and speakers’ own judgments changed over time. In a 2008 field trip, no applicative constructions were judged grammatical and all sentences were replaced with circumlocutions.

I assume here that applicative₁ affects the valency of the root (and is thus a derivational process), while applicative₂ affects the transitivity of the predicate, but not the valency of the root. Since there are other areas of Bardi syntax where a distinction between root valency and clausal transitivity is useful, and since such a distinction has been proposed for other languages (see, for example, Margetts 1999), this seems to be the most parsimonious way to capture the differences in behavior between applicative₁ and applicative₂. It also allows us to explain why applicative₂ triggers ergative case on the subject of the clause (if no alteration in the transitivity marker *n-* ~ *a-* on the verb).

4.1. Applicative₁ *-ng*

The first (inner) applicative is attested with only a few roots. It occurs immediately adjacent to the verb root, before the reflexive/reciprocal suffix. All attested roots are given with examples in (12.61):

- (12.61) a. i. *inyjiidina* ‘he went [somewhere]’ (root: *-jiidi-* ‘go’)
ii. *injiüdingana* ‘he touched it’ (stem: *-jiidi-nga-*)
- b. i. *inanggalana* ‘he lived a long time ago’ (root: *-gala-* ‘visit, live’)
ii. *inanggalangana* ‘he helped him’ (stem: *-gala-nga-*)
- c. i. *imbooloona* ‘he came’ (root: *-booloo-* ‘come’)
ii. *imboolongan* ‘it came in (of tide); he came out at [a place]’ (stem: *-booloo-ng-*)
- d. i. *injooloona* ‘he collected it’ (root: *-jooloo-* ‘collect’)
ii. *injooloongana* ‘he collected it’ (stem: *-jooloo-ng-*)
- e. i. *injoona* ‘he said it’ (root: *-joo-* ‘do/say’)
ii. *birarr injoongana* ‘he left him behind’ (stem: *-joo-ng-*)

The semantics of the applicative₁ suffix are difficult to describe. There are too few examples, with too many irregularities, to allow us to develop a cohesive description. Like other derivational marking in Bardi, it is rather irregular.

One point on which the use of applicative₁ differs between verb roots is the argument structure. The applicative₁ seems not to affect the valency of every root it attaches to. For example, *-jooloo-* and *-jooloong-* are described as semantically indistinguishable by Bardi speakers, and both verbs have the same argument structure (2 arguments, ERG and ABS case frame). Likewise, the monovalent *-booloo-* ‘come’ does not appear to increase its valency with the addition of the applicative₁ in one meaning, although the derived root does have the additional meaning ‘come out at a place’, which is bivalent (and thus has been increased in valency).

4.2. Applicative₂ *-ng*

The second applicative marker is much more common. This suffix occurs towards the end of the suffix chain, between the continuative suffix and the recent past *-gal*.

4.2.1. Form

Applicative₂-marked verbs show intransitive morphology. The applicative can, however, affect the case marking structure of the clause. For example, the complex predicate *roowil -(i)nya-* ‘walk’ normally takes a single argument in the absolute. When combined with applicative₂, however, the subject is ergative:

- (12.62) *Aarlimarr injoolana roowilgid innyanang gala layoordoonim.*

Aarli-marr i-n-joola-na roowil=gid
 fish-WHILE 3-TR-collect-REM.PST walk-THEN
*i-n-nya-na-**ng** gala layoordoo-**nim**.*
 3-TR-catch-REM.PST-APPL₂ thus ghost-ERG

‘While she was collecting food, a *layoordoo* spirit was walking with her.’ (WIR.004)

- (12.63) *Nyoongoolnim aamba arra jagoord ooliningirr aalamalarr.*

Nyoongool-nim aamba arra jagoord
 old-ERG man NEG return
*oo-l-i-ni-**ng**=irr aala-malarr.*
 3-IRR-do/say-REM.PST-APPL₂=3A.DO man’s.child-sister

‘The old man didn’t come back with his children and sister [he stayed with his son in Derby instead].’ (GA/FN: S2/30)

- (12.64) *Joo ngayiidingij!*

*Joo nga-yiidi-**ng**-ij*
 2MIN 2.imp-go-APPL-PFV

‘Go with it!’ (CB11.28)

4.2.2. Uses

4.2.2.1. Goal applicatives

There are three uses of this suffix. The first is to promote oblique-marked goals to direct objects. Compare (12.65) below, where the sentence in (a)

shows oblique agreement, while the sentence in (b) shows the applicative and direct object agreement. In (12.66), the applicative acts as a transitivity and turns the intransitive predicate ‘jump [on]’ into a predicate where the goal is marked.

- (12.65) a. *Inangganajarda.*

I-na-n̄g-ga-na=jarda.

3-TR-PST-bring-REM.PST=1AUG.IO

‘He brought it to us.’

- b. *Inangganangamoord.*

I-na-n̄g-ga-na-n̄ga=moord.

3-TR-PST-bring-REM.PST-APPL₂=1A.DO

‘He brought us it.’

- (12.66) *Wirr inyjarrmining iilanim.*

*Wirr i-ny-jarrmi-ni-**ng** iila-nim.*

rise 3-PST-rise-REM.PST-APPL₂ dog-ERG

‘The dog jumped on him.’

(DRK.026)

4.2.2.2. Comitative applicatives

The second use of applicatives is their use in promoting an adjunct (in an accompaniment role) to direct object position. This is illustrated in (12.67), for example. In the (a) sentence, the adjunct *birrii* ‘mother’ is marked with the comitative case. In the equivalent (b) sentence, however, the verb is marked with the applicative *-ng*, the former adjunct is now marked in the absolute, and the subject pronoun, *ngayoo*, is marked with ergative case. Further illustration from texts is given in (12.68) and (12.69).

- (12.67) a. (*Ngayoo*) *bard roowil ngannyana birriinyarr.*

(Ngayoo) bard roowil nga-n-nya-na birrii-nyarr.

1MIN off walk 1-TR-catch-REM.PST mother-COM

‘I walked with my mother.’

- b. (*Ngayoonim*) *bard roowil ngannyanang birii.*
*(Ngayoonim) bard roowil nga-n-nya-na-**ng***
 1MIN-ERG off walk 1-TR-catch-REM.PST-APPL₂
birii.
 mother-ABS

‘I walked with my mother.’

- (12.68) *Sacrament bard ingarranang irrmorlon. Arrab birarr oolirrining.*

*Sacrament bard i-**ng**-arr-a-na-**ng***
 S. off 3-PST-AUG-carry-REM.PST-APPL₂
irr-morl-on. Arra=b birarr
 3A-hand-LOC. NEG-REL leave.behind
*oo-li-rr-i-ni-**ng**.*
 3-IRR-AUG-do/say-REM.PST-APPL

‘They carried the Sacrament with them in their hands. They didn’t leave it behind.’ (HHW.024)

- (12.69) *Ingananamarr baaloon, barnimarr inganana malygin inyjiminanang nyalaboo joorroonim.*

*I-**ng**-a-na-na-marr baal-oon, barni-marr*
 3-PST-sit-REM.PST=WHILE shade-LOC there-WHILE
*i-**ng**-a-na-na malygin*
 3-PST-sit-REM.PST secretly
*i-ny-jimi-na-na-**ng** nyalaboo joorroo-nim.*
 3-PST-sneak.up.onCONT-REM.PST-APPL₂ this.way snake-ERG.

‘While he was sitting there in the shade, while he was there a snake was sneaking up on him.’ (JMI.005)

The comitative applicative is by far the most common use of applicative₂ in my corpus.

The examples above show comitatives with participants of equal animacy (that is, people walking together), or examples where someone is carrying something. There are, however, broader uses of the comitative applicative, such as with the verb *-jala-* ‘see’, when the comitative refers to the object rather than the subject. (12.70) is an interesting example for the fact that the direct object agreement is first person rather than third person. That is, applicative agreement has not replaced the unapplied direct object in this example. See further §12.4.2.3 for discussion, and (12.71) for another example.

4.2.2.3. Instrumental applicatives

Finally, applicatives can be used to promote an instrument from adjunct to object status:

- (12.71) *inoomoondoona*^{nangjarrngayoo.}
*i-noo-moondoo-na-na-**ng**=jarrngayoo.*
 3-TR-wet-CONT-PST-APPL₂=1M.DO
 ‘He kept on wetting me with it.’ (Metcalfe 1975b:107)

(12.72) *Inamboonggal ginyinggin irrol.*
*I-na-m-boo-**ng**-gal ginyinggin irrol.*
 3-TR-PST-hit-APPL-REC.PST 3MIN-EXCL spear
 ‘He hit me with that very spear.’

4.2.3. Underlying direct objects

The examples in (12.70) and (12.71) raise an interesting property of Bardi applicatives, and applicative₂ in particular. The presence of *-ng* and the promotion of the instrument to direct object does not appear to demote the underlying direct object obligatorily, although it may do (as in example (12.72) above). When the applicative is added to a transitive verb, the underlying object can remain, and be cross-referenced by agreement. A further example is given in (12.73). This sentence is ambiguous as to which object is the direct object and which is the applied object.¹⁶⁹

- (12.73) *Injalangjarrngay.*
I-n-jala-ng=jarrngay.
 3-TR-see-APPL=1M.DO
 ‘He saw me with it.’ ~ ‘He saw it with me.’

The context of (12.73) was the situation in which the speaker had taken something from someone without asking permission in advance, but was subsequently spotted. This verb (and both translations) was given as a way to translate that situation into Bardi.

While (12.73) showed a form with direct object marking, (12.74) shows the alternative, with oblique agreement. As one can see from the example sentences in this section, both are found, and the difference between them is not currently known.

(12.74) *Onondingjirr.*

O-n-ondi-ng=jirr.

2-TR-cover=3aug.IO

‘Cover them with it.’

(AKL/F1)

It is possible that some of the variation in applicative marking is due to language attrition. Some work was done with speakers in 2003, but when I tried to do further elicitation in 2008, none of the examples I had previously elicited or gathered from texts were accepted as grammatical. Speakers no longer used the construction, and so further investigation was impossible. Thus this discussion is reliant on textual examples from 2003 and earlier, and syntactic comments are based on the small amount of data I elicited with Nancy Isaac in 2003, which concentrated mostly on morphological and semantic aspects of applicative marking (such as the difference between applicative₁ and applicative₂), rather than syntactic ones.

4.2.4. Instrumental case marking

A further interesting property of instrumental applicatives (but not comitative applicatives) is that the instrument can surface with instrumental marking (that is, still marked as an adjunct), even though applicative marking appears on the verb. Two examples are given in (12.75). (12.75a) shows an example with instrumental marking and applicative marking, while (12.75b) shows an example with absolute marking.

(12.75) a. *Baalnga ingorrendiningirr.*

*Baal-nga i-ng-orr-ondi-ni-**ng=irr**.*

bark-INS 3-PST-AUG-TR-cover-REM.PST-APPL=3A.DO

‘They covered them with bark.’

(Aklif 1994b:6)

- b. *Ginyinggamba ginyinggi gaarranimbi inambardining giny-ingg boonyja booroo ginyingg gaarra.*

Ginyinggamba ginyinggi gaarra-nim=bi
 that's.how 3MIN sea-ERG-REL
*i-na-m-barndi-ni-**ng*** *ginyingg boonyja booroo*
 3-TR-PST-cover-REM.PST-APPL 3MIN all land
ginyingg gaarra.
 3MIN sea

'That's where this water covered the whole country.' (FLD2.012)

- (12.76) *Goowanim inambardining mowarnnga.*

*Goowa-nim i-na-m-barndi-ni-**ng** mowarn-**nga**.*
 mermaid-ERG 3-TR-PST-cover-REM.PST-APPL hair-INS

'The mermaid covered him with her hair.' (AKL/F1)

- (12.77) *Yaalnga anama yaaga aarli ankalangjirr.*

Yaal-nga a-na-m-a yaaga aarli
 grease-INS 2.IMP-TR-put-FUT pool fish
*a-n-k-ala-**ng=jirr***.
 2IMP-TR-FUT-see-APPL=3A.IO

'Chuck the grease in the pool so we two will be able to see the fish in the pool.'

The applicative may also have an aspectual flavor. For example, when Nancy Isaac was describing the difference between the verbs *inambardigal* and *inambardinggal*, she said that the first one would be used in the case of e.g. throwing sand over someone or something, while the second would be used if one is covering something up 'for good' (CB15). Jessie Sampi made similar comments on a different occasion.

4.2.5. *Interaction with reflexive/reciprocal marking*

The applicative (especially applicative₂) may co-occur with reflexive/reciprocal marking. I have only a few examples; all are reflexive.¹⁷⁰

- (12.78) *Angorrmodordinyjing gaarrang.*
A-n̩g-or̩-m-odord-inyji-n̩g *gaarra-n̩g.*
 1-PST-AUG-REFL-REDUP-cover-REFL-APPLIC sand-INS
 ‘We cover ourselves with sand.’ (AKL-F1)

(12.79) *Ngay ngongomorndinyjining bililing.*
Ngay ngo-ngo-m-ornd-inyji-ni-n̩g *bilili-n̩g.*
 1MIN 1-PST-REFL-cover-REFL-CONT-APPL leaf-INS
 ‘I was covering myself with leaves.’

4.3. Applicative₃-*nginx*

Finally, some comments are warranted on the form variously recorded as *-nginj* or *-nginyj*.¹⁷¹ It appears to be a variant of the regular applicative₂, *-nga*. It is only used by one speaker consistently, and other speakers use it sporadically. An example was given in (12.69) above. (12.80) gives a few more examples:

- (12.80) a. *Arra jarrmin milinginj, jagoord anja!*
*Arra jarrmin mi-li-**nginj**, jagoord*
NEG rise 2-IRR-do/say-NGINJ return
a-n-j-a!
2.IMP-TR-do/say-FUT
'Don't go with him, come back!'

b. *Oogool anarr ngarranggoo langar aarli ankinyinginj.*
Oogool a-n-a=r *ngarranggoo langar aarli*
scatter 2.IMP-TR-give-3A.DO crab bait fish
*a-n-k-inyi-**nginj**.*
1+2-TR-FUT-catch-NGINJ
'Scatter the crab bait, so that we can get fish.'

There are several possible analyses for *nginj/nginyj*. Firstly, it could simply be a direct reflex of the Proto-Nyulnyulan comitative/instrumental, *-ngany*, plus the simultaneous action marker *-j*. Final *-ny is regularly lost in Western Nyulnyulan, but perhaps *-ny* was preserved in this context. This is rather

unlikely, however, as there are other contexts where **-ngany* was not in final position and the *-ny* was still lost (presumably through analogy). Also, we expect sequences of *NVNO* (that is, nasal-stop clusters preceded by a nasal) to be reduced to *NVO* through nasal dissimilation (thus we would expect **-ngij* if *nginj* were a direct reflex of **ngany-j*), and this points to an etymology with multiple morphemes.

The second possibility is that *-nginj* is the applicative₂ *-ng* plus a variant of the simultaneous marker *j*. This solution will fit semantically with almost all the examples. This solution is probably incorrect, however. Consider (12.81):

- (12.81) *Baybirr birarr nganjoonggalnginj.*

*Baybirr birarr nga-n-joo-ng-gal-**nginj**.*
behind leave.behind 1-TR-do/say-APPL₁-REC.PST-NGINJ

‘I left him behind.’

The verb in (12.81) contains both the recent past *-gal* and *-nginj*, and *-nginj* appears *after* the tense marker (cf. (12.65))—recall that applicative₁ and applicative₂ both appear *before* the marker. However, it is possible that the applicative has three positions: APPL₁ before the remote past *-na*, APPL₂ before the recent past *-gal*, and APPL₃ before the simultaneity suffix *-j*.

Some elicited examples of *-nginj* are said by speakers to have identical marking to corresponding sentences with applicative₂ marking.

- (12.82) a. *Roowil innyagalnginyji*

*Roowil i-n-nya-gal-**nginyji**.*
walk 3-TR-catch-REC.PST-NGINJ

‘He was walking with someone.’

- b. *Roowil innyanggal.*

Roowil i-n-nya-ng-gal.
walk 3-TR-catch-APPL₂-REC.PST

(BOW-FN.suppl)

- (12.83) a. *Inamboonggal.*

I-na-m-boo-ng-gal.
3-TR-PST-hit-APPL-REC.PST

‘He hit (something) with it.’

- b. *Inamboonginj.*
I-na-m-boo-nginj.
 3-TR-PST-hit-APPL-REC.PST

On the other hand, there is evidence that *-nginj* introduces a human comitative participant, and not an instrument, whereas APPL₂ can do both. As seen from (12.84), the verb *inamboonginj* can only admit a comitative reading; the instrumental reading is ungrammatical.

- (12.84) *Inamboonginj.*
*I-na-m-boo-**nginj**.*
 3-TR-PST-poke-NGINJ
 a. ‘He poked it with someone else.’
 b. *‘He poked it with something.’

(BOW-FN.suppl)

The example in (12.85) would appear to refute this, however. Here the applicative is promoting *dinggi*, ‘dinghy’, which is not an accompanying noun.

- (12.85) *Ginyingginim aamba imboorrngoogalnginj dinggi.*
*Ginyinggi-nim aamba i-m-boorrngoo-gal-**nginj** dinggi.*
 this-ERG man 3-PST-cross-REC.PST-NGINJ dinghy
 ‘The man crossed the river with a dinghy.’

(BOW-FN.suppl)

Jessie Sampi also provided spontaneous examples of *-nginj* with instrumental applicatives, such as (12.86) below.

- (12.86) *Diimb anamanginj stapler.*
*Diimb a-na-ma-**nginj** stapler.*
 join 2IMP-TR-put-APPL₃
 ‘Staple it together.’

On the other hand, there are other examples where the instrumental reading is ungrammatical:

- (12.87) **Joombaradi-ng bawin i-n-nya-gal-**nginj**.*
 knife-INS cut.up 3-TR-catch-REC.PST-APPL₃
 Intended: ‘cut it with a knife.’

In the absence of further information, I treat *-nginj* as an unanalyzable variant of the applicative₂ *-ng(a)*. We have no parallels for multiple positioning of the applicative suffix in other Nyulnyulan languages and there are no parallels for the form *-nginj* in Western Nyulnyulan languages.

5. Quasi-passives

As briefly described above in §5.3.1.2.3, Bardi has a construction whereby a causer acts on a patient; the causer receives ergative case marking, but the patient appears with subject cross-reference marking on the verb. The argument schema is set out in (12.88):

- (12.88) ERG_i ABS_j *j*-verb

This construction is found in all Nyulnyulan languages (to my knowledge), and has been described in some detail for Yawuru in Hosokawa (1996). Hosokawa calls this a quasi-passive, and I follow his term here. While the basic syntax of the construction is identical in both languages, the usage patterns vary. The Yawuru construction is used particularly with body parts, but as can be seen from examples such as (12.89c), in Bardi the usage is wider. Typical examples for Bardi are given below.

- (12.89) a. *Inkoorrnim alig ngandan.*
Inkoorr-nim alig nga-n-d-an.
 cold-ERG pain 1-TR-do/say-CONT
 ‘I feel cold.’ (Aklif 1994d:3)
- b. *Boolyja nganjij moorrgooloonim.*
Boolyja nga-n-j-ij moorrgooloo-nim.
 exhausted 1-TR-do/say-MID.PFV work-ERG
 ‘I am exhausted from work.’ (Aklif 1999)
- c. *Maanka injoogal gaara noorroonim.*
Maanka i-n-joo-gal gaara nòorroo-nim.
 black 3-[PST]-TR-do/say-REC.PST sand fire-ERG
 ‘The ground got black from the fire.’ (Aklif 1994b:4)

Just as Hosokawa (1996:166) states for Yawuru, in Bardi the quasi-passive construction only resembles passivization in that the patient argument appears to be promoted from direct object marking to subject marking. There

is no corresponding demotion of the ergative-marked NP. Moreover, the ergative-marked NP is not omitted from these constructions, even though both Yawuru and Bardi have few constraints on argument omission in general.¹⁷² As can be seen from (12.89c), the ergative-marked NP is peripheral; that is, while it may either precede or follow the verb, the patient is closer to the verb.

Quasi-passives are usually adversative; that is, they describe something that is negative to the patient, such as feeling sick, being burnt, or dying. The examples in §5.3.1.2.3 also conform to this generalization. The only example I have where the outcome is neutral rather than negative is (12.91), where a boy hides in the ashes of an old fire to escape an evil spirit. Even in this example, however, the outcome might be perceived to be negative, because once he walks back to his camp, his family mistakes him for an evil spirit because of the ashiness of his skin.

- (12.90) *Inkoorrnim ngangimilijarrngay.*

Inkoorr-nim nga-ngi-mili=jarrngay.
cold-ERG 1-PST-wake.up=1M.DO

‘Cold woke me up.’

- (12.91) *Dust'im inaman arrijin, namarda gala gajoordnim boolgar injoon.*

Dust'im i-na-ma-n arrijin, namarda gala gajoord-nim
dust.off 3-TR-put-CONT nothing just already ashes-ERG
boolgar i-n-joo-n.
white 3-TR-do/say-CONT

‘No one dusted him off, and the ash still made him look white.’

(BMF.013)

The quasi-passive construction does not freely alternate with active clauses in the language, although minimal pairs can be constructed. It thus has few properties of a real passive.

Chapter 13

Preverbs and Complex Predicates

1. Introduction

Complex predicate constructions are one of the most important components in the grammar of Bardi. Complex predicates appear in many sentences and outnumber simple predicates in absolute numbers by more than 3:1. They are even more numerous in texts. When verbs are borrowed, they are borrowed as preverbs in complex predicate constructions, not as inflecting verbs. Complex predicates are also productively formed from adjectives.¹⁷³

Complex predicates do not, however, form a homogeneous set. There are several different types, with different semantics, and with a light verb fulfilling different functional roles. Bardi seems to show idiomatic complex predicates, event classification, and a type of pseudo-incorporation of direct objects; each type of complex predicate involves different verbs and possibly different syntax. The complex predicate system should also be examined in the context of other types of verbal predicates in Bardi. After all, although complex predicates form a very important component of predicate formation in Nyulnyulan languages, they are not the only way to form verbal predicates and they should be treated as part of the syntax of predicates as a whole, both verbal and non-verbal.

Bardi's complex predicates comprise an inflected verb combined with an uninflecting preverb¹⁷⁴ which immediately precedes the light verb. There are almost 1000 recorded preverbs in the Bardi dictionary. About 30 inflected verbs may appear as light verbs in this construction, although only 10 are very frequent. One verb, *-joo-* 'say, do' accounts for about 40% of the possible preverb light verb pairs. Other common light verbs include *-ma-* 'put', *-ar-* 'spear (lice), pierce' the phonologically null root meaning 'give' (here represented by *-ø-*), and *-ni-* 'sit.'

The chapter begins with diagnostics for complex predicates and discussion of how argument role assignment is determined. In §13.6 I examine the composition of complex predicates in more detail. Specifically, I examine the semantics of light verbs and the contribution of the light verb to the predicate as a whole. I follow McGregor (2002) in considering the light verb to make a contribution to the classification of the preverb, although there are

aspects of his analysis which I cannot sustain for Bardi, and I argue that not all preverb-light verb constructions involve classification. It is also necessary to consider what contribution the light verb makes to the argument and event structures of the predicate. In §13.9 I propose that Nyulnyulan complex predicate constructions fit into a larger set of classificatory preverb-light verb complex predicates. Indeed, they fit a larger cross-linguistic pattern of the use of light verbs to mark one of four categories of what can be broadly called ‘event structure’. That is, I argue ultimately that one of the main functions of light verbs is to add an event variable to the structure of the predicate.

I follow Butt and Geuder (2001:325) in considering light verb constructions as a type of complex predicate which consists of a main lexical verb in combination with a lexically defective verb (of course not all complex predicates are V V constructions, and not all V V constructions are complex predicates). I assume Butt’s features of complex predicates (extracted from Butt and Geuder 2001:323-327; see also Butt 1995:2). The definition provided by Alsina, Bresnan, and Sells (1997:1) is similar: each component of the complex predicate contributes to the predicate information normally associated with a head.

The definition which Butt (1995:2) provides for complex predicates is given below in (13.1):

- (13.1) a. complex predicates are multi-headed: argument structure is complex;
- b. they are composed of more than one grammatical element, each of which contributes part of the information normally associated with a head;
- c. their grammatical functional structure, however, is that of a simple predicate;
- d. light verb structures can be formed lexically or syntactically.

Thus complex predicates are ‘complex’ because they consist of two (or more) constituents which do the work of a single verb; the functions of the predicate are spread across multiple constituents.

My presentation of Bardi complex predicates here is primarily descriptive. For example, I do not make formal arguments for an analysis of how preverb and light verbs each contribute to the argument structure of a predicate. I informally assume a unification analysis (see further Bowern 2008b,d, McConvell and Bowern 2011a, Wilson 1999). More specifically, I assume that

coverbs are able to contribute to the argument structure of a predicate, and that both the preverb and the light verb license arguments; however, preverbs lack information about event structure, and this makes them unable to surface in the syntax without a light verb which provides that information.

2. Tests for complex predicate status

In this section I examine the evidence for proposing that Bardi has X+V complex predicates. Tests involving constituent order are difficult to administer in Bardi, because constituent order is very free. Not every item that stands immediately before a light verb is a preverb. There are, however, a few constituency tests we can apply, in order to disambiguate preverbal constituents (for example, the object in sentences with surface order OV) from preverbs forming complex predicates. To test for predicatehood and predicate status we need tests that are associated with the functions of predicates. It is uncontroversial that thematic role assignment, clausal transitivity, and clausal aspect are determined by the head of the predicate, and furthermore that *Aktionsart* is also a property of predicate heads. The following sections provide evidence for complex predicate status, and the tests are specific to Bardi.¹⁷⁵

Tests for determining the preverb word class were given in §4.4 above. A list of verbs which may be light verbs in complex predicates was given in Tables 9.4 and 9.5 on pages 390–391 above. Discussion here will focus on the most common light verbs, repeated for convenience in Table 13.1 below.

Table 13.1. Most frequent light verbs

-Root-	Gloss	proportion of preverbs
<i>-ju-</i>	do, say	40%
<i>-ma-</i>	put	17%
<i>-ϕ-</i>	give	12%
<i>-(i)nya-</i>	catch	9%
<i>-ar-</i>	spear lice	7.5%
<i>-gal-</i>	move	4%
<i>-boo-</i>	hit	3.5%
<i>-jiidi-</i>	go	3%
<i>-ga-</i>	take, carry	2.5%
<i>-ni-</i>	be located	2%

2.1. Word status

Preverbs in Nyulnyulan languages are almost always independent phonological words. They have their own primary stress, as does the light verb. However, monosyllabic preverbs tend to cliticize to their inflecting verb. In (13.2) the preverbs *darr* ‘come, arrive’ and *arr* ‘come, go’ cliticize to their light verbs, *-ar-* and *-joo- ~ -di-* respectively. There is phonological reduction accompanying the cliticization here.

- (13.2) a. *da(r)narna* < *darr inarn* ‘he came’
 b. *andan* < *arr indan* ‘he’s coming-going’

This is evidence that the syntactic relationship between the two items is a close one. The only other words which regularly cliticize to a host are sentential particles and possessive pronouns (see §7.4).

Further indirect evidence for the word status of preverbs, particularly longer preverbs (where cliticization evidence cannot be used effectively), comes from native speaker intuitions. Speakers say of preverbs that they are a word on their own, but the word doesn't 'sound complete' without the accompanying inflecting verb. Speakers are also very reluctant to assign glosses to preverbs without an accompanying inflected light verb.

2.2. Sentential clitic placement

Further evidence that the preverb and light verb form a close unit comes from the placement of clausal clitics. These clitics, just as *=gid* ‘then’ and *=(j)amba* ‘that’s why’ are strictly placed after the first constituent in the clause. For example, if the first phrase in the clause is a complex noun phrase, the clitic occurs obligatorily after the first noun. This is illustrated in (13.3) (see also the discussion in §4.7):

- (13.3) a. *Ginyinggigid oorany bard ingarrayi booroojinangan.*
[Ginyinggi=gid oorany] bard i-^{ng}-arr-a-yi
 3MIN=THEN woman off 3-PST-AUG-take
booroo=jina-ngan.
 place=3MIN-ALL
 ‘They took this woman home.’ (CTSI/116)

- b. * *[Ginyinggi oorany]=gid bard i-n*g*-arr-a-*y*i*
 3MIN woman=THEN off
*booroo=jina-n*g*an.*
 3-PST-AUG-take place 3MIN-ALL

When a complex predicate is first in the clause, however, the clitic may appear attached either to the preverb or to the light verb. Speakers say that either order is possible and there is no meaning difference. Illustration is provided in (13.4). In these examples, the phrasal clitic is the allative case *-ngan* (see further §5.4.4). It is used in nominalizations and purposive clauses.

- (13.4) a. *Roowilngan manyan gornamb.*
*[Roowil]-**ngan** ma-nya-n gorn=amb.*
 walk-ALL GER-catch-CONT good=THUS
 ‘Walking is good/it’s good to walk.’ (NI: BOW-FN11/26)
- b. *[Roowil ma-nya-n]-**ngan** gorn=amb.*
 walk-ALL GER-catch-CONT good=THUS

Thus the individual parts of a complex predicate may be treated as a single constituent for the purposes of clitic placement.

2.3. Lack of decompositional semantics

The semantics of many preverb-light verb pairs can be decomposed into a preverbal component and the light verb. For example, it is easy to analyze those adjectives which combine with *-ni-* ‘sit, be, exist’ as involving a existential component and the preverb.

- (13.5) *maanka -ni-* ‘be black’ (cf. *maanka* ‘black (adj)’, *-ni-* ‘sit, be, exist’)

Many other preverb-light verb pairs, however, have highly idiomatic readings which must be listed phrasally in the lexicon. Two examples are given below.

- (13.6) a. *girringg -ar-*
 cough ‘spear’
 ‘cough’
- b. *girringgirringg -ar-* ‘cough up phlegm, expectorate’

- (13.7) a. *liyan -(i)nya-*
 heart ‘catch’
 ‘breathe’
- b. *liyan -ga-*
 heart ‘carry’
 ‘carry a grudge’
- c. *liyan -ma-*
 heart ‘put’
 ‘want something’

Reduplication of the preverb in a complex predicate usually causes a plurational or iterative reading. In (13.6), however, it is idiomatic and refers to the productivity of the cough. In (13.7) changing the light verb associated with *liyan* (which as a noun means ‘heart, feelings’ or ‘breath’) radically changes the meaning of the verb phrase. This implies that such collocations are stored in the lexicon as whole phrases.

2.4. Reduplication

Many adjectives cannot be reduplicated when they have a nominal complement, but reduplication is possible when they are functioning as preverbs, as shown in the following sentences. *Garrja* ‘sharp’ cannot be reduplicated when used attributively to a noun, but reduplication as a preverb is acceptable.

- (13.8) a. * *garrjagarrja jamooyoon*
 sharp-REDUP knife
 ‘a sharp knife’
- b. *Garrjagarrja anama!*
 Garrjagarrja a-na-ma!
 sharpen 2.IMP-TR-put-FUT
 ‘Sharpen it!’

(NI: CB/20.6:54)

This is true for many other adjectives and provides further evidence for a distinct class of preverbs. That is, the status as a preverb (as compared to an adjective) changes the derivational possibilities of the root.

2.5. Negation

Normally negation directly precedes the inflecting verb, as in example (13.9) below. Importantly, the only item which may intervene between the negator *arra* and the inflecting verb is the preverb, as illustrated in (13.10).¹⁷⁶ The reverse order is ungrammatical.

- (13.9) *Arra oolalana.*

Arra oo- l[a]- (j)ala -na
NEG 3.F/I-IRR- see -REM.PST

‘He didn’t see it.’

- (13.10) a. *Arra jiidara ngalamanajiy irrola.*

NEG bewitch 1-IRR-put-REM.PST=2MIN.IO spear.

‘I didn’t bewitch your spear.’

- b. * *Jiidara arra nga-la-ma-na=jiy irrola*
bewitch NEG 1-IRR-put-REM.PST=2MIN.IO spear.

bewitch NEG 1-JRR-put-REM.PST=2MIN.JO spear.

(CB/BE: 11/57)

This fact about negation placement provides us with a constituency test—an item is acting as a preverb if it appears between the negator *arra* and the inflecting verb. This allows us to disambiguate uses of adverbs and direct objects which can appear outside negation. In (13.11), for example, all orders with the order NEG + verb are acceptable, although the first is preferred.

- (13.11) a. *Arra joodarrarr oo-l-ala-na*

NEG with.the.tide 3-IRR-visit-REM,PST

‘He didn’t go with the tide.’

(BOW-FN.12/26)

- b. *Joodarrarr arra oo-l-ala-na*

with.the.tide NEG 3-IRR-visit-REM.PST

- c. *Arra oo-l-ala-na* *joodarrarn*

3. Argument and thematic role assignment

As seen in Chapter 12 above, I assume a model of grammar in which verbs control the type and number of arguments which in their clauses. No single

part of the complex predicate determines the number and type of arguments of the predicate. Nor is it the case that the preverb determines semantic roles (such as agent and patient), while the light verb licenses the number of arguments which may appear. The components of complex predicates jointly determine the argument structure of the clause. I use the term thematic role here to refer to the determination of the number and type of arguments in the clause.¹⁷⁷ In Bardi, we find that thematic role assignment is determined by a combination of the verb morphology (transitivity marking and applicative suffix), the light verb, and the preverb. There appear to be complex predicates which differ in the roles assigned to arguments, where in each case a different part of the complex predicate is responsible for the change in role assignment. These facts are described below.

First, inflectional verb morphology may change thematic role assignment. The addition of *-nginj*, for example, adds a role to those assigned within the complex predicate, as shown in (13.12) below:

- (13.12) a. *Yoorr a-na-ma!*
 come.down 2.IMP-TR-put-FUT
 ‘Come down!’ (1 semantic role; agent)
 b. *Yoorr a-na-mi-**nginji!***
 come.down 2.IMP-TR-put-APPL
 ‘Come down with him!’ (2 semantic roles; agent, accompanier)

In (13.13), we see that the use of a different light verb changes the thematic role assigned to the subject of the clause. The preverb is *abarrabarr*, which as a noun means ‘confusion’. When combined with the light verb *-ma-* ‘put’, it means ‘to be careless’, and the single role is a theme. When the light verb is *-ga-* ‘carry’, however, two thematic roles are assigned, an agent and a patient. Thus both transitivity and thematic role composition are affected here.

- (13.13) a. *abarrabarr -ma-* ‘to be careless’
 b. *abarrabarr -ga-* ‘to lead someone astray’

Finally, the choice of preverb also alters the roles licensed by the predicate. In (13.14) we keep the same light verb, *-(i)nya-* ‘catch’, and change the preverb. Reduplicating the preverb can also change the thematic structure of the predicate, as shown in (13.15).

- (13.14) a. *niyarra -(i)nya-* ‘taste something’ (experiencer)

- (13.15) b. *roowil -(i)nya-* ‘walk’ (agent)
- a. *anggoorr -ma-* ‘mourn for someone’ (experiencer)
- b. *anggoorranggoorr -ma-* ‘comfort someone’ (agent)

The pairs given in the previous few examples highlight the fact that thematic role assignment can be determined by several parts of the predicate.

3.1. Aspect/Aktionsart

In aspect and Aktionsart marking, no single part of the predicate is responsible, and distinctions can be marked by the choice of light verb, the preverb, or the inflecting verb morphology.

In (13.16), we see that the continuative *-n* or the middle perfect *-ij* determines aspect for the whole predicate. The (a) sentence shows a general, unmarked non-punctual event (the sentence could also be translated ‘as soon as I’m walking...’), while the (b) sentence shows one that is completed.

- (13.16) a. *Aaman roowil ngannyan, gala inngoorroobinngay iilanim.*
Aaman roowil nga-n-nya-n, gala
 as.soon.as walk 1M-TR-catch-CONT, right.then
i-n/ngoorroo-bi-n=ngay iila-nim.
 3MIN-chase-1MIN.DO dog-ERG
 ‘As soon as I go for a walk, the dog chases me.’
- b. *Moonboorran roowil innyij.*
Moonboorran roowil i-n-ny-iij.
 towards.speaker walk 3-TR-catch-MID.PFV
 ‘He came towards me.’

In (13.17), however, we see that the light verb can also be responsible for contributing aspectual information. The use of *-jarrala-* ‘run’ with the preverb *joornk* ‘run’ contributes a specifically inceptive reading to the complex predicate, whereas *-(i)nya-* ‘catch’ does not.

- (13.17) a. *Joornk innyana.*
Joornk i-n-nya-na.
 run 3MIN-‘put’-REM.PST
 ‘He ran away (quickly).’

- b. *Joornk inyjarralana.*
Joornk i-ny-jarrala-na.
 run 3MIN-run-REM.PST
 ‘He took off with speed.’

Finally, we see from (13.18) the reduplication of the preverb also changes aspect. Reduplicated preverbs often signal iterative, repetitive or pluractional actions. The example in (13.18) is iterative.

- (13.18) a. *Bany inamana boorroo.*
Bany i-na-ma-na boorroo.
 shoot 3MIN-put-PST kangaroo
 ‘He shot the kangaroo.’
- b. *Banybany inamana.*
Bany-bany i-na-ma-na.
 shoot-REDUP 3MIN-put-PST
 ‘He kept on shooting [it].’

In (13.16), the tense/aspect suffix changes the aspect of the clause. In (13.17), the choice of light verb determines whether the reading is completive or inceptive. In (13.18), it is the reduplication of the preverb which provides the iterative reading.¹⁷⁸

4. Valency and transitivity in complex predicate constructions

In examining how many arguments a predicate may take, we find again that this can be altered by the appropriate choice of verb morphology, light verb, or preverb. The applicative suffix *-ng*, for example, promotes an oblique argument to a direct object. Remember from Chapter 12 that valency-changing verbal morphology is limited in Bardi to the reflexive/reciprocal circumfix *m- -inyja*, which makes inflecting verbs structurally monovalent, and the applicative *-ng*, which can be added to transitive or intransitive stems to derive a new transitive verb by promoting an oblique adjunct to a direct object.¹⁷⁹

In (13.19) and (13.20) we see some of the results of adding valency-changing morphology to a verb stem. In (13.19) the preverb is *barn*; using the active form of the verb *-joo-* results in a complex predicate meaning ‘tell

someone to do something.' In (13.19b), however, we see that adding the reflexive circumfix removes an argument from the entire predicate. In (13.20) we see an example of argument addition, by means of the applicative suffix *-ng(a)*.

- (13.19) a. *Barn injoogaljarrngay.*

Barn i-n-joo-gal=jarrngay.
tell 3-PST-do/say-IMPERF-1M.DO
'He told me to do something.'

- b. *Barn ingiminyjigal.*

Barn i-ngi-m-inyji-gal.
tell 3-PST-REFL₁-‘do/say’-REFL₂-IMPFV
'He thought about it.'

- (13.20) a. *Diird injoogal.*

Diird i-n-joo-gal.
go/run away 3-PST-do/say-IPFV
'He went away.'

- b. *Diird injoonggal.*

*Diird i-n-joo-**ng**-gal.*
go/run away 3-PST-do/say-APPL₂-IPFV
'He went with someone.'

In (13.21) and (13.22) we see that the light verb also affects the transitivity of the predicate. The examples in the (a) sentences are intransitive and show a single argument, while the (b) sentences have two arguments and are transitive.

- (13.21) a. *Boorroolboorrool oonkara oola.*

*Boorroolboorrool oo-n-k-**ar-a** oola.*
boil-REDUP 3MIN.FUT-spear-FUT water
'The water will boil.'

- b. *Boorroolboorrool oonkama oola.*

*Boorroolboorrool oo-n-ka-**ma** oola.*
boil-redup 3MIN.FUT-put-FUT water
'He/she will boil the water.'

- (13.22) a. *goojaj -joo-* ‘to feel weak’ (one argument)

- b. *goojaj -ma-* ‘to make someone weak’ (two arguments)

Finally, we see from (13.23) and (13.24) that the preverb also controls aspects of the transitivity of the predicate. The examples provide two light verbs whose non-light counterparts are bivalent. The resulting complex predicates, however, are either transitive or intransitive, depending on the preverb:

- (13.23) *-ma-* ‘to put’ (2 obligatory arguments)
- a. *jiibard -ma-* ‘to sneak up’ (1 argument)
 - b. *niya -ma-* ‘to rest’ (1 argument)
 - c. *oona -ma-* ‘to defecate’ (1 argument)
 - d. *wajim -ma-* ‘to wash something’ (2 arguments)
- (13.24) *-(i)nya-* ‘to catch, to pick up’ (2 obligatory arguments)
- a. *ngalar -(i)nya-* ‘to have one’s eyes open’ (1 argument)
 - b. *marrmarr -(i)nya-* ‘to flash’ (1 argument)
 - c. *galgooriny -(i)nya-* ‘to swim breaststroke’ (1 argument)
 - d. *roowil -(i)nya-* ‘to walk’ (1 argument)
 - e. *joony -(i)nya-* ‘suck something’ (2 arguments)
 - f. *bawinbawin -(i)nya-* ‘cut up something’ (2 arguments)

It would be possible to argue that the preverb occupies an argument slot of the inflecting verb for some of the above examples. However, it requires a very forced interpretation in many cases. There is no evidence, for example, that speakers analyze *bawinbawin -inya-* as ‘catch a cutting’. It also leaves us with the problem of what to do with the formally intransitive verbs that take preverbs in addition to their external argument, such as *-ni-* ‘sit’ and *-jiidi-* ‘go’. There are also transitive light verbs that take two arguments (e.g. *garboo -ma-* ‘to dig around something’), but no evidence for ditransitive verbs in the language. If the preverb were occupying the object slot of the verb argument structure (or saturating the patient role), the following examples would be ungrammatical, but they are good.

- (13.25) *Garboogarboo anggarraman ginyingga bardag.*

Garboo-garboo a-n gg-arr-a-ma-n ginyingga bardag.
dig.around-REDUP 1-FUT-AUG-TR-put-CONT that tree.

‘We would keep digging around that tree.’ (Metcalfe 1975a:*garboo*)

- (13.26) *Aambanim boor inamboogaljin goorlil.*

Aamba-nim boor i-na-m-boo-gal=jin goorlil.
 man-ERG ‘ground’ 3-TR-PST-poke-REC.PST=3M.IO turtle.

‘The man missed the turtle.’

In §13.8 below I return to this question and provide an analysis.

5. Light verb derivation

A further argument in favor of a complex predicate analysis is that some light verbs change their behavior in preverb-inflection verb constructions. For example, the verb *-banji-* ‘to share’ can be reduplicated when it is not being used as a light verb. The same verb is ungrammatical reduplicated in a light verb construction:

- (13.27) a. *ingarrbanjanji*

i-ng-arr-banjanji
 3-PST-AUG-REDUP-share

‘They (all) shared it.’

- b. **maanka ingarrbanjanji*

[intended: ‘they kept on making each other black’]

(CB-FN3)

Light verbs more generally show very limited possibilities for derivation. No light verbs can be reduplicated, except for *-gala-* ‘move’, which does combine with a few preverbs even when reduplicated (however, it is possible to argue that the reduplicated use of *-gala-* is not a productive derivation but a distinct use of the reduplicated full verb as a light verb; see further §13.9.2.6). Light verbs do not generally allow reflexive/reciprocal derivation either, again with a single exception, that of *-joo-* ‘do, say’, whose reflexive/reciprocal form *-m-inyji-* can be used in a limited way to derive reflexive/reciprocal complex predicates. This is described in more detail in §12.3.2. The possibilities for applicative derivations are also highly circumscribed. Thus in summary, light verbs do not participate in most of the valency and argument structure alternations that characterize other inflecting verbs.

6. Syntax of Bardi complex predicates

We have already seen a great deal of the behavior of Bardi complex predicates in the previous section. In this section I discuss in detail additional topics which do not fall under the heading of demonstrating that the construction in question is a complex predicate.

6.1. Constituent order within complex predicates

There is considerable variation in the extent to which preverbs and their light verb may be separated among Nyulnyulan languages. The order of preverb and light verb is much more rigidly fixed in Bardi than might be supposed from descriptions of other Nyulnyulan languages. We also find statements, however, that the ‘normal order’ in all Nyulnyulan languages for preverb and light verb is preverb—light verb, and alternative orders are seldom found (Hosokawa 1991, McGregor 1994b, 1996b).

In Bardi, it appears that the only time a preverb may be moved around the clause is when it is an ‘adverbial’ preverb and the meaning of the complex predicate is strictly compositional. (13.11) is repeated below as (13.28), which shows varying order for the preverb and the rest of the complex predicate. The ‘preverb’ is bolded

- (13.28) a. *Arra joodarrarr oolalana.*
*Arra **joodarrarr** oo-l-ala-na.*
 NEG with.the.tide 3-IRR-visit-REM.PST
 ‘He didn’t go with the tide.’
- b. *Joodarrarr arra oolalana.*
***Joodarrarr** arra oo-l-ala-na.*
 with.the.tide NEG 3-IRR-visit-REM.PST
- c. *Arra oolalana joodarrarr.*
*Arra oo-l-ala-na **joodarrarr.***
 NEG 3-IRR-visit-REM.PST with.the.tide

Given this strong restriction on constituency, the cases illustrated in (13.28b) and (13.28c) are probably not complex predicates within the strict definition of the term, and *joodarrarr* is acting as a straightforward adverb in such cases, despite the same meaning of (13.28) and the other clauses. Note that a strictly

compositional interpretation of (13.28b) is ‘he didn’t go around with the tide,’ which is identical in meaning to the more idiomatic complex predicate. The other examples of variable ‘preverb’ ordering in Bardi are all such cases, where the preverb and light verb meanings are strictly compositional.

There are further examples where the preverb–light verb ordering is important and contributes to a change in meaning in the predicate: contrast between *garndi+ -ma-* (complex predicate) ‘make it high’ vs. *-ma- garndi (gaalwon)* ‘put it on top’; the latter, as illustrated in (13.29), is analytical, and not a complex predicate at all.

- (13.29) *Ingarramagal garndi goorlil gaalwon.*

I-nга-rra-mа-gal garndi goorlil gaalw-on.
3-PST-AUG-put-REC.PST top turtle raft-LOC

‘They put it on top of the mangrove raft.’ (CB-FN07/1)

6.2. Preverb conjunction

Discussion of conjunction is provided in §16.4. In contrast with the conjunction of noun phrases, whole verb phrases, and clauses, preverb conjunction never occurs in spontaneous speech. The conjunction of preverbs with *agal* ‘and’ is very rarely accepted. A few examples were considered grammatical; these are given in (13.30). Much more often, however, examples with this structure which were presented to speakers were rephrased, either with two complex predicates joined by *agal* ‘and’, or using two verb phrases with no overt conjunction. The examples in (13.31) show the preferred pattern of conjunction.

- (13.30) a. *Bilirl agal girringg nga-n-ar-ij bardi.*

[Bilirl agal girringg] nga-n-ar-ij bardi.
yawn and cough 1-TR-spear-MID.PFV yesterday

‘I yawned and coughed all day yesterday.’ (NI: BOW-FN.3/47)

- b. *Jooyiboon wiinya i-n-j-ij agal rambin.*

Jooyiboon wiinya i-n-j-ij agal rambin.
pot full 3-TR-do/say-MID.PFV and heavy.

‘The pot got full and heavy.’

- (13.31) a. *Bilirl nganarij bardi agal girringgirring nganarij.*
Bilirl nga-n-ar-ij *bardi* ***agal*** *girringgirring*
yawn 1-TR-spear-MID.PFV yesterday and cough
nga-n-ar-ij.
1-TR-spear-MID.PFV
- ‘I yawned and coughed all day yesterday.’ (= (13.30a))
- b. *Liyan alig injinin agal diirdamb inin.*
Liyan alig i-n-j-ij=in=in ***agal*** *diirdamb*
heart sore 3-TR-do/say-PFV=3.IO and away=THUS
i-ni-n.
3-be-CONT
- ‘He got angry and left.’

(13.30a) shows a genuine conjunction of preverbs before the verb. The bracketing is:

- (13.32) [[*Bilirl agal girringg*] _{pv} *nganarij*] V *bardi*] IP.

In (13.30b), however, we would appear to have a gapped second verb, or movement of part of the phrase, stranding the second preverb (I prefer an analysis, if this is a complex predicate, where the second verb *injij* is understood).

Note that in (13.31b) the preverb *diird* ‘leave’ can take either *-joo-* ‘do/say’ or *-ni-* ‘be’ as its light verb. If true preverbs can be freely conjoined in Bardi, there should be no reason why a phrase such as *liyan alig agal diird injijin* should be ungrammatical. The fact that the only possible conjoined preverbs are also members of other word classes, and even then that the unjoined phrase is preferred, should be a clue that the ‘preverbs’ in such cases are probably not functioning as preverbs.

6.3. Multiple preverbs

There are a few instances in Bardi of constructions where the preverb appears to be a multi-word phrase. Representative complex predicates are given in (13.33). The phrases in (13.33) have been identified as complex predicates on the basis of intonation and negation.

- (13.33) a. *bard arr -joo-*
 off go do/say
 ‘go off’
- b. *bard roowil -nya-*
 off walk catch
 ‘walk off’
- c. *liyan layib -ma-*
 heart well put
 ‘make someone happy’
- d. *liyan loogal -joo-*
 heart bad do/say
 ‘be upset’
- e. *liyan loogal -ma-*
 heart bad put
 ‘make someone [IO] angry’

Such preverbs fall into two types. In the first, the first preverb is an adverb, usually *bard* ‘away, off’. In the second type, the second verb in the preverbal construction modifies the first.

6.4. Referential status of preverbs

Preverbs can be derived from different word classes, including nouns. Denominal preverbs are fairly clearly non-referential in almost all contexts. For example, they never allow modification with a demonstrative or adjective, and examples like ‘I message-sent sad’ (for ‘I sent a sad message.’) are only found when the adjective is functioning adverbially. There are two possible exceptions to this. The first involves the phrase *jawal -ma-* ‘tell a story’ (literally ‘story put’). Examples such as (13.34) appear at first site to have a preverb (*jawal* ‘story’) that is modified by an adjective *moorroolangarr* ‘little’.

- (13.34) *Jawal nganman jarri moorroolangarr.*

Jawal nga-n-ma-n jarri moorrool=angarr.
 story 1-TR-put-CONT this little=only

‘I’ll tell this story, just a little one.’

There is reason to believe, however, that *jawal -ma-* is an idiom, rather than a complex predicate.¹⁸⁰ The components of the idiom occur in the opposite order; that is, *jiiba nganman jawal* ‘I’ll tell this story’ is also a frequent way to start a narrative. Furthermore, instead of *-ma-* ‘put’, it is possible to use the verb *-jilngi-* ‘tell’, which is a full lexical verb, not a light verb. Third, since this is the only preverbal item which appears to have referential properties such as demonstrative or adjectival modification, it is likely that this construction is an idiomatic noun + verb combination, not a true complex predicate.

The only other potential preverb class with referential properties comprises those preverbs, discussed in §13.6.7.2 below, which are inalienably possessed nouns. (13.35) provides an example with the noun *+ga* ‘back’, which here appears with first person minimal marking.

- (13.35) *Ngaya ngankama wiira.*

Nga-ya nga-n-ka-m-a wiira.
1M-back 1-FUT-TR-put-FUT little.while

‘I am going to rest for a little while.’

I tentatively assume here that *ngaya* ‘my back’ is not strictly referential here, but rather is receiving its possessive agreement marking from the subject of the verb. Further research in this area is needed, however.

6.5. Independent usage of preverbs

There is little independent usage of preverbs without their inflecting verb in Bardi.¹⁸¹ In the modern language, the only preverbs which may be used without a light verb are those which have cognates in other word classes, and which form compositional complex predicates. In (13.36), for example, the sentence could probably be equally well translated ‘he walked away with a song’. In (13.37), the phrase is *bangalonngan oogool* ‘for scattering in the crevices’, where *oogool* is the preverb. The only inflecting verb in the sentence, *irrjimbin* ‘they die’, is in a different clause. I thus assume that these are not true complex predicates.

- (13.36) *Roowil innyij jirrmanyarr.*

Roowil i-n-ny-ij *jirrma-nyarr.*
walk 3-TR-catch-PFV singing-COM.

'He walked away singing.' (Aklif 1994a:E0/11)

- (13.37) *Banyjoord gorna bangalonngan oogool irrjimbinjamb aarli. Gaany-gayoonaamb banyjoord.*

Banyoord gorna [bangalon-ngan oogool]
fish.poison good reef.holes-ALL/PURP scatter
i-rr-jimbi-n=jamb aarli. Gaanyga-yoon=amb
3-AUG-die-CONT=THUS fish. mainland-SOURCE-THUS
banyoord.
fish.poison

‘Banyjoord poison root is used for scattering in crevices of reefs so that the fish die. It’s from the mainland.’ (Aklif 1999:banyjoord)

- (13.38) *Jooboolngan jirra.*

Joobool-ngan *jirra.*
swimming-ALL/PURP 3AUG.POSS

'They are going swimming.' (BOW-FN.12/26)

When the preverb exists only as a preverb, the inflecting verb may not be omitted and must appear with gerund inflection. (13.39) illustrates this with the preverb *roowil* ‘walk’.

Another good test for nominal status is presence in the phrase of *gorna jina X*, meaning ‘his/her X is good’. Only independent nominals can appear in this frame, preverbs, verbs, particles and adjectives cannot. Although *roowil* fails all other nominal tests, including the use of a preverb without a light verb, it passes this one: *gorna jina roowil* ‘his walk is good’ was acceptable.

There are some hints from the Laves data that the use of preverbs without light verbs used to be a little freer in Bardi. There are a few examples of the preverb *roowil* ‘walk’ without a light verb, and with other preverbs (e.g. as illustrated in (13.40)):

- (13.40) *Jama, gala jawa barda gaalwa galgoorriny.*

Jama, gala jawa *barda gaalwa galgoorriny.*
 well thus 1+2MIN.IO off raft swimming

‘Well, let’s us two swim together, floating on the catamaran.’

(L129.015)

McGregor also reports the use of preverbs without light verbs in Nyulnyul. In the Eastern Nyulnyulan languages, the situation is rather different. There are several constructions where the preverb may be used independently, as seen from the Nyikina example in (13.41).

- (13.41) Nyikina

Gurd nga-rra-ma gab-dyunu mangarriy-dyunu.
 die 1MIN-IRR-go eat-INAN.SOURCE food-INAN.SOURCE

‘I might die from eating the food.’

(Stokes 1982a:144)

Finally, it is worth noting that the oldest Bardi speakers, who regularly codeswitch between English and Bardi, occasionally use Bardi preverbs in an English or Kriol frame. In (13.42), for example, the preverb *garr* ‘rub’ has been used as a Kriol verb root would, complete with past tense marker *bin* and transitivity marker *'im*.

- (13.42) They bin *garring*'im. (They were rubbing it.)

(NI)

Compare also the discussion in Schultze-Berndt (2000:143) for similar examples from Jaminjung speakers. I do not have a large enough set of examples to draw any conclusions for Bardi.

6.6. Applicatives and complex predicates

An interesting feature of complex predicates in Bardi is that the applicative₂ is not productively used with them, even in cases where we might expect them

to be grammatical, judging by the evidence of their use in simple predicates. Consider the sentences in (13.43). The (a) sentence shows a verb without the applicative, while the (b) sentence is with the applicative.¹⁸²

- (13.43) a. *Maanka inamana*
Maanka i-na-ma-na.
 black 3-TR-put-REM.PST
 ‘He made it black.’
- b. *Maanka inamanang.*
Maanka i-na-ma-n-ang.
 black 3-TR-put-REM.PST-APPL₂
 ‘He left a black thing with them.’
 *‘He made it black with something/someone.’
- (Speaker’s translation: ‘He bin leave that *maanka longa* them.’)

The translation in (13.43b) was given by the speaker, Nancy Isaac. Using the applicative with this complex predicate forces a reading where *maanka* ‘black’ is not a preverb, but rather an adjective modifying an assumed noun (recall from §4.2 and (4.6) that adjectives may be used without an accompanying noun if the discourse referent is already established). The root *-ma-* is also interpreted in its non-light meaning ‘put’, rather than its light verb meaning, where it often acts as a causative.

Some light verbs can combine with the applicative, however:

- (13.44) *Roowil innyanang.*
Roowil i-n-nya-n-ang.
 walk 3-TR-catch-REM.PST-APPL₂
 ‘He walked with someone.’

In other cases the applicative of a complex predicate produces a non-compositional meaning (cf. (13.43) above). In (13.45) the non-applicative (intransitive) version means, innocuously, ‘they are living in the same camp’. When the same complex predicate is used with the applicative, however, the phrase means ‘they are having an orgy’:

- (13.45) a. *gir irral* ‘they’re living in a place [together]’ (group of people sharing a camp)
 b. *gir(gir) ingarralanggal* ‘they’re having an orgy’

6.7. Inflection of preverbs

6.7.1. Aspect marking

In the other Nyulnyulan languages, and indeed in many of the languages of Northern Australia, preverbs inflect for aspect. In Yawuru, for example, they may take *-kadya*, which is an intensive marker. In Nyulnyul the equivalent morpheme is *-garra*.¹⁸³ In the Daly River area of the Northern Territory, *-ma* is commonly used (see further Wilson 1999) to mark completive aspect.

In Bardi, however, the inflection which preverbs may take is highly limited. The only even remotely productive derivation which some preverbs may undergo is reduplication.¹⁸⁴

Preverbs cannot usually take the adjectival intensive marker *=gij*; instead an adverb *ngarrigij* is used. The few preverbs that seem to contain *=gij* may be fossilized (e.g. *abarrabarrgij* ‘difficult’, where *abarrabarr* is a noun meaning ‘confusion’, not an adjective).

- (13.46) *Ngarrigij boorrooboorr inyjiid nyimarl.*

Ngarrigij boorrooboorr i-ny-jiid nyi-marl.
very-VERY swell 3-PST-go 2M-hand.

‘Your arm got too/very swollen.’ (BOW-FN3/67)

- (13.47) * *boorrooboorr=gij i-ny-jiid nyi-marl.*
swell=VERY 3-PST-go 2M-hand.

Although it seems that there is no active derivation which targets the preverb position, this does not mean that no inflected items can be preverbs. In fact, two forms of inflection are found on preverbs. The first is inalienable possession markers; the second is case marking.

6.7.2. Inalienable possession

Recall from §4.2 and Table 4.1 that Bardi has a set of inalienably possessed nouns which take prefixes for the person and number of the possessor (cf. *ngalma* ‘my head’, *nyalma* ‘your head’, etc). Several of these inalienably possessed nouns can be used as preverbs in complex predicate constructions. A representative sample is given in the following examples:

- (13.48) a. *+ga* ‘back’

Ngaya ngankama wiira.

Nga-ya nga-n-ka-m-a wiira.
 1MIN-back 1-FUT-TR-put-FUT little.while

‘I am going to rest for a little while.’

- b. +*moonggoon* ‘knowledge’

Ooranym ngamoonggoon ingarramij ngaanka.

Oorany-nim nga-moonggoon

woman-ERG 1M.POSS-knowledge

i-ng-arr-a-m-ij ngaanka.

3-PST-AUG-TR-put-MID.PFV language.

‘The women taught me language.’

- (13.49) +*lamarr* ‘ear’ (= ‘promise’)

- a. *Ilamarr ngannyagal bard ngankaya Broomengan.*

I-lamarr nga-n-nya-gal bard nga-n-ka-y-a
 3A-ear 1-TR-catch-REC.PST off 2-TR-FUT-carry-FUT
Broome-ngan.

B.-ALL

‘I promised [them] yesterday that I’d take him across to Broome.’

- b. *Ngalamarr innyagal.*

Nga-lamarr i-n-nya-gal.
 1M-ear 3-TR-catch-REC.PST

‘He told me to [e.g. he said I gotta go fishing tomorrow with him].’

- c. *Arra ngalamarr oolinyanangay.*

Arra nga-lamarr oo-l-inya-na=ngay.
 NEG 1M-ear 3-IRR-catch-REM.PST=1M.DO

‘He didn’t promise me.’

- (13.50) +*nga* ‘name’

Angan irrnga innyan aloorrninga jinarr? Arrajina wiini.

Angan irr-nga i-n-nya-n aloorr=ninga jina-rr?

why 3A-name 3-TR-catch-CONT in-laws=EMPH 3M.POSS-3A?

Arra-jina wiini.

WITHOUT respect.

‘Why does he call his *aloorr* (in-law) by name? He’s not showing any respect.’ (NI: AK/FN E3/41)

The use of agreeing possession prefixes on the preverbs seems to be optional; in (13.51) and (13.52), for example, the preverb takes default, third person minimal agreement (*ni-*) rather than agreeing with any particular participant.

- (13.51) +ngarrarda ‘spirit’ (= ‘believe’): *Ningarrarda anamajin gala injil-
nganjirri jawal.*

Ni-ngarrarda a-na-ma=jin *gala*
3M.POSS-spirit 2.FUT-TR-put-FUT=3MIN.IO COMPLETE
i-n-jilnga-n=jirri *jawal.*
3-TR-tell-CONT=2MIN.FOC.DO story.

‘You can believe the story he tells you.’

- (13.52) +jarra 'taste': *Niyarra ngankinya jiy may?*

Ni-yarra *nga-n-k-iny-a* *jiy* *may?*
3M.POSSR-taste 1-TR-FUT-catch-FUT 2M.POSS tucker.

‘May I taste your food?’

The case of *+moonggoon* is an interesting one. The verb appears to be impersonal, and the ‘learner’ is the possessor of the preverb, as shown in (13.53); see also (13.48b) above:

- (13.53) *Gala ngamoonggoon indan gorna. Alboorr ngaanka ngangangan.*

Gala nga-moonggoon i-n-d-an gorna. Alboorr
right 1M.POSS-knowledge 3-TR-do/say-CONT well. many
ngaanka nga-nganka-n.
word 1-speak-CONT.

'I am learning [Bardi] well. I can say lots of words.'

In other cases, the possessor is the logical object of the light verb (and sometimes, as in the case of *+moonggoon -ma-* ‘teach someone’, it may alternate with object marking on the verb). Examples of this were given in (13.49) above.

6.7.3. Case and other marking

Another type of inflection found on preverbs is case marking. This is not productive, and almost all examples are instances of the locative case on an identifiable noun, combined with the light verb *-ni-* ‘sit, be at a place’ or *-gal(a)-* ‘move’. An example of each is given in (13.54)–(13.55).

