

UNIVERSITY OF CALIFORNIA

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A grammar of Abawiri, a Lakes Plain language of Papua, Indonesia

A dissertation submitted in partial satisfaction

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Doctor of Philosophy in Linguistics

by

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June 2020

A grammar of Abawiri, a Lakes Plain language of Papua, Indonesia

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Brendon Eugene Yoder

for

Talia Jane Yoder

“Dew from Heaven”

January 15, 2020 to March 1, 2020

We will always love you.

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Abstract

A grammar of Abawiri, a Lakes Plain language of Papua, Indonesia

by

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Abawiri is a Lakes Plain language spoken in the Mamberamo River Basin in the northern lowlands of Papua, Indonesia. It is primarily spoken in a single village, Fuau, by about 550 people. The Lakes Plain languages have long been considered something of a curiosity by linguists specializing in Papuan languages. Preliminary descriptions have included reports of complex tone systems, very small consonant inventories, and ubiquitous topic-comment marking in clauses. However, the Lakes Plain languages have remained severely underdocumented, even in comparison with other Papuan language families, perhaps most of which are also underdocumented. Prior to the current work, the Abawiri language (known in the previous literature as Foau) was known only from a few short wordlists.

This dissertation is a first description and analysis of the building blocks of the Abawiri language. As such, topics include segmental and tonal phonology, word classes, verbal morphology, verb phrases, clausal syntax, and clause combining constructions. Abawiri has a larger consonant inventory than other Lakes Plain languages due to a full set of labialized obstruents. The seven-vowel system includes three high front vowels. The tone system is complex and includes two tone heights that combine into eight tone patterns. Verbal morphology is primarily suffixing. Suffixes indicate a variety of tense, aspect, and

mood distinctions, the most basic of which is a three-way contrast between completive, incompletive, and perfect aspect. Prefixes include directionals, polyfunctional pluractional/causative markers, and a single visual evidential. Serial verb constructions are ubiquitous in the language. The clausal syntax has a basic topic-comment structure, with an optional focused element in the comment. Noun phrases can be marked as topics; further, topic-marked clauses constitute a primary clause combining strategy in the language. The bottom-up analysis of Abawiri grammar presented here does not show clear evidence for grammatical relations. Clause combining strategies include two relative clause constructions, noun complements, purpose clauses, topical and sequential medial clauses, and clause coordination via coordinating conjunctions or juxtaposition.

The description and analysis here take a functional view of language as an emergent system that evolves over time to meet the interactional needs of a community of speakers, as shaped by human cognition. Explanations are thus couched in terms of diachrony, interaction, and cognition, with reference to linguistic typology.

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Abbreviations

1	first person
2	second person
3	third person
ABL	ablative
ALL	allative
ASSOC	associative plural
AUG	augmentative
BEN	benefactive
CAUS	causative
CMP	completive
COM	comitative
COND	conditional
COORD	coordinating conjunction
DEM	demonstrative
DES	desiderative
DIM	diminutive
DIST	distal demonstrative
DISTR	distributive
DUR	durative
EMPH	emphatic
EXCL	exclamation
FOC	focus
GEN	genitive
HAB	habitual
ILL	illative
IMMED	immediate
INCOMP	incompletive
INESS	inessive
INS	instrumental
IRR1	irrealis 1: purpose and counterfactual

IRR2	irrealis 2: conditional, hypothetical, and future
LIST	nominal coordinator used for enumeration
LOC	locative
LOG	logophoric pronoun
NEG	negative
NFIN	non-finite
NFUT	non-future
NPST	non-past
NMLZ	nominalizer
OLD	diminutive endearment suffix on human names
PERL	perlative ('through')
PL	plural
PLACT	pluractional
PRF	perfect
PROH	prohibitive
PROSP	prospective
PROX	proximal demonstrative
PST	past
PURP	purposive
Q	question
RECP	reciprocal
REFL	reflexive
REL	relativizer
SEQ	sequential
SG	singular
TOP	topic
VIS	visual evidential
YN	polar (yes/no) question

Chapter 1 Introduction

This dissertation is the first description of the grammar of Abawiri, a Lakes Plain language spoken in Papua, Indonesia. The dissertation attempts to provide a comprehensive description of all of the most salient aspects of Abawiri grammar. This introductory chapter provides information about the people who speak the language (§1.1), background information on the language (§1.2), and information on the grammatical description itself (§1.3).

1.1 The people

The Abawiri language is spoken by about 550 people (unofficial census, 2019), most of whom live in a single village in the upper Mamberamo River Basin of Papua, Indonesia. The group of people who speak Abawiri go by various names, as discussed in §1.1.1. The geographic location where the speakers reside is presented in §1.1.2, followed by a brief description of the social situation in §1.1.3.

1.1.1 Names

In the previous literature the language is known as Foau (Voorhoeve 1975; Eberhard, Simons & Fennig 2020). This name, (\int f^wáu/ [f^wãu] ‘evening’), is used for the village and, by extension, for the people who inhabit the village. According to a popular etymology, the name was formerly *Fwou* (/f^wou/ [f^wðu] ‘stinging bee’) because the people were known to be fierce in battle. Traditional inter-clan warfare has now ceased, and

speakers correlate the cessation of warfare with the change of the village name from *Fwou* to *Foau*. Orthography development is in its incipient stages. Spelling of this name is not standardized, with current ad hoc spellings including *Foau*, *Fuau*, and *Foao*. In a 2016 orthography workshop, local participants decided to write the labialized consonants as <Cw>, although some preferred to write them as <Cu> (Yoder 2017). The implication is that the name should be spelled *Fwau*; however, this spelling is not one of those commonly used for this particular name. In the dissertation the spelling *Fuau* is used, as it is one of the current spellings of the name as well as an alternative spelling of the labialized consonants. This spelling attempts to strike a compromise between current practice and community orthography choices.

While *Fuau* refers to the village and the people, speakers prefer the name *Abawiri* for the language. This name refers to one of the four clans that came together to form *Fuau* village. The village is located on land belonging to the *Abawiri* clan and, according to tradition, this clan spoke the *Abawiri* language, while the other three clans spoke other varieties before settling together in *Fuau*.

1.1.2 Location

The Mamberamo River Basin is a vast area of lowland rainforest north of the central mountain ranges on the western half of the island of New Guinea. Administratively the area is part of the Indonesian province of Papua. This area is characterized by very low population density in comparison with the highlands, having few villages with small

numbers of inhabitants, usually geographically quite distant from each other. Travel throughout the region is primarily by river boat and, more recently, by missionary-operated small aircraft. Fuau village is in a remote location on the Dijai River, which is a tributary to the Mamberamo River. The location of Fuau village on the island of New Guinea is shown below in Figure 1.

Figure 1. Location of the Abawiri language area



Although Fuau village is only about 150 kilometers southwest of the provincial capital Jayapura, it is inaccessible by road. The neighboring village Taria, where the related language Taburta (ISO 639-3 *tbp*) is spoken, is at least a full day's motorboat ride downriver from Fuau. Dabra, the village where the *kecamatan* (county) seat is located, is about the same distance from Fuau. Fuau village has a grass airstrip and somewhat regular

connection with the outside world via small aircraft operated by an SIL-affiliated organization.

Abawiri belongs to the Lakes Plain family (see §1.2.1), a group of languages spoken primarily along the upper Mamberamo River and its tributaries. Most local languages with which Abawiri is in contact are also Lakes Plain languages. Boat travel through this region is undertaken with some regularity, and Abawiri speakers have connections with various other Lakes Plains languages including Taburta, Sikaritai, Obokuitai, and Doutai. The fact that contact among related varieties has likely taken place for a long period of time creates difficulties with applying the Comparative Method in determining genealogical relationships; this problem is acute throughout New Guinea in general (Ross 1996).

To the south in the central mountain ranges, the Dani languages are spoken; to the north near the coast, languages belonging to various other small families are spoken. Contact between the Lakes Plain languages and languages belonging to other genealogical groupings has almost certainly taken place; see, for example, the labialized obstruent series that may have arisen via contact with the Tor languages to the north (§2.1.1).

1.1.3 Social life

The people of Fuau, living in a very remote location, continue to maintain some aspects of traditional life. They remain hunter-gatherers, hunting game in the forest, fishing, and collecting wild plants to eat. As in other lowland areas of New Guinea, sago is a staple; however, the Fuau people gather much of their sago from the wild rather than

growing it domestically. They practice limited agriculture, occasionally planting sago as well as bananas, corn, and a few other crops. However, most of the villagers' day-to-day activities remain centered around collection of wild food rather than growing food.

Traditionally the people of Fuau were nomadic, traveling in clan groups to various places in the region in search of food. The four clans that now live in the village once lived in separate nomadic clan groups. These four groups were relocated to Fuau sometime in the 1970's. While they have had a permanent residence from that point on, they continue to travel frequently, maintaining temporary shelters in their hunting grounds, and now spending long periods of time in more populated areas as well.

An increasing number of Fuau people have relocated to the urban areas around Jayapura, the provincial capital. A precise estimate of the number of people who have relocated is difficult because of the frequency with which people move back and forth between Fuau and the Jayapura area. Certain people who maintain a house in Fuau spend much of their time in the Jayapura area; conversely, some of those who have established residency in town spend long periods of time back in Fuau.

Within the village, a few exogamous marriages have taken place, with the result that there are several native speakers of other languages in the community. These include Taburta and Sikaritai, both also Lakes Plain languages. Those who have married in have all learned to speak Abawiri, and now use the language on a daily basis.

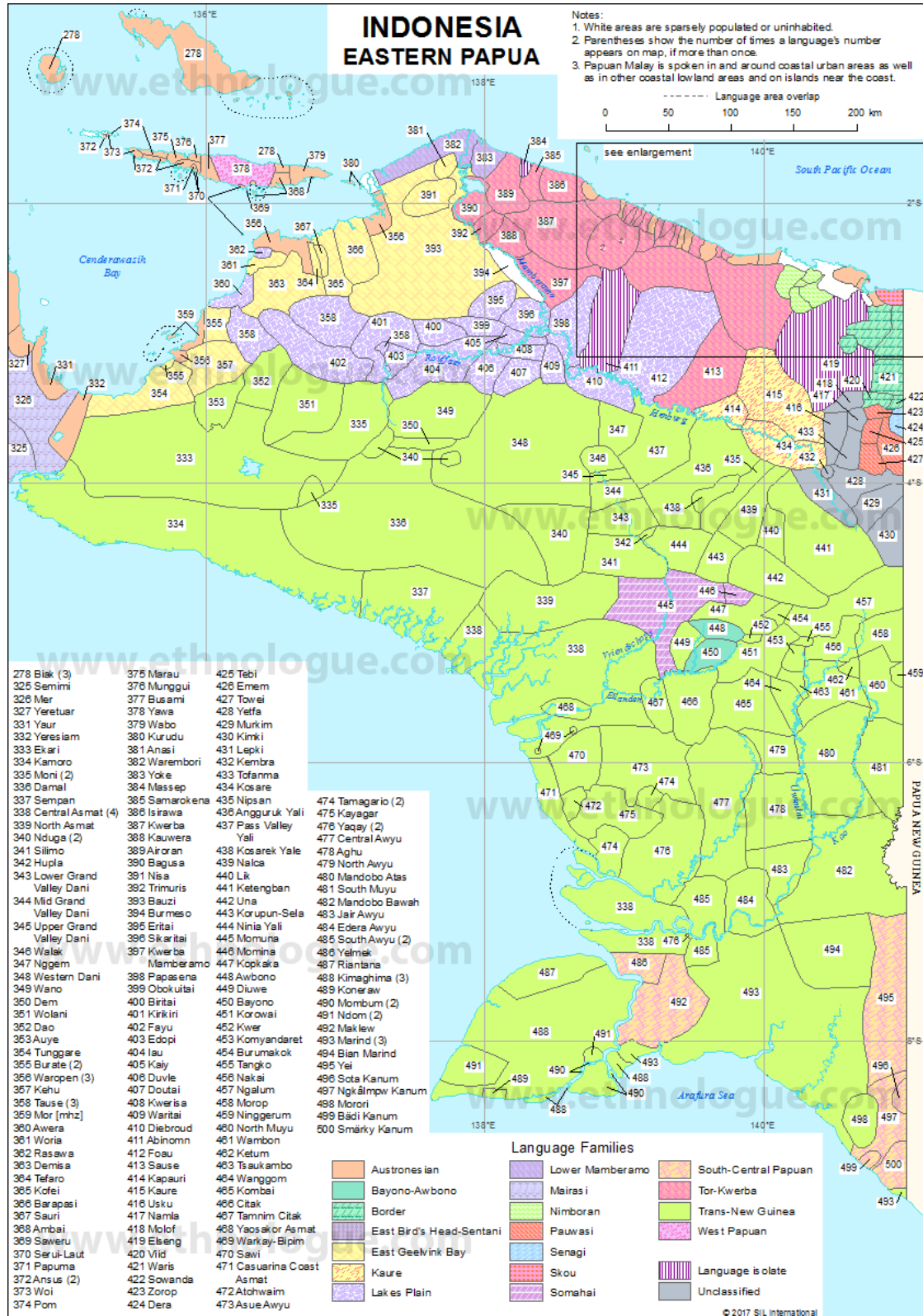
1.2 The language

This section introduces the Abawiri language, including what is known about the genealogical classification of Abawiri (§1.2.1), previous research on languages of the Lakes Plain family (§1.2.2), the vitality of Abawiri (§1.2.3), and a typological overview of the language (§1.2.4).

1.2.1 Classification

Figure 2 shows the Ethnologue map of Eastern Papua (Eberhard, Simons & Fennig 2020). The languages in speckled purple are the Lakes Plain languages, the easternmost one (number 412) being Abawiri. The languages in green are the Trans New Guinea languages, spoken to the south of the Lakes Plain languages in the central mountain ranges and in the southern lowlands. To the north, in the western half of the Mamberamo, the Geelvink Bay languages, coded in yellow, are spoken. To the north, in the eastern half of the Mamberamo, the Tor and Kwerba languages, coded in red, are spoken. Finally, to the east of the Lakes Plain languages several languages of uncertain affiliation are spoken, possibly part of the Kaure family (Foley 2018a); here they are coded in speckled yellow. The isolate Abinomn, here coded in vertical purple and white stripes, is spoken immediately to the west of Abawiri. It is spoken in the villages of Baso 1 and Baso 2, along a different tributary to the Mamberamo River; thus, the journey between Fuau and Baso is longer than it appears on the map. Fuau villagers are aware of the Baso villages, but there does not appear to be much interaction between the two.

Figure 2. Ethnologue map of Eastern Papua (Lakes Plain languages in speckled purple)

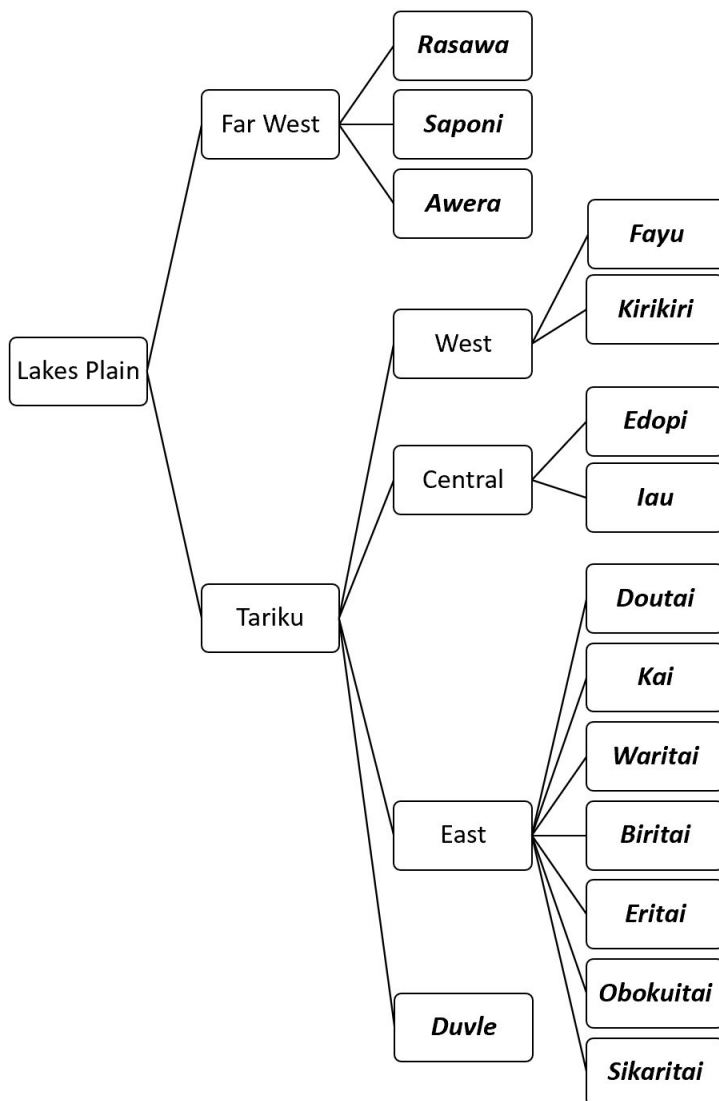


The genealogical relationships among the non-Austronesian languages of New Guinea (“Papuan” languages) are the world’s most poorly understood (Wichmann 2012). Most historical work on these languages has focused on the large Trans New Guinea family (see, e.g., Pawley & Hammarström 2018). The paucity of documentation of Papuan languages, particularly those that are not part of the Trans New Guinea family, means that our understanding of the linguistic situation necessarily has many gaps. There is a dearth of bottom-up reconstructions of individual language families, although this kind of detailed work has been done for a few Papuan language families, including bottom-up reconstructions of Proto Lakes Plain (Clouse 1993; 1997), Proto Koiarian (Dutton 2010), Proto Timor-Alor-Pantar (Holton et al. 2012), and Proto Sogeram (Daniels 2015), among others.

This dissertation does not attempt to add to scholarly understanding of the classification of Abawiri; rather, the existing literature is summarized here, pending further work. In two publications, Clouse (1993; 1997) did bottom-up reconstruction of the Lakes Plain family, based on wordlists of about 200 items. Using the Comparative Method, Clouse reconstructs Proto Lakes Plain segmental phonology and about 70 lexical items. He does not reconstruct tone, although he states that Proto Lakes Plain was almost certainly tonal since all documented modern languages are tonal. However, his classification, some of which appears to be based on lexicostatistics, is not easy to follow. (See (Ross 2005; Heggarty 2010) on problems with lexicostatistical methods.) In each of Clouse’s two publications, two separate family trees are presented: a working family tree at the

beginning, and a reclassification of the languages at the end. However, none of the four family trees is identical with any of the others. As the relationship between the four trees in these two publications is not entirely clear, the details of Clouse's intended classification remain unclear. However, certain consistencies hold between all four family trees, which presumably can be taken as representing at least part of Clouse's understanding of the relationships among the Lakes Plain languages. Figure 3 below shows the parts of Clouse's four family trees that are in harmony with each other, with conflicting details removed.

Figure 3. Generalized Lakes Plain family tree based on Clouse (1993, 1997) but excluding Abawiri and Taburta



Several comments are in order. First, the internal relationships among the three Far West Lakes Plain languages is unclear, with different groupings of the three languages in different of Clouse's trees. Second, Tause, which is not listed in Figure 3, is sometimes included in West Tariku along with Fayu and Kirikiri, but at other times placed on its own directly under Tariku. Third, the languages Kwerisa and Papasena, while not mentioned in

all Clouse's work, are always included in East Tariku when they are mentioned. Fourth and finally, Abawiri and Taburta are sometimes included in the family tree, sometimes as a separate East Lakes Plain branch directly under Lakes Plain, and at other times as one of the primary branches of Tariku. Clouse lists a third language, Dabra, in this group as well, Dabra being another village in the region. However, it appears that Taburta and Waritai are both spoken in Dabra, and there is likely not a separate language spoken in Dabra. Clouse explicitly states that it is unclear whether the eastern languages constitute a separate primary branch of Lakes Plain or form their own branch of Tariku (Clouse 1993: 23). The only data on these two languages available at the time were Voorhoeve's (1975) 39-word list for Abawiri and 48-word list for Taburta, as well as some short SIL wordlists. It follows that the relationships between Abawiri, Taburta, and the rest of the Lakes Plain family remain unclear. Impressionistic evidence from my own work, including detailed work on Abawiri and looks at unpublished Taburta wordlists, strongly suggests that the two languages do indeed belong to the Lakes Plain family, although it is not yet clear where they fit in the family. More documentation and detailed historical work are needed to determine how these languages fit into the Lakes Plain family.

Possible relationships between the Lakes Plain languages and surrounding language families have yet to be demonstrated adequately. This is in spite of now-old attempts to include these languages in the Trans New Guinea family. For example, Wurm (1975; 1982) grouped Lakes Plain, along with the Tor, Kaure, and Border languages, as a primary branch of Trans New Guinea based on lexicostatistical methods applied to the scant data available

at that time. Since then, several large-scale investigations have failed to find evidence of this link between Lakes Plain and other families. Ross (2005) is a revision of Wurm's classification of Papuan languages, based on evidence from pronoun paradigms. While still necessarily preliminary, Ross proposes that comparing pronoun paradigms can yield more reliable results than lexicostatistics since pronoun paradigms are likely to be relatively stable over time. Overall, Ross is more conservative than Wurm. He finds no evidence from pronoun paradigms for a relationship between the Lakes Plain family and other language families.

The East Geelvink Bay family, also in the Mamberamo region, cannot currently be demonstrated to be related to Lakes Plain (Foley 2018a). See, however, another recent suggestion by Foley on a potential connection between the Lakes Plain languages and the Skou languages (Foley 2018a), which share several typological similarities. This connection remains to be demonstrated in a systematic way.

1.2.2 Previous research

While the Lakes Plain family as a whole is still very poorly understood, there is a small amount of previous research available. The most detailed previous investigation of a Lakes Plain language is that carried out by Janet Bateman in Iau, one of the Central Tariku languages (see Figure 3). Work includes descriptions of the complex tone system (Bateman 1982a; Bateman 1990a; Bateman 1990b; Edmondson, Bateman & Miehle 1992), as well as a description of the topic-comment structure of clauses (Bateman 1982b) and of verb

morphology, which is primarily tonal (Bateman 1986). In addition, an unpublished grammar sketch provides other details about the language (Bateman 2018).

Beyond Iau, descriptions of other Lakes Plain languages are largely limited to phonology sketches. These include a Doutai phonology sketch (McAllister & McAllister 1991) along with an update (Donohue et al. 2006), an Edopi phonology sketch (Green & Green 1988), an Obokuitai phonology sketch (Jenison & Jenison 1991), a Sikaritai phonology sketch (Martin 1991) along with an update (Liem 2007), and unpublished works on tone in Kirikiri (Clouse n.d.) and Fayu (Kügler 1989). All of these languages are tonal and have very small consonant inventories; many of them, like Abawiri, have extra-high ‘fricativized’ vowels.

In addition to these phonology sketches, there is an unpublished Obokuitai grammar sketch (Jenison 1995) as well as a published paper on Sikaritai discourse structure (Martin 1986).

Previous work on Abawiri is limited to the wordlist published in Voorhoeve (1975). There is also now available an analysis of Abawiri tone (Yoder 2018).

Reference to these sources is made throughout the dissertation in relevant places.

1.2.3 Language vitality

Abawiri remains the primary language of the Fuau community. People of all ages speak Abawiri with each other in most social situations. Informal conversations, which are by far the most frequent form of talk in which people engage, are held exclusively in

Abawiri. Other less frequent forms of talk include storytelling, public speaking in village meetings, preaching in church services, and public prayers. Storytelling is only done in Abawiri, while the other forms of talk sometimes include stretches of talk in Indonesian. Village meetings are typically held to address concerns related to the wider world. Topics addressed include holding health clinics with outside healthcare workers, problems with outside administration of the local primary school, and various government programs. Speakers use Indonesian more frequently when conveying information from outside sources, while they tend to switch to Abawiri when discussing local implications of the information.

Church services, which are held two to four times a week, are conducted mostly in Abawiri. Songs are sung, including some Indonesian songs and some locally composed Abawiri songs. Speaking in church (announcements, prayers, and sermons) is primarily in Abawiri. Switches into Indonesian are more frequent (1) when conveying information from the outside world during announcements, (2) when talking about a Bible passage, which is in Indonesian, and (3) when non-Fuau visitors are present. Some preachers attempt to accommodate outsiders who cannot understand Abawiri by first speaking in Abawiri, then giving a short Indonesian summary. Other preachers give their sermons exclusively in Abawiri, in spite of the presence of outsiders who cannot understand.

While Abawiri is used in all domains of social life, fluency in Indonesian is gradually increasing as people from Fuau spend more time traveling outside the village. In general, those who spend longer periods of time outside Fuau are young and middle-aged men, as

well as teens and young adults who go to town for school. These people tend to use loanwords in their speech (e.g. borrowed verbs in coverb constructions; see §7.1.4) even upon return to Fuau. Older women are mostly monolingual in Abawiri, while all other groups have at least limited conversational ability in Indonesian.

Among Fuau people outside their home area, such as those who live in the Jayapura area, Abawiri remains the primary language of communication. When Fuau people speak with each other in town, whether in person or by phone, the language of communication is Abawiri. Written Abawiri is used in social media (e.g. in texting and on Facebook), although Indonesian is also frequently used in this written context.

1.2.4 Typological overview

A typological overview of Abawiri grammar is provided here. For the sake of simplicity, cross-references and examples are not provided. For more details the reader is referred to the relevant sections of the dissertation, where examples are provided and cross-references to related phenomena are given. Additionally, the final section of each chapter gives a chapter summary, where the phenomena discussed in the chapter are summarized. The typological overview here discusses some of the most salient features of the structure of Abawiri including segmental phonology (§1.2.4.1), tone (§1.2.4.2), nouns and noun phrases (§1.2.4.3), verbs (§1.2.4.4), serial verb constructions (§1.2.4.5), other word classes (§1.2.4.6), topic-comment structure (§1.2.4.7), zero anaphora (§1.2.4.8), and clause combining (§1.2.4.9).

1.2.4.1 Segmental phonology

Abawiri has seventeen consonants, including eight plain obstruents and their labialized counterparts, as well as the rhotic /r/. This is by far the largest consonant inventory described for a Lakes Plain language due to the full set of labialized obstruents, which are likely a recent innovation. Other Lakes Plain languages have as few as six consonants. Nasals are completely lacking in Abawiri. The lack of nasals is a feature of Lakes Plain languages more generally, although some languages have nasals as allophones of voiced stops.

There are seven vowels, including three high front vowels. In addition to /i/, there is also the high front rounded vowel /y/ and the fricativized high front vowel /i̥/, both of which arose from the loss of a following consonant.

1.2.4.2 Tone

Abawiri has two phonological tone heights, /H/ and /L/, in addition to a phonologically derived /M/ tone that results from /H/ tone lowering after a floating /L/ tone. These tones combine into eight tone patterns on nouns, six of which also occur on verbs, and four of which also occur on words of other word classes as well as on affixes. Roughly half of Abawiri lexical items are phonologically toneless, their pitch being determined by intonation contours and the tonal specifications of surrounding material. The default pitch of tonelessness is L. A prominent tone sandhi process is anticipatory tonal polarity, in which any syllable preceding a phonologically specified /L/ tone is required to

have /H/ tone. Anticipatory polar /H/ tone insertion occurs in nearly all phonological and grammatical environments within a single intonation contour, and is not sensitive to most phonological and grammatical boundaries.

1.2.4.3 Nouns and noun phrases

The word classes of noun and verb are sharply distinguished in Abawiri, with little overlap. Nouns are nearly always used as referring expressions, while verbs are nearly always used as predicates. There is, however, a single nominalization construction that derives certain nouns from verbs. Nominal morphology is extremely limited. Within the noun phrase, genitive nouns precedes the head noun while adjectives follow the head noun. Additional elements in the noun phrase after adjectives include quantifiers and numerals, as well as demonstratives. Relative clauses follow the head noun, while noun complements precede it. Proper nouns are structurally mostly identical with common nouns, occurring with any of the modifiers in an NP.

1.2.4.4 Verbs

Verbs are the only word class with complex morphology. TAM morphology is suffixing, with a basic three-way aspectual distinction between completive, incomplete, and perfect indicated in the suffix slot closest to the verb stem. Additional suffixes indicating other TAM categories follow the basic aspect slot, being most greatly elaborated in incomplete constructions. The TAM possibilities for the perfect are a subset of those for the incomplete. Suffixes indicating tense include a past tense suffix, a non-future suffix,

and a non-past suffix. Suffixes indicating aspect include prospective and durative markers, while modal suffixes include a purpose suffix and two irrealis suffixes, which are used in mutually exclusive sets of irrealis constructions. Two TAM suffixes consist only of tone: the polar question suffix and one of the irrealis suffixes. Certain verb stems, particularly those that are very frequent, have variable verb stems, each of which is used in a different set of TAM constructions.

Verbal prefixes include several polyfunctional pluractional/causative markers, three directional prefixes indicating ‘up’, ‘down’, and ‘into’, and a single visual evidential prefix.

The verb complex includes not only suffixing and prefixing morphology on the main verb, but also a set of pre-verbal and post-verbal auxiliaries as well as serial verb constructions. The six pre-verbal auxiliaries have a flexible pre-verbal position in the clause and primarily indicate illocutionary force and aspect. The four post-verbal auxiliaries include two existential forms and two that indicate TAM categories. All four of the post-verbal auxiliaries are in complementary distribution with a semantically similar suffixing construction, where the auxiliary construction is an emphatic counterpart to the suffixing construction.

Verbal negation is accomplished either with a suffix or with a dedicated negative serial verb construction. Most TAM constructions can only be negated with one of the two negation strategies.

1.2.4.5 Serial verb constructions

Serial verb constructions (SVCs) are highly developed in Abawiri and belong to two types. Symmetrical SVCs contain two lexical verbs, each of which contributes to the semantics of a complex motion, caused motion, or manipulation event. These constructions show varying degrees of lexicalization. Asymmetrical SVCs also contain two verbs, but one of the verbs has grammaticalized into a marker of the internal structure of the event. Asymmetrical SVCs encode aspectual categories including durative and continuous, as well as negation and several categories related to pluractionality.

The first component verb in SVCs is obligatorily marked with a single suffix, which in most cases is either the incompletive suffix or a dedicated non-finite suffix. The choice between the two suffixes is lexically determined. In symmetrical SVCs, the first verb in the sequence is lexically specified as always occurring with either the incompletive or non-finite suffix. In asymmetrical SVCs, by contrast, it is the grammaticalized verb that specifies which of the two suffixes is taken by the first verb. The negative SVC has a different internal morphological makeup, where copying of TAM suffixes between the two component verbs takes place.

A single SVC can only include two component verbs, but combination of two SVCs is possible. A symmetrical SVC can be combined with an asymmetrical SVC; further, two asymmetrical SVCs can be combined. Because of the suffix taken by each of the component

verbs, it is clear that these are structurally embedded SVCs rather than a single SVC consisting of three component verbs.

1.2.4.6 Other word classes

In addition to nouns and their dependents, as well as verbs and their dependents, Abawiri has adverbs, pronouns, postpositions, discourse markers, conjunctions, and interjections.

Adverbs form a heterogeneous set of monomorphemic words that occur before the verb and serve primarily clause-level functions.

The basic pronoun paradigm makes a five-way distinction between first, second, and third person, with singular and plural number distinguished only in the first and second persons. There is no dual pronoun series, although there is a frequently occurring analytic dual construction with the numeral ‘two’ and plural pronouns. In addition to the basic pronouns, two additional pronoun series are formed primarily with the addition of suffixes to the plain pronouns, with some variable forms. These are the emphatic pronouns, used for emphasis, and the reflexive pronouns, used in reflexive contexts as well as more broadly in emphatic contexts. A dedicated logophoric pronoun has developed from the third person pronoun and the proximal demonstrative.

Postpositions indicate location and occur at the end of NPs. As zero anaphora is ubiquitous in the language, the NP is frequently left out, leaving a postposition which refers to the NP understood from discourse context. While most postpositions are free forms, two

enclitic postpositions either occur at the end of NPs or cliticize to other postpositions for complex locative semantics.

Discourse markers are used to mark topic and focus, as discussed further below.

Interjections are a loose set of standalone utterance-words with varying degrees of conventionalization. For example, exclamations of surprise take many phonetic forms, while agreement tokens are somewhat more conventionalized and show less variability.

1.2.4.7 Topic-comment structure

Clauses are strongly verb-final. The only element that can occur after the verb complex is an antitopic, which is a topical NP or clause that provides supplementary information for clarification. The relative pre-verbal order of referring expressions within the clause is driven by pragmatic and semantic constraints, primarily topic and focus. Topics precede comments in the clause and are usually marked with a topic marker. Topics can be referring expressions or whole clauses. Topical medial clauses are used frequently in discourse for backgrounding of events, including for Tail-Head Linkage. Multiple nominal and clausal topics occur within the same clause. In contrast to topics, which are overtly marked, comments are only marked in a secondary way as all the elements in the clause that follow the topic. Within the comment, referring expressions can be marked as being in discourse or contrastive focus.

In terms of argument structure, there is no morphology in either the nominal or verbal domain that indicates a syntactic relationship between the referring expression and

the construction it is in. There are no bound person forms on the verb, and no case marking. More broadly, no internal evidence of grammatical relations is found in the language, as both the structural and behavioral properties often associated with grammatical relations in other languages are handled in other ways in Abawiri.

1.2.4.8 Zero anaphora

Zero anaphora is pervasive in discourse. Referring expressions are freely omitted when understood from context. In stretches of talk with a high degree of shared information, such as the middle of a narrative or discussion, a long span of time may pass during which no main participant is referred to with an overt form. Overt referential forms such as pronouns, demonstratives, and full NPs are used primarily to introduce new participants in the discourse, for disambiguation in discourse with high referential density, and for emphasis.

1.2.4.9 Clause combining

Clause combining constructions include relative clauses and related constructions, purpose clauses, topical medial clauses, sequential clauses, and clause coordination.

Relative clauses follow the head noun. A resumptive referential device within the relative clause is common, as is a coreferential form after the relative clause. It is thus possible to have a relative clause construction with three coreferential forms: the head NP, the resumptive referential device in the relative clause, and the coreferential form following

in the main clause. However, none of these is obligatory, and it is possible to have a headless relative clause with no referential forms referring to the entity, which is understood from context. Noun complements precede the head noun and are much less common in discourse than relative clauses. Nominalized relative clauses are a specialized and highly restricted type of relative clause, used most frequently for coining new terms.

Purpose clauses have dedicated suffixing morphology and are either embedded within a matrix clause or exist as an independent clause, in which case there is a semantic dependency relationship, but not a formal one, with another clause.

Topical medial clauses are formed with the topic marker, which also marks nominal topics in clauses. Verbs in these clauses take a subset of the inflectional morphology that occurs on final verbs. These clauses are used for backgrounding information and most commonly occur singly before a final clause. Clause chaining with long strings of medial clauses, such as that found in other Papuan languages, is not found in Abawiri.

Sequential clauses are a distinct type of medial clause, being used primarily in sequential contexts, in contrast to topical medial clauses that are not limited to sequential contexts. No TAM distinctions are made in sequential clauses. Both topical medial clauses and sequential clauses are used for Tail-Head Linkage, the recapitulation of a previous final clause.

Coordination of final clauses is accomplished with a set of five coordinating conjunctions expressing logical relationships between clauses, and an additional three

coordinating conjunctions expressing sequential relationships. Juxtaposition of final clauses is an additional coordination strategy, and is the only strategy used for reported speech.

1.3 This grammar

In order to assist the reader in making use of the grammar, this section introduces the theoretical approach to linguistic structure taken here (§1.3.1), the documentary corpus that forms the basis of the description (§1.3.2), and the organization of this grammar (§1.3.3).

1.3.1 Theoretical approach

This grammar takes a functional view of language that sees language as an emergent system (MacWhinney 1999; O’Grady 2008; Hopper 2014) shaped by the interactional needs of speakers (Garrod & Pickering 2004; Goodwin & Goodwin 2004) and constrained by human cognition (Chafe 1979; 1987; 1994). To understand language, it is thus necessary to anchor explanations in the language-external facts of interaction and cognition. Additionally, a grasp of cross-linguistic variation is important since it shows what types of systems tend to arise and what types do not; thus, linguistic typology (Comrie 1989; Croft 2001; Trudgill 2011; Gordon 2016) is important in a functional approach. Further, studying how languages change through time gives insight into both the cognitive pressures and the social mechanisms through which languages become as they are. For this reason, study of change-related phenomena such as grammaticalization (Hopper & Traugott 2003; DeLancey 2011) and lexical diffusion (Pierrehumbert 2001; Bybee 2007; 2010) is central in a

functional approach. In sum, explanations in a functional approach to language are rooted in an understanding of interaction, cognition, linguistic typology, and language change.

This dissertation attempts to frame the linguistic facts of Abawiri in terms of the above factors. For example, studying zero anaphora relies both on interaction (how speakers and listeners manage information in talk) and cognition (e.g. how much referential information listeners can remember over long stretches of discourse).

Typological variation informs the dissertation throughout, as Abawiri linguistic features are compared with the typological literature, especially that on Papuan languages. Special note is made of typologically unusual features since this has potential to further our understanding of what is and what is not possible in human language. Finally, understanding a language in diachronic context can inform synchronic description; for example, the intersection of diachronic gradualness and synchronic gradience (Traugott & Trousdale 2010) often provides helpful insights into the distribution of features and variants within a language.

1.3.2 The documentary corpus

Because of the emphasis on linguistic typology within a generally functional approach to language, it is necessary to document and describe a wide variety of languages. There is thus significant overlap between the goals of language documentation (Woodbury 2003; Gippert, Himmelmann & Mosel 2006) and functional linguistics. Because this dissertation provides a description of the Abawiri language as it is actually used, best practices in language documentation have been followed in order to build a “lasting,

multipurpose record of a language” (Himmelmann 2006: 2). Products of the documentation project include audio and video recordings (§1.3.2.1), a portion of which was transcribed and translated (§1.3.2.2), resulting in interlinearized texts (§1.3.2.3).

1.3.2.1 Audio and video recording

The heart of this documentation project is a set of high-quality video and audio recordings of speech events among Abawiri speakers. Recordings of a wide variety of speech events were created during the documentation project. Primarily monologic material includes first and third person narratives, old battle tales, folktales, origin narratives, procedures, public speeches, and sermons. Recordings of talk-in-interaction include informal conversation as well as conversations around description of objects. Additional recordings include a set of locally composed Abawiri songs.

While the best source for a language description is naturally occurring connected speech, it is at times necessary to supplement this corpus data with elicitation and experimental data in order to research specific issues or clarify aspects of the language that are difficult to analyze from a corpus of connected speech (Mithun 2014). Four structured elicitation tasks were conducted. The first is the staged events recordings (van Staden et al. 2001), a set of video clips and images designed to elicit descriptions of complex events. Two Abawiri speakers recorded descriptions of the 87 video clips and 87 images in these recordings. The descriptions given by these two speakers during this task are particularly useful in analysis of serial verb constructions (§5.3.1).

The second structured elicitation task was the Pear Film (Chafe 1980), a six-minute film without language in which actors engage in a variety of complex tasks and interactions. Speakers watch the film and then retell the story to others who have not seen the film. One Abawiri speaker watched the Pear Film and was recorded retelling it. The speech in this recording has less zero anaphora than in spontaneous discourse and shows many examples of referential disambiguation.

The third structured elicitation task was a picture sequencing task (San Roque et al. 2012). In this task, speakers are given a series of cards with scenes from a fictional narrative and asked to arrange them in a sequential order, then to retell the story to others. Several failed attempts to record this task are not archived in the corpus; however, one successful retelling is in the corpus and provides many examples of referential disambiguation.

The final structured elicitation task is the set of scenarios designed to elicit conversations about moral issues (Senft 2003). This task proposes a set of eight morally challenging scenarios, and speakers are asked to discuss what would happen if this scenario took place in their context. Two village leaders worked with me to record their discussion of five out of the eight scenarios. These recordings are particularly rich in habitual constructions, both past and present, as well as in counterfactuals.

Recordings included both high-definition video and audio. Most recordings were created with a Zoom Q8 video recorder, which can simultaneously record high definition video and two channels of high definition audio via XLR input. Microphones included the

Shure SM-35 XLR headworn microphone, the Audio-Technica AT8010 condenser omnidirectional microphone, and the Audio-Technical AT8033 condenser cardioid microphone. Backup audio recordings were also created simultaneously with the main audio/video recordings using a Zoom H4n audio recorder. In a few cases where video was not possible, recordings were created with the Zoom H4n alone.

The total length of the audio and video recordings in the corpus is 21 hours and 5 minutes and is archived at the SIL International Language & Culture Archives, accessible at <https://www.sil.org/resources/archives/84819>. A list of the speakers whose speech is recorded in the documentary corpus is given in Appendix B.

1.3.2.2 The transcribed and translated corpus

A subset of the corpus was selected for transcription and translation, totaling 7 hours and 51 minutes or 37% of the time length of the corpus. Selection of recordings for transcription and translation was based primarily on representativeness and diversity, ensuring that a wide variety of speech types are represented in the transcribed and translated material. Table 1 below shows the transcribed and translated portion of the corpus. This transcribed and translated material is the primary data for the dissertation and is referred to throughout the dissertation as “the corpus”. A list of all the texts in the corpus, along with basic metadata about each, is given in Appendix A.

Table 1. The transcribed and translated corpus

Type	Texts	Minutes	Words
First person narrative	10	50	8,206
Third person narrative	5	28	4,723
Folktale	4	59	5,472
Origin narrative	4	34	5,739
Procedure	3	15	2,201
Public speech	1	11	1,952
Sermon	2	61	7,401
Conversation	2	20	4,634
Song	8	52	976
Structured elicitation	5	141	11,841
Written	3	n/a	1,086
TOTAL	47	471	54231

The category labeled “structured elicitation” appears to be over-represented in the corpus, being the category with the greatest time length of recording and the most words. However, as discussed above, this category includes several types of activities including retelling of individual events, retelling of whole narratives, and relatively unstructured conversations around particular topics.

In addition to this primary corpus, secondary reference was made to a set of 20 Bible stories translated by community members. These stories were translated orally, transcribed, checked by an outside translation consultant, and then recorded. The stories were made available to me after they had been finished. Thus, while the medium is

(recorded) speech, it is not spontaneous speech and differs in a number of ways from spontaneous speech as discussed in the relevant sections of the dissertation. These 20 stories, totaling 3,775 words, were referenced for comparison with the main corpus and were for the most part not included in the analysis or used as examples, except where there was a difference in use of grammatical constructions such as the use of noun complements (§8.2). Direct elicitation supplemented the corpus when necessary for clarification.

Transcription and translation into Indonesian was conducted with the help of native speakers and using the software program ELAN (Max Planck Institute for Psycholinguistics 2020). The texts were then imported into FieldWorks (SIL 2020) for morpheme-level interlinearization. I later made a second translation into English. The corpus was organized using SayMore (Hatton 2013).

Three text excerpts of roughly 50 lines each are given in the appendices. Appendix C contains an excerpt from a first person narrative, Appendix D contains an excerpt from a procedural text, and Appendix E contains an excerpt from a hortatory and expository text. The narrative and hortatory texts are primarily monologic, while the procedural text is a conversation.

1.3.2.3 Interlinear examples

The texts in the corpus are transcribed using the technical orthography described in §2.7.2. In addition to the representation of segments and tone, interlinear transcriptions include a rough representation of intonation. A binary pitch distinction is made between

falling vs. non-falling pitch at the end of the intonation unit (IU), and a binary temporal distinction is made between pause and non-pause. The symbols used are given in Table 2.

Table 2. Transcription of intonation

Symbol	Value
#	falling pitch at the end of the IU
,	non-falling pitch at the end of the IU
/	pause
(no symbol)	no pause

The symbols for pitch and pause are used in combination. For example, typical final IUs end with a falling pitch and are followed by a pause (see §2.5); thus, these are marked with both of the relevant symbols as shown in the interlinear example below in (1).

- (1) *fērti rōu bwo-u bóre # /*
 ground.python big become-CMP be
 ‘He became a big python.’ 81448.1

Line breaks indicate syntactic boundaries rather than intonational boundaries. Each line of interlinear text contains a final clause, along with any accompanying clauses of other types: medial clauses, relative clauses, and so on (see chapter 8 on clause combining). When syntactic boundaries and intonational boundaries do not coincide, markers of intonation are found in the middle of the line as shown in (2).

- (2) *e du bwàbwei , / d̄yi gi afre bwo-u bóre # /*
 1.PL PROX then person FOC know become-CMP be
 ‘We have found out about the people.’ 91276.1

This example contains a single clause with two IUs. The first IU ends with a non-falling pitch (marked with a comma <, >) and a pause (marked with a slash </ >), while the second IU ends with a falling pitch (marked with a pound sign <# >) and a pause.

False starts, where a speaker begins to say something, stops, and starts again, are transcribed in (parentheses). This is exemplified in (3).

(3) (dúke) dúke fukári # /
bird bird all
'All the birds.'

808a19.1

1.3.3 *How the grammar is organized*

Presentation of the structure of a language in linear format is difficult. A language is a web of interconnected constructions, and any given piece of the web relates to multiple other pieces. The dissertation is organized roughly from the smallest units (phonology) to the largest units (clause combining), with cross-references throughout where one construction relates to another construction discussed elsewhere.

The dissertation is organized from form to function rather than from function to form. Formally similar constructions (e.g. verbal suffixes) are treated together regardless of their functions; conversely, functionally similar constructions (e.g. the analytic, SVC, and prefixing causative constructions) are treated in the sections corresponding to the forms of the constructions. While the form-to-function approach allows for the clearest presentation of the formal properties of the grammar, it tends to mask functions. Pluractionality, for example, can be indicated either with a verbal prefix or with a serial verb construction; the

discussion of pluractionality is thus distributed across two sections. Cross-references indicate where functionally similar but formally distinct constructions are discussed elsewhere in the grammar.

The chapters are organized as follows. Chapter 2 presents both segmental and tonal phonology. Chapter 3 gives a discussion of word classes. Chapters 4 and 5 cover topics related to verbs and verb phrases: prefixing and suffixing morphology on verbs in chapter 4, and various issues relating to the verb complex in chapter 5: serial verb constructions, and pre- and post-verbal auxiliary constructions. Chapter 6 deals with the issue of referring expressions in clauses, showing that the relational typology of Abawiri referring expressions is primarily one of topic-comment rather than of grammatical relations. Chapter 7 presents other issues related to clausal syntax, including noun-verb idioms, coverb constructions, non-verbal predicates, and clause types. Chapter 8 discusses clause combining constructions: relative clauses and other noun modifying clause constructions, purpose clauses, medial clauses, Tail-Head Linkage, and clause coordination.

Each chapter ends with a chapter summary, where the contents of the chapter are summarized in a succinct way. Readers who are looking for a quick overview of the features covered in a particular chapter should consult the chapter summary first.

Chapter 2 Phonology

This chapter introduces the segmental and suprasegmental phonology of Abawiri. There are seventeen consonants, an unusually large number of consonants for a Lakes Plain language due to a full series of labialized obstruents (§2.1). There are seven contrastive vowels (§2.2). Syllables are relatively simple, with maximally two onset consonants and two vowels in the nucleus. /r/ is the only consonant in syllable codas (§2.3). Like all other Lakes Plain languages, Abawiri is tonal (§2.4). There are two tone heights, /H/ and /L/, in addition to a derived /M/ tone, that combine to form eight tone patterns on morphemes. Anticipatory tonal polarity before a /L/ tone is a robust phonological process in the language. Prosodic properties of Abawiri intonation units (IUs) are discussed in §2.5, followed by a discussion of the phonology of loanwords in §2.6. Orthographies (§2.7) include the community orthography resulting from an ongoing collaborative effort with community members (§2.7.1) and the technical orthography used in the remaining chapters of the dissertation (§2.7.2). A summary of Abawiri phonology is provided in §2.8.

The following transcription conventions are followed in the running text in this chapter. Phonetic transcriptions are provided in [brackets], while phonological transcriptions are given between /slashes/. In phonetic transcriptions tone diacritics over vowels indicate relative pitch (e.g. [dɛ̀β̀i] indicates L pitch on both syllables of the word). Conversely, in phonological transcriptions tone diacritics indicate phonological tones (e.g. /dɛ̀bi/ indicates a /L/ tone associated with the first syllable of the word). Phonological

floating /^L/ tones before words are indicated in transcriptions with a grave accent prior to the first segment of the word (e.g. /^ˋfóbi/ ‘lorikeet’). Orthographic representations are given between <angle brackets>.

2.1 Consonants

This section presents Abawiri consonants, including inventory (§2.1.1), minimal pairs demonstrating contrast (§2.1.2), a description and summary of the distribution of each consonant (§2.1.3), the frequency of occurrence of each consonant (§2.1.4), and consonant sequences (§2.1.5).

2.1.1 Inventory

Abawiri has seventeen contrastive consonants as shown in Table 3.

Table 3. Consonants

	Labial		Alveolar		Post-alveolar		Velar	
Voiceless stops			t	t ^w			k	k ^w
Voiced stops	b	b ^w	d	d ^w	dʒ	dʒ ^w	g	g ^w
Fricatives	f	f ^w	s	s ^w				
Rhotic			r					

The approximants [j] and [w] are frequent in Abawiri; they are analyzed as allophones of the high vowels /i/ and /u/, respectively (see §2.2.5).

The Abawiri consonant inventory is by far the largest that has yet been described for a Lakes Plain language due in large part to the full series of labialized consonants. Among

other Lakes Plain languages, Iau has six consonants (Bateman 1990a), as does Obokuitai (Jenison & Jenison 1991), Doutai has nine consonants (Donohue et al. 2006), Edopi has ten consonants (Kim 1996), as do Sikaritai (Liem 2007) and Duvle (Clouse 1997). Other languages have at most one labialized consonant: Doutai and Sikaritai both have /k^w/. Clouse (1997) reconstructs only five consonants to Proto Lakes Plain: *p, *t, *k, *b, and *d. This is probably the smallest consonant inventory ever proposed for any language, smaller than the six-consonant systems of Iau (Bateman 1990a) and the more widely known Rotokas (Firchow & Firchow 1969). The labialized consonant series in Abawiri could have come about via contact with the Tor languages Berik (spoken to the northwest) and Orya (spoken to the northeast). Both of these languages also have an extensive set of labialized consonants (Westrum & Westrum 1975; Fields 1991; Foley 2018a: 473).¹

Perhaps the most striking thing about the Abawiri consonant inventory is the complete lack of nasals. This is rare cross-linguistically, found in only 12 languages in a 567-language sample (Maddieson 2013a). There are no nasals at all in Abawiri, even as allophonic variants of stops. The velum is simply never lowered during production of speech, except in occasional back channels such as [m:] and pronunciation of loanwords and place names from other language areas such as [madɛr] ‘Mander language’. Complete lack of nasals has been noted for several other Lakes Plain languages, including Obokuitai (Jenison & Jenison 1991), Sikaritai (Martin 1991), Doutai (Donohue et al. 2006), and Duvle (Clouse 1997). Other Lakes Plain languages have phonetic nasals that are allophones of

1. Thanks to Bill Foley for pointing out this fact.

voiced stops, including Iau (Bateman 1990a), Fayu, Kirikiri, Tause, and Edopi (Clouse & Clouse 1993). No language in the family is known to have contrastive nasal consonants, and Clouse (1997) does not reconstruct nasals for Proto Lakes Plain. In fact, because of the rarity of this phenomenon and the fact that the Lakes Plain languages are known largely from basic phonology sketches, the lack of nasals is often cited in overviews of languages in the region (Donohue 1997; Foley 2000), as well as in typological work on nasal consonants (Hyman 2008; Maddieson 2009). The language Keuw, also in the Mamberamo region and likely an isolate, also has no nasals (Kamholz 2012). The phonological inventory of Keuw looks very similar to that of Lakes Plain languages, but Kamholz concludes based on preliminary lexical evidence that the language is not part of the Lakes Plain family.

2.1.2 Minimal pairs demonstrating consonant contrast

Table 4 shows minimal and near-minimal pairs demonstrating contrast between pairs of consonants with similar articulation, in word-initial and word-medial position. When possible, monomorphemic minimal pairs with an identical tone pattern are presented; consonants in word-initial position are followed by a vowel, and those in word-medial position are intervocalic. In cases where no pair of words matches these criteria, a minimal pair with a slightly different phonetic make-up was selected. In the absence of minimal pairs, a near-minimal pair is shown where the two words have at least one additional tonal or segmental difference. Several of the labialized consonants are not attested word-medially, so the relevant cells in Table 4 are left blank. Each word is shown

in both phonological and phonetic form, the phonetic form being the articulation of the word in isolation.

Table 4. Contrast for consonants

	Initial			Medial		
/b/ - /f/	/bidʒai/	[bìdʒàì]	‘tree sp.’	/óbar-i/	[óβàrì]	‘approach- INCMP’
	/fidʒai/	[fìdʒàì]	‘thunder’	/ófari/	[ófàrì]	‘be hungry’
/b/ - /b ^w /	/bɔ/	[bɔ̀]	‘1.SG.GEN’			
	/b ^w ɔ/	[b ^w ɔ̀]	‘under’			
/f/ - /f ^w /	/fi/	[fì]	‘sago’	/ófari/	[ófàrì]	‘be hungry’
	/f ^w i/	[f ^w ì]	‘sago dregs’	/óf ^w ar-i/	[óf ^w àrì]	‘pull-INCMP’
/b ^w / - /f ^w /	/b ^w ɔ̀r-i/	[b ^w ɔ̀rì]	‘kick-INCMP’			
	/f ^w ɔ̀r-i/	[f ^w ɔ̀rì]	‘shoot-INCMP’			
/t/ - /d/	/tikɔ̀ry/	[tìkɔ̀rỳ]	‘string bag’	/`fátu/	[fātù]	‘tree sp.’
	/dikɔ̀ry/	[dìkɔ̀rỳ]	‘bird sp.’	/f ^w adu/	[f ^w adù]	‘bird sp.’
/t/ - /t ^w /	/tɔ̀ri/	[tɔ̀rì]	‘hair’	/`fátu/	[fātù]	‘tree sp.’
	/t ^w ɔ̀ri/	[t ^w ɔ̀rì]	‘wound’	/`át ^w ɔ̀rɛ/	[āt ^w òrɛ̀]	‘live (adj.)’
/d/ - /d ^w /	/dɔ̀i/	[dɔ̀ì]	‘charcoal’			
	/d ^w ɔ̀i/	[d ^w ɔ̀ì]	‘sister’			
/t ^w / - /d ^w /	/t ^w ɔ̀ri/	[t ^w ɔ̀rì]	‘old’			
	/d ^w ɔ̀ri/	[d ^w ɔ̀rì]	‘cockatoo’			
/t/ - /s/	/tɔ̀k ^w rɛ/	[tɔ̀k ^w rɛ̀]	‘head’	/fiti/	[fìtì]	‘basket’
	/sɔ̀krɛ/	[sɔ̀krɛ̀]	‘rodent sp.’	/bisikɛ/	[bìsikɛ̀]	‘negativity’
/f/ - /s/	/fy/	[fỳ]	‘slime’	/bifidɛ/	[bìfidɛ̀]	‘sago sp.’

	Initial			Medial		
	/sy/	[sỳ]	‘feces’	/bisike/	[bìsikè]	‘negativity’
/s/ - /s ^w /	/`sɔ́/	[sɔ́]	‘pig’			
	/`s ^w ɔ́/	[s ^w ɔ́]	‘tree sp.’			
/d/ - /r/	/dèbi/	[dèβì]	‘child’	/eidi/	[èidì]	‘reel’
	/règi/	[règì]	‘ash’	/eiri/	[èirì]	‘pounder front’
/t/ - /r/	/`tɔ́u/	[tɔ́u]	‘cuscus sp.’	/uɔ́tɔ́/	[wòtò]	‘edge’
	/`rɔ́u/	[rɔ́u]	‘big’	/uɔ́rɔ́/	[wòrò]	‘back’
/d/ - /dʒ/	/du/	[dù]	‘2.sg’	/sidai/	[sìdài]	‘arrowhead’
	/dʒu/	[dʒù]	‘maggot’	/fidʒai/	[fìdʒài]	‘thunder’
/dʒ/ - /dʒ ^w /	/dʒà/	[dʒà]	‘rainbow’			
	/dʒ ^w a/	[dʒ ^w à]	‘above’			
/d ^w / - /dʒ ^w /	/d ^w ɔ́ri/	[d ^w ə̀rì]	‘cockatoo’			
	/dʒ ^w ɔ́r-i/	[dʒ ^w ə̀rì]	‘care.for-INCOMP’			
/t/ - /k/	/tìɔ́rɛ/	[tìðrè]	‘oar’	/uɔ́rátài/	[wòrátài]	‘forearm’
	/kìɔ́rɛ/	[kìðrè]	‘sago sp.’	/`uɔ́rakai/	[wòràkài]	‘throat’
/dʒ/ - /g/	/dʒukɔ́/	[dʒùkò]	‘mushroom’	/kudʒeta/	[kùdʒètà]	‘frog sp.’
	/gukarɛ/	[gùkàrè]	‘afternoon’	/srugɛ/	[srùgè]	‘kingfisher’
/k/ - /g/	/kyry/	[kỳrỳ]	‘island’	/kíkɔ́/	[kíkò]	‘bird sp.’
	/gyry/	[gỳrỳ]	‘banana sp.’	/kìgɔ́/	[kìgò]	‘vine sp.’
/k/ - /k ^w /	/krari/	[kràrì]	‘banana sp.’	/sɔ́krɛ/	[sòkrè]	‘rat sp.’
	/k ^w rari/	[k ^w ràrì]	‘vine sp.’	/tɔ́k ^w ɛ/	[tòk ^w rè]	‘head’
/g/ - /g ^w /	/gi/	[gì]	(focus marker)	/dígò/	[dígò]	‘ax’

	Initial			Medial	
	/g ^w i/	[g ^w ɨ]	‘banyan’	/idig ^w a/	[idìg ^w à] ‘sound’
/k ^w / - /g ^w /	/k ^w ɔri/	[k ^w ə̀rì]	‘tree sp.’	/tɔk ^w rɛ/	[tòk ^w rè] ‘head’
	/g ^w ɔri/	[g ^w ə̀rì]	‘butterfly’	/wɔg ^w rɛ/	[wòg ^w rè] ‘brush turkey’

2.1.3 Description and distribution of individual consonants

In this section each consonant is described, along with a statement concerning allophones and distribution of the phoneme, as applicable. The presentation is organized as follows: plain stops and affricate (§2.1.3.1), plain fricatives (§2.1.3.2), labialized stops and affricate (§2.1.3.3), and labialized fricatives (§2.1.3.4). The rhotic /r/ is discussed immediately after /d/ in §2.1.3.1 because of the phonological affinity between these two consonants.

2.1.3.1 Plain stops and affricate

In general, plain stops, affricates, and fricatives can occur word-initially before vowels and /r/, word-medially between vowels, after /r/ across a syllable boundary, and before /r/ in syllable onsets. Several of the plain consonants have a more restricted distribution as discussed below.

/b/ is a voiced bilabial obstruent. It has two allophones: [b] word-initially as in (4), and [β] after a vowel, as in (5).

- (4) /bàtúia/ [bàtúà] ‘squash’
 /brè-i/ [brèi] ‘call’

- (5) /ɛ̃bai/ [ɛ̃βàì] ‘uncle’
/ɛ̃brɛ/ [ɛ̃βrɛ̃] ‘nest’

Post-vocalic lenition does not occur in lexically reduplicated forms; e.g. /bribri/ [brìbrì] ‘fly sp.’ and /baibai/ [bàìbài] ‘tree sp.’.

/t/ is a voiceless alveolar stop. It occurs word-initially before vowels and /r/, as well as word-medially between vowels, after /r/ across a syllable boundary, and before /r/ in syllable onsets. The rhotic can occur both before and after /t/, e.g. /ɛrtra/ ‘angry’. No other consonant occurs with a rhotic on each side except /s/ in verb-verb compounds (see below).

/d/ is a voiced alveolar stop. It occurs word-initially before vowels and /r/, as well as word-medially between vowels, after /r/ across a syllable boundary, and before /r/ in syllable onsets. It is far more frequent word-initially than word-medially, where /r/ is more frequent.

/r/ is a voiced alveolar flap. It occurs word-initially before vowels and intervocalically, as well as in complex syllable onsets after any obstruent except /t^w/, /d^w/, /s^w/, and /dʒ^w/ (see §2.1.5 on consonant sequences). There is a strong tendency for /d/ to occur word-initially and for /r/ to occur elsewhere. The frequency of each is shown in Table 5.

Table 5. Type frequency of /d/ and /r/ in the lexicon

	initial	medial	TOTAL
/d/	175	56	231
/r/	26	1028	1054
TOTAL	201	1084	1285

76% of occurrences of /d/ are word-initial, and 98% of occurrences of /r/ are word-medial. However, there is clear contrast between the two in a few words, both word-initially and word-medially, as shown in the near-minimal pairs in (6).

(6)

/dabi/ [dàβi] ‘talk’

/rábi/ [ráβi] ‘toe’

/idig^wa/ [ìdìg^wà] ‘sound’

/iri/ [ìrì] ‘plant sp.’

The static preference for word-initial /d/ and word-medial /r/ in the lexicon does not have an analog as an active phonological process. A few verb roots end with /d/; this remains invariant when suffixation puts the /d/ in intervocalic position; e.g. /bəd-u/ [bèdù] ‘say-CMP’. Further, word-initial /d/, when coming after a previous word-final vowel, retains its status as /d/, even in very frequently co-occurring sequences such as *a du* ‘1.SG PROX’ and *e du* ‘1.PL PROX’ (see §3.5.1.1).

Clouse’s (1997) reconstruction of Proto Lakes Plain does not include the rhotic in the phoneme inventory, although he states that its status is not completely clear. Contrastive /r/ does not exist in any of the other modern Lakes Plain languages. In most of

the other languages, a phoneme /d/ has a word-initial allophone [d] and word-medial allophone [r]. Given the comparative facts and the continuing partial complementary distribution of [d] and [r], there was likely a historical sound change in Abawiri that created contrast between the two segments. Synchronically, however, speakers clearly differentiate /d/ and /r/, consistently representing the two as <d> and <r>, respectively, in the community orthography (§2.7.1).

/dʒ/ is a voiced postalveolar affricate. It occurs word-initially and word-medially, before /ɛ, a, ɔ, u/, but not before high front vowels /i, i, y/. This distribution suggests that a historical process of palatalization gave rise to this consonant. Word-medially, it can be preceded by /r/ or any vowel. /dʒ/ is in partial complementary distribution with /g/; see below.

/k/ is a voiceless velar stop. It occurs word-initially before vowels and /r/, as well as word-medially between vowels, after /r/ across a syllable boundary, and before /r/ in syllable onsets.

/g/ is a voiced velar stop. It occurs word-initially before the high vowels /i, y, u/, as well as word-medially between vowels and before /r/ in syllable onsets. There is a single occurrence of /g/ after /r/ across a syllable boundary: /fɛrgɔ/ [fɛr.gɔ] ‘snake sp.’. /g/ is in partial complementary distribution with /dʒ/, with which it may have a historical connection. However, there is contrast word-initially before /u/ as well as word-medially; see Table 4 on page 38 above. Unlike the other plain obstruents, /g/ is much less frequent

than its labialized counterpart /g^w/, which also has a less restricted distribution. See the discussion under /g^w/ in §2.1.3.3.

2.1.3.2 Plain fricatives

/f/ is a voiceless labial fricative. It occurs word-initially before vowels and /r/, as well as word-medially between vowels and before /r/ in syllable onsets. It is realized variously as [f]~[ɸ]. The bilabial fricative [ɸ] tends to occur adjacent to round or labial vowels [y, o, ɔ, u], while the labiodental fricative [f] tends to occur elsewhere. There is some variability in the articulation of this consonant, both within the speech of individual speakers and across speakers, and even in the same environment. There is no categorical allophonic process such that /f/ → [ɸ] adjacent to round or labial segments.

/s/ is a voiceless alveolar sibilant. It occurs word-initially before vowels and /r/, as well as word-medially between vowels. In a few instances it occurs with both a preceding and following /r/; e.g. /uɔrsrɛ-i/ [wòr.srèi] ‘wear.clothing-INCMP’. The syllable boundary in this example coincides with a historical morpheme boundary in this verb-verb compound (§3.12.3).

2.1.3.3 Labialized stops and affricate

The distribution of labialized obstruents is somewhat more restricted than that of plain obstruents. Labialized consonants do not co-occur with a following /u/. Further, several of the labialized consonants do not occur word-medially. /f^w/, /t^w/, /k^w/, and /g^w/

occur both word-initially and word-medially, while /b^w/, /d^w/, /dʒ^w/, and /s^w/ only occur word-initially.

Obstruent + [w] is analyzed as a labialized consonant rather than a sequence of segments for several reasons. The main criteria have to do with onset clusters. In addition to onset clusters C + [r] (e.g. /krí/ [krí] ‘betel leaf’), there are also sequences of C + [w] + [r] (e.g. /k^wrì/ [k^wrì] ‘tree sp.’; see §2.1.5 on consonant sequences). If the [w] were analyzed as a separate segment, this would create the only 3-unit sequences in onset clusters. More importantly, this would also create an onset cluster where the sonority first rises, then falls. The Sonority Sequencing Principle or SSP (Clements 1990; Parker 2012) would be violated here, which is rather rare cross-linguistically. Under the analysis that considers the obstruent and the [w] to be separate segments, the [w] would be derived from a phonological high vowel (see §2.2.5). It would be difficult to find a phonetic motivation for a phonological process such that /CwV/ (CVCV) becomes [CwV] (CCCV), with a highly dispreferred sonority sequence. More straightforward is an analysis of C + [w] sequences as labialized consonants /C^w/. In this analysis, syllables have maximally 2 onset consonants, and there is no SSP violation.

/b^w/ is a voiced bilabial labialized stop. It only occurs word-initially, before any vowel or /r/.

/t^w/ is a voiceless alveolar labialized stop. It only occurs before /ɔ/, both word-initially (e.g. /t^wɔ̄rɛ/ [t^wɔ̄rɛ] ‘tree sp.’) and word-medially (e.g. /`át^wɔ̄rɛ/ [át^wɔ̄rɛ] ‘live

(adj.)). /t/ also occurs in this environment, and there are a few near-minimal pairs (see Table 4).

/d^w/ is a voiced alveolar labialized stop. It only occurs word-initially, before mid vowels /e, ɔ/. /d/ also occurs in this environment, and there are a few near-minimal pairs (see Table 4).

/dʒ^w/ is a voiced postalveolar labialized affricate. It is the least frequent of all the consonants with only five occurrences in the lexicon, all of which are word-initial before a non-high vowel. These five occurrences are given in (7).

- (7)
- | | | |
|---------------------------------------|--|------------------|
| /dʒ ^w a/ | [dʒ ^w à] | ‘above’ |
| /dʒ ^w ɛrɔr-i/ | [dʒ ^w ɛrɔ̀rì] | ‘throw.up-INCMP’ |
| /dʒ ^w ak ^w rɔi/ | [dʒ ^w àk ^w rə̀i] | ‘dollarbird’ |
| /dʒ ^w ɔr-i/ | [dʒ ^w ə̀rì] | ‘care.for-INCMP’ |
| /dʒ ^w aikare/ | [dʒ ^w àikà̀rè] | ‘active’ |

/k^w/ is a voiceless velar labialized stop. It occurs word-initially before vowels and /r/, as well as word-medially between vowels and before /r/ in syllable onsets.

/g^w/ is a voiced velar labialized stop. It occurs word-initially before vowels and /r/, as well as word-medially between vowels and before /r/ in syllable onsets. It is the only labialized consonant with a wider distribution and greater frequency than its plain counterpart. The relative type frequencies of the plain and labialized consonants in the lexical database is given in Table 6. The final column in Table 6 gives the proportion of the

frequency of each labialized consonant to its plain counterpart. See also the bar chart of consonant frequencies in Figure 4 on page 49 below.

Table 6. Plain vs. labialized consonant frequency

Plain		Labialized		Labialized/Plain
b	352	b ^w	53	15%
f	188	f ^w	110	59%
t	269	t ^w	17	6%
d	227	d ^w	16	7%
s	173	s ^w	6	3%
dʒ	143	dʒ ^w	5	3%
k	265	k ^w	45	17%
g	45	g ^w	146	324%

While the other labialized consonants are between 3% and 59% as frequent as their plain counterparts, labialized /g^w/ is over three times as frequent as plain /g/. Further, in the majority of cases, /g/ is followed by a rounded vowel such as /y/, /ɔ/ or /u/; in fact, word-initial /g/ only occurs before /y/, with the exception of the focus marker /gi/ [gi] and /gudʒɛkare/ [gùdʒèkàrè] ‘skin’. This initially suggests an analysis of [g] as phonological /g^w/, whose labialization merges with the rounding of the vowel. There are, however, several unambiguous occurrences of plain [g] where an analysis as /g^w/ is improbable. Some examples demonstrating contrast are shown in (8).

- (8) /bɔgɛi/ [bɔ̀gèi] ‘frog’
 /jáḡ^wɛi/ [jáḡ^wèi] ‘waist’
- /kàḡa/ [kàḡà] ‘parrot sp.’
 /afrɛḡ^wa/ [àfrèḡ^wà] ‘witness’
- /ḡi/ [ḡì] ‘focus marker’
 /ḡ^wi/ [ḡ^wì] ‘sago’

I do not currently have an explanation for the unusual relative frequencies of /g/ and /g^w/. Labialized consonants are rather rare among other Lakes Plain languages, and none has /g^w/, so this consonant must have developed in Abawiri rather recently.

Diachronic work is needed to show how the labialized series developed; perhaps this will also shed light on the overwhelming frequency of /g^w/.

2.1.3.4 Labialized fricatives

/f^w/ is a voiceless labial labialized fricative. It occurs word-initially before vowels and /r/, as well as word-medially between vowels or with a following /r/ in a syllable onset. There is a single example of /f^w/ in an onset following a /r/ in a syllable coda: /ɛrf^war-i/ [èr.f^wàrì] ‘go.together-INCMP’. Synchronically there is no morpheme boundary between /r/ and /f^w/, although historically there may have been.

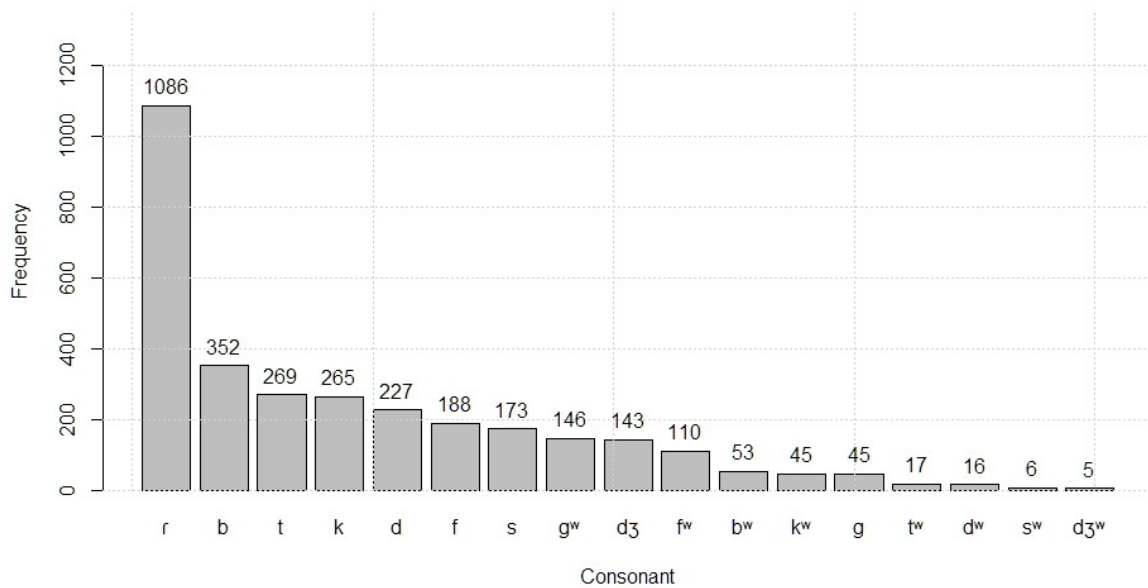
/s^w/ is a voiceless alveolar labialized sibilant. It is one of the least frequent consonants, along with /dʒ^w/, with only six occurrences in the lexical database. Each occurrence is word-initial, before /ɔ/. These are given in (9).

(9)	/s ^w ɔri/	[s ^w əri]	‘harvest’
	/`s ^w ɔri/	[s ^w əri]	‘grasshopper’
	/s ^w ɔrɛ/	[s ^w ərɛ]	‘tree sp.’
	/s ^w ɔru/	[s ^w òrù]	‘intestines’
	/`s ^w ɔ/	[s ^w ɔ]	‘tree sp.’
	/s ^w ɔrda/	[s ^w ərda]	‘lower back’

2.1.4 Frequency

Figure 4 shows the type frequency of consonants in the lexical database.

Figure 4. Consonant frequency



/r/, the only sonorant consonant, is by far the most frequent consonant in the language, over three times as frequent as the next-most frequent consonant /b/, and is

roughly equally frequent with the most frequent vowel /i/ (see §2.2.4 below). This consonant has an unusual distribution: there are no coda consonants other than /r/, codas being found only word-medially. /r/ is also the only consonant that almost never occurs word-initially (see §2.1.3.1 above).

The obstruent consonants show a rather even distribution, with most labialized consonants being substantially less frequent than their plain counterparts. The only labialized consonant that is more frequent than its plain counterpart is /g^w/ (see §2.1.3.3).

2.1.5 Consonant sequences

Consonant sequences consist maximally of two consonants, one of which is an obstruent and the other of which is /r/. In syllable onsets the order is obstruent - /r/. Word-initial and word-medial onset clusters with /k/ and /k^w/ are shown in (10).

- (10)
- | | | |
|---------------------------------------|---------------------------------------|--------------|
| /krí/ | [krí] | ‘betel leaf’ |
| /`ʒkra/ | [ɔ̄krà] | ‘widow’ |
| /k ^w rði/ | [k ^w rði] | ‘hole’ |
| /dʒ ^w ak ^w rði/ | [dʒ ^w àk ^w rði] | ‘dollarbird’ |

Only non-final syllables can have codas (§2.3); further, /r/ is the only segment that can occur in a syllable coda. The /r/ in the coda plus the following onset consonant create a heterosyllabic consonant sequence. Examples are shown in (11).

- (11) /`fɛ̀rti/ [fɛ̀r.tì] ‘snake’
 /sròrdʒa/ [sròr.dʒà] ‘tree sp.’
 /furku/ [fùr.kù] ‘whole’
 /ɛrfʷar-i/ [ɛr.fʷari] ‘go together-INCOMP’

While all the plain (non-labialized) consonants can follow /r/ across a syllable boundary, there is only one occurrence of a labialized consonant following /r/, the word [ɛr.fʷari] ‘go together’, shown in the last row of (11).

2.2 Vowels

This section discusses vowels in Abawiri, including inventory of vowel phonemes (§2.2.1), minimal pairs demonstrating contrast (§2.2.2), a description and summary of the distribution of each vowel (§2.2.3), and the frequency of each vowel (§2.2.4). The section ends with a discussion of the status of approximants, which are analyzed as allophones of high vowels, (§2.2.5) and vowel sequences (§2.2.6).

2.2.1 Inventory

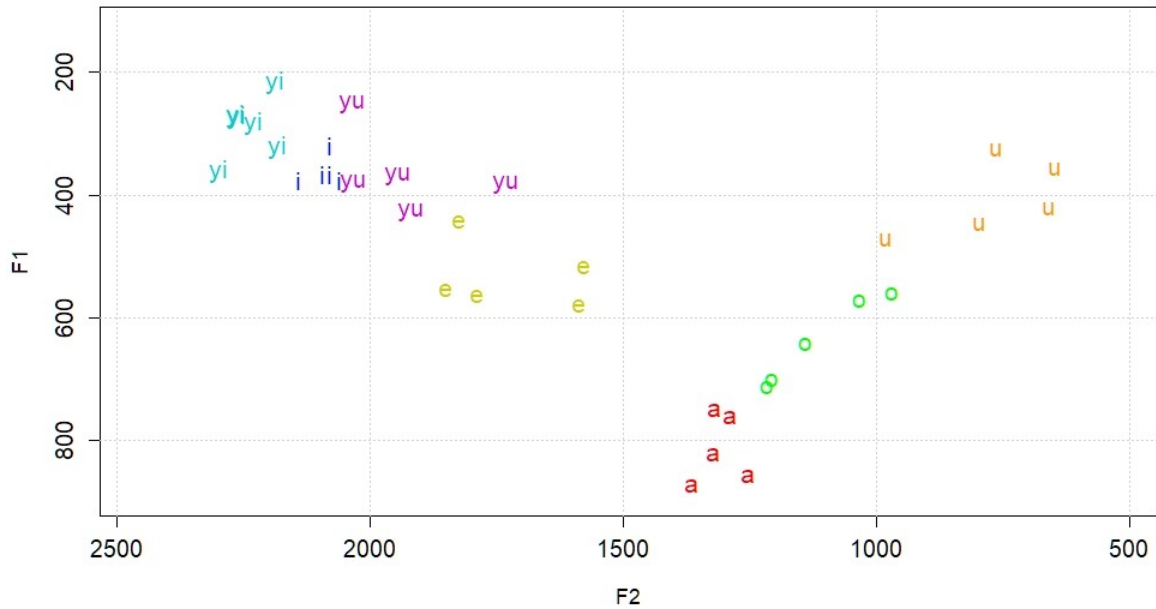
There are seven contrastive vowels in Abawiri as shown in Table 7.

Table 7. Vowels

	Front	Central	Back
Extra high	i		
High	i y		u
Mid	ɛ		ɔ
Low		a	

To obtain an approximation of the relative positions of the vowels in the vowel space, five tokens of each vowel were selected for a preliminary acoustic study. Each vowel is in the nucleus of a word-initial CV syllable of a disyllabic or trisyllabic, monomorphemic noun. All the tokens are recordings of careful speech from a single male speaker, Yulianus Wau, and from a single elicitation session. F1 and F2 measurements were taken at the midpoints of the vowels. A plot of these values is shown in Figure 5, where <yu> represents /y/ and <yi> represents /i/.

Figure 5. F1 and F2 of all vowels (measurements in Hz)



The vowels are distributed roughly as expected, with a crowded high front vowel space. See the discussion in §2.2.3.1 concerning the distinction between the three high front vowels.

2.2.2 Minimal pairs demonstrating vowel contrast

Table 8 shows minimal and near-minimal pairs demonstrating contrast between pairs of vowels with similar articulation, in word-initial, word-medial, and word-final position. When possible, pairs of words with the same tone pattern are shown.

Table 8. Contrast for vowels

/i/ - /i/	/iɾɛ/	[iɾɛ̃]	‘song’
	/iɾɛ/	[iɾɛ̃]	‘garden’

	/sɔ̀rɪkɛi/	[sɔ̀rɪkɛ̀i]	‘banana sp.’
	/sɔ̀rɪkɛi/	[sɔ̀rɪkɛ̀i]	‘red’
	/trɪ/	[trɪ]	‘fish sp.’
	/tri/	[trɪ]	‘lizard sp.’
/i/ - /y/	/ɪrɛ/	[ɪrɛ̀]	‘song’
	/yrɛ/	[ɹrɛ̀]	‘tree’
	/kɪdʒɛru/	[kɪdʒɛ̀rù]	‘tree sp.’
	/kydʒɛ/	[kɹdʒɛ̀]	[personal name]
	/àrɪ/	[àrɪ]	‘aunt’
	/àry/	[àrɹ]	‘eye’
/y/ - /i/	/yrɛ/	[ɹrɛ̀]	‘tree’
	/irɛ/	[ɪrɛ̀]	‘garden’
	/sɹɹɛ/	[sɹrɛ̀]	‘lungs’
	/sirɛ/	[sɪrɛ̀]	‘tree sp.’
	/trɹ/	[trɹ]	‘sibling-in-law’
	/tri/	[trɪ]	‘cleared land’
/y/ - /u/	/yrɛ/	[ɹrɛ̀]	‘tree’
	/úrɛ/	[úrɛ̀]	‘tree sp.’
	/dryrɛ/	[drɹrɛ̀]	‘hornbill’
	/srugɛ/	[srùgɛ̀]	‘kingfisher’
	/fy/	[fɹ]	‘slime’
	/fu/	[fù]	‘canoe’

/i/ - /ɛ/	/iri/	[ìrì]	‘plant sp.’
	/ɛri/	[èrì]	‘arrowhead’
	/`dɪbi/	[dīβì]	‘duck sp.’
	/dèbi/	[dèβì]	‘child’
	/t ^w ɔri/	[t ^w òrì]	‘old’
	/`t ^w ɔrɛ/	[t ^w ɔrè]	‘new’
/ɛ/ - /a/	/ɛru/	[èrù]	‘fish sp.’
	/aru/	[àrù]	‘song’
	/keri/	[kèrì]	‘vine sp.’
	/kari/	[kàrì]	‘cousin’
	/srè/	[srè]	‘bat sp.’
	/srà/	[srà]	‘swift (n)’
/u/ - /ɔ/	/úre/	[úrè]	‘tree sp.’
	/ðre/	[ðrè]	‘tree sp.’
	/suri/	[sùrì]	‘flute’
	/sðri/	[sðrì]	‘earth’
	/uɔru/	[wòrù]	‘stomach’
	/uɔrɔ/	[wòrò]	‘back’
/a/ - /ɔ/	/arɛ/	[àrè]	‘cliff’
	/ðre/	[ðrè]	‘tree sp.’
	/fabi/	[fàβì]	‘mountain’
	/`fɔbi/	[fɔβì]	‘lorikeet’
	/g ^w a/	[g ^w à]	‘ILL’
	/g ^w ɔ/	[g ^w ò]	‘INESS’

2.2.3 Description and distribution of vowels

Vowels occur in the nucleus of a syllable. The high vowels /y, i, ɨ, u/ can occur as offglides after the non-high vowels /ɛ, ɔ, a/. Further, /i/ and /u/ also occur in syllable onsets as approximants [j] and [w]; see §2.2.5 for an analysis of approximants as allophones of high vowels. /ɨ/ and /y/ do not occur in syllable onsets.

In this section each vowel is described, along with a statement concerning allophones and distribution of the phoneme. The presentation is organized as follows: high vowels /y, i, ɨ, u/ (§2.2.3.1), mid vowels /ɛ, ɔ/ (§2.2.3.2), and low vowel /a/ (§2.2.3.3).

2.2.3.1 High vowels

Abawiri has four high vowels, three of which are front vowels. The two typologically uncommon high vowels /ɨ, y/ arose historically in the Lakes Plain family from the loss of a following consonant. Many Lakes Plain languages have been described as having “fricativized” or extra high vowels, in addition to “plain” high vowels. Iau has /ɨ/ in addition to /i/ (Bateman 1990a); Doutai has both /ɨ/ and /ɯ/ in addition to /i/ and /u/ (Donohue et al. 2006), as does Edopi (Kim 1996). Sikaritai does not have any fricativized vowels (Martin 1991; Liem 2007). In Sikaritai, the following consonant that was lost in the other languages is retained. Abawiri has /ɨ/ in addition to /i/, but instead of /ɯ/ we find /y/. It is not yet clear whether /y/ is the counterpart to /ɯ/ in other languages, or whether other processes such as labialization from adjacent consonants caused this phoneme to arise.

/y/ is a high front rounded vowel. In a study by Maddieson (2013b), only 37 of 562 sampled languages had a front rounded vowel, and all but eight of these were located in Eurasia. None of the approximately 40 Papuan languages surveyed had the front rounded vowel. No other Lakes Plain language has a front rounded vowel, including closely related Taburta. However, /y/ is found in several languages of other families in the Mamberamo region. This vowel is found in the isolate Sause (Foley 2018a: 471), in Bonerif of the Tor family (Foley 2018a: 471), and in Kaure of the Kaure family (Foley 2018a: 456). South of the central mountain ranges, /y/ is also found in several languages of the Greater Awyu family including Aghu, Mandobo, Korowai, and Kombai (de Vries 2020), as well as in Komnzo of the Yam family (Döhler 2019: 55).

/i/ is a (plain) high front unrounded vowel.

/i/ is a fricativized high front unrounded vowel. This vowel is produced slightly more toward the edges of the vowel space than /i/ as shown in Figure 5 on page 53 above; further, it is produced with faintly audible frication. There is clear contrast between the two phonemes /i/ and /i̥/, both between monomorphemic lexical items as shown in Table 8 on page 53 above, and in the verbal morphology. In the verbal morphology, the suffix *-i* ‘INCMP’ indicates incompletive aspect, while the suffix *-i̥* ‘PRF’ marks the perfect (§4.1). Corpus examples demonstrating the contrast are shown in (12) and (13).²

2. The symbols <, / # > are used in interlinear examples to indicate intonation; see §1.3.2.3.

(12) [f^wàré fròkù βò ròrìrò] , /
 /f^wàre fròku bɔ rɔr-i-rɔ/
 bow long TOP be-INCMP-NPST
 ‘Long bows are like that.’ 511a655.1

(13) [dī b^wó fè bè ròrìrò] #
 /`dī b^wó fɛ bɛ rɔr-ì-rɔ/
 person under also IMMED be-PRF-NPST
 ‘The people down below have been like that too.’ 803b202.1

While the distinction between /i/ and /i/ is used for both lexical and grammatical contrast, the phonetic difference between the two is slight. There is variability in speaker articulation of certain lexical items; e.g. [àitè ~ àitè] ‘father’, with some speakers tending toward the higher pronunciation /i/ and others tending toward the lower pronunciation /i/. In the use of the community orthography (§2.7.1), writers are not consistent in their representation of these two vowels as <i> and <yi>.

/u/ is a high back rounded vowel.

2.2.3.2 Mid vowels

/ɛ/ is a mid front vowel. It is raised to [e] before offglides /i/ and /i/ as shown in

(14).

(14) /ɛisɛ/ [èisè] tree sp.
 /dèi/ [dêi] uncle

/ɔ/ is a mid back vowel. It has a rather large range of variability in its articulation, which varies in roundedness, height, and backness. The allophone with the widest distribution is [ɔ]; additional allophones include [o], [ə], and [ɒ].

The allophone [o] occurs when preceding a rounded vowel offglide /u, y/. Raising of /ɔ/ in this environment is shown in (15).

- (15) /ɔu/ [ɔu] ‘house’
 /f^wɔ̄yɾɛ/ [f^wɔ̄yɾɛ̄] ‘fish sp.’

This is not only a distributional fact but also an active phonological process, as seen in the verb morphology. When a verb whose last vowel is /ɔ/ is suffixed with completive *-u* ‘CMP’, /ɔ/ is raised to [o]. This is shown in (16), where the vowel is not affected by the incompletive suffix *-i* ‘INCMP’, but raises to [o] before *-u* ‘CMP’ (see §4.1 on the completive/incompletive aspect markers).

- (16) /tɔɾɔɾ-i/ [tɔ̄ɾɔ̄ɾi] ‘stab-INCMP’
 /tɔɾɔɾ-u/ [tɔ̄ɾɔ̄ɾu] ‘stab-CMP’

 /tɔ-i/ [tɔ̄i] ‘take-INCMP’
 /tɔ-u/ [tɔ̄u] ‘take-CMP’

Raising of /ɔ/ to [o] also tends to occur when /ɔ/ follows [w], as exemplified in (17).

- (17) /wɔ/ [wɔ] ‘name’
 /sɛ̄wɔ̄rdʒɛ/ [sɛ̄wɔ̄rdʒɛ̄] ‘sandpiper’

When it is both preceded by [w] or a labialized consonant and followed by [i], /ɔ/ is realized as [ə], as shown in (18).

- (18) /wɔi/ [wəi] ‘whistle’
 /ᵛgʷɔi/ [ᵛgʷəi] ‘cape (of land)’
 /`fʷɔi/ [fʷəi] ‘worm’

This is true even when [r] intervenes between [ə] and [i], as shown in (19).

- (19) /wɔri/ [wəri] ‘meat’
 /gʷɔri/ [gʷəri] ‘butterfly’

Centralization to [ə] and raising to [o] take place across morpheme boundaries as well, as shown in (20).

- (20) /fʷɔr-i/ [fʷəri] shoot-INCMP
 /fʷɔr-u/ fʷɔrù shoot-CMP

When there is a low vowel /a/ in the preceding syllable, /ɔ/ tends to be lowered to [ɒ] as shown in (21).

- (21) /`gʷráɾɔ/ [gʷráɾɒ] ‘bird sp.’
 /fʷra-rɔ/ [fʷráɾɒ] ‘enter.INCMP-NPST’

In this context /ɔ/ sounds very similar to /a/; in fact, native speakers frequently write <a> for this allophone.

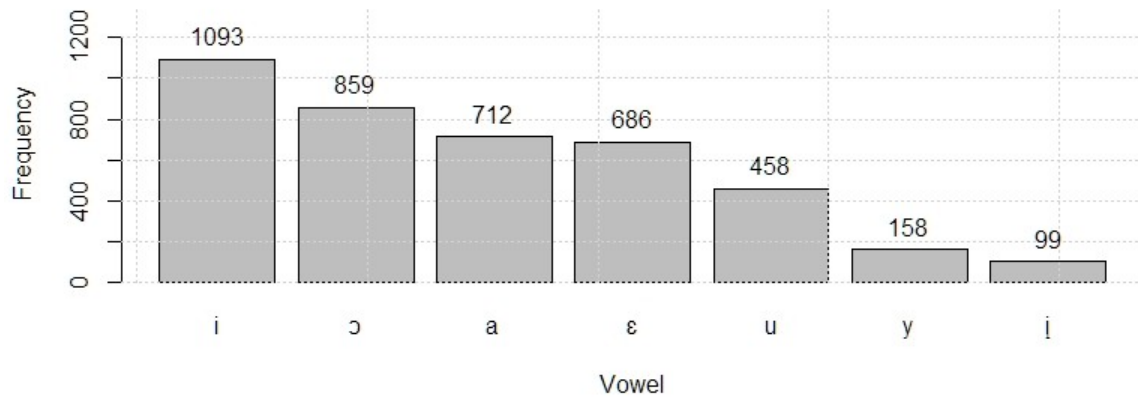
2.2.3.3 Low vowel

/a/ is the single low vowel in Abawiri.

2.2.4 Frequency

Figure 6 shows the type frequency of the vowels in the lexical database.

Figure 6. Vowel frequency



Front rounded /y/ and extra-high /ɨ/ are the least frequent vowels. This is not particularly surprising since these are the two typologically unusual vowels in the system, and cross-linguistically less frequent segments tend to occur with less frequency language-internally as well (Clements 2003; Gordon 2016). Extra high /ɨ/ is, however, frequent in Doutai (Lenice Harms, p.c.).

2.2.5 Approximants

I analyze the approximants [j] and [w] as allophones of the high vowels /i/ and /u/, respectively. The allophones [i] and [u] are found in the syllable nucleus, while

the allophones [j] and [w] are found in syllable onsets. The other high vowels /y/ and /i/ only occur in the syllable nucleus and do not have non-syllabic allophones.

Word-initial high vocoids followed by another vowel are approximants as shown in (22).

- (22) /uɔri/ [wə̀rì] ‘meat’
/iɑɛ/ [jà̀rè] ‘grass’

Intervocalic high vocoids are also approximants as shown in (23).

- (23) /`uéia/ [wɛ̀jà] ‘banana’
/kɔua/ [kə̀wà] ‘heron’

There is one distributional restriction. Only non-high vowels /ɛ, ɔ, a/ occur after a [j] and [w] in syllable onsets. The single exception to this generalization is the sequence /ui/ [wi]; e.g. /tə̀uiri/ [tə̀wìrì] ‘tree sp.’

2.2.6 Other vowel sequences

Two vowels can occupy the nucleus of a syllable: a vowel and an offglide. Table 9 shows attested vowel sequences, where H represents heterosyllabic vowel sequences (e.g. /kiɔɛ/ [kì.ə̀ɛ] ‘sago sp.’) and T represents tautosyllabic vowel sequences (e.g. /b^wɔyry/ [b^wə̀y.ry] ‘owl’).

Table 9. Vowel sequences (*H* = heterosyllabic, *T* = tautosyllabic)

		Second vowel						
		i	y	i	u	ɛ	ɔ	a
First vowel	i							
	y			H				
	i					H	H	H
	u			H		H	H	H
	ɛ	T		T	T			H
	ɔ	T	T	T	T			
	a		T	T	T			

As seen in the table, higher vowels followed by lower vowels are in separate syllables, as are vowels of the same height. Lower vowels followed by higher vowels are in the same syllable.

2.3 Syllables

In this section I discuss the relevant properties of syllables in Abawiri words. In particular, I present the features of syllables that have been invoked above in explaining other phenomena: consonant sequences (§2.1.5), the distribution of /r/ (§2.1.3.1), and approximants (§2.2.5).

Abawiri syllables have an obligatory nucleus and optional onset and coda. The onset consists maximally of a consonant followed by /r/, the nucleus consists maximally of a

vowel and an offglide, and the coda consists maximally of /r/. This is schematized in (24),

where C = consonant, V = vowel, and R = rhotic.

(24) (C)(R)V(V)(R)

Out of the sixteen logically possible syllable shapes based on (24), eleven are attested. Table 10 shows each type, along with distributional restrictions and an example.

Table 10. Syllable types

Syllable Type	Environments	Example		Gloss
V	word-initial	/ɛbri/	[ɛ̃.βrì]	‘thigh’
RV	all	/ra/	[rà]	‘footprint’
CV	all	/sòri/	[sò.rì]	‘earth’
CRV	all	/sadri/	[sà.drì]	‘boil’
VV	all	/`fi <u>au</u> /	[fi.à <u>u</u>]	‘bat sp.’
RVV	word-final	/yrai/	[ỳ.rài]	‘board’
CVV	all	/fáiti/	[fái.tì]	‘tree sp.’
CRVV	word-final	/tɛbr <u>ou</u> /	[tè.βr <u>ou</u>]	‘fan’
VR	word-initial	/ɛrtra/	[èr.trà]	‘angry’
RVR				
CVR	non-final	/`férti/	[fɛ̃r.tì]	‘snake sp.’
CRVR	non-final	/sròrdʒa/	[sròr.dʒà]	‘tree sp.’
VVR				
RVVR				
CVVR				
CRVVR				

As seen in the final four rows in Table 10, no syllable with both an offglide and a coda rhotic is attested. The syllable is thus maximally bimoraic, where both a post-vocalic glide and a coda rhotic are moraic. The syllable shape RVR is also unattested. Given the infrequency of /r/ in syllable onsets, the absence of RVR is likely not a phonologically principled gap but rather a gap due to infrequency. Words such as /*rɔrdʒa/ are likely phonologically possible words; further work is needed.

The syllable type CRVV is restricted to word-final position, while CRV and CVV are not. In phonology it is generally assumed that constraints for onset and rime operate along separate dimensions, such that the presence of complexity in one should not influence the other (Matthew Gordon, p.c.). If complex onsets are possible in all positions (CRV syllables), and complex rimes as well (CVV syllables), then one would expect that the intersection of the two (CRVV) would be possible in all positions as well. Contrary to expectation, CRVV syllables are restricted to word-final position. Also note that while the syllable type V is restricted to word-initial position, it can be the sole syllable of a word, as in /ɛ/ [è] ‘1.PL’ and /`á/ [à] ‘fruit’.

2.4 Tone

Like all Lakes Plain languages for which phonological information is available, Abawiri is a tonal language, that is, “an indication of pitch enters into the lexical realisation of at least some morphemes” (Hyman 2006: 229). While the Lakes Plain family contains

some of the most complex tone systems in the New Guinea area (Foley 2018a), within the family the languages vary greatly in the types and complexity of tone systems.

There are basic descriptions of at least seven other Lakes Plain tone systems. Fayu has two level tones, /L/ and /H/, as well as two contour tones which are both falling: /HL/ and /ML/. No tone sandhi processes are described in the language (Kügler 1989). In Kirikiri, two level tones, /L/ and /H/, combine into seven tone patterns on nouns. Lexical tone contrast on verbs is less clear because of final pitch declination (verbs occur clause-finally). Some TAM suffixes bear tone; further, a few aspectual distinctions are coded by tone alone (Clouse n.d.). Edopi has two level tones, /L/ and /H/, as well as rising tone /LH/ and falling tone /HL/ (Kim 1996). Obokuitai has two level tones, /L/ and /H/, and a falling tone (Jenison & Jenison 1991). In Sikaritai there are two level tones, /L/ and /H/, as well as both falling and rising tones (Liem 2007). Doutai has these same four tones; they combine into three tone patterns on monosyllabic nouns and ten patterns on disyllabic nouns (Donohue et al. 2006).

The most complex tone system among Lakes Plain languages is found in Iau, which has two level tones and six contour tones (Bateman 1982a; 1986; 1990a; 1990b; Edmondson, Bateman & Miehle 1992). Tone is lexical on nouns, with eight-way minimal sets demonstrating the eight-way tone contrast. On verbs, which are lexically toneless, tone has a grammatical function. Each tone indicates an aspectual distinction; in certain cases, two tonal aspect markers can be combined on a single verb stem. This tonal complexity in Iau arose from massive loss of segments, resulting in most Iau nouns and verbs being

monosyllabic as opposed to the disyllabic and trisyllabic roots of other Lakes Plain languages. The Iau tone system is probably the most complex tone system described in New Guinea; indeed, it is perhaps one of the most complex in the world (Donohue 1997: 356; Foley 2018: 534).

In Abawiri there are two tones, /H/ and /L/, as well as a derived /M/ tone that only occurs as a result of /H/ tone lowering after a floating /^L/ tone. These tones combine into eight tone patterns on nouns (toneless, /L/, /H/, /LH/, /HL/, /^LH/, /^LHL/, and /ØHL/) and six on verbs (toneless, /L/, /H/, /LH/, /^LH/, and /ØHL/). The phonological process of anticipatory tonal polarity inserts a polar (H) tone on the syllable immediately preceding all /L/ tones. About 53% of Abawiri lexical items are lexically specified for tone, while the remaining 47% are phonologically toneless. While tone is primarily lexical, there is also minimal grammatical tone in the verbal TAM morphology, with two tonal suffixes that mark irrealis modality and polar questions. This section is a revision of earlier work (Yoder 2018). While the earlier work provided more phonetic details pertaining to the basic tonal analysis, this section expands the scope of the analysis, examining grammatical tone as well as the intersection of tone and word classes. The basic analysis remains the same.

This section is organized as follows. First, the data on which the analysis is based is presented (§2.4.1). The tone analysis first examines tonal contrasts in isolation (§2.4.2), followed by contrasts found only in phrasal context (§2.4.3). Association of tones with TBUs is presented next (§2.4.4). The frequency of the tones and tone patterns is presented in §2.4.5, while the relationship between lexical tone and word classes is provided in

§2.4.6. A short summary of grammatical tone is given in §2.4.7; the role of grammatical tone in the verbal morphology is discussed in more detail in chapter 4.

2.4.1 *The data*

Initial tone analysis was conducted using elicited recordings of 156 nouns and verbs in frames. Each noun was recorded with three following adjectives: one with /H/ tone, one with /L/ tone, and one toneless adjective (see §3.1.4.2 on the attributive adjective construction). Each noun was also recorded with three preceding genitive nouns: one with /H/ tone, one with /L/ tone, and one toneless genitive noun (see §3.1.4.1 on the genitive construction). Both of these syntactic relations are expressed by juxtaposition: Adjectives follow the head noun, while genitive NPs precede the head noun. The frames are shown in Table 11.

Table 11. Noun frames

Frame	Frame tone	Gloss
/__ késai/	/H/	‘little __’
/__ dǝbu/	/L/	‘big __’
/__ furku/	toneless	‘whole __’
/dúke __/	/H/	‘bird’s __’
/dèbi __/	/L/	‘child’s __’
/aite __ /	toneless	‘father’s __’

Each verb was recorded in imperative form with two preceding /L/-toned adverbs, as well as with completive past inflection with three preceding nouns: one with /H/ tone, one with /L/ tone, and one toneless noun. These frames are shown in Table 12.

Table 12. *Verb frames*

Frame	Frame tone	Gloss
/dèria ___/	/L/	‘___ (IMP) well’
/k ^w ḡ ___/	/L/	‘___ (IMP) badly’
/dúke ___/	/H/	‘bird ___ (CMP-PST) ’
/dèbi ___/	/L/	‘child ___ (CMP-PST) ’
/aite ___/	toneless	‘father ___ (CMP-PST) ’

The tone frame recordings were supplemented by data from the rest of the lexical database and from the documentary corpus.

2.4.2 *Tonal contrasts on words in isolation*

Words produced in isolation have four distinct tone patterns. These four patterns are present on words of any syllable length. Table 13 exemplifies each of the four tone patterns with both nouns and verbs of one, two, and three syllables. Verbs are given in imperative form. Those with the suffix *-i* ‘INCMP’ obligatorily take a basic aspect suffix (§4.1), while those without a suffix end in a high front vowel and do not take a basic aspect suffix (§4.6.2).

Table 13. Tone patterns on nouns and verbs in isolation

Pitch	σ	Noun			Verb		
L	1	/dù/	[dù]	‘rain’	/dì/	[dì]	‘eat!’
	2	/kèri/	[kèrì]	‘vine sp.’	/kàr-i/	[kàrì]	‘throw!’
	3	/tùiri/	[tùwìrì]	‘tree sp.’	/d ^w òrɔr-i/	[d ^w òròrì]	‘rotate!’
HL	1	/krí/	[krî]	‘betel leaf’	/dóy/	[dôy]	‘roast!’
	2	/bóru/	[bórù]	‘fish sp.’	/wór-i/	[wórì]	‘fell!’
	3	/fíturɛ/	[fítúrè]	‘duck sp.’	/kádar-i/	[kádàrì]	‘clean!’
LHL	1	/ǎi/	[ǎi]	‘mother’			
	2	/bòrá/	[bòrà]	‘breadfruit seed’	/àtrí/	[àtrî]	‘smile!’
	3	/tòkóru/	[tòkórù]	‘sky’	/wòdʒébi/	[wòdʒéβì]	‘reject!’
ML	1	/` dú/	[dù]	‘male’	/` f ^w rɛ-i/	[f ^w rèi]	‘take out!’
	2	/` fóbi/	[fòβì]	‘lorikeet’	/` ádri/	[ādri]	‘search!’
	3	/` g ^w ábiri/	[g ^w āβīrì]	‘butterfly’	/` drébar-i/	[drēβàrì]	‘sharpen!’

All words in isolation end with a L pitch. This is due to a prosodic final boundary tone that associates with the final syllable of all final IUs (see §2.5 on the properties of IUs). Obokuitai also has neutralization of tonal contrast on utterance-final syllables because of a prosodic L% tone (Jenison & Jenison 1991). In Abawiri, the final boundary tone is generally lower in pitch than any preceding syllables with L pitch; this corresponds with the cross-linguistically common process of final lowering (Lieberman & Pierrehumbert 1984). When a lexical /H/ tone can only associate with the IU-final syllable, both the /H/ tone and boundary L% tone associate, resulting in a falling pitch. This is the case for

monosyllabic /H/-toned words, as well as disyllabic /LH/-toned words. See the subsections under §2.4.3 below on tonal distinctions that arise only in non-final contexts.

2.4.3 *Tonal contrast in phrasal context*

Additional tone pattern distinctions must be posited based on the tone patterns of words in phrasal context. Among L-pitch words there is a distinction between /L/ and toneless (§2.4.3.1). Among HL-pitch nouns, but not verbs, there is a distinction between /H/ and /HL/ (§2.4.3.2). LHL-pitch words have an uneven distribution of tone patterns, with only a /LH/ tone pattern for monosyllabic and disyllabic nouns, and a distinction between /LH/ and /ØHL/ for trisyllabic nouns and all verbs (§2.4.3.3). Finally, among ML-pitch nouns, but not verbs, there is a distinction between /^LH/ and /^LHL/ (§2.4.3.4). Tonal phenomena only observed in phrasal context include lexical tonelessness (§2.4.3.1), /H/ tone spreading (§2.4.3.2 and 2.4.3.4), prelinking of /H/ tone to a non-default syllable (§2.4.3.3 and 2.4.3.4), and floating /^L/ tones (§2.4.3.4).

2.4.3.1 /L/ vs. toneless

/L/-toned words and toneless words both have L pitch in isolation. The two tone patterns are distinguished in two ways in phrasal context. First, /L/ tone triggers anticipatory polar (H) tone insertion on the previous syllable, while tonelessness does not. An example of this contrast is shown below in (25) with the frame word /dèbi/ ‘child’. On the left, the /L/-toned word /s̀̀ri/ [s̀̀rì] ‘earth’ triggers anticipatory (H) tone on the final

Anticipatory tonal polarity takes place across morpheme boundaries within a word when a prefix is added to a /L/-toned verb, as seen in the example from connected speech in (26). In this example, anticipatory polar (H) tone associates with the prefix *bu-* ‘down’ because of the /L/ tone of the verb stem *tè-* ‘descend’.

- (26) [fù diɛg^wrè bùtèwè]
 /fu diɛg^wrɛ bu-tè-u-ɛ/
 canoe dock down-descend-CMP-PST
 ‘She went down to the canoe dock.’ 809230.1

Anticipatory tonal polarity occurs within the IU regardless of the syntactic construction. It occurs in possessive constructions within the noun phrase, as seen in (25) above, as well as between a verb and a preceding noun phrase (27), within a verb phrase (28), between verbs in a serial verb construction (29), and between a noun and a preceding conjunction (30). In each case, the /L/ tone triggers anticipatory (H) tone on the final syllable of the preceding word.