- (13.54) a. *gor-on -gal-* ‘play’ (lit. *gaara* ‘at game’ + ‘move’)
 - b. *aarl-on -gal-* ‘go fishing’ (lit. *aarli* ‘at fish’ + ‘move’)
 - c. *moorrgool-on -gal-* ‘work’ (lit. *moorrgool* ‘at work’ + ‘move’)
- (13.55) a. *wiliwil-on -ni-* ‘be fishing’ (lit. *wiliwili* ‘at fishing line’ + ‘sit’)
 - b. *aarl-on -ni-* ‘be fishing’ (lit. *aarli* ‘at fish’ + ‘sit’)
 - c. *anggoorr-goon -ni-* ‘be in tears’ (lit. *anggoorr* ‘at tears’ + ‘sit’)

There is also some evidence for there having been other inflected preverbs at a previous stage in the language, although they are not treated as such in the modern language. One striking example is *liyan -ma-* ‘like, want’, which in the Laves corpus often appears with the instrumental *-ng(a)*.¹⁸⁵

- (13.56) *Boonyjanim aamba oorany arr irrmooonggoon ginyinggi Rooji liyan-nга inamana Marroolal monjanangan.*
Boonyja-nim aamba oorany arr irr-moonggoon ginyinggi Rooji
 all-ERG men women NEG 3A-know 3MIN R.
liyan-nга i-na-ma-na Marroolal m-onja-n-ngan.
 want 3-TR-put-REM.PST M. GER-spear-CONT-ALL
 ‘All the people didn’t know that Rooji wanted to spear Marroolal.’
 (L102.009)

Finally, a few preverbs appear to contain a suffix *-j* or *-ja*, or have variants with or without a final consonant:

- (13.57) a. *booljarrja -jalgoo-* ‘to faint’ (cf. *booljarr* (adv) ‘suddenly’)
 - b. *rarrjin -ma- ~ rarrjinja+* ‘feel shame’
- (13.58) *jiinba -(i)nya- ~ jiinbany -(i)nya-* ‘avoid a weapon’

Inflection with *-ja* is not productive. It could be related either to the simultaneity marker *-j* or to the *-j* that occasionally appears on predicate adjectives (see §5.1.11.3).

6.8. Loans

Many preverbs are in origin loan words from other languages, including other Nyulnyulan languages and English or Kriol. Some examples from English/Kriol are given in (13.59). The English translation also contains the source of the loan.

- (13.59) a. *dayid -joo-* ‘be/get tired’
- b. *diil -joo-* ‘deal (cards)’
- c. *wajim -ma-* ‘wash something’
- d. *gadigad -(i)nya-* ‘cut up something’

Loan preverbs are fully integrated into the preverb system (including the classification system), and they do not appear to behave differently from the rest of the Bardi preverb lexicon. The loans do, however, appear to be concentrated towards a particular configuration of complex predicate, where the preverb assigns the semantic roles in the predicate, and the verb appears to be there to support agreement morphology. We do not find loans in reinforcing, pseudo-incorporated, or idiomatic complex predicates.

Finally, I have one example where a Kriol complex verb phrase is used as a preverb. The text comes from a story told by Nancy Isaac in 2001:

- (13.60) *Shopping do' im ingarramana.*

*Shopping do' im i-^{ng}-arr-a-ma-na.
shopping do 3-PST-AUG-TR-put-REM.PST*

‘They were going shopping.’

(NI: CB10)

7. Typology of complex predicates

In the following subsections I present the types of complex predicate structures found in Bardi. Although complex predicates in Nyulnyulan have been characterized as a ‘classificatory’ type of construction, not all complex predicates behave in this way. Four relationships between the preverb and the ‘light verb’ can be identified. These are given in §§13.7.1–13.7.4.

7.1. Preverb = inflecting verb

One type of complex predicate involves the preverb restricting the meaning of the inflecting verb. In such cases, the verb is never one of the light verbs also used in classification (although the preverb may be used with other inflecting verbs as well). The preverb is frequently an adverb, or it may have the same or very similar meaning to the inflecting verb. Examples (13.61) to (13.64) give some common examples of the verbs used with this type of preverb construction:

(13.61) verbs of speech:

- a. *balygarr -nganka-* ‘swear’; cf. *balygarr* ‘swearing’, *-nganka-* ‘speak’
- b. *balygarr -garnboo-* ‘swear at someone’; cf. *balygarr* ‘swearing’, *-garnboo-* ‘scold someone’

(13.62) verbs of motion:

- a. *darr(al) ~ dorrol -booloo-* ‘come out’; cf. *-booloo-* ‘come’
- b. *joodarrarr -galala-* ‘go with the tide’ (cf. *joodarrarr* ‘in the direction of tidal motion’, *-galala-* ‘move’ (reduplicated form of *-gala-* ‘move, visit, live’)
- c. *joornk -jarrala-* ‘run’ (cf. *joornk* ‘run (n, adv)’, *-jarrala-* ‘run’)
- d. *wirr -jarrmi-* ‘rise, get up’ (cf. *-jarrmi-* ‘get up’)

(13.63) other:

- a. *gooroogooro -boolmoo-* ‘smell nice’ (cf. *gooroogooro* ‘smell (n)’ *-boolmoo-* ‘smell (v)’)
- b. *lagal -ganyi-* ‘climb’

(13.64) ‘adverbial’:

- a. *goolgarr -gama-* ‘laugh’ (cf. *-gama-* ‘laugh’)
- b. *ngaada -joogooloo-* ‘break in half’ (cf. *ngaada* ‘short’, *-joogooloo-* ‘break’)
- c. *jondol -moolgoo-* ‘sleep doubled up’ (cf. *jondol* ‘doubled up’, *-moolgoo-* ‘lie asleep’)
- d. *anyja -mooroo-* ‘give away’ (cf. *anyja* ‘away, off’ (also a noun meaning ‘gift’, as well as an adverb), *-mooroo-* ‘waste, throw away’)

Where the preverb is a ‘dynamic’ noun (more ‘verblike’, e.g. *goolgarr* ‘laughing’) there is never mismatch in valency between the preverb and the light verb. Also, although the preverbs with adverbial readings do satisfy the tests for complex predicate status (appearance inside negation, for example: see §13.2.5 above), it is not clear that they are making a contribution to the argument structure of the verb phrase.

Where the preverb seems to do nothing to the argument structure of the light verb, I assume vacuous transfer of the preverb’s arguments to the light verb. That is, the preverb still transfers its arguments, but because we get the same result that we would have obtained had there been no argument transfer. The semantics and argument structure of the resulting predicate is the same as that of the components.

Complex predicates with adverbial preverbs do not seem to involve argument transfer; the reading is strictly compositional. This would be expected, as adverbs (e.g. the manner adverbs which are the bulk of the adverbs used in complex predicates in Bardi) do not subcategorize for arguments, so there are no thematic indices to transfer.

7.2. Pseudo-incorporation

The second type of complex predicate is one in which the preverb appears to be functioning as a pseudo-incorporated object, or occasionally as an instrument.¹⁸⁶ The predicate as a whole is intransitive.

- (13.65) a. *ngaanka -gonboo-* ‘send a message’ (*ngaanka* = ‘word, language’, *-gonboo-* = ‘send’)
 - b. *ngaanka -ma-* ‘make a plan’ (*-ma-* = ‘put’)
- (13.66) *gooljoo -janboo-* ‘pull out grass’ (*gooljoo* = ‘grass’, *-janboo-* = ‘tread on’)

Unlike the examples in §13.7.1, however, these verbs do not appear to form a cohesive class with distinct syntactic properties, and it is not clear that these should be analyzed as cases of non-productive pseudo-incorporation. Perhaps the cases where the ‘light verb’ is not usually a light verb could be analyzed this way.

There are a few recorded cases of verbal alternations between pseudo-incorporated objects and ‘real’ objects. Compare the following:

- (13.67) a. *Gooljoo angarranboojirr mayala.*
Gooljoo a-n̄g-arr-anboo=jirr *mayala.*
 grass 1-PST-AUG-TR-step.on=3AUG.IO spinifex
 ‘We pulled out the spinifex grass’ [after loosening up the ground
 with a rock].
- b. *Angarranboogaljirr mayala gooljoo.*
A-n̄g-arr-anboo-gal=jirr *mayala gooljoo.*
 1-PST-AUG-TR-step.on=3AUG.IO spinifex grass
 (Aklif 1999:-janboo-)

In sentence (a) the generic noun *gooljoo* ‘grass’ is functioning as a preverb. In the (b) sentence it appears as part of the object *mayala gooljoo* ‘spinifex grass’.¹⁸⁷

We cannot, however, use the pseudo-incorporation analysis for complex predicates more generally. There are complex predicates which look very similar to the ones just described in (13.65), except that they have the wrong valency; they are transitive rather than intransitive. Thus the preverb, which would be analyzed as a pseudo-incorporated ‘object’, is not the only ‘object’ of the clause. One illustration is given in (13.68):

- (13.68) *Aambanim boor inamboogaljin goorlil.*
Aamba-nim boor i-na-m-boo-gal=jin *goorlil.*
 man-ERG ‘ground’ 3-TR-PST-poke-REC.PST=3M.IO turtle.
 ‘The man missed the turtle.’

This example means what the English translation implies; it does not mean that the man speared the ground instead of the turtle, for example. This type of pseudo-incorporation usually occurs with the light verb classifiers, so it is treated under the typology of classification in §13.9 below. If we assume a pseudo-incorporation analysis for the structures in (13.65) and (13.67), however, we have a source for the creation of clauses like those in (13.68). We would simply have to assume that a pseudo-incorporated structure was re-analyzed as a classificatory complex predicate, which could take a direct object. The process I assume is something like this. In the first place we would have a transitive sentence with a full (not ‘light’) verb alternating with a pseudo-incorporated sentence. Perhaps the pseudo-incorporated sentence was idiomatic for ‘he missed’ (e.g. he speared the ground instead of a kangaroo).

- (13.69) a. *Aambanim inamboogal boor.*

Aamba-nim i-na-m-boo-gal *boor.*
 man-ERG 3-TR-PST-spear-REC.PST ground

‘The man speared the ground.’

- b. *Aamba [boor inamboogal].*

Aamba [boor i-na-m-boo-gal].
 man-ERG ground 3-TR-PST-spear-REC.PST

‘The man ground-speared.’ i.e. ‘he missed’ (intrans)

Now, suppose that (13.69b) were reanalyzed as comprising the light verb *-boo-* rather than the full verb. It would have the same structure as an unergative complex predicate and could participate in the same transitive/intransitive alternations that other verbs (such as ‘eat’) do.

7.3. Classification

The third type of complex predicate is the most common in Bardi. Here the light verb functions as an event classifier and/or a licenser of various arguments. These are the topic of §13.9, and are summarized in Table 13.2. They are thus not discussed further here but are mentioned in the typology for completeness.

7.4. Idioms

Finally, there are the idioms which do not fit these patterns. Many could probably be subsumed under other categories, or we could treat them as another instance of the construction, different from the classification or pseudo-incorporation cases.

- (13.70) *joowara -jardi-* ‘sneak away together’ (*-jardi-* ‘ask permission’)

In these idiomatic constructions, the light verb and full verb use are hard to relate to one another semantically, and the preverb is usually underived and has no uses in other word classes.

8. The adicity problem

Bardi complex predicates present a problem that does not seem to occur in analyses of complex predicates in other Northern Australian languages (apart from possibly Jaminjung (Schultze-Berndt 2000), for which see below).¹⁸⁸ This problem involves the use of a bivalent light verb in an intransitive predicate. The verb is inflected for the ‘transitive’ prefix *n-* ~ *a-*, but not enough arguments surface in the clause. An example is given in (13.71).

- (13.71) *Majoonggooloo roowil innagal barda.*

Majoonggooloo roowil i-n-nya-gal barda.
young.girl walk 3-TR-catch-REC.PST away.

‘The young girl walked off.’

Here the light verb is -(i)nya- ‘catch’, a bivalent light verb which shows the transitive minimal prefix *n-*. The predicate is intransitive, however. There is a single argument (*majoonggooloo* ‘young girl’), and it appears in the absolute case. It is not possible to introduce an ergative-marked argument into the clause. It thus appears that the light verb is introducing an argument into the clause which is never realized; this should render the predicate ungrammatical, but such predicates are not only licit, but quite common.

There are several possible analyses. One is to argue simply that the prefix *n-* ~ *a-* is required for morphological completeness. We would argue that the verb -(i)nya- belongs to the class of verbs which requires this prefix, and the stem would not be well-formed without it (just as, for example, first conjugation verbs in Latin require a thematic vowel *-a*, while second conjugation verbs take *-e*). That is, we could treat the prefix as a conjugation marker, which happens to correlate well with transitivity. However, there is ample evidence from non-light verbs that the ‘transitive’ morpheme does, indeed, mark verbs as transitive; it is not an arbitrary marker in the verb prefix system when we consider non-light verbs.

A second reason why the presence of *n-* ~ *a-* might not be a problem is that we notice from other languages that adicity in the root is not necessarily preserved in complex predicate constructions. In Japanese, for example, the number of arguments to surface depends on the preverbal noun, *not* the light verb *suru* ‘do’ (Grimshaw and Mester 1988). However, languages like Japanese have no overt marking for transitivity in the verb phrase; moreover,

in Bardi complex predicates, it appears that the light verb does limit the number of arguments a predicate may take, at least when it comes to monovalent light verbs (discussed further below).

Under now standard analyses of non-configurational languages in generative grammar (e.g. Baker 1996, Jelinek 1984, *pace* Austin 2001, Austin and Bresnan 1996), in nonconfigurational languages with complex agreement, it is the agreement marking on the verb which fulfills the argument structure of the verb. In Bardi, the presence of object agreement clitics is licensed by the presence of the transitivity prefix *n-* ~ *a-*. Now, if in a complex predicate, the predicate is intransitive while the verb shows transitive morphology, as long as some version of the pronominal argument hypothesis holds, the verb is projecting an argument and a semantic role which is not filled. This should be ungrammatical.¹⁸⁹

McGregor's (2002) solution to the presence of the transitivity marker is that such verbs are aivalent; that is, there is no specification of valency by the *n-* ~ *a-* morpheme (licensed by the root). Instead, the valency of the complex predicate is determined by the preverb. We are left, however, with the problem of why aivalence should only show up in complex predicates; otherwise there is an almost absolute correlation between the presence of *n-* ~ *a-* and transitive simple predicates.¹⁹⁰ Remember also that McGregor does not treat 'light verbs' differently from full lexical verbs; his explanation does not capture the different behavior for the two verb types. Moreover, if light verbs are aivalent, it is difficult to explain why monovalent light verbs systematically form unaccusative complex predicates. That is, there are clear patterns in the transitivity mismatches in complex predicates, with bivalent light verbs allowing either intransitive or transitive complex predicates, but monovalent light verbs allow only intransitive complex predicates.

Another option would be to argue that bivalent light verbs are polysemous: that is, they have multiple possibilities for argument assignment and therefore have multiple lexical entries. Different light verbs would then select different lexical entries for their light verb. If this is correct, however, then why would it only be bivalent simple predicates that have the possibility for two lexical entries? Why do we not find monovalent simple predicates with equivalent multiple lexical entries?

Schultze-Berndt (2000:180-183) discusses a similar problem for the Mirndi language Jaminjung. She analyzes 'dummy-undergoers' of some transitive verbs, where an extra argument does not appear although it is cross-referenced in the agreement morphology. Her solution is to posit dummy agreement.

That is, the agreement slot is morphologically required, but is ‘empty’ of reference in the same way that the expletive *it* in English sentences such as ‘it’s raining’ are empty.

(13.72) Jaminjung:

<i>Ngayin=malang</i>	<i>bul</i>	<i>gani-ma</i>	<i>bunyag.</i>
meat.animal=GIVEN	emerge	3SG:3SG-HIT.PST	3dl.OBL

‘The animal came out to/for the two.’ (Schultze-Berndt 2000:181)

In this sentence the prefix chunk is transitive, marking a third person singular subject acting on a third person singular object. The preverb *bul* ‘emerge’, however, licenses only one argument. (The oblique pronoun *bunyag* is not cross-referenced by the verb.) This is represented in Schultze-Berndt’s framework as dummy agreement, unlinked to other parts of the structure. Such a solution is problematic, however, since it would appear to be unable to rule out other cases where an unlinked object agreement affix would be ungrammatical.

9. Semantics of event classification

In this section I describe in detail the contribution that light verbs in complex predicate constructions make to the semantics of the predicate. The Bardi system is rather messy, even in the areas where we can identify event classifiers. There are many local patterns, but a precise statement that ‘form X marks meaning Y’ is impossible. Moreover, event classification is not the only function of light verbs in complex predicates.

9.1. Previous work

Since I have claimed that Bardi light verbs make a contribution to the semantics of the clause and are not semantically empty, in this section I will discuss the meanings of the light verbs within a classification system. I follow work of McGregor (2002) and Schultze-Berndt (2000) explicitly in making this claim, and many other writers of grammars of North Australian languages implicitly. There are two previous published discussions of Bardi complex predication: Nicolas (2000) and before that, Metcalfe (1975b). My analysis differs from each in some respects, and so they are discussed briefly here.

9.1.1. Nicolas (1998, 2000)

The first analysis of Nyulnyulan languages as having a verb classification system is due, to my knowledge, to an unpublished paper by McGregor (McGregor 1991). Nicolas (1998) analyzes Bardi in this way (without discussion of other Nyulnyulan languages), and a summary is published as Nicolas (2000). Under her analysis, the inflecting verb acts as a classifier of the preverb, indicating the type of event the preverb refers to. Nicolas (2000) proposes that Bardi's preverbs are classified by lexical valency, aspect, and trajectory. This gives us an idea of the type of meaning that the inflecting verb brings to the complex predicate. For example, *-ar-* 'spear lice' is used with actions which occur around a point and have a defined trajectory:

- (13.73) a. *dirray -ar-* 'rotate something'
- b. *jiin -ar-* 'point at something'
- c. *jibiny -ar-* 'thrust a spear'
- d. *joorr -ar-* 'drip'
- e. *janngal -ar-* 'cut across the tide'

Unfortunately, many of the statements in Nicolas (2000) are incorrect, probably because they are based on a small corpus. For example, she states (p. 160) that *-jiidi-* is only used to mark anti-causative constructions. This is not true; it is the primary function, but *-jiidi-* also forms complex predicates with a motion component, as seen in §13.9.2.2.

Nicolas is unclear on the syntactic status of preverb-inflecting verb construction, calling them 'compounds' or '*verbes complexes*' without further elaboration as to the syntactic structure she assumes.¹⁹¹ Although I disagree with many of the details of Nicolas' description of Bardi, I do agree that the inflecting verb in Bardi's complex predicate construction fills the functional role of a classifier and serves to mark event classification. The source of my disagreement with Nicolas' analysis is the very small corpus (around 400 preverbs) which she used. The arguments made in this chapter are drawn from a corpus of 975 preverbs.

9.1.2. McGregor (2002)

Unlike Nicolas (1998, 2000), McGregor (2002) argues for a particular syntactic structure underlying complex predicates in Northern Australian languages,

including Nyulnyulan languages. He argues that the classifier constructions are not complex predicates. One of the reasons is because either one part or the other (or neither) of the predicate is identified as the head, not both, according to which tests are used. The criterion of inflectional locus identifies the head as the inflecting verb; however, thematic role assignment (McGregor argues) usually identifies the preverb as the head. McGregor's other argument is based on transitivity alternations. Since the structure of the complex predicate does not always correspond to the morphological transitivity of the inflecting verb, there is a problem in saying that the two predicative units (the preverb and the inflecting verb) jointly determine clause structure, since the relationship is clearly not additive.

It is difficult, however, to use these points to argue for a classifier analysis *instead of* a complex predicate analysis. If we take McGregor's line on tests for headedness, how are we to account for the data which I presented in §13.2? We would be led into arguing that an adjunct is determining subject grammatical roles! McGregor's argument about valency mismatch invalidating the complex predicate analysis is true if one takes a strict view that syntax cannot modify argument structure, however it is unclear to me that calling the inflecting verb a 'classifier' removes this problem; if the verb is a full lexical verb in such constructions we run into problems of completeness and coherence.

9.2. Monovalent light verbs

The following sections discuss the main monovalent light verbs in Bardi. I omit from discussion those light verbs which combine with only one or two preverbs; they are given in a summary section in §13.9.5 below.

For each verb I identify the types of preverbs it may combine with, characteristics of the argument structure of the predicate, and the semantics which the preverb contributes to the predicate as a whole.

All complex predicates with monovalent light verbs are intransitive. They take a single argument, which shows subject agreement, and is marked in the absolute case.

9.2.1. *Stative predicates: -ni- 'sit'*

The light verb *-ni-* introduces a stative reading to the predicate. Complex predicates with *-ni-* can have either an adjective or a noun in the locative case

as a preverb (see §13.6.7 above), such as *anggoorrgoon -ni-* ‘be in tears’. The preverbs which take *-ni-* are listed in (13.74). Adjectives are not listed since the construction is productive. Other preverbs which appear with this root are not found in other word classes.

The preverbs in (13.74) have been divided into three categories on the basis of etymology and semantics. Those in (a) are preverbs that denote that the subject is in a location, those in (b) describe position, while those in (c) describe other states.

- (13.74) a. **with a locative preverb:** *aarlon -ni-* ‘be fishing’; *gooron -ni-* ‘be playing’; *wiliwilon -ni-* ‘fishing’; *rangoon -ni-* ‘he lay on his stomach’; *anggoorrgoon -ni-* ‘be in tears’; *gooron -ni-* ‘play’;
- b. **denoting position:** *ilog -ni-* ‘lie on one’s side’; *arlarr -ni-* ‘lie on one’s back’;
- c. **other states:** *iilan -ni-* ‘be sick’; *miyala -ni-* ‘be awake’; *gorna -ni-* ‘feel alright’; *jambarra -ni-* ‘listen’; *wiinya -ni-* ‘be full’ (+ other adjectives, productively); *wilwil -ni-* ‘breathe’; *jarnin -ni-* ‘was drifting, and came ashore on land’; *woorr -ni-* ‘sleep’

Adjectival preverbs which form stative predicates with *-ni-* ‘sit’ may also combine with the light verb *-joo-* ‘do/say’ to form inchoatives (cf. §13.9.4 below).

9.2.2. *Anticausatives and motion: -jiidi-* ‘go’

The root *-jiidi-* ‘go’ has two main uses in the light verb system. It does not seem to combine with adjectives. The first use is related to the non-light meaning of *-jiidi-*, that is, ‘go’. Some complex predicates involving *-jiidi-* retain this meaning of motion, e.g. in (13.75).

- (13.75) *galgooriny -jiidi-* ‘swim’

The second use of *-jiidi-* is as a marker of anticausatives (that is, the intransitive predicate derived from an underlyingly ‘causative,’ transitive predicate). Preverbs which take *-(i)nya-* ‘catch’ as their transitive light verb have an intransitive anticausative (unaccusative) counterpart formed with *-jiidi-*, as in (13.76):

- (13.76) a. *lolor -jiidi-* v.it ‘peel off’ (x-ABS peels off);

- b. *lolor -(i)nya-* v.tr ‘peel off’ (y-ERG peels x-ABS off)

Other anticausatives in *-jiidi-* have transitive counterparts in *-ϕ-* or *-ma-*. Some examples are given in (13.77) below:

- (13.77) a. *boornd(oo) -jiidi-* v.it ‘close’ (x-ABS closes);
 b. *boornd(oo) -ma-* v.tr ‘close’ (y-ERG closes x-ABS)
- (13.78) a. *doolool -jiidi-* v.it ‘roll down (x-ABS rolls);
 b. *doolool -ma-* v.tr ‘pour down (y-ERG pours x-ABS down);

(13.79) gives the forms with unaccusative resultatives, while (13.80) lists the light verbs with a motion meaning.

- (13.79) **Unaccusative anticausatives:** *boorndoo -jiidi-* ‘close’; *doolool -jiidi-* ‘pour, roll down (of water)’; *doomal -jiidi-* ‘light up and flash around’; *lolor -jiidi-* ‘peel off’; *gagal -jiidi-* ‘split in two’; *lalala -jiidi-* ‘be split’; *irribirrib -jiidi-* ‘collapse’; *roogood -jiidi-* ‘come off’; *lambard -jiidi-* ‘be open’; *roogooroog -jiidi-* ‘get worn out’; *daldal -jiidi-* ‘develop dry, cracked skin’; *diyil -jiidi-* ‘burst’; *lol -jiidi-* ‘catch fire’; *doolool -jiidi-* ‘come out quickly, be poured out’; *dirldirl -jiidi-* ‘break out in spots’; *dooboo -jiidi-* ‘make a smoke signal, rise from a kindled fire (of smoke)’; *boorndoo -jiidi-* ‘close’; *manmarr -jiidi-* ‘get a fright’; *marrmarr -jiidi-* ‘be afraid’; *boorroo-boorr -jiidi-* ‘swell up’
- (13.80) **Motion verbs:** *joorroorr -jiidi-* ‘come in (of tide)’; *dooly -jiidi-* ‘dump (of waves)’; *galgooriny -jiidi-* ‘swim’

9.2.3. Reciprocal: *-banji-* ‘share, exchange’

Another example of a light verb with fairly clear semantics is *-banji-* ‘exchange’, which is used with reciprocal actions. (13.81) gives an illustration of three such preverbs, although the use of *-banji-* is fairly productive (as was discussed in §12.3.6 above) and many examples can be found in the Bardi dictionary.

- (13.81) a. *baad -banji-* ‘wrestle’
 b. *banggili -banji-* ‘paint one another’

- c. *loorrhbloorrb -banji-* ‘argue with each other’

All these preverbs are also recorded with other light verbs in non-reflexive meanings. *baad* is recorded with *-ø-* in the meaning ‘grab onto something’, *banggil* also takes *-ma-* in the meaning ‘daub on paint for a ceremonial purpose’ and *loorrhbloorrb* can take either *-ga-* ‘carry’ or *-ma-* ‘put’.

9.2.4. *-ganyi-* ‘climb’

The light verb *-ganyi-* has a non-light counterpart meaning ‘climb’ in other Nyulnyulan languages, although in the modern language it is found only with preverbs.¹⁹² Five preverbs can be used with *-ganyi-*:

- (13.82) *angan -ganyi-* ‘come closer’; *binbirr -ganyi-* ‘drift to a place’; *birr-bard -ganyi-* ‘ricochet, bounce back’; *boorrooboorr -ganyi-* ‘swell up’; *lagal -ganyi-* ‘climb’

Of these, only the last, *lagal+*, is common. Several appear only in the Metcalfe dictionary and are not known to current speakers. *Boorrooboorr+* ‘swell up’ is also recorded with *-jiidi-* in the same meaning.

9.2.5. *-gardì-* ‘enter, go inside’

The four preverbs which combine with *-gardì-* ‘enter’ all involve meanings associated with ‘entering’ something (if ‘dive’ is taken as decomposing semantically into ‘entering’ water). Note that unlike English ‘enter’, Bardì *-gardì-* is only monovalent.

- (13.83) *gardin -gardì-* ‘enter’; *oorlil -gardì-* ‘dive’; *lool -gardì-* ‘enter’; *joomboor -gardì-* ‘pull in, go in’

It is not entirely clear whether *-gardì-* should be treated as a true ‘light verb’ in the sense of Grimshaw and Mester (1988) and Jespersen (1954/1909), even though phrases such as *lool -gardì-* ‘enter’ behave as complex predicates. Most likely, we can analyze *-gardì-* as a light verb which introduces an event variable involving trajectory. Such light verbs are found in Turkic languages (cf. Bowern 2004c, Schamiloglu 1996).

9.2.6. Undirected motion: -gala- ‘visit, move, live’

The non-light counterpart of *-gal(a)-* ‘move, visit, live’ is unusual amongst Bardi verbs in that it is the only apparently ambitransitive verb which does not reflect its two frames by a change in morphology. The root always takes transitive morphology, though the case array of the arguments which appear with the verb can differ (either ergative/absolutive in bivalent uses, or absolute only in monovalent ones). This is illustrated in (13.84).

- (13.84) a. *Marbiddynim inanggalajarrngay bardi.* (Transitive)
Marbiddy-nim i-na-ŋ-gala=jarrngay bardi.
M.-ERG 3-TR-PST-gala=1MIN.FOC.DO yesterday.
‘Marbiddy visited me yesterday.’
- b. *Layoord boordan irralj.* (Intransitive)
Layoord boordan i-rr-al-j.
L. scrub 3-AUG-gala-SIMUL
‘*Layoord* spirits live in the scrub.’
- c. *Nyirroogoordoo minkal?*
Nyirroogoordoo mi-n-kal?
how-PROP 2-TR-‘wander’
‘How are you?’

The morphology of *-gal(a)-* is also highly irregular. Aklif’s notes suggest there are two roots, *-gali-* and *-gal-* or *-gala-*. I only found evidence for one root, and I treat the variation in final vowel (*a* ~ *ø* ~ *i*) as conditioned by the following suffix. In case I am wrong, however, I have not standardized the citation forms in the dictionary or in (13.85) below.

The verb *-gala-* ‘visit, move, live’ is the only morphologically bivalent root to enter only into intransitive complex predicates, so it is discussed here with monovalent roots (which by definition produce intransitive complex predicates) rather than with the bivalent light verbs, which otherwise produce either only transitive predicates or both transitive and intransitive ones.

(13.85) gives the preverbs which have been recorded with *-gala-* or its reduplicated form *-galala-*. Note from this that *-gala-* is also an exception to the rule that most light verbs no longer admit a light verb reading when they are reduplicated (cf. *-banji-* in §13.9.2.3 and §13.5 above).

- (13.85) a. **Motion:** *arrgaly -gala-* ‘slip, fall over’; *darda -gala-* ‘drip’; *jarrmarn -gal-* ‘wade, cut across, interrupt’; *woo -gala-* ‘dive down’; *diwirrdiwirr -gala-* ‘stagger’; *yoor -gala-* ‘slip’
- b. **‘Flashing’:** *bilybily -gal-* ‘skip across the water’; *jidily -gala-* ‘jump (of sparks from exploding coals)’; *dilydily -gala-* ‘sparkle, flash (of waves, fire-light)’
- c. **Activities:** *moorrgoolon -gal-* ‘work’; *aarlon -gal-* ‘fish, go fishing’; *gooron -gal-* ‘play’; *wily -gala-* ‘scream’
- d. **Other:** *galgal -gal-* ‘be tired and aching’; *gir -gal-* ‘live, reside, stay for some time, be settled down’; *gorna -gal-* ‘be well’; *irrgididi -gal-* ‘be giddy’; *goondoorr -gal-* ‘get giddy and die’; *lidi -gala-* ‘become dry’
- (13.86) with reduplication: *-galala-*
- Motion:** *joodarrarr -galala-* ‘go with the tide’;
 - Other:** *irrgidid -galagal-* ‘be giddy’; *gorna -galala-* ‘become physically well developed’

In Nyulnyul, complex predicates taking *-kal-* (the cognate of Bardi *-gala-*) describe actions which are non-volitional (or uncontrolled) or have a lack of defined trajectory. Some preverbs in Bardi which take *-gal(a)-* show this too, such as *irrgidid+* ‘(be) giddy’¹⁹³ and *diwirrdiwirr+* ‘stagger’. Others, such as *goron+* ‘play’ and *joodarrarr+* ‘in the direction of the tide’, would appear to be evidence for undirected motion. It is difficult to see, however, how *wiily+* ‘scream’ or *gorna+* ‘good’ fit into this pattern.

9.3. Bivalent light verbs

Bivalent light verbs are more common in Bardi than monovalent ones. Bivalent light verbs (apart from *-gal(a)-*, discussed above) form both transitive and intransitive complex predicates. Many of the resulting intransitive complex predicates are unergative, although not all are.

9.3.1. Resultative: *-ma-* ‘put’

The root *-ma-* ‘put’ has many uses in Bardi. It is used productively with adjectives to form causatives, in the frame ‘make X adj’. An illustration is given

in (13.87). All adjectives may combine with *-ma-* in this meaning.

- (13.87) *joorrong inamana* ‘he straightened it’ (*joorroong(g)* ‘straight’, *-ma-* ‘put’)

In a closely related use of *-ma-*, the preverb is a process and the whole predicate indicates a causative result.

- (13.88) a. *wajim -ma-* ‘to clean’
b. *liyan alig -ma-* ‘to make someone angry’

Almost all transitive complex predicates with *-ma-* are resultative. The only possible exception is *nganngan -ma-* ‘have a conversation’, which does not seem to be resultative (although this may be an artifact of translation).

- (13.89) a. *Anggi arra nganngan milamanangay?*
Anggi arra nganngan mi-la-ma-na=ngay?
 what NEG talk 2-IRR-put-REM.PST=1M.DO
 ‘Why didn’t you talk to me?’
- b. *Nganngan anamangay! Nyirra nganngan nganmanij anyngarr?*
Nganngan a-na-m-a=ngay! Nyirra nganngan
 talk 2.IMP-TR-put-FUT=1MINDO how talk
nga-n-ma-n=ij anyngarr?
 1-TR-put-CONT=2MIN.IO in.vain
 ‘Talk to me! How come I am talking to you without you answering me?’

Many verbs with *-ma-* involve a sense of impact, although the effect is indirect (that is, the impact is mediated through a source). Another common theme of the transitive *-ma-* predicates is the idea of collection, and metaphorically putting objects in a particular place. *jaala+* ‘string fish on a spear’ is one example.

(13.90) and following give the complex predicates involving *-ma-*.

(13.90) Transitive:

- a. **Change of position, collection:** *boorroonggoo -ma-* ‘turn over’; *doolool -ma-* ‘pour, drop off’; *garndi -ma-* ‘hand’; *goondoo -ma-* ‘carry’; *jaala -ma-* ‘string fish on spear’; *jaalajal -ma-* ‘string fish on a spear’; *jaljal -ma-* ‘put in a heap, in a pile,

- store up'; *jarrbard* -ma- 'lift up'; *joorroobil* -ma- 'go with a group of people'; *moonmoorloo* -ma- 'carry on one's stomach'; *moorool* -ma- 'heap up'
- b. **Location and change of location:** *jiidag* -ma- 'carry'; *jimbin* -ma- 'put it underneath'; *jurbi* -ma- 'erect, stand up'; *jirrjirr* -ma- 'stand up'; *larda* -ma- 'lower'; *malbooloo* -ma- 'store up, save'; *waawi* -ma- 'cut across'; *jarrgany* -ma- 'cut across, move across'
 - c. **Emotion:** *anggoorr* -ma- 'mourn'; *anggoorranggoorr* -ma- 'comfort'; *banban* -ma- 'confuse'; *garoolgarool* -ma- 'stroke an animal to make it feel better'; *jagara* -ma- 'amuse'; *marlajal* -ma- 'get sick and tired of something'; *moolaj* -ma- 'make someone get sick of something'; *ngoolarr* -ma- 'fail to give, cheat someone out of something'; *ngoorlara* -ma- 'cheat'; *ongorr* -ma- 'cheer up'; *oolbooroo* -ma- 'upset, unsettle'; *yalji* -ma- 'crave'
 - d. **Phrasal emotion verbs:** *liyan alig* -ma- 'make someone angry'; *liyan loagal* -ma- 'make someone angry'
 - e. **Impact:** *alig* -ma- 'beat someone in a fight, rape'; *bany* -ma- 'shoot'; *birrjarr* -ma- 'splash'; *boo* -ma- 'blow something away, blow on something'; *boorr* -ma- 'condemn to punishment, punish'; *dajarr* -ma- 'clear away the top layer of sand'; *dardal* -ma- 'break, make noise of snapping twig'; *dooboo* -ma- 'kindle'; *dool* -ma- 'remove fish (from spear)'; *garboo* -ma- 'dig around'; *garrygarry* -ma- 'smash up'; *ilnggirr* -ma- 'scale fish'; *irriny* -ma- 'scatter, spread out'; *lord* -ma- 'block off'; *nararr* -ma- 'stick together'; *noonyjoo* -ma- 'rescue'; *oodool* -ma- 'turn over, put upright'; *way* -ma- 'prepare'; *wiinyj* -ma- 'fill up'
 - f. **Speech acts:** *boor* -ma- 'invite'; *jarrman* -ma- 'interrupt'; *jöondi* -ma- 'dip voice to low volume'; *moondoo* -ma- 'sing'; *nganggan* -ma- 'talk'
 - g. **Other resultatives:** *boorroolboorrool* -ma- 'boil'; *jilarli* -ma- 'bring to point of death'; *jililjilil* -ma- 'rock'; *joorrbara* -ma- 'stretch out firmly, especially limbs'; *lanybal* -ma- 'make level, smooth'; *-moonggoon ma-* 'teach'; *wajim* -ma- 'wash'; *waloong* -ma- 'take care'

- h. **Other:** *arkoorr -ma-* ‘gather’; *balirn -ma-* ‘take care, keep’; *barnbi -ma-* ‘shift something’; *biidi -ma-* ‘bury something’; *boojoom -ma-* ‘push off’; *goombil -ma-* ‘paint’; *jalyimbidi -ma-* ‘twist’; *janin -ma-* ‘land’; *liyan -ma-* ‘want’; *maramar -ma-* ‘put legs apart’; *mirrnan -ma-* ‘save up’; *ngarrarda -ma-* ‘show’; *ninil -ma-* ‘not to be touched, leave it alone’; *ooly -ma-* ‘rain’

- (13.91) **Causatives, with deadjectival preverbs:** *abarrabarr -ma-* ‘be careless with, hold someone up’; *boondoo -ma-* ‘shut, close’; *boordabororda -ma-* ‘get things ready, repair, adjust’; *born(k)ony -ma-* ‘turn over’; *bornkony -ma-* ‘turn something over’; *diidid -ma-* ‘make it curly’; *diimba -ma-* ‘join, tie something together’; *diiwa -ma-* ‘make hard’; *diyildiyil -ma-* ‘perforate’; *garra -ma-* ‘sharpen’; *garrajagarrja -ma-* ‘sharpen’; *garrya -ma-* ‘sharpen’; *giiny(i) -ma-* ‘shut something’; *giinyji -ma-* ‘obstruct, block’; *goojaji -ma-* ‘make someone weak, wear someone out’; *gorna -ma-* ‘clean’; *gorngorn -ma-* ‘build something, make it good’; *ilil -ma-* ‘flatten’; *jaardoo -ma-* ‘curve, bend’; *jardoo -ma-* ‘bend’; *joorroong -ma-* ‘straighten’; *jorndorndola -ma-* ‘coil’; *layib -ma-* ‘relieve, make better’; *loogal -ma-* ‘lose a person’

Many of the complex predicates which are cognate with Nyulnyul and which in that language use *-ga-* ‘carry’ as the light verb appear in Bardi with *-ma-*. It is thus most likely that the Bardi forms represent a conflation of two distinct light verb uses in earlier Nyulnyulan.

The intransitive predicates, however, are much more difficult to categorize. The most notable feature they share is that they are all unergative.

(13.92) **Intransitive:**

- Motion:** *jibad -ma-* ‘sneak up’; *oorroorr -ma-* ‘sit down’; *gaana -ma-* ‘drift in with the tide’; *rawin -ma-* ‘go as a group’; *rayi -ma-* ‘come around’; *yoorr -ma-* ‘coming down’
- Activities:** *banggil -ma-* ‘daub on paint for a ceremonial purpose’; *barn -ma-* ‘do something’; *dirdoorrdirdoorr -ma-* ‘dance’; *jagaljagal -ma-* ‘cut steps into a tree’; *oondoog -ma-* ‘go moonlight fishing’;
- Speech and thought acts:** *loorrb -ma-* ‘argue, quarrel, scold’; *loorrbaloorrba -ma-* ‘speak heatedly together’; *ningarrarda*

- ma- (+ IO) ‘believe’; *war -ma-* ‘bark’;
- d. **Body functions:** *ngoodoo -ma-* ‘urinate’; *oona -ma-* ‘defecate’;
 - e. **Other** +*ga -ma-* ‘rest’; *boondi -ma-* ‘cloud over’; *jondol -ma-* ‘double up one’s legs’; *malbarn -ma-* ‘be busy’; *marrbal -ma-* ‘signal’; *niya -ma-* ‘rest’; *rarrjin -ma-* ‘get shame’;

It is possible that two verbs of the form -ma- have been conflated into a single paradigm in Bardi’s history. In Nyikina, -ma- has both transitive and intransitive forms. The intransitive form means ‘say’. However, there are also monovalent verbs of the same form in Karajarri and Mangarla, which are Pama-Nyungan languages from the Marrngu subgroup, with which Nyikina is in close contact. It is possible that Nyikina has calqued the intransitive uses from those languages, since it is, to my knowledge, the only Nyulnyulan language to show an intransitive root -ma-.

9.3.2. -bi- ‘hit with implement’

The verb -bi- is found only in Bardi, to my knowledge, and other Nyulnyulan languages do not seem to make a distinction between ‘hit with hand’ and ‘hit with an instrument’. The fact that the verb roots in Bardi are -bi- ‘hit with object’¹⁹⁴ and -*boo-* ‘hit with hand’ may make one suspicious that either the distinction is not a real one, or that the category is a recent innovation (or there may be dialect borrowing involved). The distinction *is* a real one, however.

The preverbs which take -bi- are given in (13.93a) and (13.93b). Many of the predicates would seem to contain some idea of impact, or could be contrived in such a way metaphorically.

- (13.93)
- a. **Transitive:** *dool -bi-* ‘smash open’; *doodool -bi-* ‘smash’; *dida -bi-* ‘make a noise’; *jooroorr -bi-* ‘poke something into a hole’; *roong -bi-* ‘swallow, suck back in’; *garr -bi-* ‘rub to stop pain’; *roorr b -bi-* ‘overtake someone while walking, beat someone at doing something’
 - b. **Intransitive:** *gird -bi-* ‘boil up on someone’; *nod -bi-* ‘make the sound of water’

9.3.3. -boo- 'hit, poke, kill'

In non-light use, *-boo-* means 'hit, poke, or kill' something. Most of the transitive uses of *-boo-* in light verb constructions involve impact. The preverbs which take *-boo-* are given in (13.94):

- (13.94) a. **Transitive:** *boor* *-boo-* 'miss'; *gorr* *-boo-* 'receive, collect, especially in gambling games'; *jamool* *-boo-* 'wound an animal and let it get away'; *joodoo* *-boo-* 'hit with a spear'; *joongoorr* *-boo-* 'poke'; *larrara* *-boo-* 'wound'; *milimili* *-boo-* 'write down'; *nyinyingan* *-boo-* 'dodge'
- b. **Intransitive:** *marr* *-boo-* 'bloom'; *moorroomoondool* *-boo-* 'bloom'; *ngamarna* *-boo-* 'breast-feed'; *rinyi* *-boo-* 'think'; *wii* *-boo-* 'spurt out'

9.3.4. -ga- 'carry'

The place of *-ga-* 'carry' within the system of light verbs in Bardi is odd. On the one hand, *-ga-* is clearly reconstructible to Proto-Nyulnyulan as a light verb and we can reconstruct a number of preverbs which take it. On the other hand, *-ga-* is considerably less important in the Bardi light verb system than it is in many other Nyulnyulan languages. One of the differences between Nyulnyul and Bardi, for example, is the relative importance of *-ga-* (Nyulnyul *-k-*) in the two languages. In many Nyulnyulan languages *-ma-* and *-ga-* have approximately the same frequency. In Bardi, however, *-ma-* is much more common, and many verbs which take *-k-* in Nyulnyul take *-ma-* in Bardi.

(13.95) **Transitive:**

- a. **Preverbs involving 'carrying':** *abarrabarr* *-ga-* 'lead astray'; *bard(a)* *-ga-* 'take across'; *boor* *-ga-* 'take someone around'; *jarbad* *-ga-* 'lift'; *joorroorl* *-ga-* 'carry around'; *moondoo* *-ga-* 'carry'; *waj* *-ga-* 'take away'; *yawoorr* *-ga-* 'pull'
- b. **Motion:** *gaana* *-ga-* 'drift in with the tide'; *goodilgoodil* *-ga-* 'going this way and that'; *noolgoo* *-ga-* 'drift away'; *rIRR* *-ga-* 'go behind'; *rooj* *-ga-* 'pass'
- c. **Speech acts:** *jarrman* *-ga-* 'interrupt'; *jiido* *-ga-* 'bother someone'; *jininingan* *-ga-* 'mock: he mocked us'; *loorrh* *-ga-* 'argue,

quarrel, scold’; *loorrhalarrrba* -ga- ‘speak heatedly together, taking no notice of those’; *madaly* -ga- ‘make a loud noise’

- d. **Other:** *liyan* -ga- ‘carry a grudge’; *loob* -ga- ‘complete’; *mangalinyan* -ga- ‘help’; *yarr* -ga- ‘pull in, drag, stretch out’

- (13.96) **Intransitive:** *ngalgan* -ga- ‘wag (of tail)’; *oongooloo* -ga- ‘be with child’

9.3.5. -ar- ‘spear (lice), pierce’

Proto-Nyulnyulan *-ra- probably meant ‘spear’, in a fairly general sense. This is the meaning, for example, in Nyikina and the other Eastern Nyulnyulan languages. In Bardi, however, the cognate root -ar- has been narrowed in meaning, and now means ‘spear lice’.¹⁹⁵ In Nyulnyul, as well as in the earlier sources for Bardi, the word seems also to have meant ‘sew’.

The complex predicates given in the following examples:

- (13.97) **Transitive:** *boorroolboorrool* -ar- ‘boil’; *dirray* -ar- ‘turn something around’; *gilygily* -ar- ‘tickle’; *goodil* -ar- ‘turn’; *goonoogoon* -ar- ‘push something right in’; *jardinkool* -ar- ‘block’; *jarr* -ar- ‘flow, leak, drip through a hole’; *jibiny* -ar- ‘thrust a spear’; *jiin* -ar- ‘point at’; *joodoog* -ar- ‘kick, stumble’; *joorr* -ar- ‘drip, flow’; *mibad* -ar- ‘tie up’; *niimi* -ar- ‘string (beads or shells)’; *noondin* -ar- ‘walk across’; *oorr* -ar- ‘put into’

- (13.98) **Intransitive:**

- a. **bodily functions:** *bilirl* -ar- ‘yawn’; *girringg* -ar- ‘cough’; *girringgirringgi* -ar- ‘cough up phlegm, expectorate’; *jilmboong-goorr* -ar- ‘sneeze’; *nyoonyi* -ar- ‘blow nose’
- b. **motion:** *darr* -ar- ‘come’; *dirrb* -ar- ‘dive into the water’; *janngal* -ar- ‘cut across the tide’
- c. **other:** *jilyjily* -ar- ‘dripping of water’; *jirrijirr* -ar- ‘little bit of rain; it’s sprinkling a bit’; *jinbarr* -ar- ‘be split’; *dooly* or *jool* -ar- ‘kneel’; *milimili* -ar- ‘write’ *ooly* -ar- ‘rain’

Most of the preverbs contain an idea of defined trajectory, piercing, or action around a designated point. Body functions involving expectoration also take -ar-.

9.3.6. - \emptyset - ‘give’

The verb ‘give’ in Bardi has two characteristics which make it seem exotic. First is that it obligatorily encodes only two arguments, not three. Like other verbs which are usually ditransitive, in Bardi they appear to be transitive. - \emptyset - ‘give’ does not obligatorily encode both the theme and the recipient, and when both do appear, agreement is only with the recipient, which is marked as a direct object.

The second oddity about this verb is that the root is phonologically null. It can be reconstructed to Proto-Nyulnyulan as *-wa-, and still appears as such in the other Western Nyulnyulan languages. Compare, for example, Jabirr-Jabirr *inawan* ‘he gave’, and Nyulnyul *mawan* ‘to give’. Proto-Nyulnyulan *w regularly becomes \emptyset intervocally in Bardi.

In Nyulnyul, the cognate verb -w- primarily marks actions which involve physical contact via an intermediary (something noted above for the Bardi verb -ma-).

All complex predicates with - \emptyset - ‘give’ are accomplishments or telic activities.

(13.99) Transitive:

- a. **Water:** *joonbool* - \emptyset - ‘soak, dip’; *ngoorrngoorr* - \emptyset - ‘drown, immerse in water’
- b. **Spreading out:** *oogool* - \emptyset - ‘scatter bait’; *yalyal* - \emptyset - ‘spread out’
- c. **Cutting or chopping:** *baad(i)* - \emptyset - ‘grab, cut, shave’; *dooly* - \emptyset - ‘squeeze, open a boil or sore’; *gadi* - \emptyset - ‘cut’; *gil* - \emptyset - ‘cut out a boomerang for someone’; *gilgil* -ar-/ - \emptyset - ‘cut out a boomerang for someone’; *girrgirr* - \emptyset - ‘cut, chop’; *goorr* - \emptyset - ‘poke’; *goorrb* - \emptyset - ‘pinch, pluck out, remove a splinter or thorn’; *jooboorrjoo-boorr* - \emptyset - ‘pluck feathers’; *jooroorr* - \emptyset - ‘poke something into a hole’; *lol* - \emptyset - ‘burn’
- d. **Eating:** *girringg* - \emptyset - ‘cough’; *goojoog* - \emptyset - ‘swallow’; *goojoog-goojoog* - \emptyset - ‘eat greedily, quickly’
- e. **Involving grabbing:** *baad* - \emptyset - ‘grab’; *loor* - \emptyset - ‘snatch’; *roogood* - \emptyset - ‘take off, peel off’; *roogooroogood* - \emptyset - ‘take out’
- f. **Location:** *diimbi* - \emptyset - ‘get married, join together; bundle up, mix together’; *janbal* - \emptyset - ‘round up’; *jardajard* - \emptyset - ‘keep in

- one place'; *jurbi* -ϕ- 'erect, stand up'; *noondin* -ϕ- 'turn to, cut across to'
- g. **Involving pinching/squeezing:** *boorrboo* -ϕ- 'pinch'; *giiny* -ϕ- 'strangle'; *gooly* -ϕ- 'squeeze'
 - h. **Speech acts:** *giliya* -ϕ- 'clear, settle a score, square an account'; *mila* -ϕ- 'deceive'; *ngonngon* -ϕ- 'beg'; *rinyi* -ϕ- 'cross-examine'
 - i. **Other:** *bar* -ϕ- 'hit with boomerang'; *barbar* -ϕ- 'sting, cause pain'; *dirray (diird)* -ϕ-, 'turn'; *diyildiyil* -ϕ- 'make holes in something'; *doogoorr* -ϕ- 'mix food with hot sand'; *doorr* -ϕ- 'bump into someone'; *garool* -ϕ- 'caress, smooth hair, massage (of a doctor-man)'; *gid* -ϕ- 'block way out, block someone off, force a woman sexually'; *goodoogoodoo* -ϕ- 'roll'; *jabing* -ϕ- 'swoop'; *jalgin* -ϕ- 'wait'; *jard* -ϕ- 'place one's hands somewhere for support'; *jard* -ϕ- 'weigh down'; *jigan* -ϕ- 'court'
- (13.100) **Intransitive:** *dibirr* -ϕ- 'swing, roll eyes'; *doomal* -ϕ- 'light up'; *joordoog* -ϕ- 'stumble'; *joorrgajoorrga* -ϕ- 'skip'; *wolonggawo-longga* -ϕ- 'blow wind'; *woow* -ϕ- 'blow (of wind)'

9.3.7. -(i)nya- 'catch, pick up'

Many verbs involving cutting and scooping take -(i)nya- as their inflecting verb. Complex predicates with -(i)nya- are mostly (in Vendler's terms) accomplishments. Nicolas (2000:165-67) argues that -(i)nya- classifies according to an 'outward/upward' feature, that is, actions which involve actual or metaphoric motion upward, non-straight motion (e.g. *roowil* -(i)nya- 'walk') or a process which extends over an area. I have included a category of metaphorical 'outward' action.

An interesting complex predicate is *laanybi* -(i)nya- 'steal'. The independent word *laanybi* means something like 'thieving'; it is not recorded as a separate lexical item, only with the -*iid(i)* nominal derivational suffix which attaches to nouns and translates as 'expert at' (see §5.1.3 above). Thus a *laanybiid* is a 'thief', or someone expert at thieving. *laanybi* is therefore not an incorporated object in this complex predicate.

(13.101) **Transitive:**

- a. **Cutting:** *ararr -(i)nya-* ‘hurt’; *bawaninbawin -(i)nya-* ‘cut up’; *bawin -(i)nya-* ‘cut up’; *boorrm -(i)nya-* ‘gut’; *galgal -(i)nya-* ‘split’; *lalala -(i)nya-* ‘split’; *lalba -(i)nya-* ‘split’; *lalool -(i)nya-* ‘chip off’; *larrara -(i)nya-* ‘tear’; *lor -(i)nya-* ‘peel’; *ooyooy -(i)nya-* ‘hurt’; *ranyi -(i)nya-* ‘clear away, clean up’; *rarrboo -(i)nya-* ‘clear up’; *yaarl -(i)nya-* ‘cut (x cuts me)’
- b. **Scooping:** *boorl -(i)nya-* ‘draw water, scoop up flour, sugar, etc.’; *gara -(i)nya-* ‘dip up, especially water’; *gor -(i)nya-* ‘scoop up’; *roongoo -(i)nya-* ‘suck in, draw off’; *yarr -(i)nya-* ‘draw water, using a container with a rope attached’
- c. **Causatives paired with *-jiidi-* ‘go’:** *lambard -(i)nya-* ‘open something’; *doolool -(i)nya-* ‘pour out’; *loor -(i)nya-* ‘snatch away’; *galgal -(i)nya-* ‘split’; *marrmarr -(i)nya-* ‘flash’
- d. **Metaphorical ‘outward’ action:** *joony -(i)nya-* ‘suck’; *joo-winyjoowiny -(i)nya-* ‘suck’; *laanybi -(i)nya-* ‘steal’; *niimidi-man -(i)nya-* ‘share’; *niyarra -(i)nya-* ‘taste’; *oolgoodoodoo -(i)nya-* ‘snore’; *oorl -(i)nya-* ‘pull out, root up’; *yal -(i)nya-* ‘spread out’

(13.102) **Other:** *arndala -(i)nya-* ‘adopt, foster’; *bool -(i)nya-* ‘paddle’; *doog(oo) -(i)nya-* ‘wipe dry’; *doombool -(i)nya-* ‘slap’; *goonkoordoo -(i)nya-* ‘kindle’; *inkoorr -(i)nya-* ‘make cool’; *jinyba -(i)nya-* ‘avoid weapon’; *moonmoorroo -(i)nya-* ‘carry on one’s stomach’; *nararr -(i)nya-* ‘stick to something’; *ngara-rra -(i)nya-* ‘cling to’; *ngarlamarr -(i)nya-* ‘promise’; *noongoo -(i)nya-* ‘admire’; *noo-warn -(i)nya-* ‘paint’; *randing -(i)nya-* ‘swung around’(13.103) **Intransitive:** *moolgany -(i)nya-* ‘wink’; *bilbil -(i)nya-* ‘flash, twinkle’; *birdbag -(i)nya-* ‘flash’; *boolbool -(i)nya-* ‘fan’; *daab -(i)nya-* ‘go ashore, climb up’; *galgooriny -(i)nya-* ‘swim breast stroke’; *il-amarr -(i)nya-* ‘promise’; *jimbin -(i)nya-* ‘go into deep water’; *jir-rjirr -(i)nya-* ‘stand’; *joornk(o) -(i)nya-* ‘run away’; *lanarr -(i)nya-* ‘swear’; *liyan -(i)nya-* ‘breathe’; *loonboo -(i)nya-* ‘produce a loud noise’; *marndal -(i)nya-* ‘take aim (IO object)’; *maroolmarool -(i)nya-* ‘go away from’; *marr -(i)nya-* ‘flash’; *ngalar -(i)nya-* ‘open eyes, glow’; *ninga -(i)nya-* ‘call by name’; *niya -(i)nya-*

‘grounded’; *roowil -(i)nya-* ‘walk’; *way -(i)nya-* ‘come up’; *yarn -(i)nya-* ‘make a noise on the surface of water with a spear’

9.4. *-joo-* ‘do/say’

The verb root *-joo-* ~*-di-* ‘do/say’ is the default light verb. It is the most common verb, accounting for about 40% of all complex predicates in the lexicon. There are more than 200 preverbs recorded with *-joo-* (in addition to those productively formed from adjectives), and in the interests of completeness I have listed them here. As with the other light verbs, I have divided them into categories according to the relationship between the preverb and the light verb, and the semantic classes that seem to fall out from the data.

A note is warranted about the glossing of *-joo-*. I have used the gloss ‘do/say’ throughout this work, following Aklif (1999) and others who have worked on Nyulnyulan languages. However, the primary meaning of *-joo-* when not in a light verb is ‘say’, rather than ‘do’. I have only one good example of a case where a form of *-joo-* clearly means ‘do’ or ‘happen’ rather than ‘say’. The relevant portion of the text is given below in (13.104); the verb is in (13.104c). The context of the story is that a group of people have been traveling in a small boat, and the engine has failed in the middle of a strong tidal current. The boat is being tossed in the current and is in danger of being swamped.

- (13.104) a. *Barayi ingirrinijin Garndibinin.*

*Barayi i-n*g*-irr-i-ni=jin*
pray 3-PST-AUG-TR-do/say-REM.PST=3M.IO
Garndibinin.
God.

‘They prayed to God.’

- b. *Ingarranarran “Gorn anamajard yandilybar Oolarda, niiman baawa ambooriny arralabanjirr,” angirrinijirr.*

*I-n*g*-arr-anarra-n* “*Gorn*
3-PST-AUG-TR-ask-REM.PST good
a-na-ma=jard *yandilybar Oolarda, niiman*
2.IMP-TR-make-FUT=1A.IO boat O. many

baawa ambooriny a-rr-a-laba-n=jirr;
 children people 1-AUG-have-CONT=3A.IO
a-ng-irr-i-ni=jirr.
 1-PST-AUG-TR-do/say-REM.PST=3A.IO
 “Make our Oolarda [a boat] come good; we’ve got lots of
 children and people on board,” we said to ourselves.’

c. *Injoonoojirr.*

I-n-joo-noo=jirr.

3-TR-do/say-REM.PST=3A.IO

‘It happened./He did it for them.’

d. *Ginyinggon goona roowil innyan ar injinirr angarralabanamb gornagorn inamanjard injin ralirali, gorn injoonoojard injin ingarrajarralanga barda anyjimadan.*

Ginyinggon goona roowil i-n-nya-n ar injinirr
 then back walk 3-TR-catch-CONT other engineer

a-ng-arr-a-laba-n=amb gornagorn

1-PST-AUG-TR-have-REM.PST=REL well

i-na-ma-n=jard injin ralirali, gorn

3-TR-put-REM.PST=1A.IO engine quickly, good

i-n-joo-noo=jard injin

3-TR-do/say-REM.PST=1A.IO engine

i-ng-arr-a-jarrala-nга barda anyjimadan.

3-PST-AUG-run-REM.PST-APPL back returning

‘Then one of the engineers who worked for us walked to the back [of the boat] and made the engine work for us straight away, and the engine ran us back the way we came.’

(BSS1.008-011)

(13.105) gives the intransitive predicates. The most common intransitive predicates are resultatives formed with adjectives, as listed in (13.105a). There are, however, other intransitive predicates which also have a resultative meaning, and other intransitive predicates with *-joo-* ‘do/say’, which do not have a resultative meaning. The speech verbs fall into this category, for example.

(13.105) **Intransitive:**

- a. **Resultative:** *aab -joo-* ‘be excited’; *abarr -joo-* ‘wonder about something’; *joowaljoowal -joo-* ‘get wet’; *malajal -joo-* ‘be exhausted’; *bili -joo-* ‘get angry’; *binyj -joo-* ‘get cold’; *biid -joo-* ‘be deep’; *biili -joo-* ‘get angry at someone’; *biindali -joo-* ‘get bad luck’; *binyja -joo-* ‘become refreshed’; *booljoo -joo-* ‘become tired, weak’; *boolyja -joo-* ‘become exhausted’; *boordaboorde -joo-* ‘prepare something, get prepared, get ready’; *dayid -joo-* ‘be tired, get tired’; *diiwa -joo-* ‘get hard’; *diiwadiiwa -joo-* ‘get hard’; *door -joo-* ‘got used to’; *doorrba -joo-* ‘have good luck, get lucky’; *garraygarray -joo-* ‘feel crook’; *goojaj -joo-* ‘feel weak’; *goolarl -joo-* ‘feel weak for no reason: she felt weak’; *goonngoo -joo-* ‘be exhausted’; *gorna -joo-* ‘be well’; *inkoorr -joo-* ‘be cold’; *jalijali -joo-* ‘remain, left over’; *jardoo -joo-* ‘get bent’; *joorroong -joo-* ‘make up mind’; *loogal -joo-* ‘be bad’; *loogal -joo-* ‘feel unwell’; *maanka -joo-* ‘get dark’; *malajal -joo-* ‘be exhausted’; *malimal -joo-* ‘be sad’; *mangarra -joo-* ‘be numb’; *mardang-garrarn -joo-* ‘be scared stiff’; *marl -joo-* ‘stop, stay in one place for a time’; *marlajal -joo-* ‘be fed up’; *marrarr -joo-* ‘be unfair’; *miji -joo-* ‘get hoarse’; *mool -joo-* ‘get hot’; *moolaj -joo-* ‘get sick of’; *moorrgard -joo-* ‘feel full/feel sated’; *ngoorb -joo-* ‘become soft’; *ngoordinko -joo-* ‘go in opposite directions, be divorced’; *noonggooboo -joo-* ‘to be annoyed, fed up’; *noonyji -joo-* ‘be alive’; *rambin -joo-* ‘feel heavy’; *wiinyja -joo-* ‘get full’; *wiinyma -joo-* ‘get wrinkled, shriveled’; *niimana -joo-* ‘be everywhere’
- b. **Phrasal preverbs:** *gorna liyan -joo-* ‘be glad’; *liyan alig -joo-* ‘be upset’; *liyan loogal -joo-* ‘be upset’
- c. **Motion:** *angananga -joo-* ‘come closer’; *anggoorriny -joo-* ‘ease off’; *arr -joo-* ‘go’; *banban -joo-* ‘hurry’; *doombarr -joo-* ‘fly, take off’; *baybirrny -joo-* ‘walk behind’; *birarr -joo-* ‘go away’; *didada -joo-* ‘run away’
- d. **Speech verbs:** *barn -joo-* ‘tell someone to do something’; *miila -joo-* ‘tell lies’; *ngoonngoon -joo-* ‘grumble’; *bararrga*

-joo- ‘feel sorry’; *bayilygarr -joo-* ‘swear’; *boorboor -joo-* ‘yelp’; *jiiboorroodij -joo-* ‘chattering of birds in the early morning’;

In (13.106) we see the other major use of *-joo-*, that is, in frame ‘do X,’ where X is the preverb. These are the intransitive preverbs; transitive preverbs are to be found in (13.107) below:

- (13.106) ‘do <preverb>’: *daag(a) -joo-* ‘sleep’; *doodool -joo-* ‘break up the ground’; *doombooldoombool -joo-* ‘hit the water with slapping sounds’; *garr ~ garrgarr -joo-* ‘rub to stop the pain’; *joobil -joo-* ‘spit out’; *abarrabarr -joo-* ‘wander around feeling lost’; *alaboor -joo-* ‘walk ahead’; *alig -joo-* ‘feel unwell, feel tired’; *arrarr -joo-* ‘stand around’; *birralabirrala -joo-* ‘shake head’; *barr -joo-* ‘stand’; *barranybarrany -joo-* ‘shake head’; *didididi -joo-* ‘have a racing heart (caused by sickness)’; *boolayi -joo-* ‘play’; *boolway -joo-* ‘row’; *boorrboorr -joo-* ‘dance’; *daag -joo-* ‘sleep’; *daarl -joo-* ‘snap fingers’; *dalarr -joo-* ‘make a crashing noise’; *dambaldambal -joo-* ‘splash in shallow water, making a noise’; *darr -joo-* ‘refuse; say no to’; *diil -joo-* ‘deal (in a card game)’; *diilar -joo-* ‘make a short and light sound’; *diird -joo-* ‘run away, leave’; *dirraway -joo-* ‘steer away’; *doobirl -joo-* ‘expectorate’; *doodoodoo -joo-* ‘noise of thunder, distant explosion’; *doombooldoombool -joo-* ‘hit the water with slapping sounds’; *doowan -joo-* ‘hatch out, shoot up’; *galara -joo-* ‘make visible, come into the open, reveal’; *galaway -joo-* ‘scull away, row away’; *gardgard -joo-* ‘shake, tremble’; *gawoo -joo-* ‘call out’; *goodgood -joo-* ‘crouch, creep’; *goora -joo-* ‘play about’; *goord -joo-* ‘bend down’; *goorl -joo-* ‘make the sound of the rumbling of the stomach’; *imoor -joo-* ‘sneak away’; *jagoord -joo-* ‘return’; *jamala arr -joo-* ‘walk around without any particular purpose’; *jamaramar -joo-* ‘whisper’; *jaroo -joo-* ‘disappear’; *jarr -joo-* ‘stand’; *jarrjarr -joo-* ‘come back’; *jigir -joo-* ‘peep’; *jibbor -joo-* ‘make noise’; *jilil -joo-* ‘go behind’; *jindin -joo-* ‘squat down’; *jirlirlg -joo-* ‘lean over’; *jiirrjiirr -joo-* ‘stand up, stand around’; *jirrm -joo-* ‘sing’; *jiyil -joo-* ‘deal cards’; *jondol -joo-* ‘double up’; *joobool -joo-* ‘splash and swim in the water, have a shower’; *joobooljoobool -joo-* ‘splash’; *joonboo -joo-* ‘jump’; *joorrboo -joo-* ‘jump’; *joorrboojoorrb -joo-* ‘skip; jump around’;

joowaljoowal -joo- ‘get wet’; *jorndola* -joo- ‘coil, shrink’; *lalal* -joo- ‘flow’; *larda* -joo- ‘go down’; *larrayil* -joo- ‘make a light rattling or rustling noise’; *lilili* -joo- ‘protrude’; *miila* -joo- ‘tell lies’; *milmil* -joo- ‘roar, echo’; *moolgany* -joo- ‘blink, close eyes’; *moonboonarr* -joo- ‘go against the tide’; *ngaa* -joo- ‘open mouth’; *ngarangara* -joo- ‘pant’; *ngarlngarl* -joo- ‘bark’; *ngonkon* -joo- ‘complain’; *ngooloogoo* -joo- ‘walk, jump’; *ngoongoo* -joo- ‘hum’; *ngoonngoon* -joo- ‘grumble, mumble’; *niimarpa* -joo- ‘clap one’s hands’; *niramoo* -joo- ‘look forward, be glad’; *nirirr* -joo- ‘go along the edge’; *nyoogoo* -joo- ‘nod’; *oolal* -joo- ‘dissolve, melt’; *oorr* -joo- ‘make the sound of wild bees around a hive’; *rararr* -joo- ‘rustle’; *rarrb* -joo- ‘dawn’; *riiwa* -joo- ‘leak’; *roodoo* -joo- ‘dance’; *warrgam* -joo- ‘work’; *wilywilyi* -joo- ‘squeal’; *yar* -joo- ‘paddle’; *yardab* -joo- ‘crawl’; *yoyo* -joo- ‘babble (of voices)’

There are also transitive predicates with -joo-. All transitive predicates involving -joo- fit the ‘do X’ frame. They are listed in (13.107):

- (13.107) Transitive meanings, ‘do <preverb>’: *bajibaj* -joo- ‘rub together’; *bar* -joo- ‘pull, jerk’; *bornkobornko* -joo- ‘encircle’; *da* -joo- ‘hammer, ram’; *daab* -joo- ‘climb’; *dadal* -joo- ‘shoot at someone’; *dadoorr* -joo- ‘bite’; *dawoodawoo* -joo- ‘chop, hack’; *didirr* -joo- ‘twist (necks)’; *diidid* -joo- ‘twist’; *doodool* -joo- ‘break up the ground, make a knocking noise’; *doodoorroo* -joo- ‘twist’; *dool* -joo- ‘hit the water with a big splashing sound, hammer’; *gaal* -joo- ‘humbug’; *garoorrhgaroorr* -joo- ‘chomp on crisp food, e.g. apple, onion’; *garr* -joo- ‘rub to stop pain’; *gooly* -joo- ‘squeeze’; *gorgor* -joo- ‘chomp on something crunchy’; *gorr* -joo- ‘collect for oneself’; *gorrgorr* -joo- ‘gather together’; *jaboorrhjaboorr* -joo- ‘pluck’; *jarbijarbi* -joo- ‘poke, thrust with spear’; *jiinb* -joo- ‘avoid something’; *jirrirjirrir* -joo- ‘run down’; *joobil* -joo- ‘spit out’; *joolool* -joo- ‘come for a fight’; *joondi* -joo- ‘treat harshly’; *joorrbb* -joo- ‘jump, go down, step down into, embark’; *joorrbara* -joo- ‘stand straight’; *lara* -joo- ‘tear’; *libi* -joo- ‘hear’; *liilal* -joo- ‘echo’; *lilirl* -joo- ‘make a splattering noise, especially of burning fat’; *loodayi* -joo- ‘swing’; *ngangganmarda* -joo- ‘want to leave’; *ni-moonggoon* -joo- ‘learn’; *noongoo* -joo- ‘marry (a woman)’; *nyoonyi* -joo- ‘sniff’; *oorroogay* -joo- ‘shake’; *ranyiranyi* -joo- ‘clean up’; *roongoo* -joo- ‘sniff, sip’; *roongooroongoo* -joo- ‘suckle’;

way -joo- ‘call to, beckon’; *wiidi -joo-* ‘extinguish’; *wijj -joo-* ‘whip’; *win -joo-* ‘coax’; *wini -joo-* ‘respect’; *wirr -joo-* ‘scrape’; *woorr -joo-* ‘scrub’

The root *-joo-* is used by younger speakers (that is, those in their early 60s) in place of some of the other classificatory light verbs. There is, it appears that they are losing aspects of the classification system (or some of the idiosyncratic preverb–light verb combinations) and generalizing the most common light verb, using it as a default light verb.

9.5. Other complex predicates

The final set of complex predicates involves unproductive preverb–light verb combinations, where an inflecting verb combines with a single preverb. For example, there is one instance of a complex predicate with *-arndi-* ‘catch’, namely *joomoonoonoo -arndi-*, an intransitive predicate meaning ‘to gamble’. The non-productive complex predicates were given in §9.6 and Table 9.5 above.

These non-productive light verbs can be subsumed under other analyses, either pseudo-incorporation, idioms, or adverbial incorporation. *Goolgarr -gama-* was discussed in §13.7.1 above, for example, where it was shown that the argument structure of the preverb could be vacuously transferred to the ‘light’ verb. *Doolii -jalgoo-* ‘be born prematurely’ is literally ‘fall early’ and is probably a case of adverb incorporation. Finally, *niimi -ngooloo-* ‘keep watch’ is literally ‘throw [one’s] eye’, recalling the English idiom ‘cast one’s eye about’, and could be analyzed either as a case of pseudo-incorporation or as a frozen idiom.

9.6. Summary

We have seen from the previous sections that verbal classification is one of the main parts of the Bardi complex predicate system. Under this analysis, the inflecting verb acts as a classifier of the preverb, indicating the type of event the preverb refers to. I have not attempted to give an exhaustive account of the functions of the different verbal classifiers in every single classifier construction; rather I have highlighted some of the more salient patterns in the data. Table 13.2 gives a summary of these findings. I believe that an account

of complex predication which attempts to capture every nuance of the event is unhelpful at this stage; it is probably based more on the English glosses than on the semantics of the Bardi complex predicates. Furthermore, the Bardi complex predicate system shows signs of being based around prototypical models and analogical extensions, rather than a rigid categorial system where each event is classified as belonging to a particular type.

Table 13.2. Summary of light verb uses

Light verb	Gloss	Primary use	Secondary use
Monovalent light verbs			
unaccusative:			
-ni-	'sit'	statives	—
-jiidi-	'go'	anticausatives	defined trajectory
-gal(a)-	'move'	undefined trajectory	
reflexive:			
-banji-	'share'	refl/recip	—
misc:			
-ganyi-	'climb'	trajectory up	result (1 only)
-gardि-	'enter'	trajectory into a space	—
Bivalent light verbs			
unergetic:			
-ma-	'put'	causatives (+ adj) result (+ other)	collection indirect impact change of location
		telic, unergative (intransitive)	
usually unergative			
-bi-	'hit w. hand'	impact, smashing	
-boo-	'poke'	impact, spear	change of state
-ga-	'carry'	carrying, change of location	speech acts
		atelic activities	
-ar-	'spear (lice), pierce'	action around a point	bodily functions
		activities with defined trajectory	
-∅-	'give'	accomplishments, telic activities	cutting or chopping
-(i)nya-	'catch'	accomplishments	scooping, cutting
-joo-	'do/say'	results (+ adj), inchoative generic light verb (do X)	

Chapter 14

Adverbs and Particles

In these final three chapters, I describe phrasal and clausal phenomena. This chapter contains adverbs, interjections, and the clitics which have not yet been discussed in other sections. However, clitics which link clauses are to be found in Chapter 16.

Adverbial meanings in Bardi are distributed between true adverbs (that is, words in the clause which are not arguments and which modify the clause or a part of it) and preverbs, for which see Chapter 13. There is some overlap in word class, since preverb is a syntactic position in Bardi as well as a type of word; that is, some true adverbs can also be used as preverbs in certain circumstances. In this chapter I discuss only ‘true’ adverbs. Somewhat confusingly, preverbs have also occasionally been called ‘adverbs’ in work on Australian languages, such as in Merlan (1994) on Wardaman.

Adverbs are fairly numerous in the dictionary, with 352 adverb headwords appearing, comprising 7.3% of the total number of headwords in the dictionary. This makes adverbs the third most numerous word class, after nouns and preverbs. Adverbs provide additional information about the location, manner, or intensity of the event in a verbal predicate. They can also provide some information about the relationship of participants to each other and that action (for example, whether the action was completed *amboon* ‘together’ or *ngoordingan* ‘separately’). They can also provide information about the stance of the speaker and their view of the event. Location, manner, and temporal adverbs together account for the majority of adverbs in the corpus.

I begin this chapter with a definition of adverbs (in §14.1); I then summarize the major classes of adverbs in the data: location and motion adverbs (§14.2), manner and intensity adverbs (§14.3), temporal, aspectual, and event adverbs (§14.4), and adverbs of ‘state’ and stance (§14.5).

1. Definition of adverbs

Adverbs in Bardi can be identified by a combination of their lack of nominal inflection, such as possession or case marking, and their ability to appear at more than one place in the clause (that is, in the flexibility of their constituent

order). These two criteria together distinguish them from preverbs (which appear strictly before the inflecting verb) and nouns (which take the full range of case markers). Many ‘adjectives’ also can be used as adverbs with zero derivation. (14.1) provides an example.

- (14.1) *Moorrooloo inarligal, moorrooloo roowil innyan.*

Moorrooloo i-na-rli-gal, moorrooloo roowil i-n-nya-n.
little 3-TR-eat-REC.PST little walk 3-TR-catch

‘He ate a little, walked a little.’

Adverbs tend to appear initially, pre- or post-verbally (that is, around the verb phrase including the preverb and inflecting verb), around another type of phrase that they modify (e.g. a noun phrase), and finally in the clause. Adverbs can host the clitic =*gij* ‘very’.

Adverbs can modify different types of constituents. They can modify whole clauses, such as *gardilba* ‘perhaps’, illustrated in (14.2). They can modify verb phrases. Functionally, they provide information about the manner of an action, aspect (whether an action is completed, for example) and other temporal information, information about the state of a participant (e.g. the state a person was in at the time of an action), and about location.

- (14.2) *Darr ingarrarna arra irrmoonggoon gardilba inkal “jorndi garmagijilba darr oonkara,” ingirrinin.*

Darr i-ng-arr-ar-na arra irr-moonggoon gardilba
come 3-PST-AUG-pierce-REM.PST NEG 3AUG-know might.be
i-n-kal “jorndi garrma=gij=ilba darr
3-TR-live in.a.bit later=VERY=PROBABLY come
oo-n-k-ar-a,” ingirrinin.
3.FUT-FUT-pierce-FUT

‘They didn’t know if he’d gone back or was still out there. ‘By-and-by he’ll probably come back,’ they said.’ (L155.021)

While most adverbs are underived, there are some adverbial items which contain fossilized case marking. The case marking in such items is not productive and the words appear to be treated as underived items. Some adverbs may appear both with and without a case marker, and in those cases, there is no obvious meaning difference. The pair *ilarrilarr* and *ilarrilarrgoon*, for

example, both mean ‘hands behind back’. *Mayalgarra* and *mayalgarran* ‘in the afternoon’ are found in the same text in exactly the same phrases, and speakers do not identify any difference in meaning. In some Australian languages (such as Gupapuygu (Lowe 1960), a Yolŋu language), the case of an adverb is affected by the tense of the clause. This is not the case in Bardi. Nor is the case related to the transitivity of the verb.

2. Location, direction, and motion

Locative adverbs can modify whole clauses, predicates, or noun phrases. They also participate in the discourse-determined word order constructions which Bardi shows; that is, when they appear initially they are in focus and have the status of new information.

2.1. Static location

Location adverbs can provide information about where an event is located with respect to a place. Such items include *angan* ‘close’ and *mara* ‘far’; they also include adverbs such as *aalgana* ‘in the sun’. Some items appear with both static location and motion (to be discussed further below); others, such as *aalgana*, are static.

- (14.3) *Aalgana ngagalanda, inkoorrnim alig ngandan.*

Aalgana nga-galand-a, inkoorr-nim alig nga-n-d-an.
in.the.sun 1-sit-FUT, cold-ERG pain 1-TR-do/say-CONT

‘I am going to sit in the sun since I am feeling cold.’

- (14.4) *Jarri angan inkal bornko bornko aarlingan mayoorroon.*

Jarri **angan** i-n-kal *bornko bornko aarli-ngan mayoorr-oon.*
this close 3-TR-wander around around fish-ALL fish.trap-LOC

‘He is wandering around close-by, looking for fish in the fish trap.’

- (14.5) *Lambard annya goowarn lagoorr gorrор oolaban noongoogoon boogoon.*

Lambard a-n-nya *goowarn lagoorr gorrор*
 open 2M-IMP-catch-FUT pearlshell egg IF
oo-laba-n *n-oongoo-goon* ***boogoon.***
 3M.FUT-have-CONT 3M.POSS-stomach-LOC inside.

‘Open that pearlshell in case it has a pearl (lit. ‘egg’) inside.’

Location adverbs of this type most often occur either finally in the clause, or immediately preverbally (both these positions are found in the examples above). If the specific location is given, the locative adverb appears adjacent to the location (though note that it may appear on either side). The placement of such items is not evenly distributed throughout the clause, however. In a count of the examples of the adverb *boogoon* ‘inside’ in the corpus, the adverb appears initially only seven times (out of 98 examples), while it was clause-final 43 times. The adverb was used clausally or without a specific location in 51 of the examples; it was part of a locational phrase in 42 examples, and a preverb in a complex predicate construction in 5 examples. Note that these counts include both static location and motion uses of the adverb (‘to inside’ vs. (be) inside), however the static uses comprise the vast majority of examples for this adverb.

- (14.6) *Marroolinyan jirrjirr injij.*

Marroolinyan jirrjirr i-n-j-ij.
 facing.away stand 3-TR-do/say-PFV

‘He’s standing facing the opposite direction.’

Over a hundred location adverbs are recorded in the Bardi dictionary. Some of the most common adverbs which refer to static location are given in Table 14.1.

Ngoonjoon is an adverb that has both causal and locational uses. When describing a location, it is used to describe the starting place for a delimited area of reference; in (14.7), for example, *ngoonjoon* marks the starting point of the pain which radiates down the shoulder.

Table 14.1. Adverbs of static location

Bardi	English
<i>boogoon</i>	inside
<i>jimbin</i>	underneath
<i>garndi</i>	on top, above
<i>baarnka</i>	outside
<i>aalgana</i>	in the sun
<i>baybirr(i)</i>	behind
<i>alminyko</i>	windward
<i>angan</i>	close
<i>jarralany</i>	upside down
<i>marrooliniyan</i>	facing the opposite direction
<i>nirirr</i>	very close
<i>niliny</i>	among

- (14.7) *Ngamarl arrarr irlin langono ngoonjoon jiiba lardamadany.*

*Ngamarl arrarr i-rl-i-n langon-o ngoonjoon jiiba
 1M-hand ache 3-eat-CONT shoulder-ABL since this
 larda-madany.
 downward*

‘My arm’s hurting from my shoulder down this way.’ (NI CB/20 26:26)

2.2. Location on body

Body parts tend to have location specified without an adverb. That is, the body part appears in the locative case. However, there are also some locative adverbs that make reference to body parts, such as *ilogoo* ‘on one’s side’ and *goondoo* ‘across the shoulder’. The recorded adverbs are listed in (14.8).

- (14.8) a. *ilogoo* ‘on one’s side’
 b. *goondoo* ‘across the shoulder’
 c. *niyanan* ‘across one’s back’
 d. *rangoon* ‘upside down, on one’s stomach’
 e. *bodawin* ‘at the throat’

Additionally, there are adverbs which refer to body position, such as *moonmooroo* ‘stomach to stomach’ or *midimidi* ‘kneeling’. *Midimidi* shows another characteristic of body part adverbs; that is, there are several which are reduplications of body part terms. *Midimidi* itself is the reduplicated form of the root of the obligatorily possessed word *ni-midi* ‘knee’ (the word *midi* does not exist on its own). Another example is *langanalangana* ‘shoulder to shoulder’, which is illustrated in (12.22).

2.3. Dynamic motion

A further set of adverbs provide information about motion, that is, information about location/direction which is not either about the end point or the starting point. These can include information about the path of motion (including *nirirrjarr* ‘along the cliffs’, *noodoorrgony* ‘up the creek’, or *alalankarr* ‘along the sand-cliffs’). Also included here are adverbs which refer to tidal motion: *joodarrarr* ‘with the tide’ and *arrinarr* ‘against the tide’.

- (14.9) *Jarrgany inamana joodarrarr mayoordinngan.*

Jarrgany i-na-ma-na joodarrarr mayoordinngan.
cross.over 3-TR-put-REM.PST with.the.tide going.out

'He crossed over with the tide as it was going out.' (MNJ.012)

Many of the adverbs described in §14.2.1 can be used in conjunction with the allative (§5.4.4) or ablative (§5.4.5) cases to mark the goal or source of motion respectively. In that case, they appear either in conjunction with a noun phrase marked in the appropriate case, or receive case themselves.

- (14.10) *Alala giija boora jarri. Nyirroogoord lagal ankinya garndingan?*

*Alala giija boora jarri. Nyirroogoord lagal a-n-k-iny-a
steep very place this how climb 1-TR-climb-FUT
garndi-n-gan?
above-ALL*

‘This place is very steep. How are we going to climb up?’

Dictionary

- (14.11) *Wirr inyarrmin oolon barda garndingan.*

*Wirr i-ny-jarrmi-n oolo-n barda **garndi**-ngan.*
arise 3-PST-rise-CONT cloud-LOC off above-ALL

‘He rose up on a cloud off to heaven.’ (GAL1.077)

- (14.12) *Ginyinggon joornki innyana jimbinnigan.*

*Ginyinggon joornki i-n-nya-na **jimbin**-ngan.*
then run 3-TR-catch-REM.PST below-ALL

‘Then it ran underneath.’ (L117.008)

2.4. Cardinal directions

Table 14.2 gives Bardi cardinal directions. While there are four of them, they are not equally spaced. The terms for ‘South’, ‘East’, and ‘West’ are fairly similar to their English counterparts, but the term for ‘North’, *ardi*, is not true north but rather skewed a little to the East. Compass points can receive the marker *-ngarr* (discussed in Chapter 5). It is also possible to use the allative case on the bare stem, but they are also rarely found; *ardingan* ‘to the north’ was used spontaneously, however.¹⁹⁶

Table 14.2. Compass points

	Location	Towards	Away from
North(east)	<i>ardi</i>	<i>ardingarr</i>	<i>ardiyo</i>
South	<i>alang</i>	<i>alangarr</i>	<i>olonggo</i>
East	<i>baanarr</i>	<i>baanangarr</i>	unattested
West	<i>goolarr</i>	<i>goolarrangarr</i>	unattested

Compass points are not extensively used in my corpus as ways of giving directions. Forms such as *olonggo* ‘from the south’ are attested, but not used with any frequency. An example of a compass point is given in (14.13). When giving directions, story-tellers use place names most commonly. That is, rather than describing a direction in terms of compass points, they will say ‘to Sunday Island’ or ‘in the direction of Oombinarr.’ This more typical use is illustrated in (14.14).

- (14.13) *Nyanba joornk innyananga ardingarra.*

Nyanba joornk i-n-nya-na-nga ardi-ngarra.
there run 3-TR-catch-REM.PST-APPL north-wards

'They ran northwards together.' (L91.002)

- (14.14) *Jarrgany angarraman Oombinarrgo barda gala arnan.*

Jarrgany a-ŋg-arr-a-ma-n **Oombinarr-go** barda gala
cross 1-PST-AUG-TR-put-CONT O.-ABL away already
aranan.
straight.across

‘We went across from Oombinarr.’ (BSS1.003)

The next most common way to give directions is to use *nyanbirrnony* ‘the other side’ and *banbirrnony* ‘this side’. *Nyanbirrnony* more specifically refers to the Mayala islands and the mainland in Worrorran country.

2.5. Relative directions: left and right

Bardi has words for ‘left’ and ‘right’.

- (14.15) a. *joorroonggoo* ‘right’; *joorroongganyi niimarla* ‘right hand’
 b. *ngalgarrman* ‘left’, *ngalgordony* ‘left (hand)’

Two words for ‘left’ are recorded in the dictionary: *ngalgarrman* (recorded by Metcalfe and confirmed by Nancy Isaac) and *ngalgordony*. The latter contains the lative case marker *-gony(i)* but it appears fossilized; in the word for ‘right (hand)’, the lative is not found in the word for ‘right’, but is found in the phrase *joorroongganyi niimarla* ‘right hand’. The word for ‘right (hand)’ is not the same as the word for ‘correct’ or ‘true’, but it can be used to mean ‘straight’ (as opposed to ‘crooked’).

These words can be used for direction and location ('on the right'): *right*

- (14.16) *Joorroonggo inoongooloogal irrgil.*

Joorroonggo i-noo-ngooloo-gal irrgil.
right 3-TR-throw-REC.PST boomerang

‘He threw the boomerang to the right.’

- (14.17) *Amboonoo laanybiidi ara ngalgarrmankonyi ara joorroonggonyi.*

Amboonoo laanyibiidi ara ngalgarrmankonyi ara
together thieving-EXP other left.side other
joorroonggonyi.
right.side

‘(Jesus died) together with thieves, one on his left and one on his right.’ (Metcalfe 1975a)

3. Manner adverbs

Bardi has a rich collection of adverbs describing the manner in which actions are performed. There are about 75 in the corpus, some of the most common and representative of which are listed in Table 14.3. Examples are given in (14.18).

- (14.18) a. *Jilybang jirrjirr injij.*
Jilybang jirrjirr i-n-j-iij.
on.tiptoe stand 3-TR-do-PFV
‘He is standing on tiptoe.’ (Dictionary)

b. *Bard inamankarna laanybi, innyanajirr goorlil.*
Bard i-na-mankar-na laanybi,
away 3-TR-carry-REM.PST thievishly
i-n-nya-na=jirr goorlil.
3-TR-catch-REM.PST=3A.IO turtle
‘He carried it off thievishly, he took their turtle.’ (BE: CB52.1)

Some of these adverbs double as preverbs; several combine with *-nya* ‘catch’ (though not all items which combine with preverbs can also be adverbs), and while some have transparent meanings, in other cases the meaning is idiomatic.

- (14.19) a. *joornk -inya-* 'run'
 b. *laanybi -inya-* 'steal'

Table 14.3. Manner adverbs

Bardi	English
<i>namarda</i>	just, a little bit
<i>boorda</i>	properly
<i>jal(gal)goordan</i>	concealed, while keeping hidden
<i>malygin</i>	secretly, without people knowing
<i>baljinjoonoo</i>	to the death
<i>jaminybarr</i>	fast
<i>joornkoo</i>	quickly
<i>jilybang</i>	on tiptoe
<i>oombala</i>	slowly
<i>nomodon</i>	unexpectedly
<i>oonyoorr</i>	competently
<i>noorrba</i>	with effort
<i>moojoomoojoon</i>	invisibly
<i>laanybi</i>	thievishly

Manner adverbs tend to occur immediately following or preceding the verb (as shown in (14.18) above), and some of them can also double as preverbs. McGregor (in press) describes some of these cognate items in Nyulnyul as preverbs, and therefore allows that Nyulnyul has preverbs which need not be strictly preverbal. I prefer to analyze the Bardi forms as adverbs, however, rather than potentially movable preverbs. The description of the syntax of complex predicates does not benefit from treating these items as movable preverbs; it makes the otherwise quite clear distinction between preverbs and adverb less clear, and it obscures the fact that manner adverbs pattern like location and temporal adverbs in their ability to combine with complex predicates and in their placement in the clause.

A few other manner adverbs overlap with the location domain. *Mardal* ‘keeping one’s distance’, for example, could be categorized as either locational or manner.

4. Time reference adverbs

The final large class of adverbs is the set of temporal adverbs. They can be split into those that mark absolute time reference, relative time reference, and

aspectual adverbs (or others that refer to the temporal structure of an event). These are summarized in Table 14.4. Various other temporal markers, such as days of the week, are also discussed in this section.

Temporal adverbs are most frequently either initial or final in the clause. While it is not certain what conditions the different placement, I assume that it is related to larger considerations of information structure and to the fact that new information always appears first in the clause. Therefore, if the temporal information is confined to clause peripheral positions and another constituent is occupying the initial focus position, the temporal adverb will appear finally. This fits many examples, but in other cases, the temporal adverb appears to be extra-positive. That is, it does not receive the focal intonation associated with new information, which instead appears on the following item. This is a topic for further research.

- (14.20) *Irrnim gilgil ingarranananid joongoorr milon.*

Irr-nim gil-gil

3AUG-ERG chip.off-REDUP

i-ng-arr-a-na-na=nid joongoorr

3-PST-AUG-TR-give-CONT-REM.PST=QUANT small.sharp.stick

milon.

long.ago.

‘Long ago they used to shave the little sticks [in order to sharpen the points so they can be driven into the mangrove logs as nails to make a raft.]’ (ABC.014)

- (14.21) *Milon garndi bardagon ingarramanarr ginyinggarra rooban joor-roongoo ingarrina Oonggaliyanola.*

Milon garndi barda-gon i-ng-arr-a-ma-n=arr

long.ago up.high tree-LOC 3-PST-AUG-TR-put-REM.PST=EMPH

ginyinggarra rooban joorroongoo

then in.revenge straight

i-ng-arr-i-na Oonggaliyan-ola.

3-PST-AUG-do/say-REM.PST Long.Island-DEN

‘Long ago they put him in a tree and they put him straight in Long Island.’ (L102.051)

Table 14.4. Temporal adverbs

Bardi	English	Note
Absolute		
<i>gooloorrana</i>	midnight	
<i>iidanngoorroo</i>	night time	
<i>milon</i>	long ago	
<i>joombal</i>	day time	
<i>jalbany</i>	very early	
<i>jooloolin</i>	late afternoon	
<i>mayalgarra(n)</i>	mid afternoon	
<i>mooyoon</i>	morning	
<i>rarrbankarr(ada)</i>	dawn	
<i>rarrbarr</i>	dawn	
Relative		
<i>ajimarr</i>	afterwards	Jawi
<i>ajimorrony</i>	afterwards	Bardi
<i>alaboor</i>	before	
<i>bardi</i>	yesterday	
<i>barnanggarr</i>	today, now, nowadays	
<i>garrma</i>	later on (within 24 hours)	
<i>aaman</i>	as soon as	
<i>ngòorra</i>	last night	
<i>ngoorrij(i)</i>	tomorrow	
<i>laamboo</i>	later on	
<i>nyoonogoowarra</i>	day after next	
<i>bardiyarra</i>	last few months	
Duration		
<i>aankoo</i>	just for the day, for a little while	
<i>galgoon</i>	seldom	
<i>gayanoong</i>	for a while	
<i>mangir</i>	always	
<i>joodiny</i>	all the time	
<i>wiira</i>	a for little while, temporarily	
Aspectual		
<i>biila</i>	again, also	
<i>garrgooy</i>	completely	
<i>gardaban</i>	over and over again	

4.1. Absolute reference

A subset of temporal adverbs have absolute time reference. Included here are parts of the day and the season terms described above in §2.2.1.

4.1.1. Parts of the day

The Bardi day is divided into several parts. In addition to the words given in Table 14.4 above, there are several other words which refer to times of day, but they were either found only in old sources or appear without illustration.

- (14.22) a. Very early in the morning, before daybreak: *jalgany*
 b. Dawn: *rarrbankarrarda*, *rarrbarr*
 c. Morning: *mooyoon*
 d. Day time: *joombal*
 e. Midday: (phrase)
 $\text{boolngoorroo} \text{ morr } i\text{-}n\text{-}joo\text{-gal}$ *aalga*
 middle road 3-TR-do-REC.PST sun/day
 f. Mid afternoon: *mayalgarra(n)*
 g. Late afternoon: *injooloolin*
 h. Just before sunset: *jimbinkiji* (not known nowadays)
 i. Last light: *nganbi*
 j. Just after sunset: *ooladaji*
 k. Night: *iidanngoorroon*

These times are often used as preverbs in impersonal complex predicates, rather than as adverbs. In such examples, the complex predicate is often accompanied by an ‘ethic dative’ use of the oblique pronoun (see further §10.4).

- (14.23) *Mooyoon rarrb injoonoojirr booroo.*

Mooyoon rarrb i-n-joo-noo=jirr *booroo.*
 morning dawn 3-TR-do/say-REM.PST=3A.IO time

‘Dawn came.’

(BBN.038)

These adverbs can be used to mark the extent of a temporal period. In (14.24), we see a complex temporal phrase where the source case, combined with doubling, is used to signal that the event is happening ‘month after month.’

- (14.24) *Bawaninbawin ingirrinyanana joo injoonana ginyingg miinimbi gardi ara ariyoon goowidi agal ariyoon goowid garda.*

Bawaninbawin i-n-ng-irr-inya-na-na* joo*
 cut.up-REDUP 3-PST-AUG-catch-CONT-REM.PST ??
i-n-joo-na-na ginyingg miinimbi gardi ara
 3-TR-do/say-CONT-REM.PST 3MIN whale still one
ari-yoon goowidi agal ari-yoon goowid garda.
 one-SOURCE and one-SOURCE month still

‘They cut up that whale month after month.’ (HHW.031)

4.1.2. Days of the week

Words for days of the week were introduced in the mission period in the late nineteenth century. These days, English names are mostly used with codeswitching (that is, with unadapted phonology), but two are found fully adapted, and one (Monday) is a phrase meaning ‘washing day’.

- (14.25) a. *jaandi* ‘Sunday’
 b. *wajimarra booroo* ‘washing day’: Monday
 c. *jarridi* ‘Saturday’

4.1.3. Other absolute time words

The words *aalga* ‘day’, *goowid(i)* ‘month’ and *lalin* ‘year’ are primarily nouns, and therefore are not listed among the temporal adverbs in Table 14.4. They are all polysemous, with *aalga* having the primary meaning ‘sun’, *goowidi* ‘moon’ and *lalin* is the time of the year when turtles mate (usually in late November). The word *booroo* ‘place’ is also used to mean ‘time’ and ‘tide’, and appears in the Laves texts several times in the meaning ‘day’. An example of the use of *goowidi* in the meaning ‘month’ appears in (14.24)

above, and *booroo* is found as a time word in (14.23) and (14.25b). Words for seasons were given in §2.2.1.

4.2. Relative reference

There are several relative temporal words in Bardi. The most common include *bardi* ‘yesterday’ and *ngoorriji* ‘tomorrow’.¹⁹⁷ Some Australian languages have a single word which refers to one day either side of the current day, but Bardi does not. There is also a word *bardigij*, derived from *bardi* ‘yesterday’, which means ‘within the last few days, within the last week.’

- (14.26) *Bardigij arr injij, arramb jagoord oolin.*

Bardigij arr i-n-j-ij, *arr=amb jagoord*
 last.week go 3-TR-do-PFV, NEG=THUS return
oo-l-i-n.
 3.irr-IRR-do-CONT

‘He left last week but he hasn’t come back yet.’ (LK)

Further examples follow. (14.27c) shows that temporal adverbs which are first in the clause can still be hosts for clausal clitics.

- (14.27) a. *Ngankinbinba garrma.*

Nga-n-k-inbinb-a garrma.
 1-TR-FUT-think-FUT later
 ‘I’ll think about it later.’

- b. *Ngayoo inngoorr oonggarraya ngay, joogid garrma oonggar-rargij.*

Ngayoo inngoorr oo-ngg-arr-a-y-a ngay,
 1MIN first 3-FUT-AUG-TR-take-FUT 1MIN
joo=gid garrma oo-ngg-arr-arg-ij.
 2MIN=THEN later 3-FUT-AUG-pick.up-PFV

‘They’ll take me first, and they’ll come and pick you up later.’

- c. *Baanigarrgid iyarginjin amboorinynim. Amanb cyclone jibarr indan darr indanjin irrinjin amboorinynim, iyarginjinjamb amboorinynim barnanggarr.*

Baanigarr=gid i-yargi-n=jin
 today=THEN 3-scare-CONT=3M.IO=THUS
ambooriny-nim. Aman=b cyclone jibarr
 people-ERG as.soon.as=REL c this.way
i-n-d-an darr i-n-d-an=jin
 3-TR-do/say-CONT come 3-TR-do/say-CONT=3M.IO
i-rr-i-n=jin ambooriny-nim,
 3-AUG-do/say-CONT=3M.IO person-ERG
i-yargi-n=jin=jamb ambooriny-nim
 3-fear-CONT=3M.IO person-ERG
barnanggarr.
 3-fear-CONT=3M.IO=THUS person-ERG today

‘People get scared. Now, if someone says that a cyclone’s coming, people get scared.’ (CYC2.006)

- d. *Milon gardimb ingarrana ngirraygoon baaliboor agal gardi-nonjardirr, jamoogamarda, goligaloongoord.*

Milon *gardimb i-ng-arr-a-na ngirray-goon*
 long.ago indoors 3-PST-AUG-take-REM.PST hut-LOC
baaliboor agal gardin-on=jard-irr,
 camp and cave-LOC=1A.POSS=3A
jamoogamarda,
 mother’s.father-mother’s.mother
goli-galoongoord.
 father’s-mother-father’s.father

‘A long time ago, people used to stay indoors, in their huts or in caves. That was in our grandparents’ time.’ (CYC2.007)

4.3. Duration adverbs

There are adverbs which give information about the duration of an event. These range from events of very short duration, marked with *wiira* ‘temporarily, for a little while’, to events which last forever (*joodiny(ko)*).¹⁹⁸ There are also adverbs such as *galgoon* ‘seldom’ which provide information about the frequency of the event, rather than its duration. These adverbs are also initial, final, and preverbal.

- (14.28) *Wiira arr ngandan, biilamb jagoord nganki anyjimadan.*
Wiira *arr nga-n-d-an, biil=amb jagoord*
 little.while go 1-TR-do/say-CONT again=THUS come.back
nga-n-k-i anyji-madan.
 1-TR-FUT-do/say return-DIR
 ‘I am going for a little while, but I’ll come back.’

(14.29) *Gardiba arragiji liyan oolamanana gardi mangir inanggalboonana.*
Gardi=ba arragiji liyan oo-la-ma-na-na gardi
 still=REL NEG spirit 3.IRR-IRR-put-CONT-REM.PST still
mangir i-n-ang-galboo-na-na.
 always 3-TR-PST-dig-CONT-REM.PST
 ‘He still really wasn’t happy, he kept digging.’ (L159.003)

Several of these items have similar glosses in English (*aankoo* and *wiira*, for example) and the precise differences between them are not currently known. In other cases there may be dialectal differences. *Aankoo*, for example, is only attested in the Laves texts, though it was recognized and confirmed in recent work.

To mark that an event happened for a certain number of days or hours, a time phrase is used. These are null-marked. (14.30) provides an example.

- (14.30) *Biindan gooyarra booroo ingamoolgoon.*
Biindan gooyarra booroo i-nга-moolgoo-n.
scrub two time/day 3-PST-sleep-CONT
‘He slept in the bush for two days.’ (L58b.099)

4.4. Aspectual adverbs

Finally, there are a couple of adverbs which are aspectual in nature; that is, they provide information about whether the event is completed or repeated. These are *biila* ‘again’, *garrgooy* ‘completely’, and *gardaban gardabana* ‘over and over again’.

There are two words, *biila* and *biilijij* (with the intensive clitic) which are both translated by speakers as ‘again’. Laves sometimes glosses *biilijij* as

‘even harder’; a good translation might be ‘yet more’ or ‘yet again’. *Biila*, the underived form, simply means ‘once more’.

- (14.31) *Biilijig ingalamankana gala anganagij bornko bornko injoonoon-girr.*

Biilijj i-nга-lamanka-na *gala angana=gij bornko*
again 3-PST.AUG-hear-REM.PST well close=VERY around
bornko i-n-joo-noo-ng=irr.
around 3-TR-do/say-REM.PST-APPL=3A.DO

‘Again they heard him closing in on them.’ (BBN1.012)

- (14.32) *Biilijj jarrma injanboonin.*

Bii ligij jarrma i-n-janboo-n=in.
again dance 3-TR-hit.ground-CONT=3M.IO

'He danced even harder.' (L59.010)

Examples of *garrgooy* ‘completely’ are given below. In most cases, the adverb signals that the action has been done completely or thoroughly (for example, in (14.33), that the fish are fully (not partially) cooked. In other cases it serves the function of making some types of cancelable predicates non-cancelable (cf. Grice 1989:39-40). In Bardi, verbs like *-gardī-* ‘drown’ and *-jimbi-* ‘die’ have cancelable implications, unlike their English translations. That is, sentences like ‘he drowned, but they fished him out and he was all right’ are grammatical and felicitous in Bardi. However, using the adverb *garrgooy* marks the implication as non-cancelable.

- (14.33) *Ingarrmarranan garrgooy gala ninga irrjarra angarrarlinana boonyja amboorinynam.*

I-ŋg-arr-marra-n-an **garrgooy** *gala* *ninga*
3-PST-AUG-cook-CONT-REM.PST completely already EMPH
irr-jarra *a-ŋg-arr-a-rli-na-na* *boonya*
3-AUG-taste 1-PST-AUG-eat-CONT-REM.PST all
ambooriny-nim.
people-ERG

'When they are cooked right through, they taste really good. Everyone used to eat the lot.' (NAA.015)

- (14.34) a. *Yalyarrinybooroo ingorrona garrgooy.*
Yalyarrinybooroo i-n̄g-orr-o-na **garrgooy.**
 Y 3-PST-AUG-TR-spear-REM.PST completely
 ‘They speared Yalyarrinybooroo dead.’ (L82.010)
- b. *Goolyi ingarrana garrgooy inyjiibina.*
Goolyi i-n̄g-arr-a-na **garrgooy**
 bowerbird 3PST-AUG-be-REM.PST completely
i-ny-jiibi-na.
 3-PST-die-REM.PST
 ‘They killed the bowerbird dead.’ (L59.061)

5. Other adverbs

5.1. Modal and emotion adverbs

There are adverbs which provide information about the truth value of the event, the speaker’s suppositions about the event, and the degree of actuality of the event. They have the same distribution as other adverbs. The examples presented below are typical.

Table 14.5. Modal and emotion adverbs

Bardi	English
<i>anyngarr</i>	in vain, without return
<i>aamard</i>	surprisingly
<i>nganyjal</i>	hopefully
<i>aanag</i>	without knowing

- (14.35) a. *Anyngarr ngana goorlil bardi rooban ginyinggi goorlilnyarr arra oolanangay.*
Anyngarr nga-na **goorlil bardi** **rooban**
 in.vain 1-[give]-REM.PST turtle yesterday in.return
ginyinggi goorlil-nyarr arra oo-la-na=ngay.
 3MIN turtle-COM NEG 3-IRR-[give]-REM.PST=1M.DO
 ‘I gave her turtle meat yesterday although she didn’t give me any when she had turtle.’

- b. *Miyaloorroo biindal jirriri arra oolarrarla ambooriny. Amboorinynim baad irranjirr anyngarr.*

Miyaloorroo biindal jirr-irr arra oo-la-rr-arl-a
 python harmless 3A.POSS-3A NEG 3-IRR-AUG-bite-FUT
ambooriny. Ambooriny-nim baad i-rr-a-n=jirr
 person person-ERG grab 3-AUG-give-CONT=3A.IO
anyngarr.
 in.vain

‘Pythons are harmless; they don’t bite people. People grab them and they don’t do anything.’

- c. *Galagid abarrabarr inamana anyngarrangarra ginyinggi layoordoonim ginyinggi aamba.*

Gala=gid abarrabarr i-na-ma-na
 well=THUS confused 3-TR-put-REM.PST
anyngarr=angarra ginyinggi layoordoo-nim ginyinggi
 in.vain=JUST 3MIN l.spirit 3MIN
aamba.
 man

‘The *layoordoo* had the husband absolutely beaten. (The husband just couldn’t do any damage in return.)’ (WIR.025)

- (14.36) *Aamard darr inargal.*

Aamard darr i-n-ar-gal.
 surprised come 3-TR-poke-REC.PST

‘I’m surprised—(I didn’t know) he would come.’

5.2. Adverbs of exchange

There are a number of adverbs that talk about the action in context. One way in which reciprocity can be marked in a clause is through the use of the adverb *rooban*. This is not a true reciprocal in that it does not mark actions that are symmetrical. Rather, it describes alternations in behavior—that is, an action that someone does in response to another.

- (14.37) *Ingarranana boogoon gala. Irrgidi rooban wayibal ingirrinyana dinggi laago balaboo boolawayi ingirrini garrinngan.*

*I-n*g*-arr-a-na-na boogoon gala. Irr=gidi
3-PST-TR-sit-CONT-REM.PST inside already. 3AUG=THEN
rooban wayibal i-n*g*-irr-i-nya-na dinggi
in.return white.people 3-PST-AUG-TR-catch-REM.PST dinghy
*laag-o balaboo boolawayi i-n*g*-irr-i-ni*
lugger-ABL this.way pull.away 3-PST-AUG-TR-do/say-REM.PST
garrin-ngan.
hill-ALL*

‘They [Bardi people] sat down inside [the cave]. The white people, for their part, took a dinghy from the lugger and rowed away to the hill.’ (Punitive.20-21)

- (14.38) *Anyngarr ngananjirri ooldoobal, rooban arra milangay*

*Anyngarr nga-na-n=jirri ooldoobal, rooban arra
in.vain 1-TR-give-CONT=2M.DO things in.return NEG
mi-l-a=ngay.
2-IRR-give=1M.DO*

'I give you things, but you don't give me anything in return.'

- (14.39) *Roobanmarrab gaalmarraboojin jiido.*

Rooban=marra=b gaal=marra=boo=jin jiido.
in.return=TEMP=REL humbug=TEMP=REL=3SG teasing

‘(He was still running away from nothing, and afraid of nothing.) As a result (in return) they humbugged and teased him.’ (MET.p4)

6. Wackernagel (second position) clitics

Bardi has several clausal clitics which occur attached to the first phonological word in a clause. Some of these have a straightforward adverbial meaning; others provide information about the clause in relation to other clauses. There are also clitics which attach to an individual word and give additional meaning about that word. Some of these items have been described already; others, such as the clause chaining particles, are more appropriately described in

conjunction with other processes of clause combination (for which see Chapter 16 below). Table 14.6 gives the second position clitics in the data. Here I discuss *=ninga* and *=jangarr*. Note that some information about *=jangarr* in its quantificational use was also provided in §10.5 above, and *=gij* was discussed in §6.1.4, and so is not repeated here.

Table 14.6. Clitics

Bardi	English	Note
Clause Chaining		
= <i>(g)arda</i>	should (deontic)	
= <i>(b)arda</i>	maybe (epistemic)	
= <i>min</i>	then	
= <i>gid</i>	then	
= <i>b(a)</i>	relator	
= <i>goror</i>	if	
= <i>(j)amb</i>	thus	
= <i>ilba</i>	whether, perhaps	
Individual Clitics		
= <i>(j)angarr</i>	only	
= <i>(g)ija</i>	very	
= <i>ninga</i>	that one	

6.1. (=)ninga emphatic

The clitic *=ninga* is a focus marker. It is related to the word for ‘name’. Some examples of the emphatic use of *ninga* in an uncliticized context were presented above in §7.1.3 on page 288.

- (14.40) “Arra ngayninga ngay arr ngandan. Jarri ngay arr ngandan!” in-
 joonoo jiib ginyingginim aamba.
 “Arra ngay=**ninga** ngay arr nga-n-d-an. *Jarri ngay*
 hey 1M=NINGA 1M come 1M-TR-do/say-CONT this 1M
 arr nga-n-d-an!” *i-n-joo-noo* *jiib*
 come 1M-TRdo/say-CONT 3-TR-do/say-REM.PST this
 ginyinggi-nim aamba.
 3M-ERG male.
 ““Hey, it’s me coming! It’s me!” said the man to them.’ (BMF.017)

- (14.41) *Boogoонninga inganana gajoordoon arramb oolalarna.*

Boogoон=nинга i-nga-na-na gajoord-oon arramb
 inside=NINGA 3-PST-sit-REM.PST ashes-LOC NEG-JAMB
oo-l-ala-rna.
 3.IRR-IRR-see-REM.PST

‘There he was inside the ashes so (the *ngarri*) didn’t see him.’
 (BMF2.011)

- (14.42) *Aamba ngarrijina joonkoo, mirrididi moorrooloонinga arramb oolinyana.*

Aamba ngarri=jина joonkoo, mirrididi moorrooloo=nинга
 man very=3M.POSS speed m. little=NINGA
arr=amb oo-l-inya-na.
 NEG=THUS 3-IRR-catch-REM.PST

‘That man was very fast, the little *mirrididi* people were too small
 and couldn’t catch him.’
 (BE: CB52.2)

The suffix seems to be related to the word for ‘name’, *ninga*, which takes inalienable possession. As (14.40) above shows, however, =*ninga* does not agree in person with its host.

Metcalfe (1975a) has an example where *ninga* is freestanding and initial in the clause:

- (14.43) *Ninga roowil ngankinya.*

Nинга roowil nga-n-k-iny-a.
 NINGA walk 1-TR-FUT-catch-FUT

‘I’d better walk off.’
 (Metcalfe 1975a:*ninga*)

This example cannot be an example of the noun meaning ‘name’, but it does not fit the pattern of other examples with this word. All my examples have =*ninga* following the item in focus. Perhaps a word (such as *ngayoo* 1MIN) has been omitted in Metcalfe’s example.

6.2. ‘Only’: =(j)angarr

The final clitic to consider is =(j)angarr. Metcalfe (1975b) treats a suffix -*jangarr* or -*angarr* as a purely verbal suffix marking ‘emphasis’. This

clitic is very frequently found on other words, however; much more so than the other clitics considered to mark quantification. Nicolas (1998) glosses it ‘*seulement*’, and the equivalent English translation ‘only’ or ‘solely’ would fit most contexts. In other cases, the clitic seems to give an idea of ‘whole’ (as explained by Nancy Isaac). (14.44) provides some examples of verbs, and (14.45) of words other than verbs.

- (14.44) a. *Wirrja inyjarrmini ginyingg iila inoongoorroobinangarr irr baawa.*

Wirrja i-ny-jarrmi-ni ginyingg iila
 rise 3-PST-rise-REM.PST 3MIN dog
i-noo-ngoorroobi-n=angarr irr baawa.
 3-TR-chase-REM.PST=JANGARR 3AUG child.

‘The dog got up and chased the children.’

- b. *Imbanyangarr gala.*

I-m-bany=angarr gala.
 3-PST-finish=JANGARR thus.

‘That’s the end.’

(Laves n.d.:155/34)

- (14.45) a. *Arinyjangarr gardiliny irrondorndoman.*

Ariny=jangarr gardiliny
 one-JANGARR monkey.fish
i-rr-o-ndorndoma-n.
 3-AUG-TR-cause.to.enter-REM.PST

‘They got a single monkey fish into [the trap].’ (PHO.004)

- b. *Bardagid angarrananirr niimanangarr aarli baalingan.*

Barda=gid a-ng-arr-a-na-n=irr
 off=THEN 1-PST-AUG-carry-CONT-REM.PST=3A.DO
niiman=angarr aarli baali-ngan.
 many=JANGARR fish camp-ALL

‘Then we went off and carried many fish to the camp.’(AYI1.009)

The same problem regarding forms with initial consonantal and vocalic forms which were discussed for =(b)*al* above are also found for this clitic. Example (14.46) provides us with a rare example of a form in which the vowel-initial form of the clitic is attached to a stem which ends in a vowel on the surface; moreover, the regular lenition product of this context (outside of clitics) would be *moonyooloowangarr*, *moonyoolooyangarr*, or *moonyoololangarr*,

depending on which rules are followed. The form in (14.46) shows none of these outcomes, instead exhibiting a form with vowels in hiatus.¹⁹⁹ However, there are no morphological conditions which can be found to govern the presence or absence of the initial consonant. There may be dialectal variants, but there is no obvious speaker-based conditioning environment either.

- (14.46) *Moonyoolooangarr maanka agal boolgarijamba.*

Moonyooloo=angarr maanka agal boolgari=jamba.

little=JUST black and white=THUS

‘They’re just little black and white ones.’ (GBL.010)

In a few other cases, =*jangarr* has the function of an exclamative/intensifier. Example (14.47) was said of the computer which was taking a long time to search all the files for a particular audio track.

- (14.47) *Niimanangarr ilabanjirr jard, gard imiiminjin.*

Niiman=angarr i-laba-n-j=irr jard, gard

manyJUST 3-have-CONT-SIMUL=3A.DO 1A.POSS still

i-mii-mi-n=jin.

3-search-REDUP-CONT=3M.IO

‘She’s got so many [recordings] of us, it’s still searching for it.’ (CB67.5)

7. Discourse particles and exclamatives

7.1. Stance particles

Several different types of ‘particles’ indicating the speaker’s stance towards a particular topic are found in the language. They are given in Table 14.7.

7.1.1. Garra

Garra is a narrative particle which is used to indicate that the action of a story is continuing in the same way for a while, and that we are skipping to the next installment of the story. It frequently occurs doubled (or tripled), and

Table 14.7. Stance particles

Bardi	English
<i>gala</i>	well, already
<i>garra (garra)</i>	keep on
<i>o:</i>	(keep on)
<i>man</i>	very much
<i>nyiindoo</i>	probably

in conjunction with *o:* (here the colon indicates that the vowel is held much longer than a regular vowel).

- (14.48) *Inyjarralanagid yanbooran jooloolinmadan inyjarralana garra garra o: nyoon injalanangarr gajoord ingananajirr noorroo milon ingooloorroona [long time].*

I-ny-jarrala-na=gid yanbooran jooloolin-madan
 3-PST-run-REM.PST=THEN too.late afternoon-DIR
i-ny-jarrala-na garra garra o: nyoon
 3-PST-run-REM.PST oh there
i-n-jala-n=angarr gajoord
 3-TR-see-REM.PST=JUST ashes
i-n-ga-na-na=jirr nòorroo milon
 3-PST-[give]-CONT-REM.PST=3A.IO fire long.ago
i-ngoo-loorroo-na [long time].
 3-PST-light-REM.PST

‘He ran until late afternoon, he kept on running, until at that moment he saw the ashes from a fire that someone had lit a long time ago.’ (BMF.006)

- (14.49) *Mooyooin, injoonoojin. Ingarrjarrmini maankanggoon. Garra garra garra roowil ingirrinyan nyoonoo.*

- a. *Mooyooin, i-n-joo-noo=jin.*
 morning 3-TR-do/say-REM.PST=3M.IO
I-ng-arr-jarrmi-ni maankanggoon.
 3-PST-AUG-rise-REM.PST night.time
- b. *Garra garra garra roowil i-ng-irr-i-nya-n*
 on.and.on walk 3-PST-AUG-TR-catch-CONT

- (14.53) *Roowil innyan, inggardinigidjin aalga gala.*

Roowil i-n-nya-n, i-ng-gardi-ni=gid=jin
 walk 3-TR-catch-CONT 3-PST-enter-REM.PST=THEN=3M.IO
aalga gala.
 sun thus

‘He was walking, and then the sun set on him.’ (JMI.018)

7.1.3. Nyiindoo ‘probably’

This particle is used when the speaker is hedging, as opposed to committing to the truth of the statement. To assert the truth of the statement, *gala* or *man* is used.

- (14.54) *Biilagid aralgab inarn oola bilarr daab indan nyiindoo, ginyinggi-narda linygoorr, gard ararda, arramb arrmoonggoon.*

Biilagid aralgab i-n-ar-n oola bilarr
 again=DISC another.day-REL 3-TR-spear-CONT water again
daab i-n-d-an nyiindoo, ginyingginarda linygoorr, gard
 climb 3-TR-do/say probably, the.very=IF crocodile, still
ar=arda, arr=amb arr-moonggoon.
 another-INTERROG NEG=REL 1AUG-knowledge.

‘When it gets wet again he climbs back up, probably the same crocodile, maybe a different one, because we don’t know.’ (LPB.012)

7.2. Interjections

The interjections in my data are *warday*, *oi*, *ay*, and *arra*. The interjection *warday* always occurs initially in the clause. It signals the speaker’s surprise (and perhaps dismay) at something. It can also occur alone. It is usually uttered with high intonation and with a final glottal stop; the first syllable is often also heavily rounded, so the word sounds like [wɔdaj]. This word is widespread in the Kimberley.

- (14.55) *Nyalaboo ginyingg arr injoonana, “Warday aamba jibardany goo-widinalma,” ingirrinijin.*

Nyalaboo ginyingg arr i-n-joo-na-na, “**Warday**
 this.way 3sg come 3min-tr-do/say-cont-past
aamba jibardany goowidi-nalma,” i-ng-irr-i-ni=jin.
 man this.way moon-head, 3-pst-aug-do/say=3min.IO

‘He came this way, and said, “Oh look, there’s a moon-head man
 (with a pith helmet) coming this way.”’ (HHW.012)

The interjection *oi* is used approximately the same way that <oy> is used in colloquial Australian English. It is used for getting someone’s attention. This is also true of *arra*. There is a negator particle *arra* which has the same phonological form, but a different phonetic one. The interjection *arra* has a shorter trill and ends in a glottal stop. There is also a single recording of the form *arragi* in Metcalfe (1975a), given in (14.56). It does not appear in my data.

- (14.56) *Arragi jiib inngooloonjowi.*

Arragi *jiib i-n-ngooloo-n=jowi.*
 look-DISC there 3-TR-throw-CONT=1+2.IO

‘Oh! Maybe it’s from here that he’s throwing (the stone) at us.’
 (Metcalfe 1975a:-gi)

Finally, there is *ay*, which is somewhat similar to Australian English *eh?* in that it is often used to ask for clarification or repetition. It has rising intonation. It may also be used with a long vowel (and often some creaky voice and lowered intonation) as a way of signaling disapproval.

Chapter 15

Intra-clausal Syntax

This chapter concerns the relation of words in a clause (or sentence) in the broadest sense. It includes evidence for constituency within the clause; I discuss evidence for argument structure and the syntactic relations between nominal and verbal phrases. Since Bardi morphology is so complex, we might be tempted to describe Bardi syntax purely in terms of the morphology. This may be even more the case when we consider the small role that constituent order plays in Bardi syntax, in comparison to the role it plays in discourse and information structure. There is, however, a lot more to say about clause combination than the morphology of lexical items or the order of words in the clause.

The chapter begins with an overview of constituency and the evidence for syntactic constituents in the language (§15.1 below). I then move to an examination of different clause types in the language: clauses without verbs (§15.2), other copular constructions and the possibilities for verbal and non-verbal predicate structure (e.g. with *-ni-* ‘sit, be, be located’). I then discuss various other topics in the syntax of clauses: negation in §15.3, questions (in §15.4), commands, and causatives.

1. Constituency and constituent order

1.1. Evidence for constituents

In §8.1 I provided evidence for the existence of noun phrases in Bardi and discussed internal constituency. There is also some evidence for larger constituents. Clauses can be defined at their left edge by the placement of clausal clitics such as *=min* and *=gid* (see §16.2 and Table 16.1), which attach to the first word of the clause. Other items, such as *ginyinggon* ‘and then’, always occur first in the clause (see further §16.3).

Some other types of phrases are, however, harder to define. There is no evidence for an adjective phrase, since adjectives do not take complements. There are possessive phrases, which comprise a (possessor) noun phrase, a possessive pronominal marker, and a possessum (discussed above in §8.6)

but these three constituents can occur in any order.

- (15.1) PossP :: NP_{p'r} PossPro NP_{p'm}

There is very little evidence for a verb phrase. There are no substitution tests which target the verb and its object alone, and other tests, such as clefting, do not work clearly, because the cleft marker occurs after the first word of the phrase. That is, we gain information about the left edge of such phrases, but not the right edge. The only asymmetries between subjects and objects are in morphological case marking and in the agreement which appears on the verb; tests are given in §15.1.4 below.

1.2. Free constituent order

Bardi has highly free word order, free ellipsis, and pragmatically determined argument structure. The language thus satisfies the traditional criteria for a nonconfigurational language (Baker 2000, Hale 1983, Speas 1990).

Word order at the clausal level in Bardi is largely determined by discourse and principles of pragmatics, grounding, and focus. Gross word order in Bardi follows Mithun's principle (Mithun 1992) of 'new information first.' The topic position is final when topics are contrastive, although topics are more frequently omitted entirely. As Pensalfini (2004:371) notes for Jingulu, purely functional and pragmatic considerations cannot be used to determine word order entirely, as pragmatic discourse categories such as topic are also morphologically marked and do not have to coincide with the regular placement of topics in the constituent order.

No purely syntactic information is encoded in the word order of clausal constituents. As seen from (15.2), all permutations are possible.

- (15.2) ✓ *Baawanim inanggagaljin mayi aamba.*

Baawa-nim i-na-ŋ-ga-gal=jin *mayi aamba.*
child-ERG 3-TR-PST-bring-REC.PST=3MIN.IO tucker man.

'The child brought food for the man.' (Aklif 1994a:BE: E0/2)

- ✓ *Baawanim inanggagaljin aamba mayi.*
- ✓ *Mayi inanggagaljin baawanim aamba.*
- ✓ *Mayi inanggagaljin aamba baawanim.*

- ✓ *Aamba inanggagaljin baawanim mayi.*
- ✓ *Aamba inanggagaljin mayi baawanim.*
- ✓ *Baawanim mayi inanggagaljin aamba.*
- ✓ *Mayi baawanim inanggagaljin aamba.*
- ✓ *Mayi aamba inanggagaljin baawanim.*
- ✓ *Aamba mayi inanggagaljin baawanim.*
- ✓ *Baawanim aamba inanggagaljin mayi.*
- ✓ *Aamba baawanim inanggagaljin mayi.*
- ✓ *Inanggagaljin aamba baawanim mayi.*
- ✓ *Inanggagaljin baawanim aamba mayi.*
- ✓ *Inanggagaljin mayi baawanim aamba.*

Although the examples in (15.2) were elicited, examples of free order are easy to find. Bowern (2008a) reports on counts of major clause constituents in several texts. The following are the counts based on two typical texts from Tudor Ejai (Text 1) and David Wiggan (Text 2). The first column gives the order in question; the second is the number of occurrences of this order in the texts. The third column is this figure expressed as a percentage of total clauses. In the final two columns, the two texts are compared; percentages are given as a fraction of the total number of that type of word order. Text 1 was recorded by C.D. Metcalfe in 1970 and is about a drunken man who talks to his dog and dances with it; Text 2 was recorded in 1990 by Gedda Aklif and is a traditional story about a woman and her two daughters traveling to find a husband.

From these statistics we might conclude that the basic word order of Bardi is V! Of 171 clauses, almost half contained no overt nominal or pronominal core arguments at all. Of the other orders, VS and VO have approximately the same frequency (between 13% and 15%). Less common again (5%-7%) are the SV and OV orders. Most of the VS and VO orders appear in the first text, while most attestations of SV occur in the second. While figures reported here are small, they are broadly consistent with the larger corpus.²⁰⁰

Table 15.1. Orders of core constituents in two texts

Order	Count	%age of total orders	No. in Text 1	No. in Text 2
SVO	0	0%		
SOV	0	0%		
OVS	1	0.6%	1	0
OSV	0	0%		
VOS	0	0%		
VSO	2	1.2%	2	0
SV	13	7.6%	2	11
VS	22	12.9%	19	3
OV	10	5.8%	5	5
VO	26	15.2%	18	8
OVO	10	5.8%	5	5
VOV	4	2.3%	1	3
SVS	1	0.6%	1	0
VSV	1	0.6%	1	0
V	81	47.4%	48	33
Total:	171	100%	103	68

1.3. Other ordering preferences

This lack of overt material and preponderance of verb-initial (or verb-only) orders is explicable when considering the information structure of narratives and the targets of ellipsis. Kuno's (1982) observation that ellipsis targets recoverable information seems to hold true generally for Bardi (see also Croft 2007, Givón 1990). Omitted arguments are old information and form part of the 'common ground' in the discourse. Thus nominal arguments that appear are already marked just by their presence. On this point see also Mushin (2005) and Swartz (1991), who make similar observations for the Australian languages Garrwa and Warlpiri respectively.

1.3.1. Initial position

There are two positions where privileged information is introduced: clause initially, and clause finally. Novel information (whether verbal, nominal, or

adverbial) occurs first in the clause. New characters in a story, for example, always appear initially in the clause at their first mention. Answers to questions are initial, as shown in (15.3).

- (15.3) a. *Anggaba miyarginjin(a)?*
Anggaba mi-yargi-n=jin(a)?
 who 2-be.afraid.of-CONT=3M.IO
 ‘Who are you frightened of?’
- b. *Aamba ngayarrginjin.*
Aamba nga-yargi-n=jin.
 man 1-be.afraid.of-CONT=3M.IO
 ‘I’m scared of [a] man.’

(L56.056–57)

In clauses where the same character performs a string of actions, the verbs of those clauses are initial; the action (or change of action) is new information. This position thus has the core characteristics of a position for syntactic focus (see, e.g. Dalrymple 2001:182–185), and specifically identificational focus (Kiss 1998). Other word classes (including adverbs and pronouns) can also receive focus if they are ‘newsworthy’ (see Mithun 1998 for the term). Either a single word or an entire phrase can be the initial focal element of the clause. Second position clitics, however, are not sensitive to this position; they appear enclitic on the initial phonological word of the clause whether or not that word constitutes the entire focused element.

In addition to being initial in the clause, items in focus receive a pitch peak on their stressed syllable. Examples of different types of constituents in initial position are given in (15.4), and a pitch track showing the typical intonation contour of a new information/focused element can be found in Figure 15.1.