- (27) /wó òrú brèi fidzèrùè/ # /
 /uɔ òru brèi fidzɛr-u-ɛ/
 3 woman call repeat-CMP-PST
 ‘He called his wife repeatedly.’ 41051.1

- (28) [è fè fròwé b^wòwè] # /
 /ɛ fɛ frɔ-u-ɛ b^wò-u-ɛ/
 1.PL also go-CMP-PST NEG-CMP-PST
 ‘We did not go.’ 502102.1

- (29) [òu bòjé tàì βárè # /
 /ɔu bɔ-jɛ tà-i bórɛ/
 house fasten-NFIN rise-INCMP be
 ‘The house is fastened upwards.’ 522121.1

(30)

[bɔ́	àrè
/bɔ	àrɛ

 βɔ βárɛ] # /
COORD stairs TOP be

‘And here is the ladder.’

520385.1

Anticipatory tonal polarity occurs in all constructions within a single IU except across the boundary of an antitopic construction (§6.5). The final syllable of the verb does not have an anticipatory polar (H) tone when a /L/-toned word immediately follows in the antitopic, as seen in (31).

(31) /ùkási fù bègì bòwè òrú dū òrò βò/ ,
/ùkási f-u begi bɔ-u-ɛ òru `dú òrɔ bɔ/
snot be-CMP DEM.FOC kill-CMP-PST woman man COM TOP

‘The one with snot killed them, the woman and the man.’

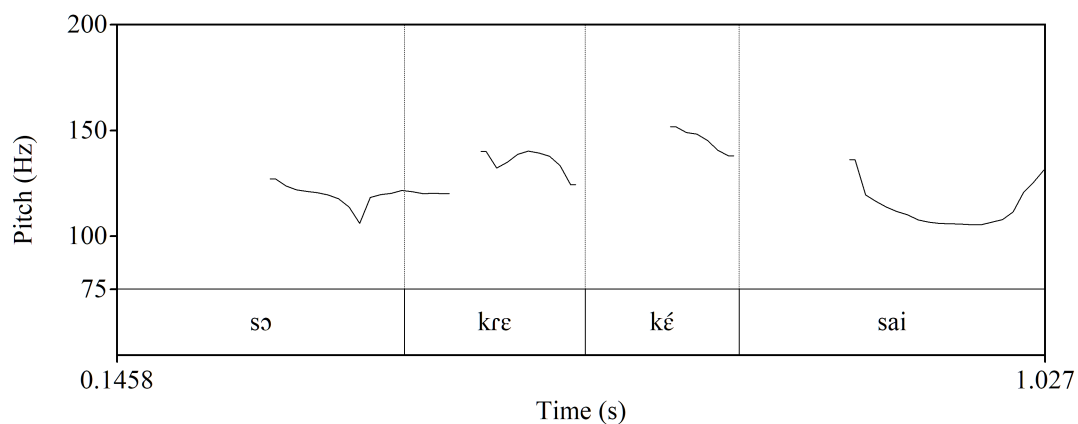
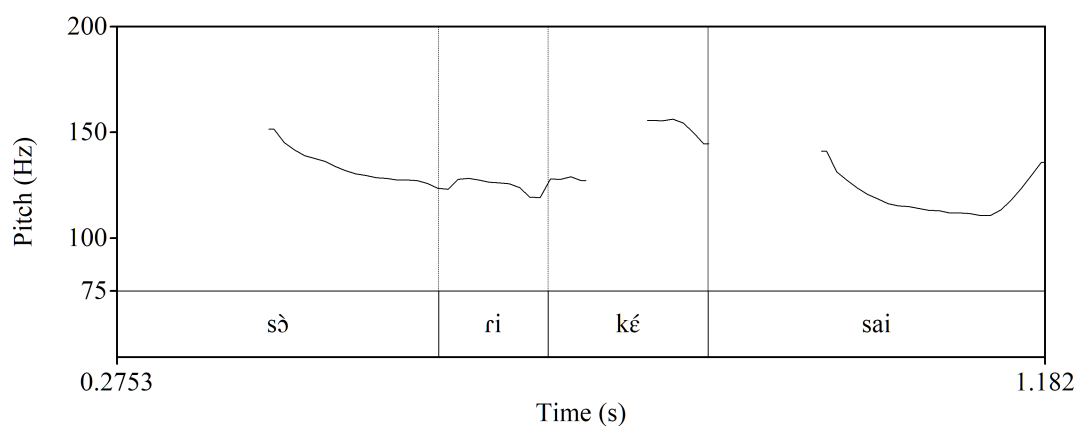
41093.1

The second phonetic distinction between /L/-toned and toneless words occurs before a /H/ tone. In this environment, /L/-toned words have steady L pitch to the end of the word, while toneless words show gradual updrift from L pitch toward the H pitch target on the first syllable of the following /H/-toned word. Example (32) shows this contrast between a /L/-toned word on the left, with steady L pitch on the /L/-toned word /sòri/ ‘earth’ before the following /H/-toned word /késai/ ‘little’, and a toneless word on the right, with gradual updrift in pitch on the toneless word /sòkrɛ/ ‘rat sp.’ in the same environment.

(32) [sòrì késài] [sòkrɛ késài]
/sòri késai/ /sòkrɛ késai/
‘a small amount of land’ ‘little rat sp.’

Pitch traces of these two phrases are shown in Figure 8.

Figure 8. Steady L pitch vs. updrift before /H/ tone



The steady L pitch in /sàri/ [sà̀rì] ‘earth’ in the upper half of Figure 8 is due to /L/ tone spreading to the end of the word. By contrast, the syllables of /sòkrè/ [sò̀krè̀] ‘rat sp.’ have no associated tone, and the pitch drifts up to meet the following /H/ tone.

2.4.3.2 /H/ vs. /HL/

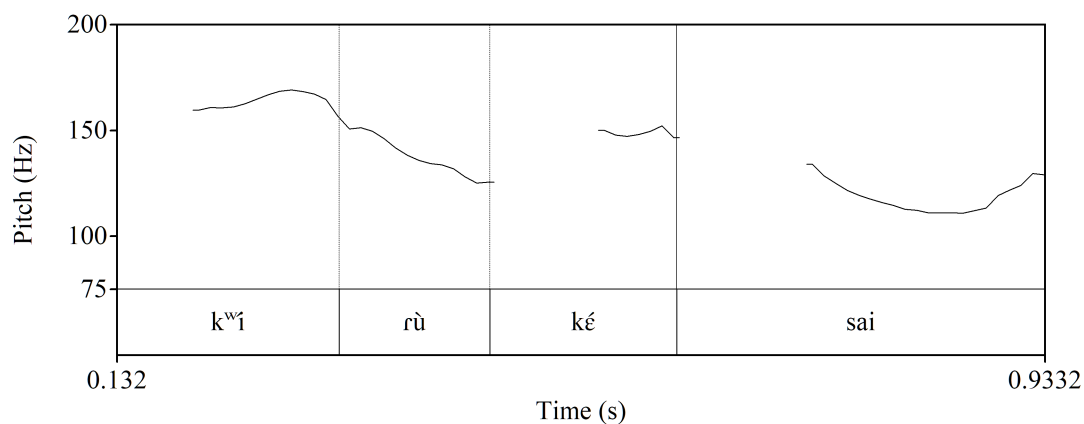
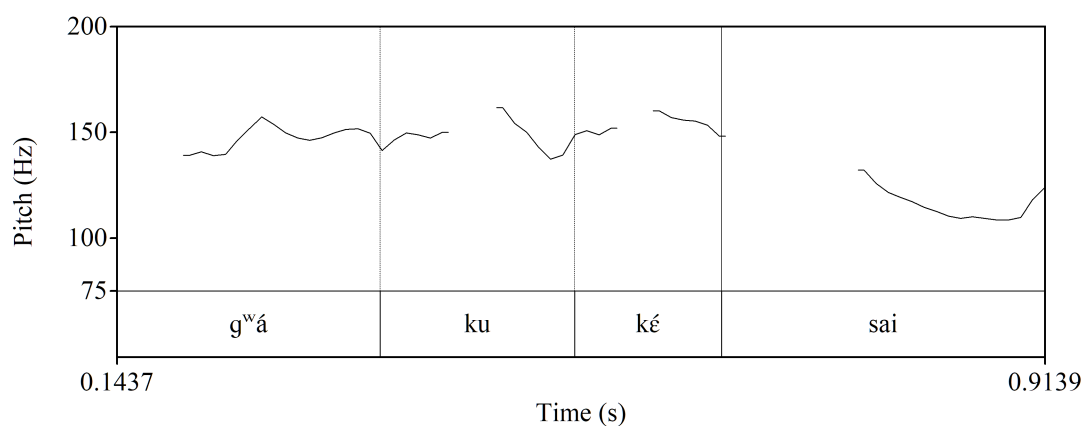
As seen in Table 13 above, all words in isolation (or, more precisely, all final IUs) end with a L pitch; this can be attributed to a prosodic final boundary L% tone (see §2.5).

When nouns with a /H/ tone pattern are in non-final contexts, the H pitch from the /H/ tone spreads to the end of the word. In nouns with a /HL/ tone pattern, by contrast, the first syllable has a H pitch and the remaining syllables have L pitch. This contrast is exemplified in (33), where a /H/-toned noun (left) and a /HL/-toned noun (right) both precede the /H/-toned frame word /késai/ ‘little’.

- | | | |
|------|----------------------------|----------------------------|
| (33) | [g ^w ákú kəsàì] | [k ^w írù kəsàì] |
| | /g ^w áku kəsai/ | /k ^w írù kəsai/ |
| | ‘little ear’ | ‘little pole’ |

Pitch traces of these two examples are shown in Figure 9. Note the H pitch on the final syllable of /g^wáku/ ‘ear’ and the L pitch on the final syllable of /k^wírù/ ‘pole’.

Figure 9. /H/ tone spreading vs. /HL/ tone on disyllabic nouns



Trisyllabic nouns with a /HL/ tone pattern uniformly have a HLL pitch pattern, regardless of their position in the IU. Thus, tones associate with syllables from the beginning of the word; if there are fewer tones than syllables, the final tone spreads to the end of the word. This is exemplified in (34).

- | | |
|-------------------------------|--------------------------------|
| (34) [k ^w ríβidʒà] | [k ^w ríβidʒà késài] |
| /k ^w ríβidʒa/ | /k ^w ríβidʒa késai/ |
| ‘tree sp.’ | ‘little tree sp.’ |

/H/ tone does not spread on verbs. As with nouns, tones are associated with syllables in order from left to right; however, unlike nouns the rightmost tone does not spread to the end of the word. This is true regardless of the length of the inflected verb, as illustrated in (35). Here, the /H/ tone of the verb stem /béi/ ‘put’ only associates with the first syllable; all subsequent syllables have L pitch.

(35)	[bêi]	[béidzèirò]
	/béi/	/béi-dzèi-rò/
	‘put’	‘put-INCMP-NPST’

Verbs thus have fewer lexical tone patterns than nouns. There are eight tone patterns on nouns (toneless, /L/, /H/, /LH/, /HL/, /^LH/, /^LHL/, and /ØHL/), but only six on verbs (toneless, /L/, /H/, /LH/, /^LH/, and /ØHL/). This lower number results from the neutralization of contrast between two pairs of tone patterns in the absence of /H/ tone spreading: /H/ vs. /HL/, and /^LH/ vs. /^LHL/.

I analyze the two attested pitch patterns on verbs, HL and ML, as /H/ and /^LH/, respectively, and posit a phonological constraint disallowing /H/ tone spreading on verbs. Alternatively, it would be possible to analyze these pitch patterns on verbs as /HL/ and /^LHL/. This would be more phonetically transparent and would not require a phonological constraint against /H/ tone spreading on verbs. However, in this analysis verbs would have more complex tone patterns while the less complex tone patterns would be absent. See Yoder (2018) for further discussion; see also Smith (2011) on the cross-linguistic tendency for verbs to have fewer prosodic possibilities than nouns.

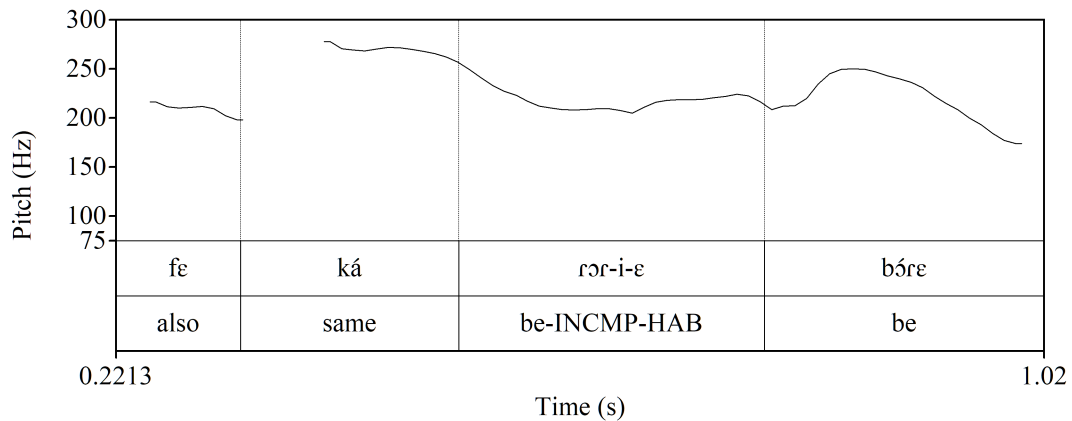
/H/ tone does not spread across word boundaries. For example, when there are two /H/ tones with other material intervening, the /H/ tone does not spread. An example from connected speech is in (36). Here a toneless word intervenes between the two /H/-toned words /ká/ ‘same’ and /bóre/ ‘be’; the toneless word is realized with default L pitch.

- (36) [fɛ ká rɔrɪɛ βórɛ] # /
 /fɛ ká rɔr-i-ɛ bóre/
 also same be-INCMP-HAB be
 ‘And that’s how it is.’

803b67.1

Here the /H/ tone of /ká/ ‘same’ does not spread to the toneless word /rɔr-i-ɛ/ ‘be-INCMP-HAB’. Instead, the pitch lowers on the verb and rises again for the high tone of /bóre/ ‘be’. A pitch trace of this example is shown below in Figure 10.

Figure 10. Two non-adjacent /H/ tones (803b67.1)



2.4.3.3 /LH/ vs. /ØHL/

Most words with LHL pitch in isolation context have a single tone pattern that can be analyzed as phonologically /LH/. These include all disyllabic nouns, a subset of the

trissyllabic nouns, all verbs, and a single monosyllabic word /ǎi/ [ǎi] ‘mother’. These words trigger polar (H) tone insertion on a previous syllable as do /L/-toned words (§2.4.3.1). This is illustrated in (37), where the final syllable of /aitɛ/ [àité] ‘father’ has a H pitch triggered by the initial /L/ tone in /bòrá/ [bòrà] ‘breadfruit seed’.

- (37) [àité bòrà]
 /aitɛ bòrá/
 ‘father’s breadfruit seed’

Further, the H pitch spreads to the end of the word when the word is in non-final position, as does H pitch in /H/-toned words (§2.4.3.2). This is illustrated in (38), where the non-initial syllables in /tòkórú/ [tòkòrù] ‘sky’ have H pitch when not in IU-final position.

- (38) [tòkórú késài]
 /tòkòru késai/
 ‘little breadfruit seed’

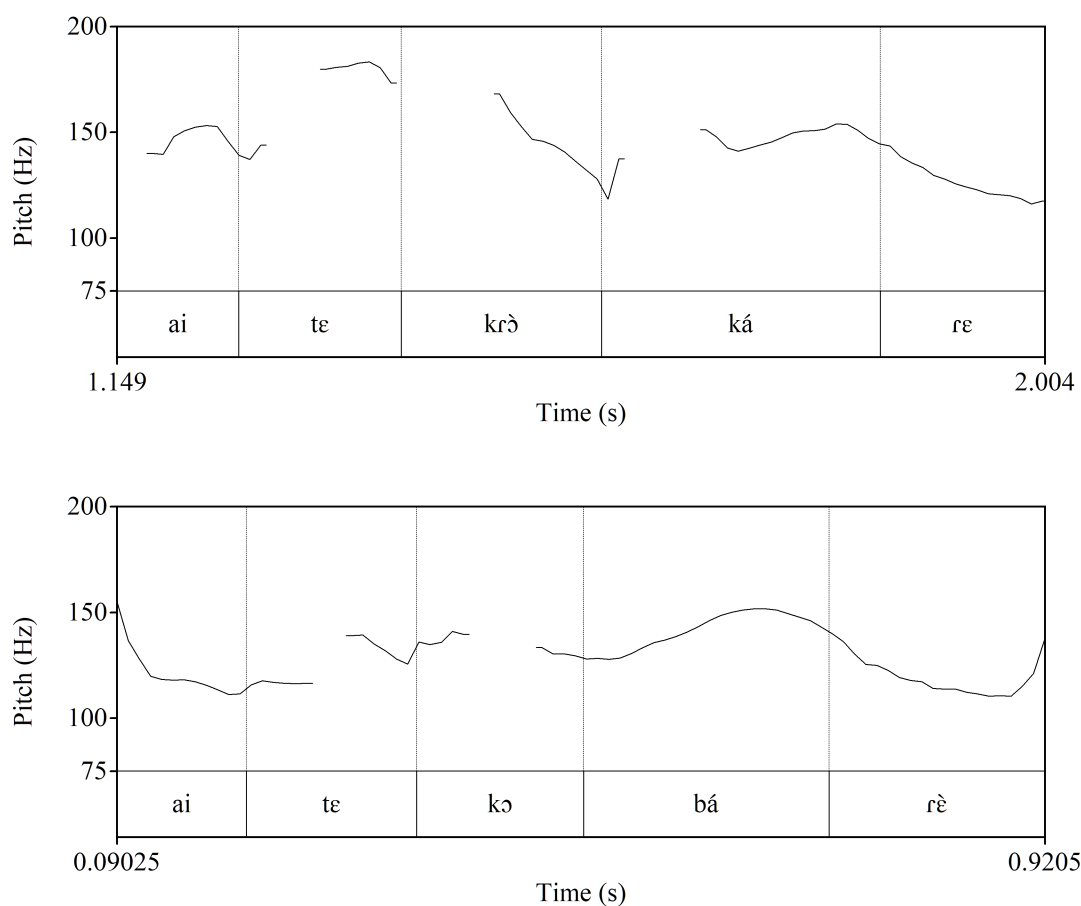
Certain trissyllabic LHL-pitch nouns do not trigger anticipatory tonal polarity on a preceding syllable; further, the H pitch does not spread to the final syllable when the word is not in IU-final position. The LHL pitch remains constant. These words are analyzed as having a /ØHL/ tone pattern. The first syllable is toneless, which explains the absence of tonal polarity as predicted for a word-initial /L/ tone. The failure of H pitch to spread is attributed to a /L/ tone on the final syllable, analogous to the /HL/ tone pattern (§2.4.3.2).

In (39) below, /kròkárɛ/ [kròkárɛ̀] ‘egret’ has a /LH/ tone pattern. It triggers anticipatory tonal polarity on the final syllable of the preceding word, while /kòbárɛ̀/ [kòbárɛ̀] ‘stork’, with a /ØHL/ tone pattern, does not.

- | | | |
|------|------------------|------------------|
| (39) | [àitɛ́ kròkárɛ̀] | [àitɛ̀ kòbárɛ̀] |
| | /aitɛ kròkárɛ/ | /aitɛ kòbárɛ̀/ |
| | ‘father’s egret’ | ‘father’s stork’ |

Pitch traces of these two examples are shown in Figure 11. In the lower half of the figure, note the gradual updrift in pitch through the first three syllables, which are toneless, to the /H/ tone target on the fourth syllable.

Figure 11. /LH/ vs. /ØHL/ contrast on nouns



spreads to the final syllable, while the /H/ tone in /kɔ́bárè/ 'stork' does not.

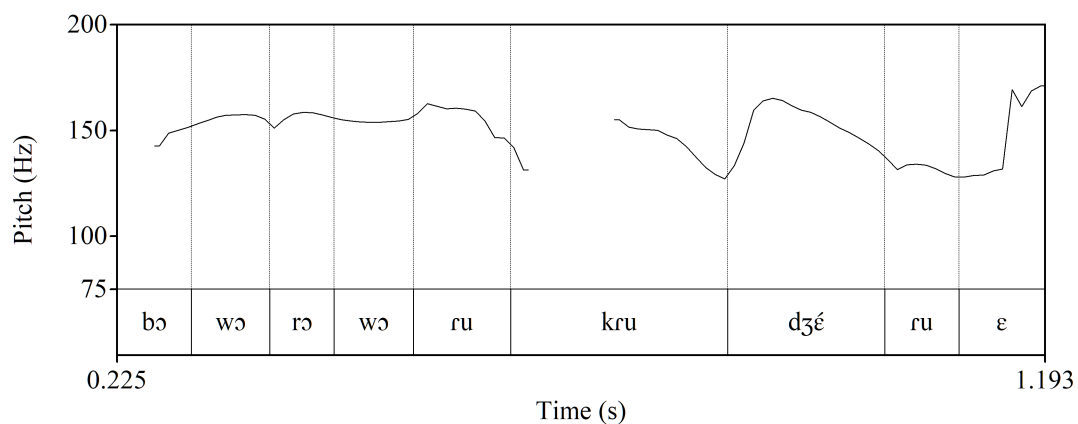
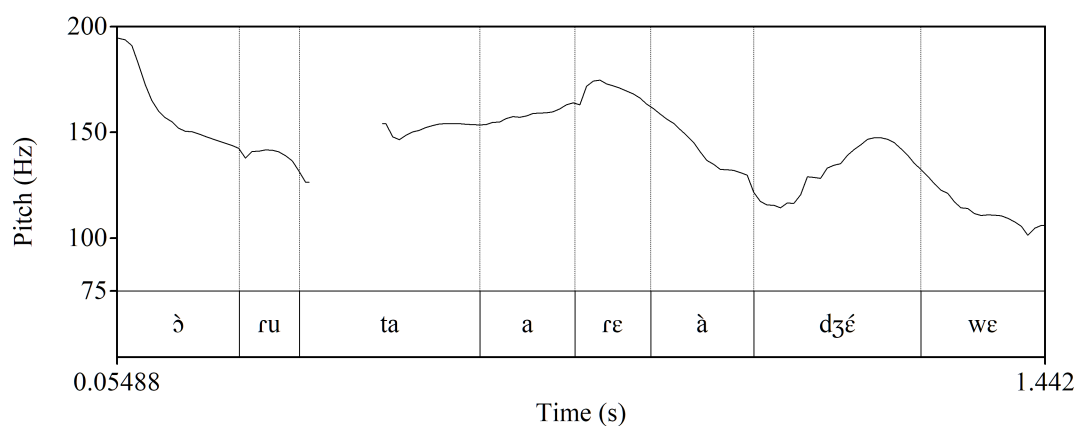
- (40) [kròkáré késàì] [kò́bárè késàì]
 /kròkáré késai/ /kò́bárè késai/
 'little egret' 'little stork'

Pitch traces of these two examples are shown in Figure 12.

The two verbs in connected speech are shown in (42) and (43); pitch traces are in Figure 13. Note that /àdʒé-/ ‘greet’ triggers anticipatory tonal polarity on the final syllable of the previous word /arɛ/ ‘RECP’, while /krudʒér-/ ‘spurt’ does not trigger anticipatory tonal polarity on the final syllable of the previous word /woru/ ‘stomach’.

- (42) [ɔ̀rù tà àrɛ̀ àdʒéwè] # /
 /ɔ̀ru ta arɛ̀ àdʒé-u-ɛ/
 woman two RECP greet-CMP-PST
 ‘The two women greeted each other.’ 9024.1
- (43) [bɔ̀ wɔ̀ rɔ̀ wɔ̀rù krudʒérue] # /
 /bɔ̀ uɔ̀ rɔ̀ uɔ̀ru krudʒér-u-ɛ/
 COORD 3 then stomach spurt-CMP-PST
 ‘And [gas] came out of his stomach.’ 808a451.1

Figure 13. /LH/ vs. /ØHL/ contrast on verbs



Since /H/ tone does not spread on verbs, it is not possible to distinguish between /ØH/ and /ØHL/ tone patterns on verbs. Either analysis is possible, but both are less than ideal. Analysis as /ØH/ fits with analysis of other verbal tone patterns, where /H/ tone does not spread. However, this analysis posits a tone pattern not found elsewhere: there is otherwise no contrast between the /ØH/ and /ØHL/ tone patterns. Analysis as /ØHL/, on the other hand, fits with the /ØHL/ tone pattern on nouns but does not take advantage of the constraint on /H/ tone spreading on verbs. Here I choose an analysis as /ØHL/ simply

to show the affinity of this pattern on verbs with the /ØHL/ pattern on nouns and to avoid over-representing the number of tone patterns in the language.

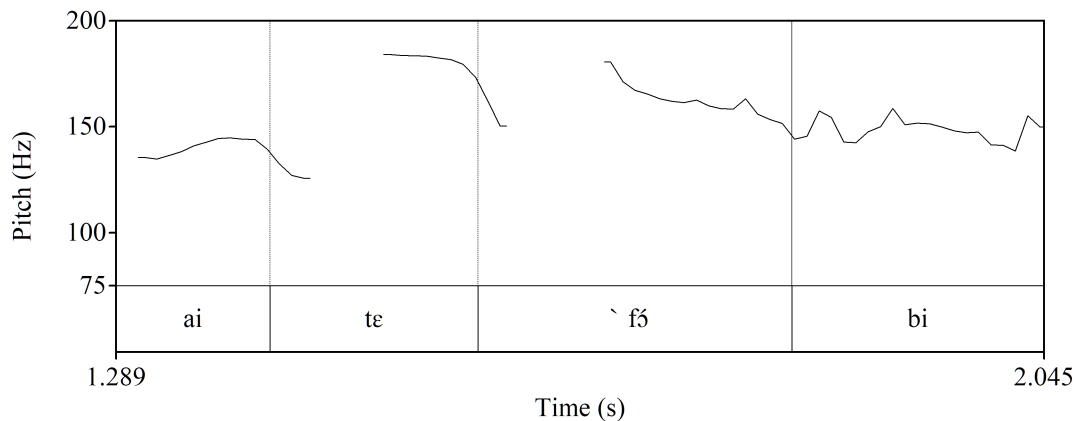
2.4.3.4 M pitch and floating /^L/ tone

Words with a M pitch pattern have both of the phonological features of /LH/ tone discussed in §2.4.3.3: They trigger anticipatory tonal polarity on a previous syllable, and the non-L pitch spreads to the end of the word when the word is not IU-final. I analyze these words as phonologically /^LH/. The floating /^L/ tone is not associated with any syllable but has two phonological effects. First, it triggers anticipatory tonal polarity as do other /L/ tones; second, it lowers the following lexical /H/ tone to a derived /M/ tone. Triggering of tonal polarity is seen in example (44).

- (44) [àitɛ̃ fɔ̃βĩ]
 /aitɛ̃ ʰfɔ̃βĩ/
 ‘father’s lorikeet’

A pitch trace of this example is shown in Figure 14.

Figure 14. Anticipatory tonal polarity and derived /M/ tone

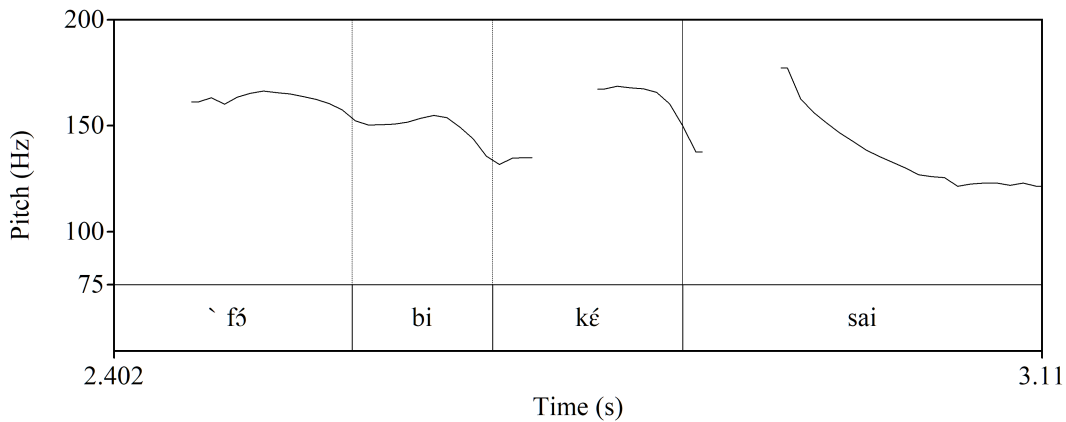


M pitch is analyzed as a derived /M/ tone rather than a downstepped /H/ tone. Downstep is usually conceived of as a process that lowers the tonal register so that all subsequent /H/ tones in the IU have the lower pitch (Hyman 1979; Connell 2011). But in Abawiri, any following /H/ tones have a higher pitch than the preceding /M/ tone, as seen in the word /késai/ [késàì] ‘little’ in example (45) below.

- (45) [fɔ̃βī kəsàì]
 /`fɔ̃bi kəsai/
 ‘little lorikeet’

A pitch trace for this example is shown in Figure 15.

Figure 15. Derived /M/ tone lower than following /H/ tone



I thus posit a phonological /M/ tone that is present only in this derived context and is not lexically specified for any word. Alternatively, the lowered tone could be analyzed as a downstepped /H/ tone. In this analysis, downstep would only occur after floating /L/ tones, and a following /H/ tone would reset to the normal register for /H/ tone. Because



this is not quite in line with the usual conception of downstep as a process of register lowering, I do not adopt this analysis here.

A few words with initial M pitch have a L pitch on all non-initial syllables, even when not in IU-final position. The tone pattern on these words is /^LHL/. An example with the /^LHL/-toned word /`kóràri/ ‘fern sp.’ is given in (46), where anticipatory tonal polarity is shown on the left and L pitch of all non-initial syllables is shown in the right.

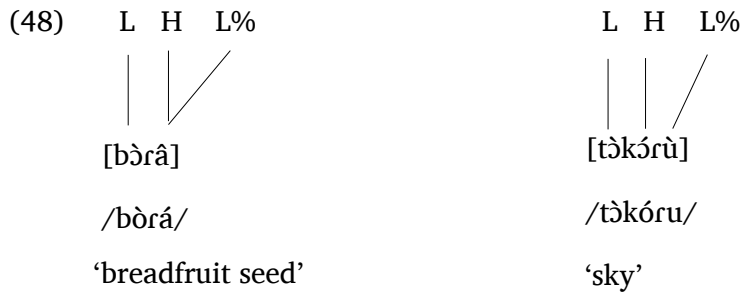
- | | | |
|------|---------------------|-------------------|
| (46) | [àitɛ̃ kɔ̀ràrì] | [kɔ̀ràrì kɛ̀sàì] |
| | /aitɛ̃ `kóràri/ | /`kóràri kɛ̀sai/ |
| | ‘father’s fern sp.’ | ‘little fern sp.’ |

2.4.4 Association of tones with TBUs

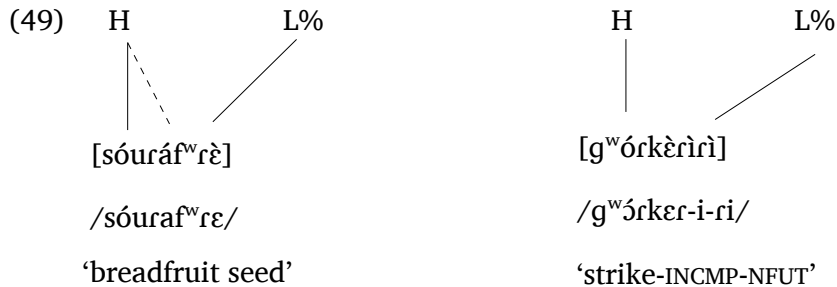
The tone-bearing unit in Abawiri is the syllable. Tones in a tone pattern associate with syllables one-to-one from the beginning of the word. All tones except floating tones always associate with a syllable, so if there are more tones than syllables, all remaining tones associate with the last syllable of the word. This is shown in (47), where both tones in the /LH/ tone melody associate with a single syllable.

- | | | |
|------|---|---|
| (47) | L H | L% |
| |  |  |
| | [ǎi] kòu] | |
| | /ǎi kou/ | |
| | ‘dear mother’ | |

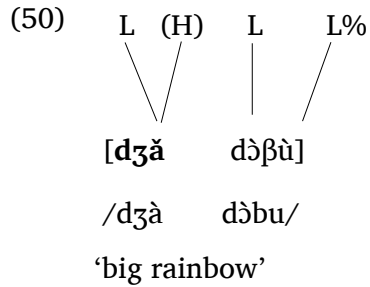
A prosodic final boundary L% tone associates with the last syllable of all final IUs (cf. §2.5). In words where the final syllable is already associated with a non-/L/ tone, this results in a falling pitch as shown on the left side of (48). However, tones do not spread from previous syllables onto syllables with the final boundary L% tone, as shown on the right side of (48).



When there are more syllables than tones on word classes other than verbs, the final tone spreads to the end of the non-verbal word. When there are more syllables than tones on verbs, the final tone does not spread and the pitch of the remaining syllables is dictated by intonation (see §2.5) rather than tone. In most cases, the pitch is L. Tone spreading on a trisyllabic noun is shown on the left side of (49), while failure of tone to spread is illustrated on a four-syllable inflected verb on the right side of (49).



/L/ tone triggers anticipatory (H) tone on a preceding syllable. When this preceding syllable is associated with another /L/ tone, both the lexical /L/ and anticipatory (H) associate with the syllable, resulting in a rising pitch as illustrated in (50).



While most tone patterns involve association of tones with syllables one at a time from the beginning of the word, in certain tone patterns the /H/ tone is ‘prelinked’ (Donohue 1997; 2003) with either the first or second syllable of the word, resulting either in an initial syllable without an associated tone or an initial tone without an associated syllable. The contrast between the /HL/ and /ØHL/ tone patterns is one of prelinking: In the /HL/ tone pattern, tones are associated with syllables in the default way, from left to right. In the /ØHL/ pattern, by contrast, the /H/ tone is prelinked with the second syllable of the word, leaving the first syllable toneless. Further, the contrast between the /LH/ and /^LH/ tone patterns is also one of prelinking. While the tones of the /LH/ pattern are associated with syllables in the default way, the /H/ tone of the /^LH/ pattern is prelinked with the first syllable of the word, resulting in a floating /^L/ tone before the word. As discussed above in §2.4.3.4, the floating /^L/ tone both triggers tonal polarity on a preceding syllable and lowers the prelinked /H/ tone to /M/.

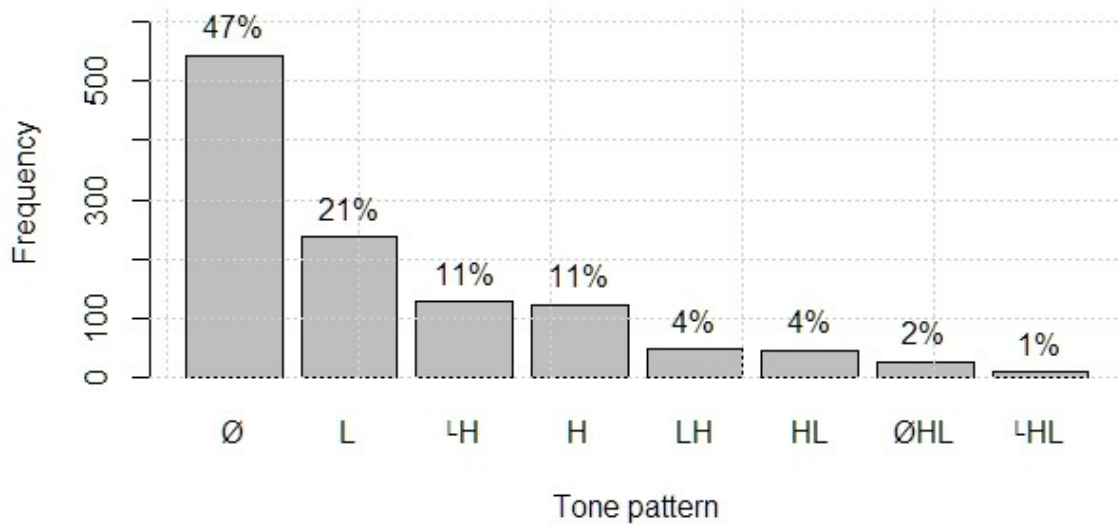
Tones associate with syllables rather than moras. Association of tones proceeds in the same way with syllables of any type, where bimoraic syllables with a vowel and an offglide have the same possibilities for tone association as do monomoraic syllables. Moras are, however, relevant to the analysis of syllable structure (§2.3).

2.4.5 Lexical tone frequency

In the lexical database there are 1,149 lexical stems, excluding affixes, with a known tone pattern. Of these, 544 (47%) are toneless and the remaining 605 (53%) have a phonologically specified tone pattern. There are 491 specifications for /L/ tone and 369 specifications for /H/ tone. Among the /L/ tones, 133 (27%) are floating /L/ tones, while the remaining 358 (73%) are /L/ tones that associate with syllables.

In terms of tone patterns, toneless words are by far the most frequent in Abawiri, followed by the /L/ tone pattern. The /^LH/ and /H/ tone patterns are about equally frequent, while all the other more complex tone patterns are relatively infrequent. The frequency of tone patterns on words in the 1,149-word sample is shown in Figure 16.

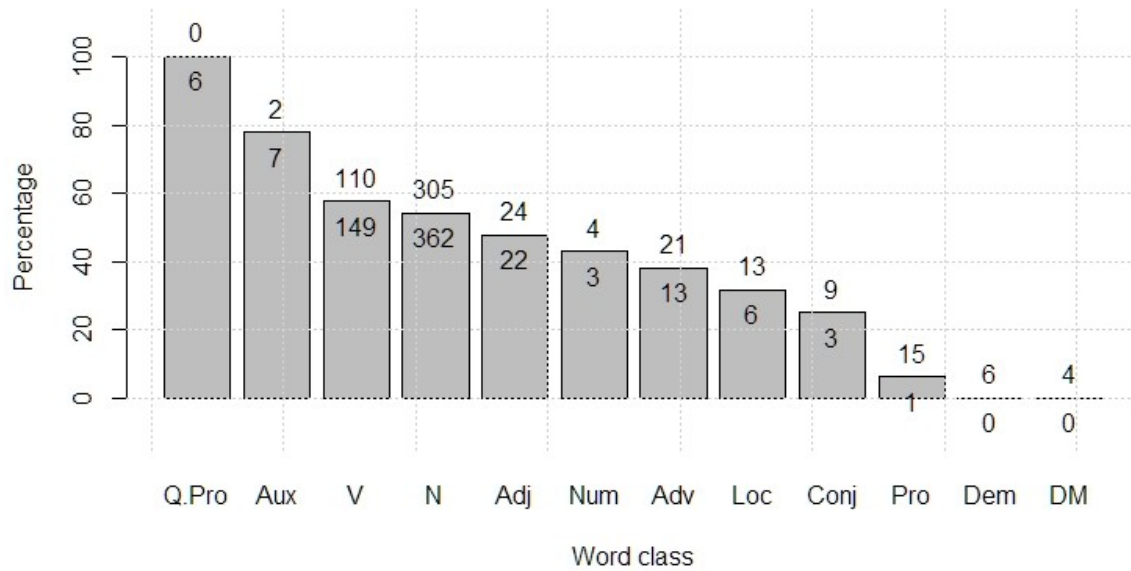
Figure 16. Frequency of tone patterns in the lexicon



2.4.6 Tone and word classes

Generally speaking, more words of the open word classes noun and verb bear tone than words of the closed classes and inflectional morphemes. The exceptions to this are verbal auxiliaries and interrogative pronouns, both of which are overwhelmingly tone-bearing. Figure 17 shows the percentage of words in each word class that is lexically specified for tone. In the figure, the number at the top of each gray bar represents the count of lexical items in the given word class with tone; the number in the white space directly above the gray bar represents the count of lexical items in that word class that are toneless. The bar on the left thus indicates that among interrogative pronouns (Q.Pro), zero are toneless and six have a tone pattern other than tonelessness.

Figure 17. Lexical tone vs. tonelessness by word class



Slightly more than 50% of the two major word classes of noun and verb bear tone. Among the minor word classes, all interrogative pronouns bear tone, as do most of the verbal auxiliaries; on the other end of the spectrum, no demonstratives or discourse markers bear tone, and only one personal pronoun bears tone.

Four of the eight attested tone patterns are found on words of most word classes, as well as on affixes. The remaining four tone patterns are found primarily on major word classes. Table 14 summarizes the correlation between tone pattern and word class.

Table 14. Correlation of tone pattern and word class

	∅	/L/	/H/	/LH/	/HL/	^L H/	^L HL/	/∅HL/
Noun	✓	✓	✓	✓	✓	✓	✓	✓
Verb	✓	✓	✓	✓		✓		✓
Most others	✓	✓	✓			✓		

See chapter 3 for additional details on the phonological properties of Abawiri word classes.

2.4.7 Grammatical tone

As discussed in the previous section, the distribution of certain tones and tone patterns is sensitive to word class. The phonological process of /H/ tone spreading is also sensitive to word class in that it occurs on nouns but not on verbs (§2.4.3.2). These tonal phenomena are primarily lexical, but they have a secondary grammatical function in discriminating word classes. In addition, there are two pure grammatical tone markers: the irrealis /L/ and ^LH/ tones that associate with the final syllable of verbs. This section also briefly presents segmental affixes that bear tone.

/L/ tone associated with the last syllable of a verb indicates a polar question. All final verbs have L pitch on the last syllable; the /L/ tone is realized phonetically through anticipatory polar (H) tone on the preceding syllable. Polar question /L/ tone can only associate with two suffixes (see further discussion in §4.5.3). In incomplete constructions the /L/ tone is on the non-past tense suffix /-rɔ/ ‘NPST’ as illustrated in (51).

- (51) [òrù gí tǎirò] # /
 /òru gi tà-i-rò/
 woman FOC rise-INCMP-NPST\YN
 ‘Is it a woman who is standing?’ 50257.1

In completive constructions the polar question /L/ tone is on the emphatic suffix -o ‘EMPH’ as illustrated in (52).

- (52) [dú s̄ kàrdzèrúò] , /
 /du `s̄ kàrdzɛr-u-ò/
 2.SG pig leave-CMP-EMPH\YN
 ‘Did you leave the pig behind?’ 520174.1

/^LH/ tone associated with the last syllable of a verb indicates conditionality, hypotheticality, or future time. This irrealis suffix, glossed IRR2, is in complementary distribution with the other irrealis suffix /`-rɛ/ ‘IRR1’, which is used in purpose and counterfactual constructions (§4.3.6). Irrealis /^LH/ tone associates with the same two suffixes as the polar question /L/ tone (see further discussion in §4.5.4). In incomplete constructions the /^LH/ tone is on the incomplete suffix /-rɔ/ ‘CONT’ as illustrated in (53).

- (53) [diá sù tròβýrò] ,
 /dia sù trɔ-by-`ró/
 2.SG.EMPH machete CAUS-be-NPST\IRR2
 ‘Supposing you are carrying a machete.’ 803b123.1

In completive constructions the irrealis /^LH/ tone is on the emphatic suffix -o ‘EMPH’ as illustrated in (54). Future completives are not attested; see further discussion in §4.2.1.

- (54) [dī bè fròirí] # /
 /`dí bɛ frɔ-i-ri-`ó/
 person LOC go-INCMP-NFUT-EMPH\IRR2
 ‘Supposing a person went there.’ 808a73.1

In addition to the pure grammatical tone just discussed, several affixes have both segmental and tonal properties. One of three tone patterns (/H/, /^LH/, or /L/) is associated with the segmental material of the affix. Affixes that bear tone are listed in Table 15.

Table 15. *Affixes with tone*

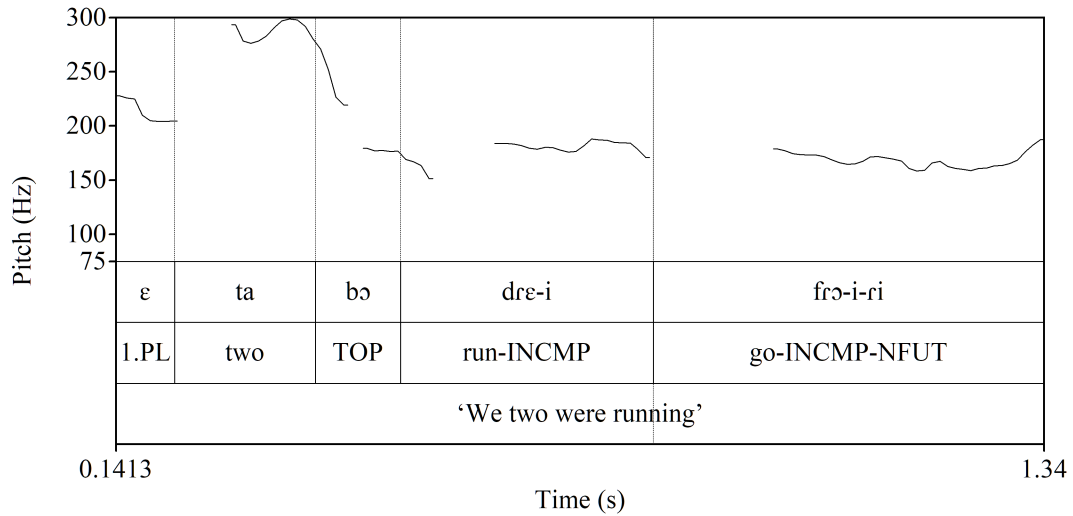
Affix	Gloss	Attaches to	Example	Gloss	
/ā-/	‘VIS’	verbs	/ā-tɔr-u-ε/	VIS-COME-CMP-PST	‘saw coming’
/-dʒɛ̃/	‘EMPH’	pronouns	/ε-dʒɛ̃/	1.PL-EMPH	‘we’
/-ké/	‘DIM’	adjectives, 1	/kíàì-ké/	one-DIM	‘only one’
/-dʒɔ̃u/	‘OLD’	names	/dɔrdabi-dʒɔ̃u/	Dordabi-OLD	‘dear old Dordabi’
/-jéi/	‘NEG’	verbs	/fì-jéi/	go-NEG	‘will not go’
/-rà/	‘PROSP’	verbs	/ti-rà-rɔ	sleep-PROSP-NPST	‘about to sleep’
/-rē/	‘IRR1’	verbs	/s-i-rē/	take-INCMP-IRR1	‘in order to take’
/-ɔ̃u/	‘DUR’	verbs	/d ^w ɔ̃ri-ɔ̃u bɔ́rε/	dance-INCMP-DUR be	‘was dancing’

For further discussion of the semantics of the tonal suffixing morphology and how it interacts with the rest of the TAM suffixing morphology, see chapter 4.

2.5 Intonation

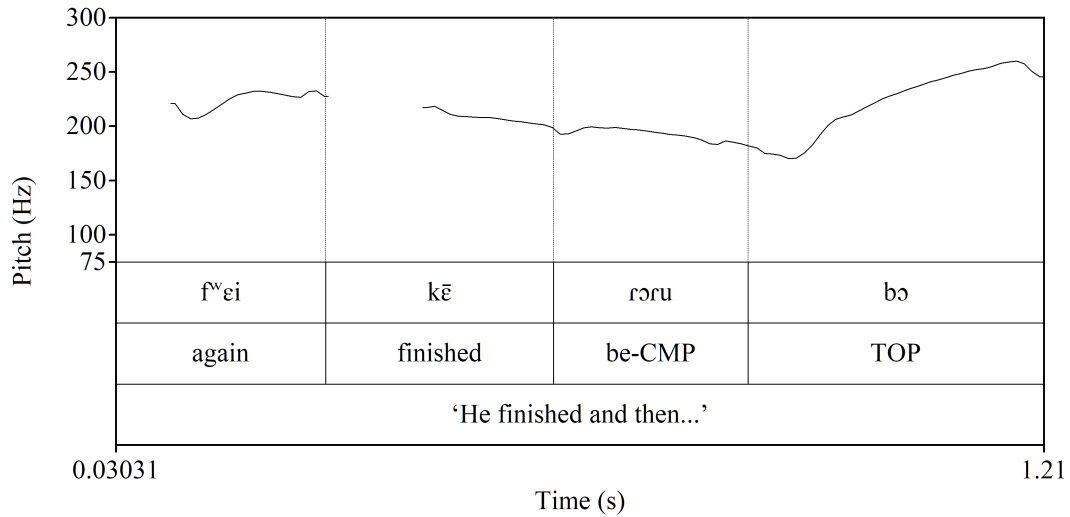
Abawiri IUs are of two basic types: final and continuing. Final IUs have low or falling intonation at the end of the IU, while continuing IUs have level or rising intonation. The low pitch contour of a final IU can be seen in Figure 18.

Figure 18. Low intonation on a final IU (502173.1)



The rising intonation contour of a continuing IU can be seen in Figure 19.

Figure 19. Rising intonation on a continuing IU (52247.1)



As discussed in §2.4.4, final IUs have a boundary L% tone that associates with the last syllable in the IU. The boundary L% tone prevents spreading of /H/ tone from

preceding syllables, and in cases where a /H/ tone is already associated with the last syllable, both the /H/ and the L% tone associate, resulting in a falling pitch. Continuing IUs, by contrast, do not have a boundary tone. The level or rising pitch at the end of these IUs is only present when the syllables do not have a tonal specification.

2.6 Loanword phonology

Abawiri speakers use a handful of loanwords from Indonesian/Papuan Malay. (Cf. Fields (2010) on the acrolect-basilect continuum between Standard Indonesian, Papuan Colloquial Indonesian, and Papuan Malay.) Typical phonological changes include: (1) loss of nasal phonemes or replacement with other consonants, (2) loss of syllable-final consonants, and (3) segmental changes; e.g. /p/ → /f/, /tʃ/ → /s/, /t/ → /s/, /l/ → /r/. Many of the assimilated loanwords are toneless, although a few are specified for tone. Some loanwords are shown in Table 16.

Table 16. Phonology of loanwords

Source word	Abawiri word	Gloss	Notes
/ajam/	/aja/	‘chicken’	
/belaŋa/	/brá/	‘pot’	
/beras/	/brase/	‘rice’	
/gula/	/gura/	‘sugar’	
/ketintiŋ/	/keti/	‘ <i>Ketinting</i> ’	a small motor for boats
/lojaŋ/	/rɔ́ja/	‘tray’	
/motor/	/wùtu/	‘car’	But cf. Indonesian <i>mobil</i> ‘car’

Source word	Abawiri word	Gloss	Notes
/motor/	/b ^w ɔtɔ/	‘engine’	cf. Dutch, Malay <i>motor</i> ‘engine’
/rambutan/	/rabuta/	‘rambutan fruit’	
/ritʃa/	/risia/	‘chili’	
/sekolah/	/sìkúra/	‘school’	
/sekop/	/sìkɔ/	‘shovel’	
/semanʃka/	/sabaka/	‘watermelon’	
/sendok/	/sidu/	‘spoon’	
/suliŋ/	/suri/	‘flute’	
/tʃeret/	/siri/	‘kettle’	
/tʃelana/	/srara/	‘trousers’	
/tembakau/	/sāku/	‘tobacco’	

Among the 18 words in Table 16, 12 are toneless and the remaining 6 have various tone patterns including /L/ (2 words), /H/ (2 words), /LH/ (1 word), and /^LH/ (1 word). It is currently unclear why these words were borrowed with these tone patterns.

The Indonesian/Malay word *motor* ‘motorcycle, engine’ was apparently borrowed twice, each time with a different meaning: once as /wùtu/ meaning ‘car’ and once as /b^wɔtɔ/ meaning ‘motor’. The word-initial /m/ was borrowed once as /w/ and once as /b^w/, while the homorganic vowels /o/ were borrowed once as /u/ and once as /ɔ/. The word-final rhotic was lost in both cases. The Dutch word *motor* ‘engine’ was borrowed into Malay in colonial times, and from Malay into Abawiri without semantic shift as /b^wɔtɔ/ ‘engine’. By contrast, the path of Abawiri /wùtu/ ‘car’ is less clear. Dutch *automobil* ‘car’ was borrowed into Malay as *mobil* ‘car’; however, this is not the source of Abawiri /wùtu/

‘car’, which apparently is also from Malay *motor*. Neither Indonesian/Malay nor Dutch uses the form *motor* to refer to cars.

2.7 Orthography

A brief overview of ongoing efforts to develop a community orthography is given in §2.7.1. As the community orthography does not represent all linguistically relevant contrasts, additional representation conventions used in the documentary corpus and dissertation examples are given in §2.7.2.

2.7.1 *Community orthography*

In June 2016 a preliminary participatory orthography design workshop was held in Fuau (Yoder 2017). Several community leaders had already been writing things in their language as part of an oral Bible story translation project, using whatever *ad hoc* conventions each speaker could devise. These leaders were eager to develop unified orthographic conventions; I suggested that the best way to achieve this would be to hold participatory workshops where interested community members could discuss possible orthographic conventions and start practicing tentative orthography decisions in reading and writing tasks. The first workshop primarily covered conventions for writing consonants and vowels; in addition, it was generally agreed not to represent tone in the orthography. Follow-up workshops will address further orthography issues including word breaks, punctuation, etc.

The results of the first three-day workshop are summarized in Table 17. Shown here are the workshop participants' agreed-upon orthographic representations for all of the consonants and vowels, along with example words used in the workshop to represent the segments.

Table 17. Phoneme-grapheme correspondence in the community orthography

Segment	Symbol	Example word			Gloss
/b/	b	/bàtúà/	[bàtúà]	< batua >	'squash'
/b ^w /	bw	/b ^w óre/	[b ^w ǝrè]	< bwore >	'cuscus sp.'
/f/	f	/`fráre/	[frārè]	< frare >	'snake'
/f ^w /	fw	/f ^w ɔu/	[f ^w òu]	< fwou >	'bee'
/t/	t	/tɛre/	[tèrè]	< tere >	'mosquito'
/t ^w /	tw	/`t ^w óre/	[t ^w ǝrè]	< twore >	'green, young'
/d/	d	/dúke/	[dúkè]	< duke >	'bird'
/d ^w /	dw	/d ^w ɔru/	[d ^w oru]	< dworu >	'Mamberamo River'
/s/	s	/sabi/	[sàβì]	< sabi >	'tree sp.'
/s ^w /	sw	/s ^w ɔri-rɔ/	[s ^w ǝrìrɔ]	< sworiro >	'harvest-NPST'
/r/	r	/rakre/	[ràkrè]	< rakre >	'foot'
/dʒ/	j	/dʒà/	[dʒà]	< ja >	'rainbow'
/dʒ ^w /	jw	/dʒ ^w aikare/	[dʒ ^w àikàrè]	< jwaikare >	'active'
/k/	k	/kɔre/	[kòrè]	< kore >	'turtle'
/k ^w /	kw	/k ^w ɛjɔ/	[k ^w èjɔ]	< kweyo >	'liver'
/g/	g	/gudʒekare/	[gùdʒèkàrè]	< gujekare >	'skin'
/g ^w /	gw	/g ^w ɔre/	[g ^w ǝrè]	< gwore >	'crocodile'
/i/	i	/irɛ/	[ìrè]	< ire >	'garden'

Segment	Symbol	Example word			Gloss
[j]	y	/iábrèi/	[jáβrèi]	<yabrei>	‘mouth’
/i/	yi	/tri/	[trì]	<tryi>	‘fish sp.’
/y/	yu	/yrɛ/	[ÿrè]	<yure>	‘tree’
/ɛ/	e	/èbi/	[èβì]	<ebi>	‘child’
/u/	u	/utru/	[ùtrù]	<utru>	‘tree sp.’
[w]	w	/uei/	[wèi]	<wei>	‘tooth’
/ɔ/	o	/ɔbi/	[òβì]	<obi>	‘arrow’
/a/	a	/abu/	[àβù]	<abu>	paternal grandparent’

At the end of the workshop there remained a fair amount of variability of spelling in all the key areas: representation of labialization with <Cw> vs. <Cu>, representation of /y/ with <yu> vs. <u> vs. <ug>, representation of /i/ with <yi> vs. <i>, and a tendency to represent /ɔ/ in certain phonological environments as <a>. It is likely that this variability will take some time to work itself out, as is usual in the community orthography design process (Karan 2006).

It was decided against representing tone in the orthography. From a linguistic perspective, there are two reasons why this decision is likely to be the better one. First, tone bears a rather light functional load, with about half of all words being toneless, little grammatical tone, and relatively few minimal pairs differentiated solely by tone. Most lexical ambiguities that might arise from under-representation of tonal contrasts are likely to be disambiguated from context. Second, the Abawiri tone system is what Kutsch Lojenga calls a “moveable tone system” (Kutsch Lojenga 2014). This type of tone system is one in

which various tone sandhi processes are in operation which move and change tones, creating a wide difference between phonological tone and phonetic realization of pitch. Determining how to represent such a tone system would be no easy feat. The Abawiri situation is thus the opposite of the one in Iau (Bateman 1986; 1990a), where tone has a high functional load in both the lexicon and the grammar, and there is a fairly straightforward mapping from phonological tones to phonetic pitches. Tone has been successfully represented in the Iau community orthography using a system of superscript numerals (Janet Bateman, p.c.). However, it is unlikely that the same could happen in Abawiri. Of course, the absence of tonal representation in the orthography means that the orthography would be less accessible to non-native speakers and potential language learners. If the language were to fall out of use in the future, the present orthography would be less accessible to heritage learners than an orthography where tone is represented. However, absence of tone representation remains ideal for fluent native speakers, for whom the orthography is currently being developed.

2.7.2 Technical orthography

In general, the orthographic representations employed in the documentation project, as well as those shown in the interlinear examples in the dissertation, are aligned as closely as possible with the community orthography. This minimizes unnecessary transcription changes and makes technical materials a bit more accessible to the community. However, a few changes are necessary in order to represent the language accurately. This section

summarizes (1) orthographic conventions in the dissertation that differ from those in the community orthography, and (2) orthographic conventions in the dissertation concerning issues that do not yet have an agreed-upon convention in the community orthography.

Unlike in the community orthography, tone is represented in the technical orthography. Table 18 summarizes the conventions for marking tone used in the documentary materials and seen in interlinear examples throughout the dissertation.

Table 18. Tone marking conventions

Tone pattern	Marking (1,2,3 σ)			Example			
toneless	◌	◌◌	◌◌◌	/tɛɛ/	[tɛ̀ɛ̀]	< tere >	‘mosquito’
/L/	◌̀	◌̀◌̀	◌̀◌̀◌̀	/dàri/	[dà̀rì]	< dàri >	‘flower’
/H/	◌́	◌́◌́	◌́◌́◌́	/g ^w áku/	[g ^w á̀kù]	< gwáku >	‘ear’
/LH/	◌̣	◌̣◌̣	◌̣◌̣◌̣	/̀̀trú/	[̀̀trú]	< òtrú >	‘aunt’
/HL/	◌̤	◌̤◌̤	◌̤◌̤◌̤	/túbì/	[tú̀βì]	< túbì >	‘leech sp.’
/ ^L H/	◌̄	◌̄◌̄	◌̄◌̄◌̄	/`kúru/	[kū̀rù]	< kūru >	‘wallaby’
/ ^L HL/	◌̄̀	◌̄̀◌̄̀	◌̄̀◌̄̀◌̄̀	/`dédé/	[dḕdḕ]	< dēdē >	‘fern sp.’
/ØHL/			◌̄◌̄̀	/fabík ^w ̀/	[fà̀βìk ^w ̀]	< fabíkwò >	‘bird-of-paradise’

For each tone, the syllable with which the tone is first associated is marked. For monosyllabic words with more than one tone, a contour tone symbol indicating the starting and ending tone is used. For polysyllabic words with more than one tone, one tone is marked on each syllable from beginning to end until no tones remain. /H/ tone spreading is not marked. For phonological /^LH/ and /^LHL/ tone patterns, the derived /M/ tone is

represented as this is more phonetically transparent and simple to implement typographically.

Areas where no community consensus exists include conventions for word breaks and conventions for approximants [j] and [w]. In the technical orthography, clitics are written with the standard symbol < = >. Serial verb constructions are represented either with or without a space by community members (e.g. < dreifi > ~ < drei fi > ‘run-go’). In the technical orthography, serial verb constructions are always written with a space.

The approximants [j] and [w] are analyzed as allophones of the high vowels /i/ and /u/ (§2.2.5). The approximant allophones are written as such. For example, /uɔg^wrɛ/ [wòg^wrè] ‘brush-turkey’ is written with the approximant < wogwre >. The completive suffix -u and incompletive suffix -i on a vowel-final verb are realized as approximants when they are followed by another vowel-initial suffix (e.g. /fa-u-ɔ/ [fàwò] ‘return-CMP-EMPH’, /tà-i-ɔ/ [tàjò] ‘stand-INCMP-EMPH’). These are also written as approximants (< fawo > and < tayo >).

2.8 Chapter summary

Abawiri has seventeen consonants including eight plain obstruents, eight labialized obstruents, and the rhotic /r/. This inventory, very large in comparison with other Lakes Plain languages, came about through the development of the labialized obstruent series. /d/ and /r/ are in partial complementary distribution, as are /g/ and /g^w/ as well as /g/ and /dʒ/. There are seven vowels including four high vowels /i, y, i, u/. The two

typologically unusual high vowels /i, y/ came about through the loss of a following consonant, a process attested across the Lakes Plain family. Syllables maximally contain an obstruent and rhotic in the onset, two vowels in the nucleus, and a rhotic in the coda. An offglide and coda cannot co-occur. There are two tones, /H/ and /L/, in addition to a derived /M/ tone that comes from the lowering of a /H/ tone due to a preceding floating /^L/ tone. /L/ tone (including floating /^L/ tone) triggers insertion of an anticipatory polar (H) tone on the previous syllable. Eight tone patterns are attested on nouns, but only six on verbs. This is due to the failure of /H/ tone to spread on verbs, neutralizing the contrast between several tone patterns. Final IUs have a boundary L% tone that interacts with lexical tone. Continuing IUs, by contrast, do not have a boundary tone. While most inflectional morphology is segmental, there are two tonal suffixes on verbs: a /L/ tone indicating polar questions and a /^LH/ tone indicating conditionality, hypotheticality, and future time. In addition, several segmental affixes are specified for tone. Development of the Abawiri community orthography is ongoing, with conventions for consonants and vowels established but further work needed for representation of approximants and placement of orthographic word boundaries.

Chapter 3 Words and word classes

This chapter discusses word classes and word formation processes in Abawiri. In defining word classes I adopt a multifaceted approach, including distributional analysis as in the traditional Structuralist approach, but also phonological (Smith 2011; Hollmann 2012), semantic (Givón 2001), and pragmatic (Hopper & Thompson 1984) properties. Any phonological, morphological, syntactic, semantic, or pragmatic property that is shared by a set of words is taken to be a potential indicator of word class.

The major word classes of noun and verb are sharply distinguished in Abawiri, as in other Papuan languages (Foley 2000: 370), and derivational morphology is limited. Inflectional morphology on verbs is agglutinating and synthetic (Comrie 1989; Aikhenvald 2007), with multiple affixes per verb root and no portmanteau forms. In contrast, other word classes are largely analytic. Non-verbal morphology is limited and includes a diminutive suffix on adjectives (§3.3.1), a separate diminutive suffix on names of people (§3.1.6), and emphatic and reflexive suffixes on pronouns (§3.5.1). Adjectives and adverbs constitute relatively open classes as they have a higher number of members than the minor word classes. In addition, there are seven minor word classes.

The chapter is organized as follows. Each word class is presented in turn, beginning with the major word classes of nouns (§3.1) and verbs (§3.2), followed by the relatively open classes of adjectives (§3.3) and adverbs (§3.4), and continuing with the seven minor word classes: pronouns (§3.5), postpositions (§3.6), demonstratives (§3.7), discourse

markers (§3.8), conjunctions (§3.9), numerals and quantifiers (§3.10), and interjections (§3.11). A final section presents the word formation processes of nominalization, verbal derivation, and compounding (§3.12). The chapter summary is given at the end (§3.13).

3.1 Nouns

This section discusses formal and semantic properties of Abawiri nouns, including their phonological properties (§3.1.1), morphological properties (§3.1.2), semantic properties (§3.1.3), the internal structure of noun phrases (NPs, §3.1.4), and noun phrases in the clause (§3.1.5). The section ends with a brief discussion of proper nouns, which are semantically distinct but formally mostly identical to other nouns (§3.1.6).

3.1.1 Phonological properties

Nouns have more tone pattern possibilities than any other word class. Words of most other word classes, as well as affixes, have one of four tone patterns (toneless, /L/, /H/, /^LH/). Verbs have an additional two patterns (/LH/ and /ØHL/), and nouns have all of these plus an additional two patterns (/HL/ and /^LHL/). See further discussion in §2.4.

3.1.2 Morphological properties

Nouns occur with the augmentative enclitic =*gwre* ‘only’, as shown in (55).

- (55) *sō = gwre gi bo-y-e-ro* ,
 pig = only FOC eat-INCMP-HAB-NPST
 ‘They would eat only pork.’

40964.1

While =*gwre* means ‘only’ when it occurs with nouns, it also occurs with adjectives and adverbs, where it means ‘very much’. =*gwre* with the sense ‘only’ is thus unique to nouns. Nouns do not occur with the diminutive suffix, which only occurs on adjectives (§3.3.1).

3.1.3 *Semantic and pragmatic properties*

Nouns prototypically refer to time-stable entities as opposed to events (Givón 2001), functioning to introduce participants in discourse (Hopper & Thompson 1984). NPs typically show the greatest degree of complexity in contexts where they introduce participants in the discourse. When an entity has already been introduced in the discourse, it tends to be coded with a reduced referential form such as a pronoun or omitted altogether (see §6.1.3).

3.1.4 *Noun phrases*

The internal linear syntactic structure of the NP is shown in Table 19 below. This shows an idealized maximal template for an NP. No corpus example has all positions filled, the linear order here being deduced from examination of multiple examples.

Table 19: Noun phrase template

Genitive NP	Noun	Adjective	Quantifier Numeral	Relative clause	Demonstrative	Discourse marker
-------------	------	-----------	-----------------------	--------------------	---------------	---------------------

Genitive NPs precede the noun within the NP, while attributive adjectives follow the noun. This is the most common pattern among the Papuan languages of New Guinea in the sample of languages in WALS (Dryer & Haspelmath 2013). Combining the two word order features in Dryer (2013a) and Dryer (2013b), of the 51 Papuan languages in the combined sample 30 (59%) have Gen-N and N-Adj word order like Abawiri. Of the rest, 8 have Gen-N and Adj-N, 2 have N-Gen and N-Adj, and the remaining 11 languages do not have a dominant word order for one or both of these values. Other Papuan languages with the dominant Gen-N and N-Adj word orders include Korafe (Farr 1999), Usan (Reesink 1987), and Isirawa (Oguri 1976). Within the Mamberamo region, by contrast, the Lakes Plain language Sikaritai has N-Gen and N-Adj word orders (Martin 1986), as do Iau (Bateman 2018) and Berik (Westrum 1988), a Tor language in the Mamberamo region.

The subsections here present constructions related to the positions in the noun phrase template in Table 19: the genitive construction (§3.1.4.1), the attributive adjective construction (§3.1.4.2), the quantifier construction (§3.1.4.3), the demonstrative construction (§3.1.4.4), and discourse markers (§3.1.4.5). Further issues related to noun phrases include headless NPs (§3.1.4.6) and coordination of NPs (§3.1.4.7). For a discussion of relative clauses see §8.1.1.

3.1.4.1 Genitive construction

An NP preceding the head noun in the genitive construction primarily expresses possession. The genitive construction involves simple juxtaposition of the genitive and the head noun with no additional marking, as shown in (56) and (57).

(56) *òru dràkrúja bwàbwei dū gi to-w-e # /*
 woman goods then man FOC take-CMP-PST
 ‘The man took the woman’s things.’ 913d29.1

(57) *bo two d̄yi srī gi be gwa-krùjógwro-w-e # /*
 COORD immediately person platform FOC LOC PLACT-emerge-CMP-PST
 ‘After that, immediately they came out at a person’s platform.’ 4089.1

In addition to physical possession, this formal strategy is also used to express related semantic relations between two nouns including body part (58), kin relations (59), place of origin (60), and part-whole (61).

(58) *iai bo tokwre bo aikre ,*
 yikes 1.SG.GEN head 1.SG.GEN collarbone
 ‘Oh, my skull, my collarbone!’ 520135.1

(59) *de òru bo fi bu-toi # /*
 2.PL woman TOP sago down-put
 ‘Your wives must put down sago.’ 50723.1

(60) *bo / fwau d̄yi bo àrá woyafei bwe-i bóre # /*
 COORD F. person TOP God worship become-INCMP be
 ‘Then the people of Fuau will worship God.’ 803b460.1

(61) *ou siai báí béyi-j-e # /*
 house porch across put-CMP-PST
 ‘He placed it on the house’s porch.’ 520106.1

The genitive construction is also used for nouns being used attributively (62).

- (62) *eya bo arikei òru ta gi bed-u bóre # /*
 yes COORD parrot(sp.) woman two FOC say-CMP be
 ‘Yes, those two parrot sisters were the ones talking.’ 520101.1

When the genitive NP consists of more than the head noun, a coreferential possessive pronoun *wo* ‘3’ occurs between the genitive NP and the head noun. Examples are in (63) and (64).

- (63) *wo ta wo worabrór-u bo f-i-e bóre # /*
 3 two 3 think-NMLZ TOP be-INCMP-HAB be
 ‘These are the thoughts of those two.’ 908a97.1

- (64) *yikare du wo d̄yi bo ate-i-rē-ri , /*
 village PROX 3 person TOP hear-INCMP-IRR1-NFUT
 ‘The people of this village would have heard.’ 91228.1

Two genitive constructions are frequently embedded, as shown in (65) and (66).

- (65) *begi wo koreifu eke bòb-u-e # /*
 DEM.FOC 3 date younger.sibling give-CMP-PST
 ‘He gave it to his girlfriend’s younger sibling.’ 809113.1

- (66) *e eidar-u gwa , /*
 1.PL sing-NMLZ sound
 ‘The sound of our songs.’ 50772.1

A single corpus example shows three genitive constructions embedded in an NP (the form *tōride ou* ‘sago-pounding house’ is a lexicalized expression):

(67) *fro-i òre bwàbwei / wo dwèyi dèbi tōride ou bé bworyu-òu*
 go-INCMP SEQ then 3 sister child cover house LOC sit-DUR

bóre # /

be

‘He went and then was sitting at the his sister’s child’s sago-pounding house.’

805106.1

3.1.4.2 Attributive adjective construction

When attributive adjectives occur in an NP, they follow the head noun with no additional marking, as shown in (68) (see §3.3 on adjectives as a word class).

(68) *e ò di kēsai f-u bwe-i , /*
 1.PL food small be-CMP become-INCMP

‘Let’s have a little food.’

52248.1

Multiple adjectives can occur juxtaposed in a single NP, as shown in (69). As multiple adjectives in an NP are very rare in speech, it is difficult to make generalizations about relative ordering of individual adjectives.

(69) *worujō kare fi rōu , /*
 stomach hard tight big

‘Hard, tight, big stomachs.’

52279.1

NPs in discourse occasionally have both a pre-nominal possessor and a post-nominal adjective. An example is shown in (70).

(70) *d̄yi buyi kwoi , /*
 person plantain ripe

‘People’s ripe plantains,’

5125.1

3.1.4.3 Quantifier construction

Quantifiers and numerals (§3.10) occur after the head noun in the NP, as seen in (71) and (72).

(71) *dwèyi ta gi fweyi bu-tro-ri-ri* # /
 sister two FOC again down-throw.down-NFUT-NFUT
 ‘The two sisters threw it down again.’ 40915.1

(72) *dre-i fia-u bo , / òru d̄yurou bo gwò=jè bu gyu*
 run-INCMP descend-CMP TOP woman many TOP INESS=LOC firewood split
gwa-ber-u bóre # /
 PLACT-do-CMP be
 ‘When we ran down, many women were splitting wood there in the middle.’
 502190.1

In rare cases where both an attributive adjective and a quantifier/numeral occur in a single NP, the adjective precedes the quantifier/numeral. This is illustrated in (73), which is an extract from a written text.

(73) *fe bwàbwei tia-i ou d̄òburou=gwre kíài be=jè uba*
 also then sick-INCMP house big=AUG one LOC=LOC medicine
s-i-ri-wéi
 take-INCMP-NFUT-NEG
 ‘And also I would not take medicine in one very big hospital.’ 9253.15

The quantifier *fwoje* ‘all’ only occurs after personal pronouns, while the quantifier *fukári* ‘all’ often occurs outside the bounds of the NP to which it belongs semantically. See further discussion below in §3.10.

3.1.4.4 Demonstrative construction

Demonstratives occur after the head noun in an NP. A basic example is shown in

(74).

- (74) *fwàri du fwryu-ro # /*
rattan PROX chop-NPST
'This rattan is cut.' 511b3.1

Demonstratives follow adjectives and numerals in the NP, as shown in (75) and

(76), respectively.

- (75) *tìore twōre du bà # /*
oar new PROX where
'Where is the new paddle?' 507242.1

- (76) *òru ta du are bedo-w-e # /*
woman two PROX RECP hit-CMP-PST
'These two women hit each other.' 9022.1

Demonstratives occur before discourse markers in the NP; in fact, demonstratives and discourse markers co-occur with great frequency. This is illustrated in (77).

- (77) *keiri du bo fwi di-ro # /*
K. PROX TOP dregs knead-NPST
'Keiri was squeezing sago.' 814118.1

See §3.7 for more details on demonstratives.

3.1.4.5 Discourse markers

Discourse markers occur at the end of the NP, regardless of whether there are other post-nominal elements in the NP (78) or not (79).

(78) *dȳi bio bo deryu-ro* ,
 person other TOP lie.horizontally-NPST
 ‘A certain person is lying.’ 903b227.1

(79) *tīe o fa-w-e # /*
 fish FOC hunt-CMP-PST
 ‘We looked for fish.’ 40320.1

Discourse markers as a word class are discussed in more detail in §3.8; see also the discussion of the syntax and functions of discourse markers in chapter 6.

3.1.4.6 Headless noun phrases

Zero anaphora is ubiquitous in discourse (§6.1.3). In addition to the omission of whole NPs, just the head noun can also be omitted, with the dependent elements overt. Headless NPs always have an attributive adjective or relative clause. Certain adjectives tend to occur in headless NPs, including *dèria* ‘good’, *kou* ‘bad’, *késai* ‘small’, and *kare* ‘strong’. A typical example with *kou* ‘bad’ is shown in (80), while (81) shows the adjective *twōre* ‘new’ in a headless NP. This adjective is less commonly used without a head noun.

(80) *kou gi bwàbwei e-jè sa-ro # /*
 bad FOC then 1.PL-EMPH take-NPST
 ‘It is bad things that we will get.’ 801b231.1

(81) *twōre gi worsre-yi bóre # /*
 new FOC wear-PRF be
 ‘A new one is already put on.’ 803b362.1

Headless NPs sometimes consist of just a relative clause, as shown in (82) and (83). See further discussion of relative clauses, including headless relative clauses, in §8.1.1.

(82) *o begi bora tro-f-u bo bo wore tore dre-i fro-u bóre #*
 REL DEM.FOC ball CAUS-be-CMP TOP DIST then CAUS run-INCMP go-CMP be
 ‘The one who had the ball, he took it and ran.’ 903b106.1

(83) *sēi tūru f-u bwābwei dobyu-je f-u bo , /*
 sago.leaf.tip white be-NMLZ then place.sideways-NFIN be-CMP TOP

bo ro yáfwri bóre # /
 COORD then cry.out be
 ‘Those with white leaves were sleeping, and then she yelled.’ 808a374.1

Headless NPs can have multiple dependent elements, as shown in (84) below, where the headless NP has a nominalized relative clause, an adjective, a demonstrative, and a discourse marker.

(84) *wokare f-u rōu du bo twōryi gi byi-j-e , /*
 fat be-CMP big PROX TOP good.man FOC shoot-CMP-PST
 ‘The good man shot the big, fat one.’ 40936.1

3.1.4.7 Nominal coordination

There are four strategies for nominal coordination. Two of these constructions are used to conjoin exactly two nominals, while the other two constructions are used for open-ended enumeration. The nominal coordination constructions are schematized in Table 20, with references to examples below. (Clausal coordination is discussed in §8.7.)

Table 20. Nominal coordination constructions

Construction	Form	Examples
Head nouns	[noun] + [noun] + <i>òro</i> 'COM'	(85), (86), (87), (88)
Human referents	[NP] + [NP] + <i>wo</i> '3' + <i>ta</i> 'two'	(89), (90)
Additive	[noun]* <i>fe</i> 'also'	(92), (93), (94)
List	[[NP] <i>ara</i> 'LIST']*	(95)

The first nominal coordinating construction involves coordination of two head nouns within a single NP. Examples are given in (85) and (86).

(85) *òru dū òro begi jwor-u-e* ,
 woman man COM DEM.FOC raise-CMP-PST
 'The woman and man raised them.' 908a31.1

(86) *bo begi / yure dāri òro* , /
 COORD DEM.FOC tree rope COM
 'And that, the tree and the vine.' 80667.1

Genitive NPs have scope over both entities, as shown in (87), where the possessor *wo* '3' is the child of both of the referents.

(87) *wo āi ayite òro gi kārjer-yi-ro* #
 3 mother father COM FOC leave-PRF-NPST
 'It was their mother and father that deserted them.' 908a6.1

Further, the coordinator *òro* 'COM' always occurs immediately after the second noun and before numerals and discourse markers (88) which, as with genitive NPs, have scope over both head nouns

(88) *òru dū òro ta bo bworyu-ro* ,
 woman man COM two TOP sit-NPST
 'A woman and a man are sitting.' 903a1.1

The second nominal coordinating construction is used exclusively for human referents (and, by extension, for anthropomorphism). Two nouns, either personal names or common nouns, are juxtaposed and followed by the third person pronoun *wo* ‘3’ and the numeral *ta* ‘two’. This is illustrated in (89) and (90).

(89) *tīe kore wo ta # /*
 fish turtle(sp.) 3 two
 ‘A fish and a turtle.’ 803a80.1

(90) *kwiági eri wo ta bo bwàbwei , / ror-i-ri , /*
 K. E. 3 two TOP then be-INCMP-NFUT
 ‘It was like this with Kwiyagi and Eri.’ 8064.1

This construction involves coordination of NPs rather than of head nouns within a single NP. This fact is illustrated in example (91), where each of the coordinated NPs has its own internal structure: the first with a genitive noun *twōryi* ‘good man’, and the second with a nominalized relative clause *ùkási fu* ‘with snot’ (see §8.1.2 on the nominalized relative clause construction).

(91) *twōryi abaruda # / d̄yi ùkási f-u wo ta wo dadabi # /*
 good.man A. person snot be-NMLZ 3 two 3 folktale
 ‘The tale of the good man Abaruda and the person with snot.’ 4101.1

The third and fourth constructions for nominal coordination are used for open-ended enumeration. Both of these constructions involve coordination of multiple NPs rather than coordination of head nouns within a single NP. In the additive construction, multiple NPs are simply juxtaposed, as shown in (92), optionally with *fe* ‘also’ at the end of the list, as shown in (93). In this construction each non-final NP in the list ends with level or rising

intonation (indicated in examples with a comma <,>) and usually a pause (indicated in examples with a forward slash </>).

(92) a. *bo siari dà bóre #*
 DIST S. ASSOC be
 ‘It was Siari and company.’ 8159.1

b. *siari , sorfei , / fafu , /*
 S. S. F.
 ‘Siari, Sorfei, Fafu.’ 81510.1

(93) *wo dígò , tòì , / ba fe worero oiru kàrjer-u bóre*
 3 ax sago.pounder filter also like.that stand.upright leave-CMP be
 ‘She left her ax, sago pounder, and sago filter standing upright.’ 41028.1

Individual NPs in the list can have modifiers such as genitive NPs and adjectives, as shown in (94).

(94) *aa be=ta bwàbwei , / deyifwai wo / òru , / bwàbwei , / wo*
 EXCL LOC=ABL then D. 3 woman then 3
ayite kou , /
 father loved
 ‘And from there Deyifwai, his wife, and his dear father,’ 808a405.1

Coordination of NPs is also accomplished with the dedicated list marker *ara* ‘LIST’. This word comes at the end of the NP and indicates that the NP is part of an enumerated list. In the 15-second spate of talk shown in (95), Stefanus gives a list of six house parts, all of which are marked with *ara* ‘LIST’.

(95) a. *ou bare ara , /*
 house main.post LIST
 ‘House poles,’ 5225.1

- b. *ou sábià / ara , /*
house main.purlin LIST
‘Lower roof purlins,’ 5226.1
- c. *ou feyi ara , /*
house tie.beam LIST
‘Gable-end ceiling joists,’ 5227.1
- d. *ou fwoyu ara toyi-ro ,*
house rafter LIST cut-NPST
‘The rafters are cut.’ 5228.1
- e. *fwore sábià / ta fa ara , /*
middle.purlin two also LIST
‘Also two mid-level roof purlins,’ 5229.1
- f. *ou gwài fe ara toyi-ro , /*
house ceiling.beam also LIST cut-NPST
‘Also the central ceiling beam is cut.’ 52210.1

While other nominal coordinating constructions involve words recruited from other word classes, this construction is the only one that has a dedicated nominal coordinator.

3.1.5 Noun phrases in the clause

Chapter 6 is devoted to a discussion of the functions of NPs in the clause; for that reason, only a brief summary is given here. NPs occur before the verb within the clause except in antitopic constructions (Chafe 1976; Lambrecht 1994), where the NP occurs after the verb. There is no language-internal evidence for grammatical relations in Abawiri; that is, the grammatical system does not distinguish between subject, object, or other syntactic functions of NPs. There is neither indexing on the verb nor case/adpositional marking on

nouns; further, no syntactic behavioral property of NPs (e.g. relativization, subordination) has been shown to refer to one grammatically identifiable set of NPs as opposed to another. However, both semantic and pragmatic functions of NPs can be identified. Individual verbs tend strongly to co-occur with NPs with certain semantic roles; e.g. verbs of cutting and breaking generally occur with both an agent and a patient, while verbs of motion occur with an agent. Further, NPs are coded differently depending on their information structural function as given, accessible, or new information in the discourse (Chafe 1976). Zero anaphora is ubiquitous in discourse.

3.1.6 *Proper nouns*

Semantically, proper nouns are names of specific individuals rather than classes of entities. However, they are largely formally identical to other nouns and can have any of the dependent elements of an NP. As with other nouns, proper nouns can occur as a pre-nominal genitive, as shown in (96).

- (96) *sugwa frèi f-u-e # /*
 S. demon be-CMP-PST
 ‘It was Sugwa’s ghost.’ 51330.1

Proper nouns can also be modified by a following adjective (97), numeral (98), demonstrative (99), or discourse marker (100).

- (97) *bwoi kou bóre bworyu # /*
 B. loved be sit
 ‘It was dear Bwoi, who lives (here).’ 81588.1

- (98) *boriwore ta #*
 B. two
 ‘Two from Boriwore clan.’ 52072.1
- (99) *bekai du fero àryu abro-w-e ,*
 B. PROX then eye perceive-CMP-PST
 ‘Then Bekai saw.’ 4067.1
- (100) *makris bo bu-fwa-w-e # /*
 M. TOP down-descend-CMP-PST
 ‘Makris came down.’ 40331.1

The suffix *-jòu* ‘OLD’ attaches to names of people and is used as a term of endearment, as shown in (101) and (102). Use of this suffix is restricted to names of people rather than to proper nouns in general.

- (101) *bowiri-jòu du bo sréfwor-u-e # /*
 Abawiri-OLD PROX TOP leap-CMP-PST
 ‘Dear old Abawiri jumped.’ 809338.1
- (102) *bo kwiági-jòu be bworyu f-u bo ro ber-u bóre # /*
 COORD K.-OLD LOC sit be-CMP TOP then do-CMP be
 ‘When old Kwiagi was living here it was like that.’ 80621.1

3.2 Verbs

This section discusses verbs as a word class, including their phonological properties (§3.2.1), morphological properties (§3.2.2), and syntactic properties (§3.2.3). A final section discusses the related word classes of pre- and post-verbal auxiliaries (§3.2.4). Verbs are the most morphologically and syntactically complex of all word classes; for this reason, two additional chapters are devoted to detailed discussions of verbal morphology (chapter

4) and verb phrases (chapter 5). The current section outlines the properties of verbs most relevant to defining them as a word class, pointing ahead to the fuller treatment in the other two chapters where appropriate.

3.2.1 Phonological properties

/H/ tone spreads to the end of the phonological word, except on verbs (§2.4.3.2). The failure of /H/ tone to spread on verbs is a phonological feature of verbs as a word class (cf. Smith 2011). The class of verbs has an intermediate number of tone patterns. While words of most word classes and affixes have one of four tone patterns (toneless, /L/, /H/, /^LH/), verbs have an additional two patterns (/LH/ and /ØHL/), and nouns have all of these plus an additional two patterns (/HL/ and /^LHL/). See further discussion in §2.4.6.

3.2.2 Morphological properties

Verbs are by far the most morphologically complex of all word classes. Chapter 4 is devoted to a discussion of verbal morphology, thus only a brief summary is given here. Verbs have a basic aspectual distinction between completive, incompletive, and perfect aspect that is formally realized with the suffixes *-u* ‘CMP’, *-i* ‘INCMP’, and *-yi* ‘PRF’ closest to the verb stem. Following the basic aspect suffixes are various other TAM suffixes. The past tense suffix is restricted to the completive; by contrast, many other TAM suffixes are restricted to the incompletive. These include markers of non-past and non-future tense, prospective, habitual, and durative aspect, and irrealis and purpose modality. An emphatic

suffix can occur with both completive and incomplete inflections. A grammatical /L/ tone on the final suffix of the verb marks polar questions, while a /^LH/ tone marks a subset of irrealis notions, which include future time, conditionality, and hypotheticality. Verbal prefixes include three directionals ('up', 'down', or 'into'), three causative/pluractional prefixes, and a single visual evidential prefix. A near-maximally inflected verb is shown in (103) with the prefix *yu-* 'up', basic aspect suffix *-i* 'INCMP', non-future suffix *-ri* 'NFUT', emphatic suffix *-o* 'EMPH', and irrealis /^LH/ suffix 'IRR2'.

(103) *yure yu-tiror-i-ri-ō* , /
 tree up-reach-INCMP-NFUT-EMPH\IRR2
 'Supposing he would climb up a tree.' 808a81.1

3.2.3 Syntactic properties

Chapter 5 is devoted to a discussion of the internal structure of verb phrases, including pre-verbal and post-verbal auxiliary constructions, as well as serial verb constructions. A brief summary is given here.

Abawiri has both pre-verbal and post-verbal auxiliaries. Pre-verbal auxiliaries code a variety of categories including three related illocutionary force and three aspect-oriented categories. Post-verbal auxiliaries include two existential auxiliaries and two aspect markers (see §3.2.4 below).

Serial verb constructions (SVCs) always contain two verbs, although two embedded SVCs are possible. The component verbs are strictly adjacent, with the non-final verb(s) being marked with either the incomplete or non-finite suffix. Abawiri SVCs fall into two

basic types: symmetrical SVCs, where both verbs contribute lexical meaning, and asymmetrical SVCs, where one of the verbs has grammaticalized into a marker of aspect.

Within the clause, verbs are strongly clause-final. The only constituent that follows the verb phrase is the antitopic (see §6.5).

3.2.4 Verbal auxiliaries

Abawiri has both pre-verbal and post-verbal auxiliaries. Semantically, all auxiliaries encode categories of TAM and illocutionary force. Formally, the pre-verbal auxiliaries have a relatively free distribution in the clause before the verb, while post-verbal auxiliaries occur immediately after the main verb. Both types of auxiliaries are shown in Table 21.

Table 21: Verbal auxiliaries

Auxiliary	Gloss	Position
<i>ti</i>	‘PROH’	pre-verbal
<i>kéto</i>	‘must’	pre-verbal
<i>sira</i>	‘please’	pre-verbal
<i>di</i>	‘transform’	pre-verbal
<i>tore</i>	‘until’	pre-verbal
<i>be</i>	‘IMMED’	pre-verbal
<i>bóre</i>	‘be’	post-verbal
<i>béyo</i>	‘be.Q’	post-verbal
<i>fwori</i>	‘DES’	post-verbal
<i>kare</i>	‘HAB’	post-verbal

See the more detailed discussion of the pre-verbal auxiliary constructions in §5.1 and of the post-verbal auxiliaries in §5.2.

3.3 Adjectives

The class of adjectives is a relatively open word class with just over 100 words in the documentary corpus. This section presents the morphological (§3.3.1), distributional (§3.3.2), and semantic (§3.3.3) properties of this word class.

3.3.1 Morphological properties

Certain adjectives, as well as the numeral *kíàì* ‘one’ (§3.10.1), can occur with the diminutive suffix *-ké* ‘DIM’. This suffix is probably grammaticalized from *eke* ‘younger sibling’, as words for ‘child’ are a frequent source of diminutives cross-linguistically (Kuteva et al. 2019: 88). A typical example of an adjective with the diminutive suffix is shown in (104).

- (104) *a fe / késai-ké f-u-e #*
 1.SG also small-DIM be-CMP-PST
 ‘I was still small.’ 5043.1

Enclitic postpositions (§3.6.2) occur after the diminutive suffix (105).

- (105) *e-ri késai-ké = ta jwor-u-e # /*
 1.PL-REFL small-DIM = ABL raise-CMP-PST
 ‘We ourselves raised them from very small.’ 908a86.1

3.3.3 Semantic properties

Most Abawiri adjectives express property concepts, as is common cross-linguistically (Givón 2001: 53). These properties include physical size and quality, temporary physical state, color, mental and emotional properties of humans, and subjective evaluative properties. All adjectives in the lexicon that are also attested in the documentary corpus are given in Table 22 below, organized roughly by semantic similarity into six categories: (1) size, (2) physical quality, (3) temporary physical state, (4) color, (5) physical, mental, and emotional state of humans, and (6) subjective/evaluative.

Table 22. Adjectives by semantic domain

1. Size		
<i>dòbu</i>	big	often with = <i>gwre</i> 'AUG'
<i>rōu</i>	big	usually after <i>dòbu</i> 'big', often with = <i>gwre</i> 'AUG'
<i>késai</i>	little	collocates with - <i>ke</i> 'DIM'
<i>joku</i>	thick	
<i>toi</i>	small	e.g. a tree. collocates with - <i>ke</i> 'DIM'
<i>karefiro</i>	thick (of a beard)	
<i>sorike</i>	thin	e.g. cloth
<i>sifra</i>	thin	e.g. cloth
<i>foi</i>	short	usually collocates with - <i>ke</i> 'DIM'
<i>fròku</i>	long	often with = <i>gwre</i> 'AUG'
<i>yafei</i>	high/tall	
<i>koteira</i>	deep	e.g. a hole

<i>bugru</i>	deep	e.g. water
<i>sori</i>	shallow	e.g. water
2. Physical quality		
<i>dre</i>	sharp, coarse, evil	
<i>fi</i>	tight	e.g. full stomach, flush floorboards
<i>fitwore</i>	fine	e.g. sand
<i>furku</i>	whole	
<i>kare</i>	hard, strong, dry	often with = <i>gwre</i> 'AUG'
<i>koiri</i>	bitter	e.g. cassava leaves
<i>gwirku</i>	heavy	
<i>kwori</i>	crooked	e.g. a stick or tree
<i>kyu</i>	blunt, dull	e.g. arrow tips
<i>bwri</i>	straight	
<i>gwosore</i>	light, wide, bright	
3. Temporary physical state		
<i>biau</i>	roasted	
<i>ira</i>	boiled	
<i>fíderio</i>	dry	cf. <i>dèria</i> 'good'
<i>fwore</i>	dry	
<i>krokro</i>	dry	e.g. crunchy leaves
<i>weigwa</i>	dry	of a riverbed
<i>kwei</i>	wet, ripe	
<i>fwra</i>	rotten	of an old dugout canoe
<i>sobre</i>	spoiled	of food
<i>toirau</i>	disintegrated	e.g. thatch house

<i>worisa</i>	moist	
<i>gwyidari</i>	quiet	of a place
<i>ebere</i>	quiet	of a place
<i>ogwoi</i>	silent	of a person
<i>dobwiai</i>	little, slight	of wind
<i>yikare</i>	hot	
<i>tyu</i>	cold	
<i>karafu</i>	dirty	lexicalized <i>kara</i> (not attested) + <i>fu</i> 'have'
<i>karai</i>	clean	lexicalized <i>kara</i> (not attested) + <i>ōi</i> 'be.NEG'
<i>ogwo</i>	without sides	describes a situation when one eats sago porridge on its own, without side dishes
<i>worsore</i>	empty	e.g. sago basket
<i>fwre</i>	deserted	of a village, e.g. during battle
<i>kōku</i>	swollen	e.g. a leech
<i>twōre</i>	new, young	also 'green'
<i>ākare</i>	enduring	<i>yakare</i> 'long time' is an adverb
<i>gwà</i>	old, sick	of things or humans
4. Color		
<i>sorikei</i>	red	
<i>gworoyi</i>	yellow	
<i>twōre</i>	green	also 'new, young'
<i>koryu</i>	blue	
<i>soryu</i>	brown	
<i>tukare</i>	black	
<i>tùru</i>	white	

5. Physical, mental, and emotional state (human)		
<i>debei</i>	insane	
<i>fwoyrou</i>	mentally disturbed	lexicalized from <i>fwóyu rōu</i> ‘large knot’
<i>keyi</i>	crazy	
<i>fwrari</i>	handicapped	
<i>twori</i>	old	also a noun meaning ‘wound’
<i>kerai</i>	thin, sick	
<i>iroru</i>	elder	e.g. <i>deke iroru</i> ‘older children’
<i>drè</i>	orphaned	e.g. <i>dèbi drè</i> ‘orphaned child’
<i>soyi</i>	male	e.g. <i>dèbi soyi</i> ‘boy’
<i>trè</i>	dead	
<i>woyufu</i>	fat, healthy	
<i>yài</i>	beautiful	e.g. <i>òru yài</i> ‘beautiful woman’
<i>oka</i>	hungry	
<i>gwarifwei</i>	full	i.e. not hungry
<i>tyuje</i>	light (body)	collocates with <i>-ke</i> ‘DIM’
<i>kri̯jai</i>	small	e.g. a younger sibling or child
<i>sore</i>	wide	of the nose
<i>jwaikare</i>	active	
<i>fare</i>	weak, soft	often with = <i>gwre</i> ‘AUG’
<i>yare</i>	weak	<i>àryu yare</i> ‘weak eyes’ = sleepy
<i>áka</i>	tired	
<i>akobuja</i>	dizzy	
<i>krai</i>	untidy	
<i>krefi</i>	disheveled	

<i>gwafare</i>	naked	
<i>ātware</i>	alive	
<i>woriai</i>	alone	from <i>wo-riai</i> ‘3-REFL’
6. Subjective/evaluative		
<i>ká</i>	same	
<i>bwrisrei</i>	normal	<i>bwri</i> ‘straight’ + <i>sre-i</i> ‘take-INCMP’
<i>bio</i>	other	
<i>dèria</i>	good	often with = <i>gwre</i> ‘AUG’
<i>briti</i>	orderly	
<i>twōryi</i>	moral, right (male)	
<i>raibo(ko)kou</i>	immoral (male)	
<i>woiku</i>	immoral (female)	
<i>kou</i>	bad, much, loved	‘bad’ is the basic sense
<i>e(r)tra</i>	evil, angry	
<i>bisike</i>	unpleasant	e.g. a negative interpersonal situation
<i>bísia</i>	beautiful, handsome	
<i>febiai</i>	beautiful, handsome	
<i>iri</i>	wild	e.g. plants
<i>jetai</i>	domestic	e.g. pigs
<i>sa</i>	domestic	e.g. sago trees

An example of an adjective from each of the semantic categories is given below. (110) shows an adjective of size, (111) shows an adjective of physical quality, (112) shows an adjective of temporary physical state, (113) shows a color adjective, (114) shows an adjective of human physical state, and (115) shows a subjective/evaluative adjective.

- (110) *a fe d̀̀bu f-u-e bẁ̀-w-e # /*
 1.SG also big be-CMP-PST NEG-CMP-PST
 ‘I was not big.’ 81573.1
- (111) *obi ei kyu bo # /*
 bamboo trunk dull TOP
 ‘The dull bamboo arrows.’ 520211.1
- (112) *d̀̀i ogwo = gwre gi ba àre tèb-u-e # /*
 food empty = AUG FOC eat SEQ sleep-CMP-PST
 ‘I ate food without any sago porridge, then went to sleep.’ 5108.1
- (113) *foi sorikei bwe-ye f-i-ri # /*
 rock red become-NFIN be-INCMP-NFUT
 ‘She was becoming a red rock.’ 80568.1
- (114) *bo òru ỳ̀i # /*
 DIST woman beautiful
 ‘She was a beautiful woman.’ 80579.1
- (115) *gwari bio bo bẁ̀bwei dabyi-j-e # /*
 day other TOP then talk-CMP-PST
 ‘On a different day he talked.’ 808a329.1

3.4 Adverbs

The word class of adverbs is a formally rather loosely related set of words. These words are defined by their flexible clause position and function as clause-level operators. This section discusses properties of adverbs, including their distributional (§3.4.1) and semantic properties (§3.4.2), as well as the overlap between the word class of adverb and related word classes: conjunctions, adjectives, and locative postpositions (§3.4.3).

3.4.1 Distributional properties

There is no fixed position for adverbs in the clause. While conjunctions have some flexibility in their syntactic position (§8.7), the flexibility of adverbs is greater. Adverbs occur most frequently immediately before the verb, as this is the clausal element with which they share most semantic affinity. An example is shown in (116).

- (116) *wo fweyi fro-w-e #*
3 again go-CMP-PST
'He went again.' 903b128.1

Adverbs also frequently occur clause-initially, as shown in (117), and between other clausal constituents, as shown in (118).

- (117) *fweyi be=ta òu wodyi-ri bóre # /*
again LOC=ABL clan spy-NFUT be
'Then from there they spied on the house again.' 507172.1

- (118) *wo ta fweyi be=ta fori gwò yu-tâ-u bóre # /*
3 two again LOC=ABL sago.swamp INESS up-rise-CMP be
'They two went up again to the middle of the sago swamp.' 40820.1

Modification of adjectives is rare in Abawiri, being limited to a few forms recruited from the class of adjectives. An example is *késai*, which modifies nouns and means 'small', as shown in (119), and also modifies other adjectives and means 'a little', as shown in (120).

- (119) *dì késai d̄yi bòb-i-ro , /*
food small person give-INCMP-NPST
'A little food will be given to the people.' 52254.1

(120) *o bwàbwei / dòbu késai yábrèi f-u bwo-w-e #*
 COORD then big a.little mouth be-CMP become-CMP-PST
 ‘And when he was a little older he started talking.’ 808a7.1

Another example is the word *rōu* ‘big’, which is used after certain adjectives as an augmentative, as illustrated in (121).

(121) *bwàbwei fi kre / fròku rōu f-i-e-ro # /*
 then sago bone long very be-INCMP-HAB-NPST
 ‘There are usually very long sago sticks.’ 523112.1

Adjectives used to modify other adjectives are not related to clause-level adverbs and are not considered to be adverbs in Abawiri.

3.4.2 Semantic properties

Adverbs can be roughly divided semantically into those that add manner, temporal, spatial, and modal meaning to the verb. All adverbs in the corpus are shown in Table 23, organized by these four semantic categories.

Table 23. Adverbs by semantic domain

1. Manner		
<i>are</i>	separately	also the reciprocal marker
<i>are bare</i>	one by one	cf. <i>are</i> ‘separately’
<i>bubiai</i>	quietly, slowly	nearly always with = <i>gwre</i> ‘AUG’
<i>bweibere</i>	quickly	
<i>rofworì</i>	quickly	
<i>fìrore</i>	carefully	nearly always with = <i>gwre</i> ‘AUG’; shortens to <i>fege</i>

<i>fā</i>	at random, not carefully	
<i>dèria</i>	well	as an adjective, ‘good’
<i>kwo</i>	badly	cf. adjective <i>kou</i> ‘bad’
2. Temporal		
<i>bwije</i>	a long time	
<i>byuro</i>	a long time	nearly always with = <i>gwre</i> ‘AUG’
<i>yakare</i>	a long time	cf. adjective <i>akare</i> ‘enduring, permanent’
<i>eke (yai)</i>	first	
<i>fúfweyo (kare)</i>	a long time ago	
<i>kebiári</i>	recently	
<i>bei</i>	now	
<i>gwa</i>	immediately	
<i>two</i>	immediately	
<i>éderio</i>	quickly	cf. <i>dèria</i> ‘well’
3. Spatial		
<i>droku</i>	far	often with = <i>gwre</i> ‘AUG’
<i>kedu/kero/kere</i>	near	often with = <i>gwre</i> ‘AUG’
<i>ògworì</i>	backwards	semantic extension of <i>ògworì</i> ‘buttocks’
4. Modal		
<i>dirégwo</i>	actually	
<i>tofre</i>	truly	
<i>worero</i>	like that	
<i>fweyi (raika)</i>	again	
<i>diaf(r)ei</i>	as if	often introduces hypothetical predicate
<i>òke</i>	only	

An example of an adverb from each semantic category is given below. (122) shows a manner adverb, (123) shows a temporal adverb, (124) shows a spatial adverb, and (125) shows a modal adverb.

- (122) *obi duru bo fā yu-ber-u-jo # /*
 bamboo PROX.EMPH TOP randomly up-do-CMP-EMPH
 ‘He shot these arrows up here and there.’ 520150.1
- (123) *bo two be=jè oiror-u-e # /*
 COORD immediately LOC=LOC stand-CMP-PST
 ‘And it immediately stopped there.’ 903a75.1
- (124) *bùbiai=gwre ògworì fa-u bóre # /*
 quietly=AUG backwards return-CMP be
 ‘They went quietly backwards.’ 40815.1
- (125) *òke o dabyi-ro # /*
 just ALL talk-NPST
 ‘They just talk with her.’ 91062.1

3.4.3 Related word classes

Adverbs have similarities with coordinating conjunctions (§3.9), adjectives (§3.3), and locative postpositions (§3.6).

Like adverbs, many conjunctions also have a flexible position in the clause. Further, many words of both classes add temporal or aspectual meaning to the verb. Compare, for example, the adverb *kebiári* ‘recently’ (126) with the conjunction *fero* ‘and then’ (127).

- (126) *kebiári tor-i òre dò-i bóre # /*
 recently come-INCMP SEQ arrive-INCMP be
 ‘She has just come and is arriving.’ 903b153.1

- (127) *fero fweyi fa-ye tòyi-ri* ,
 then again return-NFIN DISTR-NFUT
 ‘Then they go back again.’ 91274.1

The distinction between the two classes has both a formal and a functional aspect. Conjunctions require two clauses and indicate the semantic relationship between the two, while adverbs can occur in a standalone clause and add semantic information only within the clause.

The word *dèria* ‘good, well’ also occurs as both an adjective and an adverb. In (128) *dèria* is in an adjectival predicate, while in (129) the free variant *dèri* is an adverb.

- (128) *fi bo dèria bwo-w-e bwò-w-e # /*
 sago TOP good become-CMP-PST NEG-CMP-PST
 ‘The sago did not become good (ripen).’ 5104.1

- (129) *oo , si ýuròbi dèri àryu abre-i #*
 oo here leaf well eye perceive-INCMP
 ‘Oh, look well at the leaves here.’ 50431.1

In other cases there are two separate lexical items for semantically related adjective/adverb pairs, e.g. *kou* ‘bad’ (130) and *kwo* ‘badly’ (131).

- (130) *fi o kou bwo-w-e # /*
 sago FOC bad become-CMP-PST
 ‘The sago became bad.’ 5105.1

- (131) *dwori kwo béyi-je f-u-e , /*
 cockatoo badly put-NFIN be-CMP-PST
 ‘The cockatoos had placed it wrong.’ 520272.1

Finally, adverbs also have formal affinity with locative postpositions, particularly those that occur without an overt NP (see §3.6). Compare, for example, the spatial adverb

kedu ‘far’ in (132) with the postposition *bái* ‘across’. Like other postpositions, it can occur either with an overt NP, as shown in (133), or without, as shown in (134).

- (132) *kedu = gwre gwa-i ror-u-e bwò-w-e # /*
 near = AUG turn.around-INCMP be-CMP-PST NEG-CMP-PST
 ‘They did not go around close by.’ 40821.1
- (133) *ou siai bái béyi-j-e # /*
 house porch across put-CMP-PST
 ‘He placed it over on the porch of the house.’ 520106.1
- (134) *bái tor-o , /*
 across come-NPST
 ‘It is coming past.’ 520189.1

The two word classes show both formal and functional overlap in these cases. The individual lexical items can be distinguished, however, based on the rest of their distribution: *kedu* ‘far’ has free position in the clause, while *bái* ‘across’ can occur as the head of a postpositional phrase.

3.5 Pronouns and other pro-forms

Abawiri has three sets of personal pronouns: plain, emphatic, and reflexive (§3.5.1). There are also interrogative pronouns (§3.5.2) and pro-verbs (§3.5.3).

3.5.1 Personal pronouns

The personal pronoun paradigms distinguish between first, second, and third persons; singular and plural number are differentiated only in the first and second persons.

There also is a frequent analytic dual construction. The plain, emphatic, and reflexive pronoun paradigms are shown in Table 24.