- (15.4) “*Aalga arra goolarrjarginjin booroo oonggamarran garda arran ji-iba garda arran jiiba goorlil jorrojamba nankarra jooboorl arriyan-girr,*” *injoonoojirr.*

“*Aalga arra goo-la-rr-jargi-n=jin booroo*
 sun NEG 2A-IRR-AUG-fear-CONT=3M.IO place
oo-ngga-marra-n garda a-rr-a-n jiiba garda
 3-FUT-cook-CONT still 1-AUG-be-CONT this still
a-rr-a-n jiiba goorlil jorr-o=jamba nankarra jooboorl
 1-AUG-be-CONT this turtle here-ABL thus point

a-rr-iy-a-ng=irr;"
 1-AUG-do/say-FUT-APPL=3A.DO
i-n-joo-noo=jirr.
 1-AUG-do/say-FUT-APPL=3A.DO 3-TR-do/say-REM.PST=3A.IO

“Don’t be frightened of the sun—it’ll be hot—but do this and from the point jump into the water and chase after turtles,” he told them.’
 (GAL1.041)

- (15.5) *Galaloong nyalab inyiidin ardiyo, arra arrmoonggoon jana booroo ardi.*

Galaloong nyalab i-ny-jiidi-n ardi-yo, arra
 G. there 3-PST-go-REM.PST northeast-ABL NEG
arr-moonggoon jana booroo ardi.
 1AUG-know which place northeast

‘Galalong came from the northeast, but we don’t know where from.’
 (GAL3.001)

- (15.6) *Joogarra mayi jarri arrarr goolarrarli boowa. ... oola joogarra.*

Joogarra mayi jarri arr-arr goo-la-rr-arli boowa. ... oola
 2A.POSS food this REDUP-NEG 2-IRR-aug-eat rubbish water
joogarra.
 2A.POSS

‘This is YOUR FOOD, don’t eat rubbish tucker ... the WATER is yours.’
 (GAL3.006)

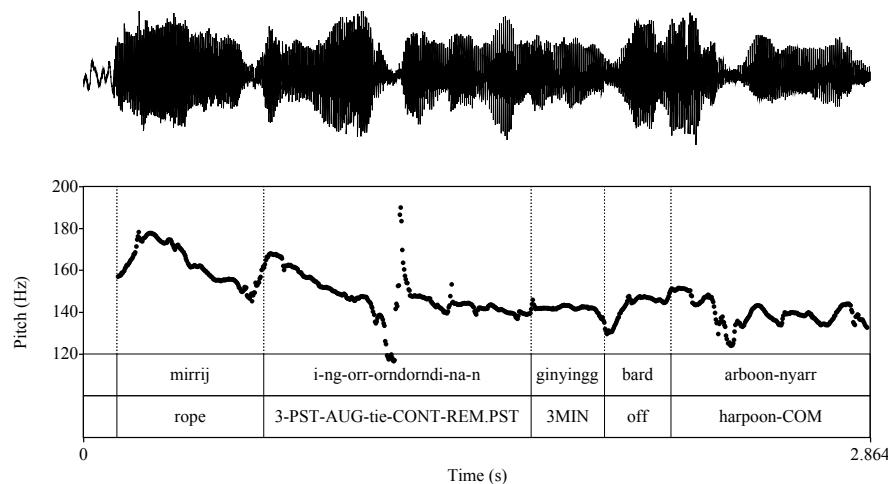
There is a further class of information which is not ‘new’ to the listener but nonetheless occurs in initial position in the clause. In all cases of this position that I have examined, non-novel new information could be analyzed as bearing contrastive focus (Kiss 1998). That is, it occurs particularly when two participants are contrasted with one another along some dimension.

- (15.7) *Joo arra liyan ngayoo milama ngay liyan nganman.*

Joo arra liyan ngayoo mi-la-ma ngay liyan nga-n-ma-n.
 2MIN NEG want 1MIN 2-IRR-put 1MIN want 1-TR-put-CONT

‘You don’t want me, but I want you.’
 (L56.011)

Figure 15.1. Pitch track of focused item in initial position (NI-ODR1/007)



Therefore I will be referring to initial position as the ‘focus’ position, and this term should be taken to cover not only identificational focus but also novel information and contrastive focus.

Within initial position, there is some evidence that either a single element can be focused, or a whole phrase, but not several parts of phrases. Consider (15.8).

- (15.8) a. [Yaawardanyarr arr injinji aamba] inangajimij boorroo.
[Yaawarda-nyarr arr i-n-j-in-ji aamba]
 horse-COM come 3-TR-do/say-CONT-SIMUL man
i-na-ngajim-ij boorroo.
 3-TR-kill-PFV kangaroo

‘The man arriving on a horse killed a kangaroo.’ (BOW-FN12)

- b. * [Arr i-n-j-in-ji] [aamba] i-na-ngajim-ij
 come 3-TR-do/say-CONT-SIMUL man 3-TR-kill-PFV
boorroo [yaawarda-nyarr.]
 kangaroo horse-SIM

In this example, the (b) sentence is ungrammatical. Note that this is not a general prohibition on clause interleaving, since there are numerous other examples of clauses where elements of a subsidiary clauses have a linear order

where the main clause intervenes. The problem in this particular example appears to be that the item under focus is not a single constituent, since there is no evidence that the verb and its subject NP form a constituent, and *aamba* cannot be the subject of the other verb in the clause (*inangajimij*), because it is not marked for ergative case.

1.3.2. Final position

Final position in the clause is the most usual position for reintroduced old information. There is a strong correlation between the use of the third person minimal participant tracker pronoun *ginyingg(i)* and final position in the clause.

- (15.9) *Wirr inyarrmina barda garndingan gala inin garndi iiwala ginyinggi.*

*Wirr i-ny-jarrmi-na barda garndi-ngan gala i-ni-n
go.up 3-PST-rise-REM.PST off high-ALL well 3-sit-CONT
garndi iiwala ginyinggi.
above father 3MIN*

‘He went up high and now lives with his father in the sky.’

(L119.011)

- (15.10) *Arangal baybirrigij nyalab ginyinggmin aamba baybirr bard injoo-nan ginyinggi.*

*Arang-al baybirri=gij nyalab ginyingg=min aamba
the.rest-INDEF behind=VERY there 3MIN=THEN man
baybirr bard i-n-joo-n-an ginyinggi.
behind off 3-TR-do/say-CONT-REM.PST 3MIN*

‘One man was behind the rest. This man was at the back.’

(GLW1.041)

I follow Mithun (1992) in noting that although there is a strong correlation between constituent order and pragmatics, I do not deny that there are exceptions. Some of these exceptions could be due to the misidentification of the speaker’s pragmatic intent. In a clause with only two elements, it may be hard to tell whether the second item is marked as ‘old information’ or the first is in

focus. Furthermore, the expression of new information focus and participant tracking is not wholly dependent on constituent order; verb morphology and determiners also play a role. The *jarr-* direct and oblique object markers discussed in §10.3.2.1 above, for example, also signal participant reference and pragmatic tracking.

1.4. Evidence for a verb phrase

There are several types of evidence used to show whether a language has a phrasal constituent which includes the verb and its object. Some involve movement and substitution. The English phrase ‘do so’, for example, targets the VP, in that it replaces the verb and its object, not a verb alone, as illustrated in (15.11):

- (15.11) a. At the pet shop yesterday, Penny bought a goldfish, and Rob did too.
b. *Penny bought a goldfish, and Rob did too a rabbit.

English verb phrases can also be moved as a single constituent, as in ‘clean the parrots’ cage she did, much to my surprise.’

Bardi has no equivalent of English ‘do so,’ and as noted above, movement tests are not revealing because of the freedom of discourse-based word order. There are, however, other tests involving semantics, co-reference, and asymmetries between subjects and objects which can be used to probe for the presence of a VP. These include binding and weak crossover effects.²⁰¹ ‘Binding’ refers to the way in which nouns and pronouns (that is, ‘referring expressions’ or R-expressions) receive interpretation and whether they receive their interpretation from the real world, or by optional or obligatory coreference with another item in the clause. Reflexive pronouns, for example, are obligatorily coreferential with another item in the clause. Moreover, in many languages there are structural restrictions on the relations which can hold between items in a clause, such as which structural positions can provide an antecedent for (that is, *bind*) a reflexive pronoun. In English, for example, subjects can bind reflexives, but possessors within a subject cannot:

Binding principles thus give us information about the structural positions in which arguments are located. Many languages have firm constraints on how coreference and antecedence works. Differences in binding facts are, however, a point of cross-linguistic variation. Binding tests are also good tests for the presence of a VP node, as subjects bind objects within a VP. A subset of binding effects are known as crossover effects, because they involve the interaction of binding and word order effects. For example, the sentence **Who_i does she_i see _ i?* is ungrammatical if the interrogative pronoun *who* is coreferential with the subject pronoun.

Bardi show no effects of binding, crossover, or VP ellipsis. In (15.13a), for example, we see that the R-expression appears to be bound. (15.13b) was the translation given for the English prompt sentence; (15.13c) has the same meaning and uses an overt pronoun for the possessor. All of these sentences are grammatical in the meanings given (though note that the English equivalents are not).

- (15.13) a. *Marynim jina birrii injalagal.*

Mary_i-nim jina_i birrii i-n-jala-gal.

M.-ERG 3M.POSS mother 3-TR-see-REC.PST=3MDO_i.

‘Mary’s mother sees her.’ / ‘Mary sees her mother.’

- b. *Birriinimin injalagaljin Mary.*

Birrii_j-nim=in_i i-n-jala-gal=jin_i Mary_i.

mother-ERG=3M.POSS_i 3-TR-see-REC.PST=3MIN.IO_i Mary.

‘Her_i mother sees Mary_i.’

- c. *Ginyingginimjin birrii injalagal Mary.*

Ginyinggi-nim=jin_i birrii i-n-jala-gal Mary_i.

3MIN-ERG=3M.POSS mother 3-TR-see-REC.PST M.

‘Her_i mother sees Mary_i.’

(NI: BOW-FN.12/21)

In both (15.13b) and (15.13c), we see a binding violation, where the pronoun in subject position (marked with the ergative case) is apparently binding (that is, is coreferential with) the object. If the object is hierarchically lower in the clause tree than the subject, this should not be grammatical. This is thus evidence against a VP node in the clause.

We also see apparent violations of weak crossover; that is, in sentences such as (15.14), the ergative marked interrogative pronoun *anggaba-nim* ‘who’ is coreferential with the possessive clitic *jin* ‘her (3MIN.POSS)’. The Bardi sentence is grammatical, though its English translation is not.

- (15.14) *Anggabanim injalanajin birrii?*

<i>Anggaba-nim_i</i>	<i>i-n-jala-na=jin_i</i>	<i>birrii?</i>
who-ERG	3-TR-see-REC.PST=3MIN.IO	
'Who _i saw her _i mother?' (NI: BOW-FN.12/22)		

Thus there is no evidence that the verb and an object noun phrase form a constituent in Bardi.

1.5. Summary

In summary, while there is good evidence for clause-level phrases, noun phrases, and possessive phrases, there is no evidence for a verb phrase. Bardi shows other behavior which is diagnostic of nonconfigurationality at the phrasal level. Three related phenomena have been discussed in relation to lack of a VP; nonconfigurational argument structure, pronominal argument marking, and polysynthesis. In some languages, all three traits are shown, but although polysynthesis often implies non-configurationality, the reverse does not hold. Further discussion of these topics in relation to Bardi can be found in Bowern (2006b).

2. Non-verbal predicates (copular constructions)

2.1. Null copula

Bardi has nominal and adjectival (modifier) predicates in addition to verbal predicates. The copula in Bardi is normally null; however, the verb *-ni-* ‘sit’ is also used in certain equational sentences, and frequently with predicative adjectives (though not exclusively so); more discussion follows.

Nominal predicates appear without any overt copula, as in (15.15).

- (15.15) *Ginyingga aamba galgarr.*
this man widower
'This man is a widower.'

(Aklif 1993b:2)

When the topic of the sentence is a non-third person, the nominal predicate may take the relevant form of the predicative ‘object’ marking (discussed

with respect to verbs in §10.3); (15.16) is an example. For the form of the clitics, and the distribution of *=ngay* and *=jarrngay* in (15.17), see further §10.3.2.

- (15.16) *Boojooliidarri.*

Boojool-iid-a=rri.

stare-AGENT-PRED=2M.DO

‘You are staring too much.’

- (15.17) a. *Ngay moorrooloomarngay.*

Ngay moorrooloo-marr=ngay.

1MIN little-SEMB=1MIN.PRED

‘It happened when I was little.’

(NGJ/1)

- b. *Ngay majoonggooloojarrngay.*

Ngay majoonggooloo=jarrngay.

1MIN young.girl=1MIN.PRED

‘It’s me that’s the young (=unmarried) girl.’ (NI: BOW-FN.12/17)

2.1.1. *Tense and null copula constructions*

The tense of the clause has no effect on whether a copula is present. (15.18) provides examples where the last sentence clearly refers to past time, and there is still no copula present. (15.19) is an example where the sentence refers to future time.

- (15.18) a. *Darr ingarrarna rali ingarraman ilma. Boordij ilma.*

Darr i-ng-arr-a-r-na rali

come 3-PST-aug-TR-spear-REM.PST straight.away

i-ng-arr-a-ma-n ilma. Boordij ilma.

3-PST-aug-TR-put-CONT ceremony. big ceremony

‘They caught a lot of dolphins, they killed them and came back straightaway and held a ceremony. It was a big ceremony.’

(L52.9–10)

- b. *Ginyinggon ingarrbalanyjin, arra oolarrmalanyjin, gardi ragal irrgarda.*

*Ginyingga i-^{ng}-arr-bala-nyji-n, arra
then 3-PST-AUG-fight-REFL-CONT NEG
oo-la-rr-m-ala-nyji-n, gardi ragal
3-IRR-AUG-REFL-fight-REFL-CONT still uninjured
irr-garda.
3AUG-body*

'Then they fought, but it wasn't a serious fight; their bodies were uninjured.' (L110.005)

- (15.19) *Balab jina ngoorrij.*

Balab jina ngoorrij.
this.way 3M.OBL tomorrow.

'He'll be here tomorrow.' (Aklif 1999:balab)

2.1.2. Order of subject and predicate

There are many examples of null copula constructions in texts and conversation. The relative order of subject and predicate is flexible and is governed by the focus principles described in §15.1.3.1 above. (15.20) provides two examples of identificational copula constructions, with the predicate second in the (a) example, and first in the (b) example.

- (15.20) a. *Jarri aamba garnibina.*
this man murderer
'This man's a murderer.'
b. *Jalnggoogoorr jana nyami.*
doctor.man 1M.POSS mother's.father
'My grandfather was a doctorman.'

There is a small amount of evidence that portions of the predicate in copular constructions can be fronted, just as parts of predicates in verbal clauses can. In (15.21), for example, the demonstrative *jiiba* ‘this’ occurs first in the clause, but is interpreted with *may* ‘food’. An alternative interpretation may be, however, that *jiiba* is being used adverbially.

- (15.21) *Jiiba gorna niyarra may.*

Jiiba gorna ni-yarra may.
this good 3-taste food.

‘This food tastes good.’

There is a preference for predicates to be possessed when describing qualities:

- (15.22) a. *Aman jina laya.*

little 3M.POSS fat

‘It’s got a little bit of fat.’

(JS)

- b. *Niimana jina lagoorr*

many 3M.POSS egg

‘It’s got a lot of eggs.’

There is a general dispreference for clauses of the form *aman laya* (intended to mean ‘there’s a lot of fat’), although there are a few examples in narratives with adjectival predicates (cf. *boordiji ilma* ‘the *ilma* ceremony was important/big’ in (15.18) above). I assume that this is because the default interpretation of sentences like *aman laya* would be ‘fat is little’, that is, that they would be interpreted as a statement about the general properties of the noun, rather than about the properties of the object under discussion.

2.1.3. *Direction giving*

Predicates with null copulas can be nouns, adjectives, possessive phrases, or oblique pronouns. These types of predicates have already been discussed in other chapters (see §8.4 above), with the exception of the oblique pronouns. This construction occurs with a directional word, a locational case-marked noun, or a spatial demonstrative in the subject, and the oblique pronoun in the predicate. This construction is used as an imperative or hortative; it can also be used as a general statement, as in (15.19) above.

- (15.23) a. *Baarnkangan joogarra.*

Baarnka-ngan joogarra.
outside-ALL 2AUG.IO

‘You all go outside!’

(NI, conv)

- b. *Balab jiya!*
Balab jiya!
 this.way 2M.IO
 ‘Come here!’

Most of these examples are two word phrases. In none of my examples is the order anything other than noun or adverb followed by an oblique pronoun. The oblique pronoun can be cliticized to the first word. An example from the Laves texts shows that the pronoun here is likely to be in second position, rather than predicative.

- (15.24) *Biila jan biindan aarlingan.*
Biila jan biindan aarli-ngan.
 again 1MIN.IO bush meat-ALL
 ‘I’m going to the bush for more game.’ (L10/3056)

This is the only example of a more elaborate construction; all the examples in my field notes involve short commands.

A very similar construction comprises an adverb and case-marked nominal. These are commonly used instead of a verb of motion.

- (15.25) *Aranga barda nganyjinngan.*
Aranga barda nganyjin-ngan.
 others off tree-coffin-ALL
 ‘The others went to the tree coffin.’ (JMI.043)

2.2. Clauses with *-ni-* ‘sit’

The verb *-ni-* ‘sit’ also functions as a copula, in that it can translate clauses where English uses ‘is.’ An example is given in (15.26).

- (15.26) *Arinyjangarr aamba inganin nyoonoo booronjin.*
Arinyj=angarr aamba i-nга-ni-n nyoonoo
 one-ONLY man 3-PST-sit-CONT there
boor-on=jin.
 country-LOC=3M.POSS
 ‘Just one person was still at home.’ (AKL:E1/19a)

There are four situations where a non-null copula is used. The first is where the predicate contributes spatial information. This is the most common use of *-ni-* in the corpus (besides its light verb use). The second is existential; that is, rather than asserting equivalence between the subject and the predicate, the speaker is asserting the presence or existence (rather than absence) of the subject. The third case is deictic; it could be said to be both locational and existential. The last use is where *-ni-* functions as a light verb with an adjective. In that case, the light verb is providing aspectual information about the situation. Information on the light verb use of *-ni-* can be found in §13.9.2.1.

For some speakers, locational copula clauses with *-ni* ‘sit’ are an alternative to those with null copulas. Others prefer the construction with the verb.

2.2.1. Location

As far as can be determined, there is no restriction on the type of subjects or predicates that can combine with *-ni* ‘sit, be’. That is, it is not the case that some objects ‘sit’, others ‘stand’, and yet others ‘lie’ in a particular location (see Newman 2002 for cross-linguistic discussion). Arguments can be animate or inanimate, and of many different shapes.

Examples of location are given below. These are examples where the verb is unambiguously a full verb, and not a light verb combining with a preverb. There are many more examples of the type illustrated in (15.28), which are ambiguous between a complex predicate (*angan -ni-* ‘be close’) and a compositional reading.²⁰²

- (15.27) a. *Bilijina ginyingga booroo inin biidamarra bilijina ninga.*
Bilijina *ginyingga booroo i-ni-n* *biidamarra*
 again-3M.POSS? 3MIN-LOC place 3-sit-CONT red.ochre
bilijina *ninga.*
 again-3M.POSS? EMPH
 ‘There was a lot more red ochre in his camp.’ (L65.003)

b. *Booroo garndi boordijangarr oola inin.*
Booroo garndi boordij=angarr óola i-ni-n.
 place on.top big-VERY water 3-sit-CONT
 ‘Over there there’s a big lagoon.’ (LPB.005)

- (15.28) *Angan inin ngayoon.*

Angan i-ni-n *ngay-oon.*
close 3-sit-CONT 1MIN-LOC

‘It’s next to me.’

2.2.2. Assertion of existence

Other examples of an overt verbal predicate highlight the assertion of existence. That is, they highlight the existential status of the item, rather than its relationship to the predicate.

- (15.29) *Wiliwiligidi, arrajina wiliwili ginyingg inin, anggiyoonoomb in-amoogarn jaalany bardagooyoon.*

Wiliwili=gidi, arra=jina wiliwili ginyingg
fishing.line=THEN NEG=3M.POSS fishing.line 3MIN
i-ni-n, anggi-yoon=oomb i-na-moogar-n jaalany
3-sit-CONT what-SOURCE=THUS 3-TR-make-CONT twine
bardagoo-yoon.
tree-SOURCE

‘His fishing line wasn’t a white person’s fishing line: it was some twine made from a tree.’ (DJM.002)

- (15.30) *Goorlil jiib inin niinbil, daab innyagal garndingan lagoorramb oonkoomoorirr.*

Goorlil jiib i-ni-n n-iinbil, daab i-n-nya-gal
turtle this 3-sit-CONT appearance climb.up 3-TR-catch-REC.PST
garndi-ngan lagoorr=amb oo-n-koo-moor=irr.
on.top-ALL egg=THUS 3-TR-FUT-spill=3A.DO

‘Here is a turtle track—the turtle went up the beach to lay its eggs.’ (DCT.305)

- (15.31) *Jiibadan booroo arra goolarrali riiwa jiib inin...*

Jiibadan booroo arra goo-la-rr-ali riiwa jiib i-ni-n...
this place NEG 2-IRR-AUG-visit hole this 3-sit-CONT

‘Don’t you go to this place because there’s a hole there.’ (GAL1.021)

2.2.3. Pointing out

Some examples of *-ni-* are both locational and existential. That is, they occur with a deictic marker such as *jiiba* ‘this’ and draw the listener’s attention to the place where something is.

- (15.32) *Jiiba inin niinbil. Ngoorra daab innyi!*

Jiiba i-ni-n niinbil. Ngòorra daab i-n-nyi!
this 3-sit-CONT looks.like last.night climb.up 3-TR-catch

‘This looks like it. He climbed up (here) last night!’

2.2.4. Aspectual modification of adjectives

The previous types of copula do not require any restriction by part of speech on the predicate. The last use of the light verb *-ni-* combines a preverbal adjective with *-ni-* in a complex predicate. A single example is given here; see §13.9.2.1 for further information.

- (15.33) *Garnka inin jorndi, arra ngalamarrana.*

Garnka i-ni-n jorndi, arra nga-la-marra-na.

raw 3-sit-CONT still, NEG 1-IRR-cook-REM.PST

‘It’s still raw, I didn’t cook it.’

This aspectual marking leads to syntactic minimal pairs between sentences with a complex predicate and those with a null copula, as in (15.34) below. In (15.34a), the predicate refers to a permanent state (the length of one’s fingers), while in (15.34b), that reading is not available, and the adjective is interpreted as a transient state (‘stretched out’):

- (15.34) a. *Niwandi ngamarlangay.*

Niwandi nga-marla=ngay.

long 1-hand/finger=1MIN

‘My fingers are long.’

- b. *Niwandi inin ngamarla.*

Niwandi i-ni-n nga-marla.

long 3-sit-CONT 1-hand/finger

‘My fingers are stretched out.’

2.3. Elided verbs

A final type of verbless clause involves cases where verbs have clearly been elided. Such examples are very rare, except in answers to questions which may have a single noun phrase standing alone as the answer. The only well-attested example is given in (15.35), where a verb of doing is implied.

- (15.35) *Angginim goorr?*

Anggi-nim goorr?

what-ERG 2AUG

‘What’s wrong with you? What happened to you?’

Other examples come from conversation:

- (15.36) [BE:] “*Balab jiya Canberrangan*,” *injijjin*.
 “*Balab jiya Canberra-ngan*,” *i-n-j-ij=jin*.
 this.way 2MIN.IO C.-ALL 3-TR-do/say-PFV=3M.IO
 “Come to Canberra,” she said.
 [JS:] *Warday, inkoorrnim*.
 Warday, inkoorr-nim.
 gosh cold-ERG
 ‘Gosh, that’ll be cold.’

3. Negation

There is a negation marker *arra*, which has several derivatives: *arragij*, *arranga*, *arrajina*, and *arra=IO* (that is, the cliticization of an oblique personal pronoun to the negator). It is used for both constituent and clausal negation.

3.1. Clausal negation

Clauses are negated in Bardi by the particle *arra*, which appears before the verb complex (that is, the simple verb, or the preverb in a complex predicate). *Arra* is also used for constituent negation, although this is rather rare when

there is also a verb in the clause; that is, there is a preference for verbal negation.

In Bardi, as well as in all Nyulnyulan languages but Yawuru, negated verbs are obligatorily marked for irrealis. This is an areal feature—negative verbs in Walmajarri also have this feature (Hudson 1978), for example. (15.37a)–(15.37d) provide examples of negative clauses. In (15.37a) there is an example of a negated verb. (15.37b) shows an adverb. (15.37c) provides an example of a negated possessive phrase, while (15.37d) is a negative existential.

- (15.37) a. *Arra ngalalana.*
Arra nga-l-ala-na.
 NEG 1MIN-IRR-see-REM.PST
 ‘I didn’t see it.’
- b. *Arra barda jard.*
Arra barda jard.
 NEG off 1.AUG-IO
 ‘We’re not going.’
- c. *Arra jard baali*
Arra jard baali.
 NEG 1.AUG-POSS boughshed.
 ‘It’s not our boughshed.’²⁰³
- d. *Arra iindoo ginyinggi.*
Arra iindoo ginyinggi.
 NEG curlew 3min
 ‘It [was]n’t a curlew.’

(BBN1.010)

3.2. Double-marked negatives and constituent negation

Negatives are occasionally double-marked. In (15.38), for example, *arra* appears twice. The first is an instance of constituent negation, modifying *ngay* ‘I’. The second is the clausal negator.

- (15.38) *Arra ngay arra ngalarla!*
Arra ngay arra nga-l-arl-a!
 NEG 1min NEG 1-IRR-eat-FUT
 ‘It wasn’t me eating it!’

(LIZ1.006)

Negative concord is judged to be obligatory in elicitation. A few examples of constituent negation without a main verb negator are found in the Laves corpus and elsewhere, but in elicitation such sentences were always judged to be ungrammatical. (15.39) shows an elicited sentence with judgments, and (15.40) is an example from the Laves corpus, where *arragij* is modifying *aarli* ‘fish’ and the verb is irrealis, but there is no doubled negation marking. It is unknown whether (15.40) is a transcription error or a genuine difference in the language between the older and modern sources.

- (15.39) **arrajina ngaanka *(arra) oo-loo-moogar-na.*
 NEG plan NEG 3-IRR-make-REM.PST
 ‘He didn’t make a plan.’ (CB08/BE/59.2)
- (15.40) *Arragiji aarli oo-lo-rr-o-na.*
Arra=giji aarli oo-l-orr-o-na.
 NEG=EMPH fish 3-IRR-AUG-poke-REM.PST
 ‘They didn’t spear any fish (at all).’ (L103.017)

Nyulnyul differs from Bardi in this regard; Nyulnyul constituent negation appears with the negated constituent first in the clause (also found in Bardi) preceded by *arri* (the Nyulnyul cognate of Bardi *arra*), but no doubled negator on the verb itself. The verb is still irrealis in both languages. The Laves construction illustrated in (15.40) is the parallel of the Nyulnyul one.

Bardi may be the innovator here, and there is evidence that obligatory doubled negation may be quite a recent phenomenon. There are a few examples in the Laves texts with constituent negation but no doubled verb negation, as mentioned above. There is one example in the Bardi dictionary (from Gedda Aklif’s notes), and one in a text recorded by Aklif from Nancy Isaac. Note that the verb in (15.41) is realis, not irrealis, however, in both cases.

- (15.41) a. *Arramin, angan mingganyigal.*
Arra=min, angan mi-ŋ-ganyi-gal.
 NEG=THEN close 2-PST-climb-REC.PST
 ‘No, you didn’t come closer.’

- b. *Dust'im inaman arrijin, namarda gala gajoordnim boolgar injoon.*

Dust'im i-na-ma-n arrijin, namarda gala
 dust.off 3-TR-put-CONT nothing just already
gajoord-nim boolgar i-n-joo-n.
 ashes-ERG white 3-TR-do/say-CONT

‘No one dusted him off, and the ash still made him look white.’
 (BMF.013)

Speakers I have worked with report that sentences like this sound rather ‘old-fashioned,’ and they tend not to accept them as grammatical. I also have an example where Aklif recorded a narrative from David Wiggan in 1990, where the sentence in (15.42a) was used. However, the equivalent sentence in the transcript shows double negation (as in (15.42b)).²⁰⁴

- (15.42) a. “*Aamba jirr booroo, ooranynam arra goolarralan,*” *injoonoojirr.*

“*Aamba jirr booroo, oorany-nim arra*
 men 3AUG.POSS place women-ERG NEG
goo-la-rr-ala-n,” i-n-joo-noo=jirr.
 2-IRR-AUG-visit-CONT 3-TR-do/say-REM.PST=3A.IO

“‘It’s a men’s place; you women shouldn’t go there,’ he said.’
 (GAL1.047)

- b. “*Aamba jirr booroo, arra ooranynam arra goolarralan,*” *injoonoojirr.*

“*Aamba jirr booroo, arra oorany-nim arra*
 men 3AUG.POSS place NEG women-ERG NEG
goo-la-rr-ala-n,” i-n-joo-noo=jirr.
 2-IRR-AUG-visit-CONT 3-TR-do/say-REM.PST=3A.IO

“‘It’s a men’s place; you women shouldn’t go there,’ he said.’
 (GAL1.047)

It is noticeable that the examples where negative concord do not apply all have the negated constituent in postverbal position. This principle appears to apply throughout the examples in this section, not only with regular constituent negation, but also with phrases marked by the word *arranga* ‘without’, discussed below. Example (15.43) gives a sentence from Aklif (1999)

where *arranga* appears before the verb and negative concord appears; other examples in §15.3.4 show the opposite order, with realis verbs.

- (15.43) *Manyarr inbanyinjin ambooriny gombolnim arranga oola arr mili.*

Manyarr i-n-banyi-n=jin ambooriny
 thirst 3-TR-finish-CONT=3M.IO person
gombol-nim arranga oola arr mi-li.
 white.clamshell.meat-ERG without water go 2-IRR-do/say

‘The white part of the [clamshell] meat will quench your thirst if you happen to be without water.’

3.3. *Arragija* ‘not at all’

An alternative to *arra* is *arragija*, which means ‘not at all’. In Laves the form is sometimes *arragiji*. Here the negator is affixed with the intensifier clitic =*gij(a)* ‘very’. It participates in both clausal and constituent negation and is more emphatic than the plain negator *arra*.

- (15.44) *Mooyoон roowil ingirrinyaи niimana marrja bornkobornko nyoonoo-yoon aamba arragiji darr oolarnajirri.*

Mooyoон roowil i-ng-irr-i-nya-n niimana marrja
 morning walk 3-PST-AUG-catch-REM.PST many smoke
bornkobornko nyoonoo-yoon aamba arragiji darr
 REDUP-around there.and.there men NEG come
oo-l-ar-na=jirri.
 3-IRR-pierce-REM.PST=3A.IO

‘In the morning they walked again and although there was the smoke from many fires all around, the men who belonged to that country didn’t come to them.’ (L103.011)

- (15.45) *Aranga arragiji oolarrmalanyjin marrga minyjin ingarragoorlinirr.*

Aranga arragiji oo-la-rr-m-ala-nyji-n marrga minyjin
 others NEG 3-IRR-fight-REM.PST shield only
i-nga-rr-a-goorli-n=irr.
 3-PST-AUG-break-REM.PST=3A.DO

‘The others didn’t fight at all, they just broke their shields.’ (L111.011)

- (15.46) *Garda anyngarra ingorronirr nyalaboo rooban jorro arragiji.*
Garda anyngarra i-ngo-rr-o-n=irr nyalaboo
still for.nothing 3-PST-AUG-spear-REM.PST=3A.DO that.way
rooban jorro arragiji.
in.return there-ABL NEG

‘From this side they didn’t spear them—there was no payback at all from there.’ (L102.043)

Example (15.46) shows that *arragij* can also mean ‘nothing at all’.

3.4. *Arrang(a)* ‘without’

Another frequent form of negation is *arranga* ‘without’, which is the preferred way of negating individual nouns in the clause. Historically it is the negative marker *arra* ‘not, nothing’ in the instrumental case. Now the word behaves like an adverb or preposition meaning ‘without’. The final vowel of the word is optional.

- (15.47) *Arranga janggoorr jan.*
Arranga janggoorr jan.
without hat 1M.POSS
‘without my hat’

Further examples of full clauses with *arranga* follow. The first shows an example of constituent negation, the second of a full clause.

- (15.48) *Wiliwilingan arr ngangoogal arrang baawa.*
Wiliwili-ngan arr nga-n-joo-gal arrang baawa.
 fishing-ALL go 1-TR-do/say-REC.PST WITHOUT child
 ‘I went fishing without the kids.’

(15.49) *Aarlingan arr nganjij bardi. Barni nganimbidi wiliwili namardamba*
ingarrinjanirr wiliwili, ingirrjimbin arrang marlinjan aarlinim.
Aarli-ngan arr nga-n-j-ij bardi. Barni
fish-ALL go 1-TR-do/say-MID.PFV yesterday. when
nga-n-im-bidi wiliwili namarda=amba
1-TR-PST-throw.in fishing.line just=CAUSAL.REL

i-n̄g-arr-i-n=jan=irr *wiliwili,*
 3-PST-AUG-sit=1M.POSS-3AUG fishing.line
i-n̄g-irr-jimbi-n ***arranga m-arli-n=jan***
 3-PST-AUG-die-CONT without GER-bite-CONT=1MIN.IO
aarli-nim.
 fish-ERG.

‘I went fishing yesterday. I threw in my lines but they just lay there. They were dead without the fish biting.’

The position of *arranga* is fixed before the noun, unlike most other words that one could call adpositions in Bardi, which have variable ordering preceding or following the noun. Compare *bangalon boogoon* ~ *boogoon bangalon* ‘inside reef crevices’ (*boogoon* means ‘inside’, which acts as an adverb or adposition, and *bangalon* is a locative-marked noun ‘in reef crevices’), and see further §8.5.1.7 for discussion of such items.

3.4.1. Arrajina/arrijina ‘nothing’

Arrajina is historically the negator *arra* ‘not’ and the possessive third person minimal pronoun *jina* ‘his/her/its’. It is used primarily for negating possession, though it can also be used to negate existential constructions.²⁰⁵

- (15.50) a. *Arrajina goolboo.*
Arrajina goolboo.
 not rocks/money
 ‘I’ve got no money.’
- b. *Aarlingan arr nganjnj bardi. Langar arrajana, arra ngalinyan aarli.*
Aarlingan arr nga-n-ji-n-j *bardi. Langar*
 fish-ALL go 1-TR-do/say-CONT-SIM yesterday. bait
arra=jana, arra nga-li-nya-n aarli.
 NEG-1M.POSS, NEG 1-IRR-catch-CONT fish.
 ‘I went fishing yesterday. I didn’t have any bait [there weren’t any shellfish to be found], [so] I didn’t catch any fish.’

- (15.51) *Ginyinggi may arrijina joorndoo.*

Ginyinggi may arri=jina joorndoo.
3MIN food NEG=3M.DO flavor

‘This food has no flavor.’

- (15.52) *Innyagaljan cup agal spoon, arrijina jarr.*

I-n-nya-gal=jan cup agal spoon, arri=jina
3-TR-pick.up-REC.PST=1MIN.IO and NEG=3M.POSS
jarr.
this

‘He picked up my cup and spoon; they aren’t his.’ (BE: CB52.1)

The sentences in (15.50) show an interesting property of Bardi possessive negatives; that *arrajina* can appear as a single unit, or that the negator can appear with a possessive (or oblique) pronoun which agrees for person and number with another participant in the clause. (15.50b) above and (15.53) are examples.

- (15.53) *Arrajirri aarlimayi.*

Arra=jirri aarlimayi.
NEG=3A.POSS food

‘They didn’t have any food.’ (L103.023)

This construction can be used for both existential and possessive negation. However, while possessive negation can use either the agreeing or non-agreeing (*arrajin*) forms of the negator, there is a strong tendency for existential negation to use *arrajin*, even when there is a participant which could trigger agreement, as in (15.54).

- (15.54) *Arrajin barnanggarr namardamoord birarryoon.*

Arra=jin barnanggarr namard=moord birarr-yoon.
NEG=3M.IO now just=1A.DO rubbish-SOURCE

‘But there’s nothing for us now, we just feel bad.’ (OAP.038)

Existential negation does not require *arrajina*; it can also be marked with the plain negator *arra*.

- (15.55) *Arramba ngarrigij bardag jarroon booroo.*

Arra=mba ngarri=gij bardag jarr-oon booroo.
NEG=THUS many=VERY tree this-LOC place

‘There are not very many trees in this area.’

4. Questions

There are several different ways of asking questions in the language. Polar interrogatives use either a free question word *nganyji* or a clitic. They may also be marked with intonation alone. There are several interrogative pronouns; they were discussed in §7.6 but a summary is repeated here for convenience. Polar questions and content questions are the only type of direct question formation processes in the language. Bardi does not have tag questions.

A fairly frequent way of questioning information is to make a statement that the listener will confirm or contradict as needed. I assume that this is part of a cultural constraint often talked about in Aboriginal communities, that direct questions are considered confrontational, and are dispreferred in many social settings. While Bardi questions certainly occur in my data, I also have substantial experience of the questioning-through-statement strategy.

4.1. Polar interrogatives

There are three ways to form polar questions using morphological material. The first is by using the interrogative particle *nganyji*. The particle usually appears first in the clause, although see example (16.63) on page 663 above for an example in second position. This particle questions the proposition in the clause as a whole. Some examples are given below.

- (15.56) *Nganyji minjalagal jiyyirr ooldoobal?*

Nganyji mi-n-jala-gal jiyy-irr ooldoobal?
NGANYJI 2-TR-see-REC.PST 2M.POSS-3A things

‘Did you see your things?’

- (15.57) *Nyaa, jiiba anjala, nganyji liyan minman?*

Nyaa, jiiba a-n-jal-a, nganyji liyan mi-n-ma-n?
hey this 2.IMP-TR-see-FUT NGANYJI heart 2-TR-put-CONT

‘Hey, look at this, do you want it?’

- (15.58) *Nganyji ngay ngankiida Broomengan?*

Nganyji ngay nga-n-k-iid-a Broome-ngan?
NGANYJI 1MIN 1-TR-FUT-go-FUT Broome-ALL

‘Will I go to Broome?’

(JS:CB74.1)

This is the most frequent way to form polar interrogatives in my data. There are some derivatives of *nganyji*, such as *nganyjal* and *nganyjirrgoordoo* ‘how many’ (and in the old texts, *nganyjarda*). *Nganyjal* is marked with the indefinite marker *-al* (see §5.1.2), which means ‘hopefully’. The phrase *nganyjal irrgoordoo* ‘however many’ is used in contexts of denial of knowledge, as in (15.60).

- (15.59) *Nganyjal darr oonkara ngoorrij.*

Nganyjal darr oo-n-k-ar-a ngoorrij.
hopefully come 3-TR-FUT-pierce-FUT future

‘Hopefully he will come tomorrow.’

- (15.60) *Nganyjal irrgoordoo aalga ingarralanana namard.*

Nganyjal irrgoordoo aalga i-ng-arr-ala-na-na
NGANYJAL how.much day 3-PST-AUG-live-CONT-REM.PST
namard.
just

‘We don’t know how long they lived without fire.’ (GGG.008)

The second way to form a polar question is to use the clitic *=(g)arda*. This clitic interacts with focus and is used to question particular constituents. The clitic attaches to the item under interrogation. (It seems to have single word scope, e.g. *aarlarda* in the following would be ‘two FISH, or something else, like octopus?’)

- (15.61) *Gooyarrarda aarli minnyagal?*

Gooyarr=arda aarli mi-n-nya-gal?
two=INT fish 2-TR-[PST]-catch-REC.PST

‘Was it **two** fish you caught?’

- (15.62) *Ngayarda ngankiida Broomengan, gardi joowarda?*

Ngay=arda nga-n-k-iid-a Broome-ngan, gardi joo=warda?
1MIN=INT go Broome-ALL “or” 2MIN=INT

‘Will I go to Broome today or will it be you?’

The clitic =(*g*)*arda* has a clear deontic meaning. It is probably related to the adverb *garda*, which means ‘still’ in the sense of ‘X still did something (even though I told him not to)’; in sentences like (15.62), the sense is ‘Will I need to go to Broome?’ or ‘Will it be me that has to go?’ In contrast, *nganyji* does not carry the same implication.

The deontic meaning makes this clitic incompatible with some questions. For example, (15.63) is very odd, because it implies that the ball has control over its own position, and an obligation to be in a particular place.

- (15.63) * *Ginyinggi ball garndi inin bardagonkard?*

Ginyinggi ball garndi i-ni-n bardag-on=kard?
3MIN ball on.top 3-sit-CONT tree-LOC=INTERROG

‘Is the ball at the top of the tree?’ (BOW-FN08)

In Nekes and Worms (1953), the authors give a word *ŋadje-gad* (presumably *nganyji-gard*) and gloss it as ‘perhaps’. An example is given in (15.64). This was not accepted by my Bardi consultants, who treat *nganyji* purely as a question particle and do not combine it with =*gard*. The sentence given below is Nyulnyul, not Bardi, although Nekes and Worms 1953 list this as a Bardi phrase.

- (15.64) *ŋadje-gard dar il-ar ibal bananggar.*

Nganyji-gard darr i-l-ar i(:)bal barnanggarr.
INTERROG come 3-IRR-pierce father today.

‘Father might come today.’

Almost all examples of =garda apart from (15.64) come from my field notes; it is very rare in the earlier materials. I assume this is because the deontic contexts arise most naturally in conversational data, whereas the early sources are predominantly narratives.

The third type of polar question is formed with *=bard(a)*, which is also a clitic with identical distribution to *=gard*. It appears to have an epistemic function in interrogatives; that is, it questions an individual constituent and asks the question ‘was it this or something else?’

- (15.65) *Ginyingga ball garndi inin bardagonbard?*

Ginyingga ball garndi i-ni-n bardagon=bard?
3MIN ball on.top 3-sit-CONT tree-LOC=INTERROG

'Is the ball at the top of the TREE?' (BOW-FN08)

Both *=bard(a)* and *=gard(a)* lenite when attached to a stem with a final vowel; in both cases the form of the clitic becomes *=arda* and the vowel of the clitic replaces the final vowel of the stem. This makes the two clitics identical in most cases.

The host for these clitics can be a bare or case-inflected noun, an adverb such as *barnanggarr* ‘today’, or a simple or complex predicate. Possessive pronouns cannot be hosts for such clitics; instead, a free pronoun needs to be the host, as in (15.66). The same is true in indirect questions (see (15.67)).

- (15.66) a. *Ginyinggarda jina jiiwa minjoogoolij?*
Ginyingg=arda jina jiiwa mi-n-joogool-i?
3min=interrog 3M.POSS boomerang 2-TR-break-PFV

‘Was it HIS boomerang you broke?’

- b. **Jin=arda* *jiiwa* *mi-n-joogool-ij?*
 3M.POSS=INTERROG boomerang 2-TR-break-PFV

- (15.67) a. *Nyimoonggoon ginyingginim aamba joowarda jiy iila inanga-jim?*

Nyi-moonggoon ginyinggi-nim aamba joo=warda ji

2-know 3MIN-ERG man 2MIN=INT 2M.POSS
iila i-na-ngajim?
dog 3-TR-hit

‘Do you know if it was the man who hit YOUR dog?’

- b. **Nyi-moonggoon ginyinggi-nim aamba jiye=arda*
 2-know 3M-ERG man 2M.POSS=INTERROG
iila i-na-ngajim?
 dog 3-TR-hit

As in many Australian languages, direct questions are dispreferred in discourse, and instead statements are made which can be confirmed or denied (see, for example, Eades 1982). The speaker makes a statement of what they think is right (e.g. ‘Dad came back from Broome last night’) and the hearer confirms or denies it. This is probably the closest way of forming leading questions. The interrogative marker *nganyji*, however, is not neutral either.²⁰⁶ It is used in contexts where the speaker has the expectation of a positive answer to the question. In (15.68), for example, the speaker is expecting the answer to the question to be ‘yes’.

This expectation of a positive answer leads to some distributional restrictions on questions with *nganyji*. For example, *nganyji*-marked questions with negative verbs are strongly dispreferred, except in contexts where the answer ‘no’ is expected. One example of this is (15.69), which involves asking a woman about whether she is allowed to listen to a song which is part of a men-only initiation ceremony:

- (15.69) *Nganyji arra milalamanka ginyingga ilma?*
Nganyji arra mi-la-lamank-a ginyingga ilma?
INTERROG NEG 2-IRR-hear-FUT 3MIN song
‘You aren’t allowed to hear this *ilma* song, are you?’(CB FN, 2011)

For further information about differences between *nganyji* and the other question markers, and their distribution across the Bardi corpus, see Kling (2012).

The clitics can be used in forming alternative interrogatives; that is, where a speaker is given a choice of A or B. The clitic appears on each of the alternatives. This constituent order is typical for such questions, with the first alternative initial, and the second option as a separate phrase

- (15.70) *Ngayarda ngankiida Broomengan, gardi joowarda?*

Ngay=arda nga-n-k-iid-a Broome-ngan, gardi joo=warda?
 1sg=INT go Broome-ALL “or” 2MIN=INT

‘Will I go to Broome today or will it be you?’

Polar questions can be answered by *mm* (sound of agreement), *iyi* ‘yes’ or *arra* ‘no’. Speakers can also use *ay* with intonation of disapproval to mark negation. Questions are not answered with an ‘echo’ of the question in a declarative statement (as is found in some languages of the region, particularly in New Guinea and South East Asia).

4.2. Content questions

Content questions are asked with one of a number of interrogative pronouns, which were given in Table 7.5 on page 306 above. The forms are repeated here for convenience. There was some discussion of the forms in Table 15.2 in §7.6 above. Discussion here is therefore confined to the syntax of content questions, and to discussion of forms such as *angan* ‘why’, which are adverbial rather than pronominal and so were not treated in any depth in Chapter 7.

4.2.1. *Interrogative placement and intonation*

In Bardi the interrogative pronoun is usually first in the clause, as in (15.71). The pronoun receives intonational focus, with a H* tone, as the pitch track in Figure 15.2 illustrates. Interrogative clauses also have a sharp rise at the end of the clause, which may occur over a single syllable (as in the example here) or may be longer.

Although the pronoun is usually first in the clause, it need not be, and examples of both *nganyji* and *anggi* are found which are non-initial, and which still have an interrogative reading.

- (15.71) a. *Anggaba nyingga joo?*

Anggaba nyi-nga joo?
 who 2MIN-name 2MIN

‘What’s your name?’

Table 15.2. Ignorative pronouns

Root	Forms	English
<i>anggi-</i>	<i>anggaba</i>	who
	<i>anggi</i>	what, what kind of, why
	<i>anggarriny</i>	why (what purpose) so much
	<i>anggoobooroo</i>	somewhere
<i>jana-</i>	<i>jana(mbooroo)</i>	where
	<i>janaba mardiny</i>	how far
	<i>jana, nyirra</i>	which
<i>nyirra-</i>	<i>nyirroo(goordoo), nyirra</i>	how
	<i>nyirrirrgoordoo</i>	
	<i>nyirroogoordoo</i>	how (what manner)
	<i>nyirroo</i>	how come
<i>nganyji-</i>	<i>ngany(j)irrgoord</i>	how long
	<i>nganyjirrgoordoo,</i>	how many
	<i>nganyjal irrgoordoo</i>	
<i>baani</i>	<i>baanigarr</i>	when
<i>angan</i>	<i>angan</i>	why (what reason)

- b. *Janambooroongan arr mindin? Jamala arr ngandan.*

Janambooroo-ngan arr mi-n-di-n? *Jamala arr*
 where-ALL go 2-TR-do/say-CONT walk.around go
nga-n-d-an.

1-TR-do/say-CONT

‘Where are you going?’ ‘I’m going for a walk.’

Interrogative pronouns such as *anggaba* can modify nouns. That is, they can appear as pronominal modifiers within Noun Phrases.

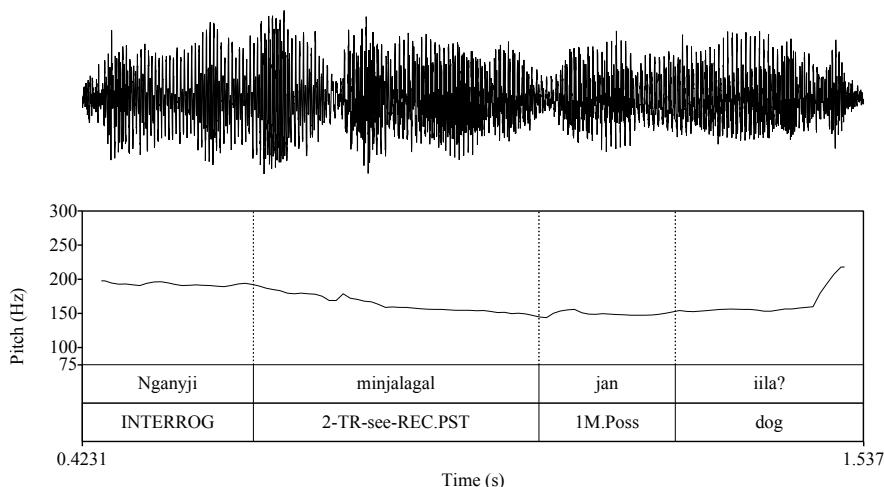
- (15.72) *Anggabanim laanybiid inanggalagaljan ooldoobal?*

[*Anggaba-nim laanybiid*] i-na-ng-gala-gal=jan
 who-ERG thief 3-TR-PST-wander-REC.PST=1M.POSS
ooldoobal?
 things

‘Which thief [lit. ‘who thief’] went off with my stuff?’(BE: CB52.1)

Figure 15.2. Sample interrogative intonation pitch track: ‘Have you seen my dog?’

BA-CB07 507182 508912



Subject, object, and oblique interrogatives are identical as far as I can tell. That is, there is no difference in the morphology or syntax of interrogatives depending on the grammatical role of the questioned argument (or adjunct). It does appear that there is an argument/adjunct distinction when there are multiple interrogatives, for which see below.

4.2.2. ‘Why’ questions: goonban(kij) and angan

There are several different ways of asking about the reason for or purpose of an event. *Angan* ‘why’ asks about the reason for an action or event. In contrast, *anggi* ‘what’ is used to ask about the purpose of an action. (15.73) gives a question (and its answer) with *angan*, and (15.74) shows *anggi* in an indirect question. It is also used in direct questions, however.

- (15.73) a. ‘*Angan minyjarralagal joornk?*’ *angirrinijin.*
 ‘***Angan*** mi-ny-jarrala-gal joornk?’
 why 2-PST-run-REC.PST fast
 a-n̥g-irr-i-ni=jin.
 1-PST-AUG-say-REM.PST=3M.IO
 “‘Why did you run so fast?’ we asked him.’

- b. *Arra linygoorroo banimbin inggidinajard nganjalagal jiib.*

Arra linygoorroo banimbin inggidina=jard
 oh! crocodile that.much huge=1A.IO
nga-n-jala-gal jiib.
 1-TR-see-REC.PST this

‘Well, I just saw the biggest crocodile!’

(CAM1.037–38)

- (15.74) *Rooban ingarrangoorroobina ginyinggi malaganngan anggi diirdi injoonoojirr marangan booroo.*

Rooban i-ng-arr-a-ngoorroobi-na ginyinggi
 in.return 3-PST-AUG-chase-REM.PST 3MIN
ma-laga-n-ngan anggi diirdi
 GER-know-CONT-ALL why run.away
i-n-joo-noo=jirr mara-ngan booroo.
 3-TR-do.say-REM.PST=3A.IO far-ALL place

‘This one man chased them to know why they are running away to a far country.’ (L103.065)

Both of these question markers are stance-neutral; *goonban*, on the other had, signals the speaker’s disapproval of an action and is usually translated as ‘why on earth’.²⁰⁷ This interrogative adverb may be qualified with =*gija* ‘very’.

- (15.75) a. *Goonban barda minagal jan aarli?*

Goonban barda mi-n-a-gal jan aarli?
 why.on.eath away 2-TR-give-REC.PST 1M.POSS fish

‘Why on earth did you give my fish away?’

- b. *Goonbankij minjoolnggaljin?*

Goonban=kij mi-n-joolng-gal=jin?
 why.on.earth=VERY 2-TR-tell-REC.PST=3M.IO

‘Why on earth did you tell him?’

- c. *Goonbankij jarrmin injoongmoord?*

Goonban=kij jarrmin i-n-joo-ng=moord?
 why.on.earth follow 3-TR-do/say-APPL=1A.DO

‘Why on earth does she have to follow us? (we don’t want her to come).’

Example (15.75c) has the flavor of a rhetorical question, and there are textual examples of other rhetorical questions in narratives, where speakers are talking to themselves.

4.3. Double interrogatives

More than one interrogative pronoun can appear in a clause. Multiple interrogatives are allowed, and there are few restrictions on the order, at least of argument interrogatives, as the grammaticality of all the sentences in (15.76) shows. The difference in meaning appears to depend on which interrogative has greater focus.²⁰⁸

- (15.76) a. *Anggabanim anggi inarligal?*
Anggaba-nim anggi i-na-rli-gal?
 who-ERG what 3-TR-eat-REC.PST
 ‘Who ate what?’
- b. *Anggi anggabanim inarligal?*
Anggi anggaba-nim i-na-rli-gal?
 what who-ERG 3-TR-eat-REC.PST
- c. *Anggi injalagal anggabanim?*
Anggi i-n-jala-gal anggaba-nim?
 what 3-TR-see-REC.PST who-ERG
 (preferred reading ‘what did someone see?’)
- d. *Anggabanim injalagal anggi?*
Anggaba-nim i-n-jala-gal anggi?
 who-ERG 3-TR-see-REC.PST what

When an interrogative is final, the default (and preferable) reading is for it to be an indefinite rather than an interrogative. Remember that Bardi interrogatives are ignoratives, and they have a wider range of use than interrogative pronouns. Thus (15.76c) has the preferred meaning ‘What did someone see?’ though it is also grammatical in the literal translation of ‘what did who see?’. All other sentences have the interpretation of English ‘who ate what?’.

Verb-first order in the multiple interrogatives (that is, where the verb is in focus) is possible, but is dispreferred; it is grammatical, however, with the

right intonation, implying the speaker's general confusion ('they SAW something? who? what?') Note that the English translation of the Bardi sentence is also rather odd pragmatically, if grammatically correct.

- (15.77) ?? *I-n-jala-gal anggaba-nim anggi?*
 3-TR-see-REC.PST who-ERG what
 'Who SAW what?'

When it comes to multiple interrogatives with both arguments and adjuncts, however, the judgments are different. This is one of the few places in the grammar where there are differences between free adjunct and argument phrases. In (15.78), for example, multiple interrogatives involving *janaboor* 'where' are fine when the adjunct is fronted before *anggaba* 'who', but only if the verb is final.

- (15.78) a. *Anggaba minjalagal janaboor?*
Anggaba mi-n-jala-gal janaboor?
 who 2-TR-see-REC.PST where
 'Who did you see where?'
 b. *Janaboor anggaba minjalagal?*
Janaboor anggaba mi-n-jala-gal?
 where who 2-TR-see-REC.PST
 c. **Janaboor mi-n-jala-gal anggaba?*
 where 2-TR-see-REC.PST who

Three interrogatives are allowed:

- (15.79) *Anggabanim injalagal anggi baanigarr?*
Anggaba-nim i-n-jala-gal anggi baanigarr?
 who-ERG 2-TR-see-REC.PST what when
 'Who saw what when?'

Data also indicate that while multiple interrogatives of arguments are allowed if the whole argument is questioned, multiple interrogatives involving 'how many' are highly restricted. The example in (15.80b) was accepted, but including an instrumental interrogative (as in 15.80a) was ungrammatical. When the argument ignorative pronoun is final in the clause, the strongly preferred reading is indefinite rather than interrogative reading. This seems not

to be the case for the temporal interrogative and other adjunct interrogatives, at least in the sentences which were elicited here.

- (15.80) a. * *Anggi-_{ng} nyanyjirrgoordoo aarli*
 what-INS how.many fish
 mi-n-jooloong-gal=irr?
 2M-TR-collect-REC.PST=3A.DO
 ‘Intended: ‘With what did you collect how many fish?’’
- b. *Nyanyjirrgoordoo aarli minjooloonggalirr baanigarr?*
 Nyanyjirrgoordoo aarli mi-n-jooloong-gal=irr
 how.many fish 2M-TR-collect-REC.PST=3A.DO
 baanigarr?
 when
 ‘How many fish did you collect when?/When did you collect
 how many fish?’

5. Commands and prohibitions

Bardi does not have a morphologically distinct imperative form of the verb. The future is used for second person positive commands, and the negative form of the verb in the irrealis is used for prohibitions. In complex predicates, the light verb cannot be omitted in imperatives; the light verb always receives imperative inflection.

5.1. Commands

Morphologically, both second person commands and hortatives which include the speaker have future marking. This is described in §11.1.3 above. Both the future prefix and suffix appears. The second person forms are distinct in the transitive and intransitive, and they do not show the same future prefix *ngg-* ~ *nk-* that the rest of the future paradigm does. This may imply that the forms were formerly not part of this paradigm but have been co-opted into it (perhaps they were originally solely imperatives). Some examples follow. (15.81) has imperatives, while (15.82) has a hortative construction.

- (15.81) a. *Moonga anjila nyiimolon. Joorr inarij nyiimolo.*
Mòonga a-n-jil-a ny-iimol-on. Joorr i-n-a-rij
 honey 2-TR-lick-FUT 2m-hand drip 3-TR-pierce-PFV
ny-iimol-o.
 2-hand-ABL
- ‘Lick the honey on your hand. It’s dripping off your hand.’
- b. “*Joo anarla ngoordingan!*”
 “*Joo a-n-arl-a ngoordingan!*”
 2MIN 2-TR-eat-FUT alone.
- ‘You eat it all [alone]!’ (L70.020)
- (15.82) “*Bambi moonda anggarama*,” *ingirrinijirr*. “*Iigamba oonki*,” *in-girrinin nimarla*.
- “*Bambi moonda a-ngg-arr-a-ma*,”
 B. cast.spell 1-FUT-AUG-put-FUT
i-ng-irr-i-ni=jirr “*Iig=amba oo-n-ki*,”
 3-PST-AUG-do/say-REM.PST=3A.IO sick=THUS 3-FUT-do/say
i-ng-irr-i-ni-n ni-marla.
 3-PST-AUG-do/say-REM.PST 3-hand
- “Let’s cast a spell on Bambi,” they said. “His hand will get sick.” (L81.080)

While there is no morphological difference between futures and imperatives, impressionistically there is an intonational difference. Future declarative verbs have regular declarative intonation, while imperative constructions start higher and have a sharply falling intonation contour on the verb. However, I have no recorded imperative verbs which clearly show this. The impression of intonational difference comes from observations of imperatives directed at speakers (including myself), while the imperatives in my recordings are either part of narratives, and do not differ in intonation from the rest of the utterance, or are part of larger clauses where an object or adverb takes the sentence focus, which obscures the intonation on the verb.

5.2. Prohibitions

Prohibitions usually take the irrealis prefix and future or null (present) suffix. They appear with the regular negator particle *arra* and have regular (not

future/imperative) second person marking.

- (15.83) a. *Jorrdorron jirrmoob oonkiya arra banban goolirri.*
Jorrdorron jirrmoob=3-FUT-REL sing=3-FUT do=FUT NEG rapidly
goo-li-rri.
 2-IRR-AUG-do
 ‘When he sings, don’t hurry,’ (L59.038)
- b. “*Ngayi arra milarga(jan),” injoonin.*
“*Ngayi arra*
 1MIN NEG2-IRR-fear-FUT=1M.IO
mi-l-arga=(jan),” i-n-joo-n=in.
 3-TR-do/say-REM.PST=3M.IO
 “‘Don’t be frightened of me,’ he said.’ (L83.010)

The constituent order of prohibitions often has the verb in initial position. I assume this is because the negated action is in focus. However, other constituents may also receive identification focus and may appear in initial position in both positive and negative imperatives, as example (15.83b) illustrates.

6. Causatives

Bardi has no morphological causative marking apart from the complex predicate construction which pairs adjectives with the light verb *-ma-* ‘make’; this was discussed above in §13.9.3.1; some other complex predicates form unproductive pairs (such as *-jiidi-* ‘go’ and *-inya-* ‘catch’) where the transitive member of the pair is the causative and the intransitive is an anticausative. Verbs which allow quasi-passive constructions with low-animacy causers (as discussed in §12.5) also sometimes appear in attempts to elicit causatives, as in (15.84).

- (15.84) *Lool inggardij ngoorroongoorroonim.*
Lool i-ng-gard-ij ngoorroongoorroo-nim.
 enter 3-PST-enter-PFV flies-ERG
 ‘The flies made her go inside.’ (AKL-GDL/1)

There is no productive syntactic means of deriving causatives of verbs. They never appear in texts, and both Aklif's and my attempts to elicit constructions of this type were unsuccessful. All such English sentences were rephrased in a way that catches the sense of the utterance, without using a causative construction. Some examples of English prompts and their Bardi translations are given in (15.85).

- (15.85) a. *Baawa goron inkalgal, booljamb injoogal.*

Baawa gor-on i-n-kal-gal, boolj=amb
 child play-LOC 3-TR-wander-REC.PST tired=THUS
i-n-joo-gal.
 3-TR-do/say-REC.PST

Prompt: 'The child made himself tired.'

Literal translation: 'The child was playing, that's why he/she got tired.' (BOW08, loose page)

- b. *Loogal may nganarligal ngangganyboogaljamb.*

Loogal may nga-na-rli-gal nga-ng-ganyboo-gal=jamb.
 bad food 1-TR-eat-REC.PST 1-PST-vomit-REC.PST=THUS

Prompt: 'I ate bad food which made me vomit.'

Literal translation: I ate bad food, and that's why I vomited.'

Chapter 16

Clause Combining

1. Overview

In this final chapter, I discuss different ways in which clauses may be combined, and may show dependencies between one another. I discuss the evidence for syntactic clausal embedding in the language, finite and non-finite subordination strategies, and the role of case marking in signaling subordination.

1.1. Types of complex clauses

Bardi has both finite and nonfinite clausal dependency structures. Furthermore, while some structures are overtly marked by morphology or sentential clitics, others have no marking. Here I consider both conjunction and subordination. The relevant constructions found in Bardi are listed below:²⁰⁹

- (16.1) a. *=min*, *=gid*, *=(j)amb*, *=(g)arra*, *=gorror* ‘if’; Wackernagel clitics which mark clausal dependencies, but not necessarily subordination (see (16.2));
- b. Words which introduce new clauses, including *ginyinggon*, *ginyinggarra*, and *ginyinggo* (all roughly ‘and then’), and, in the Laves corpus (1920s) only, *ranana* ‘straightaway’ (see §16.3);
- c. Conjunctions: *agal* ‘and’, *man* ‘but’, *=barda* ‘or’ and *arragorror* ‘but, or’;
- d. Apposition and serialization; null marking (for causes, reasons, simultaneous action, or sequential/consecutive action; see §16.5);
- e. *=b(a)*, a Wackernagel clitic which primarily translates relative clauses; see (16.93) and §16.7;
- f. Case markers, including the purposive *-ngan* and the semblative *-marr* ‘when’ (with finite or non-finite clauses; see e.g. §16.6);
- g. Verb morphology; the simultaneous action marker *-j* ‘while X-ing’ (discussed in §11.2.7 above).

Data for investigation of these structures comes from both textual/narrative and conversational data, and elicitation. Elicitation was particularly crucial in discovering potential differences between covert conjunction, serialization, and subordination. I stress this because of a recent tendency in grammar writing to avoid such data in favor of pauses and intonation contours (see for example Kruspe 2004:339ff). Such data can also be revealing but are unlikely to reveal concrete differences between serialization and embedding.

1.2. Adjoined ‘relative’ clauses

Very influential in the study of subordination in Australian languages has been Hale’s (1976) study of Warlpiri clausal embedding, particularly in regards to what he termed an ‘adjoined relative’ clause. Therefore, in order to situate the Bardi discussion more clearly in the Australian context, some background on this research is necessary (see also Nordlinger 2006a).²¹⁰ Such clauses in Warlpiri frequently have the interpretation of relative clauses, but they are not embedded within a NP. Instead, they are peripheral in the clause. An example is given in (16.2):

(16.2) Warlpiri

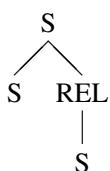
*Ngajulu-rlu=rna yankirri pantu-rnu, kuja=lpa ngapa
 1SG-ERG=1SG.SUBJ emu spear-PAST, COMP=AUX water
 nga-rnu.
 drink-PAST*

‘I speared the emu which was/while it was drinking water.’

(Hale 1976:78)

Two features of this construction are relevant here. The first is the phrase structure. Hale (1976) argues Warlpiri adjoined relative clauses have the following structure:

(16.3)



That is, the adjoined relative is a full clause which is embedded under an S node, but is an adjunct to the main clause. Adjoined relatives in Warlpiri must appear peripherally to the main clause. Note that this structure is distinct from a paratactic clause; Hale is clear that he does not consider adjoined relatives in Warlpiri to be paratactic.

The second feature is semantic interpretation. Such clause pairs usually have a coreferential argument, but (unlike true nominal relative clauses) they need not. They are also ambiguous in interpretation between relative clauses and temporal clauses, as shown by the gloss in (16.2) above. It seems that the marker of adjunction functions to designate a relation of coreference or cotemporality between the clauses.

Similar constructions are found in many parts of Australia, although they are not the only type of relativization or subordination strategy. For example, there are languages with switch reference marking (Austin 1988), with relative clauses marked by pronouns (e.g. in the Yolju bloc), and with subordination marked by nominalization.

As Nordlinger (2006a) has pointed out, the analysis of Warlpiri in Hale (1976) has been presumed to apply to a wide variety (and the majority) of Australian languages. That is, it has been largely assumed that Australian languages have a single multifunctional type of clause combining, in which the secondary clause is not truly embedded, but rather ‘syntactically marginal to the main clause’ (Nordlinger 2006a:1); Nordlinger also highlights how influential Hale’s article has been in interpretations of Australian subordination, and how it has led to an erroneous but nonetheless widespread perception that Australian languages do not exhibit syntactic embedding. Bardi provides another example of a language which challenges this view.

1.3. Bardi and adjunction

On currently available data, it is difficult to determine whether ‘subordinate’ clauses in Bardi represent true subordination, or are rather adjoined to the main clause, as Hale (1976) claimed for Warlpiri. On the one hand, we have clear information about six different strategies to relate clauses together; these were listed in (16.1). Such clauses vary extensively in terms of marking, finiteness, argument sharing, possibilities for constituent interleaving, and function. Clauses introduced by full words (see (16.1b)), for example, never show interleaving; neither do clauses introduced with clausal Wackernagel

clitics (16.1a). Such clauses are related in larger discourse chunks, but do not need to share arguments. Clauses conjoined with the conjunctions *agal* ‘and’ and *arragorror* ‘or’ show a closer degree of nexus, but are still both fully finite, and need not share arguments. They also show no constituent inter-leaving.

As nexus becomes tighter (in (16.1d)–(16.1g) above), the distinction between paratactic and hypotactic constructions becomes harder to define.²¹¹ To illustrate the problem, consider complex sentences in (16.4).

- (16.4) *Ginyinggi ngaarri injalijjarrngayoo boogoonb inin.*

Ginyinggaa ngeerri i-n-jal-ij=jarrngayoo boogoon=b
3MIN devil 3-TR-(PST)-see-MID.PFV-1MIN.IO inside-REL
i-ni-n.
3-be-CONT.

‘The spirit, which lives inside [the mangroves], saw me.’

(Metcalfe 1975b:37)

- (16.5) *Garrma jagoord anja mayalgarran booroob anjalajan nyoonoomb nganggan boogoon.*

Garrma jagoord a-n-j-a *mayalgarran booroo=b*
later return 2.FUT-TR-do/say-FUT afternoon time-REL
a-n-jala=jan *nyoonoo=mb nga-ngg-a-n*
2.FUT-TRsee-FUT=1min.IO here 1-FUT-be-CONT
boogoon.
inside

‘When you come back in the afternoon, you’ll see me there inside.’

- (16.6) *Booroo nganjala galjoogarra, boogoonjamb goorrinkal.*

Booroonga-n-jala-gal=joogarra, boogoona=jamb
look 1-TR-see-REC.PST=2AUG.IO inside=THUS
goo-rr-i-n-kal.
2-AUG-sit-REC.PST

‘When I looked around for you, I saw you inside.’

The sentences in (16.4)–(16.6) would appear to point to an adjoined analysis. In (16.4), for example, the antecedent of the ‘relative’ clause *boogoon=b*

i-ni-n is *ginyinggi ngaarri*, which is initial in the clause and the subject of the verb (while the relative clause is final); we might want to analyze this as a case of switch reference, or translate the sentence paratactically as ‘the *ngaarri* devil saw me, the one which lives in the mangroves’. However, note that *ginyinggi ngaarri* is not marked for ergative case. If this were an instance of clause chaining we would not expect the ergative to be omitted. However, we do regularly find the ergative dropped from the antecedents of relative clauses (see further below).

Another problem with the ‘adjoined’ relative clause analysis is that there are some examples of sentences which appear to have interleaved ‘subordinate’ clauses. Consider (16.7) from the Laves corpus:

- (16.7) *Gooyarra arra irrmoonggoon ingarrjimbina nyoonoo ingarramarnirr aambanim malgin nyini irr.*

*Gooyarra arra irr-moonggoon i-n*g*-arr-jimbi-na nyoonoo*
 2 NEG know die here
*i-n*g*-arr-a-ma-rn=irr aamba-nim malgin nyini irr.*
 put man-ERG in.secret here 3AUG

‘They didn’t know that two [men] had died and a man had been put there hidden.’
 (Laves n.d.:103/72)

The phrase *gooyarra* ‘two’ is the subject of *ingarrjimbina*, but the main clause, *arra irrmoonggoon*, intervenes. Therefore either *gooyarra* has raised out of the subordinate clause, or it is the object of *irrmoonggoon*, and the sentence should more literally be translated ‘they didn’t know the two, [that] they had died’. This is rather unlikely, however, as *irrmoonggoon* does not usually take a nominal complement, and if it does, it appears with the allative case. If this were ‘adjunction’, we would not expect to find constituents of one clause in the middle of the other. Such examples are consistent with an analysis where elements of a lower clause can be focused at the front of a higher clause, however. The presence of interleaving of this type is thus a strong argument for subordination.

A further piece of information speaks in favor of an adjoined analysis, however. The relevant clauses have similar ambiguities in interpretation to the clauses which led Hale (1976) to argue for an adjoined analysis for Warlpiri. That is, many Bardi sentences are ambiguous between readings with coreferential arguments and temporal readings where no argument coreference is assumed. This is discussed further in §16.7 below.

2. Clausal clitics

2.1. List of clitics

The clause chaining particles in my data were listed above in Table 14.6; they are repeated below for convenience in Table 16.1. There can only be a single clausal clitic in each clause (though there may be other clitics of other types within a single clause).

Table 16.1. Clause chaining clitics

Bardi	English
=min	then
=gid	then
=b(a)	relator
=gorror	if
=(j)amb	thus
=(g)ard(a)	should (deontic)
=(b)ard(a)	maybe (epistemic)

Further discussion of these items follows, with the exception of =(b)a, which is discussed in §16.7 below. It is also listed here, however, since it does have uses in marking clausal relations:

- (16.8) *Ingorrbooloon balab ginyingga banyjoordoo, oolab inarnajirr.*

I-ngr-orr-booloo-n balab ginyingga banyjoordoo, oola=b
 3-PST-AUG-grow-CONT there 3MIN fish.poison water=REL
i-n-ar-na=jirr.
 3-TR-pierce-REM.PST=3A.IO

‘Banyjoord root (*Tephrosia sp.*) grows when it rains.’ (L77.007)

In (16.8), for example, there is no shared argument between the two clauses. Instead, the relation is one of cause and effect. More information is given below.

There are two words for ‘if’: *arragorror*, which is a separate word which appears first in the clause, and =gorror, a second position clitic. *Arragorror* is presumably a compound of the clitic and the negator *arra*. For convenience, both these forms are discussed together with the conjunction *agal* ‘and’ in

the following section on conjunctions. Finally, *=garda* and *=barda* are also found as independent words (though they may cliticize at both the phrasal and the clausal level) and are discussed in §15.4.1.

2.2. Functions of clitics

2.2.1. *=min* and *=gid*

The two most common second position clause chaining clitics are *=min* and *=gid*. The difference between the two is slight, and speakers very often substitute one for the other when repeating clauses in transcription. They are both glossed here as ‘then’.

From consideration of the forms in the corpus, *=gid* advances the narrative. That is, it is used when events occur in a sequence, and the speaker is marking that the events are progressing from one to the other. (16.9) shows a typical stretch of Bardi narrative with clauses linked by the clitic *=gid* ‘then’.

- (16.9) *Bardagid angarrananirr niimanangarr aarli baalingan. Angarra-marrananagidirr, moorrgardagid daag angirrinan.*

*Barda=gid a-*ng-arr-a-na-n=irr**
 away-then 1-PST-AUG-TR-[give]-CONT-REM.PST=3A.DO
*niiman=angarr aarli baali-*ngan*.*
 many-VERY fish bough.shed-ALL.
*A.-*ng-arr-a-marra-na-na=gid=irr*, moorrgarda=gid*
 1-PST-AUG-TR-cook-CONT-REM.PST=THEN=3A, sated=THEN
*daag a-*ng-irr-i-na-n*.*
 sleep 1-PST-AUG-do-CONT-REM.PST.

‘We used to go home with lots of fish. We used to cook them, and we used to go to sleep with a full stomach.’ (AYI1.9-10)

The second clitic, *=min*, is used for actions which are closely linked in some way. Rather than advancing the narrative to the next scene, as *=gid* does, *=min* focuses on the link between the *=min*-marked clause and what follows. An example is given in (16.10). Clauses are bracketed, and *=min* attaches to the end of the first word of the clause.

- (16.10) *Yaaga ininkalj garanygaranymin ingalamankagaljan nganjalagalmin inyjoordoogal nalma.*

[*Yaaga i-ni-n-kal-j]* [garanygarany=**min**
 hole 3-sit-CONT-REC.PST-SIMULT footsteps=THEN
i-nга-lamanka-gal=jan] [*nга-n-jala-gal=min*
 1-PST-hear-REC.PST=1MIN.IO 1-TR-see-REC.PST=THEN
i-ny-joordoo-gal n-alma.]
 3-PST-get.dry-REC.PST 3-head.

'He was in a hole when he [a crocodile] heard my footsteps and I saw him raise his head.' (CAM1.039)

- (16.11) *Ginyinggon, boonyjamin gala ingoorroolanana alboorroo, boonyjangan ambooriny manan ginyingg aarli, jagoord ingirrinan, daag ingirrinan biila Boolnginyi.*

Ginyinggon, boonyja=min gala
 then all=THEN well
i-ng-oorr-oola-na-na alboorroo, boonyja-ngan
 3-PST-AUG-collect-CONT-REM.PST plenty all-ALL
ambooriny man-an ginyingg aarli, jagoord
 people GER-give-GER 3MIN fish return
i-ng-irr-i-n-an, daag
 3-PST-AUG-do/say-CONT-REM.PST sleep
i-ng-irr-i-n-an biila Boolnginy-i.
 3-PST-AUG-do/say-CONT-REM.PST again B.-LOC

'Then, when they had collected plenty they went back, to give this meat to all the people, and they slept again at Boolnginy.'(NAA.008)

The contexts in which =*min* most often appears are also in narrative advances, and sentences marked with =*min* also often have a change of topic. In this, the function of =*min* shows some overlap with that of =*gid*.

Both these markers are common in my and Gedda Aklif's materials, and appear also in the texts of C. D. Metcalfe. They are, however, quite rare in the Laves materials, with only about five examples of each in the entire corpus. Other discourse connectors (most notably *ginyinggon* 'then') appear in the materials instead.

Example (16.11) shows another feature of clause connectors in Bardi: two clause chainers are possible if one is a full word such as *ginyinggon*. In this

example, *ginyinggon* does not make position for the clitic hosting; it is presumably parenthetical or extra-clausal in this example. In other cases, however, examples of *ginyinggon=min* are found, as in (16.12).

- (16.12) “Noorroo nganjooloonajanirr barnanggarr, ginyinggonmin ginyingg noorroo dooboodoob ingarrananid marrya boonyja booroo,”
injoonoo.

Nòorroo nga-n-jooloo-na=jan=irr *barnanggarr,*
 fire 1-TR-collect-REM.PST=1MIO=3A.DO today
ginyinggon=min *ginyingg nòorroo dooboo-doob*
 then=THEN 3MIN fire smoke-REDUP
i-ng-arr-a-na=nid *marrya boonyja booroo,”*
 3-PST-AUG-carry-REM.PST=COLL smoke all place
i-n-joo-noo.
 3-TR-do/say-REM.PST

“I’ve got back my fire sticks. This fire will burn with thick smoke forever,” he said.’ (GGG.020)

2.2.2. =(j)amb ‘thus’, ‘that’s why’

This clitic has forms both with and without its initial stop. Broadly, *=(j)amb* is used to denote a causal relation between one sentence and the next. Most commonly, it is used to explain why a state of affairs obtains:

- (16.13) *Niimbal inamboona iilan inganana iilanjamba inganana.*

Niimbal i-na-m-boo-na *iilan i-nga-na-na*
 foot 3-TR-poke-REM.PST sick 1-PST-be-REM.PST
iilan=jamba i-nga-na-na.
 sick=THUS 3-PST-be-CONT-REM.PST

‘It hit his foot and he got sick; that’s why he got sick.’ (L58b.008)

- (16.14) *Iilan nganganij, arramba darr ngalarna moorrigoolnganjan.*

Iilan nga-nga-n-ij, arr=amba darr nga-l-ar-na
 sick 1-TR-be-PFV NEG=THUS come 1-IRR-pierce-REM.PST
moorrigool-ngan=jan.
 work-ALL=1M.POSS

‘I was sick, that’s why I didn’t come to work.’

- (16.15) *Aalganim inamarragal jan bardoon, ginyinggamb lolor nganyjiid.*

Aalga-nim i-na-marra-gal jan bardoon,
 sun-ERG 3-TR-cook-REC.PST 1M.POSS skin
ginyingg=amb lolor nga-ny-jiid.
 3MIN=THUS peel 1-PST-go.

'The sun burnt my skin and that's why it is peeling.'

- (16.16) *Nyoongool ninga, oombalamb andan.*

Nyoongool ninga, oombal=amb a-n-d-an.
 old EMPH slow=THUS go-3m-do

'He is old and that's why he walks slowly.'

- (16.17) *Loogal may nganarlital ngangganyboogaljamb.*

Loogal may nga-n-arli-gal nga-ng-ganyboo-gal=jamb.
 bad food 1-TR-eat-REC.PST 1-PST-vomit-REC.PST=THUS

'I ate bad food and that's why I vomited.'

Most of the examples in the corpus are of this type. Related to this is the word *ginyinggamb* 'that's why', which is historically the third person minimal pronoun with =*jamb*. It always occurs first in the clause:

- (16.18) *Gorna ngangimiligal jalbany, goolarlamb nganjoo booljarrjangarr.*

Ginyinggamb nganin ilogo.

Gorna nga-ngi-mili-gal jalbany, goolarl=amb
 good 1-PST-wake.up-REC.PST early feel.weak=THUS
nga-n-joo booljarr=jangarr. Ginyinggamb nga-ni-n ilogo.
 1-TR-do quickly=ONLY 3MIN=THUS 1-sit-CONT on.side

'I woke up this morning feeling good, all of a sudden I felt weak for no reason. That's why I am lying down.'

The reason clause (marked with =*jamb*) is often second, following the other clause. All the examples given above are of that structure. It is also possible, however, for the clauses to occur in the opposite order, with the =*jamb*-marked clause appearing before its clause pair, as in (16.19):

- (16.19) *Arrarlinjamb jirr lagoorr. Gorna irrjarr.*

A-rr-arli-n=jamb jirr lagoorr. Gorna irr-jarr.
1-AUG-eat-CONT=THUS 3A.POSS egg good 3A-taste

‘[These eagles make their nest on top of the rocks.] We eat their eggs. They taste good.’

There are other uses of =*jamb*, however, which do not fit these patterns. One case is where the causal relation between the two sentences does not appear to be particularly strong. In (16.20), for example, the first clause says that the *aanyjoo* (*Glycine sp.*) yams are associated with (and only found on) the mainland. The next clauses talk about how mainland people cook and eat these yams, but the cooking and eating is not causally linked to the yams being found on the mainland, since islanders also cook and eat yams in this way (although not *aanyjoo* yams).

- (16.20) *Anyjoo gaanygayoon jarri, gaanyga irrarlin. Noorroogoonjamb ir-ramarranirr ngalarnkoon gaara irrmarranjamb.*

Anyjoo gaanyga-yoon jarri, gaanyga i-rr-arli-n.
A. mainland-SOURCE this mainland 3-AUG-eat-CONT
Noorroo-goon=jamb i-rr-a-marra-n=irr
fire-LOC=THUS 3-AUG-TR-put-CONT=3A.DO
ngalarn-koon gaara i-rr-marra-n=jamb.
hot.sand-LOC sand 3-AUG-cook-CONT=THUS

‘*Anyjoo* yams are from the mainland and they eat them on the mainland. They cook them in the hot sand.’

Another exceptional use is where the clitic is used in a free-standing clause. In some cases, the implication of ‘that’s why’ still fits. In (16.21), for example, there is another word, the adverb *amarda*, which also carries the same meaning.

- (16.21) “*Amarda biini minangga doombarr ingirrinja garrabaljamb,*” *in-girri.*

“*Amarda biini mi-na-ng-ga doombarr i-ng-irr-inja*
that’s.how stink 2-TR-carry fly 3-PST-AUG-catch
garrabal=jamb,” *i-ng-irr-i.*
birds=THUS, 3-PST-AUG-say

“‘You stank, that’s why the birds flew away,’ they said.’ (L71.018)

In other cases, however, the causal meaning is absent. In (16.22), *=jamb* has no causal connection to the preceding clause.

- (16.22) *Gaanygayoonamb banyjoord.*

Gaanyga-yoon=jamb banyjoord.
mainland-SOURCE=THUS fish.poison

'[Banyjoord poison root (*Tephrosa sp.*) is used for scattering in crevices of reefs so that the fish die.] It's from the mainland.'

The clitic can be used on two (or more) clauses, where the meaning is something like 'when ... then'.

- (16.23) *Birrngaliny maangga irrinjin aranganim ilmanganjamb irrngoorridin boorrboorrjamb irrin.*

Birrngaliny maangga i-rr-i-n=jin aranga-nim
B. m. 3-AUG-say-CONT=3M.IO other-ERG
ilma-ngan=jamb i-rr/ngoorridi-n boorrboorr=jamb
song.style-ALL=THUS 3-AUG-paint.self-CONT dance=THUS
i-rr-i-n.
3-AUG-do-CONT

'White clay is called *birrngaliny*, but some people call it *maangga*; they paint themselves (with it) for dancing in *ilma* corroborees.'

- (16.24) *Jarri gamaloon ninga may ginyinggamb arrooloongan January-goon arrarlinjamb.*

Jarri gamaloon ninga may ginyingg=jamb a-rr-ooloonga-n
this g. name food 3MIN=THUS 1-AUG-collect-CONT
January-goon a-rr-arli-n=jamb.
J.-LOC 1-AUG-eat-CONT=THUS

'This (green) fruit is called *gamaloon*; we pick them in January and eat them.'

In some of the older texts, multiple clauses are marked with *=jamb*. I assume that in such cases, the clitic reinforces the idea of connection between all the events in each clause; that is, that the events are all sub-events in a larger context.

There are a few uses of *=jamb* which are either not second position, or where the item to which the clitic is attached is extraposed in some way. In (16.21), for example, *garrabal=jamb* ‘bird=THUS’ shows that *=jamb* is not attaching in second position in the discourse. Further examples follow.

- (16.25) *Arinyjinan raanana liyannga ingarramana mayingan ginyinggi maya goolngarryjamba ninga agal irrilma biila.*

Arinyjinan raanana liyan-nga i-ng-arr-a-ma-na
 once straightaway spirit-INS 3-PST-AUG-TR-put-REM.PST
mayi-ngan ginyinggi maya goolngarry=jamba ninga agal
 food-ALL 3MIN food *Dioscorea*=THUS name and
irrilma biila.

Glycine also

‘Once they wanted to eat the tucker, the one called *goolngariny* (*Dioscorea bulbifera*) yams, and *irrilm* (*Glycine sp.*) yams.’

(L158.003)

- (16.26) *Aron oolooloong gambiljamb irrin.*

Ar-on oolooloong gambil=jamb i-rr-i-n.
 another-LOC o. g.=THUS 3-AUG-do/say-CONT

‘In another *oololoongo* [ceremony] they become *gambil* boys (when they get the hand strings).’

I have no explanation for this use of *=jamb*. It is possible that such examples show extraposed items, or that there is a different use of *=jamb* which is phrase-bound rather than clause-bound. Unfortunately, audio recordings of these items are not available, so we cannot diagnose from intonation whether the phrase *aron oolooloong* is extraposed, or a different clause.

In both the Laves materials and in the modern corpus, *jamb* appears a few times as first in the clause as a free-standing word. In such cases, it appears to mean something like ‘therefore’.

- (16.27) “*Jamb nyirra nganki ngaynimjana marrira oonkayboongayoo, ‘bo:jana minamagal janoo oonkibalan nyirray jamoo ngankiin,’*” *in-joonin.*

“Jamb nyirra nga-n-k-i ngay-nim=jana marrira
 therefore how 1-TR-FUT-do/say 1MIN-ERG=1M.POSS sister
oo-n-k-ayboo=ngayoo...
 3-TR-FUT-ask=1M.DO

‘What shall I do if my sister asks me [where I put her son]?’

(L157.043)

- (16.28) *Jamb ginyinggi anggi inamana joorroonim.*

Jamb ginyinggi anggi i-na-ma-na joorroo-nim.
 thus 3MIN what 3-TR-put-REM.PST snake-ERG

‘The snake bite put something (some poison) in him.’ (JDW.011)

There are also three examples in the phrase *Jamb gala*, which speakers gloss as ‘well then’.

- (16.29) *Jamb gala lool inggardij, “balaboo amboon amboon arri,” gala injoonoojirr.*

Jamb gala lool i-ng-gard-ij balaboo amboon amboon
 well.then enter 3-PST-enter-PFV that.way together together
arri gala i-n-joo-noo=jirr
 1AUG thus 3-TR-do/say-REM.PST=3A.IO

‘Well then, when he [Loolooloo] dived, “form one line,” he [the old man] used to tell the others.’ (MLL1.026)

2.3. Placement of clitics

While the generalization that the clitic occurs in second position is a robust one, there is some variation in what can ‘count’ as second position for this purpose. Most often, the second position clitic occurs after the first phonological word in the clause. That is, the clausal clitic is sensitive to wordhood and not phrasehood.

Occasionally, however, there is more material than a single phonological word as host for the clitic. Such phrases always comprise a pronominal item and a noun, or a preverb and inflecting verb. In (16.30), for example, *ginyinggon boor(oo)* is a single noun phrase.

- (16.30) *Ginyinggon booram̩ irrooloongan banyoordoo amboorinynim barnanggarr.*

[*Ginyingg-on boor=amb*] *i-rr-ooloo-nga-n banyoordoo*
 3MIN-LOC place=THUS 3-AUG-collect-CONT fish.poison
amboorin-y-nim barnanggarr.
 people-ERG today

‘That’s why people get fish poison in that place today.’

Such examples are very rare, however, and speakers judge such phrases as ungrammatical when presented with them in isolation. That is not true of the preverb + inflecting verb pairs, however, which are grammatical as a multi-word host for clitics. This was discussed above in §13.2.2.

When the verb is the first item in the clause (and thus the host for the clitic), the sentential clitic precedes any other clitics on the verb; that includes agreement clitics.

- (16.31) *Ilngamoongoob inamanirr gala ingirrjimbini ingoorroolan, injoolanagidirr alboorrangarr aarli injoolanarr irr gala.*

Ilngamoo-ng=oob i-na-ma-n=irr gala
 fish.poison-INS=REL 3-TR-put-REM.PST=3A.DO well
i-ng-irr-jimbi-ni i-ng-oorr-oola-n,
 3-PST-AUG-die-REM.PST 3-PST-AUG-collect-CONT
i-n-joola-na=gid=irr alboorr=angarr aarli
 3-TR-collect-REM.PST=THEN=3A.DO many=VERY fish
i-n-joola-n=arr irr gala.
 3-TR-collect-CONT=EMPH 3AUG well

‘When she poisoned them and they died, she picked up lots and lots of fish.’ (WIR.003)

3. Words which introduce new clauses

In addition to the sentential clitics, certain full words are used to signal the relations between clauses. I have avoided the term ‘complementizer’, although they show many features of this word class, for two reasons. First is that most

of the items listed here are either transparently case-marked forms of pronouns (though they have a distribution and function which is distinct from pronouns), or they are indistinguishable from adverbs. Furthermore, I have little information on the syntax of clauses marked by these words; for example, I do not know whether they form syntactic islands, or how similar their syntax is to complex clauses in more familiar languages. In some cases (such as with the word *ginyinggon* ‘then’), it is fairly clear that the dependency between clauses is pragmatic rather than syntactic. That is, the speaker is drawing a connection in discourse between two events, but the clauses are free-standing. In other cases, it is more difficult to tell.

In the modern language, the most common of these words is *ginyinggon* ‘then’ (the locative of the third person minimal pronoun, so literally ‘at that’) or *ginyinggarra*, which also means ‘then’. In the Laves corpus besides *ginyinggon* we frequently find *ranan* or *raana* ‘straightaway’.²¹² These clause chainers have a number of forms, including apparently ablative and locative case marked forms, as well as *ginyinggarra*; *-garra* is a common temporal marker in the other Nyulnyulan languages but it is not otherwise found in Bardi except in fossilized phrases.²¹³ In the other languages, *karra* or *-karr* has a subordinating function.

- (16.32) *Ginyinggon jarr injalana ambooriny ingoomoolgoonana garndi.*

Ginyinggon jarr i-n-jala-na ambooriny
then this 3-TR-see-REM.PST person
i-ngoo-moolgoo-na-na garndi.
3-PST-sleep-CONT-REM.PST on.top

'Then he saw a person lying up there as if asleep.' (BMF2.003)

- (16.33) *Ginyinggarra ingilirrmanajirr aranga.*

Ginyinggarra i-ngi-lirrma-na=jirr aranga.
then 3-PST-call.out-REM.PST=3A.IO others

‘Then he called to those others.’ (BLK.031)

- (16.34) *Birarr ingirrinin rawin ingarraman. Anyjimadan booroonganjiir. Ginyinggo oorany joonk innyana arnbanjarr ingilirrmanijir.*

Birarr i-ngi-rr-i-n-in rawin
behind 3-PST-AUG-do/say-REM.PST=3M.IO go.as.group
i-nga-rr-a-ma-n. Anyji-madan booroo-ngan=jirr.
3-PST-AUG-TR-put-REM.PST back-DIR camp-ALL=3A.POSS.

Ginyingg-o oorany joonk i-n-nya-na arnbanjarr
 Then woman run 3-TR-catch-REM.PST sing.out.in.fright
i-ngi-lirrma-ni=jirr.
 3-PST-call.out-PST=3A.IO

‘They went behind, traveling as a group. They went back to camp. Then a woman ran off and called out to them in fright.’ (L81.27)

The words which may act as clause connectors and appear in initial or second position in the clause are given in Table 16.2. A few forms alternate between initial position and second position clitics. Forms based on the third person minimal pronoun *ginyingg* were illustrated in (16.32) through (16.34) and since numerous other examples appear throughout the grammar, they are not further discussed here.

Table 16.2. Complementizer-like clause connectors

Bardi	English	Note
<i>ginyinggon</i>	then	3MIN-LOC
<i>ginyingga</i>	from that	3MIN-ABL
<i>ginyinggarra</i>	then	3MIN-TEMP (historically)
<i>gardi</i>	until, still, yet	
<i>gardoo</i>	still	
<i>gardamb</i>	hardly at all	
<i>ngoonjoon</i>	since	with another complementizer
<i>galnga</i>	even though	

3.1. ‘Until, yet, still’: *gardi*

There are a couple of initial clause chaining items in addition to *ginyinggon*. Such clauses are probably not strictly subordinate, in that they have a different type of intonation, denoted here by the comma between the clauses. The word *gardi* ‘still’ is probably an adverb, but it can also be used to introduce clauses which are connected to preceding discourse.

The first use of *gardī* is ‘until’. *Gardī* introduces a clause which indicates the point at which the previous action ceases.

- (16.35) a. *Goorr ingarra gaara, gardi ingirriidingirr.*
Goorr i-n̄g-a-rr-a gaara, gardi i-n̄g-irr-iidi-n̄g=irr.
 poke they-poked-it sand until they-touched-them
 ‘They poked the sand, until they touched them (the turtle eggs).’
- b. *Nganggoodalij, gardi ingirmijan.*
Nga-n̄g-goodal-ij, gardi i-n̄g-irr-mi=jan.
 1-PST-be.lost-PFV until 3-PST-AUG-look.for=1M.DO
 ‘I was lost until they looked for me.’

Such examples often alternate in translation with clauses introduced by *ginyinggon*. For example, (16.35a) was also given as (16.36).

- (16.36) *Goorr goorr ingarra gaara, ginyinggon ingirriidingirr nalarrada.*
Goorr goorr i-n̄g-arr-a gaara, ginyinggon
 poke-REDUP 3-PST-AUG-TR-give sand then
i-n̄g-irr-iidi-n̄g=irr nalarrada.
 3-PST-AUG-touch=3A.DO turtle.egg
 ‘They poked the sand (with a stick) till they found turtle eggs.’

There are other uses of *gardī*, which are illustrated in (16.37). In such sentences, there is still a connection to the previous (or in some cases, the following) clause, but the meaning is not one in which the clause with *gardī* delimits the action of the other clause. In (16.37), *gardī* rather means ‘still’; that is, it refers to actions or states which persist, despite the action of the previous clause.

- (16.37) a. *Ginyinggon ingarbalanyjin, arra oolarrmalanyjin, gardi ragal irr garda.*
Ginyinggon i-n̄g-arr-bala-nyji-n̄, arra
 then 3-PST-AUG-fight-REFL-CONT NEG
oo-la-rr-m-ala-nyji-n̄, gardi ragal
 3-IRR-AUG-REFL-fight-REFL-CONT still uninjured
irr-garda.
 3AUG-body
 ‘Then they fought, but it wasn’t a serious fight; their bodies
 were uninjured.’ (L110.005)

- b. *Jarri gardi inin noonyjoo, liyan innyan, arra oolimbina.*
Jarri gardi i-ni-n noonyjoo, liyan i-n-nya-n,
 this still 3-sit-CONT alive breath 3TR-catch-CONT
arra oo-l-imbi-na.
 NEG 3-IRR-die-REM.PST
 ‘This one is still alive, he is breathing, he didn’t die.’

c. *Barnim inggardin aalga jooloolin ginyinggi Clintonnim gard injalananirr irr bardaga joodinygo.*
Barnim i-ng-gardi-n aalga jooloolin ginyinggi
 suddenly 3-PST-enter-CONT sun afternoon 3MIN
*Clinton-nim **gard** i-n-jala-na-n=irr irr*
 C.-ERG still 3-TR-see-CONT-REM.PST=3A.DO 3AUG
bardaga joodinygo.
 tree all.the.time
 ‘When the sun went down, Clinton was still watching those sticks the whole time.’ (JLN2.005)

In (16.37a), for example, the meaning of the sentence is not that they fought *until* they were uninjured, but rather, despite the fact that they fought, they remained unhurt.

3.2. *Gardamb(a)* ‘hardly’

A word related to *gardi* is *gardamba*, which means ‘hardly’ or ‘it hardly matters, it doesn’t matter’. Note that not all examples of *gardamba* in the corpus have this meaning, since *gardamba* can also be compositional, with =*jamb* ‘thus’ cliticized to *gardi* ‘still’. It can be used both as a clause connector and on its own (as in (16.38a)).

- (16.38) a. *Gardamb daag nganjij.*
Gardamb daag nga-n-j-ij.
hardly sleep 1-TR-do/say-PFV
'I hardly slept.' (BMF.024)

- b. *Jamarda jana barda ngankalarr ambooriny. Gardamba oong-gorrongay gorror.*

Jamarda jana barda nga-n-kala=rr
 come.this.way 1MIN.IO off 1-TR-wander=3A.DO
ambooriny. Gardamba oo-ngg-orr-o=ngay gorror.
 people hardly 3.fut-FUT-AUG-spear=1M.DO if

'I'll walk over and see those people. It doesn't matter if they spear me.' (MNJ.018)

3.3. *Ngoonjoon* 'since'

Ngoonjoon 'since' is unlike the other items discussed here, in that it only combines with other complementizers. That is, it never appears alone. It would perhaps be better described as an adverb (or even perhaps as a nascent adposition), but it is listed here since its function is similar to *gardi* 'until' and other clause combiners.

- (16.39) *Ginyinggo ngoonjoon oola ingarrananan joodinygo inanggalboon oola gardamb ingarranan biidininyarr oola.*

Ginyinggo ngoonjoon oola i-ng-arr-a-na-na-n joodinygo
 from.then since water they.had always
i-na-ng-galboo-n oola gard=amb
 he.dug water still
i-ng-arr-a-n-an biidininyarr oola.
 3-PST-AUG-give-CONT-REM.PST rock.hole-with water

'From that time they always had water. He dug for water and it's still there in the rock-holes.' (GAL.025)

Further examples with *ngoonjoon* as a phrasal adverb were given above in §5.4.5.2.6 and §14.2.1.

3.4. 'If': (=)gorror and arragorror

There are three (related) ways of saying 'if' in Bardi. The first is the clitic =gorror. It does not lenite, unlike the clitic modality =garda, and it may

appear either as a clitic or as a separate word (where it also appears in second position). An example of a typical sentence is given in (16.40).

- (16.40) *Injanboon gorror amboorinynim gardimb ngarri amba iiga indan niimbala.*

I-n-janboo-n gorror ambooriny-nim gardimb
 3-TR-tread.on-CONT if person-ERG protrusion
ngarri=amba iiga i-n-d-an n-iimbala.
 very.much=THUS sore 3-TR-do/say-CONT 3M-foot

'If a person steps on one of those protrusions [on the reef], it makes your foot very sore.'

A form *gorr* has also been recorded in this meaning. It could be a fast speech or conversational variant of *gorror*.

- (16.41) *Liyan gorr injiidinganjoogarr barnanggarr arra joogarr liyan jood-inyko gornamba.*

Liyan gorr i-n-jiidi-nga-n=joogarr barnanggarr arra
 heart if 3-TR-touch-CONT=2A.IO now NEG
joogarr liyan joodinyko gorn=amba.
 2AUG.POSS heart for.ever good=THUS

'If He [Jesus] touches your heart today/when he touched your heart, it won't be your heart (anymore) for ever, and that's good.'

(BE: CB52.1)

Secondly, the word *gorror* is used used in conjunction with *=jamb* in the construction 'if ... then'. Typical examples are given in (16.42).

- (16.42) a. *Arragorror jina, galamb ingirrinyigal amboorinynim.*
Arra=gorror jina, gal=amb
 NEG;if 3M.POSS already=THUS
i-ng-irr-nyi-gal ambooriny-nim.
 3-PST-AUG-catch-REC.PST people-ERG
 'If it's not there, someone must have got it.'

- b. *Jiyaroong irrbarndin goron, injanboon gorror irr ambooriny nim irronjamb ambooriny. Ngarri jirra ararr.*

Jiyaroong i-rr-barndi-n gor-on,
 stonefish 3-AUG-cover.self-CONT sand-LOC
i-n-janboo-n gorror irr ambooriny-nim
 3-TR-tread.on-CONT if 3-AUG person-ERG
i-rr-o-n=jamb ambooriny. Ngarri jirra ararr.
 3-AUG-poke-CONT=THUS person much 3A.POSS pain

‘Stonefish (*Diodon liturosus*) bury themselves in the sand. They poke people (with the spines) if people step on them. It’s very painful.’

Note that the placement of *gorror* with respect to the first person direct object clitic =*ngay* in (16.43), which shows an example of *gorror* as an independent word. If it were a clausal clitic in this example (like =*gard* or =*min*), it would precede the direct object marker. (16.44) shows a clitic use of =*gorror*; an independent word would not attach onto the preverb in this way. Only clitics may intervene between a preverb and the associated light verb.

- (16.43) “*Jamarda jana barda ngankalarr ambooriny. Gardamba oonggorrongay gorror,*” *injoonoo.*

“*Jamarda jana barda nga-n-kala=rr ambooriny.*
 over.this.way 1M.IO off 1-TR-visit=3A.DO person
Gardamba oo-ngg-orr-o=ngay gorror;”
 no.matter 3-FUT-AUG-spear=1M.DO if
i-n-joo-noo.
 3-TR-do/say-REM.PST

“I’ll walk over and see those people. It doesn’t matter if they spear me,” he said.’ (MNJ.018)

- (16.44) “*Nganyji ngankarla loonggoordoo jina lagoorroo,*” *injoonoojirr.*
 “*Iyi, anarli manyjal=gorrorminjij,*” *ingirrinjin goyarranim.*

“*Nganyji nga-n-k-arl-a loonggoordoo jina*
 INTERROG 1-TR-FUT-eat-FUT blue-tongue.lizard 3M.POSS
lagoorroo,” *i-n-joo-noo=jirr.* “*Iyi, a-n-arli*
 egg 3-TR-do/say-REM.PST=3A.IO yes 2IMP-TR-eat

manyjal=gorrор mi-n-j-ij,”
 hungry=IF 2-TR-do/say-PFV
i-ng-irr-i-n=jin gooyarra-nim.
 3-PST-AUG-do/say-REM.PST=3M.IO two-ERG.

“Can I eat the eggs of the blue-tongue lizard?” he asked them.
 “Yes, you can eat them if you are hungry,” the two said to him.’
 (LIZ2.003)

All the examples of conditional sentences in my corpus are simple conditions; that is, they involve a protasis (marked by *gorrор*) and an apodosis. They are all in present or past tense, except for negative sentences which appear in the irrealis, as expected:

- (16.45) *Arra gorrор jina irrolа ilngamoong orronyirr.*

Arra gorrор jina irrolа ilngamoo-ng o-rr-onу=irr.
 NEG if 3M.POSS spear fish.poison-INS 1-AUG-spear-3A.DO

‘If we don’t have spears, we poison them [fish].’ (ARL2.003)

- (16.46) *Aralga, balaboo gorrор jiya, anjala jiy nyami goorliljamb anayajin.*

Aralga, balaboo gorrор jiya, a-n-jal-a jiy
 another.day this.way if 2MIN.IO 2-TR-see-FUT 2M.POSS
nyami goorlil=jamb a-na-y-a=jin.
 mother’s.father turtle=THUS 2-TR-bring-FUT=3M.IO

‘Next time, if you come back, visit your grandfather and bring some turtle for him.’

Thirdly, *arragorrор*, a combination of *gorrор* and the negator *arra*, is used. (Note that there are also instances of *arra* and *gorrор* used as separate words, as in (16.42) above.) *Arragorrор* is also a possible translation of ‘or’, for which see below.

3.5. *Galnga* ‘even though, although’

The word *galnga* was not accepted by all speakers (Bessie Ejai, for example, did not think it was real Bardi), but it appears in some of the older materials and in elicitation with other speakers, as a way to form concessive clauses.

- (16.47) *Milon arinyjangarrmoord ambooriny arinyjangarr jarda ngaanka galnga boordiji booroo jarri bornko bornko gaanyga.*

*Milon arinyj=angarr=moord ambooriny arinyj=angarr
long.ago one=JUST=1A.DO people 1=JUST
jarda ngaanka galnga boordiji booroo jarri bornko
1A.POSS language even.though big country this around
bornko gaanyga.
around mainland.*

‘A long time ago we were one people, we had one language even though we had a big country on the mainland.’ (NAF.032)

- (16.48) *Galnga moolajoo minjoo, ool anangay.*

*Galnga moolajoo mi-n-joo, ööl a-n-a=ngay.
even.though tired 2-TR-do water 1-TR-give=1.DO*

‘Even though you’re tired, get me some water.’ (BOW-FN.9/27)

- (16.49) *Galngaba baawanyarr injoonoo gardoo ilyboorr injoo.*

*Galnga=ba baawa-nyarr i-n-joo-noo gardoo
even.though=REL child-COM 3-TR-do-REM.PST still
ilyboorr i-n-joo.
i. 3-TR-do*

‘Although he already had children, he was still made an *ilyboorr* (a man at the second-last initiation stage).’ (Metcalfe 1975a)

In most of the few examples I have, the concessive clause precedes the other clause, as shown here; (16.47) shows an example in the opposite order. (16.49) shows that *galnga* may also host the relator marker. *Galnga* is always first in its clause.

4. Conjunctions

Bardi has four items which have the function of conjunctions: *agal* ‘and’, *=barda* ‘or’, *=gorror* (and derivatives such as *arragorrор*) ‘or (also if; see above)’, and *man* ‘but’. Each has slightly different syntax. The first is a full word which most often occurs between the two elements being conjoined,

though it can also occasionally start sentences. *Arragorror* is also a free word, which may occur in second position, or between the elements being conjoined. It is transparently the negator *arra* and the clitic =*gorror* ‘if’. =*Gorror* itself is a second position clitic, as is =*barda*. The third word, *man*, is an independent word which may occur in first or second position. Discussion of each follows.

It should be noted that there is also conjunction by ‘juxtaposition’ at both the phrasal and the clausal level. The two conjoined elements do not have to be adjacent to each other, as in (16.50), where there are two comitative-marked phrases, which are not adjacent, and which show no overt markers of conjunction.

- (16.50) *Arra jiiwanyarra oolarrmonyjin irrolinyarr gardi layib irrgoordoo.*

Arra jiiwa-nyarra oo-la-rr-m-o-nyji-n
 NEG boomerang-COM 3-IRR-AUG-REFL-spear-REFL-CONT
irroli-nyarr gardi layib irrgoordoo.
 spear-COM still healthy somehow.

‘No one died by spearing or by boomerang; they were all still healthy.’ (L110.007)

4.1. ‘And’: *agal*

The word *agal* is a conjunction which joins phrases or clauses. That is, it can be used to join noun phrases or verbs (examples of this were provided in Chapter 8). In clause linkage, *agal* appears at the beginning of the second clause. Both clauses are fully finite. *Agal* does not take a stress. Bardi has monosyndetic coordination (that is, a single coordinator; see further Haspelmath 2004:4).

- (16.51) *Gala inggardinijin booroo, injalgoon gajoordoon boogoon, nimala minyjin agal boor injalana liyanngan minyjin gajoordoon boogoon, gala inyjalgoon.*

Gala i-ng-gardi-ni=jin booroo, i-ny-jalgoo-n
 well 3-PST-enter-REM.PST=3M.IO place 3-PST-hide-CONT
gajoord-oon boogoon, ni-mala minyjin agal boor
 ashes-LOC inside, 3M-nose only and look.around

i-n-jala-na liyan-ngan minyjin gajoord-oon boogoon,
 3-TR-see-REM.PST spirit-ALL only ashes-LOC inside
gala i-ny-jalgoo-n.
 already 3-PST-hide-CONT

'He jumped into the ashes, buried himself in it with only his nose sticking out for breathing, and he looked around for the spirit. He was already hiding inside the ashes.' (BMF.007)

The word *agal* is only used monosyntactically in Bardi, not bisyntactically (such as to mark 'both ... and' constructions; *biila* 'also' is used in that case).

Multiple conjunction is permitted at the phrase level; there are no examples of *agal* being used to chain multiple clauses. Multiple clause chaining is achieved through parataxis.

- (16.52) *Molon arra goolarrarli agal garaginyarra agal goolarrji agal gambarla.*

Molon arra goo-la-rr-arli agal garaginyarra agal
 giant.trevally NEG 2-IRR-AUG-eat and g. and
goolarrji agal gambarla.
 Spanish.mackerel and surgeon.fish

'You mustn't eat *molon* (giant trevally), *garaginya* (unidentified fish species), *goolarrji* (Spanish mackerel), or *gambarl* (surgeon fish).' (L145.022)

Notice in example (16.52) that *agal* is used to coordinate items under the scope of negation.

Agal can conjoin elements in verbless clauses:

- (16.53) *Garrgarr jiidag oolardangan agal noorroongan.*

Garrgarr jiidag öolarda-ngan agal nöorloo-ngan.
 climbing.vines strap coolamon-ALL and torch-ALL

'Climbing vines (*Gymnanthera nitida*) are [used as] straps for coolamons and for torches.' (BBG.44-45)

Finally, *agal* is used in giving choices, where English would use the word 'or':

- (16.54) Milon gardimb ingarrana ngirraygoon baaliboor agal gardinon-jardirr, jamoogamarda, goligaloongoord.

Milon gardimb i-ŋg-arr-a-na *ngirray-goon*
long.ago indoors 3-PST-AUG-take-REM.PST hut-LOC
baaliboor agal gardin-on=jard-irr,
camp and cave-LOC=1A.POSS=3A
jamoo-gamarda, *goli-galoongoord.*
mother's.father-mother's.mother father father's-mother-father's.father

‘A long time ago, people used to stay indoors, in their huts or in caves. That was in our grandparents’ time.’ (CYC2.007)

4.2. Or

Just as in the case of translations of English ‘and’, there are several ways to translate the word ‘or’, to mark choices and alternatives. Australian languages are sometimes said to lack a word for ‘or’, instead expressing such concepts either with juxtaposition or with the same word as is used for conjunction with ‘and’. Bardi has both of those mechanisms, but it also has a distinct Bardi word, =gorror, as well as having borrowed the word ‘or’ from English.

4.2.1. Juxtaposition

The first (and most common) is to use two clauses or phrases juxtaposed to one another.

- b. *Ginyinggonmin goyarr irrjar arrloonganirr.*

Ginyinggon=min goyarr irrjar

then=THEN two three

a-rr-loonga-n=irr.

1-AUG-collect-CONT=3A.DO

‘Then we get two or three more.’

(GLN.006)

4.2.2. =Bard(a)

The second way to signal choices is to use the polar interrogative clitic *=bard(a)*. It appears bisyndetically, that is, on each element to be chosen from. This may also be used on either phrases or clauses; see further §15.4.1.

- (16.56) *Anggaba ambooriny nyoonamb jirrjirr injoo, ooranybard aambabard?*

Anggaba ambooriny nyoon=amb jirrjirr i-n-joo,

who person there=THUS stand 3-TR-do

oorany=bard aamba=bard?

woman=INTERROG man=INTERROG

‘Who is that person standing over there, a woman or a man?’

- (16.57) *Garrjarlngan inminjal booroo, booloomannganbard inminjal booroo, gardo boorroonganbard.*

Garrjarl-ngan i-n-minjal booroo, boolooman-ngan=bard

frog-ALL 3-TR-wait.for place bullock-ALL=INTERROG

i-n-minjal booroo, gardo boorroo-ngan=bard.

3-TR-wait.for place just.like kangaroo-ALL=INTERROG

‘He might be waiting for frogs, for bullock meat or for kangaroo.’

(LPB.008)

4.2.3. Arragorror ‘or’

My only examples for *arragorror* as a phrasal disjoint conjunction are from an elicitation session in 2001 with Jessie Sampi. However, the data gathered there were quite consistent. In all examples, *arragorror* either appears between the two items to be conjoined, or at the end of the sentence, with one of the items fronted. Examples of both appear below.

- (16.58) a. *Milimil anama garndi arragorror goron.*
Milimil a-na-ma garndi arragorror goro-n.
 paper 2.IMP-TR-put on.top or ground-LOC
 ‘Put the paper on top or on the ground.’ (BOW.FN3/48)
- b. *Trish nganngan ngankama arragorror aambajin.*
Trish nganngan nga-n-ka-ma arragorror aamba=jin.
 T. converse 1-TR-fut-put or husband=3M.POSS
 ‘I’ll talk to Trish or her husband.’ (BOW-FN3/48)

4.2.4. Or ‘or’

The English word *or* is also used on occasion in Bardi, where it is pronounced [ɔ] or [ɔɪ]. In Australian English, ‘or’ receives an epenthetic rhotic when the following word begins with a vowel. I have spelled it the same way as in English, since it is compatible with Bardi orthography; Aklif spells it as *o*, which is closer to the typical pronunciation. I have retained the source spelling here.

- (16.59) *Ngayarda nganggiida Broomengan? or joowarda?*
Ngay=arda nga-ngg-iid-a Broome-ngan? or
 1MIN=INTERROG 1-FUT-go-FUT B.-ALL or
joow=arda?
 2MIN=INTERROG
 ‘Am I going to Broome, or are you [going]?’ (conversation, 2008)
- (16.60) *Ngoorra inanggalajarrngay ambooriny nim. Arra ngamoonggoon oorany o aamba, maanka ninga boora.*
Ngòorra i-na-ng-gala=jarrngay ambooriny-nim. Arra
 last.night sneak.up person-ERG NEG
nga-moonggoon oorany o aamba, maanka=ninga boora.
 1-know woman or man, black=EMPH time
 ‘Last night someone snuck up on me. I don’t know if it was a man or woman, it was really dark.’

4.3. ‘But, rather’: *man*

To mark a clause as contrastive, the word *man* is used. It appears at either first or second position in the clause. It is an independent word.

- (16.61) a. *Ngay gamarda ngankoomoonkarrajan morrgoonaarligid boonyji biila, man arinyjangarr aarli anangay jiib,” injoonoojirr.*

*Ngay gamarda nga-n-koo-moonkarr-a=jan
1MIN mother’s.mother 1-TR-FUT-abandon-FUT=1M.IO
morrgoonaarli=gid boonyji biila, man arinyj=angarr aarli
road-LOC fish=THEN all also but one=JUST fish
a-n-a=ngay jiib,” i-n-joo-noo=jirr.
2-TR-[give]-FUT=1M.DO this 3-TR-say-REM.PST=3A.IO*

‘I’ll leave my grandmother behind on the road back there and all the fish [there] too, but give me just this one little fish,’ he said.’ (NGM.012)

- b. *Garndigid ingarramananirr goordimil gaalwon man odorr in-gorrondorndinanirr.*

*Garndi=gid i-nga-rr-a-ma-na-n=irr
on.top=THEN 3-PST-AUG-TR-put-CONT-REM.PST=3A.DO
goordimil gaalw-on man odorr
big.turtle mangrove.raft-LOC but dugong
i-ng-orr-orndorndi-na-n=irr.
3-PST-AUG-TRtie.up-REDUP-CONT-REM.PST=3A.DO*

‘They put big turtles on the raft, but they tie up dugong.’ (ODR1.011)

- (16.62) *Arra aarli man barnamboonim yawoorr inangganajin.*

*Arra aarli man barnamboo-nim yawoorr
NEG fish but stingray-ERG pull
i-na-ng-ga-na=jin.
3-TR-PST-carry-REM.PST=3M.IO*

‘It wasn’t a fish, it was a stingray that was pulling on it.’ (DJM.006)

Unlike the other conjunctions, *man* is used only for clauses; it is not used for phrase conjunction.

5. Null-marked clause chaining and verb serialization

5.1. Arguments for serialization

In textual data one frequently finds series of clauses which are clearly closely related but which show no overt markers for conjunction or subordination. In (16.63), for example, there are three verbs. The first two, *nganjarrga* ‘I ask’ (uninflected for tense) and *nganjoogaljirri* ‘I said to you’ are probably appositive, i.e. ‘I ask(ed), I said to you ...’. The ‘subordinate’ clause, ‘if you would give me money’, also has no overt marking of subordination and could be appositive.²¹⁴

- (16.63) *Nganjangarrga nganjoogaljirri goolboo nganyji anangay.*

<i>Nga-n-jangarrga nga-n-joo-gal=jirri</i>	<i>goolboo</i>
1-TR-ask	1-TR-say-REC.PST=2MIN.TOP.DO money
<i>nganyji a-n-a=ngay.</i>	
INTERROG 2-TR-give-FUT=1M.DO	

‘I was going to ask if you would give me money.’

Frequently, the same subject is retained across clauses. In (16.64), for example, there are no intonation breaks between the verbs and they form a single large prosodic unit. However, subject retention is not obligatory, as seen from (16.63), for example.

- (16.64) *Ginyinggon roowil innyana Ngarrigoonbooroo baalingan darr inarnajirri niimana aamba agal ambooriny Ngoobirndi.*

<i>Ginyinggon roowil i-n-nya-na</i>	<i>Ngarrigoonbooroo</i>
then	walk 3-TR-catch-REM.PST Ng.
<i>baali-ngan darr i-n-ar-na=jirri</i>	<i>niimana</i>
shade-ALL come 3-TR-spear-REM.PST=3AUG.IO many	
<i>aamba agal ambooriny Ngoobirndi.</i>	
men and people	Ng.

‘Then Ngarrigoonbooroo walked to her camp and came across many people at Ngoobirndi.’ (Laves n.d.:129/19)

These multiple verbs have many of the characteristics of discourse serialization (for the term see Pawley and Lane 1998). This is a type of serialization where multiple verb phrases can appear in a single clause. They occur

in a single intonation contour (although there are also examples with breaks, and examples where intonation units and syntactic units are not isomorphic). They often have the same tense/aspect/mood marking (at least in the prefixal component of the TAM marking), but I have not tested this systematically. Finally, such structures are very frequent in texts and conversation, but almost entirely absent from elicited data. Bardi does not have other types of serialization (such as manner or nuclear serialization). Bardi is thus an exception to Baker's (1989) claim that languages with morphological tense marking do not exhibit serialization Baker (1989:141).

There is some evidence that Bardi has both subordination (or serialization) and parataxis. In some cases the presence or absence of overt nominal material appears to be grammatically constrained. In the following Bardi sentence the noun *oorany* is not ommissible:

- (16.65) *Jaarla nganjagal *(oorany) wiliwilon inkalgal.*

*Jaarla nga-n-jala-gal *(oorany) wiliwil-on
beach(ø-loc) 1M-TR-see-PST woman fishing
i-n-kal-gal.
3M-TR-visit-REC.PST.*

'I saw a woman on the beach, she was fishing.' / 'I saw the woman fishing on the beach.'

However, the sentence without *oorany* is grammatical as true parataxis, with a pause between the clauses. We might then wish to conclude that serialization is only possible with overt shared arguments. However, many conversational and textual examples argue against such a conclusion. Examples such as (16.66) are very common. This example is structurally parallel to (16.65), except the argument which is coreferential to both clauses does not appear as a free noun phrase.

- (16.66) *Iyi, booro nganjagal morrgoon inkalgal.*

*Iyi, booro nga-n-jala-gal morr-goon i-n-kal-gal.
yes, see 1-TR-see-REC.PST street-LOC 3-TR-wander-REC.PST*

'I saw it walking in the street.'

(NI/CB.07)

A further piece of evidence shows that these clauses are joined in a single higher structure rather than chained without embedding. It is possible to extract constituents from a lower clause into a higher clause. If the clauses are

conjoined, this should not be possible, since conjunction is a strong barrier to extraction (see further Roeper 2011, following Ross 1967). For examples see (16.7) above and (16.89) below.

Thus, while there is evidence that the clauses in such constructions are not conjoined with a null conjunction, I do not have sufficient evidence at present to distinguish serialization from subordination consistently. This is a topic for future research.

5.2. Functions of clause chaining

I follow McGregor (in press) in identifying three distinct ways in which null marked clause chaining is used. McGregor defines three functions of null clause chaining in Nyulnyul: extension (that is, coordination of several events or subsevents), elaboration (afterthought-type constructions), and enhancement, which provides more information about a single event. This typology also describes Bardi clause chaining. These functions are described in the following sections. I also recognize a fourth type of clause chaining: indirect speech, which McGregor does not discuss for Nyulnyul.

5.2.1. Extension (coordination)

In the first (and very common) case, the clause chaining targets sequences of events. In such cases, the order of the clauses reflects the order of the actions.

- (16.67) *Innyana gooljoo boo inamana.*

I-n-nya-na gooljoo bōo i-na-ma-na.
 3-TR-pick-REM.PST grass blow 3-TR-put-REM.PST

‘He picked grass and blew on it (as part of making a fire).’ (GGG.012)

In other cases, the actions described in the clauses are simultaneous rather than consecutive. (16.68), for example, describes a method of catching fish where fish are corralled in a large fish trap as the tide goes out. (16.69) is another type of ‘simultaneous’ action, where the first clause is a verb of perception and the second clause describes what the person saw.

- (16.68) *Jardinkool arrarnirr bornko bardagang irrolong arrangajidiman gaarra.*

Jardinkool *arrarnirr* *bornko bardaga-*ng**
 block.fish.from.escape 1-AUG-pierce=3A.DO around stick-INS
*irrolo-*ng** *a-rr-a-n*gajidima-n** *gaarra.*
 spear-INS 1-AUG-TR-beat-CONT sea.water

‘We go around them and round them up, hitting the water with sticks and spears.’
 (ARL3.002)

- (16.69) *Gard inanana bardag jarr injalanan inyjalgoonan garndo bordogo ginyingg laarda.*

Gard i-n-a-na-na *bardag jarr*
 thus 3-TR-carry-CONT-REM.PST tree this
i-n-jala-n-an *i-ny-jalgoo-n-an* *garnd-o*
 3-TR-see-CONT-REM.PST 3-PST-fall-CONT-REM.PST top-ABL
bordog-o ginyingg laarda.
 tree-ABL 3MIN downwards

‘He saw something fall from high up, from that tree down to the ground.’
 (BMF.004)

(16.70) illustrates a further point about clause chaining constructions: they interact with null marking. Recall from §15.1.2 that the final position in the clause is a (reintroduced) topic position; that is, topics which persist in discourse are often omitted, but when they are overt, they are usually final in the clause (see also Bowern (2008a) for discussion). This generalization holds across serialized clauses too.

- (16.70) *Dool injoonangarr gardi barnim injalana inoongoorribinangarr joornkoo nyalab ginyingg aamba (wangalang).*

Dool i-n-joo-n-=angarr** *gardi barnim*
 drop 3-TR-do/say-CONT=JUST.AS still suddenly
i-n-jala-na *i-noo-ngoorribi-n-*=angarr** *joornkoo*
 3-TR-see-REM.PST 3-TR-chase-CONT=JUST.AS run
nyalab ginyingg aamba (wangalang).
 that.way 3MIN man young.man

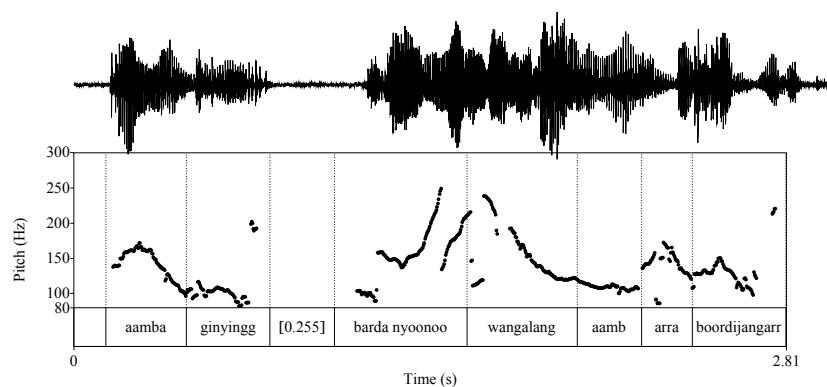
‘As soon as he_i hit the ground he saw him_i and right away chased that boy_i fast.’
 (BMF.005)

Note also that (16.70) shows that arguments need not maintain the same grammatical role across serialized verbs. The subject of the first clause is the object of all subsequent clauses. (The subject of the subsequent clauses, *a ngaarri* spirit, is inferred from discourse.)

5.3. Elaboration (afterthoughts)

Bardi has an afterthought construction. These have a rather different intonation contour from the extension serialization clauses described in §16.5.2.1 above. Afterthought constructions are characterized by a secondary rise in pitch on the first part of the afterthought. Figure 16.1 shows the pitch track of the sentence in (16.71).

Figure 16.1. Pitch track of afterthought clause



- (16.71) *Aamba ginyinggi. Barda nyoonoo wangalang aamba arra boordijangarr.*

*Aamba ginyinggi. Barda nyoonoo wangalang aamba arra
man 3MIN away there young.man man NEG
boordij=angarr.
big/grown=only*

‘There was this man. He was a young boy, not a grown man.’
(BMF.01–02)

Here there are two afterthought clauses, part of a text by Nancy Isaac. The structure of the extract is as follow. The speaker begins with the text with *aamba ginyingg* ‘this man/boy’ (the one we’ve just been talking about and who is now going to feature in the story). She then begins *barda nyoon* ‘then..’, and interrupts this to say *wangalang aamb* ‘young man’, *arra boordiji* ‘not a grown man’. The word *wangalang* has a high pitch peak, while *arra* has a secondary (but still substantial) peak as well. In regular declarative intonation, a phrase *arra boordiji* ‘not big’ would normally have the peak on the content word rather than the negator.

Further examples of noun phrases which appear as afterthought constructions were given in §8.3.2 above.

5.4. Enhancement and elaborative chaining

The third type of clause chaining in the corpus is where the subsequent clauses provide additional information about the first. Semantically, such clauses are somewhat similar to afterthought constructions, though they have different intonation. The intonation contour of such clauses is more similar to extension clause chains, where all the verbs are under a single intonational curve that peaks on the first word of the clause (that is, the item in focus) and which then falls towards the end of the clause.

- (16.72) *Girrgirr ana biijib goorlil! Oronggony anaya joo barda oronggony-gid ngayoo anamajan.*

<i>Girrgirr a-n-a</i>	<i>biijib goorlil! Orong-gony</i>
cut.up 2MIN.IMP-give-FUT	this turtle other.side-LAT
<i>a-n-ay-a</i>	<i>joo barda orong-gony=gid ngayoo</i>
2MIN.IMP-take-FUT	2MIN away, other.side=THEN 1MIN
<i>a-na-ma=jan.</i>	
2MIN.IMP-put-FUT=1MIN.IO	

‘You cut the turtle! You take one side with you, and you leave the other side for me!’
 (Aklif 1993b)

- (16.73) *Arr irrmoonggoon gardo namarda booro ngoonjoon irralan jiiba, nyirrigoordoo ninbala.*

<i>Arr irr-moonggoon gardo namarda boor-o ngoonjoon</i>
NEG 3AUG-know still just time-ABL since

i-rr-ala-n jiiba, nyirrigoordoo ni-nbala.
 3-AUG-look-CONT this how 3-appearance.