Table 24. Personal pronouns

	Plain		Emphatic		Reflexive	
	sg	pl	sg	pl	sg	pl
1	<i>a</i>	<i>e</i>	<i>ke(-jè)</i>	<i>e-jè</i>	<i>bwo-ri(ai)</i>	<i>e-ri(ai)</i>
2	<i>du</i>	<i>de</i>	<i>dia</i>	<i>de-jè</i>	<i>dwo-ri(ai)</i>	<i>de-ri</i>
3		<i>wo</i>				<i>wo-ri(ai)</i>

The plain pronouns are remarkably similar to Clouse’s (1997) reconstruction of Proto Lakes Plain. Clouse reconstructs **a* ‘1.SG’, **e* ‘1.PL’, **de/di* ‘2’, and **(w)o* ‘3’. These match the Abawiri plain pronouns exactly, with the exception of second person singular *du*. This form is homophonous with the proximal demonstrative *du* ‘PROX’, a similarity which may be accidental. The emphatic and reflexive pronoun series are largely based on the plain pronoun series, the emphatic series being marked with the suffix *-jè* ‘EMPH’ and the reflexive series being marked with the suffix *-ri(ai)* ‘REFL’. There is free variation between the two forms of the reflexive suffix *-ri* ~ *-riai* ‘REFL’. For all non-singular emphatic and reflexive forms, the corresponding plain pronoun is simply inflected with the appropriate suffix. However, all the singular forms are suppletive in some way. See the subsections below for a more detailed discussion.

There are differences in the frequency of pronouns between spontaneous speech and translated material in the documentary corpus. The translated texts tend to be more

information-heavy than those representing spontaneous speech (see §1.3.2). While the frequency of plain pronouns is about the same between the two modes, the emphatic and reflexive pronouns are far more frequent in translated text. Table 25 shows the average number of each of the three types of pronouns per 1,000 words, by mode.

Table 25. Pronoun frequency per 1,000 words of spontaneous vs. translated text

	Spontaneous speech	Translated text
Plain pronouns	37.8	40.4
Emphatic pronouns	2.0	11.2
Reflexive pronouns	5.7	16.4
TOTAL	45.4	68

Plain pronouns occur at about the same rate in both modes. Emphatic pronouns are over five times more frequent in translated text, while reflexive pronouns are nearly three times more frequent. In both modes, plain pronouns are by far the most frequent forms.

The following subsections give further details on the plain pronouns (§3.5.1.1), the emphatic pronouns (§3.5.1.2), and the reflexive pronouns (§3.5.1.3), as well as on two unique pronominal forms: the 1st person singular genitive *bo* ‘1.SG.GEN’ (§3.5.1.4) and the logophoric pronoun *wodu* ‘LOG’ (§3.5.1.5).

3.5.1.1 Plain personal pronouns

The plain pronouns are by far the most frequent in texts, as seen in Table 25 above. Their function is to refer to discourse participants (first and second person) or a referent understood from discourse context (third person).

Typical examples of the plain pronouns are given below.

- (135) *a kweyo dèria bwo-u bóre ,*
 1.SG heart good become-CMP be
 ‘I became happy.’ 50234.1
- (136) *e fe fro-w-e bwò-w-e # /*
 1.PL also go-CMP-PST NEG-CMP-PST
 ‘But we did not go.’ 502102.1
- (137) *du bo bìari o gwor-o # /*
 2.SG TOP what ALL fear-NPST
 ‘What are you afraid of?’ 50270.1
- (138) *de ótror-i-ro # /*
 2.PL do.what-INCMP-NPST
 ‘What happened to you?’ 502179.1
- (139) *wo bo bwàbwei fweyi raika ou fa-w-e # /*
 3 TOP then again again house return-CMP-PST
 ‘She returned to her house again.’ 808a361.1

Dual number is a common category in the pronominal paradigms of Papuan languages (Foley 1986: 71); cf. the dual pronouns reconstructable to Proto Trans New Guinea (Pawley & Hammarström 2018: 146). In Abawiri there are no dual forms in the paradigm; however, there is an analytic dual construction with the plain plural pronouns and the numeral *ta* ‘two’ (§3.10.1). The first person, second person, and third person dual pronoun constructions, all of which are frequent in connected speech, are exemplified below.

- (140) *e ta be fwi gyuror-o # /*
 1.PL two IMMED dregs lift-NPST
 ‘We two are still picking up sago dregs.’ 814145.1

(141) *de ta báje fwàre wōryu tro-i-rē tē-y-e #*
 2.PL two 1.SG.ALL bow string cut-INCMP-IRR1 descend-INCMP-EMPH
 ‘You two go down to cut a bow string for me.’ 511b103.1

(142) *wo ta bwàbwei die ò-ro # /*
 3 two then water eat-NPST
 ‘Then they two drink water.’ 913a8.1

This construction is only possible with *ta* ‘two’; other numerals are not used. There is, for example, no singulative **wo kíài* ‘3 one’. The numerals for ‘three’ and ‘four’ are phrasal (§3.10.3) and also do not occur in this construction; e.g. there is no trial form **wo bio ta kíài* ‘3 three’.

First person pronouns frequently occur with the proximal demonstrative *du* ‘PROX’ (§3.7.1), as shown in (143) and (144). *ta* ‘two’ and proximal *du* co-occur as shown in (145).

(143) *a du fiore=gwre fu gwò bworyu f-u-e # /*
 1.SG PROX carefully=AUG canoe INESS sit be-CMP-PST
 ‘I sat carefully in the middle of the canoe.’ 817118.1

(144) *e du ro worabror-i-e bóre # /*
 1.PL PROX then think-INCMP-HAB be
 ‘We think like that.’ 907118.1

(145) *e ta du bo ro dre-i fro-u bóre #*
 1.PL two PROX TOP then run-INCMP go-CMP be
 ‘We two then ran.’ 502146.1

Second person pronouns do not generally occur with proximal *du*. The third person pronoun *wo* + *du* has developed a new function as a logophoric pronoun (§3.5.1.5). The sequence *wo* ‘3’ + *du* ‘PROX’ does not occur, although *du* ‘PROX’ does occur with NPs with third person reference (see §3.1.4.4).

While all pronouns are most often used with human referents, third person pronouns can also be used to refer to non-human referents such as animals, as shown in (146).

- (146) *wo dī bóre # / fiau du # /*
 3 food be bat(sp.) PROX
 ‘That is its food, this bat.’ 51211.1

When *wo* ‘3’ refers to locations, a locative enclitic =*jè* ‘LOC’ or =*ta* ‘ABL’ is used, as shown in (147) and (148).

- (147) a. *bie fe dre bwa-u èror-o , /*
 other also here thrust-CMP deliver-NPST
 ‘One is inserted here.’ 52317.1

- b. *wo=jè fe ka ror-u-e # /*
 3=LOC also same be-CMP-PST
 ‘Over there it is the same.’ 52318.1

- (148) *wo=ta bwàbwei tebe , / o dràkrúja bio , / wore wo=ta*
 3=ABL then cloth COORD goods other then 3=ABL
to-tor-u du # /
 CAUS-come-CMP PROX
 ‘From there [Surabaya], cloth and other goods will be brought.’ 804111.1

wo ‘3’ is used for referents that are human, animal, or location. It is never used for inanimates, which are referred to with full NPs, demonstratives, or zero anaphora.

3.5.1.2 Emphatic personal pronouns

The emphatic pronoun series includes singular and plural first and second person forms. There is no emphatic third person form. (The form *wo=jè* ‘3=LOC’, used deictically

to mean ‘there’, as shown in example (147) above, is homophonous with the expected form of the unattested emphatic third person pronoun **wo=jè* ‘3 = EMPH’.) The primary marker for the emphatic pronoun series is the suffix *-jè* ‘EMPH’, and the plural emphatic forms are simply plain pronouns inflected with this suffix. The 1st and 2nd person plural emphatic forms are illustrated in (149) and (150), respectively.

(149) *e-jè fi tore fi-ro , /*
 1.PL-EMPH sago CAUS go-NPST
 ‘We carry sago.’ 90716.1

(150) *fe de-jè bwàbwei dabyi #*
 also 2.PL-EMPH then talk
 ‘Now you all talk.’ 920b24.1

The 1st person singular emphatic form *ke* ‘1.SG.EMPH’, unlike most of the other emphatic forms, is not derived from the plain pronoun series; further, it is the only emphatic pronoun that can occur either with or without the emphatic suffix. Affixed and unaffixed examples of this emphatic pronoun are shown in (151) and (152) below, respectively.

(151) *ro ke-jè bed-u-e*
 then 1.SG-EMPH say-CMP-PST
 ‘Then I said.’ 804270.1

(152) *ke bed-u-e*
 1.SG say-CMP-PST
 ‘I said.’ 51387.1

The second person singular emphatic form *dia* ‘2.SG.EMPH’ is also not derived from the plain pronoun series, but unlike *ke* ‘1.SG.EMPH’, it cannot take the emphatic suffix. This form is exemplified in (153).

- (153) *dia* *sù* *tro-byu-rō* ,
 2.SG.EMPH machete CAUS-be-NPST\IRR2
 ‘Supposing you are carrying a machete.’ 803b123.1

Emphatic pronouns are typically used in discourse focus or contrastive focus. However, in some cases it is not immediately clear why an emphatic form is used instead of a plain pronoun. In fact, during repair sequences speakers sometimes switch from one type to the other, as seen in (154).

- (154) a. *a* *du* , /
 1.SG PROX
 ‘I 5079.1
- b. *ke-jè* *d̄yi* *begi de áje wofre-i-ro* # /
 1.SG-EMPH person FOC 2.PL ALL name-INCMP-NPST
 ‘I will name the people for you.’ 50710.1

The three pronominal paradigms are a linguistic resource on which speakers can draw in communication (cf. Du Bois 2003; 2014). As such, there are some general patterns of use, but concomitant variability in when speakers select to use a plain pronoun vs. emphatic pronoun vs. reflexive pronoun.

3.5.1.3 Reflexive personal pronouns

The primary marker of the reflexive pronoun series is the suffix *-ri(ai)* ‘REFL’, with apparent free variation between the short and long forms of the suffix. As with the non-singular emphatic pronouns, the non-singular reflexive pronouns are formed through affixation of the reflexive suffix *-ri(ai)* ‘REFL’ on the corresponding plain pronoun. Examples are given in (155) and (156).

(155) *e ótrò bwàbwei , / e-riai are yuta-i-rò # /*
 1.PL how then 1.PL-REFL separate.place stand.up-INCMP-NPST\YN
 ‘How can we advance on our own?’ 80488.1

(156) *dede wo-riai=jè ti-toi òre berue tore fro-u bóre ,*
 D. 3-REFL=BEN into-put SEQ SEQ CAUS go-CMP be
 ‘Dede filled [a string bag] for himself and then carried it.’ 40953.1

The 1st person singular reflexive pronoun *bwori(ai)* ‘1.SG.REFL’ is derived from the genitive 1st person form *bo* ‘1.SG.GEN’ (§3.5.1.4), with a phonological change *bo* → *bwo*, rather than from the plain pronoun *a* ‘1.SG’. The second person singular form *dwori(ai)* ‘2.SG.REFL’ is derived from the plain pronoun *du* ‘2.SG’, also with a phonological change *du* → *dwo*. Examples of each are given in (157) and (158), respectively.

(157) *a fero bwàbwei bwori bo wójòdu du gi obiai bóre*
 1.SG then then 1.SG.REFL 1.SG.GEN body PROX FOC try be
 ‘And then I trained my own body.’ 9258.1

(158) *du fe dwori be=tò bwàbwei bed-i aa # /*
 2.SG also 2.SG.REFL DIST=DEM then say-INCMP EXCL
 ‘Talk about yourself.’ 803a142.1

The reflexive possessive construction involves a sequence of two pronouns preceding the head noun: a reflexive pronoun followed by the corresponding plain pronoun. This is seen above in example (157) and below in example (159). See further discussion of the possessive reflexive construction in §6.7.1.

- (159) *de bio bo ti fàkái de-ri de worabror-u=ta bwàbwei # /*
 2.PL other TOP PROH 2.PL-REFL 2.PL think-NMLZ = ABL then
yu-fwar-e sa # /
 up-depart-NFIN take
 ‘Do not act based on your own ideas.’ 91235.1

As in examples (155)-(159) above, reflexive pronouns are used with reflexive semantics, where the antecedent NP is in the same clause as the pronoun. In addition, there are three extended uses of the reflexive pronoun series outside of semantically reflexive contexts. First, the reflexive pronouns can refer to entities outside the bounds of the current clause. In this context they are simply used for emphasis, and their function overlaps with that of the emphatic pronouns. Examples are in (160) and (161).

- (160) a. *d̄yi trè bo srī béyi-je f-u-e*
 person carcass TOP platform put-NFIN be-CMP-PST
 ‘A person’s carcass had been placed on the platform.’ 40811.1
- b. *wo-riai òke gyuror-e f-u bóre # /*
 3-REFL just lift-NFIN be-CMP be
 ‘It was swollen.’ 40812.1
- (161) a. *d̄yi bo bora begi bwòr-u-e #*
 person TOP ball FOC kick-CMP-PST
 ‘The person kicked the ball.’ 913a61.1

b. *fe yure s-u-e # /*
 also tree hit-CMP-PST
 ‘But it hit wood.’ 913a62.1

c. *fofweyi wo-ri èyi fa-w-e # /*
 then 3-REFL LOC return-CMP-PST
 ‘Then it came back to that same person.’ 913a63.1

Second, extra emphasis can be achieved by using coreferential emphatic and reflexive pronouns (162), or coreferential plain and reflexive pronouns (163) within a single clause.

(162) *ke-jè bworiai dabyi-j-e # /*
 1.SG-EMPH 1.SG.REFL talk-CMP-PST
 ‘I myself have spoken.’ 804255.1

(163) *a bworiai krùjógwre-i-ro #*
 1.SG 1.SG.REFL emerge-INCMP-NPST
 ‘I myself will go out.’ 805190.1

See the discussion of the emphatic use of the reflexive construction in §6.7.1.

The third extended use of the reflexive pronoun series is with the quantifier *fwoje* ‘all’, which can only modify reflexive pronouns, regardless of whether the context is semantically reflexive or the referent is being emphasized (§3.10.4). An example is shown in (164).

(164) *wo-ri fwoje tore fro-w-e*
 3-REFL all PLACT go-CMP-PST
 ‘They all went.’ 4095.1

3.5.1.4 Genitive *bo*

For all but the 1st person singular pronoun, the plain pronouns are used in genitive constructions, as shown in (165) (see §3.1.4.1 above on the genitive construction).

- (165) *du òru bo dre krùjógwre-yi-jéi*
2.SG woman TOP here emerge-PRF-NEG
'Your wife did not come out here.' 41071.1

The 1st singular pronoun, by contrast, has a separate genitive root *bo* '1.SG.GEN', as shown in (166).

- (166) *bo dèbi ótror-u-o # /*
1.SG.GEN child do.what-CMP-EMPH
'What happened to my child?' 50943.1

This pronoun has the variant *ba* before words beginning with /a/, as shown in (167).

- (167) *bo bwàbwei ba ãi bo fi eigwre=ta tor-u bóre #*
COORD then 1.SG.GEN mother TOP sago road=ABL come-CMP be
'And my mother came back from the sago place.' 81534.1

bo is also the root of the suppletive reflexive pronoun *bwori(ai)* (§3.5.1.3), as well as the portmanteau first person pronoun + allative form *báje* '1.SG.ALL' (from *bo* '1.SG.GEN' + *áje* 'ALL').

3.5.1.5 Logophoric *wodu*

Logophoric pronouns, known largely from African languages (Clements 1975), are used in reported speech to refer to the person whose speech is being reported. I am not

aware of any previous description of logophoricity in a language of New Guinea. In Abawiri, the form *wodu* ‘LOG’ is used as a logophoric pronoun as demonstrated in examples (168) and (169).

- (168) a. *wo ăi dia-w-e*
 3 mother say.to-CMP-PST
 ‘He said to his mother,’ 805157.1
- b. ***wodu fi du # /***
 LOG go PROX
 ‘I am now going.’ 805158.1
- (169) a. *fwoida bwàbwei bed-u-e*
 F. then say-CMP-PST
 ‘Then Fwoida said,’ 814286.1
- b. ***wodu boriwore bo sai # /***
 LOG B. TOP take.NEG
 ‘I will not marry a Boriwore (person).’ 814287.1
- c. ***wodu sa bo keiri gi sa-ro # /***
 LOG take TOP K. FOC take-NPST
 ‘If I marry, I will marry a Keiri (person).’ 814288.1
- d. ***wo bo boriwore èyi=jè kou bwe-yi-ro # /***
 3 TOP B. LOC=LOC bad become-PRF-NPST
 ‘She had become bad concerning Boriwore.’ 814289.1

In example (169), the storyteller introduces reported speech by Fwoida in line (a). The speech attributed to Fwoida is in lines (b-c), where the storyteller uses the form *wodu* ‘LOG’ to refer to Fwoida. In line (d) the reported speech has ended. The storyteller leans over to someone nearby and says this sentence, now using the third person pronoun.

While the form *wodu* ‘LOG’ is restricted to logophoric contexts, the plain 1st person pronoun is not excluded from this context. Both can be used and sometimes appear in free variation, as shown in (170). Here note the repeated quote in lines (b) and (d), first using *a* ‘1.SG’ and second using *wodu* ‘LOG’.

- (170) a. *twōryi bed-u-e*
 good.man say-CMP-PST
 ‘The good guy said,’ 80569.1
- b. *a fīari áka # /*
 1.SG play tired
 ‘I am too tired to play.’ 80570.1
- c. *twōryi bed-u-e*
 good.man say-CMP-PST
 ‘The good guy said,’ 80571.1
- d. *wodu fīari áka # /*
 LOG play tired
 ‘I am too tired to play.’ 80572.1

The form *wodu* ‘LOG’ is derived from *wo* ‘3’ + *du* ‘PROX’. While the other plain pronouns, as well as NPs, frequently occur with *du* ‘PROX’ to mark spatial or discourse proximity (§3.5.1.1), *wo* ‘3’ as a 3rd person pronoun never occurs with *du* ‘PROX’. Compare logophoric markers in African languages, which also likely grammaticalized from demonstratives (Dimmendaal 2001).

In Abawiri, the grammatical affinity of the logophoric pronoun with the third person is seen in reflexives, where third person reflexive forms are used to refer to logophoric agents; see example (171).

(171) a. *bed-u-e*

say-CMP-PST

‘He said,’

808a9.1

b. *wodu o wòjo yu-kar-u bo # / wodu wo-ri begi àryu*
 LOG FOC shoulder up-throw-CMP TOP LOG 3-REFL FOC eye

abro-w-e # /

see-CMP-PST

‘When I was born, I saw myself.’

808a10.1

3.5.2 Interrogative pronouns

There are six interrogative pronouns in Abawiri, shown in Table 26. Many of the interrogative pronouns have several variants. The most common variant is shown in the column marked ‘Pronoun’, while other variants are given in the column marked ‘Alternative form’.

Table 26. Interrogative pronouns

Pronoun	Alternate form	Gloss	Examples
<i>bìári</i>		who	(172)
<i>bìari</i>	<i>úbìari</i>	what	(173), (174)
<i>bà</i>	<i>úbà, óba</i>	where	(175), (176), (177)
<i>ótrò</i>	<i>trò, ótrè</i>	how	(178), (179), (180)
<i>twōri</i>		which	(181)
<i>gwáta</i>		when	(182)

The interrogative pronouns show several phonological peculiarities. First, unlike any other word class, all interrogative pronouns bear tone. Second, several forms begin with an

optional back vowel or vocoid. In the language more generally, /u/ very rarely occurs word-initially, occurring in only a handful of words. The optional initial high back vowels in (*ú*)*bìari*, (*ú*)*ba*, and (*ó*)*trò* are likely fossilized forms of grammatical morphemes, perhaps the third person pronoun *wo* or focus marker *o*. If this is the case, the /H/ tone is from a polar (H) tone that occurs obligatorily before a lexically specified /L/ tone (see §2.4.3.1).

Each of the interrogative pronouns is exemplified below, in the order given in Table 26. For words with more than one variant form, an example of each form is given. The words *twōri* ‘which’ and *gwáta* ‘when’ do not occur in the corpus; examples (181) and (182) are from elicitation.

- (172) *o bìari gi o dabyi-ri-o* , /
 COORD who FOC ALL talk-NFUT-EMPH
 ‘Who told him?’ 808a40.1
- (173) *o bìari gi tore fi-rò* # /
 COORD what FOC CAUS go-NPST\YN
 ‘And what do we carry?’ 9073.1
- (174) *dwói-jo-ro úbìari gi o dì-ro* , /
 boil-INCMP-NPST what FOC COM eat-NPST
 ‘After boiling, what will it be eaten with?’ 51253.1
- (175) *fwàre bo bà* # /
 bow TOP where
 ‘Where is the bow?’ 511a629.1
- (176) *a wore úbà tiro* # /
 1.SG then where sleep
 ‘Where will I sleep?’ 50221.1

- (177) *e óba tore fi-rō # /*
 1.PL where CAUS go-NPST\IRR2
 ‘Where will we take it?’ 804181.1
- (178) *ḍigwréjou ótrò dabyi-ri*
 the.elderly how talk-NFUT
 ‘How would old people talk?’ 801c42.1
- (179) *a du trò yuta-i-rō # /*
 1.SG PROX how stand.up-INCMP-NPST\IRR2
 ‘How will I get up?’ 803b20.1
- (180) *e ótrè bia-ro*
 1.PL how do-INCMP-NPST
 ‘Concerning us, what will happen?’ 81738.1
- (181) *gwari twōri*
 day which
 ‘Which day?’ p196.1
- (182) *gwáta ti-ro*
 when sleep-NPST
 ‘When will you sleep?’ vpd10.1

3.5.3 Pro-verbs

There are two verbs in Abawiri that can take the place of a verb phrase describing an event or state already understood in the discourse context: *ber-* ‘do’ (with the incompletive stem *bia* ‘do-INCMP’), and *(ó)tròr-* ‘do what’. The function of these verbs is similar to the function of pronouns in the nominal domain, where pronouns can take the place of an NP referring to an entity already understood in the discourse context.

The first pro-verb is *ber-* ‘do’. Its incompletive form *bia* ‘do.INCMP’ sometimes has a deictic function, directing the listener’s attention to an action being performed in the spatial context of the discourse. In example (183) Yuli is demonstrating how sago is pounded. While uttering the first line he demonstrates how the first of two sticks is inserted into the ground. In the second line he repeats the action with the second stick, this time using the verb *bia*, referring back to the action in the first line.

- (183) a. *dre bu-āfwe-i bóre # /*
 here down-enter-INCMP be
 ‘They enter downwards here.’ 52344.1
- b. *tobio fe ká bia-ro # /*
 side also same do.INCMP-NPST
 ‘On the other side it done in the same way.’ 52345.1

In imperatives, *bia* is used to indicate general, unspecified action, as shown in (184).

- (184) *tí kwo bia # /*
 proh badly do.INCMP
 ‘Don’t do something wrong.’ 507145.1

bia is also used as the first verb in a serial verb construction where its function is similar to the English adverbial ‘like that’.

- (185) *sete tí a èyi bia bwa-y-o # /*
 flashlight PROH 1.SG LOC do.INCMP thrust-INCMP-EMPH
 ‘Don’t shine the flashlight on me like that.’ 51372.1

Finally, *bia* is also used with the interrogative pronoun *ótrò* to question an event or state, as shown in (186).

- (186) *a ótrè bia-y-ò* # /
 1.SG how do-INCMP-EMPH\YN
 ‘What would I do [in this situation]?’ 50220.1

The second pro-verb is the interrogative form (*ó*)*tròr-* ‘do what’. It is derived from the interrogative pronoun *ótrò* ‘how’, possibly lexicalized with the generic verb *ror-* ‘be’. This verb is typically used to question an event or state, as shown in (187) and (188).

- (187) *bo dèbi ótror-u-o* # /
 1.SG.GEN child do.what-CMP-EMPH
 ‘What happened to my child?’ 50943.1

- (188) *e èyi du=jè bo tròr-i-e-ro* # /
 1.PL LOC PROX=LOC TOP what.happen-INCMP-HAB-NPST
 ‘Here with us, how is it usually done?’ 90718.1

3.6 Postpositions

Postpositions are grammatical elements that follow an NP and denote its grammatical and semantic relationship with another element of the clause (cf. Hagège 2010). This section discusses general properties of postpositions as a word class (§3.6.1), the two enclitic postpositions (§3.6.2), and the twelve non-clitic postpositions (§3.6.3). Postpositions, demonstratives (§3.7), and focus markers (§3.8) all occur at the end of NPs and can be distinguished distributionally as discussed at the beginning of §3.8.

3.6.1 General properties of postpositions

There are fourteen locative postpositions in Abawiri, shown in Table 27.

Table 27. Postpositions

Postposition	Gloss	Notes
=jè	'at'	cliticizes to NPs and other postpositions
=ta	'from, through'	cliticizes to NPs and other postpositions
be	'at'	common nouns
èyi	'at'	proper names
áje	'toward, for'	'toward' only with humans
o	'toward, with'	'toward' with non-humans
gwa	'in middle'	
gwò	'inside'	
woro	'in back'	semantic extension of body part <i>woro</i> 'back'
bái	'across'	
wojo	'above'	
bwó	'below'	
jwa	'upriver'	
bra	'downriver'	

All the postpositions occur after NPs, indicating the spatial relationship of the NP with another part of the clause, which in most cases is the action of the verb. Two of the postpositions are enclitics, cliticizing either to an NP (e.g. *ou=jè* 'house=LOC') or to one of the non-clitic postpositions (e.g. *bra=jè* 'downriver=LOC'). The twelve non-clitic postpositions occur as independent words after an NP in a postpositional phrase.

3.6.2 Enclitic postpositions

The two enclitic postpositions =*jè* and =*ta* occur phrase-finally in the NP. They differ distributionally from the other postpositions in that (1) they do not occur on their own with a zero NP, and (2) they occur after other postpositions as well as with NPs.

3.6.2.1 =*jè* ‘at’

The postposition =*jè* is a general locative indicating static location at the place specified by the NP, as shown in examples (189), (190), and (191).

- (189) *òru siai=jè keyo fōr-u-e #*
woman porch=LOC yarn wrap-CMP-PST
‘The women made string bags on the porch.’ 52078.1
- (190) *fofweyi eigwre fwóyu rōu=jè ýudabyi ,*
then road intersection big=LOC pray
‘Then (I) prayed again at the big intersection,’ 502163.1
- (191) *wo=jè fe ka ror-u-e # /*
3=LOC also same be-CMP-PST
‘Over there it was the same.’ 52318.1

The locative =*jè* frequently cliticizes to one of the other postpositions as shown in (192) and (193).

- (192) *wo ta fero be=jè dwòr-i-òu bóre # /*
3 two then LOC=LOC dance-INCMP-DUR be
‘They two were dancing there.’ 80548.1
- (193) *dù bo jwa=jè teira-w-e*
rain TOP upriver=LOC flow-CMP-PST
‘The rain flooded upriver.’ 81782.1

3.6.2.2 =*ta* ‘from, through’

The enclitic postposition =*ta* indicates motion away from or along the location specified by the noun. An example of the ablative sense is shown in (194), while an example of the perlocative sense is shown in (195).

(194) **ou = ta** *fro-w-e* *kyuje e ta # /*
house = ABL go-CMP-PST K. 1.PL two
‘We went from the house, Kyuje and I.’ 502126.1

(195) *bo* **ra = ta** *bore-i*
1.SG.GEN footprint = PERL follow-INCMP
‘Follow along in my tracks.’ 803b245.1

Like the locative =*jè* (§3.6.2.1), =*ta* frequently cliticizes to one of the other postpositions as illustrated in (196) and (197).

(196) *bo* **bé = ta** *bwòr-u-e* # /
COORD LOC = ABL kick-CMP-PST
‘It was kicked from there.’ 903a148.1

(197) *yure* **wojo = ta** *tè-w-e* # /
tree above = ABL descend-CMP-PST
‘He went down from up in the tree.’ 90483.1

All other postpositions except *áje* ‘toward, for’ and *o* ‘toward, with’ occur with the enclitics =*jè* and =*ta*. This is discussed further in the relevant subsection of each postposition below.

3.6.3 Other postpositions

The non-clitic postpositions occur after NPs and are sometimes marked with one of the clitic postpositions for additional specification of location. The NP, however, is not always present. This is due to a general principle of zero anaphora whereby an NP referring to a referent understood from context can be left out (see the discussions of zero anaphora in §6.1.3). The postposition *o* ‘ALL’, for example, occurs with an NP when the referent needs to be specified as shown in example (198).

(198) *elus o dabyi-ro # /*

E. ALL talk-NPST

‘He talks to Elus.’

803b280.1

When the referent is understood from context it can be omitted, leaving the postposition on its own, as shown in (199). All non-clitic postpositions occur both with and without an NP.

(199) *ðke o dabyi-ro # /*

just ALL talk-NPST

‘They just talk with her.’

91062.1

3.6.3.1 *be* ‘at’

The most frequent of all the locatives, *be* occurs both after an NP (200) and on its own (201). It is a general locative and can be used with various types of verbs including verbs of motion (200) and stative verbs (201).

(200) *fiti sa àre bia-ro fiti bwàbwei yàre be bu-toi-ro* , /
 basket take SEQ do.INCMP-NPST basket then wrapping LOC down-put-NPST
 ‘A basket is taken and then put into a sago wrapping.’ 523124.1

(201) *fwau d̄yi be trè bwe-ye f-u-e* #
 F. person LOC seated become-NFIN be-CMP-PST
 ‘Fuau people were living there.’ 81313.1

The locative enclitics =*jè* and =*ta* occur with *be* as shown in (202) and (203), respectively.

(202) *frèi fofweyi ke be=jè ófworyu-j-e* # /
 demon then 1.SG LOC=LOC make.sound-CMP-PST
 ‘The demon made a sound near me again.’ 502168.1

(203) *bo be=ta bwàbwei d̄yi bio gi tore krùjógwro-w-e* ,
 COORD LOC=ABL then person other FOC CAUS emerge-CMP-PST
 ‘From there another person took him out.’ 903b36.1

be ‘LOC’ is never used with proper names, where *èyi* ‘LOC’ is used instead.

3.6.3.2 *èyi* ‘at’

This word is likely grammaticalized from the noun *ei* ‘trunk, body’. This general locative indicates static location and is used with or without an overt NP as illustrated in (204) and (205), respectively.

(204) *fwau èyi tore f̄i-ro* # /
 F. LOC CAUS go-NPST
 ‘He was brought to Fuau.’ 40314.1

(205) *èyi=jè fe kou fe òi f-i-ri* # /
 LOC=LOC also bad also be.NEG be-INCMP-NFUT
 ‘There is nothing bad in him.’ 801b202.1

èyi is most commonly used with proper names, as shown in example (204), or with zero reference to names, as shown in example (205). The use of *èyi*, even in contexts of zero anaphora, thus usually indicates that the referent is a named entity. *èyi* is thus in mostly complementary distribution with *be* (§3.6.3.1), which is used exclusively with common nouns. This is not a categorical grammatical restriction, however, with *èyi* being used occasionally with common nouns, as shown in (206).

- (206) *bwàbwei eija èyi dre doti-j-e* # /
 then knee LOC here reach.edge-CMP-PST
 ‘Then it only reached this high, to his knees.’ 80517.1

The locative enclitics =*jè* and =*ta* occur with *èyi* as shown in (207) and (208), respectively.

- (207) *wo bo boriwore èyi=jè kou bwe-yi-ro* # /
 3 TOP B. LOC=LOC bad become-PRF-NPST
 ‘She had become bad concerning Boriwore.’ 814289.1

- (208) *e be=ta bwàbwei dijei èyi=ta dr-i tè-w-e* # /
 1.PL LOC=ABL then nest LOC=ABL run-INCMP descend-CMP-PST
 ‘From there we ran down from the place of scrubfowl nests.’ 50426.1

3.6.3.3 *áje* ‘toward, for’

The postposition *áje* primarily marks spatial movement toward the referent noun, which is human. Direction toward a non-human referent can be coded with the postposition *o* (§3.6.3.4). *áje* occurs with (209) or without (210) an overt NP.

(209) *fi fiti ta wo áje tore fro-i òre bu-gwrrer-u bóre # /*
 sago basket two 3 ALL CAUS go-INCMP SEQ down-put.out-CMP be
 ‘The two sago baskets were brought to him and put out.’ 40971.1

(210) *áje àre bu-kâr-u-e ,*
 ALL stairs down-throw-CMP-PST
 ‘She threw down the ladder to them.’ 814270.1

Related to the spatial movement usage, *áje* is also frequently used to indicate the recipient of verbs of speech, as shown in (211) and (212). (*áje* is not used to mark recipients of verbs like *bob-* ‘give’, which are unmarked.)

(211) *òru bo bwàbwei wo dū áje bed-u-e , /*
 woman TOP then 3 man ALL say-CMP-PST
 ‘Then the woman said to her husband.’ 805187.1

(212) *wo ta are áje dabyi bóre # /*
 3 two RECP ALL talk be
 ‘They two are talking to each other.’ 913c34.1

Another function of *áje* is to mark a noun as being in a benefactive relationship with the action of the verb. Indeed, benefactive is cross-linguistically one of the most common semantic extensions of allative morphemes, although marking of recipients with the allative is even more common (Rice & Kabata 2007). Unlike directional *áje*, benefactive *áje* is used with both human (213) and non-human (214) referents.

(213) *domi bo bapa áje fwe-i bwo-w-e ,*
 D. TOP father BEN steer-INCMP become-CMP-PST
 ‘Domi steered [the canoe] for Father.’ 8178.1

(214) *fero bwó du # / du bwàbwei ba áje bóre # /*
 then under PROX PROX then filter BEN be
 ‘Then under here, this one is for the filter.’ 52359.1

áje does not occur with the enclitics =*jè* or =*ta*.

3.6.3.4 *o* ‘toward, with’

This postposition has three senses: allative indicating movement toward the referent noun, comitative indicating accompaniment with the referent noun, and instrument.

Allative-comitative polysemy appears to be rather rare. Only one language in the 54-language sample in Rice & Kabata (2007) has allative-comitative polysemy, the Nilo-Saharan language Acholi. In Abawiri, allative *o* is used most frequently with non-human referents and is thus in mostly complementary distribution with *áje* (§3.6.3.3), which in its allative sense is only used with human referents. Examples of allative *o* are below, both with (215) and without (216) an overt NP.

(215) *yuta-ye dwòror-i òre berue fwàre o sréfwor-u-e*
 stand.up-NFIN rotate-INCMP SEQ SEQ bow ALL leap-CMP-PST
 ‘He got up turning and jumped to his bow.’ 520299.1

(216) *d̄yi bo bwàbwei o tor-o # /*
 person TOP then ALL come-NPST
 ‘The people will come to it.’ 808a237.1

Allative *o* also occurs with human referents, as shown in (217), as well as with recipients of verbs of speech, as shown in (218). In both cases its function overlaps with that of *áje*.

(217) a. *òru fe dèrio rōu = gwre trà-ro # /*
 woman also beautiful = AUG PLACT-NPST
 ‘The women will also be very beautiful.’ 808a278.1

b. *d̄yi fe fā o f-i-rō # /*
 person also randomly ALL be-INCMP-NPST\IRR2

‘The people will also go after them recklessly.’ 808a279.1

(218) *elus o dabyi-ro # /*

E. ALL talk-NPST

‘He talks to Elus.’ 803b280.1

Comitative *o* is likely derived historically from *ōro* ‘COM’, which synchronically is used in nominal coordinating constructions (§3.1.4.7). It is currently unclear whether comitative *o* is etymologically distinct from allative *o*. The comitative sense of *o* is illustrated below, both with (219) and without (220) an overt NP.

(219) *gwi o d̄i-ro , /*
 sago COM eat-NPST

‘Eat it with sago porridge.’ 51254.1

(220) *bo dwori o byifwe-i bóre # /*
 COORD 2.SG.REFL COM meet-INCMP be

‘You yourself will meet him again.’ 803b422.1

The third sense of the postposition *o* is instrument. It is generally used to indicate indirect causation, as shown in (221), as opposed to *gi*, which generally indicates more direct causation (§6.4.3). *o* and *gi* both have a more general function as focus markers as discussed further in §3.8 and §6.4.

(221) *duyi o sa-ro # /*
 money INS take-NPST

‘They buy it with money.’ 907106.1

The postposition *o* does not occur with the enclitics =*jè* and =*ta*.

3.6.3.5 *gwa* ‘in middle’

The postposition *gwa* indicates static location within the referent of the NP as shown in (222), or movement into the referent of the NP as shown in (223).

(222) *kweyo gwa kou=gwre # /*
 heart in.middle bad=AUG
 ‘In our hearts it was not good.’ 502176.1

(223) *bwàbwei gwortie gwyi gwa āfwo-w-e #*
 then room in.middle enter-CMP-PST
 ‘Then they went into the room.’ 520141.1

An overt NP is not needed when understood from context, as shown in (224).

(224) *tyuya bo gwa fwrer-u bóre ,*
 sir TOP in.middle enter-CMP be
 ‘The boss went in.’ 50258.1

The locative enclitic =*jè* occurs with *gwa*, as shown in (225). There are no corpus occurrences of *gwa=ta* ‘middle = from’.

(225) *bo gwa=jè du tōu be bu-āfwe-i òre fōru*
 COORD in.middle=LOC PROX cuscus(sp.) LOC down-enter-INCMP SEQ string

be bar-i-ro ,
 LOC wrap-INCMP-NPST
 ‘Then in the middle here a cuscus bone enters and then is tied with string.’
 511a397.1

There are many additional lexical items of the form *gwa* in Abawiri, including: ‘immediately’, ‘sound’, ‘buttress root’, ‘customs’, and ‘body’, as well as a verbal prefix *gwa-* ‘PLACT’.

3.6.3.6 *gwò* ‘inside’

The inessive postposition indicates that the action of the verb takes place somewhere within the referent of the NP and is very similar semantically to *gwa* ‘in middle’ (§3.6.3.5), the semantic difference between the two being currently unclear. This postposition occurs both with an overt NP, as shown in (226) and with a zero NP, as shown in (227).

(226) *a du fiore=gwre fu gwò bworyu f-u-e # /*
 1.SG PROX carefully=AUG canoe INESS sit be-CMP-PST
 ‘I sat carefully in the middle of the canoe.’ 817118.1

(227) *gwò=jè fwè-ye f-u bo , / bo bwàbwei , / domi*
 INESS=LOC float-NFIN be-CMP TOP COORD then D.
dia-w-e # /
 say.to-CMP-PST
 ‘It was floating in the middle and then [someone] said to Domi.’ 817180.1

The locative enclitic =*jè* occurs with *gwò* as shown in (228). There are no corpus occurrences of *gwò=ta* ‘inside = from’.

(228) *ayite bo gwò=jè ou bare a-rē-di dōr-u bóre # /*
 father TOP INESS=LOC house main.post cut-IRR1-PURP go-CMP be
 ‘A father in the middle (of the road) was going along to cut house posts.’ 502177.1

3.6.3.7 *woro* ‘back’

As a body part term this word indicates the lower back, as shown in (229).

- (229) *diegwre woro bo kàr-e f-u-e # /*
 D. back TOP carry-NFIN be-CMP-PST
 ‘Diegwre was carried on someone’s back.’ 81575.1

This word has grammaticalized into a locative postposition indicating the back side of something. In this use it frequently collocates with *gwájou* ‘side’, as shown in (230).

- (230) *ayite du bwàbwei , / woro gwájou = ta yu-sréfwor-u-e # /*
 father PROX then back side = ABL up-leap-CMP-PST
 ‘Father jumped up from behind.’ 817166.1

It can co-occur with the location enclitic =*ta*, as shown in (231); lack of co-occurrence with =*jè* is probably an accidental gap.

- (231) *e woro = ta fi*
 1.PL back = PERL go
 ‘Walk behind us.’ 803b248.1

The word *woro* ‘back’ is used in several lexicalized compounds including *fu woro* ‘boat back → stern’ (232) and *ou woro* ‘house back → floor joist’ (233).

- (232) *fu woro bo gwa wóyu bóre # /*
 canoe back TOP in.middle lift be
 ‘He hauled the boat onto the rock.’ 52023.1

- (233) *ou woro dobyu-ro ,*
 house back place.sideways-NPST
 ‘The floor joists are laid.’ 52229.1

3.6.3.8 *bái* ‘across’

This postposition indicates that the entity referred to by the NP is located at some distance from the speaker, with a usually very large space intervening between the speaker

and the entity. It is used both with an overt NP, as shown in (234), and a zero NP, as shown in (235).

(234) *a sòri dòbu rōu báí āfréi f-u-e # /*
 1.SG earth big very across know be-CMP-PST
 ‘I did not know the city [lit. way over at the very big place].’ 50217.1

(235) *a ro báí tìá-w-e # /*
 1.SG then across cross-CMP-PST
 ‘Then I went to the other side.’ 803b366.1

báí is also used to indicate that the referent of the NP spans the distance, as shown in (236).

(236) *yure be=ta báí de-u bóre # /*
 tree LOC=ABL across place.horizontally-CMP be
 ‘From the tree he placed the branch across horizontally.’ 520105.1

The locative enclitics =*jè* and =*ta* occur with *báí* as shown in (237) and (238), respectively.

(237) *bo worero bwori bo kweyo=jè bwàbwei báí=jè àrá*
 COORD like.that 1.SG.REFL 1.SG.GEN heart=LOC then across=LOC God
yu-dabyi-j-e , /
 up-talk-CMP-PST
 ‘And I prayed in my own heart over there.’ 803a8.1

(238) a. *o bwàbwei / tìá-w-e , /*
 COORD then CROSS-CMP-PST
 ‘He crossed backwards.’ 808a416.1

b. *báí=ta bia # /*
 across=ABL do.INCMP
 ‘From the other side to here.’ 808a417.1

3.6.3.9 *wojo* ‘above’

This postposition indicates that the referent of the associated NP is located spatially up in some way. It does not necessarily mean that the action takes place on top of the referent of the NP, unlike the English form *on top of*. It occurs both with an overt NP (239) and with a zero NP (240).

(239) *àrá wo-ri fwoje bwàbwei tókóru wojo fù-e # /*
 God 3-REFL all then sky above be-PST
 ‘God and all of them were up in heaven.’ 801c8.1

(240) *bo bwàbwei , / Yahya gi wojo dabyi-rē-ri # /*
 COORD then Y. FOC above talk-IRR1-NFUT
 ‘Then Yahya would talk at the top [side of the village].’ 803b225.1

The locative enclitics =*jè* and =*ta* occur with *wojo* as shown in (241) and (242), respectively.

(241) *dì gi wojo=jè / byi-je tòi-ri # /*
 food FOC above=LOC shoot-NFIN DISTR-NFUT
 ‘They would shoot each of the animals up above.’ 4099.1

(242) *bo òke dijai wojo=ta ror-i tè-w-e iyaye # /*
 COORD just D. River above=PERL be-INCMP descend-CMP-PST yikes
 ‘Then going along above the Dijai River, we screamed, iyaye!’ 50937.1

3.6.3.10 *bwó* ‘under’

This postposition indicates that the referent of the NP is located spatially down in some way and is the spatial counterpart to *wojo* ‘above’. It does not necessarily mean that

the action takes place beneath the referent of the NP, unlike the English preposition *under*.

It occurs both with an overt NP (243) and with a zero NP (244).

(243) *a be f-u bóre Koredie ou bwó # /*
 1.SG LOC be-CMP be K. house under
 ‘I lived there, down at Koredie’s house.’ 50211.1

(244) *bwó bworyu-ro ,*
 under sit-NPST
 ‘He lives down below.’ 81589.1

The locative enclitics =*jè* and =*ta* occur with *bwó* as shown in (245) and (246), respectively.

(245) *fe bwó=jè bwàbwei tre-ye tòi-ro # /*
 also under=LOC then dry-NFIN DISTR-NPST
 ‘And it will dry up at the bottom.’ 52398.1

(246) *bwó=ta to-tà-w-e , /*
 under=ABL CAUS-rise-CMP-PST
 ‘They are carried up from below.’ 5238.1

This postposition is likely the diachronic predecessor of the directional prefix *bu-* ‘down’ on verbs (§4.7). Note, however, that the prefix counterpart to *bu-* ‘down’ is *yu-* ‘up’, not transparently related to the postpositional counterpart of *bwó* ‘below’, which is *wojo* ‘above’.

3.6.3.11 *jwa* ‘upriver’

In contrast to the two general vertically oriented postpositions *wojo* ‘above’ and *bwó* ‘below’, the postpositions *jwa* ‘upriver’ and *bra* ‘downriver’ are used specifically in the

context of the vertical orientation of rivers. The referent NPs are, of course, limited to river names. The NP is sometimes overt, as shown in (247) and sometimes zero, as shown in (248).

(247) *d̄yi bo / gwore fa-i-rē tore fror-e ber-u-e dijai*
 person TOP crocodile hunt-INCMP-IRR1 PLACT go-NFIN do-CMP-PST D. River
wore jwa # /
 river upriver
 ‘The people were going to go hunt crocodiles, upriver on the Dijai.’ 8173.1

(248) *sugwa trè bwàbwei jwa be=jè tèb-u-e # /*
 S. carcass then upriver LOC=LOC sleep-CMP-PST
 ‘Sugwa’s corpse was lying upriver.’ 51311.1

The locative enclitics =*jè* and =*ta* occur with *jwa* as shown in (249) and (250), respectively.

(249) *dù bo jwa=jè teira-w-e*
 rain TOP upriver=LOC flow-CMP-PST
 ‘The rain flooded upriver.’ 81782.1

(250) *die bo òke jwa=ta bia #*
 water TOP just upriver=ABL do-INCMP
 ‘The water came only from upriver.’ 52036.1

3.6.3.12 *bra* ‘downriver’

This postposition is the counterpart to *jwa* ‘upriver’. Referent NPs are limited to river names. The NP is sometimes overt, as shown in (251) and sometimes zero, as shown in (252).

(251) *dìbòke bau bra # /*
 D. edge downriver
 ‘Downriver at the edge of the Diboke River.’ 5052.1

(252) *bo e du ro bra tè-u bóre ,*
 COORD 1.PL PROX then downriver descend-CMP be
 ‘Then we went downriver.’ 502119.1

The locative enclitics =*jè* and =*ta* occur with *bra* as shown in (253) and (254), respectively.

(253) *(e bwàbwei eke) , / kiore fi bo e-jè bra=jè*
 1.PL then first sago(sp.) sago TOP 1.PL-EMPH downriver=LOC

tor-e f-u-e # /
 pound-NFIN be-CMP-PST
 ‘We were pounding wild sago downriver.’ 5051.1

(254) *a kèsai-ké f-u bo , a abu gi bra=ta*
 1.SG small-DIM be-CMP TOP 1.SG grandparent FOC downriver=ABL

to-tor-u-e # /
 CAUS-come-CMP-PST
 ‘When I was small, grandmother brought me up from downriver.’ 50917.1

3.7 Demonstratives

Demonstratives are deictic expressions (Diessel 1999; Dixon 2003) that function primarily to establish joint attention in interaction (Diessel 2006). Abawiri demonstratives are shown in Table 28, which distinguishes between three types of demonstratives based on their distribution: adnominal (in the NP), pronominal (used referentially), and adverbial (clausal adverb; cf. Dixon 2003).

Table 28. Demonstratives

Demonstrative	Gloss	Type	Section
<i>du</i>	‘this, here’	adnominal, pronominal	§3.7.1
<i>duru</i>	‘this (emphatic)’	adnominal, pronominal	§3.7.2
<i>dre</i>	‘here, like this’	adverbial	§3.7.3
<i>(e)si</i>	‘here’	adverbial	§3.7.4
<i>besi</i>	‘there’	adverbial	§3.7.5
<i>bo</i>	‘that’	pronominal	§3.7.6

While the proximal demonstratives are quite frequent in discourse, the two distal demonstratives are much less frequent. *besi* is very rarely used. The use of distal *bo* as a topic marker (§3.8.1) has almost completely overtaken its use as a deictic marker. When speakers want to indicate a location ‘over there’, they typically do so with a postposition that does not have an accompanying NP, as shown in example (255).

- (255) *be trè bwe-ye f-i-ri* , /
 LOC seated become-NFIN be-INCMP-NFUT
 ‘They were still sitting there.’ 507187.1

3.7.1 Proximal *du*

The proximal demonstrative *du* primarily indicates location near the speaker. It is used adnominally, as shown in (256), as well as pronominally, as shown in (257).

- (256) *tōu kre du # / ro bu-āfwe-i-ro # /*
 cuscus(sp.) bone PROX then down-enter-INCMP-NPST
 ‘This cuscus bone is then put inside.’ 511a382.1

(257) *du sō yài*
PROX pig NEG
‘This is not a pig.’

50526.1

Figure 20 shows a video still from the excerpt transcribed in (256). Here Bwoyusa (on the right) is pointing to ‘this cuscus bone’ at the end of the arrowhead on the lower right.

Figure 20. *tou kre du ‘this cuscus bone’ (511a382.1)*



This demonstrative frequently collocates with first person pronouns. Of the corpus occurrences of first person singular pronoun *a*, 26% are with *du*, while of the corpus occurrences of first person plural pronoun *e*, 20% are with *du*. Examples are in (258) and (259).

(258) *a du késai-ké f-u-e # /*
1.SG PROX small-DIM be-CMP-PST
‘I was small.’

4035.1

- (259) *e du be = ta tà-y-e bóre # /*
 1.PL PROX LOC = PERL rise-INCMP-HAB be
 ‘We usually come up that way.’ 520386.1

du is also used on its own, where it means ‘here’. Particularly in this construction, it frequently co-occurs with one of the locative enclitics (§3.6.2). See examples (260) and (261).

- (260) *du = jè yu-tà-i-ro # /*
 PROX = LOC up-rise-INCMP-NPST
 ‘It will be set up here.’ 80447.1

- (261) *deryu f-u-e e du = ta fro-u bo # /*
 lie.horizontally be-CMP-PST 1.PL PROX = ABL go-CMP TOP
 ‘I was sleeping, when we went from here.’ 809168.1

Proximal *du* is homophonous with the second person singular pronoun (§3.5.1), which is the only pronoun in the series not obviously derived from the reconstructed Proto Lakes Plain pronoun series. The possible connection between *du* ‘PROX’ and *du* ‘2.SG’ remains a topic for further investigation. In addition to its function as a marker of spatial deixis, proximal *du* is also used to mark relative clauses (§8.1.1.6) and for topic marking (§6.2.2). In both cases, it retains proximal semantics.

3.7.2 *Emphatic proximal duru*

This demonstrative is the emphatic form of *du* (§3.7.1), likely lexicalized from full reduplication of *du* (see §2.1.3.1 on the mostly complementary distribution of /d/ and /ɾ/ in Abawiri, with /ɾ/ primarily restricted to intervocalic position). It is only used adnominally (262) and pronominally (263).

(262) *fwara duru* *ō # /*
war.arrowhead PROX.EMPH Q

‘This war-arrowhead?’

511a11.1

(263) *duru bo biari #*
PROX.EMPH TOP what

‘What is this?’

511a30.1

Figure 21 shows a still from the video in example (262) where Bwoyusa (right) asks, “This war-arrowhead?” He is referring to the arrowhead in his hand, in contrast to the other arrowheads lying on the floor in front of him.

Figure 21. *fwara duru* *ō* ‘This war-arrowhead?’ (511a11.1)



3.7.3 *dre* ‘here, like this’

dre is a proximal demonstrative that as a location adverb means ‘here’, as shown in (264), and as a manner adverb means ‘like this’, as shown in (265).

(264) *du ba dre fro-i*
 2.SG TOP here go-INCMP
 ‘You go here.’ 808a70.1

(265) *fī kre dre bwa-i ti-jo-ro , /*
 sago bone like.this thrust-INCMP put.down-INCMP-NPST
 ‘Sago leaf midribs are being put in from end to end like this.’ 52355.1

As a location adverb *dre* is synonymous with *(e)si* (§3.7.4), but unlike *(e)si*, *dre* does not collocate with *du* ‘PROX’. As a manner adverb, *dre* indicates that the action of the verb is carried out in a manner ‘like this’; verbal *dre* is often accompanied by a gesture. In example (266) Stefanus recounts how he and Elus were attempting to escape from an evil spirit in the forest. He coordinates production of the utterance shown in the extract with a vigorous paddling motion. A still of the video from this point in the narrative is shown in Figure 22.

(266) *bo tukári dre tryu-rē bia bo fu wōryu fe*
 COORD although like.this paddle-IRR1 do.INCMP TOP canoe string also

bodryi-ri # /
 tighten-NFUT
 ‘Although I was about to paddle like this, the boat’s rope grew tight again.’ 51352.1

Figure 22. dre tryurē bia bo ‘was about to paddle like this’ (51352.1)



3.7.4 (e)si ‘here’

This demonstrative functions primarily as a local adverbial meaning ‘here’. In the extract shown in (267), Stefanus was butchering a bat as he made the statement shown.

(267) *bei bóre si du ke-jè toyi du # /*
 now be here PROX 1.SG-EMPH cut PROX

‘And now here I am cutting it.’

51234.1

As seen in this example, *(e)si* frequently collocates with the proximal demonstrative *du*. It also occurs on its own as a discourse deictic marker, usually at the beginning of the sentence. An example is shown in (268).