‘They didn’t know that they’d been looking for a while for how it might be.’ (OAP.80)

- (16.74) *Nyalab injalana arr injoonana gala gooljoo namarda gooljoo ngoonjoon roowil innyan.*
- Nyalab i-n-jala-na arr i-n-joo-na-na gala*
 that.way 3-TR-see-REM.PST come 3-TR-do/say-REM.PST well
gooljoo namarda gooljoo ngoonjoon roowil i-n-nya-na.
 grass just grass alone walk 3-TR-catch-REM.PST
- ‘He saw the grass itself walking towards him, just grass on its own.’ (JMI.031)

5.5. Indirect speech

The fourth type of clause chaining involves indirect speech (including indirect questions), thought, or feeling. Clause chaining of this type is also used with the noun ‘knowledge’, as in example (16.76).

- (16.75) *Nganjangarrga nganjoogaljirri goolboo nganyji anangay.*
- Nga-n-jangarrga nga-n-joo-gal=jirri goolboo*
 1-TR-ask 1-TR-say-REC.PST=2MIN.TOP.DO money
nganyji a-n-a=ngay.
 INTERROG 2-TR-give-FUT=1M.DO

‘I was going to ask if you would give me money.’

- (16.76) *Anggi ngamoonggoon ngaynim nganjalanab ngayoong ngaami agal gardamb nganjalinid, gardamba ngankon ngandanjin.*
- Anggi nga-moonggoon ngay-nim nga-n-jala-na=b*
 what 1-know 1MIN-ERG 1-TR-see-REM.PST=REL
ngayoo-ng ng-aami agal gardamb nga-n-jal=nid, gardamba
 1MIN-INS 1-eye and still=THUS 1-TR-see=HEAP still
ngank-on nga-n-d-an=jin.
 language-LOC 1-TR-say-CONT=1M.IO

‘I’m telling you what I see with my eyes. I know what I’ve seen with my own eyes, and what I still see, and what I still talk to myself about.’ (LSI1.035)

Syntactically, there does not seem to be much difference between clauses in direct speech and their indirect counterparts. In terms of constituency, for example, the same word order principles apply to indirect speech clauses. Indirect questions do not receive the same interrogative intonation patterns as the direct questions, however, which provides evidence for a difference in construction. Evidence that these are indirect speech clauses, and not paratactic clauses with quoted questions, comes from agreement patterns. Examples such as (16.77) show that the question is a reporting of speech, not direct speech. If this example had direct speech, we would expect the verb *oonka* to be second person and of the form *ana* ('tell the man: [you] bring me food') rather than third person.

- (16.77) *Nganyji barni minjoogaljin aamba mayi oonka?*
Nganyji barni mi-n-joo-gal=jin aamba mayi
 INTERROG tell 2-TR-do/say=3M.IO man food
oo-n-k-a?
 3-TR-FUT-bring-FUT

Did you tell the man to bring food? (BE: CB08.5/20)

In these clauses, arguments of the lower verb can be extracted and focused in initial position. That is, the two clauses act as a single constituent for the purposes of determining 'initial' position. In (16.78b), for example, *baawanim* 'child-ERG' is the subject of the second verb *ingarrarligal* 'they ate'. It is marked with ergative case. If *baawanim* were the subject of the first verb *anjilnga*, the sentence would mean 'let you (a child) say that they ate a lot of bread.'

- (16.78) a. *Anjilnga jananim baawa inarligal niimana damba.*
A-n-jilng-a jana-nim baawa i-na-rli-gal niimana
 2-TR-tell-FUT which-ERG child 3-TR-eat-REC.PST much
damba.
 bread.
 'Tell me which kid ate the most bread.'
 b. *Baawanim anjilnga ingarrarligal niimana damba.*
Baawa-nim a-n-jilng-a i-ng-arr-a-rli-gal niimana
 child-ERG 2-TR-tell 3-PST-AUG-eat-REC.PST much
damba.
 bread
 'Tell me the kids that ate the most bread.' (BOW-FN08)

- (16.79) *Darr ingarrarna arra irrmooonggoon gardilba inkal.*

Darr i-nга-rr-ar-na *arra irr-moonggoon gardilba*
 come 3-PST-AUG-pierce-REM.PST NEG 3AUG-know might.be
i-n-kal.
 3-TR-live

‘They didn’t know if he’d gone back or was still out there.’

(L155.021)

Some of these constructions alternate with clauses marked by gerunds, which are described in the following section.

6. Gerundial complement clauses

Bardi has several constructions in which gerunds (see §11.3) occur with a finite verb. They occur as the complements of ‘know’ and ‘like’ constructions, for example, where they are an alternative option to fully finite clauses. They also occur with the allative case in marking purpose clauses, and as a complement of *arranga* ‘without’.

6.1. Perception and emotion complements

Four items of perception and emotion are attested as being able to take gerunds as complements. They are given in (16.80).

- (16.80) a. *liyan -ma-* ‘like’
 b. *+oongoong -ma-* (or alone without a light verb) ‘like’
 c. *+moonggoon* ‘know’ (and derived complex predicates such as
+moonggoon -ma- ‘teach’)
 d. *-jargi-* ‘fear’

The first of these is a complex predicate with the verb ‘put’. The words *+oongoong* ‘stomach’ and *+moonggoon* ‘know’ are nouns which are inflected for inalienable possession. The last, *-jargi-* ‘fear’, is a finite verb. In all cases, the gerundial clause is marked with the allative case. In the examples below, this mostly occurs on the verb. If a non-verbal item is first in the subordinate clause, it receives the allative and the verb would be a plain gerund (as in (16.84)).

- (16.81) *Nimoonggoonirr manyanngan aarli.*

Ni-moonggoon=irr ma-nya-n-ngan aarli.
3-know=3A.DO GER-catch-CONT-ALL fish

‘They know how to catch fish.’ (CB 08)

- (16.82) *Inyjargigal mayoorndoornoongan iidarr.*

I-ny-jargi-gal ma-yoorndoornooroo-n-ngan iidarr.
3-PST-fear-REC.PST GER-cross-CONT-ALL creek

‘He was afraid to cross the creek.’

- (16.83) *Goorlil liyan nganman laalbooyoon marlinngan gorna giija.*

Goorlil liyan nga-n-ma-n laalboo-yoon
turtle like 1-TR-put-CONT earth.oven-SOURCE
m-arli-n-ngan gorna giija.
GER-eat-CONT-ALL good very

‘I like eating turtle cooked in (lit. ‘from’) an earth oven. It’s very good.’

- (16.84) *Arrmoonggoon ingarramana anggingan marlin.*

Arr-moonggoon i-nга-rr-a-ma-na anggi-ngan
1-AUG-know 3-PST-AUG-TR-put-REM.PST what-ALL
ma-rli-n.
GER-eat-CONT

‘They taught us what to eat.’ (JS/BBH.3)

6.2. *Arranga* ‘without’

As noted in §15.3 above, *arranga* ‘without’ can be used with either a nominal complement or a gerundial clause, as illustrated in (16.85).

- (16.85) *Arranga malamankangan boonon darr inarna baaloon nirirrjarra bard inyjarralana.*

Arranga ma-lamanka-n-ngan boon-on darr
 without GER-hear-CONT-ALL there-LOC come
i-n-ar-na baal-oon nirirr-jarra bard
 3-TR-spear-REM.PST boughshed-LOC beach-PERL off
i-ny-jarrala-na.
 3-PST-run-REM.PST

‘Without hearing he went on and came to the boughshed and ran off along the beach.’ (M1939A, p 3)

6.3. Purpose clauses

Finally, gerunds are used—again with the allative case—in purpose clauses. (16.86) provides an example where the speaker explains the use of an item.

- (16.86) *Iina noorrongan maloorroon.*

Iina nòorro-ngan ma-loorroo-n.
 firestick fire-ALL GER-light-CONT

‘*Iina* (firesticks) are for lighting a fire.’ (IIN.001)

7. Relative clauses

It might seem odd to place relative clauses in a chapter on clause combination, rather than in noun phrase syntax. Bardi relative clauses are not embedded within an NP; their syntax is not the same as true relative clauses. Nor, however, are they clearly paratactic to the main clause; there is a dependency between the two clauses and frequent coreference. Evidence from intonation and word order interleaving also strongly indicates that one clause is subordinated to the other, rather than adjoined to it.

Nyulnyulan relative clauses are heterogeneous. In Bardi, they are marked by *=b(a)*, a morpheme which has no cognates in the rest of Nyulnyulan.²¹⁵ In

Warrwa, they are marked by *-jarr-* in the verb. The same morpheme in Bardi marks topic chaining; see §10.3.2. McGregor (1994a:35ff) treats this type of clause as an instance of subordination.

7.1. Form of the relative clause marker

Relative clauses in Bardi, as mentioned above, are marked by *=b(a)*. The absence of lenition of *b* to *w* or *φ* provides evidence that this morpheme is a clitic rather than an affix. It is encliticized to the first word of the dependent clause which usually (but not exclusively) appears immediately following the relativized noun. When the host ends in a vowel, the form of the clitic is *=b*, as in (16.87). If the word ends in a consonant, the form is *=ba*. It is also usually a full syllable in the Laves texts, or if another clitic follows.

- (16.87) *Gorna goorlil layab irrgoordoo.*

Gorna goorlil laya=b irrgoordoo.
good turtle fat=REL all.kinds

'It was a good turtle, which had a lot of fat.' (L78.006)

- (16.88) *Roowil ingirrinyana barda nyoononyingan ilma Goolyibajina ilma.*

Roowil i-ng-irr-i-nya-na barda nyoon-onyi-ngan
walk 3-PST-AUG-TR-catch-REM.PST off there-LAT-ALL
ilma Goolyi=ba=jina ilma.
ceremony G=REL=3M.POSS ceremony

'They all came to this side for the *ilma* ceremony, which was Goolyi's *ilma*.' (L146.002)

If the host ends in a consonant or consonant cluster and the following word begins with a vowel, the relator marker may become a proclitic to the vowel-initial word (that is, the marker changes host). This is the only clitic with this behavior and the only example of a potential proclitic in the language.

7.2. Syntax of relative clauses

Relative clauses are postnominal. They may be restrictive or unrestrictive, and there are both headed and headless relative clause examples. The examples in (16.89) are typical. (16.90) is an example of a headless relative clause.

- (16.89) a. *Aamba malarrb inambinajin garrgooyi diird injoonoo.*
*Aamba [malarr-**b** i-na-m-bi-na=jin*
 man wife-REL 3-TRANS-PST-hit.w.hand-PST=3sg.poss
garrgooyi] diird i-n-joo-noo.
 completely run.away 3-TRANS-do/say-REM.PST
 ‘The man who hit his wife ran away.’
- b. *Aamba diirdib injoonoo barda inamboonoo boolooman.*
*Aamba [diirdi-**b** i-n-joo-noo barda]*
 man run.away 3-TRANS-do/say-REM.PST off
i-na-m-boo-noo boolooman.
 3-TRANS-PST-hit-REM.PST bullock
 ‘The man who ran away killed a bullock.’ (AKL.F4)

- (16.90) *Nganyji minjalagal innyagalbajan jooga?*

*Nganyji mi-n-jala-gal i-n-nya-gal=**ba**=jan*
 INTERROG 2-TR-see-REC.PST 3-TR-catch-REC.PST=REL=1M.IO
jooga?
 sugar

‘Did you see [the person] who took my sugar?’

There are a couple of points to note about the sentences. The first is that in these clauses, there is obligatory coreference between an argument in the main clause and an argument in the subordinate clause. Most examples involve subject relativization (as shown in (16.89)), but examples of relativization on other grammatical relations are also found. Examples of object relativization are given below. The example in (16.92) illustrates an important point about relative clauses in Australian languages in general. They almost never simply function as relative clauses. Rather, they are often used to translate simultaneous or subsequent actions, and sometimes consecutive actions, and sometimes they function more like switch reference markers.²¹⁶

- (16.91) *Aarli inamarranabajirr joordamba ninga.*

Aarli [i-na-marra-na=ba=jirr] joord=amba n-inga.
 fish 3-TRANS-cook-REM.PST=REL=3A.IO J=THUS 3-name

‘The fish which he cooked for them is called joordoo.’

- (16.92) *Aamba nganjalalinj [yandilybarab inamoogarinj.]*

Aamba nga-n-jalali-n-j [yandilybara=b]
 man 1-TRANS-stare.at-CONT.-SEQ boat=REL
i-na-moogar-in-j.]
 3-TRANS-make-CONT-SIMUL

'I was watching the man who/as he made the boat.' (AKL.F4)

This heterogeneity of function is part of Hale's (1976) argument that such clauses are adjoined to the main clause rather than strictly dependent on the noun. That is, the relationship between such clauses is one of relations between events, rather than a strict marking of particular participants (see, e.g. Hale 1976:79). The =*ba*-marked clauses in Bardi are a single construction that subsumes more functions than relative clauses typically do. Hale (1976) notes that in Warlpiri the NP-relative interpretation of such clauses applies when there is a coreferential argument, and the T-relative interpretation when no arguments are shared between clauses. In Bardi, =*b(a)* is not used if there are no shared arguments; there are other dependency markers used in such cases, such as =*jamb*. However, relatives are still ambiguous between NP-relatives and T-relatives.

The sentences in (16.93)–(16.94) would also appear to point to an adjoined analysis. In (16.93), for example, the antecedent of the 'relative' clause *boogoobn inin* is *ginyinggi ngaarri* 'that devil', which is not adjacent to the relative clause. One might translate the clause as 'the devil saw me, the one that lives in the mangroves.' However, note that *ginyinggi ngaarri* is not marked for ergative case. If this were an instance of clause chaining, we would not expect the ergative to be omitted. However, we do regularly find the ergative dropped from the antecedents of relative clauses (see further Bowern (2008e) and §5.3.1 for the relevant data). Ergative-marked subjects may be the antecedents of relative clauses, however such sentences are very rare in my corpus and are strongly dispreferred in elicitation. The simplest interpretation here is that the phrase *ginyinggo ngaarri* is a constituent in the relative clause which has been focused, and thus appears in initial position. This interpretation is only possible if the whole sentence in (16.93) is a single clause with embedding.

- (16.93) *Ginyinggi ngaarri injalijjarrngayoo boogoobn inin.*

Ginyinggi ngaarri i-n-jal-ij=jarrngayoo
 3MIN devil 3-TR-(PST)-see-MID.PFV-1MIN.IO

[*boogoon=b i-ni-n.*]
 inside-REL 3-be-CONT.

‘The spirit, which lives inside [the mangroves], saw me.’

(Metcalfe 1975b:37)

- (16.94) *Garrma jagoord anja mayalgarran booroob anjalajan nyoonoomb nganggan boogoon.*

Garrma jagoord a-n-j-a *mayalgarran [booroo=b*
 later return 2.FUT-TR-do/say-FUT afternoon time-REL
a-n-jal-a=jan] *[nyoonoo=mb nga-ng-ga-n*
 2.FUT-TR-see-FUT=1min.IO here-THUS 1-FUT-be-CONT
boogoon].
 inside

‘When you come back in the afternoon, you’ll see me there inside.’

In summary, Bardi relative clauses have a number of features of adjunction rather than embedded subordination. However, we also have cases where constituents are not clause bound, and such sentences point strongly towards an analysis of Bardi relatives as subordinated. Clausal embedding of this type is rare in Australia, although not unknown.²¹⁷

7.3. Other functions of relative clauses

There are two other functions of the relative clause marker which are worth noting. They can appear in a few set phrases which have the form of headless relative clauses, but which are fossilized and which act as a single phrase. The most common is *garndib inin*, which is one of the ways of saying ‘God’.

- (16.95) *garndib inin*

garndi=b i-ni-n
 above=REL 3-sit-cont

The interrogative pronoun *anggaba* ‘who’ probably also has this structure historically.²¹⁸

The second use of relative clauses is in cleft constructions.

- (16.96)
- Ay, barnanggargij darrb minar!*

Ay, *barnanggar=gij darr=b mi-n-ar!*
 now=VERY come=REL 2-TR-pierce

'Oh, you've come back! (lit. 'it's just now that you've come')'
 (NGJ.060)

- (16.97)
- Barnamin Moorriyoonnimi inamanana aarli ingiminangajirr bo-ordijigijaba aarli.*

Barna=min Moorriyoon-nimi i-na-ma-na-na aarli
 around=THEN M.-ERG 3-TR-put-CONT-REM.PST fish
i-ngi-mi-na-nga=jirr boordiji=gija=ba aarli.
 3-PST-look.for-REM.PST-APPL=3A.IO big=VERY=REL fish

'Then Moorriyon put down the fish and looked for the biggest one for them.'

(L157.026)

7.4. Multiple relative clauses

Multiple relative markers are permitted in a single clause; they also appear with other subordination and clause chaining items. (16.98) provides an example with several relator markers. In the second example, a literal translation might be something like 'teasing was that which was in return, and which was humbugging.'²¹⁹

- (16.98) a.
- Inangoorroobina rooban joorroonim miidanimb ooranyba garda ingamonjinananga.*

I-na-ngoorroobi-na rooban joorroo-nim [miida-nim=b]
 chase in.return snake-ERG male-ERG=REL
[oorany=ba garda i-nga-m-onji-na-na-nga.]
 woman=REL must.have killed-APPL₂

'In revenge, the snake chased him, who was the man who killed his partner.'

(L155.013)

- b.
- Roobanmarrab gaalmarraboojin jiido.*

Rooban=marra=b gaal=marra=boo=jin jiido.
 in.return=TEMP=REL humbug=TEMP=REL=3SG teasing

'[He was still running away from nothing, and afraid of nothing.] As a result (in return) they humbugged and teased him.'(MET.p4)

Another fairly common construction is the use of the relator *=ba* in conjunction with *=jamb* (for which see above).

- (16.99) *Gard injalalanjarrngay niimanab aarli injooloongan inanjamboon-gay.*

Gard i-n-jalala-n=jarrngay niimana=b aarli
 yet 3-TR-look.out.for-CONT=1M.DO much=REL fish
i-n-jooloong-an i-n-a-n=jamboo=ngay.
 3-TR-collect-CONT 3-TR-give-CONT=1M.DO

‘He looks after me, (who) gets a lot of fish and thus gives them to me.’

8. Case marking and subordination

The final area of clause combination to consider is the use of case on finite and non-finite clauses. Both structures exist in Nyulnyulan languages. In Nyulnyul, case marking on fully finite clauses is the preferred method of forming subordinate clauses. Case-marked clauses are also found in Bardi, although they are much less common. Most Bardi examples are found with gerunds rather than finite verbs, as in (16.100).

- (16.100) *Bijorro inalinygarnan wirrangan marrmin.*

*Bijorr-o i-n-alinygarna-n [wirr-**ngan** m-arrmi-n].*
 there-ABL 3-TR-try-cont lift-ALL GER-rise-CONT

‘From there, he tried to rise up (into the sky).’ (AKL)

In this sentence, there is a matrix verb, which is finite, another verb in a non-finite form, and there is argument coreference (that is, the subject argument of the finite verb is shared by a notional subject of the nonfinite verb). There is overt marking of the dependency, in this case by the allative/purposive case marker *-ngan*.

Similar constructions are found in all Nyulnyulan languages. The most common cases used are the semblative, the proprietive ('having'), the ablative, and the locative. (16.101) gives examples from Nyulnyul (McGregor 1994a, 1996b). However, in these languages, the verbs are usually finite. (In

these examples I have replaced McGregor's schematic glossing with glossing conventions used in this book.)

(16.101) Nyulnyul: **-uk** 'Locative'

- a. *i-m-bulkubulkum i-n-dam-uk=ngay*
3-PST-swell 3-TR-hit-LOC=1M.DO
'It swelled where he hit me.'
- b. *i-ngalk majikarr walk i-n-jarrjarr-uk*
3-cry sunset sun 3-TR-stand-LOC
'She cried from sunset to sunrise.' lit: 'She cried at sunset, to the sun's rising.'

I have not recorded clauses of this type in Bardi. Given how common they are in other Nyulnyulan languages, their absence from my Bardi corpus is striking. Instead, Bardi uses either non-finite clauses or finite clauses introduced by a 'linker' such as *ginyingga*, *ginyingga*, *ginyinggarra* 'then' or a Wackernagel clitic, as discussed at the beginning this chapter.

There are just two instances where case occurs on finite forms in Bardi. The first is that under highly restricted conditions, finite verbs can be inflected with the ergative case, in which case the meaning is 'the one who does < verb>'. The only spontaneous example known to me is found in the Laves corpus.

(16.102) *Gala ingarrbany goowidi agal lalin ginyinggarra barna injoonin innyananim gala ingarrbany goowidi lalinjirri namarda "nganarganjirri barda" injoonin.*

Gala i-ng-arr-bany goowidi agal lalin ginyinggarra barna already 3-PST-AUG-finish month and year then think i-n-joo-n=in i-n-nya-na-nim gala 3-TR-do/say=3M.IO 3-TR-catch-REM.PST-ERG already i-ng-arr-bany goowidi lalin=jirri namarda 3-PST-AUG-finish month year=3AUG.POSS just "nga-n-arga-n=jirri barda" i-n-joo-n=in.
1-TR-

'The year and the month finished and then the person who would pick [her] up thought about it. The month and year just finished and he said "I should pick you up."' (L113.024)

Subsequent elicitation based on this sentence led speakers to give the forms *inamboonanim* ‘the one who hit it’, and *injalananim* ‘the one who saw it’ was also tentatively suggested. This is clearly a marginal construction in the language. Interestingly, of the case markers used in Nyulnyul to mark subordination, the ergative is not one of them.

The second use of case to mark finite subordination is more frequent. The semblative case *-marr(a)* can be used to mark ‘when’ clauses, for the time at which something happened. Example (16.103b) shows that semblative marking may co-occur with relative clause marking in such cases. Remember that marking occurs on the first constituent of the clause; even though *-marr* here appears on the noun *boordan* ‘scrub’, the important point here is that the verb *injoon* is finite.

- (16.103) a. *Nyooin injoont boordanmarr injoon inaman iila.*
Nyooin i-n-joo-n=b [boordan-marr i-n-joo-n]
 there 3-TR-do-CONT=REL scrub=TEMP 3-TR-do-CONT
i-na-ma-n iila.
 3-TR-put-REM.PST dog
- ‘When he had done this, when he got into the scrub, he put down the dog [which he had been carrying].’ (DRK.080–81)
- b. *Baawanim inbirrilin irrol roowilmarrab innyan.*
Baawa-nim i-n-birrili-n irrol roowil-marra=b
 child-ERG 3-TR-swing-CONT spear walk-TEMP=REL
i-n-nya-n.
 3-TR-catch-CONT
- ‘The child is walking along swinging the spear.’
 (BOW-FN.12/34)

It appears as though the semblative marker has taken over the functions of the temporal marker *-karr(a)*, which is reconstructible to Proto-Nyulnyulan but which does not exist in Bardi apart from a few instances in frozen words such as *ginyinggarra* ‘then’.

Just as the semblative can be used to mark finite temporal clauses, the allative can be used to mark purpose clauses. All examples available to me have the verb of the dependent clause in the future tense. (16.104) provides representative examples.

- (16.104) a. *Anggaba ngankangarrga goolboongan oonkoomoolbangay, bi-ilamb nganka anyjimadan.*
Anggaba nga-n-k-angarrg-a goolboo-ngan
 who 1-TR-FUT-ask-FUT money-ALL
oo-n-koo-moolb-a=ngay, biil=amb
 3-TR-FUT-lend-FUT=1M.DO again=THUS
nga-n-k-a anyjimadan.
 1-TR-FUT-(give)-FUT return.
 ‘Whom can I ask to lend me money? I will give it back.’
- b. *Anjangarrga videotapengan oonkoomoolbangay!*
A-n-jangarrg-a videotape-ngan
 2.IMP-TR-ask-FUT video.tape-ALL
oo-n-koo-moolb-a=ngay!
 3-TR-FUT-lend-FUT=1M.DO
 ‘Ask him if he will lend me the videotape!’

In summary, case marking as a means of signaling subordination is more restricted than it is in other Nyulnyulan languages. Other subordination strategies are used instead. These include clause chaining and subordinating complementizers, serialization, and gerunds.

Appendix A

Basic Vocabulary List

I give here a list of basic vocabulary for Bardi. A dictionary was published as Aklif (1999) and a supplement was published as Bowern (2008e).

English	Bardi
above	<i>garndii</i>
again	<i>biila</i>
alive (be)	<i>nōonyji</i>
all	<i>boonyja</i>
and	<i>agal</i>
ankle	<i>milygoo</i>
ant	<i>booy(a)</i>
armpit	<i>ni-nganyboorr</i>
ashamed	<i>rarrjin -ma-</i>
ashes	<i>gajoord(oo)</i>
at	(no separate word; locative case)
back	<i>ni-ya</i> (root: + <i>ga</i>)
bad	<i>alig</i>
belly	<i>noo-ngoo</i> (root: + <i>ngoo</i>)
below	<i>baybirri</i>
big	<i>boordij, irrgadarr</i>
bird	<i>garrabal</i>
bite	<i>-boondarra- ~-ondarra-</i>
black	<i>maanka</i>
blood	<i>ilgarr</i>
blow	<i>bo</i>
blowfly	<i>ngoorroongoorroo</i>
boil, pimple	<i>bandiid(i)</i>
bone	<i>gaanyji</i>
boomerang	<i>irrgil(i)</i>

English	Bardi
breast	<i>ngamarna</i>
breathe	<i>b��o -ma-</i>
burn	<i>-marra-, -loorroo-</i>
chew	<i>-loonggooma-</i>
child	<i>baawa</i>
climb	<i>daab -joo-</i>
cloud	<i>ardan</i>
cold	<i>inkoorr</i>
come	<i>darr -ar-</i>
cook	<i>-marra-</i>
correct, true	<i>darrgal</i>
count	<i>-jinbinbin-</i>
cry	<i>anggoorrgoon -ni-</i>
cut	<i>bawaninbawin -(i)nya-, gad -inya-</i>
day, sun	<i>aalga</i>
die	<i>-jimbi-</i>
dig	<i>-galboo-</i>
digging stick	<i>milgin</i> also ‘walking stick’
dingo	<i>goorrid(i)</i>
dirty	<i>ngoonyba</i>
dog	<i>iila</i>
dream	<i>boowarra</i>
drink	<i>-ibi-</i>
dry	<i>dalboon, laalga</i>
dull, blunt	<i>boona</i>
dust	<i>joordoon</i>
ear	<i>nilamarr</i>
earth	<i>booroo</i>
eat	<i>-(a)rli-</i>
egg	<i>lagoorr</i>
eye	<i>niimi</i>
feces	<i>��ona</i>
fall	<i>-jalgoo-</i>

English	Bardi
far	<i>mara</i>
fat (n.)	<i>laya</i>
father	<i>gòoloo</i>
fear	<i>-jargi-</i>
feather	<i>jolo</i>
fire	<i>nòorroo</i>
fish	<i>aarli</i>
flow	<i>joorroor</i>
flower	<i>maarroo</i>
fly	<i>doombarr -(i)nya-</i>
fog	<i>goorrbil</i>
foot	<i>ni-yambal</i>
fruit	<i>mayi</i>
good	<i>gorna</i>
grass	<i>gooljoo</i>
grow	<i>-jarrngV-</i>
hair of head	<i>mòowarn</i>
hand	<i>ni-marl(a)</i>
he, she, it	<i>ginyinggi</i>
head	<i>n-alma</i>
hear	<i>-lamanka-</i>
heavy	<i>rambin</i>
hide	<i>-jalgi-</i>
hit	<i>-boo-</i>
hit (with hand)	<i>-bi-</i>
hold	<i>-gorndorndoma-</i>
house	<i>mayar</i>
how?	<i>nyirroogoord</i>
I (1 MIN)	<i>ngayoo</i>
if	<i>gorror(o)</i>
inside	<i>boogoon</i>
intestines	<i>bòolgoo</i>
itch	<i>jabijab</i>

English	Bardi
kangaroo	<i>boorroo</i>
kill	<i>-ngajim-</i> <i>garrgooy</i>
know	<i>ni-moonggoon</i>
laugh	<i>-gama-</i>
leaf	<i>bilil(i)</i>
left	<i>aarlgoodoo</i>
leg	<i>ni-lar</i> (lower leg)
lie down	<i>-jalgoo-</i> (also <i>ilogoo</i> <i>-ni-</i> ‘lie on side’, <i>arlarr</i> <i>-ni-</i> ‘lie on back’, etc)
lightning	<i>birdbag</i>
liver	<i>gawir</i>
long	<i>niiwandi</i>
louse	<i>mòoloo</i>
lung	<i>aalarn</i>
man	<i>aamba</i>
meat	<i>aarli</i> , <i>baangga</i> (meat without bones)
moon	<i>goowidi</i>
mosquito	<i>angoorr</i>
mother	<i>birrii</i>
mouth	<i>ni-lirr</i>
name	<i>ni-nга</i>
near	<i>angan</i>
neck	<i>boda</i>
new	<i>gorna</i> (= ‘good’)
night	<i>idanngoorroo</i>
no/not	<i>arra</i>
nose	<i>n-iimal</i>
old	<i>ngoongoorl</i>
one	<i>arinyji</i>
open	<i>lambard</i> <i>-(i)nya-</i>
other	<i>ara</i>
person	<i>ambooriny</i>
rain	<i>òola</i>
red	<i>gooroorr</i>

English	Bardi
right	<i>joorroonggoo</i>
road	<i>morr</i>
root	<i>niimoonggool(oo)</i>
rope	<i>mirrij</i>
rotten	<i>biini</i>
sand	<i>gaara</i>
say	<i>ar</i>
scratch	<i>wirr -joo-</i>
see	<i>-jala-</i>
sharp	<i>garrja</i>
shoot	<i>bany -ma-</i>
short	<i>ngaada</i>
shoulder	<i>langana</i>
sick	<i>liyan alig</i>
sit	<i>-ni-</i>
skin	<i>rolrol -(i)nya-</i>
sky	<i>goorrwal</i>
sleep	<i>-moolgoo-</i>
small	<i>moorrooloo</i>
smell (tr./intr.)	<i>-boolma-</i>
smoke	<i>goonkoord(oo), marrya</i> (thick smoke)
snake	<i>joorroo</i>
spear	<i>jinal</i>
spearthrower	<i>ngabaliny</i>
spider	<i>anggarr</i>
spit	<i>barrja</i>
split	<i>lara -joo-</i>
squeeze	<i>duly -ϕ-</i>
stab	<i>goorrgoorr</i>
stand	<i>jirrjirr -joo-</i>
star	<i>goobala</i>
steal	<i>laanybi -(i)nya-</i>
stick, tree	<i>bardag</i>

English	Bardi
stone	<i>gooolboo</i>
suck	<i>joony</i>
sweat (n.)	<i>noondoorr</i>
swell	<i>boorrooboorr -ganyi-</i>
swim	<i>boombool -inya-</i>
<i>ni-yala, jangarda</i>	
they	<i>irr</i>
thick	<i>boordiji</i>
thin	<i>inbal</i>
think	<i>-barra-, -jinbi-</i>
this	<i>jarri</i>
three	<i>irrjar</i>
throat	<i>ni-manyi</i>
throw	<i>-ngooloo-</i>
thunder	<i>jiidam</i>
tie up	<i>mibad -ar-</i>
tongue	<i>ni-yangal(a) (root: +jangala)</i>
tooth	<i>jarroongg(oo)</i>
turn	<i>dirrayi -banyi-</i>
two	<i>gooyarra</i>
vomit	<i>-ganyboo-</i>
walk	<i>roowil -(i)nya-</i>
water	<i>òola</i>
we (excl.)	<i>arroodoo</i>
we (incl.)	<i>arridil</i>
what?	<i>anggi</i>
when?	<i>baanigarr</i>
where?	<i>janambooroo</i>
white	<i>boolgar</i>
who?	<i>anggaba</i>
wife	<i>malarr</i>
wind	<i>jooroor</i>
wing	<i>miinybal</i>

English	Bardi
winnow	<i>-galalarrboo-</i>
woman	<i>oorany</i>
work	<i>moorrigoolon</i> -gal-, <i>warrgam</i> -joo-
yawn	<i>bilirl</i> -ar-
yellow	<i>lamarr</i>
you (pl.) (2AUG)	<i>goorr</i>
you (sg.) (2MIN)	<i>joo</i>

Appendix B

Prefix Tables

The following tables give the underlying and surface forms for all tenses and numbers of Bardi verbs. Third person minimal and augment are given; other persons can be derived by substituting the appropriate person marker. A representative verb is given for each stem class. Thus all monovalent roots beginning with *j* inflect the same way as *-jarrala-* ‘run’. Sonorant-initial roots inflect the same way as *-marra-* ‘cook’ (that is, they trigger epenthesis in the same places). Where possible I used ambitransitive roots, to keep the forms as constant as possible. In the tables, the prefix chunks are separated from the root by a hyphen. The roots used are:

Intransitive/monovalent

- banyi-* finish
- jarrala-* run
- gama-* laugh
- marra-* cook

Transitive/bivalent

- banyi-* kill
- jala-* see
- gama-* mock
- marra-* cook

Table B.1. Prefix tables: intransitive roots

		3MIN				3AUG					
	set	pers	tr	tense	surface	pers	tense	aug	tr	surface	gloss
past	b	i	ø	ng	<i>im-banyi</i>	i	ng	rr	ø	<i>ingarr-banyi</i>	he/they finished
	j	i	ø	ng	<i>iny-jarrala</i>	i	ng	rr	ø	<i>ingarr-jarrala</i>	he/they ran
	g	i	ø	ng	<i>ing-gama</i>	i	ng	rr	ø	<i>ingarr-gama</i>	he/they laughed
	son	i	ø	ng	<i>inga-marra</i>	i	ng	rr	ø	<i>ingarr-marra</i>	it/they cooked
present	b	i	ø	ø	<i>i-wanyi</i>	i	ø	rr	ø	<i>irr-banyi</i>	he's they're finishing
	j	i	ø	ø	<i>i-yarrala</i>	i	ø	rr	ø	<i>irr-jarrala</i>	he/they run
	g	i	ø	ø	<i>i-yama</i>	i	ø	rr	ø	<i>irr-gama</i>	he/they laugh
	son	i	ø	ø	<i>i-marra</i>	i	ø	rr	ø	<i>irr-marra</i>	it/they cook
future	b	oo	ø	ngg	<i>oongg-onyi</i>	oo	ngg	rr	ø	<i>oonggarr-banyi</i>	he/they'll finish
	j	oo	ø	ngg	<i>oongg-arrala</i>	oo	ngg	rr	ø	<i>oonggarr-jarrala</i>	he/they'll run
	g	oo	ø	ngg	<i>oongg-ama</i>	oo	ngg	rr	ø	<i>oonggarr-gama</i>	he/they'll laugh
	son	oo	ø	ngg	<i>oongga-marra</i>	oo	ngg	rr	ø	<i>oonggarr-marra</i>	it/they'll cook
irrealis	b	oo	ø	l	<i>ool-onyi</i>	oo	l	rr	ø	<i>oolarr-banyi</i>	he/they might finish
	j	oo	ø	l	<i>ool-arrala</i>	oo	l	rr	ø	<i>oolarr-jarrala</i>	he/they might run
	g	oo	ø	l	<i>ool-ama</i>	oo	l	rr	ø	<i>oolarr-gama</i>	he/they might laugh
	son	oo	ø	l	<i>oola-marra</i>	oo	l	rr	ø	<i>oolarr-marra</i>	it/they might cook

Table B.2. Prefix tables: transitive roots

		3MIN				3AUG				gloss	
	set	pers	tr	tense	surface	pers	tense	aug	tr	surface	
past	b	i	n	ng	<i>inam-banyi</i>	i	ng	rr	(n)	<i>ingorr-onyi</i>	he/they killed it
	j	i	n	ng	<i>in-jala</i>	i	ng	rr	(n)	<i>ingarr-ala</i>	he/they saw it
	g	i	n	ng	<i>inang-gama</i>	i	ng	rr	(n)	<i>ingarr-ama</i>	he/they mocked him
	son	i	n	ng	<i>ina-marra</i>	i	ng	rr	(n)	<i>ingarra-marra</i>	he/they cooked it
present	b	i	n	ø	<i>in-banyi</i>	i	ø	rr	(n)	<i>irr-onyi</i>	he's/they're killing it
	j	i	n	ø	<i>in-jala</i>	i	ø	rr	(n)	<i>irr-ala</i>	he/they sees it
	g	i	n	ø	<i>in-kama</i>	i	ø	rr	(n)	<i>irr-ama</i>	he's/they're mocking him
	son	i	n	ø	<i>ina-marra</i>	i	ø	rr	(n)	<i>irra-marra</i>	he's/they're cooking it
future	b	oo	n	g	<i>oonk-onyi</i>	oo	ngg	rr	(n)	<i>oonggorr-onyi</i>	he/they'll kill it
	j	oo	n	g	<i>oonk-ala</i>	oo	ngg	rr	(n)	<i>oonggarr-ala</i>	he/they'll see it
	g	oo	n	g	<i>oonk-ama</i>	oo	ngg	rr	(n)	<i>oonggarr-ama</i>	he/they'll mock it
	son	oo	n	g	<i>oonka-marra</i>	oo	ngg	rr	(n)	<i>oonggarra-marra</i>	he/they'll cook it
irrealis	b	oo	n	l	<i>ool-onyi</i>	oo	l	rr	(n)	<i>oolorr-onyi</i>	he/they might kill it
	j	oo	n	l	<i>ool-ala</i>	oo	l	rr	(n)	<i>oolarr-ala</i>	he/they might see it
	g	oo	n	l	<i>ool-ama</i>	oo	l	rr	(n)	<i>oolarr-ama</i>	he/they might mock it
	son	oo	n	l	<i>oola-marra</i>	oo	l	rr	(n)	<i>oolarra-marra</i>	he/they might cook it

Appendix C

Light Verbs

Table C.1. Most frequent light verbs

-Root-	Gloss	%age of preverbs
<i>-ju-</i>	do, say	40
<i>-ma-</i>	put	17
<i>-ϕ-</i>	give	12
<i>-(i)nya-</i>	catch	9
<i>-ar-</i>	spear lice	7.5
<i>-gal-</i>	move	4
<i>-boo-</i>	hit	3.5
<i>-jiidi-</i>	go	3
<i>-ga-</i>	take, carry	2.5
<i>-ni-</i>	be located	2

Table C.2a. Other Bardi light verbs

Root		Gloss	No.	Example	
- <i>(a)rli-</i>	v.tr	eat	1	<i>ararr -(a)rli-</i>	ache (v.it)
- <i>arndi-</i>	v.tr	catch	1	<i>joomoonoonoo -arndi-</i>	gamble (v.it)
- <i>balama</i>	v.tr	entwine	1	<i>garga -balama-</i>	betrothe
- <i>banyi-</i>	v.it	finish	1	<i>nilirr -banyi-</i>	slacken (of tide)
- <i>boolmoo-</i>	v.it	smell	1	<i>gooroogooroo -boolmoo-</i>	give off a nice smell
- <i>booloo-</i>	v.it	come	1	<i>darral -booloo-</i>	come out
- <i>galala-</i>	v.tr	follow	2	<i>gorna -galala-</i>	become physically well-developed
- <i>gama-</i>	v.at	laugh	1	<i>goolgarr -gama-</i>	laugh (v.it)
- <i>ganyi-</i>	v.it	climb	5	<i>binbirr -ganyi-</i>	drift somewhere
- <i>gardi-</i>	v.at	go inside	6	<i>lool -gardi-</i>	enter
- <i>garnboo-</i>	v.tr	scold s.o.	1	<i>balygarr(a) -garnboo-</i>	swear at someone
- <i>gonboo-</i>	v.tr	send	1	<i>ngaanka -gonboo-</i>	send a message
- <i>jala-</i>	v.tr	see	2	<i>garrgooy -jala-</i>	stare hard at someone
- <i>jalgoo-</i>	v.it	fall	1	<i>doolii -jalgoo-</i>	be prematurely born
- <i>janboo-</i>	v.tr	tread	1	<i>gooljoo -janboo-</i>	pull out grass
- <i>jarrala-</i>	v.it	run	1	<i>joornk -jarrala-</i>	take off with speed
<i>(continued)</i>					

Table C.2b. Other Bardi light verbs (cont.)

Root		Gloss	No.	Example
- <i>jarrmi-</i>	v.it	rise	1	<i>wirr -jarrmi-</i> jump into the air
- <i>joogooloo-</i>	v.at	break	2	<i>ngaada -joogooloo-</i> break in half
- <i>jooloo-ng-</i>	v.tr	collect	1	<i>boorrma -jooloong-</i> gut something
- <i>joo-ng-</i>	v.tr	do/say (+ appl)	3	<i>birarr -joong-</i> leave behind
- <i>malanda-</i>	v.it	go against tide	1	<i>arrinarr -malanda-</i> go against the tide
- <i>minyji-</i>	v.tr	receive from	1	<i>rirran -minyji-</i> snatch
- <i>moondoo-</i>	v.tr	wet s.th	1	<i>oola -moondoo-</i> wash oneself
- <i>mooroo-</i>	v.tr	waste s.th	3	<i>barrja -mooroo-</i> spit something out
- <i>nganka-</i>	v.it	speak	1	<i>balygarr -nganka-</i> swear
- <i>ngooloo-</i>	v.tr	throw	4	<i>niimi -ngooloo-</i> keep watch (v.it)
- <i>ngooloo-ng</i>	v.tr	throw at	1	<i>anyja -ngooloo-ng-</i> give away

Appendix D

Information on Speakers and Texts

The following table contains a list of the textual abbreviations from which examples in the main text are taken. In addition to the texts listed here, examples are taken from Gerhardt Laves' text collection (MS. 2189 at the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra). Asterisked texts appear in Appendix E. Some of the stories were given titles in Bardi by their authors; others were given English titles, and some were untitled. I have provided English titles in those cases. Unglossed Bardi words in titles are names. Some stories were told in several versions. Copies of all these materials are archived at the Australian Institute of Aboriginal and Torres Strait Islander Studies.

Abbrev.	Text Name	Speaker	Recorder	Date
A1839a	The ‘magic’ drunkard	Tudor Ejai	C.D. (Toby) Metcalfe	1971
ABC	Comments on ABC documentary about <i>gaalwa</i> raft making	David Wiggan	Gedda Aklif	1991
*ARL2	Catching fish using <i>ilngam</i> fish poison	David Wiggan	Gedda Aklif	1990
ARL3	Going fishing	David Wiggan	Gedda Aklif	1990
*AYI1	<i>Ayin</i> fish traps	David Wiggan	Gedda Aklif	1991?
BAI	Billy Ah Choo’s <i>ilma</i> text	Bessie Ejai	Gedda Aklif, Claire Bowern	1993, 2001
BAL2	<i>Balili</i> boy	Nancy Isaac	Claire Bowern	2001
BBG	<i>Boonya bardag gorn</i> ‘All trees are good for something’ (Paddy, Paddy, and Smith 1987)	Esther and Sandy Paddy	Moya Smith	1987
BBN	<i>Birrii, Bo, Ngarroonng</i> (mother, daughter, and crab)	Jessie Sampi	Gedda Aklif	1990
*BDI1	How we know that Bardi people have always been here	Jessie Sampi	Claire Bowern	2001

Abbrev.	Text Name	Speaker	Recorder	Date
BGM	Biinyjiman, Goorrbi, and Mardalja	Nancy Isaac	Claire Bowern	2001
BIL	The Bilikan brothers	Johnny Boxer	C.D. (Toby) Metcalfe	1970
BLJ	<i>Boorroo agal larrood jirra jawal</i> (story about kangaroo and hermit crab)	Jessie Sampi	Claire Bowern	1999
BMF	A boy goes out at night	Nancy Isaac	Gedda Aklif	1993
BMF2	A boy goes out at night	Nancy Isaac	Claire Bowern	2001
BSS1	A boat in Sunday Strait	Bessie Ejai	Claire Bowern	2001
BUR	Description of a kangaroo	Jessie Sampi	Claire Bowern	2001
CAM1	Camping trip to Sunday Island	David Wiggan	Gedda Aklif	1991
CLI	Running away from Clinton	Nancy Isaac	Claire Bowern	2001
*COF1	Man in a tree coffin	Nancy Isaac	Claire Bowern	2001
CYC2	Cyclones	Jessie Sampi	Claire Bowern	2001
DJM	Dayirr and Jibaji at Maaroogoon (Galan)	Nancy Isaac	Claire Bowern	2003
DNG	Dayirr and Noonai at Galan	Nancy Isaac	Claire Bowern	2003
DRK	The drunken man dancing with his dog	Tudor Ejai	C.D. (Toby) Metcalfe	1971
DUG	Story about dugongs	Nancy Isaac	Gedda Aklif	1991
*GAL1	Galaloong	David Wiggan	Agnes Angus	1986
GAL3	Galaloong	Nancy Isaac	Gedda Aklif	1993
GBB	A girl was lost at Beagle Bay	Jessie Sampi	Claire Bowern	2001
GBL	Types of birds	Jessie Sampi	Claire Bowern	2001
GGG	Girrgij, Giido, and Ganbaliny	David Wiggan	Gedda Aklif	1990
GLN	<i>Goolan</i> (bluebone)	Jessie Sampi	Claire Bowern	2001
GLW1	Galawa	Nancy Isaac	Claire Bowern	2001
GRG5	<i>Garralgoon jina jawal</i> (story about female turtles)	Nancy Isaac	Gedda Aklif	1993
GRR2	Goorroodoord and Joogog	Nancy Isaac	Claire Bowern	2001
HHW	Harry Hunter and the tidal wave	Jessie Sampi	Claire Bowern	2001

Abbrev.	Text Name	Speaker	Recorder	Date
IID1	<i>Iidool</i> (pandanus)	David Wiggan	Gedda Aklif	1991
IIN	Iina (firesticks)	Jessie Sampi	Claire Bowern	2001
JDW	Joondooowarr	Nancy Isaac	Gedda Aklif	1993
JLN2	What <i>jalnggoogoorroo</i> (doctormen) can do	Bessie Ejai	Claire Bowern	2001
JMI	Jimijanyji	Nancy Isaac	Gedda Aklif	1993
JNB	<i>Janin</i> birds	Bessie Ejai	Claire Bowern	2001
JOO	<i>Jooloo jina jawal</i>	Maggie Davey	Claire Bowern	2003
KUN3	Living at Kunmunya	Nancy Isaac	Claire Bowern	2001
LIZ1	Boys and lizard eggs	Nancy Isaac	Claire Bowern	2001
LIZ2	Story about three boys who eat raw lizard eggs	Nancy Isaac	Gedda Aklif	1993
LOM	Account of a car trip from Derby to Lombadina	Tudor Ejai	C.D. (Toby) Metcalfe	1969
LNR	<i>Lawanarr</i> (little crabs)	Lena Stumpagee	Gedda Aklif	1991
*LPB	The crocodile at Pender Bay	Jessie Sampi	Claire Bowern	2001
LSI1	Life on Sunday Island (I)	David Wiggan	Gedda Aklif	1990
MIL1	<i>Milimili</i> 1 (Retelling of Genesis)	Nancy Isaac	Gedda Aklif	1993
MIL2	<i>Milimili</i> 2 (Retelling of Genesis)	Lena Stumpagee	Gedda Aklif	1993
MLB	<i>Malbalboonjoon</i> (fish dying in the heat)	Bessie Ejai	Gedda Aklif	1993
MLL1	Marrgaliny and Loolooloo	David Wiggan	Gedda Aklif	1990
MNJ	Moonyjangid (Brue Reef)	David Wiggan	Gedda Aklif	1990
MRR	<i>Mayoorroo</i> (fish trap)	Bessie Ejai	Claire Bowern	2001
NAA	Catching <i>naalamboo</i> (diver ducks)	David Wiggan	Gedda Aklif	1991
NAF	Noah's ark and the flood	David Wiggan	Gedda Aklif	1990
NGJ	<i>Ngajana gooloo jina jawal</i> (My father's story)	Nancy Isaac	Claire Bowern	2001
NGM	Nancy's <i>galoongoordoo</i> (father's father) at Maalamboo	Nancy Isaac	Claire Bowern	2001
NRM	<i>Noorrma</i> (turtle blood soup) and turtle parts	Nancy Isaac	Claire Bowern	2001
NWY	<i>Nawayoon</i> : trapping monkeyfish	Bessie Ejai	Gedda Aklif	1993

Abbrev.	Text Name	Speaker	Recorder	Date
NYL	<i>Nyilil</i> boys	unknown	Gedda Aklif	1991?
OAP	Problems at One Arm Point	David Wiggan	Gedda Aklif	1991
ODR1	Hunting <i>odorr</i> (dugong)	Nancy Isaac	Claire Bowern	2001
OOL	<i>Oolooloong</i> women	Nancy Isaac	Claire Bowern	2001
PHO	Commentary on old photos	Nancy Isaac, Jessie Sampi, Bessie Ejai	Claire Bowern	2001
Punitive	Punitive expeditions against the Bardi (sequel to the Bilikin Brothers); published in Hercus and Sutton (1986)	Johnny Boxer	C.D. (Toby) Metcalfe	1971
SNG1	Song terminology	Bessie Ejai	Claire Bowern	2001
SNG2	Children's song	Nancy Isaac	Claire Bowern	2001
STR	Little Eric's favorite piece of string	Jessie Sampi	Claire Bowern	2001
TRS	Hidden treasure	Jessie Sampi	Claire Bowern	2001
WIR	Wirgoorr's story	Nancy Isaac	Claire Bowern	2001

Appendix E

Texts

Here are a few texts in Bardi and Jawi. The texts were chosen to illustrate different periods of the Bardi record and different dialects of the language. The texts also illustrate various subjects from traditional Bardi narratives. Three stories are included from the Laves materials. Text 130 is in Jawi (see §1.2.4). It shows the characteristic third person past augment prefix combination *nyarr-*. There are also a number of phonetic differences between the Laves materials and Modern Bardi, some of which are probably due to researcher transcription differences, while others are probably genuine differences in the language. Work on these differences is ongoing.

These texts were glossed in Toolbox (www.sil.org/computing/toolbox). The examples in the rest of the grammar were glossed manually, using text expansion macros. Vowel length has not been marked on words in the texts.

1. Laves

Gerhardt Laves spent approximately four months working with Bardi speakers in 1928–1929, on Sunday Island, Boolgin, and Lombadina (with the majority of the time spent on Sunday Island). Laves’ texts are preceded by a résumé, a summary of the story in English which Laves seems to have collected before getting the story in Bardi. I have worked through the Laves materials with several Bardi speakers in 2003 and 2008. Laves annotated his own texts. I have included some explanatory annotations in these texts, where the language recorded is very different from the modern language. Where there is a note of the form Laves text difference: X : Y [annotation], this signals a substantive amendment to the original text. The first item is the correction, the second is the original form, and the annotation provides a comment on what speakers said about the original form and why it was changed. Spelling differences between Laves and the modern language are silently corrected (so that words can be easily looked up in the Bardi dictionary), but final vowels are left as in the original.

1.1. Text 142: Goolamana

This story was told to Laves by Agoomoo (page reference: 14/3961-3 (text); 3964-66 (res)). The story concerns the Dreamtime figure Goolamana, who crossed over from Sunday Island to the mainland on the eastern shore of King Sound. There he met a man speaking a Worrorran language, and since they did not speak each other's languages, they both turned to stone.

1. *Goolamana barda jarrgany inamana gaalwangan.*

Goolamana barda jarrgany i-na-ma-na gaalwa-ngan.

G. away cut.across 3M-TR-put-REM.PST raft-ALL

Goolamana crossed over to his raft.

2. *Daab innyana garrin.*

Daab i-n-nya-na garrin.

climb.up 3M-TR-get-REM.PST hill

He climbed a hill.

3. *Booroo inangoorroon jarrara nirirrjarra gaalwanyarra barda inang-galanananana.*

Booroo i-na/ngoorroo-n jarrar nirirr gaalwa-nyarr
place 3M-TR-stick.to-CONT harpoon go.along.coast raft-COMIT
barda i-na-ng-gala-na-na.

off 3M-TR-PST-move-CONT-REM.PST

He paddled/pushed along with his raft along the shore, with his turtle spear.

4. *Nyoonoogiji inamanirr gaalwa gala barda daab innyana alalon booroo garrin.*

Nyoono=gij i-na-ma-n=irr gaalwa gala barda

there=very 3M-TR-put-CONT=3A.DO raft now away

daab i-n-nya-na alal-on booroo garrin.

go.ashore 3M-TR-get-REM.PST steep-LOC place hill

Here he put his raft [on the shore] and climbed up along the edge up a hill.

5. *Injalana Goolamananimi ginyinggiamba arrangala ginyinggi aamba niinga Gaminjina Goolamananimi injayboon Gaminjin.*

I-n-jala-na *Goolamana-nim ginyinggi=amb arrangala*
 3M-TR-see-REM.PST G.-ERG 3MIN=REL bush
ginyinggi aamba niinga Gaminjina Goolamana-nim
 3MIN man name G. G.-ERG
i-n-jayboo-n *Gaminjina.*
 3M-TR-ask.question-CONT G.

Goolamana saw a man, by the name of Gaminjin; Goolamana asked Gaminjin a question.

6. *Goolamananimi aranga ngaanka injayboona arra oolarlamankana Gaminjinanim rooban barna injoonina Gaminjinanimi aranga ngaanka Goolamananim arra nimoonggoonjini ngaanka.*

Goolamana-nim arang ngaanka i-n-jayboo-na *arra*
 G.-ERG other language 3M-TR-ask.question-REM.PST NEG
oo-la-lamanka-na *Gaminjina-nim rooban barn*
 3M.IRR-IRR-hear-REM.PST G.-ERG in.return tell
i-n-joo-ni-na *Gaminjina-nimi aranga ngaanka*
 3M-TR-do/say-CONT-REM.PST G.-ERG other language
Goolamana-nim arra ni-moonggoon=jini ngaanka.
 G.-ERG NEG 3M-know=3M.IO language

Goolamana used a different language, Gaminjin didn't hear/understand him, and spoke back in a different language, which Goolamana didn't know.

7. *Ginyinggon ginyinggi Gaminjini goolboo injoonoo ginyinggi aamba arrangalba aamba.*

Ginyinggon ginyinggi Gaminjina goolboo i-n-joo-na
 then 3MIN G. rock 3M-TR-become-REM.PST
ginyinggi aamba arrangal=ba aamba.
 3MIN man bush man

Then, this Gaminjin turned into a rock, he was a bush man.

8. *Goolamanajina ngaanka Oowini arra nimoonggoon ginyinggi Gaminjinanim.*

Goolamana=jina ngaanka Oowini arra ni-moonggoon ginyinggi

G.-3M.POSS language Oo. NEG 3M-know 3MIN

Gaminjina-nim.

G.-ERG

Goolamana's language is Oowini, and Gaminjin didn't know it.

9. *Goolamana ginyinggon goolboo injoonoo.*

Goolamana ginyinggon goolboo i-n-joo-noo.

G. then stone 3M-TR-become-REM.PST

Goolamana turned to stone.

10. *Imbanya.*

i-m-banya.

3M-PST-finish

He died.

1.2. Text 75: Story about Mirrdiidi people

Laves did not make a note of who told this story to him. (The page reference in the Laves corpus is 11/3297.)

Bessie Ejai gave the following explanation of fairy creatures called variously *Mirrdiidi*, *Mirrdiidi*, or *Mirridid(i)*. *Mirrididi* were fairy kids who lived all through the Dampier Peninsula and the Buccaneer Archipelago. When a stranger came to a new place, the *Mirrididi* would come up to him at night asking for their dad. Sometimes they would come in the shape of a kangaroo. If someone killed a *Mirridid* kangaroo during the day, at night in the camp the kangaroo would change back to a *Mirridid* person and say 'now I'll call you dad, because you speared me.' They mostly came to men, but they could come to women too. They are a little like *raya* spirits, except *raya* can still be felt and seen on the islands, but the *Mirrididi* have all gone now. They are also a little like *ingarda*, the spirits who gave *ilma* to men. They used to make *giidoonoo*, or little houses.

Laves provided the following summary of the text:

Mirrdiidi [*mirridid*] were little people from a long time ago. They fought people. They made a little house (*giidoonoo*). Somebody fought them and

another man (a *boordij* ‘big’ fellow). The *Mirrdiidi* went inside their little house. At night time (*iidanngoorroo*) another man came up and made a fire and burned up the *Mirrdiidi* in the *giidoonoo*. The *Mirrdiidi* could not get out before dying. The big man ran away and nobody caught him. This is the end of the story in which the little fellow had been so pugnacious.

1. “*Barda arr ngandanngay.*”

“*Barda arr nga-n-da-n=ngay.*”

off go TRANS.IMP-TR-do/say-CONT=1M.DO

“Look, I’m going.”

2. *Indanjina. “Baanigarra jiy balaboo?”*

I-n-da-n=jina. “*Baanigarr jiya balaboo?*”

3M-TR-do/say-CONT=3M.IO when 2M.POSS here

“He says to him. When are you coming?”

Laves text difference: *jiy: joo* [case difference? idiom difference? error?]

3. “*Barnanggarra ngay barda. Nyalaboo dirrayi ngonkonji barnanggarra.*”

“*Barnanggarr ngay barda. Nyalaboo dirray*
today 1MIN off over.there turn.around
ngo-n-k-onji barnanggarra.”
1M-TR-FUT.TR-share now

“I’m going today. I’ll come back today today.”

Note: More idiomatic would be *Barnanggarra ngayoo barda arr ngandan.*

Laves text difference: *dirrayi ngonkonji: dirr inganggornji* [this is unparsable; it is probably a garbling of two separate phrases]

4. “*Ngarri ngay injilnganjan goolan.*”

“*Ngarri ngay i-n-jilngi-n=jan gool=an.*”

a.lot 1MIN 3M-TR-tell-CONT=1M.IO father=1M.POSS

“... My father is telling me all the time:”

Laves text difference: *ngarri: mirri* [not known; not a Bardi word, so we changed it to one that made some sense]

lg *injilnganjan: injoolnganjan* [variant choice difference?; variation in vowel harmony of root?]

Note: *goolan:* I assume that this comes from *gooloo-jan* ‘my father’

with contraction, and is not the word *goolan* ‘bluebone’. *Gooloonimjan* would be an acceptable alternative here in the modern language.

5. “*Joornkoojoornk arr ngandan marrany yoorr [inaman] gaarroogoon, nyoonoo inboojan aarli gaarragoon.*

“*Joornkoo-joornk arr nga-n-d-an marrany yoorr*
 Quickly-REDUP go 1M-TR-do/say-CONT quickness come.down
[i-na-ma-n] gaarroo-goon, nyoonoo i-n-booja-n aarli
 3M-TR-put-CONT sea-LOC there 3M-TR-spear-CONT fish
gaarra-goon.
 sea-LOC

“I’m running along the road, and he’s spearing my fish in the sea.”

Note: The word *inaman* was added because *yoorr* ‘come down’ can’t be used without it in Modern Bardi.

Laves text difference: *Joornkoojoornk arr: Joornkoojoornkarra* [word boundary division; arra > arr]

Laves text difference: *gaarragoon: gaarroogoon* [vowel harmony difference]

6. “*Daab innyan aarlinyarra. Inmarrarnirr noorroogoon.*”

“*Daab i-n-nya-na aarli-nyarr.*
 climb.up 3M-TR-catch-REM.PST fish-COMIT
i-n-marra-rn=irr noorroo-goon.”
 3M-TR-cook-CONT=3A.DO fire-LOC

“He climbed up with the fish. He cooked [the fish] on the fire.”

Note: The comitative marker frequently has the form *-nyarra* in the Laves texts, but it’s always *-nyarr* in the modern language.

Laves text difference: *Inmarrarnirr: inmarrarn* [singular for plural; plural better here]

7. “*Inarnirr aranga. Aranga nganjalgardirr arra ngalanirr.*”

I-n-ar-n=irr arang. arang
 3M-TR-pierce-REM.PST=3A.DO others others
nga-n-jalg=ard=irr arra nga-la-n=irr.”
 1M-TR-hide=maybe=3A.DO NEG 1M-IRR-[give]-CONT=3A.DO
 “He speared other fish. I hid the others and didn’t give them [to him].”

8. “Booroo nganjina arinyji aranga Mirridiidi ingarrangoorroobi ni-iman aamba.”

“Booroo nga-n-ji-na arinyji arang Mirridid
look.around 1M-TR-do/say-REM.PST one other little.people
i-ng-arr-a-ngoorribi niimana aamba.”
3M-PST-AUG-TR-chase.after too many man

“I looked around and many of the *Mirridiidi* little people were chasing him.”

Laves text difference: *Mirridiidi*: *Mirrdidi* [pronunciation difference? transcription difference?]

9. Arra oolirrinyana (*giinyji*) inyjiibi boordiji fell aamba.

Arra oo-la-rr-inya-na (*giinyji*) i-ny-jiibi
NEG 3M.IRR-IRR-AUG-catch-REM.PST without.speaking 3M-PST-die
boordij fellow aamba.
big man

They didn't catch the guy, who died without saying anything.

Note: The word *giinyji* here appears to be a misparsing if it's related in any way to *irrmarlginjyi* ‘they kept themselves quiet’. It's not a Modern Bardi word in this meaning; the word these days refers to a blockage or obstruction.

10. Inamalanirr gooljoongoo noorroo. Ingirrjiimbina boonyjangarr.

I-na-mala-n=irr gooljoo-ngoo noorroo.
3M-TR-burn-CONT=3A.DO grass-INS fire
i-ng-irr-jiimbi-na boonyj=angarr.
3M-PST-AUG-die-REM.PST everyone=ONLY

He put the grass on the fire. They all died.

Note: A more natural way to say *ingirrjiimbina boonyjangarr* these days would be *boonyjamb ingirrjiimbina*, making the causal connection a bit clearer.

11. Joornk innyamba boordij aamba. Ara Mirridiidi inoongoorribin arinyjinim.
Arra oolinyana arra oolona.

Joornk i-n-ny=amba boordij aamba. Ara Mirridiidi
speed 3M-TR-catch=REL big man one little.people
i-noo-ngoorribi-n arinyji-nim. Arra
3M-TR-chase.after-CONT one-ERG NEG

oo-l-inya-na *arra oo-l-o-na.*
 3M.IRR-IRR-catch-REM.PST NEG 3M.IRR-IRR-spear-REM.PST

The large man ran away. One of the other Miridiidi men chased him, but he never caught him or speared him.

Laves text difference: *inoongoorribin: inangarribina* [pronunciation difference]

12. *Nimarlga inyjiibina iiga danarnina inyjiibina.”*

Nimarlga i-ny-jiibi-na *iiga* *darr*
 By.himself 3M-PST-die-REM.PST sickness refuse
i-n-ar-n=jin *i-ny-jiibi-na.”*
 3M-TR-pierce-CONT=3M.IO 3M-PST-die-REM.PST

He died by himself; he got sick and died.

1.3. Text 130: Jawi

This text is in the Jawi language variety, told to Laves by Jamboo (page references are 14/3821-7 (text); 3827-31 (res)). Note that in this text there are a number of words which were not known. This is the story of a tidal wave that inundated Sunday Island. The timing of the wave is unknown, but given the proximity of the northwest Australian coast to Indonesia, stories of tidal waves are not surprising. The tidal waves resulting from the eruption of Krakatoa in 1883 would have affected the area, and it is possible that this story refers to that event.

Laves' summary (abridged): That dry (season) they were all together outside. This was a long time ago. The tide went out really far, so that the reef was uncovered, and the channel as far as the mainland. Then the water came up as far as the Sunday Island graveyard. Only that mountain Goorililiwa, that one rock, was above water. All the people went altogether to that one hill.

1. *Inyoordina gaarra boonyja.*

i-ny-joordi-na *gaarra* *boonyja.*
 3M-PST-dry.up-REM.PST salt.water all

The sea all dried up.

Note: That is, the tide went out in advance of a tsunami.

2. *Niyangala oola gaarra gaanya aamba, oorany baawa barda nyoon-birroonan nyoonoonya biindanola “nyalamboo anarra” arinyji garrin nyarrawarn arinyji garrin.*

Niyangala oola gaarra gaanya aamba, oorany baawa barda
 tongue water salt.water mainland man woman child off
nyanbirroonony nyoon-oonyi biindan-ola “nyalab anarra” arinyji
 other.side out.there-LAT bush-origin over.there pick.up? one
garrin nyarra-warn arinyji garrin.
 hill 3.PST.AUG-climb? one hill

There were little tongues of water and the men, women and children from the ‘other side’ came this side-they picked up the kids and went up a hill.

Note: The form *nyarrawan* is a particularly Jawi verb form. It is not clear what the verb root is, and this root does not occur in mainland Bardi.

Note: *bindonola* may refer to ‘mainland Oowini’ (per BE and NI)

3. *Nyalamboo ambooriny arinyji garrin, inyjoordina booroo boonyja ambooriny arinyji garrin.*

Nyalamboo ambooriny arinyji garrin i-ny-joordi-na
 over.there people one hill 3M-PST-dry.up-REM.PST
booroo boonyja ambooriny arinyji garrin.
 place all people one hill

The people were all on one hill; as the tide went out everyone was on one a single hill.

Note: I assume that *nyalamboo* is the same as Bardi *nyalab* ‘over there’.

4. *Arinyjoon booroo imbararnina boonyj imbanyana ambooriny arinyji garrin imbararnina arinyji garrin.*

Arinyj-oon booroo i-m-barna-ni-na
 one-LOC place 3M-PST-sit.down.together-CONT-REM.PST
boonyja i-m-banya-na ambooriny arinyji garrin
 all 3M-PST-finish-REM.PST person one hill
i-m-barna-na arinyji garrin.
 3M-PST-sit.down.together-REM.PST the.very.one hill

People from the same area sat down together; they congregated on a

single hill.

5. *Ninga ginyinggi garrin Goorililiwa.*

Ninga ginyinggi garrin G.

name 3MIN hill G.

The name of this hill is Goorililiwa.

6. *Inyjoordina imbanyana garra ginyinggarra Iwanyoo injalgoordoo gaa-ran* nim nyoonoo gaanya*ga injalgoord boonyja imboolana gaarra booroo.*

i-ny-joordi-na i-m-banya-na garra

3M-PST-dry.up-REM.PST 3M-PST-finish-REM.PST on.and.on

ginyinggarra Iwanyoo i-n-jalgoordoo gaarra-nim nyoonoo
and.then Sunday.Island 3M-TR-cover.up salt.water-ERG there

gaanya i-n-jalgoord boonyja i-m-boola-na

mainland 3M-TR-cover.up all 3M-PST-come.out-REM.PST

gaarra booroo.

salt.water place

The tide went right out. And then the sea covered Sunday Island, and covered up all the mainland, and the sea came right in over the land.

Note: The name for Sunday Island is *Iwany* or *Iwanyi* in Bardi, but usually appears as *Iwanyoo* in Jawi materials.

7. *Iwanyoo inggardina gala jimbini.*

Iwanyoo i-ng-gardi-na gala jimbini.

Sunday.Island 3M-PST-drown-REM.PST now underneath

Sunday Island went right under.

8. *Daab innyoonoo Mayalan—imboolana nyoonoo Goorililiwa imbararnin.*

Daab i-n-nya-na Mayal-an

climb.up 3M-TR-catch-REM.PST Mayala-ALL

i-m-booloo-na nyoonoo G.

3M-PST-come-REM.PST there G.

i-m-barna-n-in.

3M-PST-sit.down.together-CONT-REM.PST

It [the water] climbed up to Mayala—it came to the place where they were all together.

9. *Imbanyana boardij alalgoordoo inyjarrmina jamarda boardij alalgoordoo inggarndandarrara jamarda gooyarra ingarrgandandarrar*

alalgoordoo boordij alalgoordoo nyoonoo garrin ginyinggi.

I-m-banyi-na boordij alalgoordoo i-ny-jarrmi-na
 3M-PST-finish-REM.PST big wave 3M-PST-rise-REM.PST
jamarda boordij alalgoordoo i-ŋ-garndarrma jamarda
 this.way big wave 3M-PST-swell.up coming.this.way
gooyarra i-ŋg-arr-garndarrma alalgoord boordij alalgoord
 two 3M-PST-AUG-swell.up wave big wave
nyoonoo garrin ginyinggi.
 there hill 3MIN

The big wave came up, it came this way; two waves swelled up towards that hill.

Note: The Jawi verb here is *inggarndandarrara*, but this verb is recorded as *inggarndarrma* in Bardi.

10. *Arra oolajarrmana, garda dalboon.*

Arra oo-la-rr-jarrma-na, garda dalboon.
 NEG 3M.IRR-IRR-AUG-rise-REM.PST still dry

But they didn't go under, they stayed dry.

11. *Arra oolajarrmina gaarra, inyoordina booroo gaarra, yoorr nyarrina barda ambooriny jimbinnan joorrboo nyarroon.*

Arra oo-la-rr-jarrmi-na gaarra,
 NEG 3M.IRR-IRR-AUG-rise-REM.PST salt.water
i-ny-joordi-na booroo gaarra, yoorr
 3M-PST-dry.up-REM.PST place salt.water come.down
nyarr-i-na barda ambooriny jimb-in-nan
 3M-PST-AUG-do/say-REM.PST away people underneath-ALL
joorrboo nyarr-oo-rn.
 jump 3M-PST-AUG-do/say-REM.PST

They didn't go into the sea, and the land dried out, and the people went down; they skipped down inside.

Laves text difference: *nyarrina*: Bardi *ingarraman* [dialectal difference]

Note: *nyarrina* is glossed by Laves as meaning 'stay in place'

12. *Ginyinggarra barda warl nyarroorn gaanyga jirri booroo warl nyarroorn jamarda Iwanyoo jirra booroo.*

Ginyinggarra barda warl nyarr-oo-rn gaanyga
 and.then off come.for 3.AUG.PST-do-REM.PST mainland
jirri booroo warl nyarr-oo-rn jamard
 3A.POSS place come.for 3.AUG.PST-do-REM.PST this.way
Iwany jirra booroo.
 Sunday.Island 3A.POSS place

Then they walked to their country on the mainland, and they walked to their country on Sunday Island.

Note: The word *warl* (Laves has *waral*) has a cluster of *r + l*; it is not a retroflex *l*.

13. *Ginyinggarra nyarralnana booroogoon jina goona Mayalanmardan garda warl nyarroorn, ginyinggarra nyarrinan booroogoonjirr.*

Ginyinggarra nyarr-al-na-na booroo-goon jina
 and.then 3.AUG.PST-move-REM.PST place-LOC 3M.POSS
goona Mayal-an-mardan gardi wal nyarr-oo-rn,
 back Mayala-ALL-directive still come.for 3.AUG.PST-do-REM.PST
ginyinggarra nyarr-i-na-n booroo-goon=jirr.
 and.then 3.AUG.PST-do-REM.PST call-LOC=3A.IO

Then they went to their camps in Mayala, then everyone was back in their own country.

14. *Ginyinggi imbanya gala inggoorrooma gala.*

Ginyinggi i-m-banyi gala i-ng-oorrooma gala.
 3MIN 3M-PST-finish now 3M-PST-?? that's.it

That's the end, they all went.

Note: *Inggoorrooma* is glossed as ‘bin all go’ but the verb is not known from Bardi.

2. Modern stories

The following stories are a small selection of those recorded as part of a Bardi oral history project in 2001 (August to December), along with a few recorded by Gedda Aklif over the period 1990–1993. About 30 hours of narratives

were recorded in Bardi and English as part of an oral history project, while Aklif recorded about 10 hours of narratives.

2.1. GAL1: The story of Galaloong

This story was recorded from David Wiggan by Gedda Aklif in 1990. It is a public version of the story of the Bardi culture hero Galaloong.

1. *Jarri inanggalanan Galaloong boonyja booroo: Nyoolnyool Baniyola, nyalabal boora nirirr injoonoo.*

Jarri i-na-ŋ-gala-na-n *Galaloong boonyja*
 this 3M-TR-PST-move-REM.PST-PRES G. everywhere
booroo Nyoolnyool Baniyol, *nyalab-al*
 place Nyulnyul Eastern.people from.this.side-INDEF
booroo=a nirirrjarr i-n-joo-na.
 country=PRED along.the.edge 3M-TR-do/say-REM.PST

Galaloong has been everywhere, Nyulnyul country and Bardi country, he's been along the edge of everywhere.

2. *Booroo injoombarna irrnga, inamana irrnga booroo ginyingg aamba, irrngirrnga arrooloongan booroo barnanggarr.*

Booroo i-n-joombar-na *irr-nga, i-n-ma-na*
place 3M-TR-name.place-REM.PST 3A-name 3M-TR-put-REM.PST
irr-nga booroo ginyingga aamba, irrngirrngi a-rr-jooloong-an
3A-name place 3MIN man names 1-AUG-collect-CONT
booroo barnanggarr.
place now

He's been counting and naming places; this man named the places, and we use those names now.

- ### 3. *Nyalab jarr goolarr injoonoo.*

Nyalab jarri goolarr i-n-joo-na.
over.there this west 3M-TR-do/say-REM.PST

He's been on the western side.

4. *Barnoorarra nyalab, jarri Ardiyooloon injoonoo, jamb biila injoonoo barda goolarr.*

*Barnoorarra nyalab jarri Ardiyooloon i-n-joo-na,
 northerners over.there this One.Arm.Point 3M-TR-do/say-REM.PST
 jamb biila i-n-joo-na barda goolarr.
 WHEN also 3M-TR-do/say-REM.PST away westwards*

He's been to Ardiyooloon and Barnoorarra (Willie Point to Cygnet Bay), and he went again to the west.

5. *Joowono Gardiny jarri Gardiny jarri nyalabal boora inanggalanirr ambooriny.*

*Joowoon-o Gardiny jarri Gardiny jarri
 Swan.Point-ABL Swan.Island this Swan.Island this
 nyalab=al boora i-na-ng-gala-n=irr ambooriny.
 over.there=INDEF place 3M-TR-PST-visit-CONT=3A.DO people*

From Joowoon he went to Swan Point and Swan Island, he went everywhere visiting the people.

6. *Inanirr aarlimay bardagayoon.*

*I-na-n=irr aarlimay bardaga-yoon.
 3M-TR-PRES=3A.DO food tree-SOURCE*

He gave them food from the trees.

7. “*Jarri aarlimay joogarr, jarri boowa, arra goolarrarli, arralalanirr gorna,” injoonoojirr.*

“*Jarri aarlimay joogarra, jarri boowa arra goo-la-arr-rli,
 this food 2A.POSS this inedible.food NEG 2A-IRR-AUG-eat
 a-arr-jalala-n=irr gorna,”
 1-AUG-look.after-CONT=3A.DO well
 i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO*

“This food is yours, this one is rubbish food: don't eat it, look after them well,” he told them.

8. *Ginyinggo inyjiidin iniinalang, inanggalanirr ambooriny boonyja.*

*Ginyinggo i-ny-jiidi-n iniinalang,
 from.there 3M-PST-go-CONT islands*

i-na-ng-gala-n=irr ambooriny boonyja.
 3M-TR-PST-visit-CONT=3A.DO people everyone

Then he went to the islands, and visited all the people.

9. “*Ginyinggamba joogarra ngaanka Bardi.*”

“*Ginyinggamba joogarra ngaanka Bardi.*”

that’s.why 2A.POSS language Bardi

“This is your language, Bardi,” (he told them).

10. *Ginyinggon barnin injoonoojirr*, “*barnin arraman barni morr. Oola joogarra jiibi inin, biidini joogarra oola niiminiimi, joogarra oola,*” *injoonoojirr.*

Ginyinggon barn i-n-joo-na=jirr, “barn
 then tell 3M-TR-do/say-REM.PST=3A.IO use
a-rr-a-ma-n barni morr. Oola joogarra jiibi
 1-AUG-TR-put-CONT this.(way) way water 2A.POSS this
i-ni-n, biidin joogarra oola niiminiimi,
 3M-be.located-CONT fresh.water 2A.POSS water sand.soakage
joogarra oola,” i-n-joo-na=jirr.
 2A.POSS water 3M-TR-do/say-REM.PST=3A.IO

Then he told them, “Do things this way. Here are your water, your rockholes, your soakages in the ground and in the sand,” he told them.

11. *Jarrgany barda inamana Ardiyooloonko, roowilarda innyana gaa-rragoon garndi.*

Jarrgany barda i-n-ma-na Ardiyooloon-go,
 cut.across away 3M-TR-put-REM.PST One.Arm.Point-ABL
roowil=barda i-n-nya-na gaarra-goon garndi.
 walk=maybe 3M-TR-catch-REM.PST sea-LOC top

He might have crossed over from Ardiyooloon. He might have walked on top of the water.

12. *Jooloom injayboonirr ambooriny “Oola janaboora goorrinyan?”*

Jooloom i-n-jayboo-n=irr ambooriny “Oola
 Middle.Island 3M-TR-ask.question-CONT=3A.DO people water
janaboora goo-arr-inya-n?”
 where 2A-AUG-catch-CONT

At Jooloom he asked the people, “Where do you get your water from?”

13. “*Arra arinyj arrin oolanyarr oolab inarnjarda, arramin jarda oola irri-joordoonba bardamba jarr arrin joobool arrin aanyjoo Ardiyooloongan, boonamba arrinyan oola Inyjololon,*” *ingirrinijin*
“Arra arinyj arr-joo-n oola-nyarr oola=b
 NEG the.very.one 1AUG-do/say-CONT rain-COMIT rain=REL
i-n-ar-n=jard, arra jarda oola
 3M-TR-pierce-CONT=1A.IO NEG 1A.POSS water
i-arr-joordoo-n=b barda=jamb jarri arr-joo-n joobool
 3-AUG-dry.up-CONT=REL away=REL this AUG-2m-CONT swim
arr-joo-n aanyjoo Ardiyooloongan, boonoo=jamb
 1AUG-do/say-CONT back One.Arm.Point-ALL over.there=REL
a-rr-inya-n oola Inyjololon,”
 1-AUG-pick.up-CONT water I.
i-ng-arr-joo-na=jin.
 3M-PST-AUG-do/say-REM.PST=3M.IO
 “We get our water when it rains—we don’t have water when it dries up. We swim to Ardiyooloon and get water from Inyjololon,” they told him.
14. *Ginyinggo roowil innyana, “arralaliyangay!” injoonoojirr.*
Ginyinggo roowil i-n-nya-na, “a-arr-galala-a=ngay!”
 from.there walk 3M-TR-catch-REM.PST 1-AUG-follow-FUT=1sgO
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO
 Then he walked on and said “You lot follow me!”
15. *Jool inarna ara niimidi goolboon ara niimid biila jool inarna.*
Jool i-n-ar-na ara niimidi goolboo-goon ara
 kneel.down 3M-TR-pierce-REM.PST one knee rock-LOC one
niimidi biila jool i-n-ar-na.
 knee also kneel.down 3M-TR-pierce-REM.PST
 He knelt down with one knee on the rock, and then with the other knee.
16. “*Jarramb joogarrirr oola mangir arralabanirr,*” *injoonoojirr.*
“Jarri=jamb joogarra-irr oola mangir
 this=REL 2A.POSS-3A water always
arr-n-laba-n=irr,” i-n-joo-na=jirr.
 1AUG-TR-have-CONT=3A.DO 3M-TR-do/say-REM.PST=3A.IO
 “Now you will always have water,” he said.

17. *Nimarla, jard inarn booroo, ininjamba nimarla niimbal ininjamb.*

Niimarl, jard i-n-ar-na booroo,
 hand put.weight.on 3M-TR-pierce-REM.PST place
i-ni-n=jamb niimarl niimbal i-ni-n=jamb.
 3M-sit-CONT=REL hand foot 3M-sit-CONT=REL

He put weight on the place with his hand, where his foot had been.

18. *Ginyingg aamba ingananangirr Jooloomb, inamboon aarli nilngga, garrin inarlin nyoonoo.*

Ginyingga aamba i-nга-ni-na-ng=irr
 3MIN man 3M-1M-be.located-REM.PST-appl.=3A.DO
Jooloom=b, i-na-ng-boo-na aarli nilngga,
 Middle.Island=REL 3M-TR-PST-poke-REM.PST fish red.snapper
garrin i-na-rli-n nyoonoo.
 hill 3M-TR-eat-CONT there

This man was with them on Jooloom, and he speared *nilngga* fish (red snapper), and he ate it on the hill.

19. *Wangalanganim aamba arra oolarrarlin ginyingg aarli, nyongoorl-jin minyjin arrarlin.*

Wangalang-nim aamba arra oo-la-rr-rli-n ginyingga
 young.man-ERG man NEG 3M.IRR-IRR-AUG-eat-CONT 3MIN
aarli, nyongoorl-jin minyjin a-rr-rli-n.
 fish old.person-GROUP only 1-AUG-eat-CONT

Young people don't eat this fish; only old people can eat it.

20. *Inyjiidin barda Jayirri, ool inarnirr, Jayirri inganananirr.*

i-ny-jiidi-n barda Jayirri, oola
 3M-PST-go-CONT off Jackson.Island water
i-n-ar-na=irr, Jayirri
 3M-TR-pierce-REM.PST=3A.DO Jackson.Island
i-nга-ni-na-n=irr.
 3M-1M-sit-REM.PST-CONT=3A

He went to Jayirri and gave them water, he stayed with them on Jayirri.

21. “*Jiibadan booroo arra goolarrali riwa jiib inin, arra goolarralayi ambooriny noongoo, alig oonkin anggabanim oonkalan.*”

- “Jiiba booroo arra goo-la-rr-a-la-joo riiwa jiya=b*
 here place NEG 2A-IRR-AUG-TR-IRR-2M hole 2m.poss=REL
i-ni-n, arra goo-la-rr-ala-yi ambooriny noongoo,
 3M-sit-CONT NEG 2A-IRR-AUG-move-simul? people stomach
alig oo-n-k-i-n anggaba-nim
 ache 3M.IRR-TR-FUT.TR-do/say-CONT who-ERG
oo-n-k-gala-n.”
 3M.IRR-TR-FUT.TR-move-CONT
- “Don’t you go to this place, there’s a hole there, don’t go there—people who go there will get a weak stomach.”
22. “*Ginyinggi riiwa jiib inin,” injoonoojirr.*
 “*Ginyinggi riiwa jiiba i-ni-n,*
 3MIN hole here 3M-be.located-CONT
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO
 “The hole is there,” he said.
23. *Nyoonyi Ngarrigoon, ginyinggo Jalan inanggalanirr, oola inanirr.*
Nyoono Ngarrigoon, ginyinggo Jalan
 there Ng. from.there Tallon.Island
i-na-ng-gala-n=irr, oola i-na-n=irr.
 3M-TR-PST-visit-CONT=3A.DO water 3M-TR-CONT=3A.DO
 He went to Ngarrigoon on the other side, then he went to Jalan, he visited them and gave them water.
24. “*Jarramba inin joogarra oola,” injoonoojirr.*
 “*Jarri=jamb i-ni-n joogarra oola,*
 this=REL 3M-be.located-CONT 2A.POSS water
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO
 “This is your water,” he told them.
25. *Ginyinggo ngoonjoon ool ingarrananan joodinygo inanggalboon oola*
gardamb ingarranan biidininyarr jirr oola.
Ginyinggo ngoonjoon oola i-ng-arr-ga-na-nan
 from.there since water 3M-PST-AUG-bring-REM.PST-times
joodiny i-na-ng-galboo-n oola gardi=jamb
 always 3M-TR-PST-dig.out-CONT water still=REL

i-ŋgarr-ga-na-n *biidin-nyarr* *jirr*
3M-PST-AUG-bring-REM.PST-CONT fresh.water-COMIT 3A.POSS
oola.
water

From that time they always had water. He dug for water and it's still there in the rock-holes.

26. *Ginyinggo goona Ralooraloo inananirr oola, riiwa inamoogarnajirr-nid goolboondarr boonyja booroo bornkobornko jiiba goolboo.*

Ginyingga goona Ralooraloo i-n-ana-n=irr
from.there back R 3-TR-[give]-CONT-REM.PST=3A.DO
oola, riwa i-na-moogar-na=jirr=nid
water hole 3M-TR-make.something-REM.PST=3A.IO=QUANT
goolboo-goondarr boonyja booroo bornkobornko jiiba goolboo.
rock-LOC₂ all place all.around here rock

From there he went off back to Ralooraloo and gave them water: he made holes in the rock for them all around there.

27. "Arra goolarralanirr jarri miroorrambalirr," injoonoojirr

“Arra goo-la-rr-ala-n=irr jarri
NEG 2A-IRR-AUG-visit-CONT=3A this
miroorroo=jamb-al=irr;” i-n-joo-na=jirr:
powerful.place=REL-INDEF=3A 3M-TR-do/say-REM.PST=3A.IO
“Don’t go to this place—it’s a sacred place for you,” he told them

28. "Goorlil jorro jamb boor arralan, oondoordoo," injoonoojirr.

"Goorlil jorro jamb boor arr-jala-n,
turtle from.here WHEN watch.out.for 1AUG-look.at-CONT
oondoord," *i-n-joo-na=jirr*.
married.turtle 3M-TR-do/say-REM.PST=3A.IO

"Keep on looking out for married turtle from this place," he told them.

29. "May jiiba irrngan joogarra, ngamari jiboordany joogarra," injoonoo-jirr.

“Mayi jiiba irrngan joogarra, ngamari jiboordany joogarra,”
plant.food here standing 2A.POSS tobacco this.way 2A.POSS
i-n-joo-na=jirr.

3M-TR-do/say-REM.PST=3A.IO

"This food grows for you, this tobacco is for you," he told them.

30. *Boolnginyi daab innyan biila biligij gardoo.*

Boolnginy-i *daab* *i-n-nya-na* *biila*
 Poolngin.Island-LOC go.ashore 3M-TR-catch-REM.PST also
biligij *gardi.*
 once.more yet

Then he went ashore again at Boolnginy.

31. *Barn injoonoojirr, “jarramb joogarra baaliboor gardini nyoonoomba inin joogarra, ginyinggamba arralan, oonkoonkool darr oonkarn,” injoonoojirr.*

Barn i-n-joo-na=jirr, *“jarri=jamb joogarra*
 tell 3M-TR-do/say-REM.PST=3A.IO this=REL 2A.POSS
baaliboor gardin nyoonoo=jamb i-ni-n *joogarra,*
 camp cave there=REL 3M-be.located-CONT 2A.POSS
ginyinggamba a-rr-ala-n, *oonkoonkool darr*
 that's.why 1-AUG-live-CONT ocean.storm come
oo-n-k-ar-n,” *i-n-joo-na=jirr,*
 3M.IRR-TR-FUT.TR-pierce-CONT 3M-TR-do/say-REM.PST=3A.IO

He told them, “this is your place, that cave is there for you, you go there whenever heavy rain comes,” he said.

32. “*Oolagid nyoonoomb inin joogarra larda, arralboonjambaljin mangir.*”

“*Oola=gid nyoonoo=jamb i-ni-n* *joogarra larda,*
 water=TEMP there=REL 3M-be.located-CONT 2A.POSS bottom
a-rr-alboo-n=jamb=al=jin *mangir.”*
 1-AUG-dig.out-CONT=REL=INDEF=3M.IO always

“Your water is there down at the bottom, dig for it all the time.”

33. *Inganananirr, “barda arr ngandan gala Iwanyingan,” injoonoojirr.*

I-ng-ni-na-n=irr, *“barda arr*
 3M-PST-be.located-REM.PST-CONT=3A.DO off go
nga-n-d-an *gala Iwany-ngan,”*
 1M-TR-do/say-CONT already Sunday.Island-ALL
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO

He stayed with them, then he said, “I’m going off to Sunday Island.”

34. *Danarnajirr Iwanyoo Bilingbilinggo niimbal inamana.*

Darr i-n-ar-na=jirr *Iwany*
 come 3M-TR-pierce-REM.PST=3A.IO Sunday.Island
Bilinybiliny-go *niimbal i-n-ma-na.*
 Sunday.Island.law.ground-ABL foot 3M-TR-put-REM.PST

He met the people on Sunday Island and walked from Bilinybiliny.

35. *Nyoonyoni Goolinarr, inanggalanirr bornkobornko boonyja.*

Nyoonoo Goolinarr, i-na-ng-gala-n=irr *bornkobornko*
 other.side G. 3M-TR-PST-visit-CONT=3A.DO all.around
boonyja.
 everyone

Then he was over on the other side (of Sunday Island), at Goolinarr, and he visited all the people there.

36. *Booluonggooloonggoo morr gir ingarralan, ambooriny boonyja danarnajirr inarginirr, injooloonganajirr anggi gorna anggi loogal.*

Booluonggooloonggoo morr gir i-ng-arr-ala-n,
 B. path stay 3M-PST-AUG-visit-CONT
ambooriny boonyja darr i-n-ar-na=jirr
 people all come 3M-TR-pierce-REM.PST=3A.IO
i-n-argi-n=irr, i-n-jooloong-na=jirr
 3M-TR-pick.up-CONT=3A.DO 3M-TR-collect-REM.PST=3A.IO
anggi gorna anggi loogal.
 what good what bad

They were stopping on the way to Booluonggooloonggoo, he gathered all the people together, and told them what is good and what is bad.

37. *Ginyinggamba “arralalan jiiba gorna, loogalba birarr arrin arra goo-lirrinyan. Arra barn goolirrinyjin, gorna jamb arral,” injoonoojirr.*

Ginyinggamba “a-rr-alala-n jiiba gorna, loogal=b
 that’s.why 1-AUG-follow-CONT here good bad=REL
birarr a-rr-i-n arra goo-la-rr-inya-n.
 leave.behind 1-AUG-do/say-CONT NEG 2A-IRR-AUG-catch-CONT
Arra barn goo-la-rr-joo-inyji-n, gorna jamb
 NEG tell 2A-IRR-AUG-do/say-REFL-CONT good WHEN
a-rr-al,” i-n-joo-na=jirr.
 1-AUG-wander 3M-TR-do/say-REM.PST=3A.IO

Then he said, “You look after the good things, and leave the bad things behind you. Don’t tell yourselves what is good.”

38. *Nganyjal irrgoordoo lalin inanggalanan Iwanyi, ginyingga inamana-jirr ngaanka arar.*

Nganyjal irrgoordoo lalin i-na-ng-gala-na-na
 we.don't.know.how.many summer 3M-TR-PST-live-CONT-REM.PST
Iwanyi, ginyingga i-na-ma-na=jirr ngaanka
 Sunday.Island from.there 3M-TR-put-REM.PST=3A.IO language
arar.
 all.kinds

We don’t know how many years he stayed on Sunday Island, then he placed different languages on the Dampier Peninsula.

39. “*Barnanggarr lalin indan booroo oondoordamba darra oonkarn joom-garra goorlil,*” *injoonoojirr.*

“*Barnanggarr lalin i-n-joo-n booroo*
 now summer 3M-TR-do/say-CONT time
oondoord=jamb darr oo-n-k-ar-n joogarra
 married.turtle=REL come 3M.IRR-TR-FUT.TR-pierce-CONT 2A.POSS
goorlil,” i-n-joo-na=jirr.
 turtle 3M-TR-do/say-REM.PST=3A.IO

“Now the hot weather has come, married turtle will come for you,” he said.

40. “*Lalin injoonoo booroo jarramba joogarra lalin goorr aambanim joogarra boor arrala goorlil.*

“*Lalin i-n-joo-na booroo jarri=jamb joogarra*
 summer 3M-TR-do/say-REM.PST time this=REL 2A.POSS
lalin goorr aamba-nim joogarra boor a-rr-jala-a
 summer 2AUG man-ERG 2A.POSS watch.out.for 2-AUG-see-FUT
goorlil.
 turtle

“You men should watch for turtle now that *lalin* time has come to you.

41. *Aalga arra goolarrjarginjin booroo oonggamarran garda arran jiiba garda arran jiiba goorlil jorro jamba nankarra jooboorl arriyangirr,”* *injoonoojirr.*

Aalga arra goo-la-rr-jargi-n jina booroo
 sun NEG 2A-IRR-AUG-be.afraid.of-CONT 3M.IO time
oo-ngg-marra-n gardi a-rr-ni-n jiiba gardi
 3M.IRR-FUT-cook-CONT still 2-AUG-sit-CONT here still
a-rr-ni-n jiiba goorlil jarri jamb nankarr joobool
 1-AUG-sit-CONT here turtle this WHEN point.on.the.shore swim
a-rr-joo-a-ng=irr; i-n-joo-na=jirr.
 1-AUG-do/say-FUT-appl.=3A.DO 3M-TR-do/say-REM.PST=3A.IO
 “Don’t be frightened of the sun, it’ll get hot, but do this and from the point jump into the water and chase after turtles,” he told them.

42. “*Joorrinankoonjamb nankarra ginyingg booroo, ooranygid nyoonoo gir oonggarralan garrin nyoonoomb Inboornoongan. Inboornoongan jarri gir oonggarrala ambooriny,*” *injoonoojirr.*

“*Joorrinankoon=jamb nankarr ginyinggi booroo,*
 J.=REL point.on.the.shore 3MIN place
oorany=gid nyoonoo gir oo-ngg-rr-ala-n garrin
 woman=TEMP there live 3M.IRR-FUT-AUG-live-CONT hill
nyoonoo=jamb Inboornoongan Inboornoongan jarri gir
 there=REL I. I. this stay
oo-ngg-rr-gala-a ambooriny,
 3M.IRR-FUT-AUG-live-FUT people
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO

“This place is Joorrinankoon, the women will stop there on the hill at Inboornoongan. This place is Inboornoongan. There’ll be people staying there,” he told them.

43. “*Jarramb arralirr goorlil, biijib oonggoolooman joolganmolon ingoorrngooloomana garrin ginyingg morrgoon goorlil goowidany.*”
jarri=jamb a-rr-jala=irr goorlil, biiji
 this=REL 2-AUG-see=3A.DO turtle this.one.here
oo-ngg-loomoo-n joolganmolon
 3M.IRR-FUT-crawl-CONT chasing.turtles
i-ng-arr/ngoolooma-na garrin ginyinggi morr-goon goorlil
 3M-PST-AUG-crawl-REM.PST hill 3MIN path-LOC turtle
goowidany.
 in.moonlight

“You’ll see turtles. They’ll crawl there when they’ve crawled up the hill, those married turtles will crawl there in the moonlight.”

44. *Jiindibirrgid goolboo injoolooloonan moorrool inamanirr garndijim-bin garndijinbin inamoogarn booroo.*

Jiindibirr=gid *goolboo i-n-jooloong-na-na*
 willy.wagtail=TEMP rock 3M-TR-collect-CONT-REM.PST
moorrooloo i-na-ma-n=irr *garndi-jimbin garndijinbin*
 small 3M-TR-put-CONT=3A.DO top-underneath one
i-na-moogar-n booroo.

on top of the other 3M-TR-make-CONT place

Willy wagtail put little rocks one on top of the other and built a nest.

45. *Irrinjamb ginyinggi goolboo gard inamoogarna Jindibirrnim.*

I-rr-ni-n=jamb *ginyinggi goolboo*
 3M-AUG-be.located-CONT=REL 3MIN rock
i-na-moogar-na *jindibirr-nim.*
 3M-TR-make-REM.PST willy.wagtail-ERG

The rocks that willy wagtail built are still there.

46. “*Aamba barni morr arral oorany barni morr oonggarral,*” *injoonoo-jirr.*

“*Aamba barni morr a-rr-al* *oorany barni morr*
 man this way 2-AUG-wander woman this.(way) path
oo-ngg-a-rr-al,” *i-n-joo-na=jirr.*
 3M.IRR-FUT-TR-AUG-wander 3M-TR-do/say-REM.PST=3A.IO

“Men, you go this way, and women, you go that way,” he told them.

47. “*Aamba jirr booroo, arra ooranynam arra goolarralan,*” *injoonoojirr.*

“*aamba jirr booroo, arra ooranynam arra*
 man 3A.POSS place NEG woman-ERG NEG
goo-la-rr-ala-n,” *i-n-joo-na=jirr.*
 2A-IRR-AUG-visit-CONT 3M-TR-do/say-REM.PST=3A.IO

“Women, you don’t go to men’s places,” he told them.

Note: DW didn’t have the first *arra* in the original text.

48. *Moorrooloo Boonggoolalmoorroon inamana riiwa. Oola boowaybooway inman nyalab.*

*Moorrooloo Boonggoolalmarroon i-n-ma-na riiwa. oola
 Beach.on.Sunday.Island 3M-TR-put-REM.PST hole water
 boowaybooway i-n-ma-n nyalab.
 bubble.up 3M-TR-put-CONT over.there*

At Moorrooloo Boonggoolalmoorroon he put a hole. Water bubbles up there.

49. “*Arra jooroorr goolirrin jiibadan booroo bardagang. Baawa orrol-boonirr, jooroorr arrin ginyinggi booroo riiwa boordiji oola darr oonkarn joogarra, bardoonoo oonggilgin boordiji,*” *injoonoojirr.*

“*arra jooroorr goo-li-rr-i-n jiiba booroo bardag-ng.
 NEG poke 2A-IRR-AUG-do/say-CONT here place tree-INS
 baawa o-rr-olboo-n=irr, jooroorr a-rr-i-n
 child 1-AUG-dig.out-CONT=3A.DO poke 1-AUG-do/say-CONT
 ginyinggi booroo riiwa boordij oola darr
 3MIN place hole big water come
 oo-n-k-ar-n joogarra, bardoon
 3M.IRR-TR-FUT.TR-pierce-CONT 2A.POSS southeast.wind
 oo-ngg-ilgi-n boordij,” i-n-joo-na=jirr.
 3M.IRR-FUT-blown-CONT big 3M-TR-do/say-REM.PST=3A.IO*

“Don’t poke this hole. If you kids play with sticks and poke this place, a big rainstorm will come to you, and the wind will blow strong,” he told them.

50. *Ginyinggo “wiira ngankal jarri birarrjamb ngankiyanggoorr,” injoonoo-jirr.*

*Ginyinggo “wiira nga-n-gala jarri birarr=jamb
 from.there little.while 1M-TR-live this leave.behind=REL
 nga-n-k-i-a-ng=goorr;”
 1M-TR-FUT.TR-2M-FUT-INS=2A.DO
 i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO*

Then he said, “I’m going to leave you in a little while.”

51. “Nyirra boorajii?” *injoonoojirr.*
“Nyirra boora=jiy?” i-n-joo-na=jirr.
 which place=2M.POSS 3M-TR-do/say-REM.PST=3A.IO
 “Where are you going?” They asked him,
52. “Arra! bard arr ngandan garndingan gooloo ngankalanjarran,
Nyiinya.
“Arra! barda arr nga-n-d-an garndi-ngan gooloo
 hey! away go 1M-TR-do/say-CONT top-ALL father
nga-n-kala-n=jarran, Nyiinya.
 1M-TR-visit-CONT=1M.IO Ny.
 “I’m going to heaven; I’ll go and see our father Nyiinya.”
53. *Jiib inin garndi. Ginyingginim oonkalalankoorr gorndo agal ngayoonim ngankalalankoorr gorndo,*” *injoonoojirr.*
Jiiba i-ni-n garndi. ginyinggi-nim
 here 3M-sit-CONT top 3MIN-ERG
oo-n-k-galala-n=goorr gorndi-o agal
 3M.IRR-TR-FUT.TR-follow-CONT=2A.DO top-ABL and
ngayoo-nim nga-n-k-galala-n=goorr gornd-o,”
 1MIN-ERG 1M-TR-FUT.TR-follow-CONT=2A.DO top-ABL
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO
 “He lives in heaven. He’ll look after you from the sky and I’ll look after you from the sky,” he said to them.
54. *Ingarmalinyjin boonyja.*
I-ng-arr-m-al-inyji-n boonyja.
 3M-PST-AUG-REFL-look.at-REFL-CONT everyone
 They all looked at each other.
55. “Nyirroogoordoo morr oonggiidi barda angginyarr wirr oonggarm?”
ingirrinijin.
“Nyirroogoordoo morr oo-ngg-iidi barda anggi-nyarr wirr
 how path 3M.IRR-FUT-go away what-COMIT go.up
oo-ngg-arm?” i-ng-irr-i-ni=jin.
 3M.IRR-FUT-get.up 3M-PST-AUG-do/say-REM.PST=3M.IO
 “How will he go? What will he use to rise up?” they asked themselves.

56. *Gard ingarrbooloonanajin.*
Gardi i-ng-arr-booloo-na-na=jin.
 still 3M-PST-1AUG-disbelieve-CONT-REM.PST=3M.IO
 They still disbelieved him.

57. *Gooyarra goowidi inganana, gala barnkarda “arrangan jarr amboonoo nganjoonoongjarrgoorr, arralalan anggirrgoord nganamana joogarra gorna, loogal gala goorrmoonggoon,” injoonoojirr.*
Gooyarra goowidi i-ng-ni-na, *gala*
 two month 3M-PST-be.located-REM.PST well.then
“a-rr-nga-n jarri amboon nga-n-joo-noo-ng=jarrgoorr,
 1-AUG-be-CONT this together 1M-TR-do/say-REM.PST-INS=2A.DO
a-rr-alala-n anggirrgoord nga-na-ma-na joogarra gorna,
 1-AUG-follow-CONT whatever 1M-TR-put-PST 2A.POSS good
loogal gala goorr-moonggoon,”
 bad well.then 2A-know
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO
 Eventually, two months later, (he said) “We’ve been together for a long time. I’ve stayed with you and looked after you, I’ve given you all sorts of things, and you know what’s good and what’s bad,” he said to them.

58. *Ginyinggo ingarralalan “wayi!” injoonoojirr.*
Ginyinggo i-ng-arr-galala-na *“way!”*
 from.there 3M-PST-AUG-follow-REM.PST Come.on!
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO
 Then they followed him. “Come here!” he said to them.

59. *Roowil ingirrinyanang barda Iilonko barda Jawanan daab ingirrinyan.*
Roowil i-ng-arr-inya-na-ng *barda Iilon-go barda*
 walk 3M-PST-AUG-catch-REM.PST-APPL off Ii.-ABL off
Jawanan daab i-ng-arr-inya-n.
 J. climb.up 3M-PST-AUG-catch-CONT
 They walked from Iilon to Jawanan and they climbed up.

60. “Nyirrabooroo inkajanmoord?” *ingirrminyjin ambooriny.*
 “nyirra-booroo i-n-kaja-n=moordoo?”
 which-place 3M-TR-take-CONT=1AUG.DO
i-ng-arr-m-i-nyji-n *ambooriny.*
 3M-PST-AUG-REFL-do/say-REFL-CONT people
 “Where is he taking us?” the people thought.
61. *Roowil ingirrinya Ngalngoorarra yoorr ingarraman. Nyoonoo Balalbalalngarr daab ingirrinyan goona goorriron.*
Roowil i-ng-arr-inya-na *Ngalngoorarra yoorr*
 walk 3M-PST-1AUG-catch-REM.PST Ng. come.down
i-ng-arr-ma-na. *nyoonoo Balalbalalngarr daab*
 3M-PST-1AUG-put-REM.PST there B. climb.up
i-ng-arr-inya-n *goona goorrir-goon.*
 3M-PST-AUG-catch-CONT further.on fig.tree-LOC
 They walked to Ngalngoorarra and came down at Balalbalalngarr, and climbed up at the big fig tree.
62. *Goodil ingarranan barda Boolgoonngan. Daab innyan boordiji niya Boolgoon.*
Goodil i-ng-arr-ga-na *barda Boolgoon-ngan. daab*
 turn 3M-PST-AUG-take-REM.PST off B.-ALL climb
i-n-nya-na *boordij niya* *Boolgoon.*
 3M-TR-catch-REM.PST big ridge.of.hill B.
 They turned off for Boolgoon and climbed to Boolgoon, which is a big hill.
63. *Ingarralalan, ingarrmalinyjin ambooriny jirrjirr injoonoo garndi.*
I-ng-arr-alala-na, *i-ng-arr-m-al-inyji-n*
 3M-PST-AUG-watch-REM.PST 3M-PST-AUG-REFL-see-REFL-CONT
ambooriny jirrjirr i-n-joo-na *garndi.*
 people stand 3M-TR-do/say-REM.PST top
 The people looked at him, they looked at each other as he stood on top of the hill.

64. *Jiin inarna booroo bardagang, “Arra anganagij goowidi,” injoonoo-jirr.*

*Jiin i-n-ar-na booroo bardag-*ng*, “Arra angan=gij point.at 3M-TR-pierce-REM.PST place tree-INS NEG near=very goowidi,” i-n-joo-na=jirr moon 3M-TR-do/say-REM.PST=3A.IO*

He pointed at the place with a stick. “No, the moon is too close,” he said to them.

65. *“Barda jarda anggoorroonoorroo iinalangngan barda.” Garrjadiny iinalangngan ginyinggon ingoorroonoorroon boonyjanim ingarralalana daab ingirrinya Garrjadiny.*

*“Barda jarda a-n^gg-rr-goondoorno*roo* iinalang-*ngan* barda.” off 1A.POSS 1-FUT-AUG-cross.over island-ALL off Garrjadiny iinalang-*ngan* ginyinggon i-n^g-arr-goondoorra-n G. island-ALL then 3M-PST-AUG-cross.over-CONT boonyja-nim i-n^g-arr-galala-na daab everyone-ERG 3M-PST-AUG-follow-REM.PST go.ashore i-n^g-arr-inya-n Garrjadiny. 3M-PST-AUG-catch-CONT G.*

“We’ll cross over to the island.” They all followed him and crossed over to the Garrjadiny islands and climbed Garrjadiny.

66. *Jirrjirr injoonoo niyamarr garndi goolboon, boordijon goolb.*

Jirrjirr i-n-joo-na niya goolboo-goon stand.up 3M-TR-do/say-REM.PST right.on.top rock-LOC boordij-goon goolboo. big-LOC rock

He stood right on top, on a big rock.

67. *“Nganjoomarrabjoogarra galamb birarr ngandankoorr. Arra goolarr-ganyjin anggirrgoordoo loogalbal birarr arrin aarlimaybijooogarra oola joogarra,” injoonoojirr.*

“Nga-n-joo-marr=b=joogarra gala=jamb birarr 1M-TR-do/say-SEMBL=REL=2A.IO already=REL leave.behind nga-n-da-an=koorr. Arra goo-la-rr-ganyji-n 1M-TR-do/say-CONT=2A.DO NEG 2A-IRR-AUG-forget-CONT

anggirrgoordoo loagal=b=al birarr arr-joo-n
 whatever bad=REL=INDEF leave.behind 1AUG-do/say-CONT
aarlimay=b=joogarra oola joogarra,
 food=REL=2A.POSS water 2A.POSS
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO

“I told you the time that I would leave you. You shouldn’t forget anything. Leave bad food and water behind,” he told them

68. “*Oomban joogarra oola. Biidini joogarrirr oola. Niiminiimba joogarra oola joogarra oola arang yaaga joodinygo oonkan,*” *injoonoojirr.*

“*Oomban joogarra oola. Biidin joogarra=irr oola.*
 fresh.water.soak 2A.POSS water fresh.water 2A.POSS=3A water
Niiminiimi=b joogarra oola joogarra oola arang yaaga
 sand.soakage=REL 2A.POSS water 2A.POSS water other hole
joodiny oo-n-k-i-n, *i-n-joo-na=jirr.*

always 3M-TR-FUT-be-CONT 3M-TR-say-REM.PST=3A.IO

“You’ve got soakages for your water. You’ve got soakages in the sand and other water, pools—they’ll always be there,” he said to them.

69. “*Arralalan booroo gorna, ngananamarrabagoorr booroo,*” *injoonoojirr.*

“*A-arr-jalala-n booroo gorna,*
 1-1AUG-look.after-CONT place good
nga-na-na-marr=ba=goorr booroo,”
 1M-TR-TR-SEMBL=REL=2A.DO place
i-n-joo-na=jirr.

3M-TR-do/say-REM.PST=3A.IO

“Look after the places I gave you well,” he told them.

70. “*Aarli joogarra ginyingg, arar aarli loagal, arar aarli joodinygo arrarlin layidi joodinygo.*

“*Aarli joogarra ginyingga, arar aarli loagal, arar aarli*
 fish 2A.POSS 3MIN all.kinds fish bad all.kinds fish
joodiny a-rr-rli-n laya joodiny.
 for.ever 1-AUG-eat-CONT fatty for.good

“This is your fish, some fish are bad, some fish you can always eat: they’re always fat.

71. Ara loogal oonkin biindany oonkin. Ara layiid oonkin.

Ara loogal oo-n-k-i-n biindany
 other old 3M.IRR-TR-FUT.TR-do/say-CONT not.fatty
oo-n-k-i-n. Ara laya
 3M.IRR-TR-FUT.TR-do/say-CONT other fatty
oo-n-k-i-n.
 3M.IRR-TR-FUT.TR-do/say-CONT

Others are bad and don't have good fat. Others will get fat.

72. Ginyinggon lalin ginyinggon barrgana ginyinggon jalalay boonyjamb arar joogarr aarli," injoonoojirr.

Ginyinggon lalin ginyinggon barrgan ginyinggon
 then summer then cold.season then
jalalay boonyja=jamb arar joogarra aarli,"
 warm.up.time all=REL all.kinds 2A.POSS fish
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO

Then it will be *lalin* season (married turtle season, in November) and the South-East wind will blow, then *jalalayi* season is all different," he told them.

73. "Galamb arr ngandan biila biilamb darr ngankarajoogarra. Laamboo ngankimijoogarra," injoonoojirr.

"*Gal=jamb arr nga-n-d-an biila biila=jamb darr*
 wander=REL go 1M-TR-do/say-CONT again also=REL come
ng-an-k-ar-a=joogarra. Laamboo
 PST-TR-FUT.TR-pierce-FUT=2A.IO later
ng-an-k-i-mi=joogarra,"
 PST-TR-FUT.TR-3M-search.for=2A.IO
i-n-joo-na=jirr.
 3M-TR-do/say-REM.PST=3A.IO

"Right, I'm going but I will come back again to you. I'll come back later," he told them.

74. Ginyinggo boor ingarralan jarr ingarralan oola ingoomoogarinyjina jirrjirrb injoonoo.

Ginyinggo boor i-ng-arr-jala-n jarri
 from.there look.around 3M-PST-1AUG-look.at.self-CONT this

i-n̄g-arr-jala-n *oola i-n̄g-moogar-inyji-na*
 3M-PST-1AUG-look.at-CONT cloud 3M-PST-make-REFL-REM.PST
jirrjirr=b i-n̄-joo-na.
 stand=REL 3M-TR-do/say-REM.PST

Then they saw that clouds formed (themselves) where he was standing.

75. *Wirr inyjarmin* “*galamb arr ngandan. Arra goolarrganyj anggirr-goord nganama joogarra ngananagoorr;*” *injoonoojirr.*

Wirr i-ny-jarrmi-n “*gala=jamb arr nga-n-d-an.*
 go.up 3M-PST-rise-CONT well.then=REL go 1M-TR-do/say-CONT
Arra goo-la-rr-ganyji anggirrgoord nga-na-ma joogarra
 NEG 2A-IRR-AUG-forget whatever 1M-TR-put 2A.POSS
ng-arnan-a-goorr; *i-n̄-joo-na=jirr.*

1-TR-[give-REM.PST=2A.DO 3M-TR-do/say-REM.PST=3A.IO

He rose up, “I’m going now. Don’t forget anything I put here and gave you,” he said to them.

76. “*Galab arr ngandan, joorrgo,*” *injoonoojirr.*

“*Gala=b arr nga-n-d-an, joorrgo,*”
 well.then=REL go 1M-TR-do/say-CONT goodbye!
i-n̄-joo-noo=jirr.

3M-TR-do/say-REM.PST=3A.IO

“I’m going. Goodbye,” he said.

77. *Wirr inyjarmin oolon barda garndingan.*

Wirr i-ny-jarrmi-n ool-on barda garndi-ngan.
 go.up 3M-PST-rise-CONT cloud-LOC off above-ALL

He rose up on a cloud off to heaven.

2.2. BDI1: How we know that Bardi people have always been here

This narrative was given by Jessie Sampi in 2001, in response to my questions about the Bardi origin legends reported in Dixon (1996). The sources of those legends are not given in that article and we have been unable to trace them; this is discussed further in §2.11.1 above. This text sets out the reasons why Bardi people should be considered the long-standing traditional owners of Bardi country.

1. *Milimil ingorron amboorinynim araboorda darr angarrarana, Bardi ambooriny ininggijing milimilon. Arramba.*

Milimil i-ng-orr-o-n ambooriny-nim ara
 write 3M-PST-AUG-poke-CONT people-ERG another
booroo=barda darr a-ng-arr-ar-ana, Bardi ambooriny
 place=maybe come 1-PST-AUG-pierce-REM.PST Bardi people
i-ni-ng=gij-ng milimil-on. Arra=amb.
 3M-be.located-inst=very-inst paper-LOC NEG=REL

People have written that Bardi people came from somewhere else, a long time ago. But it's not true.

2. *Arra ningarrard ngaliyijin ngaynim.*

Arra ningarrarda nga-li-yi=jin ngay-nim.
 NEG believe 1M-IRR-do/say=3M.IO 1MIN-ERG

I don't believe that.

3. *Bardi ambooriny, aarlimay, aarlibarnangg, oola, gardamb ingarrala-najirr irr ambooriny aarl agal goorlil, nimoonggoon anjoon goorrir anggirrgoordoo, ginyinggon joonamb ingarrarlan.*

Bardi ambooriny, aarlimay, aarlibarnangg, oola, gard=amb
 Bardi people food shellfish water already=REL
i-ng-arr-ala-na=jirr irr ambooriny aarl agal goorlil,
 3M-PST-1A-see-REM.PST=3A.IO they people fish and turtle
ni-moonggoon a-n-joo-n goorrir anggirrgoordoo,
 learn 1-TR-do/say-CONT fig.tree whatever
ginyinggon nyoon=amb i-ng-arr-a-rl-an.
 then there=THUS 3-PST-AUG-TR-eat-CONT

Bardi people know about bush food, fish, the water and tides, they've been living with this food, they know about these things and we are used to eating all these things.

4. *Arroodoomoordoo ginyingg arroodoo marrirborla, arrmoonggoon jawal, arrmoonggoon jamba gamardajamoo jardarr ingarrananamoodoo, aarlibarnangga, aarlimay, arrmoonggoon ingaramana, anggigan marlin, arra gayaryoon wiliwil angoorrooloongan, gardilinya aarli, anggirrgoorda, gardo angirrinyanan arrmoonggoonb ingarra-managij jamoogamardanimjardirr.*

Arroodoo=moordoo ginyinggi arroodoo marrir-borla,
 1AUG=1AUG.DO 3MIN 1AUG older.sister-younger.sister
arr-moonggoon jawal, arr-moonggoon jamba
 1AUG-know story AUG-know WHEN
gamarda-jamoo *jarda=rr*
 maternal.grandmother-maternal.grandfather 1AUG.POSS=3A
i-ng-arra-na-na=moord, *aarlibarnangg,*
 3M-PST-AUG-give-CONT-REM.PST=1A.DO fish
aarlimay, arr-moonggoon i-ng-arr-a-ma-na, *anggi-ngan*
 food AUG-know 3M-PST-AUG-put-REM.PST what-ALL
ma-rli-n, arra gayar-yoon *wiliwili*
 GER-eat-CONT NEG white.person-SOURCE fishing.line
a-ng-oorr-ooloong-na-n, *gardiliny* *aarli,*
 1-PST-AUG-collect-CONT-REM.PST monkey.fish fish
anggirrgoorda, gardo a-ng-arr-inya-na-n
 whatever still 1-PST-AUG-get-CONT-REM.PST
arr-moonggoon=b i-ng-arr-a-ma-na=gij
 1A-know=REL 3M-PST-AUG-TR-put-REM.PST=very
jamoo *gamarda-nim=jard-irr.*
 maternal.grandfather maternal.grandmother-ERG=1A.IO=3A

Us people, we know the stories our grandparents taught us, about shell-fish and fish: they taught us what to eat. We didn't go fishing with white people's fishing lines; we caught monkeyfish and all sorts of things, and we still know those things which our grandparents taught us.

5. *Arramb ningarrard alarramijirr gayarjoon, “ara boor darr goongar-rarayin nyalab,” ininba milimilgoondarr.*

Arra=jamb ningarrarda a-la-rr-a-ma=jirr
 NEG=REL believe 1-IRR-AUG-put=3A.IO
gayar-joon, “*ara booroo darr*
 white.person-SOURCE another place come
goo-ng-arr-a-ra=jin *nyalab,” i-ni-n=ba*
 2A-PST-AUG-TR-pierce=3M.IO over.there 3M-be.located-PRES=REL
milimili-goondarr.
 book-LOC₂

That's why we don't believe those white people when they say, “you came here from somewhere else” and when they write it on paper.

6. *Gardamoord jarri Iwanyoon jardirr jamoogamard arroodoob jardirr, (anggi) bardoonoo garadard angarralinang gayar, nyalab arr injoona aamba ginyinggarda jarda jamoo, angg inamanajard gamard jarramba malarrngan.*

*Garda=moord jarri Iwany-oon jard-irr
 still=1A.DO this Sunday.Island-LOC 1A.POSS-3A
 jamoo-gamarda arroodoob=b jarda,
 maternal.grandfather-maternal.grandmother 1AUG=REL 1AUG.POSS
 (anggi) bardoon garadard a-*ng-arr-ali-na-n*
 what skin lightskinned 1-PST-AUG-TR-move-REM.PST-inst
 gayar; nyalab arr i-*n-joo-na* aamba
 white.person over.there go 3M-TR-do/say-REM.PST man
 ginyingg=arda jarda jamoo, angg
 3MIN=INTERROG 1A.POSS maternal.grandfather something
i-n-ma-na=jard gamarda jarri=jamb
 3M-TR-put-REM.PST=1A.IO maternal.grandmother this=REL
 malarr-*ngan*.
 wife-ALL*

Our grandparents were on Sunday Island and a light-skinned man came to visit them, and he made our grandmother his girlfriend.

7. *Ginyinggamba jard birrii boolgar, bard gooloo jarri jard maanka.*

*Ginyinggamba jarda birrii boolgar, barda gooloo jarri jarda
 and that's why 1A.POSS mother white but father
 maanka.
 this 1AUG.POSS black*

That's why our mother's white, but our father's black.

8. *Gard Iwanyoon, jarr anggoobooryoon, Barnaradooyoon ngoonyjoon, gala goorrmoonggoon Borrgoron jiiba agal Marnbij Ardinoogoonyinnyiyoona amb jarda gooloo arroodoo.*

*Gardi Iwany-oon, jarri anggoobooyoon,
 already Sunday.Island-LOC this somewhere-SOURCE
 Barnaradooyoon ngoonyjoon, gala goorr-moonggoon
 B.-SOURCE only.this now 2A-knowledge
 Borrgoron jiiba agal Marnbij Ardinoogoonyinnyiyoona
 Brown's.homestead here and Mission.Bay Shenton.Bluff*

ginyinggi-yoon=jamb jarda gooloo arroodoo.

3MIN-SOURCE=REL 1A.POSS father 1AUG

Our father was from Barnarad area, Borrogoron, Marnbij, and Ardi-noogoon area.

9. *Barnanggarrgidi, arramba irrmoonggoon baybirr arrab jardirr jamoo-gamarda baawa jardirr.*

Barnanggarr=gid, arra=jamb irr-moonggoon baybirr arra=b
 now=TEMP NEG=REL 3A-know behind NEG=REL
jard=irr jamoo-gamarda baawa
 1A.POSS=3A maternal.grandfather-maternal.grandmother child
jarda.
 1+2A

Nowadays our children don't know the things our grandparents taught us.

10. *Gala gayarmarr irral wiliwili irroongooloong agal anggirrgoord gayarmarr.*

Gala gayar-marr i-rr-al wiliwili
 now white.person-SEMLB 3-AUG-live fishing.line
i-arr-a-ngooloo-ng agal anggirrgoord gayar-marr.
 3M-AUG-TR-throw-APPL and all.that white.person-SEMLB

They fish and throw their lines and do other things like white people.

11. *Galamb niindoo barnkardardamb.*

Gal=amb niindoo barnkard=ard=jamb.
 well=REL maybe end=INTERROG=REL

I think it's all finished now.

12. *Arrmoonggoon nyirroogoordoo ingarralanjardirr ambooriny milon.*

Arr-moonggoon nyirragoordoo
 1A-know how
i-ng-arr-alal-an=jard=irr ambooriny milon.
 3M-PST-AUG-follow-CONT=1A.IO=3A.DO people long.ago

We are the only ones left who know how they used to live.

- ### 13. *Gala barnkarda.*

Gala barnkarda.

that's.it

That's the end.

2.3. LPB: Story about a crocodile at Pender Bay

Jessie Sampi told this story to Claire Bowern in 2001 after a fishing trip to Pender Bay, on the western side of the Dampier Peninsula.

- ## 1. *Booroo nyanbirroonony.*

Booroo nyanbirroonony.

place other.side

It's a place on the other side.

- ## *2. Bardi bard arr angirrin Goorrbarlgoonngan.*

Bardi barda arr a-ng-irr-i-n Goorrbarlgoon-ngan.

Bardi away go 1-PST-AUG-do/say-CONT Pender.Bay-ALL

Yesterday we went to Pender Bay.

- ### *3. Nyoonaamba jiiny nganarjin booroo.*

Nyoono=amb jiiny ng-n-ar=jina booroo.

there=REL point.at PST-TR-pierce=1 M.POSS place

I pointed out a place.

4. *Nganjilngijirr jawal amboorinynim ingirrilngananajard.*

Nga-n-jilngi=jirr jawal ambooriny-nim

1M-TR-tell=3A.IO story people-ERG

i-n̩g-i-rr-i l̩ngi-na-na=jard.

3M-PST-AUG-tell-CONT-REM.PST=1A.IO

I told a story that people used to tell us.

Booroo garndi bordijangarr oola inin.

- Booroo garndi boordij oola i-ni-n.*

place top really big water 3M-be

Over there there's a big lagoon.

6. *Oolab inarn wiinya indanjamb.*

Oola=b i-n-ar-n wiinya i-n-d-an=jamb.
rain=REL 3M-TR-pierce-CONT full 3M-TR-do/say-CONT=REL

When it rains it becomes full.

7. *Linygoorroogid nyalab arr indan daab indan nyoonoo o, ininjamba ginyingg arinyjangarr linygoorr.*

Linygooroo=gid nyalab arr i-n-d-an daab
crocodile=TEMP from.this.side go 3M-TR-do/say-CONT climb.up
i-n-d-an nyoonoo o, i-ni-n=jamb
3M-TR-do/say-CONT there and then
ginyingga arinyj=angarr linygoorr.
3M-be.located-CONT=REL 3MIN the.very.one crocodile

There's a crocodile that climbs up from there, a single crocodile that lives there.

8. *Garrjarlngan inminjal booroo, booloomannganbard inminjal booroo, gardo boorroonganbard.*

Garrjarl-ngan i-n-minjal booroo, boolooman-ngan=barda
frog-ALL 3M-TR-wait.for place bullock-ALL=maybe
i-n-minjal booroo, gardo boorroo-ngan=barda.
3M-TR-wait.for place still kangaroo-ALL=maybe

He might be looking for frogs, for bullock meat, or for kangaroo.

9. *Bardambmin ininirr noonyjoo, inkalirr.*

Bard=amb=min i-ni-n=irr noonyjoo,
away=REL=when 3M-be.located-CONT=EMPH? alive
i-n-kal=irr.
3M-TR-live=EMPH?

He stays alive in there.

10. *Barnmin lardab indan ginyingga oola, bardagid yardab indan anyjamardan gaarrangan.*

Barn=min larda=b i-n-joo-n ginyingga oola,
that.way=when down=REL 3M-TR-do/say-CONT 3MIN water
barda=gid yardab i-n-d-an anyja-mardan
away=TEMP crawl 3M-TR-do/say-CONT give.away-DIR

gaarra-ngan.
salt.water-ALL

When the water goes down, then he crawls back to the ocean.

11. *Nyoonoo, joobool indan gaarragoon.*

Nyoonoo, joobool i-n-d-an gaarra-goon.
there swim 3M-TR-do/say-CONT salt.water-LOC

Now he's swimming in the sea.

12. *Biilagid aralgab inarn oola bilarr daab indan niindoo, ginyingginarda linygoorr, gard ararda, arramb arrmoonggoon.*

Biila=gid aralga=b i-n-ar-n oola bilarr
again=TEMP next.day=REL 3M-TR-pierce-CONT rain swamp
daab i-n-d-an niindoo, ginyinggin=arda
climb.up 3M-TR-do/say-CONT maybe that.same.one=maybe
linygoorr, gardi ar=arda, arr=amb arr-moonggoon.
crocodile yet another=maybe NEG=REL 1AUG-know

When it gets wet again he climbs back up, I guess, maybe the same crocodile, maybe a different one, we don't know.

13. *Iyi, barnkarda gala.*

Iyi, barnkard gala.
yes enough now
That's the end.

2.4. AYI1: Fish traps (*ayin*)

Jessie Sampi told this story to Claire Bowern in 2001 as part of a series of vernacular definitions (that is, short texts in Bardi which define and describe a particular word). It's a story about how Bardi people used to use *ayin* stone fish traps. *Ayin* are one of several types of traps used by Bardi people.

1. *Ayin jina jawal nganjilnganoogarr.*

Ayin jina jawal nga-n-jilngi-n=joogarra.
fish.trap 3M.POSS story 1M-TR-tell-CONT=2A.IO

I am telling you all a story about fish traps.

2. *Jamoonim jard inanggananamoord ayinngan.*

Jamoo-nim *jard*
 maternal.grandfather-ERG 1A.POSS
i-na-ng-ga-na-na=moord *ayin-ngan.*
 3M-TR-PST-take-REM.PST-REM.PST=1A.DO fish.trap-ALL
 Our grandfather used to take us (to catch fish in) fish traps.

3. *Aralga boordaborda inamanana ayin gooljoo, goolboogid inamanana-jin.*

Aralga boorda i-na-ma-na-na *ayin* *gooljoo,*
 next.day prepare 3M-TR-put-CONT-REM.PST fish.trap grass
goolboo=gid i-na-ma-na-na=jin.
 rock=TEMP 3M-TR-put-CONT-REM.PST=3M.IO

He used to fix the fish trap. He added spinifex grass and he straightened the rocks (he weighted the grass with rocks so that the tide doesn't take it away).

Note: BE added the clitic =*gid* when working through the text, to make it clear that the sense is that they weighted the grass with rocks so that the tide doesn't take it away.

4. *Jagoordgid injoonana baalingan barda.*

Jagoord=gid i-n-joo-na-n *baali-ngan barda.*
 return=TEMP 3M-TR-do/say-REM.PST-CONT camp-ALL off

Then he used to go back home.

5. *Mooyoondgid aralga, “Way!,” injoonanajard.*

Mooyoond=gid aralga, “Way!,”
 morning=TEMP next.day Come.on!
i-n-joo-na-na=jard.
 3M-TR-do/say-CONT-REM.PST=1A.IO

Next morning he would say to us, “Come on! Let's go fishing!”