(268) *si àrá kweyo diror-u d̄yi bo bwàbwei be àrá kweyo béyi-je*
 here God heart accept-CMP person TOP then IMMED God heart put-NFIN

f-i-e-ro # /

be-INCMP-HAB-NPST

‘Now, the people who believe God have put God in their hearts.’ 803b434.1

The variant *esi* only occurs at the beginning of an IU, where it is in free variation with *si*. An example is shown in (269).

(269) *esi du fe bwàbwei / t̄ou fwara bio #*
 here PROX also then cuscus(sp.) war.arrowhead other

‘Now, this one is another war-arrowhead from cuscus bone.’ 511a60.1

3.7.5 *besi* ‘there’

In elicitation, this form is given as the distal counterpart to *esi* ‘here’; it does not, however, occur in any spoken text in the corpus, being attested only in a single written example. The written example from the corpus is shown in (270).

(270) *bo bei bo besi drabia du*
 COORD now TOP there work PROX

‘And now I am working there.’ 9235.1

3.7.6 *Distal bo*

Other than the completive verbal suffix *-u* ‘CMP’, *bo* is the most frequent morpheme in the corpus. This distal demonstrative has developed a discourse function as a topic marker, a process also attested elsewhere in New Guinea, such as among the Awyu languages (de Vries 1995) and the Border language Amanab (Foley 2018b: 397). The topic

marking function of *bo* is synchronically far more frequent than its deictic function, although it is still used as a deictic pronoun ‘that’. As a deictic pronoun it is most commonly used as the topic in non-verbal predicate constructions (see §7.2). Examples with nominal predicates are shown in (271) and (272), and with adjectival predicates in (273) and (274).

(271) *bo òru yài* ,
 DIST woman NEG
 ‘That is not a woman.’ 50275.1

(272) *aa bo yurei késai fù-e # /*
 EXCL DIST tree.python small be-PST
 ‘Oh, that was a little tree python.’ 803b283.1

(273) *bo ká yài # /*
 DIST same NEG
 ‘That is not the same.’ 803b236.1

(274) *bo dèria # /*
 DIST good
 ‘That was good.’ 81370.1

bo ‘DIST’ is also used with stative predicates, as shown in (275) and (276).

(275) *bo kē bóre , /*
 DIST finished be
 ‘That’s all.’ 812159.1

(276) *bo ror-i-ri bóre # /*
 DIST be-INCMP-NFUT be
 ‘That’s how it is.’ 90968.1

An additional function of *bo* as a coordinating conjunction has developed, probably a further development from the topic marking function; see §8.7.1.1 for a discussion.

3.8 Discourse markers

Postpositions, demonstratives, and discourse markers all occur at the end of NPs and indicate various spatial and discourse relations between the NP and its context. However, the three word classes can be distinguished both semantically and formally. Semantically, all the postpositions primarily indicate location of an entity relative to another entity in the discourse context, while the demonstratives primarily indicate spatial deixis relative to the speaker. Discourse markers anchor the preceding linguistic unit in the discourse in terms of information flow. Discourse markers follow demonstratives as seen in (277), and precede postpositions as seen in (278).

(277) *bowiri-jòu du bo sréfwor-u-e # /*
 Abawiri-OLD PROX TOP leap-CMP-PST
 ‘Dear old Abawiri jumped.’ 809338.1

(278) *e ta bwàbwei dràkrúja ou rōu gi be fwrer-u bóre # /*
 1.PL two then goods house big FOC LOC enter-CMP be
 ‘Then we two went into a large store.’ 50252.1

There is some functional overlap between the three word classes. The use of postposition *be* with a zero NP is quite similar to adverbial use of demonstrative *dre*, both being used to indicate an entity located in a particular place. There is overlap between demonstratives and discourse markers as well, particularly with polysemous *bo*, which has both spatial-deictic and discourse-deictic functions.

Abawiri has the five discourse markers shown in Table 29. The following subsections describe the properties of each discourse marker as relevant to their status as

members of a single word class. Fuller discussions of the discourse markers are found in chapter 6.

Table 29. Discourse markers

Discourse marker	Function	Notes
<i>bo</i>	topic	From the distal demonstrative (§3.7.6)
<i>gi</i>	focus	Frequently marks instruments and ergatives (§6.4.1)
<i>begi</i>	focus	Also used as a focused demonstrative (§6.4.2)
<i>o</i>	focus	Also a postposition (§3.6.3.4), relativizer (§8.1.1.2), and conjunction (§8.7.1.2)
<i>fe</i>	contrastive focus	cf. §3.7.6

3.8.1 Topic marker *bo*

As discussed above in §3.7.6, *bo* synchronically functions primarily as a marker of discourse topic. It developed diachronically from a distal demonstrative and still retains this function in a few instances, although the locative postposition *be* (§3.6.3.1) has largely taken over this functional niche. *bo* has also developed into a coordinating conjunction (§8.7.1.1).

The usual syntactic domains that are marked as discourse topics are NPs and medial clauses. Examples of NPs marked as topics are in (279) and (280).

- (279) *d̄yi bo bora yu-bwa-i-ro # /*
 person TOP ball up-thrust-INCMP-NPST
 ‘People are playing ball.’

903b73.1

- (280) *wo bo dre worabror-u-wéi aa # /*
 3 TOP like.this think-CMP-NEG EXCL
 ‘He would not think like this: okay.’ 801b256.1

Clause combining is frequently accomplished by marking non-final clauses with the topic marker (§8.4). The topic marker does not establish any particular semantic relationship between the two clauses unlike the conjunctions discussed in §3.9. Instead, it performs a backgrounding function, indicating that the preceding clause is either given information or not central to the discourse. Examples are in (281) and (282).

- (281) *èyi=ta fī bo # / d̄yi bio gi sa-ro ,*
 LOC=ABL go TOP person other FOC take-NPST
 ‘If they go away from there, another person will take them.’ 908a78.1

- (282) *dī f-u bwe-i-ri bo bwàbwei dede brèi-ri bóre # /*
 food be-CMP become-INCMP-NFUT TOP then D. call-NFUT be
 ‘When they got food, then they would call Dede.’ 40975.1

3.8.2 Focus marker *gi*

While *bo* ‘TOP’ indicates backgrounded or given information in the discourse, *gi* ‘FOC’ indicates foregrounded or focused information. In discourse, *gi* ‘FOC’ is frequently used with an NP indicating a new or surprising entity. In the example below the protagonist of the story is trying to determine the source of the sound he keeps hearing in the forest. The extract in (283) shows his discovery of the source of the sound. The NP ‘the pig’, which is the source of the sound, is marked with *gi* ‘FOC’.

(283) *sō gi fi dī bóre # /*
 pig FOC sago eat be
 ‘It is a pig eating sago.’ 50515.1

The focus marker is also used for contrastive focus in contexts of high referential density where the speaker seeks to disambiguate between multiple potential referents. In example (284) there are two groups of children: *weire* ‘older siblings’ and *deke* ‘younger siblings’. In the third line the speaker indicates that it was the younger group that carried the sago; the NP is marked with *gi*.

(284) a. *weire bo bio ta bio kíàì # /*
 older.sibling TOP other two other one
 ‘There were three older children.’ 50790.1

b. *ro begi deke gwēbi béyi-ri bóre*
 then DEM.FOC younger.sibling nose put-NFUT be
 ‘They led the younger children.’ 50791.1

c. *fi du bo deke gi kàr-i-ri bóre # /*
 sago PROX TOP younger.sibling FOC carry-INCMP-NFUT be
 ‘It was the younger children who carried the sago.’ 50792.1

gi ‘FOC’ often marks instruments, as shown in (285).

(285) *òru / worikre tòi gi fwoyu-ro , /*
 woman hand sago.pounder FOC rub-NPST
 ‘The women’s hands pounded with a sago pounder.’ 507147.1

3.8.3 Focus marker *begi*

The form *begi* is likely derived historically from a pronominal form + *gi* ‘FOC’. This form is still used referentially as the focused counterpart to any plain pronoun, as shown in (286).

- (286) *begi bo-y-e bóre # /*
 DEM.FOC eat-INCMP-HAB be
 ‘That is what it eats.’ 51210.1

Referential *begi* is frequently used within relative clauses as a resumptive pronoun, as shown in (287), as well as after relative clauses as a coreferential form, as shown in (288). See §8.1.1 on the use of *begi* in relative clauses.

- (287) *d̄yi o begi ýurà sworyi bo # / wo fweyi wojo=jè ýurà /*
 person REL DEM.FOC fruit pick TOP 3 again above=LOC fruit
sworyi òre tè-u bóre ,
 pick SEQ descend-CMP be
 ‘The person who was picking fruit, he picked fruit again up above and then went down.’ 90481.1

- (288) *toi òre berue oyidor-ē berue fe bio du dre-i tor-u du*
 hold SEQ SEQ hide-IRR1 SEQ also other PROX run-INCMP come-CMP PROX
begi woru rakre do-w-e #
 DEM.FOC stomach foot tap-CMP-PST
 ‘He caught it and then he wanted to hide it but someone else who came running, he kicked him in the stomach.’ 903b104.1

begi has grammaticalized further, losing its demonstrative function and retaining only the function of focus marking. This grammaticalized usage is synonymous with *gi* ‘FOC’.

begi ‘FOC’ as a simple focus marker is less frequent in texts than *begi* ‘DEM.FOC’ as a demonstrative in focus. An example is shown in (289).

- (289) *ke-jè d̄yi begi de áje wofre-i-ro # /*
 1.SG-EMPH person FOC 2.PL ALL name-INCMP-NPST
 ‘I will name the people for you.’ 50710.1

3.8.4 Focus marker *o*

The focus marker *o* ‘FOC’ has a similar function in discourse to *gi* ‘FOC’ and *begi* ‘FOC’, marking the NP as foregrounded or focused information. Examples are in (290) and (291).

- (290) *fī o kou bwo-w-e # /*
 sago FOC bad become-CMP-PST
 ‘The sago was bad.’ 5105.1

- (291) *bo d̄yi o be trè bwe-ye f-u bóre # /*
 COORD person FOC LOC seated become-NFIN be-CMP be
 ‘And those people were living there.’ 81511.1

In addition to its function as a focus marker, *o* has many other functions. It is a locative postposition indicating direction toward, accompaniment, or instrument (§3.6.3.4), a coordinating conjunction (§8.7.1.2), a relativizer (§8.1.1.2), and a focus marker. See §6.4.3 on possible historical connections between various functions of the form *o*.

3.8.5 Contrastive focus marker *fe*

The contrastive focus marker *fe* ‘also’ occurs at the end of NPs and indicates that the referent of the NP is involved in an event that is somehow contrary to expectation. This is illustrated in (292).

(292) a. *dijeì bie fwà-w-e* , /
 nest other scrape-CMP-PST
 ‘We dug another scrubfowl nest.’ 502128.1

b. *wogwre ku fe òi bwo-w-e* # /
 brush-turkey egg also be.NEG become-CMP-PST
 ‘But there were no scrubfowl eggs.’ 502129.1

In addition, *fe* ‘also’ is used additively to indicate that the referent is in addition to another NP. The additive use of *fe* ‘also’ is illustrated in (293).

(293) *ou fwore bo gwryi fe dèria kwri fe dèria* # /
 house ridgetop TOP tree(sp.) also good tree(sp.) also good
 ‘For the ridgetop, *gwryi* wood is good; *kwri* wood is also good.’ 522108.1

See §6.4.4 for further discussion of *fe* ‘also’ in syntax and discourse.

3.9 Conjunctions

This section briefly presents the word class of conjunctions, which indicate the semantic relationship between two clauses. There is a clear group of eight coordinating conjunctions that are used to conjoin two main/final clauses and indicate various logical and temporal relationships between clauses. The only true subordinating conjunction is the relativizer *o* ‘REL’; the sequential marker *òre* ‘SEQ’ is used with medial clause syntax, the status of which is somewhere between coordinated and subordinated clause. Table 30 shows the conjunctions.

Table 30. Conjunctions

Conjunction	Gloss	Type	Sub-type	Position
<i>o</i>	‘REL’	subordinating	relativizer	beginning of S _{rel}
<i>òre</i>	‘SEQ’	medial	sequential	end of medial clause
<i>bo</i>	‘COORD’	coordinating	logical	beginning of 2 nd clause
<i>o</i>	‘COORD’	coordinating	logical	beginning of 2 nd clause
<i>esi</i>	‘however’	coordinating	logical	beginning of 2 nd clause
<i>beiro</i>	‘so’	coordinating	logical	2 nd clause
<i>tukári</i>	‘although’	coordinating	logical	1 st clause
<i>bwàbwei</i>	‘then’	coordinating	sequential	2 nd clause
<i>ro</i>	‘then’	coordinating	sequential	2 nd clause
<i>fero</i>	‘then’	coordinating	sequential	2 nd clause

For a detailed discussion of the conjunctions, their distribution, and function in discourse, see chapter 8 on clause combining: §8.1.1.2 on the relativizer, §8.5 on the subordinating sequential marker, and §8.7 on the coordinating conjunctions.

3.10 Numerals and quantifiers

Abawiri numerals express precise numbers, while quantifiers express approximate numbers. They have largely similar distribution, following the noun and optional adjective in the NP. As numerals and quantifiers do not co-occur, they can be considered part of the same general word class, although there are differences in the distributional details of each

lexical item. The numerals and quantifiers are given in Table 31; the subsections below discuss the details of each item in turn.

Table 31: Numerals and quantifiers

Num/Quant	Gloss	Notes
<i>kíài</i>	‘one’	
<i>ta</i>	‘two’	
<i>d̄yrou</i>	‘many’	usually with <i>d̄yi</i> ‘person’
<i>yiku</i>	‘many’	
<i>kou</i>	‘much’	cf. adjective <i>kou</i> ‘bad’
<i>fukári</i>	‘all’	floats outside the NP
<i>fwoje</i>	‘all’	only with pronouns
<i>dà</i>	‘ASSOC’	the associative plural marker

3.10.1 *kíài* ‘one’

Abawiri has an extremely simple numeral system, with only two lexical items: *kíài* ‘one’ and *ta* ‘two’. Strategies for indicating higher numerals are discussed in §3.10.3. The small numeral system in Abawiri, while rare on a global scale (Comrie 2013), is not unusual in New Guinea. Other Papuan languages with only words for ‘one’ and ‘two’ include Mian (Fedden 2012) and Haruai (Comrie 1999).

The numeral *kíài* ‘one’ is used to single out one entity, usually as opposed to other entities in the same category. This is illustrated in (294).

- (294) *wo ta bo fi kìaì gi kódor-i fjer-u-e # /*
 3 two TOP sago one FOC clean-INCMP repeat-CMP-PST
 ‘The two of them would care for one sago tree.’ 4102.1

This numeral is also used to indicate the unity of a group of people around an idea or purpose. In this usage it typically collocates with *worabroru* ‘thought’ or *kweyo* ‘heart’ as illustrated in lines (a) and (b) of (295).

- (295) a. *worabror-u kìaì bwo-w-ō*
 think-NMLZ one become-CMP-EMPH\IRR2
 ‘Supposing we have the same thinking.’ 803b324.1
- b. *kweyo kìaì bwo-w-ō # /*
 heart one become-CMP-EMPH\IRR2
 ‘Supposing we have the same heart.’ 803b325.1
- c. *bo àrà èyi=ta / fwòu dèria bóre # /*
 DIST God LOC=ABL characteristic good be
 ‘That is good character from God.’ 803b326.1

kìaì is the only non-adjective that can occur with the diminutive suffix *-ké* ‘DIM’, as shown in (296).

- (296) *eke fu kìaì-ké gi diror-i # /*
 first canoe one-DIM FOC go-INCMP
 ‘Only one canoe must go first.’ 817110.1

This numeral occurs on its own without a superordinate NP, as shown in (297).

- (297) *bo kìaì begi bo-i-ri*
 COORD one FOC eat-INCMP-NFUT
 ‘He would only eat one thing.’ 8067.1

3.10.2 *ta* ‘two’

This numeral indicates two entities as shown in both lines of (298).

- (298) a. *dwèyi ta bo bed-u-e*
 sister two TOP say-CMP-PST
 ‘The two sisters said,’ 40966.1
- b. *fi fiti ta du béyi-jéi* ,
 sago basket two PROX put-NEG
 ‘These two sago baskets have not been placed.’ 40967.1

As with *kîài* ‘one’, *ta* ‘two’ occurs on its own without a superordinate NP, as shown in (299) .

- (299) *ta begi bedre-yi bóre #*
 two DEM.FOC say-PRF be
 ‘He has said these two things.’ 80445.1

The most frequent uses of *ta* ‘two’ are in the analytic dual pronoun construction discussed in §3.5.1.1 above and exemplified in (300), and in the nominal coordinating construction discussed in §3.1.4.7 above and exemplified in (301).

- (300) *e ta ro be=jè fíari bóre #*
 1.PL two then LOC=LOC laugh be
 ‘Then we two laughed there.’ 51390.1
- (301) *gwari bio* , *Lukas Bekai wo ta bo* , / *dúke o fa-i-rē*
 day other L. B. 3 two TOP bird FOC hunt-INCMP-IRR1

fro-w-e # /
 go-CMP-PST
 ‘One day Lukas and Bekai went to hunt birds.’ 4081.1

3.10.3 Higher numerals

The native Abawiri numeral system consists of two lexical items *kìài* ‘one’ and *ta* ‘two’, in addition to complex constructions for ‘three’ and ‘four’ using the two lexical numerals and the word *bio* ‘other’. The phrases *bio ta kìài* ‘three’ and *bio ta bio ta* ‘four’ are both highly conventionalized and are shown in (302) and (303), respectively.

- (302) *wo g̀yũ bo / bio ta kìài f-u-e # /*
 3 place TOP *other two one* be-CMP-PST
 ‘He had three containers.’ 9042.1
- (303) *d̀yĩ bo bio ta bio ta f-u-e # /*
 person TOP other two other two be-CMP-PST
 ‘There were four children.’ 4061.1

For numbers higher than four, speakers generally use Indonesian numbers. One speaker has devised a body part tally system for numbers above four. This involves the digits on the hands and feet (e.g. *worikre tobia fukàrì* ‘hand side all’ = 5, *worikre twota* ‘hand both’ = 10, *rakre twota* ‘foot both’ = 20). However, other community members are not familiar with this *ad hoc* system and prefer to use Indonesian numerals. The speaker who promotes this system has traveled widely in the region and is likely familiar with the body-part tally systems commonly found in New Guinea (de Vries 1994; Comrie 2013).

Several speakers have told me anecdotes about a tally system previously used to keep track of the number of days that passed during hunting trips. Hunting parties would carry a piece of vine with them as they traveled, tying a knot in the vine each day. According to the anecdotes, they did not have names for the number of knots beyond four.

3.10.4 *d̄yrou* ‘many’

In addition to the numerals, there are five quantifiers in Abawiri that express more general quantities. All of them indicate large quantities such as ‘many’ and ‘all’, and most only occur with a specific word or word class. The quantifier *d̄yrou* ‘many’ most often quantifies human referents, as shown in (304), although it is occasionally used with non-human referents, as shown in (305).

- (304) *dre-i fia-u bo , / òru d̄yrou bo gwò=jè bu gyu*
 run-INCMP descend-CMP TOP woman many TOP INESS=LOC firewood split
gwa-ber-u bóre # /
 PLACT-do-CMP be

‘When we ran down, many women were splitting wood there in the middle.’

502190.1

- (305) *gwari d̄yrou bwo-w-e #*
 day many become-CMP-PST

‘It was many days.’

50292.1

3.10.5 *yiku* ‘many’

The quantifier *yiku* ‘many’ occurs both in an NP, as shown in (306) and as a non-verbal predicate, as shown in (307).

- (306) *dre=ta fu yiku bo e dre=ta yu-to-fro-w-e , /*
 here=ABL canoe many TOP 1.PL here=ABL up-PLACT-go-CMP-PST

‘Many boats being from here, we went from here.’

81717.1

- (307) *d̄yi bo yiku=gwre f̄u-e # /*
 person TOP many=AUG be-PST

‘There were a lot of people.’

8174.1

3.10.6 *kou* ‘much’

The primary function of the form *kou* is as an adjective meaning ‘bad’, as demonstrated in (308).

- (308) *wo bo ăi kou bwo-w-e # /*
 3 TOP mother bad become-CMP-PST
 ‘The mother made him bad.’ 805231.1

This adjective has two additional functions. First, it is used as a term of endearment with kin terms, roughly meaning ‘loved’. The social practice of using negative evaluative words as terms of endearment can also be seen in the use of the word *frēi* ‘demon’ between friends to refer to each other in joking contexts. The use of *kou* with kin terms is illustrated in (309).

- (309) *ba ayite kou fe ká bworyu f-u bóre # /*
 1.SG.GEN father loved also same sit be-CMP be
 ‘My dear father was also living at the same place.’ 81533.1

Second, the form *kou* is used as a quantifier. Here the sense is roughly ‘there are so many of them that it is bad’, as shown in (310).

- (310) *tere fe kou = gwre f-i-e-ro # /*
 mosquito also much = AUG be-INCMP-HAB-NPST
 ‘There are usually very many mosquitoes.’ 52326.1

kou ‘many’ can now be used to refer to quantities even in contexts where the large quantity cannot be said to be ‘bad’. This is illustrated in (311) and (312).

- (311) *d̄yi bo f̄ari bo kou = gwre , /*
 person TOP laugh TOP much = AUG
 ‘They laughed very hard.’ 50285.1

- (312) *dwèyi ta bo wo srī bo bwàbwei , / sō kare bo kou=gwre # /*
 sister two TOP 3 platform TOP then pig hard TOP much=AUG
 ‘The two sisters’ platform then had very much dry pork.’ 40974.1

3.10.7 *fukári* ‘all’

The quantifier *fukari* ‘all’ occurs in an NP, as shown in (313) and (314).

- (313) *e òru fukári fi béyi-jei-ro , /*
 1.PL woman all sago put-PRF-NPST
 ‘All our wives had put down sago.’ 507144.1

- (314) *de fukári du / wojo , /*
 2.PL all PROX above
 ‘All of you are up here.’ 804233.1

It also occurs on its own without a matrix NP, as shown in (315).

- (315) *dworiai fukári torefri bóre # /*
 2.SG.REFL all carry be
 ‘You yourself take it all.’ 40952.1

Quite commonly *fukári* ‘all’ occurs outside the bounds of the NP it quantifies. This is shown in (316), where *fukári* ‘all’ occurs after the NP with a relative clause, and in (317), where the end of the NP is signaled with *bo* ‘TOP’, and *fukári* ‘all’ follows it. *fukári* ‘all’ is the only quantifier that shows the phenomenon of quantifier float.

- (316) *dýi begi wodyi-rē torefri-je f-u bo fukári sēi f-u*
 person DEM.FOC spy-IRR1 go-NFIN be-CMP TOP all sago.leaf.tip be-CMP
bóre # /
 be
 ‘All the people who went spying wore leaves.’ 507110.1

- (317) *du bo fukàrì bra # /*
 PROX TOP all arrow.shaft
 ‘These are all arrow-shafts.’ 511a201.1

3.10.8 *fwoje* ‘all’

The quantifier *fwoje* ‘all’ is used exclusively with reflexive pronouns. Only the shorter form of the reflexive suffix *-ri(ai)* is used with *fwoje* ‘all’. Unlike standalone use of the reflexive pronouns (§3.5.1.3), reflexive pronouns with *fwoje* ‘all’ are not restricted to reflexive or emphatic contexts. Examples are given in (318) and (319).

- (318) *ro wo-ri fwoje are / dre-i gwa-ber-u-e # /*
 then 3-REFL all RECP chase-INCMP PLACT-do-CMP-PST
 ‘Then they all chased each other.’ 90216.1

- (319) *fe e-ri fwoje ou ká bo gwryi kàr-i bóre # /*
 also 1.PL-REFL all house arrive TOP sago.basket carry-INCMP be
 ‘And then we all arrived at a house and were carrying the baskets.’ 502197.1

The quantifiers *fukàrì* ‘all’ and *fwoje* ‘all’ are in complementary distribution, with *fwoje* ‘all’ being used for reflexive pronouns and *fukàrì* ‘all’ being used for all other NPs, including full NPs, plain pronouns, and emphatic pronouns.

3.10.9 *dà* ‘ASSOC’

The form *dà* ‘ASSOC’ is an associative plural marker that can be translated ‘and those associated with X’. It occurs after NPs, which are usually proper names or other references to human entities. The basic construction is illustrated in (320). In (321) *dà* ‘ASSOC’ follows

the head noun and precedes the demonstrative as do other quantifiers. Finally, (322) shows a genitive NP with *dà* ‘ASSOC’.

- (320) *bo siari dà bóre #*
 DIST S. ASSOC be
 ‘It was Siari and company.’ 8159.1
- (321) *kwaryu dà duru fúfweyo f-u-e # /*
 K. ASSOC PROX.EMPH first be-CMP-PST
 ‘Kwaryu and company sat in the front.’ 81325.1
- (322) *bo ro bwàbwei boriwore dà fu gi ror-u bóre # /*
 COORD then then B. ASSOC canoe FOC be-CMP be
 ‘So the canoe of Boriwore and company was like that.’ 814156.1

3.11 Interjections

This word class includes all words that regularly stand alone as complete intonation units and are used in management of discourse, primarily turn-taking in conversation. A list of interjections is given in Table 32. Given the phonetically idiosyncratic nature of interjections, they are given in phonetic transcription here.

Table 32: Interjections

Interjection	Gloss	Notes
[V:(h)]	‘oh!’	general exclamation, many variants
[ǎ:]	‘huh?’	requesting clarification
[àhâ:]	‘no’	
[brɔ]	‘OK’	
[eja/ja]	‘yes’	the primary agreement token
[ijajɛ]	‘yikes!’	
[dʒáɛ]	‘be careful!’	
[òrô:]	‘hey!’	calling for joint attention
[wei]	‘hey!’	e.g. calling for someone in the forest
[rɔβɛ]	‘come on!’	
[duk ^w ɛjɛ]	‘hello, goodbye, thank you’	2 nd person pronouns + ‘heart’

The consonant /h/ is only found in this word class. Further, nasalization is sometimes heard on the vowels of certain interjections, although this is variable (see §2.1.1 on the lack of nasals in Abawiri). General interjections of surprise, represented by the first entry in Table 32, take many phonetic forms, usually just a lengthened vowel which is sometimes followed by [h]. Common forms include [a:], [ah], [e:], [ɔi], and [ɔ:]. Typical examples are given in (323), (324), and (325).

(323) *aa bo dèbi ótror-u-o*
 EXCL 1.SG.GEN child do.what-CMP-EMPH
 ‘Oh, what happened to my child?’ 50942.1

(324) *ah be dukre*,
 EXCL LOC bird.bone.arrowhead
 ‘Ah, here is a bird’s-bone arrowhead.’ 511a111.1

- (325) a. *oo* , /
 EXCL
 ‘Oh,’ 520175.1
- b. *a kou=gwre* , /
 1.SG bad = AUG
 ‘I am bad.’ 520176.1

The form [ǎ] is used to ask the interlocutor to repeat the previous utterance. This is exemplified in line (c) of the excerpt in (326), where Yuli <Y> asks a group of women <W> a question. His use of [ǎ] in line (c) prompts his interlocutors to repeat their previous utterance in line (d).

- (326) a. Y: *du=jè bo be f-u-ò* # /
 PROX=LOC TOP IMMED be-CMP-EMPH\YN
 ‘Is that here?’ 803b306.1
- b. W: *ōi* #
 be.NEG
 ‘It isn’t.’
- c. Y: *ǎ* , /
 huh?
 ‘Huh?’ 803b307.1
- d. W: *ōi* #
 be.NEG
 ‘It isn’t.’
- e. Y: *o bìari=jè ōi bwo-w-o* # /
 COORD what =for be.NEG become-CMP-EMPH
 ‘Why is there none?’ 803b308.1

The form [àhâ] negates the whole proposition expressed by the previous clause, as shown in (327), where Bwoyusa disagrees with Yuli <Y>.

- (327) a. Y: *du bo tobre-i-ro* #
 PROX TOP drill-INCMP-NPST
 ‘This one is drilled through.’ 511a259.1
- b. B: *duru* #
 PROX.EMPH
 ‘This one.’ 511a260.1
- c. *àhá* , /
 no
 ‘No.’ 511a261.1
- d. *du tobre-yi-jéi* #
 PROX drill-PRF-NEG
 ‘This has not been drilled.’ 511a262.1

The form [brɔ] is used to request an action from interlocutors. During fieldwork, my collaborators used this form on its own to let speakers know that the recorder had started and that they should begin speaking.

The form [eja/ja] is frequent in discourse and indicates agreement with a previous utterance, as shown in example (328) in an interaction between Stefanus <S> and Bwoyusa .

- (328) a. S: *du ro bwàbwei dukre* , /
 PROX then then bird.bone.arrowhead
 ‘And then this is a bird’s-bone arrowhead.’ 511a26.1
- b. B: *ya* #
 yes
 ‘Yes.’ 511a27.1

The form [ijaje] is a conventionalized expression of sadness or fear, as demonstrated in (329).

- (329) a. *bo òke dijai wojo = ta ror-i tè-w-e iyaye # /*
 COORD just D. River above = PERL be-INCMP descend-CMP-PST yikes
 ‘Then going along above the Dijai River, we screamed, yikes!’ 50937.1
- b. *bio bed-i-ri*
 other say-INCMP-NFUT
 ‘The other one also said,’ 50938.1
- c. *iyaye # /*
 yikes
 ‘Yikes!’ 50939.1

The form [dzáe] indicates a warning or something the interlocutor is to avoid. This form contains the only vowel sequence in the language ending in a mid vowel (see §2.2.6).

An example is given in (330).

- (330) a. *si de-ri de wójòu bo bwàbwei de-ri bo bwrìor-u-wéi # /*
 here 2.PL-REFL 2.PL body TOP then 2.PL-REFL TOP make-CMP-NEG
 ‘But you don’t even take care of your own self.’ 803b105.1
- b. *jáe # /*
 caution
 ‘Be careful.’ 803b106.1
- c. *ti byuro bwàbwei d̄yi bio gi tore gwa-sa ,*
 PROH long.time then person other FOC until PLACT-take
 ‘Do not be busy with someone else’s affairs.’ 803b107.1

The forms [wéi], [òrô], and [rɔβɛ] are all used to get an interlocutor’s attention. The first is used for calling for someone when lost, e.g. in the forest, as illustrated in (331).

- (331) a. *òru bo bed-i gwa-ber-u-e wéi #*
 woman TOP say-INCMP PLACT-do-CMP-PST hey!
 ‘The women were calling ‘weɪ’.’ 814142.1

- b. *fero / tore fi bóre , /*
 then PLACT go be
 ‘Then they all went home.’ 814143.1

The forms [òrô] and [rɔβɛ] are both used in establishing joint attention, as when the speaker is focused on something and is asking the interlocutor to pay attention to it as well. These are illustrated in (332) and (333), respectively.

- (332) a. *òró # /*
 hey
 ‘Hey.’ 511a4.1
- b. *du bo tōu , /*
 PROX TOP cuscus(sp.)
 ‘This is cuscus.’ 511a5.1
- c. *fe du # /*
 also PROX
 ‘Also this one.’ 511a6.1
- d. *fe du ror-i-ro #*
 also PROX be-INCMP-NPST
 ‘This one is also like that.’ 511a7.1
- (333) a. *robe , /*
 come.on
 ‘Come on.’ 5201.1
- b. *robe èror-i # /*
 come.on release-INCMP
 ‘Come on, begin.’ 5202.1
- c. *tubre bo # / wo dwèyi / wo dwèyi dèbi fwoyu-je fro-w-e # /*
 T. TOP 3 sister 3 sister child board-NFIN go-CMP-PST
 ‘Tubre took his sister’s child in a boat.’ 5203.1

The conventionalized formal greeting *dukweye* / *dekweye* is also an interjection in that it is used as a standalone utterance in social interaction. The greeting is formed from the second person pronouns *du* ‘2.SG’ and *de* ‘2.PL’ and the form *kweye*, which is probably derived from *kweyo* ‘heart’. The compositionality of this form can be seen in the fact that it is possible to use the quantifier *fukàrì* ‘all’ in greeting a crowd of people: *de fukàrì kweye* ‘greetings to all’. The greeting *dukweye* / *dekweye* is used in both greeting and leave-taking, as well as for expressing thanks. In example (334) the speaker had asked to be video recorded while singing a song. At the end of his song he stated that he was finished and then thanked me for recording his performance.

- (334) a. *kē* *bóre* # /
 finished be
 ‘Finished.’ 51435.1
- b. ***dukweye*** # /
 greetings.SG
 ‘Thank you.’ 51436.1

The following excerpt is from the first part of a sermon at a Sunday evening church service. The speaker stood up and greeted the audience with the lines shown in (335).

- (335) a. ***dekweye*** ,
 greetings.PL
 ‘Greetings.’ 803a1.1
- b. *fwāu* *dèria* # /
 evening good
 ‘A good evening.’ 803a2.1

3.12 Word formation processes

Word formation processes include derivation and compounding. Derivational processes include nominalization (§3.12.1) and verbal derivation (§3.12.2), while compounding processes include verb-verb compounding (§3.12.3) and noun-noun compounding (§3.12.4). Generally speaking, derivational processes (nominalization and verbal derivation) are more productive than compounding processes, which tend to be highly lexicalized. Compounds are semantically similar to multi-word expressions (e.g. *foi die yure* ‘rock water tree → name of an arrow type’) in that they are fixed expressions containing multiple roots, with semantics not predictable from the sum of the parts. They differ in that compounds show phonological reduction or fusion of the two forms into a single phonological word, while multi-word expressions contain multiple phonological words.

3.12.1 Nominalization

There is a single nominalizer suffix *-u* that occurs on verb roots. Several types of nominalized forms are derived with this suffix. These include action/state nouns, nouns that are the semantic agent, patient, or experiencer of the root verb (Comrie & Thompson 2007), and adjectives. The nominalizer suffix is homophonous with the completive suffix *-u* ‘CMP’ (§4.2.1). Nominalizations derived from verb stem + *-u* ‘NMLZ’ are given in Table 33.

Table 33. Nominalized forms with -u

Nominalized form	Verb root gloss	Derived form gloss	Type
<i>wor-u</i>	‘cry’	‘crying’	action/state
<i>worabor-u</i>	‘think’	‘thought’	action/state
<i>worjor-u</i>	‘draw/write’	‘drawing/writing’	action/state
<i>gwor-u</i>	‘be afraid’	‘fear (n)’	action/state
<i>trèbar-u</i>	‘die’	‘death’	action/state
<i>diror-u</i>	‘insult (v)’	‘insult (n)’	action/state
<i>eidar-u</i>	‘sing’	‘song’	action/state
<i>f-u</i>	‘have’	‘having’	action/state
<i>kror-u</i>	‘shine’	‘light’	action/state
<i>atre-u</i>	‘love (v)’	‘compassion’	action/state
<i>dòr-u</i>	‘go’	‘going’	action/state
<i>kýuror-u</i>	‘desire’	‘lust’	action/state
<i>biárte-u</i>	‘fall’	‘falling’	action/state
<i>tafwor-u</i>	‘be a friend’	‘friend’	argument
<i>okafwor-u</i>	‘peel (v)’	‘book’	argument
<i>trèbar-u</i>	‘die’	‘dead’	adjective
<i>kor-u</i>	‘hunt’	‘hunter’	adjective
<i>dwòr-u</i>	‘flip’	‘flipped’	adjective
<i>ogwiro-u</i>	‘fit’	‘fitting’	adjective
<i>bar-u</i>	‘be’	‘being in a state’	adjective
<i>soyida-u</i>	‘hunt pigs’	‘ones who hunt pigs’	adjective

Nominalizations generally have features of nouns or adjectives as opposed to verbs.

Derived nouns occur as the heads of NPs and can take demonstratives, discourse markers,

and genitive NPs like head nouns in NPs (§3.1.4). In example (336) the action/state nominalization *worabroru* ‘thought’ has all three of these modifiers, in addition to the floating quantifier *fukári* ‘all’ (§3.10.7).

- (336) *bo d̄yi worabror-u du bo fukári=gwre bwàbwei be=jè*
 COORD person think-NMLZ PROX TOP all=AUG then LOC=LOC
ror-i-ri bóre # /
 be-INCMP-NFUT be
 ‘All people’s thoughts there were like that.’ 803a162.1

The nominalized form *worabroru* ‘thought’ can take a zero-marked verbal complement. An example is shown in (337).

- (337) *a k̄esai-ké f-u bo bu gwi worabror-u f-u f-u-e # /*
 1.SG small-DIM be-CMP TOP firewood split think-NMLZ be-CMP be-CMP-PST
 ‘When I was still young, I was having thoughts that I would split firewood.’ 5091.1

The fact that this is a nominalization rather than part of an extended serial verb construction (§5.3.1) is made clear in examples like (338) below, where nominalized *worabroru* ‘thought’ takes the enclitic =*gwre* ‘AUG’. When cliticized to adjectives =*gwre* ‘AUG’ is an augmentative (§3.3.1), while when cliticized to nouns, it means ‘only’ (§3.1.2). With nominalizations it means ‘only’.

- (338) *f̄iari worabror-u=gwre # /*
 play think-NMLZ=only
 ‘(I had) thoughts only for playing.’ 50921.1

An additional piece of evidence is that *worabroru* ‘thought’ can be modified with adjectives, as shown in (339).

- (339) *fɪari worabrɔr-u rōu # /*
 play think-NMLZ big
 ‘I had many thoughts for playing.’ 50919.1

Some nouns derived with *-u* ‘NMLZ’ are arguments of the root verb, as shown in

(340) and (341).

- (340) *wo tafwor-u gi dwòr-o # /*
 3 befriend-NMLZ FOC dance-NPST
 ‘His friend was dancing.’ 80544.1

- (341) *okafwor-u dre=jè ro worjor-yi bóre # /*
 peel-NMLZ here=LOC then write-PRF be
 ‘It is written in this book.’ 801b174.1

Adjectives are also derived with *-u* ‘NMLZ’, as illustrated in (342) and (343).

- (342) *d̥y̥i trèbar-u toi òre yuta-i-ri*
 person die-NMLZ hold SEQ stand.up-INCMP-NFUT
 ‘He raised up dead people.’ 9257.5

- (343) *òru ta o gwai dwòr-u=gwre bwo-w-e # /*
 woman two COM chest flip-NMLZ=AUG become-CMP-PST
 ‘He was directly face-to-face with the two women.’ 520104.1.1

Most terms for time of day, as well as the terms for ‘yesterday’ and ‘tomorrow’, are lexicalized nominalizations. This can be seen from the fact that they end with /u/ (one form ends with /y/). These terms are shown in Table 34. The column labeled ‘Verb’ indicates whether the term in question takes verbal inflection (‘Y’) or not (‘N’).

Table 34. Time nominalizations

Term	Gloss	Verb
<i>tíror-u</i>	‘dawn’	Y
<i>t̄yuror-u</i>	‘afternoon’	Y
<i>fwāu</i>	‘dusk’	N
<i>koryujòu</i>	‘night’	N
<i>d̄irígwryu</i>	‘dark, night’	N
<i>d̄iru</i>	‘night’	N
<i>doboru</i>	‘yesterday’	N
<i>fukoru</i>	‘tomorrow’	N
<i>korugwre</i>	‘morning’	N
<i>gwokare</i>	‘midday’	N

The first two terms in the list are both used as inflected verbs. Examples (344) and (345) show the two words as inflected verbs.

(344) *bo fwryu tíror-u bo , / wo dwèyi dèbi tar-i*
 COORD anchor dawn.break-CMP TOP 3 sister child waken-INCMP

tíror-u-e ,
 dawn.break-CMP-PST

‘He anchored until dawn, and wakened his sister’s child at dawn.’ 52027.1

(345) *t̄yuror-i-ri* # /
 be.afternoon-INCMP-NFUT

‘It was late afternoon.’ 507251.1

Example (346) shows *tíror-u* ‘morning’ as a nominalization. There are no corpus examples of *t̄yuror-u* ‘afternoon’ as a nominalization.

- (346) *tíroru = gwre bwo-w-e* ,
 dawn = AUG become-CMP-PST
 ‘It became very light.’ 52031.1

The other words in the list do not occur with verbal inflection. All except one, however, end with what is presumably an old nominalizer suffix *-u* ‘NMLZ’. These words are all used as nouns to indicate time, as illustrated in examples (347) and (348).

- (347) *e bwàbwei fwāu tor-u bóre # /*
 1.PL then evening come-CMP be
 ‘And we came in the evening.’ 813115.1

- (348) *e ta fukoru toi-rō # /*
 1.PL two tomorrow hold-NPST\IRR2
 ‘Tomorrow we will catch.’ 81238.1

The word *gwokare* ‘midday’ has a different, currently unknown origin. The term *korugwre* ‘morning’ is likely derived from a nominalization with augmentative = *gwre* ‘AUG’, although it is synchronically possible to add the augmentative enclitic to the whole term, as shown in (349).

- (349) *korugwre = gwre tor-ē-ri #*
 morning = AUG come-IRR1-NFUT
 ‘Supposing it had come very early in the morning.’ 502112.1

3.12.2 Verbal derivation

Verbal derivation is discussed at length in §4.8; for this reason, only a brief summary is given here. Several verbal prefixes can be regarded as derivational because they have limited productivity and because the semantics of the derived forms are only partially predictable from the component morphemes. The first is the pluractional/causative prefix

to-. Derived verb forms include the semantics of either pluractionality (e.g. *to-tà-i* ‘PLACT-cross-INCMP’ → ‘all cross’) or causation (e.g. *to-tor-i* ‘CAUS-come-INCMP’ → ‘bring’). This prefix is a reduced form of a serial verb construction containing the form *tore*, which has the same two functions of indicating pluractionality and causation. The second derivational prefix on verbs is *sre-*, also a polyfunctional form indicating either pluractionality (e.g. *sre-to-i* ‘PLACT-take-INCMP’ → ‘all take’) or causation (e.g. *sre-byu* ‘CAUS-be’ → ‘set’). The form *sre-* is from the verb *sre-* ‘take’ in a serial verb construction. The third derivational prefix is *gwa-*, indicating only pluractionality (e.g. *gwa-gwórker-i* ‘PLACT-strike-INCMP’ → ‘strike over and over’). The origin of this prefix is unclear as the form *gwa* is highly polysemous and has many functions. Finally, the directional prefix *ti-* ‘into’ only occurs with a few verb roots.

3.12.3 *Verb-verb compounding*

Verb-verb compounding is not a synchronically productive process in Abawiri. However, many verb forms, particularly longer verb forms, end with either the sequence *ror-* or *jer/jar/jor-*. These are lexicalized serial verb constructions where the second verb was either *ror-* ‘be’ or *jèr-* ‘do’. Both of these verb roots also exist synchronically as independent verbs. The lexicalized forms are shown in Table 35, along with the first verb in the compound, where known.

Table 35. Lexicalized verb compounds

Compound	Gloss	1st verb	Gloss	2nd verb
<i>gwórjor-</i>	‘surprise’	<i>gwor-</i>	‘fear’	<i>jèr-</i>
<i>sijer-</i>	‘chase’	<i>s-</i>	‘take’	<i>jèr-</i>
<i>wèjér-</i>	‘show’			<i>jèr-</i>
<i>bijer-</i>	‘bite’	<i>bi</i>	‘shoot’	<i>jèr-</i>
<i>brerori</i>	‘reject’	<i>brè-</i>	‘call’	<i>ror-</i>
<i>bwrerori</i>	‘disappear’	<i>bwre-</i>	‘look for’	<i>ror-</i>
<i>bwriori</i>	‘make’			<i>ror-</i>
<i>derori</i>	‘crawl, sleep’	<i>de-</i>	‘put horizontally’	<i>ror-</i>
<i>dìrori</i>	‘accept’			<i>ror-</i>
<i>frerori</i>	‘run’	<i>fro-</i>	‘go’	<i>ror-</i>
<i>fúrori</i>	‘swallow’	<i>f-</i>	‘have’	<i>ror-</i>
<i>fyurori</i>	‘move (house)’	<i>fyu</i>	‘make’	<i>ror-</i>
<i>gyurori</i>	‘lift’	<i>gÿu</i>	‘gather’	<i>ror-</i>
<i>torori</i>	‘stab’	<i>toyi</i>	‘cut, break’	<i>ror-</i>

3.12.4 Noun-noun compounding

Noun-noun compounds include body part terms compounded with *kre* ‘bone’, among others. Noun-noun compounds are shown in Table 36.

Table 36. Lexicalized noun compounds

Compound	Gloss	1st noun	Gloss	2nd noun	Gloss
<i>worikre</i>	'hand'			<i>kre</i>	'bone'
<i>aikre</i>	'collar bone'	<i>ai</i>	'shoulder'	<i>kre</i>	'bone'
<i>yàkre</i>	'backbone'			<i>kre</i>	'bone'
<i>rakre</i>	'foot'	<i>ra</i>	'toe'	<i>kre</i>	'bone'
<i>fweyakre</i>	'chest'			<i>kre</i>	'bone'
<i>gweikre</i>	'nose'	<i>gwēbi</i>	'nose'	<i>kre</i>	'bone'
<i>rábì</i>	'toe'	<i>ra</i>	'footprint'	<i>èbi</i>	'child'
<i>fiti</i>	'sago basket'	<i>fi</i>	'raw sago'	<i>ti</i>	'container'
<i>gwíti</i>	'sago basket'	<i>gwi</i>	'cooked sago'	<i>ti</i>	'basket'
<i>weitori</i>	'fish gills'	<i>wèi</i>	'tooth'	<i>tori</i>	'hair'
<i>yúròbi</i>	'leaf'	<i>yure</i>	'tree'	<i>wōbi</i>	'leaf'
<i>yurýugwà</i>	'log'	<i>yure</i>	'tree'	<i>agwa</i>	'log'
<i>drábì</i>	'gardens, livestock'	<i>dra</i>	'goods'	<i>bi</i>	'seedling'

Some of these compounds retain the phonetic pitches of the component roots, resulting in a new phonological tone melody. This is the case with *rábì* 'toe', which synchronically has a /HL/ tone melody. Historically this was from the /L/ tone on the second word, which triggered anticipatory polar (H) tone on the preceding syllable. Other compounds do not retain the pitch or tone of the component parts, such as *drábì* 'livestock', which is a compound of two toneless words but has an unexpected /HL/ tone pattern, and *gwíti* 'sago basket', which is also a compound of two toneless words but has an unexpected /H/ tone melody from two toneless words. Vowels are deleted when the

combination would result in an ungrammatical sequence (e.g. *ra* ‘toe’ + *èbi* ‘child’ → *rábì* ‘footprint’ **raebi*; cf. §2.2.6).

3.13 Chapter summary

The two major word classes of noun and verb are sharply distinguished in Abawiri. Nouns can have one of eight tone patterns, while verbs can have one of six, and words of other word classes and affixes can have one of four tone patterns. Nouns are analytic while verbs have extensive agglutinating morphology. Further, nearly all nouns express entities, while verbs express events or states of affairs. NPs have pre-nominal genitives and post-nominal attributive adjectives. Numerals, demonstratives, and discourse markers follow adjectives in the NP. Headless NPs are attested, in which an NP has no head noun but has at least an attributive adjective or relative clause. The word classes of adjective and adverb form an intermediate word class category. There are about one hundred adjectives and forty adverbs. Adjectives occur in NPs and in non-verbal predicates, while adverbs function as clause-level operators and have relatively free pre-verbal position in the clause.

There are seven minor word classes. Personal pronouns distinguish between three persons; number is distinguished in the first and second persons only. In addition to the plain personal pronoun series, the emphatic pronoun series is formed largely with the suffix *-jè* ‘EMPH’, while the reflexive pronoun series is formed primarily with the suffix *-ri(ai)* ‘REFL’. There are, however, suppletive forms in the emphatic and reflexive pronoun

paradigms. Interrogative pronouns are unusual in that they all bear tone; many of the tone patterns on this word class are complex. There are also two pro-verbs.

Demonstratives distinguish two distances ('here/this' and 'there/that'). While proximal demonstratives are frequent, distal demonstratives are much less so, the function of indicating a distance removed from the speaker being largely filled by the postpositions, which can be used without an NP.

The five discourse markers include the topic marker, three markers of information focus, and one contrastive focus marker. The ubiquitous topic marker indicates the topic of the sentence, or roughly what the sentence is 'about'. Both NPs and clauses can be marked as topics, and multiple topics are possible. Two of the information focus markers are diachronically related, while the third has a complex of other functions as well. The contrastive focus marker is used both contrastively to contrast one entity with another and additively in a list of items.

There are ten conjunctions. Eight of these are coordinating conjunctions that indicate various logical and temporal relationships between clauses. In addition, there is a relativizer that introduces relative clauses and a sequential marker used in medial sequential clauses.

The Abawiri numeral system is extremely simple, being limited to two lexical numerals *kîài* 'one' and *ta* 'two', as well as highly conventionalized phrasal expressions for 'three' and 'four' using the basic numerals. There is no body-part tally system widely accepted in the community, although some members have devised such a system, probably

based on their familiarity with body-part tally systems elsewhere in New Guinea. Higher numerals are generally expressed using Indonesian numeral words. The five quantifiers in Abawiri all indicate large quantities, either ‘many/much’ or ‘all’, and most are restricted to specific contexts. The associative marker *dà* ‘ASSOC’ indicates a group of entities associated with the referent of the NP.

Interjections are a loose category of words that can be used as standalone utterances in the management of discourse. These words show varying degrees of conventionalization, from the highly conventionalized greeting *dukweye/dekweye*, with singular and plural forms, to general exclamations of surprise, which are usually a lengthened vowel of some sort, sometimes followed by [h].

Word formation processes include nominalization, verbal derivation, and compounding. Nominalization is accomplished with the suffix *-u* ‘NMLZ’, which is homophonous with the completive suffix *-u* ‘CMP’. Forms derived with this suffix include action/state nominalizations, argument nominalizations, and adjectives. Verbal derivation is accomplished with several prefixes, including two that indicate either pluractionality or causation, one that indicates pluractionality, and one directional. These prefixes only occur with specific verb roots, and the resulting meaning is not entirely predictable. Verb-verb compounding is not an active process, but vestiges of verb-verb compounds can be identified in the lexicon. Noun-noun compounds include, among others, various body part terms that have colexicalized with the noun *kre* ‘bone’.

Chapter 4 Verbal morphology

This chapter introduces the morphology of Abawiri verbs. Suffixing morphology indicates tense, aspect, and mood (TAM) distinctions, while prefixing morphology indicates various other categories including direction, causation, pluractionality, and evidentiality. The most basic TAM distinction, in the suffix slot closest to the root, is a three-way aspectual distinction between completive, incompletive, and perfect aspect (§4.1). Each of the three basic aspect suffixes co-occurs with a specific set of other TAM suffixes. These co-occurrence sets are the completive constructions (§4.2), incompletive constructions (§4.3), and perfect constructions (§4.4). Inflectional possibilities are greatest in the incompletive, while completive and perfect constructions are more limited. Common to all three construction types is a set of three final suffixes, two segmental and two tonal, that occur at the end of final verbs (§4.5). Various morphophonological changes occur with the TAM suffixes, most of which are conditioned by the final segment of the verb stem (§4.6). Prefixing morphology includes three directional prefixes (§4.7), three prefixes indicating causation and pluractionality (§4.8), and a visual evidential (§4.9). The chapter ends with a summary (§4.10).

A generalized verbal template is given in Table 37.

Table 37. General verb template

Direction	Causative/pluractional	Verb stem	Basic aspect	TAM	Tone
<i>yu-</i> ‘up’	<i>to-</i> ‘CAUS/PLACT’		<i>-u</i> ‘CMP’	[VARIOUS]	-ò ‘YN’
<i>bu-</i> ‘down’	<i>sre-</i> ‘CAUS/PLACT’		<i>-i</i> ‘INCMP’		-ō ‘IRR2’
<i>ti-</i> ‘into’	<i>gwa-</i> ‘PLACT’		<i>-yi</i> ‘PRF’		

As the constructions related to each basic aspect suffix are unique, it is not possible to create a template that takes into account all verbal inflectional possibilities. The general verbal template in Table 37 shows the prefix slots, discussed in more detail in §4.7-4.9, as well as a basic sketch of the TAM suffixing inflections. More detailed suffix templates showing the completive constructions, incompletive constructions, and perfect constructions are given in the relevant sections below.

4.1 Basic aspect

Abawiri has a three-way distinction between completive, incompletive, and perfect basic aspect. I use the term ‘basic aspect’ to refer to this three-way distinction as opposed to other aspectual distinctions made in other parts of the grammar. This distinction can be said to be ‘basic’ in that, first, it is expressed by suffixes closest to the root. Further, verb stem variation and morphophonological change (§4.6) interacts with this suffix slot and no other. The completive and incompletive aspect suffixes each have a clearly defined inflectional template and, with a few exceptions, each of the other TAM suffixes only occurs in one template. The suffixes in the inflectional template for the perfect, by contrast, form a

subset of the suffixes in the incomplete inflectional template. Thus the perfect as a formal category is partially subsumed under the incomplete.