6. *Jooboolgid angirrinana gaarragoon arrmarlang doombooldoombool angirrinana, aarligid arinyjalboora ingarranana.*

Joobool=gid a-ng-irr-i-na-na *gaarra-goon*
 splash=TEMP 1-PST-1AUG-do/say-CONT-REM.PST salt.water-LOC
arr-marla-ng doombool-doombool
 1AUG-hand-INS slap.water-REDUP

*a-ng-irr-i-na-na, aarli=gid arinyjalboora
 1-PST-1AUG-do/say-CONT-REM.PST fish=TEMP one.place
 i-ng-arr-a-na-na.
 3M-PST-1AUG-be.located-REM.PST*

We used to jump in the water and splash it with our arms so that the fish stayed in one place.

Note: The locative marker *-goon* was added by BE in 2008, and she removed =*gid* after *gaarra*.

7. *Angirriminjalanana gaarra inyjoodinanamarr, niimanangarr aarli in-garrardinana ayinkoon boogoon.*

*A-ng-arr-minjala-na-na gaarra
 1-PST-1AUG-wait.for-CONT-REM.PST tide
 i-ny-joodi-na-na-marr, niiman=angarr aarli
 3M-PST-dry.up-CONT-REM.PST-sembl plenty=absolutely fish
 i-ng-arr-gardi-na-na ayin-koon boogoon.
 3M-PST-1AUG-go.inside-CONT-REM.PST fish.trap-LOC inside*

We used to wait for the tide to go out, and (usually) lots of fish had gone inside the fish trap.

8. *Ginyinggon ongorronyinanirr.*

*Ginyinggon o-ng-orr-onyi-na-n=irr.
 then 1-PST-1AUG-kill-CONT-REM.PST=3A.DO*

Then we killed them.

9. *Bardagid angarrananirr niimanangarr aarli baalingan.*

*Barda=gid a-ng-arr-a-na-n=irr
 away=TEMP 1-PST-1AUG-take-CONT-REM.PST=3A.DO
 niiman=angarr aarli baali-ngan.
 plenty=absolutely fish camp-ALL*

We used to go home with lots of fish.

10. *Angarramarrajanagidirr, angarrarlinanirr, moorrgardamb daag angirrinan.*

*A-ng-arr-a-marra-na-na=gid=irr,
 1-PST-AUG-TR-cook:.it.cooked-CONT-REM.PST=TEMP=3A.DO
 a-ng-arr-a-rli-na-n=irr, moorrgard=jamb daag
 1-PST-AUG-TR-eat-CONT-REM.PST=3A.DO feel.full=REL sleep*

a-n̄g-irr-i-na-n.

1-PST-AUG-do/say-CONT-REM.PST

We used to cook them, and we used to go to sleep with a full stomach.

2.5. COF1: Story about a tree coffin

Nancy Isaac told this story to Claire Bowern in 2001. It's a story that her father used to tell about when he was a little boy.

- ## 1. *Aamb inyjiibina.*

Aamba i-ny-jiibi-na.

man 3M-PST-die-REM.PST

A man had died.

- ## 2. *Nyoonamb ingarraman garndi, jarrgandinygoon.*

*Nyoon=amb i-ŋg-arr-ma-n garndi,
there=REL 3M-PST-1AUG-put-REM.PST top
jarrgandiny-goon.*

So they put him up high, in a tree coffin.

- ### 3 Ingananagid nganyiiirrgoordal aalgaa goovarra irriara aalgaa

*I-nga-na-na=gid nganyjigoord-al aalga,
3M-1M-be.located-REM.PST=TEMP how.many-INDEF day
gooyarra irrjara aalga.
two three day*

He was there I don't know how many days, maybe two or three days.

4. Aralga barn ingirrinijin, “joo anggarrayarr barda,” ingirrinijin ngajana gooloo.

Aralga barn i-ŋg-irr-i-ni=jin, “joo
another.day tell 3M-PST-AUG-do/say-REM.PST=3M.IO 2M

1-FUT-1AUG-take-FUT=2M.DO off

*i-n*g*-irr-i-ni=jin* *ngajana gooloo.*

3M-PST-AUG-do/say-REM.PST=3M.IO 1M.POSS father

One day they told him (my father), "We'll take you somewhere," they told my father.

5. "Joo anggarriyarri bard arrjamb anja bard anjala ngaarr aamba nyoonoo joomboongan.

"*Joo a-n-gg-arr-i-ya=rri barda arr=jamb anja bard 2M 1-FUT-1AUG-take-FUT=2M.DO off go=REL away off a-n-jala ngaarri aamba nyoonoo joomboo-ngan.*
2M-TR-see ghost man there bereaved.sibling-ALL

"We'll take you. You walk first and go ahead by yourself. You want to see the dead man."

6. *Roowil annya ngoordingan.*

Roowil a-n-nya ngoordingan.

walk 2-TR-catch alone

"Walk off alone."

7. *Barda roowilroowil ingirrinyan, nyoon ingarrjalgin, baybirr marlmarl ingirrin aamba.*

Barda roowil-roowil i-ng-arr-inya-n, nyoonoo away walk-walk 3M-PST-AUG-catch-CONT there i-ng-arr-jalgi-n, baybirr marl-marl 3M-PST-1AUG-hide-CONT behind be.quiet-stop i-ng-irr-i-n aamba.
3M-PST-AUG-do/say-CONT man

They men walked and they hid, they sat down quietly.

8. *Ngajana gooloo bard roowil innyana gala ngoordingan.*

Ngajana gooloo barda roowil i-n-nya-na gala 1M.POSS father off walk 3M-TR-catch-REM.PST now ngoordingan.
alone

My father walked off alone.

9. *Roowil innyana o, jirrjirr injoonana biila inyjarginan.*

Roowil i-n-nya-na o, jirrjirr i-n-joo-na-na walk 3M-TR-catch-REM.PST oh stand 3M-TR-do-CONT-REM.PST biila i-ny-jargi-na-n.
also 3M-PST-be.afraid-CONT-REM.PST

He walked for a while, then he held back, standing there, getting frightened.

10. *Ginyinggon roowil innyana, “anggi angan gala ngalarga?”*
Ginyinggon roowil i-n-nya-na, “anggi angan gala
 then walk 3M-TR-pick.up-REM.PST why why now
nga-l-arg-a?”
 1M-IRR-be.afraid.of-FUT

He kept on walking. “Why should I get frightened?” (he asked himself).

11. *Roowil innyana lagal ingganyin garndi.*

Roowil i-n-nya-na lagal i-ng-ganyi-n garndi.
 walk 3M-TR-catch-REM.PST climb 3M-PST-climb-CONT top

He kept on walking and climbed up on top.

12. *Nyoon inganana garndi jarrgandinygoon aamba, ginyingg jarr inganana, ilogo injalanan.*

Nyoonoo i-ng-na-na garndi
 there 3M-PST-be.located-REM.PST top
jarrgandiny-goon aamba, ginyinggi jarri
 tree.coffin.platform-LOC man 3MIN this
i-ng-na-na, ilogo i-n-jala-na-n.
 3M-PST-be.located-REM.PST side 3M-TR-look.at-CONT-REM.PST

There was the man high in the tree coffin, he saw him there, lying on his side.

13. *O: nyalab boor ingarralana, arangnim aamba nyalab darral ingarrana baybirrony, roowil ingirrinya, darr ingarranajin.*

O nyalab boor i-ng-arr-jala-na, arang-nim
 oh over.there look.around 3M-PST-AUG-look.at-REM.PST others-ERG
aamba nyalab darral i-ng-arr-a-na baybirrony,
 man over.there come.out 3M-PST-AUG-take-REM.PST after
roowil i-ng-irr-inya-n, darr
 walk 3M-PST-AUG-catch-CONT come
i-ng-arr-a-na=jin.
 3M-PST-AUG-bring-REM.PST=3M.IO

They looked around, those other men who were coming along behind, they were walking, coming toward him (to check if he was frightened or not).

14. “*Gala yoorr anama balab*,” *ingirrinijin*.
Gala yoorr a-na-ma balab,
now come.down 2-TR-TR-put here
i-ng-irr-i-na=jin.
3M-PST-AUG-do/say-REM.PST=3M.IO
“Hey, you get down here!” they said.
15. *Yoorr inaman balab*.
Yoorr i-na-ma-n balab.
come.down 3M-TR-put-CONT here
He came down.
16. *Ginyinggon bijj o, ingoorroomoonggoorranan ginyingg aamba, gaanyji-min injoonan bardoon boonyja loogal injoonanajin*.
Ginyinggon bijj o, i-ng-oorr-moonggoorra-na-n
then there oh 3M-PST-AUG-hold.up-CONT-REM.PST
ginyinggi aamba, gaanyji=min i-n-joo-na-n
3MIN man skeleton=when 3M-TR-be.alive-REM.PST-CONT
bardoon boonyja loogal i-n-joo-na-na jina.
skin all old 3M-TR-do/say-CONT-REM.PST 3M.POSS
They used to wait until the man’s flesh rotted and he became just skin and bone.
17. *Ingirrinyananagid jin gaanyji ingarramananamba baarlgoon*.
I-ng-irr-inya-na-na=gid jina gaanyji
3M-PST-AUG-pick.up-CONT-REM.PST=TEMP 3M.POSS bone
i-ng-arr-a-ma-na-n=amb baarl-goon.
3M-PST-AUG-TR-put-CONT-REM.PST=REL paperbark-LOC
They would pick up his bones and then put them in paperbark.
18. *Ingororrgondondin baarlgoon*.
I-ng-arr-barrganda-n baarl-goon.
3M-PST-AUG-tie.around-CONT paperbark-LOC
They’d tie them up in the paperbark.

19. *Ingarrananamba, ingorrondinan jardalngan agal booroo jirron ingar-rabalanan jin gaanyji ginyingg aamba.*

I-n-g-arr-ar-na-n=jamb,
 3-PST-AUG-perce-CONT-REM.PST=THUS
i-n-g-gondi-na-na jardal-ngan agal booroo
 3M-PST-tie.up-CONT-REM.PST bone.pillow-ALL and place
jirr-on i-n-g-arr-a-laba-na-n jina gaanyji
 3A.POSS-LOC 3M-PST-AUG-have-CONT-REM.PST 3M.POSS bone
ginyinggi aamba.
 3MIN man

They'd tie it up and use it for a bone pillow and they'd keep the bones of the people in their houses.

2.6. ARL2: Story about catching fish with *ilngam* fish poison

David Wiggan told this story to Gedda Aklif in 1990. It's a short story about how to kill fish with *ilngam* fish poison, one of the two plants used to stun fish so that they can be easily speared.

1. *Aarli arralan barrbal arroongoorribinirr janbal arranirr.*

Aarli a-rr-ala-n barrbal
 fish 1-AUG-live-CONT golden.lined.spinefoot
a-rr-ngoorribi-n=irr janbal
 1-AUG-run.away-CONT=3A.DO round.up
a-rr-a-n=irr
 1-AUG-[give]-CONT=3A.DO

When we see *barrbal* fish, we chase them. We round them up.

2. *Gaarra arrangajiman irrolong, loolool irrgardin aarli bangalon.*

*Gaarra a-rr-nga-jim-n irrol-*ng*, lool-ool*
 sea 1-AUG-kill.by.hitting-CONT spear-INS enter-REDUP
irr-gardi-n aarli bangal-on.
 3A-go.inside-CONT fish reef.crevice-LOC

We beat the sea water with spears and they go through the gap.

3. *Ginyinggon arriminjal gaarra marnanyib iyoodin, ginyinggon orronirr irrolong aarli.*

Ginyinggon a-rr-minjal gaarra marnany=b i-yoodi-n,
 then 1-AUG-wait.for tide reef=REL 3M-dry.up-CONT
ginyinggon o-rr-o-n=irr irrol-ng aarli.
 then 1-AUG-spear-CONT=3A.DO spear-INS fish

Then we wait for the tide to leave the reef dry and we spear the fish.

4. *Arra gorror jina irrola ilngamong orronyirr. Ginyinggon loagal irrin.*

Arra gorror jina irrol ilngam-oong o-rr-ony=irr.
 NEG if 3M.POSS spear poison.root-INS 1-AUG-kill=3A.DO
ginyinggon loagal i-rr-i-n.
 then bad 3-AUG-do/say-CONT

If we don't have spears we poison them. Then they start to feel bad.

5. *Gala aarli arinyangarr arralan ginyinggon gala niimana goondoorr irralan.*

Gala aarli arinyj a-rr-ala-n ginyinggon gala niimana
 now fish just.one 1-AUG-live-CONT then now very.many
goondoorr i-rr-ala-n.
 get.giddy.and.die 3M-AUG-live-CONT

First one, then many fish get dizzy.

6. *Ginyinggon gala boonyja goondoorr irralan.*

Ginyinggon gala boonyja goondoorr i-rr-ala-n.
 then now all get.giddy.and.die 3M-AUG-live-CONT

Then they all get dizzy and die.

7. *Irrjiimbin ginyinggon arrooloonganirr, ginyinggon jolonjolon arramanirr irrolon.*

I-rr-jiibi-n ginyinggon a-rr-ooongo-an=irr,
 3M-AUG-die-CONT then 1-AUG-collect-CONT=3A.DO
ginyinggon jolonjolon a-rr-a-ma-n=irr irrol-on.
 then string.on.spear 1-AUG-TR-put-CONT=3A.DO spear-LOC

They die, then we pick them up and we put them on our spears.

8. *Ooranynim oolordon irramanirr, wiinya irramanirr oolarda.*
Oorany-nim oolard-on i-rr-a-ma-n=irr, wiinya
 woman-ERG coolaman-LOC 3M-AUG-TR-put-CONT=3A.DO fill.up
i-rr-a-ma-n=irr òolarda.
 3M-AUG-TR-put-CONT=3A.DO coolaman
 The women put them in their baskets; they fill them up.
9. *Ginyinggon barda rawin arraman baaliboorngan. Ginyinggon arrooloo-rroon noorroo.*
Ginyinggon barda rawin a-rr-a-ma-n baaliboor-ngan.
 then off go.as.group 1-AUG-TR-put-CONT camp-ALL
Ginyinggon a-rroo-loorroo-n noorroo.
 then 1-AUG-light-CONT fire
 Then away we all go to the camp. Then we light a fire.
10. *Ginyinggon arramarranirr aarli.*
Ginyinggon a-rr-a-marra-n=irr aarli.
 then 1-AUG-TR-burn-CONT=3A.DO fish
 Then we cook the fish.
11. *Boonyja imbanjanjinana barninyarrang, arra barnanggarrmarr gardi jin aarli innyan ngoordingan goorlil.*
Boonyja i-m-banj-anji-na-na barninyarrang, arra
 all 3M-PST-share-REDUP-CONT-REM.PST the.whole.thing NEG
barnanggarr-marr gardi jina aarli i-n-nya-na
 today-SEML yet 3M.POSS fish 3M-TR-catch-REM.PST
ngoordingan goorlil.
 alone turtle
 People used to share everything, but today they get fish and turtle for themselves.

Further textual materials

There are four books of Bardi narratives available to Bardi people. For reasons of cultural sensitivity, Bardi speakers have asked that the unpublished materials not be made publicly available in their entirety at this stage. The ‘blue book’ (Bowern 2002) is a set of selected narratives recorded by Gedda

Aklif and Claire Bowern as part of a Bardi oral history project. Some of those texts were also put in a smaller book (Bowern 1999). Some of the texts recorded by C.D. (Toby) Metcalfe from Tudor Ejai and Johnny Boxer appeared in Hercus and Sutton (1986). Finally, a selection of narratives from Laves' materials was typed, translated, and annotated in 2003.

Notes

Chapter 1

1. Others are Tangkic, in the Gulf Country and Mornington Island (on the other side of the country; see Evans 1995), and Bunaban, a small family comprising Bunuba and Gooniyandi, which adjoins the eastern end of Nyulnyulan (though spoken far from Bardi); see Harvey and Reid (1997).
2. The cases are (in Love's orthography) a general locational case *-nanje*, an instrumental *-njininge*, an ablative *-alp* and an allative *-guru*.
3. Preverbs are also often called 'coverbs' in the literature on Australian complex predicates. See Schultze-Berndt (2000) and McConvell and Bowern (2011b) for examples; both terms are used in typology in other languages to refer to different constructions. See Chapter 13 for the definitions assumed in this work.
4. This is in contrast to some other hunter-gatherer groups, both within Australia and elsewhere, who do not have distinct names for their own or surrounding languages.
5. There was a subsequent epidemic on Sunday Island in 1919, where the mission records indicate 6 deaths between December 30th, 1919 and January 3rd, 1920, and many more in the adjacent months, out of a population of less than 100.
6. Nekes and Worms (1953:19) spell this name as *Iwanjdjun* (i.e. *Iwanyjoon*, which is the unlenited form), as though the stem were *Iwany* rather than *Iwanyi*; that is, it is probably from the Lombadina form of the word.
7. These observations are based on a conversation and elicitation with Nancy Isaac, September 2001. Speakers from One Arm Point talk about the language of Lombadina as being 'heavy' Bardi.

8. There are more Bardi/Jawi materials in Howard Coate's collection, but I do not have permission from Coate's executors to quote from them.
9. While McGregor and Stokes (2004) treat Nimanburru and Jabirr-Jabirr as dialects of Nyulnyul, Nimanburru has several features which indicate that it is a primary branch of Western Nyulnyulan. For example, it has no intervocalic lenition of stops (unlike Bardi) and it retains vowel length (unlike Nyulnyul). Almost nothing is known about Ngumbarl, but the small amount of material recorded by Peile and Bates suggests that it is an Eastern language. The name 'Marangan' is also used occasionally as another dialect belonging to the same group as Yawuru and Jukun. 'Big' and 'Small' are translations of the indigenous names of varieties of the Nyikina language.
10. I cannot identify this language at present. Schmidt (1919) says his data are from Mathew (1899). Mathew credits Joseph Bradshaw (Melbourne) as the supplier of language information from the Napier Range, Kimberley (i.e., Ruby Creek), and Sunday Island. The 'Ruby Creek' language is therefore probably either a Worrorran language or Bunuba.
11. The final *-m* is the gender suffix.
12. The designation of the subgroups as 'Eastern' and 'Western' follows Kimberley Aboriginal terminology rather than literal compass direction, since all the 'Western' languages are to the North of the 'Eastern' ones. The terminology is used because the 'Western' languages are associated with the sea cultures, while the 'Eastern' languages (Nyikina and Yawuru) have cultural ties to the interior desert cultures. Since the sea is to the west of the desert, Bardi and Nyulnyul have come to be known as 'Westerners'. Note also that Nyulnyulan compass terminology is not directly equivalent to English. What is usually translated as 'North' is really much closer to 'North-East', since it is based on the direction of the prevailing winds; see §14.2.4.
13. For example, a Bardi speaker, on being presented with Stokes's (1999) learner's guide to Nyikina, could recognize individual words but could not translate full sentences.
14. I learnt from Bill McGregor in 2002 that Howard Coate burnt all his

Bardi materials at some point in the past, so that another linguist would not have access to the materials. A small amount of material survived and is housed at AIATSIS. I have had access to a tape made of Tygan (the father of Aubrey Tygan) speaking Jawi.

15. Portable housing, a term more evocative than its official name of ‘single men’s quarters.’
16. Other areas of the grammar where I have identified gaps in the corpus but was unable to conduct elicitation include secondary predication, multiple modifiers in the noun phrase, and NP sub-constituent ordering. The earlier sources contain a few morphemes (e.g. -jV; see §6.3.2) which have been unidentifiable in later materials. I list them here for completeness. There are also topics (for example, the semantics of quantifiers) where it was not possible to get all the information I would have liked in the fieldwork time available.
17. I have avoided wherever possible basing frequency judgments on my impressions, since I am not a native speaker of the language and since my impressions are biased by extensive work with written sources; however, there were occasions where, in the absence of a tagged corpus, it was impossible to get accurate counts.
18. The Laves texts contain very little; I presume this is because of the way they were dictated.

Chapter 2

19. A survey was conducted for Native Title purposes but despite the conclusion of the case, its results remain inaccessible to researchers.
20. I point this out because of occasional claims in the literature that hunter-gatherer peoples do not always recognize young and mature members of the same species as the same animal. This may be true for some groups but it is certainly not true for Bardi people.
21. This word is frequently glossed in Aboriginal English as ‘tucker’ and I follow this convention here.

22. They were, however, eaten by Worrorran-speaking people to the North. Nancy Isaac (pers. comm., 2001) described the first time she saw cycad nuts being prepared, when she was a little girl and stayed at the Kunmunya Mission in Ngarinyin territory.
23. Both of these types of poison are given in Aklif (1999) as *Tephrosia crocea*, but this is incorrect.
24. I do not have information on what the hooks were made of, but I assume they were bone or shell, as is common elsewhere.
25. Note that this view of camping and movement between sites implies that there would have been people in campsites who would not have belonged to the area. I have little information about residence patterns, since by the time I began work in this area, Bardi people had been living in missions or communities for several generations.
26. Metcalfe (1975a) has a note that this is a Jawi word. It is in fact a loan from a Worrorran language. Bessie Ejai said in 2011, however, that *ngabaliny* was the Jawi word and *yarnkal* was the Bardi word.
27. This large boomerang has arms of unequal length and resembles the number 7, hence its name.
28. Bardi underwent a sound change in which initial *y* and *w* were lost; compare Nyulnyul *yangk* ‘what’ with Bardi *anggi*, and Nyulnyul *wul* with Bardi *oola* (Nyulnyul loses final vowels and does not have contrastive vowel length). Thus the small number of words in Bardi which begin with these consonants can be identified as loans.
29. This word is homophonous with the word for boughshed, a type of shelter.
30. Note that this word is widespread in the Kimberley and is probably a loan into Bardi, since **riji* would have given *riiyi* by sound change.
31. In Yawuru and the other Western Nyulnyulan languages (which use section systems), *jarndoo* has shifted in meaning to ‘woman’.
32. Abbreviations used in Table 2.4 are the standard ones used in kinship

descriptions and for the most part can be inferred from the plain English designations; B, brother; C, child; D, daughter; e, elder; F, father; H, husband; M, mother; y, younger; Z, sister. Terms can be combined; thus MM is ‘mother’s mother’, FZC is ‘father’s sister’s child’, etc.

33. I have no information on whether the range of these and other kinship terms varies dialectally.
34. Note that because of the way that generations are figured, this does not necessarily mean that the women was much younger than the man, although that was frequently the case. There are situations where someone could be in the same generation as a grandchild but not very different in age. In large families where women begin having children early, the first child of the oldest daughter might not be very different in age from the youngest child of her mother.
35. The fact that there is a category of *ningalmoo* implies that women had some power in land tenure. There is some doubt about the precise meaning of *ningalmoo*, however. Bessie Ejai suggested that the term referred specifically to the woman’s right to be on her husband’s country, because of the fact that she was married to him. However, the older sources (such as Metcalfe (1975a) are fairly clear that the word used to mean the rights accorded to a person through the matrilineal line.
36. This summary is reproduced in part from Bowern (2009) with some corrections.
37. Laura Kling (pers. comm.) tells me that in 2010 when she was working with Bardi speakers, many unidentified words were said to come from Jawi.
38. A further indication of this is the Laves story 120 where a Bardi man and a Worrorra man are standing on opposite sides of a cliff; they do not understand each other’s languages and *because of this* they are turned to stone. The text is given in full in Appendix E.
39. The only story I have recorded that may be related to the one reported by Dixon is that of *Looman*, a mythical island/place to the north-west or west of Bardi country where the spirits of people go when they die;

Dixon may have interpreted this as being a reference to an origin myth. I would not analyze the myth in this way. Note that the area to the northwest of Bardi country is the only area that is unknown, since the northern and northeastern seas were explored (and abutted Worrorran territory), and land extends in other directions. The area to the northwest is thus the only region which is not either well explored or inhabited by known groups. There is no reason to tie the *Looman* story to an origin myth.

40. The Lacepedes are two small islands (little larger than rocks) off the coast of the Dampier Peninsula to the West of Beagle Bay Mission.

Chapter 3

41. A brief description of Bardi phonetics is given in Bowern, McDonough, and Kelliher (in press). There is an earlier sketch in Metcalfe (1971) (which was the basis for the Bardi entry in the UPSID phonological database (Maddieson 1984)) but my analysis departs from Metcalfe's in several ways.
42. The researchers agree in terms of the phoneme inventory of the language, although we do not all transcribe all words the same way. In general, Metcalfe under-differentiates vowel length. I overtranscribed retroflexion in my early field notes, though I later discovered that some of this might have been because of variation among speakers.
43. I do not give absolute counts here because there is some regularization in the transcription which means that the counts might not be quite accurate; however, the general impression of relative frequency holds.
44. There is good evidence for a sound change in Bardi where derived *rrij* sequences were lost. For example, the second person minimal topic marked direct object forms (discussed in §10.3.2 below) are all of the form =*jarr*+the direct object pronoun (cf. *jarrngay* '1MIN.DO'), except for the second person minimal form, which is =*jirri*. This would show the same historical formation as the other topic-marked DO forms if it were from *=*jarrji* with vowel harmony and loss of the stop following the trill. For harmony, see §3.7 below.

45. According to McGregor (1996b), Nekes and Worms (1953) claim that both *e* and *o* are phonemes, but Nekes and Worms (1953:49–50) state that *o* and *u* and *e* and *i* are in free variation, and they used *e* and *o* because it was what they heard, although if their sources used *u* and *i* they kept that spelling (e.g. Capell’s wordlists, which were one of Nekes and Worms’ sources).
46. Both final and non-final second syllables were included, although final vowels, if articulated at all, tend to be longer than unstressed word-internal vowels and include a substantial unvoiced component.
47. Then, as now, the School program is just about the only organization writing Bardi, except for linguists.
48. It is probable that the number of clusters with the glides *y* and *w* as the first member has been underestimated. Previous authors on Bardi (including this author in early work) assumed that glides were not permissible in coda positions, and words in the dictionary with which potentially had glide clusters were syllabified as either *Vyi* or *Vwoo*. It has now become clear that such sequences actually contrast with *VyC* and *VwC*. This is currently being corrected in the dictionary.
49. Following Clements (1990), Clendon (1988), and others I take the sonority scale not as a primitive but as derived from phonological properties of segments and their organization in syllables.
50. The form *ilngama* is also recorded in Metcalfe (1975a).
51. I assume that the fish is so named because of the pebbly appearance of its head.
52. This is an area where an unwarranted assumption of homogeneity among Australian languages has probably led to an incorrect overgeneralization of a particular analysis. It is a great pity that in a desire to emphasize similarities among phonological inventories, Australianists have overlooked differences in phonotactics and allophonic realization.
53. I say ‘appears’ because my data set does not yet allow the requisite individual speaker analysis to determine to what extent the variation in patterns described here is the result of intra-speaker variation or whether

there is consistency at the speaker level. This is the subject of ongoing research.

54. I assume that the ablative case marker *-go* is underlyingly *-go* and not *-gaboo*, though this is what it comes from etymologically. If the suffix were underlyingly *-gaboo*, then it would be disyllabic and a word like **kulinkapu* would presumably be stressed /'kulinkapu/; however, it seems to me to be extremely implausible that the ablative is anything other than *-go* ~ *-o* in Modern Bardi.
55. The root was historically **wa* or **wu*, but sound changes in Bardi have eroded this so that this verb exhibits only the prefixes and suffixes, and no root material.
56. The syllable *ngay* in the line is either the first person minimal pronoun, or a filler syllable. The ‘tree-coffin’ is a metaphor for the canoe which the protagonist is paddling. Bardi *ilma* poetry often involves a series of images expressed by a few words, in some ways rather like haiku.
57. Mark Harvey (pers. comm.) has suggested that the lenition of *g* to *y* in prefixes might be best thought of as a morphologization of a change, since in Australian languages the usual outcome of velar stop lenition is *w*. I take this as an open question; for example, if the real sound change is deletion of the stop rather than lenition to a glide, but stressed vowels do not coalesce, then we might expect automatic glide insertion, the quality of which could be triggered by the surrounding vowels.
58. It also possibly applies to the interrogative clitic =*gard(a)*, but that is difficult to confirm. It is possible that all examples of =*arda* in the corpus come from =*barda* rather than a mixture of =*barda* and =*garda*. Uncontroversial examples of the interrogative clitic =*garda* only surfaced in the 2008 field trip.
59. Some speakers of Bardi denasalize equivalent clusters in English too; Nancy Isaac, for example, has been recorded as saying [sɪk] for ‘sink’, and [kɔlɪwʊt] for ‘Collingwood (football team)’.
60. We could reconstruct **la-* for the intransitive unrealis forms, which would make the obstruent of the root intervocalic (cf. **u-la-gama* ‘he might

laugh'); this would regularly result in *oolama* in Bardi. This contradicts the forms in Warrwa (McGregor 1994b), however, which point to a reconstruction **l*- rather than **la*-.

61. The phonological behavior of the suffix *-injoon* may be an indication that it is a clitic or compounded element rather than a true suffix. If it is a compounded element, it has no meaning as a separate word (it is homophonous with the third person minimal past inflected form of the verb *-joo-* 'it did, it became', but that is clearly unrelated).
62. I assume that the formation of vowel height harmony is the historical result of the treatment of sequences of **agu* and **abu*, both of which become *o*. Thus roots which ended in *a* received the *o*-variant of the suffix. I assume that this has been extended to consonant-final stems which have *a* as the vowel closest to the suffix. Harmony is now, however, a synchronic process which applies to all applicable low vowels in the word (cf. (3.67a) above).
63. The unreduplicated form only appears with the inalienable possessive prefix, as in *nalma* 'head, his head'.
64. 'Infixal' reduplication of a similar pattern to that described for Bardi is found in a number of Northern Australian (non-Pama-Nyungan) languages, and has been most copiously described in Mangarayi (Merlan 1989). The Bardi pattern is clearly recent and the result of the morphologization of a regular sound change which is reflected in other areas of the language.
65. Such a change is implied by *gamarda* 'maternal grandmother, MM', which in the Eastern Nyulnyulan languages is *gamirda*. This word is a loan from a Pama-Nyungan language, however, and it is not certain at what time the loan entered the family.
66. Long vowels are shortened in reduplicants.
67. I note, however, that some Bardi speakers appear to place an [h] on vowel-initial words in English, even when dropping [h] otherwise; thus for some people, the word 'hold' is pronounced [old], but 'old' is pronounced [hold].

Chapter 4

68. Note that the distinction between uninflecting and inflecting word classes would not apply in this manner in most other Nyulnyulan languages, such as Yawuru and Nyulnyul, where preverbs can take inflectional marking. Note that in Bardi also, preverbs may serve as hosts for clause-level clitics, though they take no regular inflectional marking.
69. Joe Blythe (pers. comm.) points out to me that name avoidance, while commonly reported for Australian languages, is seldom supported from analysis of conversational data, where personal names do appear. I do not have enough relevant data to test this for Bardi. In the Laves texts, personal names are used, though naming strategies based on the person's patrilineal estate (*booroo*) are also frequent; see §2.9 for discussion.
70. In functional terms, one might also want to include here the various clausal clitics such as sentence connectives *=min*, *=gid* and *=(j)amba* and the completive particle (=)*gala*.
71. The third type of clitic, simple clitics, does not seem to exist in Bardi, though there may be some argument to be made that some of the verbal quantificational clitics described in §10.5 are bound in the modern language, but have the behavior of simple clitics in the earliest sources.
72. MacSwan (1998) discusses these criteria with respect to the polysynthetic language Southeast Puebla Nahuatl and concludes that several of these criteria are not, in fact, diagnostic of polysynthesis. I include all Baker's criteria for completeness, however.
73. This cannot be the full story for the etymology of this word, however, because *galbajoon* does not show the lenition pattern expected in a such a case. We would expect the form *galba-yoon* in that case. It is possible either that the word is a loan from Nyulnyul or Nimanburru (neither of which shows intervocalic stop lenition), or that there could be another morpheme between the root and the denizen marker which has been deleted.

Chapter 5

74. Dryer (2011) calls this type of marking an ‘inpositional clitic’ and all seven of the languages given as examples are Australian. Further discussion is provided in §8.5.1 and §8.5.2.
75. Dench and Evans (1988) describe a fourth function, ‘associating case,’ which does not appear in Bardi.
76. I assume here that *-goorroo* in ‘doctorman’ is the Yawuru equivalent of the Bardi proprietive *-goordoo* and that this is a loan. Certainly *jalnggoogoorroo* is a widespread word throughout the Kimberley region.
77. Note that this use of *irr* is much more like a demonstrative than a simple number marker. Phrases with *irr*, for example, are always definite. *Gornagijarr irr baawa* cannot mean ‘children [in general] are good’.
78. This is a diagnostic for whether these are nouns or preverbs, though it is not a very good test since the suffix is not very productive. It appears to be true that it only goes on nouns, but it cannot appear with all nouns.
79. This word was later accepted as a possible formation on my 2008 field trip.
80. The *-idi* suffix is also recorded in Nyulnyul, Jabirr-Jabirr and Nimanburu, for example in *djinbindjin-ēd wamb* (Nimb.) ‘a wise man’ (Nekes and Worms 1953:62), *gelj lanybi-ēd* ‘the bowerbird is thieving’ (Nyulnyul, Jabirr-Jabirr) (Nekes and Worms 1953:82). Nekes and Worms (1953:83) records *ēd* (i.e. *-iid* in Karajarri as well, but the only example they give is *bander-ēdi* ‘strong’ (= Bardi *bandooriidi*), which is probably a loan from a Nyulnyulan language. I have found no cognates for *-idi* in other languages outside Western Nyulnyulan, although a suffix with this function is very common. In Nyikina, for example, *-dyinabur(u)* ‘expert’ fulfils the functions that *-idi* does, although *-dyinabur(u)* is not confined to human referents. The Nyikina word for spectacles, for example, is *nimilgarr-dyinabur* (lit. ‘eyes-EXPERT’).
81. Although spontaneous examples were produced, I hesitate to conclude

- that the suffix is productive, given its rarity and the fact that speakers will also produce examples of the ‘expert’ *-iidi* spontaneously, and that is clearly not productive.
82. There is considerable variation in the transcription of retroflexion across Nyulnyulan languages. Stokes (1982a) writes the comitative as containing an apical stop /t/ (written <d>), but the examples in Bardi have a retroflex stop.
 83. A *boongana* is a boy who has been through law and has a hairbelt and pearlshell put on him; see further Aklif (1999). The first verb in (5.30) is not identifiable; it appears to be the verb *-golo-* ‘wear’, but that does not fit semantically. A better fit would be *ingarralanirr* ‘they lived with them’; *a* and *o* appear rather similar in Laves’ handwriting.
 84. While this is an ad-hoc proposed sound change, there are no other examples in the corpus of a final *ng* on a stem which would be suffixed by a form beginning with *b*. If we assume, as per §3.6.3, that coda velar nasals assimilate to the place of articulation of the follow stop, this would give **iinalambooloo*, and nasal dissimilation (see §3.6.4) is attested in such environments.
 85. I suspect that a few examples of items transcribed as =*arr* are actually mishearings of the third person augment direct object marker =*irr*, but I have been unable to confirm this with speakers.
 86. I follow Round (2009) in treating adnominal and relational case marking as a single type of inflection syntactically, though providing arguments for Bardi is beyond the scope of this grammar.
 87. For transparency, and because the rule is an automatic phonetic one, I still write *irrnim* rather than *idnim* in texts. For another example see (5.51), which shows the same effect (although still written *inkoornrim*, for [inkudnim]). Aklif (1994a) varies between writing *idnim* and *irrdnim*, which reflects casual versus careful speech. This is not a general rule of trills in contact with nasals, however, since forms like *irrnga* ‘their name’ are not pronounced [idŋa].
 88. This curlew was actually a *ngaarri* (a devil).

89. I would have expected the form of this suffix to be *-yi* rather than *-i*, and *-yi* is found on a few words.
90. Other languages without ergative/instrumental syncretism include Yidiny (Dixon 1977), Guugu Yimidhirr (Haviland 1979), and Wathawurrung (Blake 1998).
91. Note the difference in allomorphy between *-ng(a)* and the ablative *-(g)o*, the other CV-shaped case marker (discussed in §5.4.5). They are not parallel; the instrumental has allomorphy with final vowel loss, while the ablative has allomorphy with consonant loss.
92. (5.71) is an example where the verb is marked for the applicative (see §12.4, especially §12.4.2.4); as is quite common for applied instruments, however, the noun phrase which describes the instrument by which the action is carried out retains its case marking.
93. The complex predicate to express ‘to write’ is ‘paper-poke’.
94. This example was written down early in Laves’ field trip. It is unknown what the affix on *ngóorra* ‘camp’ is supposed to be. It is not similar to anything else in Bardi, and Laves glosses *ngoorraji* as ‘without fire’, which is clearly incorrect. *Ngóorra* means ‘last night’ and *ngoorriji* means ‘tomorrow’, but neither of these words fits the context. Nor does *ngóorra* normally mean ‘camp’ in Bardi, though such words are found in Pama-Nyungan languages to the south.
95. This implies that speakers have variable underlying forms for words which show this behavior.
96. The difference between *-oon* and *-on* is further clouded by the fact that /u/ in closed unstressed syllables is quite low, closer to IPA [o] than [u]. Therefore at this stage I cannot rule out the possibility that some of the exceptions are mistranscriptions, especially the ones that occur in narratives in fast speech. However, there are enough confirmed exceptions that this is clearly a real phenomenon, and not ‘alternations’ which are simply due to transcription errors.
97. The phrase used for such motion is *daab -nya-*, literally ‘go ashore’; here it is better translated as ‘go’.

98. I gloss *ginyinggon* simply as ‘then’, rather than as the etymologically correct 3MIN-LOC ‘at that, at it’, because the gloss ‘then’ better reflects the way the word is used.
99. *Mooyoon* ‘in the morning’ is clearly related to the word *mooyoo* ~ *mòoyoo*, recorded in Metcalfe (1975a) as ‘daybreak, very early morning’ (I transcribed the vowel as short, but Metcalfe (1975a) has a long vowel). There is no uninflected root **mila*, but there is an adverb *milarra* ‘about to happen, almost happened’, which looks like it is historically a root *mila* combined with the temporal marker *-garra*. The latter only appears fossilized in Bardi (see §5.1.11.1). Both *milarra* and *milon* provide some evidence for a stem **mila*.
100. Note also that many of these place names have what appear to be exceptional locative forms without lenition.
101. This appears to be a regular historical change in Jawi for /ŋ/ in non-initial and non-post-stress position. See §3.6.2 for more details.
102. I have not tested examples such as ‘there is a stick with a dog,’ but even if they are judged as unacceptable, it is impossible to rule out pragmatic reasons rather than grammatical ones.
103. The words that were exceptional in the locative and ablative in taking the consonantal allomorph of the case suffix, despite ending in a vowel, are not exceptional in the source case. The noun *gaarra* ‘sea’, for example is regular in the form *gaarrayoon*.
104. Example (5.180) contains the word *barnyjangarra*; this was given by Laves as part of the phrase *barnyjangarra irrgoordoo* ‘that’s all’; *irrgoordoo* means ‘how’ and the first word in the phrase contains the emphasis clitic =*jangarra*, but the root is not known.
105. While I have not tested this explicitly it would be very surprising, given the size of the corpus and the functions of compounding described here, if more than two items could be compounded.
106. The word *booroo* could also be regarded as a technical term which refers to the patrilineal estates which together make up Bardi country.

107. For the semantics of the interrogative/indefinite form, see §7.6.

Chapter 6

108. Such arguments are very difficult to make, however, and speakers find it difficult to articulate the difference in meaning between the two orders. Moreover, my corpus is not big enough to provide many examples of the postnominal order, and since it is not tagged for part of speech, it is difficult to find examples. This is a point for future research.
109. In fact, it is not true for about half of the Australian languages in a recent survey of numeral meanings; see Zentz and Bowern (2011) for further information.

Chapter 7

110. Another piece of evidence that the non-Pama-Nyungan Kimberley languages do not have have the more familiar singular/dual/plural system is the behavior of Nyikina ‘dual’ and ‘plural’ marking (Stokes 1982a). Nyikina has a suffix, *-mirri*, which is added to the ‘augment/plural’ pronouns to mark something like a ‘dual’. For example, *dyuwa* is ‘you (singular)’ and *gurrgamirri* is ‘you two’. When *-mirri* is added to the first person dual inclusive, however, the result is a trial pronoun ('you and me and him'), not a dual. This is known as a unit augment system. This does not occur in Bardi, however.
111. This usage of the ignorative is also found in codeswitching by some of the oldest Bardi speakers, who say things like ‘who dat *anggi*?’ ‘who’s that person?’.
112. In (7.51a), *Algooroo* is a term of address used by men to call their brothers and male cross and parallel cousins.
113. Another common greeting is *anggi jawal* ‘what’s up?’ (lit. ‘what story?’ or ‘what news?’).
114. The verb form *ngangganji* is unidentifiable. It is a first person future

form of an intransitive verb root, but the root is not otherwise recorded in the Laves collection or other sources.

Chapter 8

115. I composed several short stories in English (for example, there was one about a ‘big scary crocodile with sharp teeth’) and asked speakers to translate them. Speakers did not produce complex noun phrases in such stories, however, even when I drew attention to the pattern and asked for a direct translation.
116. There is some evidence that *agal* ‘and’ can conjoin both full NPs and N’s. In the former case, both items in each NP receive a case marker. In the latter, there is a single case marker.
117. Laves was taking dictation without a recorder.
118. Since all the Bardi speakers I worked with on grammatical elicitation were careful to distinguish between cases where there was no difference in meaning to them, and when there was a difference that they weren’t able to articulate in English, I take this as evidence that—at least for the sentences I asked about—differences in order are stylistic rather than syntactic.
119. This ordering may well also explain a fact established by Gedda Aklif for adnominal case marking. Nouns marked with the comitative case *-nyarr* may precede or follow, but there is a strong preference for the modifier preceding the noun in elicitation, especially when case-marked:
 - a. *Jiidinyarr aamba inyjarralij.*
Jiidi-nyarr aamba i-ny-jarral-ij.
 beard-COMIT man 3-PST-run-PFV
 ‘The man with a beard ran.’
 - b. *?Aamba jiidi-nyarr i-ny-jarral-ij.*
 - c. *[*aamba-nim jiidinyarr] i-n-am-boo-gal goorlil.*
 - d. *Jidinyarr-nim aamba i-na-m-boo-gal goorlil.*

Jiidi-nyarr-nim aamba i-na-m-boo-gal goorlil.
 beard-COMIT-ERG man 3-TR-PST-spear-REC.PST turtle
 ‘The man with a beard speared a turtle.’ (AKL:PE1-4)

120. Apart from three Nyulnyulan languages, the other languages described as having inpositional clitics are the Bunuban languages Goonyandi (McGregor 1990) and Bunuba (Rumsey 2000), along with Anindilyakwa (Leeding 1989) and Kuuk Thaayorre (Hall 1972). Bardi is not included in Dryer’s sample. Bunuban case marking is different from Nyulnyulan, in that case may optionally appear on more than one item in the phrase. Moreover, the member of the phrase which takes the case marker is determined pragmatically rather than distributionally/structurally, as is the case in Nyulnyulan languages. See further McGregor (1989b).
121. One possible analysis would be that case features are only licensed by an element in the specifier position of a DP.
122. Note that *bornko* ‘around’ is another example of a bleached case-marked word; speakers no longer connect it to *baarnka* ‘outside’.
123. Discussion with Jessie Sampi in 2011 implied that this is the case for some examples, but it is not known if this is a general result.

Chapter 9

124. In Bowern (2004b) there was an error where the reflexive/reciprocal suffix and the first applicative marker were reversed. It is corrected here.
125. This information is also summarized in the Bardi dictionary (Aklif 1999) and in Appendix B.
126. Many of these dependencies can be reconstructed to Proto-Nyulnyulan; see Bowern (2012) for more information.
127. Thus past tense and present tense are homophonous in the j-initial roots. This is also the case for some roots beginning with nasals (e.g. -nya- ‘catch’) and laterals. Only the b- and g- initial roots consistently make the distinction, although they are the most common roots, together ac-

counting for about a third of all roots in Aklif (1999). See §9.2 for a more detailed discussion.

128. Note: *-jiidi-* + applicative₁ means ‘touch’ and forms a transitive stem. For discussion of applicatives, see §12.4, and for applicative₁, §12.4.1.
129. The oblique clitics are also called ‘Indirect’ by, for example, Metcalfe (1975b) and Aklif (1993a).
130. I have not called this slot an ‘agreement’ slot *per se* because it does not function the way the other two true ‘agreement’ slots behave. That is, the possessor marking does not cross-reference an external argument in the clause. For example, it is not grammatical to say **Ngajana birrii Broomengan inyjiidinajan*. ‘My mother went to Broome’, with both *ngajana* and *=jan* marking the first person minimal possessor (without dislocation; the sentence is grammatical with the meaning ‘my mother, she went to Broome’). This is in contrast to the oblique clitics, which are true agreement clitics and surface even when another reference appears overtly in the clause.
131. I would expect second person agreement marking to be *jiy*. Alternatively it may be a form of the simultaneity suffix, *-j* (§11.2.7), although in that case I would expect *oonkalj* or *oonkalaj*, not *oonkalij*.
132. I treat applicative marking as syntactic here, since its effects are on the transitivity of the predicate, but not the valency of the root.
133. I use Metcalfe’s orthography and glossing here; in the practical orthography the word would be written *angarramananarr*.
134. Note that Metcalfe (1975b) analyzes the root ‘give’ as *-a-*, whereas I follow Aklif (1999) in analyzing it as an empty morpheme *-ø-*.
135. The instrumental case *-ng(a)* is reconstructible to **-ngany*, which has shifted in meaning from comitative to instrumental in the Western Nyulnyulan languages. *Arranga* preserves the old meaning. For discussion of *arranga* (and negation more generally), see §15.3.4.
136. To illustrate the template she gives as an example *ingarrmarranan* ‘they used to eat turtle’ (Nicolas 2000:158). Unfortunately for Nicolas, *ingarr-*

marranan does not mean this; it means ‘turtles used to cook’ (intransitive); it is the monovalent form of the verb. The Bardi corresponding to the English gloss is *ingarramarranan*. Also, *ingarrmarranan* does not contain a sequence *-na* ‘past’ + *-n* ‘continuative’ (illustrating Nicolas’ claimed morpheme order of Tense + Aspect); the underlying form is in fact *-na-na* ‘continuative-remote past’, with metrical vowel dropping (cf. *ingarrmarranana* with no change of meaning).

137. In some other Nyulnyulan languages, oblique and direct object clitics may not both appear simultaneously. This is the case in Nyikina (Stokes 1982a), for example. However, examples with both appearing together in Bardi are copious.
138. The loss of *ny-* in this root in Bardi is not regular, but not unexpected, given the frequent simplification of NC clusters to C. It is regular, however, only in syllables with a tautosyllabic nasal.
139. This is somewhat problematic. Although DW in Text IWA:8 has the same reduplication for the same semantics, [*nòorroo*] *angoorroolooolooorroo* ‘we lit a big fire’, Aklif has notes beside it: one fire, *boordiji nòorroo angoorroolooorroo* ‘[we lit a big fire]’, then ‘several fires : reduplication.’ Therefore it is possible that it is the clitic =*nid* that makes the difference in interpretation, not the reduplication specifically.
140. The term ‘light verb’ goes back to Jespersen (1954/1909), and is used to denote verbs which can regularly appear bleached of some or all of their semantic content.
141. It is possible that the root is not in fact irregular in terms of valency. If the form of the root is analyzed in the present as *-rlī-* rather than *-arli-*, the sequence *nrl* (n + retroflex l) will regularly give *rl*. The root would still irregularly lose its initial vowel in the present.

Chapter 10

142. In another version of this story, at an equivalent point in the story the speaker uses more emphatic forms, such as the interjection *arra* ‘look!’

“Arra ngay ninga ngay arr ngandan. Jarri ngay arr ngandan!” *in-joonoo jiib ginyingginim aamba.*

“Arra ngay ninga ngay arr *nga-n-d-an*. *Jarri ngay*
 hey 1M NINGA 1M come 1M-TR-do/say-CONT this 1M
arr nga-n-d-an!” *i-n-joo-noo* *jiib*
 come 1M-TRdo/say-CONT 3-TR-do/say-REM.PST this
ginyinggi-nim aamba.

3M-ERG male.
 “Hey, it’s me coming! It’s me!” he said to them.’ (BMF.017)

143. Recall from §12.2.2.3 that verb ‘give’ in Bardi takes the recipient as the direct object, and the theme is unmarked on the verb.
144. For the related principle of ‘empathy,’ which is probably also a factor in *jarr* marking, see Kuno 1987:203ff.
145. The Set II markers are probably related to the use of *jarri* as a subordinate clause marker in Warrwa:

Warrwa

Ngambalany-jarri bij nganandiny ngajantu naarda.
 1st:awoke-SEQ open 1sg:got my eyes

‘When I woke up I opened my eyes.’ (McGregor 1994b:58)

146. While I abbreviate glossing for the oblique markers as IO (for ‘indirect object’), I call them ‘oblique’ because their function is broader than typical indirect object marking.
147. *Injoonoojin* also has a variant *injoonajin*, which does not show vowel harmony.
148. Note that this example also illustrates the fact that Bardi body parts may be inalienably possessed, and that Bardi does not show the otherwise quite common Australian pattern of using accusative pronouns with possessed body parts.
149. Note that Bardi also has pluractional marking proper, which is signaled by reduplication; see further §3.8.

150. There are a few other clitics and affixes that appear both with and without their initial consonants, without a clear phonological conditioning environment. For example, the possessive clitics described in §10.4.3 above appear without their initial *j* when they are preceded by the oblique markers; there is no phonological reason for this, nor a reconstructible diachronic change to account for it. Likewise, the interrogative clitic *=(b)arda* shows presence or absence of the initial consonant, and the distribution is not clearly accounted for by synchronic lenition.
151. It is possible that this sentence is a calque from English, but it is unlikely, given the early date, when knowledge of English was probably not yet widespread on Sunday Island.

Chapter 11

152. Past tense verbs tend to have past tense suffixes, but they may instead show the continuous aspect marker *-n*, as in my examples here, in which case the sole clue to the tense to the verb comes from the non-deletion of the transitivity marker.
153. The verb root *-garnboo-* is glossed as ‘growl’, an Aboriginal English term that means something like ‘vituperate’ or ‘scold’.
154. This type of bird is common in *ilma* song language but we have not been able to identify the species.
155. *Ngay(oo)* in song language is a filler word, like ‘la’ in English singing, although sometimes (e.g. in (11.36a)) it is also used as the first person minimal pronoun.
156. *Aarlimayi* is a compound of *aarli* ‘meat-food’ and *mayi* ‘vegetable food’.
157. The cognate of *gala* in the Eastern languages is *galiya*, with broadly the same functions as Bardi’s *gala*. Similar forms are also found in surrounding, non-Nyulnyulan languages (e.g. Walmajarri).
158. Further evidence that the epenthetic *n-* of gerunds of vowel-initial roots is neither a part of the stem nor the transitive marker comes from Nyi-

kina. Note that *-ibi-* ‘drink’ behaves differently in Nyikina from the *n*-initial roots like *-nika-* ‘follow’, so here we can tell that *n* is behaving epenthetically and not as part of the root.

Nyikina

- a. *manibin* ‘to drink, drinking’
but
- b. *yarribi*, not *yadibi* (by analogy with *-nika-* producing *yadika*).
- c. *ngalibin*, not *ngallibin* (again by analogy with *-nika-*).

159. The use of the source case *-joon* in such examples may relate to a similar use of an ‘intensifier’ in Yawuru, which is found in examples such as the following (using Hosokawa’s gloss):

Yawuru

I-luka-rn-dyunu
3-cry-IMPF-REALLY

‘He cries for himself.’

(Hosokawa 1991:113A)

160. In Chapter 16 we will see examples of subordinate clauses where a constituent from the subordinate clause is focused in initial position in the main clause. If gerunds are clauses rather than noun phrases, (11.66) would provide a parallel example. However, I do not have the data to show whether gerunds with arguments are noun phrases or non-finite subordinate clauses.

Chapter 12

161. The number of lexical entries for inflecting verbs in the current Bardi lexicon is 340. However, 25 are recorded only in Metcalfe or Laves and are not recognized by current speakers. Another 5 are Jawi only, and the 20 ambitransitive roots are listed twice, with monovalent and bivalent meanings separately. (This is because Aklif’s (1999) Bardi dictionary lists verbs by third person minimal past agreement prefix; thus

imbirrilin ‘it flew’ and *inambirrilin* ‘he/she swung it’ occur separately.) 15 more verbs are listed separately with their reflexive/reciprocal circumfix. Therefore the total number of unique roots in Bardi is a little under 300.

162. The same three-way distinction in valency (monovalent, bivalent and ambitransitive) holds for other Nyulnyulan languages. Stokes (1982a), for example, divides Nyikina’s roots into Set I, Set II, and alternative-prefixing or ambitransitive. Hosokawa (1991) makes the same distinction. Hosokawa also has a fourth class. In Yawuru a small set of monovalent roots are marked in the future with the bivalent prefix *wal-* (related to Bardi’s *a-*), rather than the monovalent *nga-* (= Bardi *nga-*). I have not found this class in other Nyulnyulan languages. Although I refer to valency rather than transitivity in this chapter, I retain the term ‘ambitransitive’ to ensure consistency with other grammars of Nyulnyulan languages.
163. There are a few other complex predicates with preverbs which take inalienable marking, but they vary as to what the argument structure of the predicate is as a whole. Most of them are not impersonal.
164. The more usual verb ‘to die’ is *-jimbi-*.
165. A similar list of verbs can be made for Nyulnyul. McGregor (2002:230) lists the ambitransitive verbs found for Nyulnyul. There are some differences between the languages, however. Nyulnyul *-bamarr-* ‘shiver’, whose cognate *-bamarra-* is only monovalent in Bardi, also has a bivalent counterpart ‘make shiver’ in Nyulnyul only. There are a few more unergative ambitransitive verbs as well, including *-wid-* ‘eat’, which does not exist in Bardi.
166. Note that I am not arguing that one set of the ambitransitive verbs is derived from the other; I simply note the argument structure patterns between them.
167. This is not conclusive, however—the example is from the Bardi dictionary, and it is possible that the translation was given in Aboriginal English, where ‘himself’ is unmarked for number and so can be used in either reflexive or reciprocal meaning.

168. Stokes (1982a:291) gives the verb root as *-barnji-* rather than *-banji-*. I do not know if this is a transcription error or if the root has a retroflex nasal in Nyikina.
169. If examples such as (12.73) contain both a direct object and an applied (or second) object, they provide a counter-example to my claim that Bardi has no ditransitive constructions. That claim is true for underived verbs. However, the status of the applied object is unclear. For example, as seen in §10.3.1 above (and especially (10.14) on page 401), there are occasional ‘additional’ predicative clitics on the verb, which appear to signal topic status rather than providing agreement for an argument.
170. I have no data about whether example (12.78) can receive a reciprocal interpretation; that is, ‘We cover each other with sand.’ It is likely that such an interpretation is possible, since every augmented sentence I asked for had both reflexive and reciprocal interpretations.
171. I suspect the correct form is *-nginj*, and *-nginyj* is a transcription error. However, examples from both Aklif’s field notes and my own show enough variant transcriptions to make this uncertain.
172. It is quite possible that the ergative-marked NP in such constructions is not a true argument, and that would explain why it is always present in these constructions. Arguments can be omitted if their reference can be recovered from context. The sentences in (12.89) are all grammatical without their ergative-marked NPs, but the meaning is different. Example (12.89a) would mean ‘I am sick.’

Chapter 13

173. Discussion of aspects of Bardi complex predicate constructions appeared in Bowern (2010b), which was based on the same chapter of Bowern (2004a) that forms the basis of this chapter.
174. I use the term ‘preverb’ in this work in line with previous writing on Bardi and Nyulnyulan languages. The other term which commonly occurs in the literature on northern Australian languages is ‘coverb’ (e.g. as in Wilson 1999). The terms are equivalent.

175. For example, Wilson (1999) and Clendon (2000) use nominalization tests to make generalizations about the syntactic behavior of preverbs in Wagiman and Worrora respectively. Such tests are very difficult to implement in Bardi, however, simply because nominalization is not an option for most preverbs, and for those that do seem to allow nominalization, the preverb almost always has cross-categorical membership in another word class.
176. Sentential negation forces irrealis marking on the inflecting verb. See further §15.3.1.
177. For our purposes here, it does not matter what theoretical position one takes on how arguments are realized within a clause (through specification in lexical entries, for example, or through structural positions in a tree). The only crucial point is that the verbal head of the clause specifies the number of arguments in the clause and their semantic roles. For further discussion, see Dowty (1989), Jackendoff (1987) amongst many others.
178. Inflecting roots can also be reduplicated to mark iterativity/durativity, although this is rather rare in complex predicates; one of the few examples is *boor-jala-* ‘stare’ with *boor-jalala-* ‘keep on staring’.
179. In example (12.3.2) the verb root has been deleted through regular morphophonological processes. The underlying form is *-m-joo-nyjii-* (REFL₁-‘say’-REFL₂).
180. Unfortunately, I do not have data from negative verbs which would be diagnostic here.
181. About half the languages of Northern Australia that have complex predicates allow preverbs to appear without light verbs in some functions. See McConvell and Bowern (2011a) and Bowern (in prep.a) for data.
182. These data were collected in 2003 from a speaker who was otherwise quite comfortable forming applicatives.
183. The cognate *-kaj* is also found sporadically.
184. Recall from §13.2.4 above, and especially (13.8b), that some adjectives

may undergo reduplication when they are functioning as preverbs, but not otherwise.

185. This is the precise cognate of the same construction in Warrwa, where the form of the preverb is *liyan-ngany* (the cognate of the instrumental in Bardi) and the same light verb *-ma-* ‘put’ is used:
Warrwa:

Ngayi-na marlu liyan-ngany ngalama manyjayinu.
1 MIN-ERG NEG like-INS 1M-IRR-put many.

‘I don’t like them all.’ (McGregor 2008a:29)

186. The term is due to Massam (2001). The term refers to an analysis of Niuean verbal predicates containing an object, which shows many of the properties of an incorporated noun, but nonetheless remains an independent phonological word.
187. As in many Australian languages, in Bardi generic nouns are often used with more specific nouns in a type of noun classifier construction. For further details see Wilkins (2000) and §5.6.
188. Material from this section is presented in Bowern (2008b) along with an analysis using LFG.
189. A reader suggests that this discussion is overly theory-internal for a reference grammar. I disagree. Since defining the limits on how verbs combine with arguments is an important part of determining the grammaticality of predicates (in any language), it is important to consider the implications of the logic applied to simple verbs when it is applied to complex predicates.
190. The only exception is the root *-gal(a)-*, which is ambitransitive but always takes the *n- ~ a-* transitivity morpheme.
191. ‘Le verbe complexe est composé de la même base verbale accompagnée d’un préverbe.’ *The complex verb is composed of the same verbal bases, accompanied by a preverb.* (Nicolas 1998:73).
192. This is not the case in earlier stages of the language; the Laves corpus has instances of *-ganyi-* without a preverb and Metcalfe (1975a) lists *-ganyi-*

alone in the meaning ‘climb’. In my elicitation, however, speakers say that the use of this verb without a preverb is ungrammatical.

193. Despite appearances, this word does not appear to be a loan from English.
194. The verb can only be used for actions such as beating or clubbing with an instrument, not ones where the instrument is thrown and leaves the hand. The verb *-ngooloo-* ‘throw’ is used in that case. The verb *-boo-* usually means ‘hit with hand’, but it also has other senses, including ‘spear’ and ‘kill’.
195. One uses a lousing stick, which has the approximate dimensions of a pencil, to pierce the lice and remove them.

Chapter 14

196. I assume that the ablative of ‘east’ and ‘west’ are possible, but since I do not have examples of them, I do not include them here. They should be *baanarrgo* and *goolorrgo* respectively.
197. The word for yesterday, *bardi*, has a short vowel. The language name has a long vowel, but is written here as *Bardi* rather than *Baardi* because the spelling with a single vowel is established in the literature.
198. *Joodinyko* is an adverb which is found both with and without the ablative case.
199. The only other form that shows this, to my knowledge, is *-injoon*, and that only occasionally. See §5.1.7 above.

Chapter 15

200. I have included here both forms which are monoclausal but contain more than one verb, and clauses which contained discontinuous constituents. In the order VOV, the O is the object of both verbs; I had no basis for choosing between coding of such clauses as V, OV or VO, V. I have listed here all such occurring sequences.

201. Readers unfamiliar with these terms should see Carnie (2002:Ch. 4) for more detailed explanation than is provided here.
202. The form *bilijina* is difficult to parse. It is most likely the word *biila* ‘again’ (which Laves spells *bili*) combined with a cliticized form of the third person minimal possessive pronoun =*jina*. However, the form is not found elsewhere in recorded Bardi materials and the repetition of *jina* is unexpected. Speakers did not recognize it.
203. A *baali* ‘boughshed’ is a temporary shade structure or shelter made by covering upright sticks with palm fronds.
204. Aklif would have worked through the text when transcribing with another Bardi speaker—most probably Jessie Sampi or Nancy Isaac. Aklif’s transcript are usually very close to the speech of the original narrative, but they occasionally differ in small details, such as the clausal discourse particles used; English words are also usually replaced with Bardi equivalents.
205. I use the term following McGregor (2008b).
206. I owe this observation to work by Laura Kling in 2010.
207. Unfortunately, all these examples were elicited in isolation, so I have no data on how such questions are answered.
208. I do not have extensive data on this construction. The following examples were discussed with Nancy Isaac in 2001 (Bk3, p.17).

Chapter 16

209. Some discussion of this topic appeared in Bowern (2008c).
210. I retain Hale’s terminology here, but as will be clear from the following discussion, adjoined relative clauses are not strictly a type of relative clause.
211. I should emphasize here that I do not think this is because such differences are syntactically fuzzy; rather, it is because most of the tests which

would clarify the difference rely on nuanced syntactic judgments which are difficult to elicit.

212. The alternation in vowel length is unexpected in this form.
213. An example is *garra garra garra*, which is a type of elliptical for stuff that happens in a narrative. e.g. <X did something>, *garra garra garra* (X kept on doing it, e.g. they kept on walking), <then they did something else>.
214. In the textual counts discussed in Table 15.1, approximately 10% of the clauses could not be clearly divided and so VSV and VOV orders were included ‘as is.’ There was no discernable intonation boundary and no other evidence for clause boundaries, such as clitic placement.
215. It probably appears fossilized in *anggaba* ‘who’. Only Bardi has a distinction between ‘who’ and ‘what’; other Nyulnyulan languages have a cognate of Bardi *anggi* ‘what’ in both meanings.
216. This is the case in Diyari (Austin 1981), for example; see Nordlinger (2006b) for a survey of Australia more generally.
217. Many of Nordlinger’s (2006b) examples of Wambaya center-embedding are single non-finite verbs. In this case, it is difficult to tell whether such items are really embedded clauses, or whether they are in fact nominals. (This is an issue for further study, not a claim that Nordlinger is incorrect.)
218. Relative clause markers are commonly used in forming place name phrases in the adjacent Worrorran languages (Clendon 2000, Rumsey 1982). Bardi place names do not have this structure, however.
219. Example (16.98b) comes from a typescript of C. D. Metcalfe. I have no explanation for the form =*boo* rather than =*ba*; I assume that it is a typographical error (Metcalfe writes <u> rather than <oo>). The typescripts are mostly quite clear, but they do contain the occasional error.

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