Completive aspect indicates that an event has reached a point of termination, regardless of the internal structure of the event. *Incomplete* aspect, by contrast, indicates that the point of termination has not been reached. Finally, *perfect* aspect indicates a completed event that has current relevance. The following three examples illustrate the completive, incomplete, and perfect aspects, respectively, with the verb stem *bwe-* ‘become’.

- (350) *fī o kou bwo-w-e # /*
 sago FOC bad become-CMP-PST
 ‘The sago became bad.’ 5105.1
- (351) *kweyo kou bwe-i-ro # /*
 heart bad become-INCMP-NPST
 ‘They will feel bad.’ 908a89.1
- (352) *wo àryu kou bwe-yi-ro*
 3 eye bad become-PRF-NPST
 ‘His eye has become bad.’ 81798.1

While there are few available descriptions of the verbal morphology of other Lakes Plain languages, available materials indicate that primary TAM distinctions in other languages are related to aspect, as in Abawiri, rather than tense or mood. Iau has a complex aspectual system indicated by tones (Bateman 1986). In Iau, verbs do not have lexical tone. The eight tones (2 level and 6 contour tones) mark various aspectual distinctions on verbs along six dimensions which Bateman lists as “punctual, durative, incomplete/unrealized,

totality of action, resultative, and telic” (1986: 3). None of the aspects appears to be formally more basic than the others since all are indicated by means of one of the eight tones. Obokuitai TAM morphology is very simple, with a single suffix slot where four suffixes coding two intersecting dimensions occur: perfective vs. imperfective and foreground vs. background (Jenison 1995). For Sikaritai, examination of interlinear examples in Martin (1986) shows what appears to be simple suffixing morphology, with optional tense and aspect suffixes. Tense suffixes appear to occur more frequently, and most verb stems either occur alone or with a single suffix.

In several other languages in the Mamberamo region, aspectual distinctions are made with a set of pre-verbal auxiliaries. These include Kwerba (de Vries & de Vries 1997) and Bauzi (Briley 1976). Berik, a Tor language, has complex verbal morphology including argument indexing, object classifiers, and tense (Westrum 1988).

Among Papuan languages beyond the Mamberamo River Basin, the verbal morphology of many languages has a basic modal distinction between realis and irrealis, such as in Amele (Roberts 1990), or a basic aspectual distinction between perfective and imperfective, such as Mian (Fedden 2011), Nama (Siegel 2015), and Abui (Kratochvíl 2007). The distinction in Abawiri is not one of realis/irrealis modality. In narrations of past events, either completive or incompletive morphology can occur. Questions can also occur with either completive or incompletive inflection (§4.5.2). Present and future events, as well as imperatives, occur only in the incompletive.

The Abawiri distinction between completive and incompletive aspect is similar to, but not quite the same as, the cross-linguistically common distinction between perfective and imperfective aspect. In the typological literature, perfective aspect is usually defined as a situation viewed as bounded in time, and imperfective aspect as a situation where the internal structure of the event is shown in focus (Comrie 1976; Bybee, Perkins & Pagliuca 1994). In Abawiri, the crucial distinction is the end point of the situation: whether the situation has reached a point of termination (completive) or not (incompletive). Since present and future situations by definition have not reached a point of termination at the moment of speaking, they are in Abawiri incompatible with the completive. The completive is thus restricted to past-time situations. Unlike perfectives in many other languages, the Abawiri completive is not incompatible with constructions indicating the internal structure of an event. Aspectual serial verb constructions, for example, indicate various imperfective aspects such as habituality and distributivity; these freely co-occur with completive morphology (§5.3.5). In contrast to the completive, which only occurs with verbs indicating past-time events, the incompletive occurs on verbs indicating situations of any time: past, present, or future.

In both Mian and Abui, the perfective/imperfective distinction is the only TAM distinction that can be indicated by verb stem alternations; in Abawiri, the verb stem alternations interact only with the basic aspect suffixes (§4.6). The basic aspect suffixes in Abawiri occur closest to the verb stem. Cross-linguistically, perfective/imperfective marking is often close to the verb stem, as it is typically the result of a longer grammaticalization

pathway compared to other TAM markers (Bybee & Dahl 1989) and involves an increase in semantic scope at each point in development (Hengeveld 2011). Further, the Abawiri completive and incomplete aspect markers are by far the most widespread of all TAM markers, being obligatory in all but a few constructions. Constructions in which a verb occurs without a basic aspect marker include the non-finite verb in most serial verb constructions (§5.3.1) and certain TAM inflections with verbs ending in a high front vowel or a rhotic, where the presence of a basic aspect suffix would create a phonologically infelicitous sequence (§4.6.1-4.6.2). Neither the completive nor the incomplete can be said to be the more marked member of the opposition. The perfect, by contrast, is only partially differentiated from the incomplete and is far less frequent than either the completive or incomplete.

4.2 Completive constructions

The number of semantic distinctions within the completive is limited as compared to that of the incomplete. The completive verbal template is given in Table 38.³ The horizontal line in the table indicates that suffixes above and below the lines do not co-occur; e.g. the past tense suffix *-e* ‘PST’ does not occur with other TAM suffixes or the tone suffixes.

3. Of course the prefixes occur with all three basic aspect inflections. See the general verb template in Table 37 and the discussion of the directional prefixes in §4.7, the causative/pluractional prefixes in §4.8, and the evidential prefix in §4.9.

Table 38. The completive verb template

Verb stem	Basic aspect	TAM 1	TAM 2	Tone
	- <i>u</i> ‘CMP’	- <i>e</i> ‘PST’		
		- <i>wéi</i> ‘NEG’	- <i>o</i> ‘EMPH’	-̄ ‘IRR2’
				-̀ ‘YN’

The following subsections discuss the completive suffix *-u* ‘CMP’ (§4.2.1) and the past tense suffix *-e* ‘PST’ (§4.2.2). The remaining suffixes in Table 38 are also present in other inflectional templates and are discussed later: the negative suffix *-wéi* ‘NEG’ (§4.5.1), the emphatic suffix *-o* ‘EMPH’ (§4.5.2), and the tonal suffixes (§4.5.3-4.5.4).

4.2.1 Completive *-u*

The completive suffix has the form *-u*, as well as the form *-w* intervocalically (cf. §2.2.5). Additionally, after verb stems ending in a high front vowel the form is usually *-j* (see examples (448)-(450) in §4.6.2 below). This suffix is obligatory in all but one completive construction, the exception being the auxiliary completive construction with verbs ending in a high front vowel, where the form *-j* would create a phonologically infelicitous consonant-final word. This section only discusses the default case, where the form of the completive suffix is *-u* or intervocalic *-w*. See §4.6.2 for a discussion of the neutralization of certain TAM contrasts that occurs with verb stems ending in a high front vowel.

The completive suffix *-u* ‘CMP’ indicates that a state of affairs has reached a terminal point.⁴ Examples are shown in (353), (354), and (355).

- (353) *a t̄a-w-e* ,
 1.SG cross-CMP-PST
 ‘I crossed.’ 50228.1
- (354) *dúke gwai f-u-o # /*
 bird body.hair be-CMP-EMPH
 ‘There were bird feathers!’ 507272.1
- (355) *du èbai kou bo tor-u-wéi* ,
 2.SG uncle loved TOP come-CMP-NEG
 ‘Your dear uncle did not come.’ 805167.1

Unlike the incomplete suffix, the completive suffix does not occur alone.

Additional material must follow, either a suffix, as shown in examples (353)-(355) above, or a post-verbal auxiliary (§5.2), as shown in examples (356) and (357) below. The TAM suffixes in Table 38 and the post-verbal auxiliaries are thus in complementary distribution in completive inflections (see further discussion in §5.2.1).

- (356) *bo bwàbwei fwāu bwo-u bóre*
 COORD then evening become-CMP be
 ‘Then it became evening.’ 814141.1
- (357) *sòri dwòror-u béyo #*
 earth rotate-CMP be.Q
 ‘Did the world spin?’ 50425.1

4. This is different from the lexical aspect *telic*, in which the state of affairs encoded by the verb has an inherent end point. The completive aspect occurs with verbs of any lexical aspect to indicate that the event has already been completed.

In medial clauses (§8.4) the completive suffix is followed by the topic marker *bo* ‘TOP’ (358) or proximal demonstrative *du* ‘PROX’ (359).

(358) [*wo èbai kou tor-u bo*] *twōryi begi o ká bar-u bóre #*
 3 uncle loved come-CMP TOP good.man FOC ALL arrive be-CMP be
 ‘His dear uncle came and arrived at the good guy.’ 80589.1

(359) [*èbai kou du yu-fro-u du*] *bo bìari fwo-u bóre #*
 uncle loved PROX up-go-CMP PROX COORD what see-CMP be
 ‘The dear uncle went up and saw this.’ 52070.1

Completive inflections are very common in narratives of past events, most often indicating foregrounded events that move the story line forward (cf. Hopper 1979; Bybee, Perkins & Pagliuca 1994: 54; Shirtz & Payne 2015).

4.2.2 Past tense -e

The suffix *-e* ‘PST’ occurs after completive *-u* ‘CMP’ in completive constructions and is very common in narratives. Examples are shown in (360) and (361).

(360) *bekai gi kâr-u-e # /*
 B. FOC carry-CMP-PST
 ‘It was Bekai who carried it.’ 4085.1

(361) *wo ta bo yurei gi be tîa-w-e ,*
 3 two TOP log FOC LOC cross-CMP-PST
 ‘They two crossed on a log.’ 81563.1

This suffix also occurs with the negative verb *bwè-* ‘NEG’ in a serial verb construction, as shown in (362); see §5.3.5.10 on this construction.

(362) *àryu abro-w-e bwò-w-e # /*
 eye perceive-CMP-PST NEG-CMP-PST
 ‘They did not see.’

80934.1

The suffix *-e* ‘PST’ occurs on verbs with both positive and negative polarity, but not on interrogatives, which are marked with *-o* ‘EMPH’ (§4.5.2), or imperatives, which are marked with *-i* ‘INCMP’ (§4.3.1). This suffix occurs only with the completive. Because of these collocational restrictions, it can be said to mark completive aspect and indicative mood in a secondary way.

4.3 Incompletive constructions

The incompletive verbal template, showing only suffixes, is given in Table 39. Horizontal lines indicate that suffixes above and below the lines do not co-occur; e.g. *-ðu* ‘DUR’ does not co-occur with any suffix other than basic aspect *-i* ‘INCMP’. The position of the negative suffix is determined by the individual construction; thus, the suffix does not fit neatly in Table 39. Negative constructions with the negative suffix are discussed in §4.5.1.

Table 39. *The incompletive verb template*

Verb stem	Basic aspect	TAM 1	TAM 2	Tone
	<i>-i</i> ‘INCMP’	<i>-rà</i> ‘PROSP’	<i>-ro</i> ‘NPST’	<i>-ò</i> ‘YN’
		<i>-e</i> ‘HAB’		<i>-ō</i> ‘IRR2’
		<i>-rē</i> ‘IRR1’	<i>-ri</i> ‘NFUT’	<i>-o</i> ‘EMPH’
			<i>-di</i> ‘PURP’	
			<i>-ðu</i> ‘DUR’	

The subsections below present details of the TAM constructions related to each of the suffixes in Table 39. The incomplete suffix *-i* ‘INCMP’ is presented first (§4.3.1), followed by presentations of constructions with the non-past suffix *-ro* ‘NPST’: the basic non-past construction (§4.3.2), the prospective construction with *-rà* ‘PROSP’ (§4.3.3), and the habitual construction with *-e* ‘HAB’ (§4.3.4). Constructions with the non-future suffix *-ri* ‘NFUT’ include the basic non-future construction (§4.3.5) and the counterfactual construction with *-rē* ‘IRR1’ (§4.3.6). The final subsections discuss the purposive construction with *-di* ‘PURP’ (§4.3.7) and the durative construction with *-òu* ‘DUR’ (§4.3.8). Negation of these constructions is discussed in §4.5.1.

4.3.1 *Incomplete -i*

The incomplete suffix has the form *-i*, or the form *-y* intervocalically (cf. §2.2.5). The incomplete suffix is obligatory in all incomplete constructions except with verbs ending in a rhotic (§4.6.1) and with verbs ending in a high front vowel, where the high front vowel of the incomplete suffix is not distinguishable from the final vowel of the verb stem (§4.6.2). This section only discusses the default case, where an overt incomplete suffix is present.

The incomplete suffix indicates that the termination of the event has not been reached. It occurs frequently when talking about events that are ongoing at the time of speech, as shown in example (363) below. The two clauses in this example were uttered while the speaker was demonstrating the action of the verbs in the two clauses.

(363) a. *ro bwàbwei dre bu-āfwe-i-ro* , /
 then then here down-enter-INCMP-NPST
 ‘And then they enter downwards here.’ 52343.1

b. *dre bu-āfwe-i bóre # /*
 here down-enter-INCMP be
 ‘They enter downwards here.’ 52344.1

A similar example is shown in (364) below, which was uttered as the speaker was watching a rainbow appear in the sky.

(364) *jà kâr-i-ro # /*
 rainbow extend-INCMP-NPST
 ‘A rainbow is stretched across the sky.’ p1522.1

In narratives about past events, the incompletive is often used for background information. In (365) below, lines (a) and (c) are completive and move the narrative forward – they are foreground events. Line (b) is incompletive and background, telling what Bekai saw.

(365) a. *bekai du fero àryu abro-w-e* ,
 B. PROX then eye perceive-CMP-PST
 ‘Then Bekai saw.’ 4067.1

b. *tou du bo , / be fror-i-ro # /*
 T. PROX TOP IMMED go-INCMP-NPST
 ‘Tou was walking there.’ 4068.1

c. *wo fero gwa ate-w-e* ,
 3 then sound hear-CMP-PST
 ‘Then he heard a sound.’ 4069.1

The bare incompletive suffix, with no additional inflection, is used to indicate that the state of affairs in the clause is desired by the speaker. Its meaning varies slightly with

referents of different persons and numbers. When this construction occurs with a first person plural referent, the meaning is cohortative, as shown in (366).

- (366) *eya e ro tè-i*
 yes 1.PL then descend-INCMP
 ‘Yes, let’s go down.’ 817109.1

This construction is most common with second person referents, both singular and plural, where its meaning is imperative, as shown in (367) and (368).

- (367) *bo dia bwàbwei fweyi be=ta èréifore-i #*
 COORD 2.SG.EMPH then again LOC=ABL link-INCMP
 ‘And you take it from there.’ 91219.1

- (368) *de yu-fwar-i* ,
 2.PL up-depart-INCMP
 ‘You all go up.’ 52040.1

With third person referents, incomplete verbs have a jussive meaning, as shown in (369).

- (369) *eke fu kîà-ké gi diror-i # /*
 first canoe one-DIM FOC go-INCMP
 ‘Only one canoe must go first.’ 817110.1

In sum, when the incomplete suffix occurs with no additional suffixes, it indicates the speaker’s desire: a cohortative with first person plural referents, an imperative with second person referents, and a jussive with third person referents. First person singular referents do not occur with this construction. The negative counterpart to this construction, the prohibitive, is formed with the pre-verbal auxiliary *ti* ‘PROH’, incomplete *-i* ‘INCMP’, and emphatic *-o* ‘EMPH’ (see discussion in §5.1.1).

4.3.2 Non-past tense -ro

The non-past tense suffix is used in both incomplete and perfect constructions and indicates that the event is at a time other than in the past; in the case of the perfect (§4.4), it is the relevance of the event rather than the event itself that is in the non-past. With just the incomplete suffix, this construction indicates either an event that is occurring in the present, as shown in examples (370) and (371), or an event that will occur in the future, as shown in examples (372) and (373).

(370) *d̄yi bo bora **yu-bwa-i-ro*** ,
 person TOP ball up-thrust-INCMP-NPST
 ‘The people are playing football.’ 903a209.1

(371) *wo ta bo are woro **dwòr-i-ro** # /*
 3 two TOP RECP back turn-INCMP-NPST
 ‘They two are turning their backs to each other.’ 913a79.1

(372) *ke-jè du o **dabre-i-ro** # /*
 1.SG-EMPH 2.SG ALL teach-INCMP-NPST
 ‘I will teach you.’ 803b149.1

(373) *ke-jè d̄yi begi de áje **wofre-i-ro** # /*
 1.SG-EMPH person FOC 2.PL ALL name-INCMP-NPST
 ‘I will name the people for you.’ 50710.1

Context disambiguates between a present and future interpretation of this construction. Future time can also be indicated with the addition of the irrealis 2 tonal morpheme on the non-past suffix, as shown in (374).

- (374) *bo a du bwàbwei gwore fa-i-rō # /*
 COORD 1.SG PROX then crocodile hunt-INCMP-NPST\IRR2
 ‘And I will hunt crocodiles.’ 804113.1

While a present-time reading is not possible with the irrealis 2 tone suffix, this construction is formally ambiguous between future time, conditionality, and hypotheticality. See the discussion in §4.5.4 below.

The tonal suffix indicating polar questions also attaches to this construction for forming non-past polar questions, as seen in example (375) and discussed further in §4.5.3.

- (375) *òru gi tà-i-rò # /*
 woman FOC rise-INCMP-NPST\YN
 ‘Is it a woman who is standing?’ 50257.1

4.3.3 Prospective -rà

The prospective suffix *-rà* ‘PROSP’ indicates that the action of the verb is about to happen. This suffix occurs in a single construction, after the incomplete suffix *-i* ‘INCMP’ and before the non-past suffix *-ro* ‘NPST’. Examples are given in (376) and (377).

- (376) *bio tyuya tùru krùjógwre-i-rà-ro , /*
 other sir white emerge-INCMP-PROSP-NPST
 ‘Another thing: The white person plans to go out.’ 801b98.1

- (377) *ou rakre f-u tè-i-rà-ro # /*
 house foot be-NMLZ descend-INCMP-PROSP-NPST
 ‘A house with stairs is about to come down.’ 808a139.1

Also expressing prospective aspect is an SVC where the main verb is marked with *-rē* ‘IRR1’ and is followed by the light verb *ber-* ‘do’ (§5.3.5.4). There is no negative prospective construction; the non-past negative construction is used instead (§4.5.1).

4.3.4 Habitual *-e*

The habitual suffix *-e* ‘HAB’, which only occurs in the incomplete, is distinct from the homophonous past tense suffix *-e* ‘PST’ that occurs in complete constructions (§4.2.2). This suffix occurs after the incomplete suffix and is followed either by the non-past suffix *-ro* ‘NPST’ (§4.3.2) or the post-verbal auxiliary *bóre* ‘be’ (§5.2.1), which are in complementary distribution. It indicates that the action of the verb is repeated over a period of time, being characteristic of the state of affairs during the time period expressed by the verb. Examples are given in (378), (379), and (380).

- (378) *wo ta / bo-y-e-ro # /*
 3 two eat-INCMP-HAB-NPST
 ‘They two would eat.’ 40965.1
- (379) a. *begi bo-y-e bóre # /*
 DEM.FOC eat-INCMP-HAB be
 ‘That is what it eats.’ 51210.1
- b. *wo dī bóre # / fīau du # /*
 3 food be bat(sp.) PROX
 ‘That is its food, this bat.’ 51211.1
- (380) *e du be = ta tà-y-e bóre # /*
 1.PL PROX LOC = PERL rise-INCMP-HAB be
 ‘We usually come up that way.’ 520386.1

Verbs with the habitual construction are negated with the serial verb negator *bwè-* ‘NEG’, where the TAM inflection of the main verb is duplicated on the negative verb, with the addition of *-ro* ‘NPST’. An example is given in (381); see further discussion in §5.3.5.10.

- (381) *fe ror-i-e bwè-y-e-ro # /*
 also be-INCMP-HAB NEG-INCMP-HAB-NPST
 ‘But it does not turn out like that.’

90761.1

4.3.5 Non-future -ri

The suffix *-ri* ‘NFUT’ occurs in the incomplete, with a wide variety of functions. When it occurs on its own after *-i* ‘INCMP’ its default interpretation is habitual, either past or present. However, it is also used as an alternative to the past completive construction (§4.2.2) in narration of past events, being especially common in traditional narratives and stories from long ago. In combination with the purpose suffix *-rē* ‘IRR1’ (§4.3.6), the interpretation is counterfactual. Negation of all constructions with this suffix is accomplished with the allomorph of the negative suffix *-wēi* ‘NEG’, the same allomorph used to negate completive constructions (§4.5.1). This suffix is glossed as ‘non-future’, reflecting the fact that no construction with *-ri* ‘NFUT’ has a future interpretation, and the wide variety of aspectual and modal configurations of the constructions containing this suffix.

The construction incomplete *-i* ‘INCMP’ + non-future *-ri* ‘NFUT’ is used for habitual events, either past or present, as illustrated in (382) and (383), respectively.

- (382) *bwàbwei / d̄yi bo d̄i bro-i-ri*
 then person TOP food search-INCMP-NFUT
 ‘People would search for food.’

80617.1

(383) *bio dū begi gwórker-i-ri # /*
 other man DEM.FOC strike-INCMP-NFUT
 ‘Or she would beat her husband.’ 90964.1

Several other TAM suffixes that follow the basic aspect suffixes are in complementary distribution with the post-verbal auxiliary *bóre* ‘be’; that is, either the suffix or *bóre* ‘be’ occurs, but not both. TAM suffixes with this distribution include past tense *-e* ‘PST’, non-past tense *-ro* ‘NPST’, habitual *-e* ‘HAB’, and emphatic *-o* ‘EMPH’. In contrast, non-future *-ri* ‘NFUT’ occurs both without *bóre* ‘be’, as shown in examples (382) and (383) above, and with it, as shown in example (384). See further discussion in §5.2.1.

(384) *dobe-i-ri bóre*
 smoke-INCMP-NFUT be
 ‘They would smoke them.’ 40911.1

In narratives of recent past events, the non-future construction can be used for background information, as shown in (385) below. In this example, the narrator describes habitual occurrences that set the stage for the remainder of the story, using the non-future incomplete in line (a) and an iterative SVC with *fijer-* (§5.3.5.2) in line (b). When the story switches to a specific progression of events in lines (c) and (e), past complete inflection is used.

(385) a. *a fe dī fe bo-i-ri-wéi # /*
 1.SG also food also eat-INCMP-NFUT-NEG
 ‘I myself would not eat food.’ 50928.1

b. *bo tryujofwei=gwre , worero ba fijer-u-e , /*
 COORD sugarcane=only like.that eat repeat-CMP-PST
 ‘I only ever ate sugarcane shoots.’ 50929.1

- c. *kísáí du worabrór-u-e*
 K. PROX think-CMP-PST
 ‘Kisai thought,’ 50930.1
- d. *aa dèbi ta duru bwàbwei , òke tryujofwei=gwre , / ba*
 EXCL child two PROX.EMPH then just sugarcane=only eat
fjo bóre # /
 repeat.INCMP be
 ‘Oh, these two children only always eat sugarcane shoots.’ 50931.1
- e. *kísáí duru bo bwàbwei wojo sō bwe-ye fro-u bóre # /*
 K. PROX.EMPH TOP then above pig become-NFIN go-CMP be
 ‘Then this Kisai went along above disguised as a pig.’ 50932.1

A habitual interpretation is not required by the construction, however, which can be used in mainline (foreground) story events in traditional narratives, old war stories, and folktales. In these genres this construction replaces the past completive construction *-u* ‘CMP’ + *-e* ‘PST’ (§4.2.2), which is usually used to encode mainline story events in real-life narratives. Example (386) below is an extract from a story about a war raid. All four of the final verbs here, which code mainline events in the battle narrative, use the non-future incompletive construction.

- (386) a. *fofweyi fyuror-i-ri # /*
 then move-INCMP-NFUT
 ‘Then we moved places.’ 50796.1
- b. *fweyi to-fre-i-ri , /*
 again PLACT-go-INCMP-NFUT
 ‘We went again.’ 50797.1
- c. *fofweyi be=jè ou s-i-ri # /*
 then LOC=LOC house make-INCMP-NFUT
 ‘Then we built a house there.’ 50798.1

Perhaps as an extension of its use in narrating traditional stories, this construction is also used as an alternative to the past completive construction for coding mainline foregrounded events in narratives about the recent past. Example (387) below is from a first-person narrative of a recent event. Lines (a) and (b) are narrated with non-future incompletive inflection on the verbs; line (c) is largely a repetition of line (b) with some adjustments, including a switch to past completive inflection. From this point forward the narrative continues with mostly past completive inflection.

- (387) a. *amin bwe-i-ri-wéi* #
 amen become-INCMP-NFUT-NEG
 ‘We didn’t say ‘amen.’ 502172.1
- b. *e ta bo dre-i fro-i-ri* # /
 1.PL two TOP run-INCMP go-INCMP-NFUT
 ‘We two ran.’ 502173.1
- c. *e dre-i fia-w-e* , /
 1.PL run-INCMP descend-CMP-PST
 ‘We ran down.’ 502174.1

Table 40 shows a count of the frequencies of the completive and non-future final verb forms in two personal narratives and two traditional narratives. A procedural text is included for comparison.

Table 40. *Completive vs. non-future incomplete inflection in five texts*

Text	Genre	Final verbs	Completive	Non-future
502	Personal narrative	199	71	10
513	Personal narrative	96	28	1
507	Traditional narrative	290	13	143
520	Traditional narrative	409	79	6
523	Procedure	135	6	0

Both the completive and the non-future construction appear in personal and traditional narratives. In all texts but one, the completive construction is far more frequent, the exception being the traditional narrative 507, where the non-future is far more frequent. The non-future incomplete does not generally occur in procedures.

To summarize, the non-future construction functions (1) to indicate habituality in the past or present, including backgrounded information in narratives, (2) as a primary means for indicating foregrounded events in traditional narratives, and (3) as an alternative to the completive in narration of recent past events.

4.3.6 *Irrealis -rē*

The irrealis suffix *-rē* ‘IRR1’ functions to mark a clause as not reflecting the state of the real world (cf. Roberts 1990; Palmer 2001). It is used in purpose and counterfactual constructions. It is glossed as ‘irrealis 1’ as opposed to the irrealis tonal suffix (§4.5.4), which is glossed as ‘irrealis 2’ and is used to indicate conditional and hypothetical modality, as well as future time.

The irrealis suffix *-rē* ‘IRR1’ occurs in purpose constructions. In embedded purpose clauses, the suffix occurs on its own after the incomplete suffix, as shown in (388) and (389).

(388) *gwari bio , Lukas Bekai wo ta bo , / dúke o fa-i-rē*
 day other L. B. 3 two TOP bird FOC hunt-INCMP-IRR1
fro-w-e # /
 go-CMP-PST
 ‘One day Lukas and Bekai went to hunt birds.’ 4081.1

(389) *begi o t̃ia-i-rē dre-i fro-i-ri , /*
 DEM.FOC ALL CROSS-INCMP-IRR1 run-INCMP go-INCMP-NFUT
 ‘He ran to cross over to it.’ 41045.1

This suffix also occurs in independent purpose clauses, where it collocates with the dedicated purpose suffix *-di* ‘PURP’ (§4.3.7). Purpose clauses are discussed in more detail in §8.3. The suffix also occurs in a prospective SVC where the main verb is marked with *-rē* ‘IRR1’ and is followed by a light verb (§5.3.5.4).

The counterfactual construction is formed with the incomplete suffix, the irrealis 1 suffix, and the non-past suffix (§4.3.5). Thus the meaning of the counterfactual, while not incompatible with any of the component parts of the construction, is not entirely predictable from the sum of its parts. Examples of the counterfactual construction are given in (390), (391), and (392).

(390) *yikare du wo d̃yi bo ate-i-rē-ri , /*
 village PROX 3 person TOP hear-INCMP-IRR1-NFUT
 ‘The people of this village would have heard.’ 91228.1

(391) *òru kweyo kou bwe-i-rē-ri # /*
 woman heart bad become-INCMP-IRR1-NFUT
 ‘The woman would have been offended.’ 91032.1

(392) *bo tókóru tà-ye f-i-rē-ri # /*
 COORD sky rise-NFIN be-INCMP-IRR1-NFUT
 ‘We would have gone up to the sky.’ 808a221.1

4.3.7 Purposive -di

The purposive suffix *-di* occurs optionally in purpose clauses after incompletive *-i* and irrealis *-rē* (§4.3.6). This construction typically follows the clause on which it is semantically dependent, in a separate intonation unit. An example is shown in (393).

(393) a. *drè yure ta bóre ,*
 midrib tree two be
 ‘There are two pieces of wood from palm leaf midribs.’ 52339.1

b. *ba be bwa-i-rē-di # /*
 filter LOC thrust-INCMP-IRR1-PURP
 ‘For putting the sago water filter there.’ 52340.1

An extended example of the purpose construction is shown in (394) below, an extract from a sermon where the speaker was giving an on-the-fly translation of a Bible portion (2 Timothy 3:16). Here the speaker lists each purpose of the Word of God in a separate clause following the clause on which it is semantically dependent.

(394) a. *àrá dabyigwa du # / worjor-i du begi áje bóre # /*
 God speech PROX write-INCMP PROX DEM.FOC BEN be
 ‘The Word of God written here is for this.’ p1544.1

- b. *dabre-i-rē-di* # /
 teach-INCMP-IRR1-PURP
 ‘For teaching.’ p1545.1
- c. *kou gwò sore bwe-i-rē-di* # /
 bad INESS light become-INCMP-IRR1-PURP
 ‘To shine light on bad things.’ p1546.1
- d. *worabror-u dèria bwe-i-rē-di* # /
 think-NMLZ good become-INCMP-IRR1-PURP
 ‘To make good thoughts.’ p1547.1
- e. *dèria dabre-i-rē-di* # /
 good teach-INCMP-IRR1-PURP
 ‘To teach good.’ p1548.1

The construction can also occur as a standalone clause, as shown in (395), also indicating intent.

- (395) *ou s-i-rē-di* , /
 house make-INCMP-IRR1-PURP
 ‘I wanted to build a house.’ 5134.1

Embedded purpose clauses generally do not have the purposive suffix *-di*. See §8.3 on this construction as a clause combining strategy.

4.3.8 Durative *-òu*

The function of the suffix *-òu* ‘DUR’ is to indicate that an action or state continues for a period of time before ceasing (cf. Timberlake 2007: 294). This relatively infrequent suffix only occurs on its own after incomplete *-i* ‘INCMP’, as illustrated in (396) and (397).

(396) *dou fwor-i o bwa-y-òu bóre #*
 fire light-INCMP INS sharpen-INCMP-DUR be
 ‘He lit a fire and was sharpening.’ 520213.1

(397) *gwore fa-y-òu # /*
 crocodile hunt-INCMP-DUR
 ‘We start spearing crocodiles.’ 5132.1

The native speaker translation of example (396) into Indonesian included *sepanjang malam* ‘all night long’, showing the durative nature of this suffix. Use of this suffix often includes a focus on the beginning point of the action, as shown in (398); the end point is never in focus.

(398) a. *wo ta fero be=jè dwòr-i-òu bóre # /*
 3 two then LOC=LOC dance-INCMP-DUR be
 ‘They two started dancing there.’ 80548.1

b. *dwòr-i-òu bo , / àryu ta / are àryu abro-u bo , /*
 dance-INCMP-DUR TOP eye two RECP eye perceive-CMP TOP
 ‘They started dancing and then they saw each other.’ 80549.1

c. *sòri gwosore bar-u bo , /*
 earth light be-CMP TOP
 ‘It was getting light.’ 80550.1

In this example from a traditional narrative, the two main protagonists had changed form overnight; neither one knew that the other had changed form because they could not see each other. They began dancing before dawn and continued dancing as it got light and they could see each other. To set the stage for their discovery of each other’s transformations, durative -òu ‘DUR’ is used on the verb indicating the background activity

that began, and was then ongoing, at the time when it grew light enough for them to see each other.

There are no examples of a negative durative construction. The non-past incomplete negative construction is used instead (§4.5.1).

4.4 Perfect constructions

The perfect, a cross-linguistically common formal category that includes elements of both aspect and tense, indicates “the continuing present relevance of a past situation” (Comrie 1976: 52). The Abawiri perfect verbal template, showing only suffixes, is given in Table 41.

Table 41. *The perfect verb template*

Verb stem	Basic aspect	TAM	Tone
	- <i>yi</i> ‘PRF’	- <i>ro</i> ‘NPST’	-ò ‘YN’
			-ō ‘IRR2’
		- <i>jéi</i> ‘NEG’	

The TAM suffixes that occur with the perfect are a proper subset of those that occur with the incomplete: non-past *-ro* ‘NPST’ (§4.3.2), the negative suffix (§4.5.1), and the two tonal suffixes (§4.5.3-4.5.4). The perfect also occurs with the post-verbal auxiliary *bóre* ‘be’ (§5.2.1), which is in complementary distribution with *-ro* ‘NPST’ in this environment. Examples (399), (400), and (401) below illustrate the non-past, auxiliary, and negative perfect constructions, respectively.

- (399) *wo àryu kou bwe-yi-ro*
 3 eye bad become-PRF-NPST
 ‘His eye has become bad.’ 81798.1
- (400) *o / dràkrúja bwàbwei òru gi dū bðbre-yi bóre #*
 COORD goods then woman FOC man give-PRF be
 ‘A woman has given things to a man.’ 913b18.1
- (401) *du òru bo dre krùjógwre-yi-jéi*
 2.SG woman TOP here emerge-PRF-NEG
 ‘Your wife has not come out here.’ 41071.1

The temporal specification of the perfect is complex: It indicates a past event with present relevance. With two exceptions mentioned below, the tense of the perfect is absolute: an event before the moment of speaking that has relevance in the moment of speaking. In example (402) from the beginning of a narrative, the speaker is trying to remember the name of one of the characters. In line (a) he states that his mother told him the name of the character, using past completive inflection on the verb. In line (b) he states that he has now forgotten the name, using perfect inflection. The past event of forgetting has present relevance in that the speaker wishes to say the name of the character but cannot.

- (402) a. *òke bwàbwei äi bo báje (a fe) wo ofro-w-e*
 just then mother TOP 1.SG.ALL 1.SG also name say-CMP-PST
 ‘And my mother told me his name.’ 808a28.1
- b. *a fe orafabar-yi-ro # /*
 1.SG also forget-PRF-NPST
 ‘But I have forgotten.’ 808a29.1

The perfect construction is also used in reported speech in narratives, where a participant speaks about a past event with current relevance in the moment of the reported speech. The temporal anchor point is the moment of the reported speech rather than in the real-world present. In the narrative shown in (403) below, some children were wandering through the forest and came upon a dead body. One of the boys looked back to his friend Lukas, who was coming along more slowly, and said to him, “Gwiri has died there!” The past event of Gwiri’s dying, while completed, has continuing relevance to the children who have just discovered his corpse. This is coded with the perfect construction.

- (403) a. *fro-w-e*
 go-CMP-PST
 ‘He went.’ 40616.1
- b. *droku = gwre fro-u fro-u bo , / bo ro bwàbwei lukas / áje*
 far = AUG go-CMP go-CMP TOP COORD then then L. ALL
bed-u-e , /
 say-CMP-PST
 ‘After going very far, he said to Lukas,’ 40617.1
- c. *gwiri be trèbar-yi-ro # /*
 G. IMMED die-PRF-NPST
 “‘Gwiri has died there!’” 40618.1

A second exception to the absolute tense of the perfect is with perception verbs with past time reference. In narratives, clauses with verbs of perception like *fwe-* ‘see’ and *abre-* ‘perceive’ are followed by clauses indicating the state of affairs that was perceived. This state of affairs is often coded as perfect, as shown in example (404).

- (404) a. *e du drà abro-w-e #*
 1.PL PROX cannot perceive-CMP-PST
 ‘We were not aware.’ 51381.1
- b. *e du diaryu wójòu krùjógwre-yi bóre # /*
 1.PL PROX D. body emerge-PRF be
 ‘We had come out at the Diaryu River.’ 51382.1

As with reported speech, the use of the perfect with perception verbs involves a shift in the temporal anchor point from the real-world present moment to the present moment in the discourse world.

4.5 Other suffixes

The negative suffix has three phonologically conditioned allomorphs and is used to negate many of the TAM constructions described above (§4.5.1). The emphatic suffix *-o* ‘EMPH’ occurs with both completive and incompletive constructions and has a different distribution in each construction (§4.5.2). The two tonal suffixes associate with the segmental material of the emphatic suffix *-o* ‘EMPH’ in the completive and non-future incompletive, and with the segmental material of the non-past suffix *-ro* ‘NPST’ in non-past incompletive constructions. These two suffixes are discussed in turn below: the polar question marker /L/ tone (§4.5.3) and the irrealis /^LH/ tone (§4.5.4). Finally, a non-finite suffix *-ye* ‘NFIN’ is used in SVCs to mark the verb that does not bear the TAM inflection for the construction (§4.5.5).

4.5.1 Negative -yéi

There are three phonologically conditioned allomorphs of the negative suffix. The allomorph *-wéi* occurs after the vowel *u* and the sequence *ri*, the allomorph *-jéi* occurs after the vowels *yi* and *yu*, and the allomorph *-yéi* occurs after *i* (except the sequence *ri*, where *-wéi* occurs). The TAM constructions in which the negative suffix occurs limit its occurrence to just these phonological environments; *-yéi* ‘NEG’ does not occur after consonants or other vowels. As the allomorphs of the suffix are sensitive to the preceding context, the set of TAM constructions in which they occur are mostly non-overlapping. The distribution of the allomorphs is summarized in Table 42.

Table 42. The negative suffix

Allomorph	Environment	Constructions	Behavior	See
<i>-wéi</i>	<i>u__ , ri__</i>	past completive	replaces <i>-e</i> ‘PST’	§4.5.1
		non-past incompletive	replaces <i>-ro</i> ‘NPST’	§4.3.2
		non-future incompletive	occurs after <i>-ri</i> ‘NFUT’	§4.3.5
		counterfactual	occurs after <i>-ri</i> ‘NFUT’	§4.3.6
<i>-jéi</i>	<i>yi__ , yu__</i>	non-past perfect	replaces <i>-ro</i> ‘NPST’	§4.4
		verbs with final <i>yi</i> , <i>yu</i>	occurs directly after stem, all constructions	§4.6.2
<i>-yéi</i>	<i>i__ (not ri__)</i>	non-past incompletive	replaces <i>-ro</i> ‘NPST’	§4.3.2
		verbs with final <i>i</i>	occurs directly after stem, all constructions	§4.6.2

The negative suffix occurs as the final suffix on verbs. (The exception is negative polar questions, where *-o* ‘EMPH\YN’ occurs after it; see §4.5.3.) In three of the constructions, the negative suffix replaces another TAM suffix, occurring immediately after the basic aspect suffix. By contrast, in negative constructions with non-future *-ri* ‘NFUT’, the negative suffix is additive rather than replacive, occurring after *-ri* ‘NFUT’ rather than replacing it.

The past completive construction is negated with the allomorph *-wéi*, which replaces past tense *-e* ‘PST’. Example (405) shows the negative past completive construction, while example (406) shows its positive polarity counterpart construction.

(405) *frèi kou bo tor-u-wéi*
 demon bad TOP come-CMP-NEG
 ‘The bad demon did not come.’ 520162.1

(406) *aruna e ta tor-u-e # /*
 A. 1.PL two come-CMP-PST
 ‘Aruna and I came.’ 5029.1

Either the allomorph *-wéi* or *-yéi* occurs in the negative non-past incompletive construction, depending on the final segment of the verb stem. If the verb stem ends in a rhotic, this stem-final segment combines with incompletive *-i* ‘INCMP’ to create the sequence *ri*, which is the phonological environment after which *-wéi* occurs. An example is given in (407).

(407) *wo bo ro worabror-i-wéi # /*
 3 TOP then think-INCMP-NEG
 ‘He does not think that.’ 801b260.1

If the stem-final segment is any vowel or consonant other than the rhotic, the allomorph *-yéi* occurs, as shown in (408) and (409).

(408) *a fe wofre-i-yéi # /*
 1.SG also name-INCMP-NEG
 ‘But I will not name them.’ 50714.1

(409) *fe dre bed-i-yéi , /*
 also like.this say-INCMP-NEG
 ‘But one doesn’t say this.’ 803b276.1

The suffix *-ri* ‘NFUT’ has the exact form of one of the conditioning environments for the allomorph *-wéi*; for this reason, constructions including this suffix are always negated with *-wéi*. This includes the non-future construction and the counterfactual construction, as shown in (410) and (411), respectively. In both cases, the negative suffix is added to the end of the construction rather than replacing the final suffix.

(410) *dre=ta fe eke bo bwoto gi dōr-i-ri-wéi # /*
 here=ABL also first TOP motor FOC go-INCMP-NFUT-NEG
 ‘In earlier times we wouldn’t go from here with motors.’ 81715.1

(411) *fe ror-ē-ri-wéi*
 also be-IRR1-NFUT-NEG
 ‘But it would not have been like this.’ 91238.1

The perfect construction is negated with the allomorph *-jéi* due to the fact that the perfect suffix *-yi* ‘PRF’ consists of the vowel *yi*, which is one of the conditioning environments for this allomorph. An example is shown in (412).

(412) *fero tor-yi-jéi # /*
 also come-PRF-NEG
 ‘They have not come.’ 804210.1

All verb stems that end with either *yi* or *yu* are also negated with the allomorph *-jéi*, as illustrated in (413) and (414). There is a single negative construction for these verbs, which cannot take the basic aspect suffixes in the negative. See §4.6.2 on morphophonological changes in verbs with a final high front vowel.

(413) *a du fwi dyi-jéi # /*
 1.SG PROX dregs knead-NEG
 ‘I did not squeeze sago.’ 814127.1

(414) *a fe óforyu-jéi # /*
 1.SG also say-NEG
 ‘I also will not talk.’ 803a117.1

In most other constructions, all verbs with a final high front vowel *i*, *yi*, or *yu* pattern together (see §4.6.2 below). However, with the negative suffix the allomorph *-jéi* is only used with stems ending in *yi* or *yu*, to the exclusion of *i*. Verb stems ending in *i* take the allomorph *-yéi* as do verbs inflected with basic aspect *-i* ‘INCMP’. Compare the *i*-final negative construction in example (415) below with the inflected non-past negative construction in (408) on page 250 above. In both cases the allomorph *-yéi* is used.

(415) *a du / bo worikre bo toi-yéi # /*
 1.SG PROX 1.SG.GEN hand top hold-NEG
 ‘My hands do not hold him.’ 814197.1

4.5.2 Emphatic -o

The emphatic suffix occurs in the constructions shown in Table 43.

Table 43. The emphatic suffix -o

Construction	Sequence	Notes
content question	-u/i-o '(IN)CMP-EMPH'	content question (with question word)
completive emphasis	-u-o 'CMP-EMPH'	emphasis (no question word)
imperative	-i-o 'INCMP-EMPH'	emphatic suffix optional
prohibitive	-i-o 'INCMP-EMPH'	emphatic suffix obligatory; with <i>ti</i> 'PROH'
polar question	-u/i-ò '(IN)CMP-EMPH\YN'	polar question
irrealis 2	-(many)-ō ' _-EMPH\IRR2'	conditional, hypothetical

The general function of this suffix is to emphasize the new or surprising nature of information, broadly construed, from the viewpoint of either the speaker or the hearer. Native speakers provide the following Indonesian description of the function of this suffix: “*tekanan tanda heran hal yang aneh terjadi*” (emphasizing surprise at the occurrence of a strange event). There is some overlap with mirativity (DeLancey 1997; Aikhenvald 2012), but I do not gloss this suffix as a mirative since its functions extend well beyond that of expressing new or surprising information. Previous work on mirativity in Papuan languages has emphasized its connection with evidentiality (San Roque & Loughnane 2012a; San Roque 2015). See also the Navajo polysemous marker *lá* that expresses mirativity, contrastive focus, and interrogativity (Palakurthy 2017).

As an indication of information unknown to the speaker, the suffix -o 'EMPH' is frequently used in both content and polar questions. Content questions are formed either with an interrogative pronoun and a verb, or with the pro-verb *ótror-* 'do what'; in both cases, the verb has a completive or incompletive suffix followed by the emphatic suffix.

This is illustrated with a completive verb in example (416), and an incompletive verb in example (417).

(416) *dwore b̂a = ta s-u-o* ,
 2S.POSS where = ABL take-CMP-EMPH
 ‘Where did you get yours?’ 80590.1

(417) *tròr-i-o*
 what.happen-INCMP-EMPH
 ‘What happens?’ 520177.1

Without a question word, completive emphatic verbs are simply emphatic, as shown in (418). This particular construction indicates mirativity, but it does not specify to whom or in what way the information is new or surprising.

(418) *dúke gwai f-u-o # /*
 bird body.hair be-CMP-EMPH
 ‘There were bird feathers!’ 507272.1

The suffix occurs in the same slot as the past tense marker *-e* ‘PST’, as can be seen by comparing example (418) above with the non-emphasized example in (419) below.

(419) *mader d̄yī f-u-e # /*
 M. person be-CMP-PST
 ‘He was a person from Mander.’ 51313.1

Incompletive emphatic verbs, in the absence of an interrogative pronoun, are interpreted as emphatic imperatives, as shown in (420).

(420) *de ta báje fwàre wōryu tro-i-rē tè-y-e #*
 2.PL two 1.SG.BEN bow string cut-INCMP-IRR1 descend-INCMP-EMPH
 ‘You two go down to cut a bow string for me!’ 511b103.1

Unlike imperatives, which are only incomplete and only marked in the verb morphology (§4.3.1), prohibitives are primarily marked with the pre-verbal auxiliary *tī* ‘PROH’ (§5.1.1) and occur with both incomplete verbs, as illustrated in (421), and complete verbs, as illustrated in (422). Emphatic *-o* ‘EMPH’ is obligatory with prohibitives.

- (421) *tī a kàrjer-u-o # /*
 PROH 1.SG leave-CMP-EMPH
 ‘Don’t leave me!’ 40620.1
- (422) *sete tī a èyi bia bwa-y-o # /*
 flashlight PROH 1.SG LOC do.INCMP thrust-INCMP-EMPH
 ‘Don’t shine the flashlight on me like this.’ 51372.1

4.5.3 Polar question marker /L/ tone

The /L/ tone suffix marks polar questions and occurs on the final syllable of both complete and incomplete verbs. It only associates with two suffixes: *-o* ‘EMPH’ and *-ro* ‘NPST’. On complete verbs, it only occurs with *-o* ‘EMPH’, as shown in examples (423) and (424).

- (423) *du sō kàrjer-u-ò , /*
 2.SG pig leave-CMP-EMPH\YN
 ‘Did you leave the pig behind?’ 520174.1
- (424) *d̄yī du bwàbwei , / kou bwo-w-ò # /*
 person PROX then bad become-CMP-EMPH\YN
 ‘Did this person become bad?’ 91255.1

Polar questions can be formed with several incomplete constructions. Most commonly, the /L/ tone suffix occurs on non-past *-ro* ‘NPST’, as shown in the non-past incomplete questions in (425) and (426) and the prospective question in (427).

- (425) *eya a fweyi bworyu-rò #*
 yes 1.SG again sit-NPST\YN
 ‘Yes, shall I sit down again?’ 920b2.1
- (426) *gwore du bwàbwei bwa-i-rò # /*
 crocodile PROX then thrust-INCMP-NPST\YN
 ‘Shall we shoot this crocodile?’ 81766.1
- (427) *du afre bwe-i-rà-rò # / bo worabror-u bo # /*
 2.SG know become-INCMP-PROSP-NPST\YN 1.SG.GEN think-NMLZ TOP
 ‘Do you want to know my thoughts?’ 803a128.1

In incomplete constructions where neither *-o* ‘EMPH’ nor *-ro* ‘NPST’ are part of the construction, *-o* ‘EMPH’ is added to the end of the verb, and /L/ tone associates with that suffix. For example, the polar question suffix occurs with incomplete *-i* and emphatic *-o*. Without the polar question suffix, the combination *-i* ‘INCMP’ + *-o* ‘EMPH’ is only used for imperatives and prohibitives (see Table 43 on page 252 above), but with the polar question suffix it forms the question counterpart to an incomplete declarative. This is shown in (428).

- (428) *gaharu d̄yi bwe-y-ò #*
 agarwood person become-INCMP-EMPH\YN
 ‘Are they agarwood people?’ 520231.1

This suffix can also be used with the non-future construction (§4.3.5), where it does not associate with the non-future suffix *-ri* ‘NFUT’ but requires addition of *-o* ‘EMPH’. This is illustrated in (429).

- (429) *yesus fe bwàbwei d̄yi kou bo o kou bwe-i-ri-ò* # /
 Jesus also then person bad TOP ALL bad become-INCMP-NFUT-EMPH\YN
 ‘Would Jesus take offense to bad people?’ 801b203.1

Negative polar questions are formed with the negative suffix *-yéi* ‘NEG’ and polar /L/ tone, which attaches to the emphatic suffix *-o* ‘EMPH’ that is not part of the declarative counterpart of this construction. The example in (430) shows a negative polar question with the negative suffix allomorph *-jéi*, which occurs after the vowels *yi* and *yu* (§4.5.1). (As intervocalic *i* and *u* are approximants (§2.2.5), the form of the allomorph is *-jéy* in this environment.)

- (430) *esi du bo bwàbwei togwryi-jéy-ò* # /
 here 2.SG TOP then embarrassed-NEG-EMPH\YN
 ‘And are you not now embarrassed?’ 803a120.1

4.5.4 *Irrealis* /^LH/ tone

This suffix has largely the same distribution in the verbal TAM paradigm as the polar question marker /L/ tone. Both suffixes occur on the final syllable of both completive and incompletive verbs and only associate with two suffixes: *-o* ‘EMPH’ and *-ro* ‘NPST’. On completive verbs, both suffixes only occur with *-o* ‘EMPH’, while on incompletive verbs they both occur with *-ro* ‘NPST’ if already present in the construction; otherwise, *-o* ‘EMPH’ is added to the end of the construction and the tonal suffix associates with it.

This suffix indicates one of several irrealis notions, depending on the construction in which it occurs. When it occurs with the emphatic suffix *-o* ‘EMPH’, it always receives a conditional or hypothetical interpretation, with both the completive construction and the non-future incomplete. An example of each is below, with surrounding context to make the conditional/hypothetical nature of the construction clear. Example (431) is an extract from a sermon that shows the conditional interpretation of the construction. The speaker, planning to draw a metaphorical connection between chicks hatching and people’s lives, lists two conditions that need to be true before a chick can fly.

- (431) a. *be bwàbwei / dèbi / ku krijor-u-ō* , /
 COORD then child egg split-CMP-EMPH\IRR2
 ‘If the chick hatched.’ 803b10.1
- b. *dèbi be tro-i afre bwo-w-ō* , /
 child TOP fly-INCMP know become-CMP-EMPH\IRR2
 ‘If the chick has learned how to fly,’ 803b11.1
- c. *wo fero tro-i-ro # /*
 3 then fly-INCMP-NPST
 ‘Then it flies.’ 803b12.1

The hypothetical interpretation of the construction is shown in example (432), which is an excerpt from a traditional story. In this excerpt, the storyteller is discussing the characteristics of the main protagonist. Here the storyteller presents a hypothetical scene in which sago is presented to the protagonist by women who had sung love songs about men while pounding the sago. The hypothetical situation is introduced with two hypothetical clauses in lines (a) and (b).

- (432) a. *fī tor-e eidar-i-ri-ō # /*
 sago pound-NFIN sing-INCMP-NFUT-EMPH\IRR2
 ‘Supposing they were pounding sago and singing.’ 808a100.1
- b. *bwàbwei , / eidar-u bwàbwei dū gi woke-i-ri-ō # /*
 then sing-NMLZ then man FOC like-INCMP-NFUT-EMPH\IRR2
 ‘Supposing the song was [about telling each other that] they liked men.’
 808a101.1
- c. *fe wo fe bwàbwei , / fī to-tor-i-ri bed-i-ri*
 also 3 also then sago CAUS-come-INCMP-NFUT say-INCMP-NFUT
 ‘And when they brought sago he would say.’ 808a102.1
- d. *ei # /*
 no
 ‘Oh no.’ 808a103.1
- e. *a du de fī dī-yéi # /*
 1.SG PROX 2.PL sago eat-NEG
 ‘I will not eat your sago.’ 808a104.1

When irrealis /^LH/ tone occurs with non-past *-ro* ‘NPST’, the interpretation is either conditional/hypothetical as with *-o* ‘EMPH’, or simply future time. An example of each of these is given below: conditional in (433), hypothetical in (434), and future time in (435).

- (433) a. *kòre fī ká bóre ,*
 underbrush go same be
 ‘It’s like going to the forest.’ 803b122.1
- b. *dia sù tro-byu-rō ,*
 2.SG.EMPH machete CAUS-be-NPST\IRR2
 ‘If you are carrying a machete.’ 803b123.1
- c. *dia bwàbwei kódor-i fro-i # /*
 2.SG.EMPH then clean-INCMP go-INCMP
 ‘You clear the path as you go along.’ 803b124.1

- (434) a. *du bwàbwei eigwre fwoyu rōu f-i-rō* ,
 2.SG then road intersection big be-INCMP-NPST\IRR2
 ‘Supposing you are walking on a road.’ 803b138.1
- b. *deke késai o fi-rō # /*
 younger.sibling small COM go-NPST\IRR2
 ‘Supposing you are walking with small children.’ 803b139.1
- (435) a. *ro dre=jè bwàbwei , / ou yuta-i fworì # /*
 then here=LOC then house stand.up-INCMP DES
 ‘Then houses should be built here.’ 804112.1
- b. *bo a du bwàbwei gwore fa-i-rō , /*
 COORD 1.SG PROX then crocodile hunt-INCMP-NPST\IRR2
 ‘And I will hunt crocodiles.’ 804113.1

This tonal suffix is glossed as ‘irrealis 2’ to distinguish it from the irrealis suffix *-rē* ‘IRR1’, which is used in purpose and counterfactual constructions (§4.3.6).

With the perfect, this construction indicates past-in-future time, as seen in (436), where the speaker is speaking about a time in the future when someone who was currently alive had passed away.

- (436) *trè béyi-jei-rō*
 carcass put-PRF-NPST\IRR2
 ‘The corpse will have been put out.’ 803b388.1

4.5.5 Non-finite *-ye*

The non-finite suffix *-ye* occurs on the non-final verb(s) of certain SVCs, its only function being to link the verbs in the construction. There are three allomorphs: *-e* occurs after consonant-final verb stems, *-je* occurs after verb stems ending with the vowels *yi* or

yu, and *-ye* occurs after verb stems ending with other vowels. Examples are given below:

(437) shows the allomorph *-e* in a caused motion SVC, (438) shows the allomorph *-je* in a motion SVC, and (439) shows the allomorph *-ye* in an aspectual SVC.

- (437) *twor-e to-tor-u-e # /*
 tie-NFIN CAUS-come-CMP-PST
 ‘He brought it tied up.’ 90429.1
- (438) *e dijai gwò / dobyu-je tèb-u-e # /*
 1.PL D. River INESS place.sideways-NFIN sleep-CMP-PST
 ‘We slept halfway up the Dijai River.’ 81718.1
- (439) *wo dū bo bwàbwei sòbite-ye f-u-e*
 3 man TOP then hunt-NFIN be-CMP-PST
 ‘And her husband was hunting.’ 41042.1

The suffix is labeled as ‘non-finite’ as the verb is not specified for any TAM categories, which it receives from the final inflected verb. Most verbs are otherwise obligatorily coded with a basic aspect suffix, the exception being verbs with a final high front vowel where there is no distinguishable incomplete suffix (see §4.6.2 below). The non-final environment of an SVC is the only context in which most verbs can occur with no specification for basic aspect. See §5.3.3 for further discussion the function of non-finite *-ye* ‘NFIN’ in SVCs.

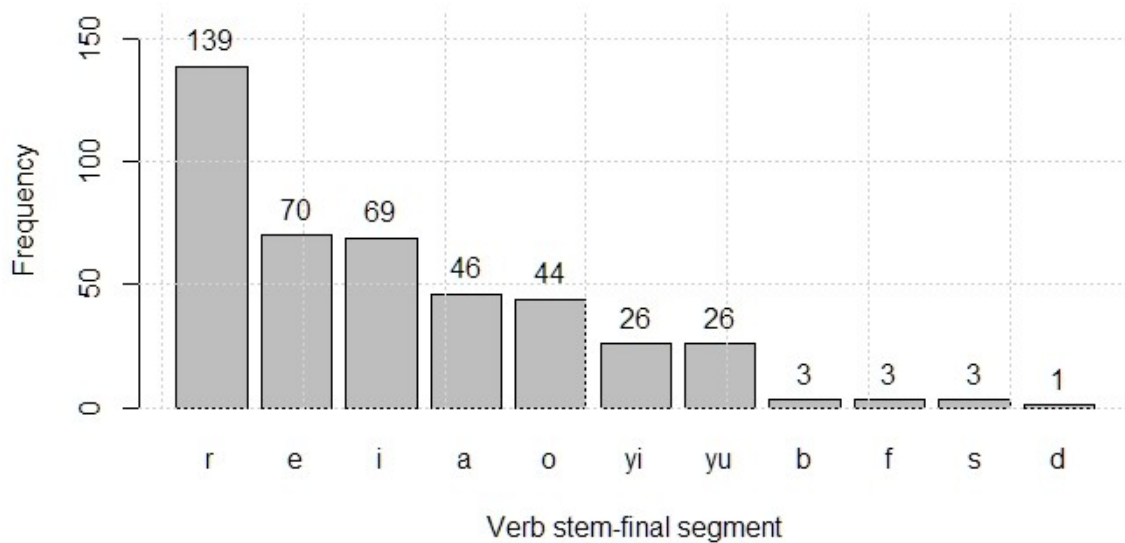
4.6 Morphophonological changes

To this point the discussion of verbal morphology has not taken into account morphophonological changes that occur with different verb stems. These include: changes

to verbs with a final rhotic, changes to verbs with a final high front vowel, and verbs with reduced inflectional possibilities in comparison with other verbs.

Most of the changes discussed here have to do with the final segments of verb stems. All words in Abawiri end in a vowel. All word classes other than verbs are largely monomorphemic; concomitantly, all non-verbal stems are vowel-final. Verb stems, by contrast, can end with either a consonant or a vowel. By far the most frequent final consonant is *r*, the only sonorant consonant, while a few verb stems end with the obstruents *b*, *f*, *s*, or *d*. Figure 23 shows the frequency of the final segments of verb stems in the lexicon.

Figure 23. Frequency of final segments of verb stems in the lexicon



Of the 430 verb stems in the lexicon, 139 (32%) end with *r*, making this by far the most commonly occurring final segment among verb stems. None of the other consonants is very frequently attested in this position, with a total of 10 verb stems ending with one of four obstruents. Also of note is that the vowel *u* is not attested verb stem-finally, although it is frequent stem-finally in other word classes (cf. §2.2.4).

The 139 verb stems that end with the rhotic have an inflectional possibility in the non-future incomplete that is not available for other verb stems (§4.6.1). The 121 verb stems ending in a high front vowel have different suffixing morphology from other verbs in several respects, including a different configuration of the completive suffix in completive constructions, an optional rather than obligatory incomplete suffix in incomplete constructions, and a suppletive form of the perfect suffix (§4.6.2). A subset of these verbs has an additional change not phonologically motivated: they never occur with the completive suffix (§4.6.3). There is another subset of verbs, most of which end with the vowel *a*, that occur with a limited set of the TAM suffixes and show other irregularities (§4.6.4). Several verbs have variable forms, with different stems in different TAM constructions (§4.6.5).

4.6.1 Verbs with final rhotic

Unlike verb stems ending with other final segments, verb stems that end with the rhotic do not take *-i* ‘INCOMP’ in certain incomplete constructions. These include the prospective construction (§4.3.3), as well as the purpose and counterfactual constructions

(§4.3.6). These are illustrated in turn with rhotic-final verb stems in examples (440), (441), and (442).

(440) *fweyi tor-à-ro*

FUT come-PROSP-NPST

‘I am going to come back.’

804240.1

(441) *àryi kwòryu duru begi bwó=jè frāre gwórker-ē-ri # /*

aunt K. PROX.EMPH FOC under=LOC snake strike-IRR1-NFUT

‘Supposing that Aunt Kworyu here strikes a snake down below [at the other side of the village].’

803b223.1

(442) *de bé=ta worabror-u fwòrjar-ē-di # /*

2.PL LOC=ABL think-NMLZ release-IRR1-PURP

‘In order that you would understand from it.’

803a74.1

In all three constructions incompletive *-i* ‘INCMP’ is absent. The final rhotic of the stem and the initial rhotic of the suffix are then adjacent, and they merge.

In the non-past incompletive construction (§4.3.2), verb stems ending with the rhotic can occur either with or without incompletive *-i* ‘INCMP’. These verbs thus have an inflectional choice not available for other verbs. This is illustrated with the verb *srór-* ‘command’ in examples (443) and (444), and the verb *tor-* ‘come’ in examples (445) and (446).

(443) *àrá gi bé srór-o ,*

God FOC LOC command-NPST

‘God will command in that direction.’

801b288.1

(444) *dèbi késai fe bwàbwei àrá gi srór-i-ro # /*

child small also then God FOC command-INCMP-NPST

‘God also commands small children.’

801c40.1

(445) *fe bìári gi ò bro-i tor-i-ro* , /
 also who FOC food search-INCMP come-INCMP-NPST
 ‘Who comes while searching for food?’ 520338.1

(446) *du bo bìari=jè wor-u o tor-o* #
 2.SG TOP what=for cry-NMLZ COM come-NPST
 ‘Why are you coming with crying?’ 81493.1

In this construction rhotic-final verbs occur more frequently with just the non-past suffix, and only occasionally with the incompletive suffix. There does not appear to be any semantic distinction between the two constructions.

The presence vs. absence of incompletive *-i* ‘INCMP’ on rhotic-final verbs is construction-specific. It is not a general phonological process that occurs between rhotic-final verb stems and rhotic-initial suffixes after *-i* ‘INCMP’. Evidence for this comes from the fact that in the non-future construction (§4.3.5), it is not possible to omit incompletive *-i* ‘INCMP’. This is illustrated in (447). If this were a phonological process, the expected form would be **worabror-i* ‘think-NFUT’; this is, however, not possible.

(447) *worabror-i-ri* (**worabror-i*)
 think-INCMP-NFUT
 ‘They think,’ 91275.1

4.6.2 Verbs with final high front vowel

All verbs that end with one of the high front vowels /i, y, i/ have distinct behavior with respect to the occurrence and phonological shape of the TAM suffixes, particularly the basic aspect suffixes. These are given in Table 44 and discussed further below.

Table 44. Allomorphs occurring after stem-final high front vowels

Suffix	Gloss	Allomorph	Comments
-u	‘CMP’	-j	only before -e ‘PST’
		-∅	before post-verbal auxiliary; for a small subclass of words, all completive constructions (§4.6.3)
-i	‘INCOMP’	-∅	most frequent
		-jo	optional emphatic incomplete
-o	‘EMPH’	-jo	homophonous with allomorph of incomplete
-e	‘HAB’	-je	

Each of these suffixes has an allomorph beginning with *j* that occurs only with verbs ending in a high front vowel. In addition, both the completive and incomplete aspect suffixes are absent in certain constructions.⁵ In past completive constructions, the completive suffix takes the form *-j* rather than *-u* after a high front vowel. Examples are given in (448), (449), and (450), illustrating a verb stem with each of the three high front vowels.

(448) *dwèyi dèbi fweyi woi i-j-e # /*
 sister child again whistle call-CMP-PST
 ‘Then his sister’s child whistled.’ 520318.1

(449) *bo bwàbwei , / tìa-u bo fero be=jè agwa ráfyu-j-e , /*
 COORD then cross-CMP TOP then LOC=LOC log.sound sway-CMP-PST
 ‘Then he crossed over and danced there at the log.’ 805221.1

5. I use the symbol ∅ in a non-technical way to represent the absence of a segmentally distinguishable basic aspect suffix. This does not imply a grammatically ‘real’ zero allomorph.

(450) *fe bu-ateyi-j-e* ,
 also down-watch-CMP-PST
 ‘And I looked down.’

804196.1

The past tense suffix *-e* ‘PST’ is in paradigmatic opposition to the auxiliary *bóre* ‘be’, yielding non-emphatic and emphatic renderings of the completive (§5.2.1). However, with verb stems ending in a high front vowel, the construction with *bóre* ‘be’ occurs without the completive allomorph *-j*, as this would yield a consonant-final word. Compare, for example, the regular construction in (451) with the same construction after a high front vowel in (452).

(451) *a tìa-u bóre # /*
 1.SG cross-CMP be
 ‘I crossed over.’

50227.1

(452) *duru bwàbwei , / ro dabyi bóre # /*
 PROX.EMPH then then talk be
 ‘This was told.’

808a323.1

In incomplete constructions, verbs ending in a high front vowel do not have a distinguishable incomplete suffix in most cases. These verbs simply occur without the incomplete suffix *-i* ‘INCMP’ as illustrated in the following examples: the imperative construction (453), the non-past construction (454), the prospective construction (455), the non-future construction (456), the purpose construction (457), and the durative construction (458).

(453) *o dabyi # /*
 ALL talk
 ‘Tell them.’

803a35.1

- (454) *ke-jè fege dabyi-ro # /*
 1.SG-EMPH cautiously talk-NPST
 ‘I will speak well.’ 803a43.1
- (455) *de bwàbwei àrà dèria dabyi-rà-ro # /*
 2.PL then God good talk-PROSP-NPST
 ‘And you are about to talk about God’s goodness.’ 801b62.1
- (456) *dìgwréjou ótrò dabyi-ri*
 the.elderly how talk-NFUT
 ‘How would old people talk?’ 801c42.1
- (457) *yurà be toi-rē g̀ỳu # /*
 fruit LOC put-IRR1 place
 ‘A container for putting fruit there.’ 9044.1
- (458) *fro-i òre bwàbwei / wo dwèyi dèbi tōride ou bé bworyu-òu bóre # /*
 go-INCMP SEQ then 3 sister child cover house LOC sit-DUR be
 ‘He went and then was sitting at his sister’s child’s sago-pounding house.’ 805106.1

The habitual suffix *-e* ‘HAB’ has an allomorph *-je* in this context, as shown in (459).

- (459) *a du yu-dabyi-je-ro # /*
 1.SG PROX up-talk-HAB-NPST
 ‘I pray.’ 803b373.1

With a post-verbal auxiliary, neither the completive nor the incompleted suffix occurs, and context disambiguates between completive and incompleted readings.

Examples are given in (460) and (461) below. Note that the form of the verb is identical, but the interpretation is completive in (460) but incompleted in (461).

- (460) *òru ta bo bworyu bóre # /*
 woman two TOP sit be
 ‘The two women sat there.’ 814279.1

(461) *e firore=gwre éide-ye bworyu bóre # /*
 1.PL carefully=AUG pinch-NFIN sit be
 ‘We are sitting and straddling [the branch] carefully.’ 520111.1

Incompletive *-i* ‘INCMP’ has an allomorph *-jo* that only occurs after verbs ending in a high front vowel. Unlike other verbs, where the incompletive suffix is obligatory in most constructions, the incompletive allomorph *-jo* is optional on these verbs and in the text corpus is present on a small fraction of the constructions where it would be possible, as opposed to the absence of the incompletive suffix, which is more common. Two pairs of examples are below, showing the verbs *ti* ‘put down’ in (462)-(463) and *fwoyu* ‘tie’ in (464)-(465); each is shown both with and without the optional incompletive suffix *-jo*.

(462) *du bwàbwei deke , / du=ta bwàbwei , / báí , /*
 PROX then younger.sibling PROX=ABL then across

s̀yíkúra bwe-i-rē ti-jo-ro # /
 sekolah become-INCMP-IRR1 put.down-INCMP-NPST
 ‘And here, young people step down from here to the other side to attend school.’ 803b169.1

(463) *kē ror-u bo , / ro fweyi ti-ro # /*
 finished be-CMP TOP then again put.down-NPST
 ‘After they are finished, they are placed.’ 511a506.1

(464) *kē ror-u bo , fwore fwoyu-jo-ro # /*
 finished be-CMP TOP ridgepole tie-INCMP-NPST
 ‘After finishing, the ridgepole is tied.’ 52235.1

(465) *kē ror-u bo , ou fwore fwoyu-ro # /*
 finished be-CMP TOP house ridgepole tie-NPST
 ‘After finishing, the house ridgepole is tied.’ 52240.1

Emphatic *-o* ‘EMPH’ also has an allomorph *-jo* after a high front vowel that is homophonous with incomplete *-jo* that also occurs only after high front vowels. An example is given in (466).

- (466) *tí dyi-jo # /*
 PROH knead-EMPH
 ‘Don’t knead them.’ 41024.1

Verbs that end with *yu* or *yi* take the allomorph *-jéi* of the negative suffix (§4.5.1). While the other morphophonological alternations discussed above include all high front vowels, the negative allomorph *-jéi* specifically occurs after *yi* and *yu* as opposed to *i*, which patterns like other segments. Examples (467) and (468) show the allomorph *-jéi* after stem-final *yi* and *yu*, respectively, while example (469), repeated from (415) above, shows the allomorph *-yéi* after stem-final *i*.

- (467) *a teryi-jéi # /*
 1.SG pass-NEG
 ‘I did not pass.’ 50263.1
- (468) *a fe óforyu-jéi # /*
 1.SG also say-NEG
 ‘I also will not talk.’ 803a117.1
- (469) *a du / bo worikre bo toi-yéi # /*
 1.SG PROX 1.SG.GEN hand top hold-NEG
 ‘My hands do not hold him.’ 814197.1

4.6.3 Verbs that do not take completive -u

A small subset of verbs ending in the high front vowel *i* have one exceptional pattern in addition to the ones discussed in §4.6.2. These verbs never occur with the completive suffix *-u* ‘CMP’; in narration of past events they are simply suffixed with the past tense marker *-e* ‘PST’. This is in contrast to other high vowel-final verbs that take the allomorph *-j* ‘CMP’ in the past completive (cf. examples (448)-(450) on page 266 above). Table 45 shows the verbs that do not take completive *-u* ‘CMP’.

Table 45. Verbs ending in a high front vowel that do not take the completive suffix

Verb	Gloss
<i>ádi</i>	‘read’
<i>fwādi</i>	‘rebuke’
<i>fíari</i>	‘play, laugh’
<i>trì</i>	‘clear’
<i>tri</i>	‘lean’
<i>twóti</i>	‘deceive’
<i>fwi</i>	‘draw water’

The past construction of three of these verbs is illustrated in examples (470)-(472). For comparison, example (473) shows the same construction for a verb not in this class.

(470) *du bo gwòke bwàbwei / fòike késai-ké gi ádi-e # /*
 PROX TOP just then short small-DIM FOC read-PST

‘And about this one, just a short portion was read.’

803a63.1

- (471) *tīe kore wo ta bwàbwei , / are fwādi-e # /*
 fish turtle(sp.) 3 two then RECP rebuke-PST
 ‘The fish and the turtle rebuked each other.’ 803a81.1
- (472) *d̄yī o bora fiari-e # /*
 person FOC ball play-PST
 ‘The people played football.’ 913b15.1
- (473) *d̄yī dre bo wo-ri fwoje wo-riai fwobi-j-e , /*
 person have TOP 3-REFL all 3-REFL take-CMP-PST
 ‘What belonged to the people, they all took it themselves.’ 40949.1

This set of words also takes the default form of the habitual suffix *-e* ‘HAB’ (§4.3.4) rather than the allomorph *-je* that occurs with other final high front vowels (§4.6.2). An example is given in (474).

- (474) *ke-jè báí yu-tri-e-ro ,*
 1.SG-EMPH across up-lean-HAB-NPST
 ‘I lean it sideways.’ 511a617.1

The inflectional distinctiveness of the previous two sets of verbs (verb stems that end with a rhotic and those that end in a high front vowel) is phonologically motivated and predictable based on the shape of the verb stem. The verbs in Table 45, however, do not form a phonologically motivated subset of verbs ending in a high front vowel. Their inflectional behavior is specific to this set of verb stems.

4.6.4 Verbs with low vowel

Certain verbs, most of which end with stem-final *a*, do not take most of the TAM suffixes discussed in this chapter. In most constructions they occur as an uninflected stem, although they do occur with non-past *-ro* ‘NPST’. A list of these verbs is given in Table 46.

Table 46. Minimally inflected verbs ending with a low vowel

Verb	Gloss
<i>bia</i>	‘do.INCMP’
<i>da</i>	‘pound sago’
<i>dia</i>	‘float’
<i>dijo</i>	‘go down’
<i>drabia</i>	‘work’
<i>fýidà</i>	‘collect sago’
<i>ká</i>	‘arrive’
<i>kāa</i>	‘break’
<i>rebia</i>	‘do like this’
<i>soyida</i>	‘hunt pigs with dogs’
<i>teira</i>	‘flow’
<i>trà</i>	‘PLACT’

Examples of the verb *bia* ‘do.INCMP’ are shown below: the uninflected stem (475) and with the non-past suffix *-ro* ‘NPST’ (476).

(475) *wori ro bia bóre # /*
 drop then do.INCMP be
 ‘The water continues like this.’

523100.1

(476) *krijor-i òre wobwe-i òre bia-ro # /*
 split-INCMP SEQ shape-INCMP SEQ do.INCMP-NPST
 ‘It is cut and then shaped like this.’ 511a423.1

The verb *trà* occurs as the second member of an aspectual SVC to indicate that the action of the first verb has multiple occurrences (§5.3.5.7). The second verb of SVCs carries the TAM inflection; because this verb belongs to this class of verbs, the TAM possibilities for the intransitive pluractional SVC are limited. An example is shown in (477).

(477) *tore bwàbwei bei fwāu du # / ou to-tor-i trà-ro # /*
 until then now evening PROX house PLACT-COME-INCMP PLACT-NPST
 ‘And now this afternoon we have all come back to our houses.’ 801b7.1

This example shows the pluractional SVC coding an event with perfect semantics. Most other second-position verbs in this context would be coded with the perfect suffix *-yi* ‘PRF’ (§4.4); however, that is not possible with this verb.

Not all verbs that end with a low vowel are limited in their inflectional possibilities. The limitation on inflection is thus not phonologically predictable. An example of a low vowel-final verb stem with full inflection, not part of this inflection class, is shown in (478).

(478) *eija gi to-tià-i-ri bóre ,*
 knee FOC PLACT-cross-INCMP-NFUT be
 ‘They would cross over on their knees.’ 507210.1

4.6.5 Variable verb stems

Several verb stems have different forms depending on the construction they occur in. Stem variation is frequent with perfect forms, which typically add a rhotic to the stem. These are shown in Table 47.

Table 47. Variable perfect verb stems

Stem	Perfect stem	Gloss
s-	sre	'take'
fro-	fr-	'go'
ádi	ádre	'read'
bed-	bedre	'say'
bòb-	bobre	'give'
bo-	bor-	'eat'
tèb-	tebre	'sleep'

For most of these verbs, the perfect stem is also used in the resultative/progressive SVC with *f-* 'be' (§5.3.5.1), which also expresses perfect-like semantics. The examples below illustrate this with the verb *ádi* 'read'. Example (479) shows the non-past construction with the default verb stem. The next two examples show the perfect stem, first with the perfect suffix (480), and then with the resultative/progressive SVC (481).

(479) *ke-jè bwàbwei / b̄yidiè eyi ádi-ro # /*
 1.SG-EMPH then sea language read-NPST
 'So I will read in Indonesian.' 801b176.1

(480) *bwàbwei Efesus duru bo a du ádre-yi-ro ,*
 then Ephesians PROX.EMPH TOP 1.SG PROX read-PRF-NPST
 'I have already read Ephesians.' 803b349.1

(481) *a fero fweyi àrá dabyigwa o ke-jè ádre f-u bo begi*
 1.SG then again God speech REL 1.SG-EMPH read.PRF be-CMP TOP DEM.FOC
fofweyi worabror-u dre-u bóre
 then think-NMLZ chase-CMP be
 'Then I considered God's Word that I had been reading.' 92510.6

Other variable forms among verbs in the lexicon do not form coherent groups like the perfect stems in Table 47. In general, the most frequent verbs tend to have more variable forms. The verb *s-* ‘take’ for example, has four stems. The stem *sai* is used instead of a suffixed negative form with *-yéi* ‘NEG’, as shown in (482). The perfect stem *sre* is used with certain SVCs and with the perfect suffix, as shown in (483). The stem *sa* is used with non-past *-ro* ‘NPST’, in certain SVCs, before the sequential marker *ðre* ‘SEQ’, and for prohibitives (but not imperatives), as shown in (484). Finally, the stem *s-* is used in all other constructions, including the imperative, as shown in (485).

- (482) *wodu boriwore bo sai # /*
 LOG B. TOP take.NEG
 “I will not marry a Boriwore (person).” 814287.1
- (483) *be ke-jè sre-yi-jéi # /*
 IMMED 1.SG-EMPH take-PRF-NEG
 ‘I have not taken (a wife).’ 801b131.1
- (484) *de ti gwa sa # /*
 2.PL PROH sound take
 ‘Don’t be loud [lit. don’t take sound].’ 511a351.1
- (485) *wo / wo dígò wo áje s-i # /*
 3 3 ax 3 ALL take-INCMP
 ‘Bring him his ax.’ 913e30.1

A list of variable verb stems beyond the perfect variable stems in Table 47 is given in Table 48. Variable stems include stems used only in negative, perfect, non-past, prohibitive, pluractional, and non-finite constructions. Several variants occur with both a certain TAM suffixing construction and in a restricted set of SVCs. Additionally, a few of the

variants are simply stylistic variants that can occur in the same constructions as the default form of the same verb.

Table 48. Variable verb stems

Verb	Gloss	Stem	Construction(s)
<i>s-</i>	‘take’	<i>s-</i>	default
		<i>sai</i>	negative
		<i>sre</i>	perfect, SVCs
		<i>sa</i>	non-past, sequential clauses, SVCs, prohibitives
<i>fro-</i>	‘go’	<i>fro-</i>	default
		<i>fr-</i>	perfect
		<i>fî</i>	non-past
		<i>fri</i>	non-finite, free variant of <i>fro-</i>
		<i>fror-</i>	free variant of <i>fro-</i>
<i>tèb-</i>	‘sleep’	<i>tèb-</i>	default
		<i>tebre</i>	perfect, SVCs
		<i>tî</i>	non-past
<i>f-</i>	‘be’	<i>f-</i>	default
		<i>fû</i>	free variant in completive only
<i>tîa-</i>	‘cross over’	<i>tîa-</i>	default
		<i>tîi</i>	non-past
<i>fwrer-</i>	‘enter’	<i>fwrer-</i>	default
		<i>fwra</i>	non-past
<i>gwrer-</i>	‘withdraw’	<i>gwrer-</i>	default
		<i>gwra</i>	non-past

Verb	Gloss	Stem	Construction(s)
<i>fwobyi</i>	‘get on canoe’	<i>fwobyi</i>	default
		<i>fubaryi</i>	pluractional
<i>krùjógwre-</i>	‘emerge’	<i>krùjógwre-</i>	default
		<i>gwrékari</i>	pluractional
<i>dabyi</i>	‘talk’	<i>dabyi</i>	default
		<i>fwojedabyi</i>	pluractional
<i>wofre-</i>	‘name’	<i>wofre-</i>	default
		<i>wofor-</i>	completive
<i>kèr-</i>	‘break’	<i>kèr-</i>	default
		<i>kīa</i>	non-past

4.7 Directional prefixes

Several languages in the Mamberamo region have directional morphology on the verb. The Lakes Plain language Sikaritai has at least five directional prefixes indicating roughly ‘down’, ‘from’, ‘there’, ‘up’, and ‘above’ (Martin 1986), while Iau does not appear to have directional marking on verbs (Bateman 1986). Among non-Lakes Plain languages in the area, Bauzi has five pre-verbal directional auxiliaries as well as two verbal suffixes indicating direction toward and away from the speaker (Briley 1976). Kwerba has several location and direction suffixes (de Vries & de Vries 1997), while Berik verb morphology indicates a two-way deictic distinction between near and far from speaker (Westrum 1988).

In Abawiri, there are three directional prefixes in the outermost prefix slot of the verb template (see Table 37 on page 220 above). The prefixes *bu-* ‘down’ (§4.7.1) and *yu-* ‘up’ (§4.7.2) are highly productive and occur freely with many verbs, while the prefix *ti-* ‘into’ (§4.7.3) is much more restricted, occurring only in a lexicalized construction with a few verbs.

4.7.1 *bu-* ‘down’

This prefix indicates direction down. It occurs with great frequency on the verb *tè-* ‘descend’, as shown in (486).

- (486) *fu diegwre bu-tè-w-e* ,
 canoe dock down-descend-CMP-PST
 ‘She went down to the canoe dock.’ 809230.1

This prefix also occurs with other verbs where an indication of downward direction is compatible with the semantics of the verb and the pragmatic context. Examples are shown in (487)-(490).

- (487) *du be bu-gwrór-yi-jéi* ,
 PROX LOC down-put.out-PRF-NEG
 ‘They have not been put out downwards here.’ 40968.1
- (488) *fí kre be bu-i-j-e* ,
 sago bone LOC down-call-CMP-PST
 ‘He shouted down at the sago place.’ 41050.1
- (489) *áje àre bu-kâr-u-e* ,
 ALL stairs down-throw-CMP-PST
 ‘She threw down the ladder to them.’ 814270.1

(490) *bo bu-ateyi-j-e* ,
 COORD down-watch-CMP-PST
 ‘She looked downwards.’ 81347.1

bu- ‘down’ occurs on the locational noun *gwájou* ‘side’, as shown in (491).

(491) *bu-gwájou = gwre fû-e* # /
 down-side = AUG be.CMP-PST
 ‘It was at the lowest part.’ 814116.1

In SVCs, the directional prefixes occur on the first verb in the sequence. This is illustrated in (492) and (493).

(492) *die dú begi eigwre fwoyu rōu gwò = jè bu-tror-e*
 water PROX DEM.FOC road intersection big INESS = LOC down-pour-NFIN
kàrjer-u-e # /
 leave-CMP-PST
 ‘He dumped out the water in the middle of the road.’ 913d44.1

(493) *fweyi fi kre bu-dre-i tè-w-e* # /
 again sago bone down-run-INCMP descend-CMP-PST
 ‘Then he ran down to the sago place.’ 41056.1

bu- ‘down’ is derived historically from the postposition *bwó* ‘under’ (§3.6.3.10). The relationship between the two can be seen by comparing the following two examples from the same text.

(494) *bu-toi-je kâr-i bóre* # /
 down-put-NFIN carry-INCMP be
 ‘They were insulting him downwards.’ 520258.1

(495) *bwó = ta toi-je kâr-i bóre* # /
 under = ABL put-NFIN carry-INCMP be
 ‘He was insulting them from below.’ 520381.1

4.7.2 *yu-* ‘up’

This prefix indicates direction up. It occurs with great frequency on the verb *tà-* ‘ascend’, forming an antonym pair with *bu-tè-* ‘down-descend’, as shown in (149).

- (496) *wo ta fweyi be=ta fori gwò yu-tà-u bóre # /*
 3 two again LOC=ABL sago.swamp INESS up-rise-CMP be
 ‘They two went up again to the middle of the sago swamp.’ 40820.1

This prefix also occurs with other verbs where an indication of upward direction is compatible with the semantics of the verb and the pragmatic context. Examples are shown in (497)-(500).

- (497) *bo krebou=jè yu-fwobi-je f-u-e # /*
 COORD swamp=LOC up-take-NFIN be-CMP-PST
 ‘She was gathering it up in the swamp.’ 50417.1

- (498) *bo drà eri du bo bwó=ta yu-tri-ro #*
 COORD arrow arrowhead PROX TOP under=ABL up-lean-NPST
 ‘These arrowheads are leaning vertically from the bottom upwards.’ 511a672.1

- (499) *òru ta áje yu-bed-u bóre #*
 woman two ALL up-say-CMP be
 ‘He talked upwards to the two women.’ 52087.1

- (500) *fwryu òre gwaituru yu-dwòror-u bóre #*
 pull.bow SEQ chest up-rotate-CMP be
 ‘He drew his bow and then turned his chest upwards.’ 805207.1

Like *bu-* ‘down’, *yu-* ‘up’ occurs in several related contexts. It occurs on adjectives, as shown in example (501), and on noun-verb idioms (§7.1.3), as shown in example (502).

The occurrence of the directional prefixes on non-verbs is not common.

(501) *e kweyo bo yu-fòike bwe-ye f-u-e # /*
 1.PL heart TOP up-short become-NFIN be-CMP-PST
 ‘We were frightened.’ 502181.1

(502) *e ta yu-sete bwa-i tà-i-ro # /*
 1.PL two up-flashlight thrust-INCMP rise-INCMP-NPST
 ‘We two went up shining the flashlight.’ 51317.1

In SVCs, *yu-* ‘up’ and *bu-* ‘down’ both occur as a prefix on the first verb, even in cases where the verb of motion is the second one in the construction. Example (503) is from a folktale. In the extract shown here, two crocodiles are biting each other in half. The SVCs in lines (b) and (c) describe two mirror actions that the crocodiles performed on each other: biting the head on the way up, and biting the buttocks on the way down.

(503) a. *tokwre duru bo bwàbwei bu-bijer-e fro-w-e # /*
 head PROX.EMPH TOP then down-bite-NFIN go-CMP-PST
 ‘They bit the head while going down.’ 812133.1

b. *òbia kre du bo tore yu-bijer-e fro-w-e # /*
 buttocks bone PROX TOP until up-bite-NFIN go-CMP-PST
 ‘They bit the buttocks while going up.’ 812134.1

The historical origin of this prefix is unclear. While *bu-* ‘down’ is transparently related to the postposition *bwó* ‘under’, *yu-* ‘up’ is not obviously related to the spatial antonym of *bwó* ‘under’, which is *wojo* ‘above’.

4.7.3 *ti-* ‘into’

This prefix only occurs with a few verb stems and indicates direction into an object. Examples are shown in (504), (505), and (506).

(504) *wo bo fi èbi ti-sa àre tè-u bóre # /*
 3 TOP sago young into-take SEQ descend-CMP be
 ‘She packed her leftover sago and went down’ 814186.1

(505) *be e ta ti-ate-i*
 COORD 1.PL two into-hear-INCMP
 ‘Let’s listen (to the recorded story).’ yaw13.1

(506) *dede wo-riai=jè ti-toi òre berue tore fro-u bóre ,*
 D. 3-REFL=for into-put SEQ SEQ CAUS go-CMP be
 ‘Dede filled a string bag for himself and then carried it.’ 40953.1

The form *ti-toi* ‘into-put’ has lexicalized into a verb stem meaning ‘to fill a string-bag with sago for a trip’. This verb stem can now have another directional prefix, as shown in

(507).

(507) *be bu-ti-toi-ri bóre # /*
 LOC down-into-put-NFUT be
 ‘He was packing it inside downwards.’ 90412.1

4.7.4 Discussion

The two primary directional prefixes in Abawiri are ‘up’ and ‘down’, in a language spoken in the flat, swampy lowlands far from any mountains. The semantics of the directionals are quite general – that is, an incline does not have to be very steep to be counted as ‘up’ or ‘down’. In conversation people typically refer to a location using one of the directionals even when it appears to me as the outsider that the location referred to is perfectly horizontal from the anchor point. At any given place, speakers are aware of their current vertical location relative to the nearest river, as well as to other points along the

river. In narratives about trekking through the lowlands, utterances like (508) and (509) below are frequent.

- (508) *wo ta fweyi be=ta fori gwò yu-tà-u bóre # /*
 3 two again LOC=ABL sago.swamp INESS up-rise-CMP be
 ‘They two went up again to the middle of the sago swamp.’ 40820.1
- (509) *be=ta dre bu-tè-w-e fe díbòke bau bra # /*
 LOC=ABL like.this down-descend-CMP-PST also D. edge downriver
 ‘From there we went down to the edge of the Diboke River.’ 5058.1

Additional formal devices frequently used for indication of vertical space include the pair of general postpositions, *bwó* ‘under’ and *wojo* ‘above’, the pair of postpositions related to rivers, *bra* ‘downriver’ and *jwa* ‘upriver’, and a set of motion verbs with various vertically oriented distinctions. Some of the motion verbs occur with the directional prefixes. These motion verbs are given in Table 49.

Table 49. Verbs of motion indicating vertical spatial orientation

Verb	Gloss
<i>(bu-)tè-</i>	‘descend’ (general)
<i>(yu-)tà-</i>	‘ascend’ (general)
<i>fì</i>	‘go’ (general verb of motion)
<i>bu-fì</i>	‘travel downriver in a canoe’
<i>yu-fì</i>	‘travel upriver in a canoe’
<i>(bu-)fisor-</i>	‘drift downriver in a canoe’
<i>dìjo</i>	‘go down’ (usually downriver in a canoe)
<i>(bu-)sýu</i>	‘walk downstream along a river’

Verb	Gloss
<i>fia-</i>	‘walk across flat land toward a destination lower in elevation than the current location’

See Palmer et al. (2017) on the mediated nature of the relationship between topography and spatial language.

4.8 Pluractional/causative prefixes

Abawiri has three derivational prefixes that indicate pluractionality and/or causation. The first is *to-*, which indicates either pluractionality or causation (§4.8.1). The second prefix is *sre-*, which also indicates either pluractionality or causation (§4.8.2). This prefix is probably grammaticalized from an SVC with *sre* ‘take.PRF’. The third prefix *gwa-* only marks pluractionality and is of unknown origin (§4.8.3).

The pluractional/causative prefixes occupy a slot immediately before the verb stem, after the directional prefixes, as seen in examples (510) and (511).

- (510) *wo ta bo òke fíari o bu-gwa-dwòr-e f-u-e #*
 3 two TOP just laugh COORD down-PLACT-turn-NFIN be-CMP-PST
 ‘The two of them were bending over laughing.’ 520295.1
- (511) *dre=ta fu yiku bo e dre=ta yu-to-fro-w-e , /*
 here=ABL canoe many TOP 1.PL here=ABL up-PLACT-go-CMP-PST
 ‘Many boats being from here, we went up from here.’ 81717.1

4.8.1 Pluractional/causative to-

As a marker of pluractionality, *to-* denotes that an action occurs multiple times, as shown in (512) and (513).

(512) *e dijei to-fwà-i # /*
 1.PL nest PLACT-scrape-INCMP
 ‘Let’s do some digging for scrubfowl nests.’ 50414.1

(513) *bo d̄yi bo bwàbwei to-tor-u bóre # /*
 COORD person TOP then PLACT-come-CMP be
 ‘The people came.’ 808a337.1

In many cases both the entities and the events coded by the clause are multiple, making it impossible to tell simply from inspection of forms whether *to-* indicates verbal pluractionality or nominal plurality. This is the case in example (514) below. Line (a) has the nominal quantifier *fukari* ‘many’ indicating nominal plurality; the second line has the prefix *to-* and could potentially be interpreted either with nominal or verbal plurality.⁶

(514) a. *d̄yi begi wodyi-rē tore fr̄i-je f-u bo fukàrì sēi*
 person DEM.FOC spy-IRR1 PLACT go-NFIN be-CMP TOP all sago.leaf.tip
f-u bóre # /
 be-CMP be
 ‘All the people who went spying wore leaves.’ 507110.1

6. A recurrent problem in using Indonesian as the language to which texts are translated in fieldwork is that the language has few obligatory categories that must be expressed grammatically. See Gil (1994; 2001) on Riau Indonesian, Connors, Bowden & Gil (2015) on Jakarta Indonesian, and Fields (2010) on Colloquial Papuan Indonesian. Because of this fact about Indonesian, one often finds identical Indonesian translations of several different vernacular forms. The translation given for example (514b) was simply *mereka datang* ‘they come’.

b. *bo to-tor-i-ri bóre # /*
 COORD PLACT-COME-INCMP-NFUT be
 ‘They came.’ 507111.1

Another example of this frequent ambiguity is seen in example (515) below. Here, the Indonesian translation included the nominal quantifier *banyak* ‘many’ to convey the sense of *to-* ‘PLACT’.

(515) *bwó=ta , / to-tà-i-ri / fiare sō # /*
 under = ABL PLACT-rise-INCMP-NFUT cassowary pig
 ‘They would come up from below, (many) cassowaries and pigs.’ 4098.1

Crucially, the pluractional prefix can occur with a singular agent who engages in the action multiple times. Thus plurality of action rather than plurality of participants is in view in examples like (516) and (517) below.

(516) *du òke yure to-tro-i # /*
 2.SG just tree PLACT-cut-INCMP
 ‘You just keep cutting branches.’ 52098.1

(517) *ya / du bo frèi bwe-ye d̄yi eikare*
 yes 2.SG TOP demon become-NFIN person backbone

to-tà-i-ro # /
 PLACT-rise-INCMP-NPST
 ‘Yes, you become a demon and go up along people’s backs.’ 511b68.1

As a causative marker, the prefix *to-* is a valency increasing device that adds an agent to the semantics of the verb. The agent causes the patient to perform the action. Examples are shown in (518) and (519); see the discussion of the syntax of causatives in §6.7.3.

(518) *dèbi to-tor-i* # /
 child CAUS-come-INCMP
 ‘Bring the child.’ 50953.1

(519) *bwó=ta to-tâ-w-e* , /
 under = ABL CAUS-rise-CMP-PST
 ‘They are carried up from below.’ 5238.1

As a derivational prefix, *to-* occurs with only a few verb roots, nine in the corpus.

Table 50 shows the distribution of causative *to-* and pluractional *to-* by verb stem.

Table 50. Pluractional/causative *to-* by verb stem

Verb	Gloss	<i>to-</i> ‘PLACT’	<i>to-</i> ‘CAUS’
<i>fro-</i>	‘go’	‘PLACT-go’	‘carry’
<i>dòr-</i>	‘go’		‘deliver’
<i>tor-</i>	‘come’	‘PLACT-come’	‘bring’
<i>tìà-</i>	‘cross’	‘PLACT-cross’	
<i>tâ-</i>	‘ascend’	‘PLACT-ascend’	‘carry up’
<i>tè-</i>	‘descend’	‘PLACT-descend’	‘carry down’
<i>fwà-</i>	‘scrape’	‘PLACT-scrape’	
<i>bar-</i>	‘pound.sago’	‘PLACT-pound.sago’	
<i>tro-</i>	‘cut’	‘PLACT-cut’	

Pluractional *to-* occurs with eight verb stems, while causative *to-* occurs with only five. The four most frequent motion verbs occur with both pluractional and causative readings of this prefix. These are illustrated below. First, the verb *fro-* ‘go’ occurs with both pluractional and causative readings of *to-*, as shown in (520) and (521).

(520) *fiti fwobyu òre to-fro-i-ri bóre # /*
 basket carry.basket SEQ PLACT-go-INCMP-NFUT be
 ‘Then they took their baskets and went.’ 507254.1

(521) *bo òru bo two twōryi bo sō bo gwa ker-i*
 COORD woman TOP immediately good.man TOP pig TOP in.middle break-INCMP
òre berue òru bo two to-fro-u bóre # /
 SEQ SEQ woman TOP immediately CAUS-go-CMP be
 ‘Then the good guy split the pig in two and the woman immediately carried it.’
 80575.1

Second, the verb *tor-* ‘come’ occurs with both pluractional and causative readings of *to-*, as shown in (522) and (523), respectively.

(522) *d̄yi bìári begi woro gwájou to-tor-u bóre # /*
 person who FOC back side PLACT-come-CMP be
 ‘People like that will come afterwards.’ 808a302.1

(523) *fu furku to-tor-u bóre fwau èyi # /*
 canoe whole CAUS-come-CMP be F. LOC
 ‘He brought him by airplane, to Fuau.’ 40318.1

Third, the verb *tà-* ‘ascend’ occurs with both pluractional and causative readings of *to-*, as shown in (524) and (525), respectively.

(524) *bwó=ta , / to-tà-i-ri / fiare sō # /*
 under = ABL PLACT-rise-INCMP-NFUT cassowary pig
 ‘They would come up from below, cassowaries and pigs.’ 4098.1

(525) *sa àre to-tà-i àre berue dyiryi-j-e # /*
 take SEQ CAUS-rise-INCMP SEQ SEQ ask-CMP-PST
 ‘He took it and then carried it up and then asked.’ 51228.1

Finally, the verb *tè-* ‘descend’ occurs with both pluractional and causative readings of *to-*, as shown in (526) and (527), respectively.

(526) (*dworu*) *dworu* *jwa=ta* ***to-tè-w-e*** # /
 Mamberamo Mamberamo upriver = ABL PLACT-descend-CMP-PST
 ‘They came down from the upper portion of the Mamberamo River.’ 808a338.1

(527) *àre* ***to-tè-i-ri*** , /
 stairs CAUS-descend-INCMP-NFUT
 ‘He would carry it down the ladder.’ 90418.1

An allomorph of the prefix, occurring with two verb stems, is *tro-*. With the stem *byu* ‘be’, the allomorph indicates either pluractionality, as shown in (528), or causation, as shown in (529).

(528) *be=jè* *bo* *ākare* ***tro-byu-ro***
 LOC=LOC TOP enduring PLACT-be-NPST
 ‘At that place we live forever.’ 9164.1

(529) *dèbi* *du* *die* ***tro-byu-ro*** # /
 child PROX water CAUS-be-NPST
 ‘This child is holding water.’ 8161.1

With the stem *f-* ‘be’, the allomorph only indicates causation, as shown in (530).

(530) *òru* *bo* *firi* *gi* ***tro-f-u-e*** #
 woman TOP plate FOC CAUS-be-CMP-PST
 ‘The woman held a plate.’ 903a16.1

Clues to the diachronic origin of this pluractional/causative prefix come from two homophonous SVCs. The first, from *tor-e* ‘come-NFIN’, indicates pluractionality (§5.3.5.8), while the second, from *toi òre* ‘hold SEQ’, indicates caused or accompanied motion (§5.3.5.9). Both of these homophonous forms underwent phonological erosion and became prefixes on the verb, resulting in a single polysemous form *to-* that is used to indicate both pluractionality and causation.

Among other Lakes Plain languages, Obokuitai has a derivational causative prefix *ke-* that occurs immediately before the verb stem (Jenison 1995). To my knowledge no pluractionality is described for other Lakes Plain languages, or more broadly, for other Mamberamo-area languages. However, the available descriptions are few and mostly quite brief. Further, most of them were published before or shortly after the term was first coined for Chadic languages (Newman 1990), and long before pluractionality became a topic of broad interest in linguistics (Wood 2007; Newman 2012; Lee 2016). Auye, a Paniai Lakes language in the Trans New Guinea family, located just to the west of the Mamberamo River Basin, is described as having pluractional suffixation on the verb (Moxness 2011).

The World Lexicon of Grammaticalization, second edition (Kuteva et al. 2019) does not list either pluractionality or causativity as possible grammaticalization pathways for COME. However, included in the grammaticalization pathways for GO are developments into durative or continuous aspect markers. It is possible that the SVC with *tor-e* ‘come-NFIN’ developed along a similar pathway, first as a continuous and then as a pluractional. TAKE, HOLD is listed as a source for causative markers in several languages (Kuteva et al. 2019).

In Abawiri, pluractional/causative polysemy has developed twice, with two separate prefixes. Cross-linguistically, however, causative/pluractional polysemy does not appear to be common. In their paper on the typology of causatives, Nedjalkov & Silnitsky (1973: 20) list plurality of objects as one of the extensions of causative morphology and suggest that iterativity is sometimes involved as well. They cite examples of causative morphemes used to express distributivity in Shoshone and Miwok, and iterativity in Abkhaz and Georgian.

As discussed below, the pluractional use of the Abawiri causative morphemes is iterative rather than distributive, focusing on repeated actions indicated by the verb rather than multiplicity of an argument of the verb.

4.8.2 Pluractional/causative *sre-*

This derivational prefix, like the prefix *to-* (§4.8.1), indicates both pluractionality and causation. Its occurrence, however, is limited to four verb stems, each of which occurs only with either the pluractional or causative. These are shown in Table 51.

Table 51. Pluractional/causative *sre-* by verb stem

Verb	Gloss	<i>sre-</i> ‘PLACT’	<i>sre-</i> ‘CAUS’
<i>byu</i>	‘be’		‘determine’
<i>f-</i>	‘be’	‘PLACT-be’	
<i>kâr-</i>	‘extend’	‘sway, dance’	
<i>tòi</i>	‘take’	‘PLACT-take’	

As can be seen from the table, the semantics of the derived forms are in some cases not predictable from the sum of their parts. The derived form *sre-kâr-* ‘sway, dance’, for example, has as its root the verb *kâr-* ‘extend’, which on its own is used to refer to horizontal movement away from a deictic center. With the pluractional prefix, the derived form refers to iterative horizontal movement, and thus dancing. Each of the derived verbs in Table 51 is illustrated below: *sre-byu* ‘determine’ in (531), *sre-f-* ‘PLACT-be’ in (532), *sre-kâr-* ‘sway, dance’ in (533), and *sre-tòi* ‘PLACT.take’ in (534).

- (531) *gwari bo àrà wo-ri sre-byu-ro*
 day TOP God 3-REFL CAUS-be-NPST
 ‘God himself has determined the day.’ r1914.1
- (532) *begi bwàbwei tore sre-fù-o # /*
 DEM.FOC then CAUS PLACT-be-EMPH
 ‘They are the ones that will carry (the work).’ 804211.1
- (533) *deyifwai wo-ri bo bwàbwei / yure ogweyi begi / bé*
 D. 3-REFL TOP then tree edge FOC LOC

sre-kàr-i-ri bóre # /
 PLACT-extend-INCMP-NFUT be
 ‘Deyifwai himself was swaying on a stump.’ 808a155.1
- (534) *fwàre sre-tòì*
 bow PLACT-take
 ‘Take each of the bows.’ 50733.1

4.8.3 Pluractional *gwa-*

The derivational prefix *gwa-* ‘PLACT’ indicates multiplicity of action. Pluractionality indicated by *gwa-* ‘PLACT’ can involve multiple semantic agents, as shown in (535) and (536), or a single agent who performs an action multiple times, as shown in (537) and (538).

- (535) *bo two d̄yì srì gi be gwa-krùjógwro-w-e # /*
 COORD immediately person platform FOC LOC PLACT-emerge-CMP-PST
 ‘After that, immediately they came out at a person’s platform.’ 4089.1
- (536) *wo ta bo òke f̄iari o bu-gwa-dwòr-e f-u-e #*
 3 two TOP just laugh COORD down-PLACT-turn-NFIN be-CMP-PST
 ‘The two of them were bending over laughing.’ 520295.1

(537) *korugwre yu-fwar-i àre berue ou sòri gwa-trì-e #*
 morning up-depart-INCMP SEQ SEQ house earth PLACT-clear-PST
 ‘In the morning he went up and cleared a place for building a house.’ 52044.1

(538) (*gwa-*) *d̄yi gwa-dri-ri d̄yi gi toi-ri bo # /*
 PLACT person PLACT-itch-NFUT person FOC hold-NFUT TOP
 ‘A person would get itchy, if the person touched it.’ 803a197.1

Repetition of action, or iterativity, is the primary sense of this prefix as is clear in example (539).

(539) *gwore be=jè gwa-gwórker-i òr-u-e ,*
 crocodile LOC=LOC PLACT-strike-INCMP AUX-CMP-PST
 ‘We struck the crocodile over and over there.’ 81780.1

More frequent than its occurrence on single verbs, as shown in the above examples, *gwa-* ‘PLACT’ occurs on the second verb in an SVC, which is *ber-* ‘do’ (*bia* in the incompletive). The first verb carries the semantic content, while the second verb serves as the host for the pluractional prefix and the TAM suffixes. Examples of this construction are given in (540); see §5.3.5.6 for further discussion.

(540) *jeria ādri gwa-ber-u-e ,*
 matoa.tree search PLACT-do-CMP-PST
 ‘They went looking for *matoa* trees.’ 4073.1

4.9 The visual evidential *ā-*

Evidentiality as a grammatical category is an areal feature of a portion of Highlands New Guinea (San Roque & Loughnane 2012a; San Roque & Loughnane 2012b). Languages of the New Guinea Highlands evidentiality area have complex evidential systems, including

languages with five or more formal distinctions in information source. However, evidentiality has not previously been described in the languages of the Mamberamo.

Abawiri evidential marking consists of a single prefix *ā-* ‘VIS’, a direct evidential indicating that knowledge of the event was obtained by visual observation. In example (199) below, Agustina is telling a story about herself and a friend who were chased by a demon in the forest. She is interrupted by Yuli in line (b), where he asks what they saw. In line (c) she responds, stating what happened, and adding the evidential prefix *ā-* ‘VIS’ on the main verb indicating that they saw this taking place.

- (541) a. A: *e ta du bo ro dre-i fro-u bóre #*
 1.PL two PROX TOP then run-INCMP go-CMP be
 ‘We two then ran.’ 502146.1
- b. Y: *úbìari àryu abro-w-o #*
 what eye perceive-CMP-EMPH
 ‘What did you see?’ 502147.1
- c. A: *bo / òbia ka sorikei rōu=gwre du begi e-jè*
 COORD buttocks same red big=AUG PROX FOC 1.PL-EMPH
ā-tè-u bóre # /
 VIS-descend-CMP be
 ‘We saw that same large, red buttocks coming down.’ 502148.1

A further example from later in the same story is shown in (542) below. As Agustina and her friend emerged running from the forest, they came upon a group of women splitting wood. The group of women saw them coming and asked them what was wrong. The multi-perspective event, with the two main protagonists running and the group of

women watching the running, is coded with the verb *tor-* ‘come’ and the visual evidential in line (b).

(542) a. *dre-i fia-u bo , / òru d̄yrou bo gwò=jè bu gyu*
 run-INCMP descend-CMP TOP woman many TOP INESS=LOC firewood split

gwa-ber-u bóre # /
 PLACT-do-CMP be

‘When we ran down, many women were splitting wood there in the middle.’

502190.1

b. *bu gyu gwa-ber-u bo , / e du gi ā-tor-u bo , /*
 firewood split PLACT-do-CMP TOP 1.PL PROX FOC VIS-come-CMP TOP

ei / deke ta du tròr-yi-ro # /
 EXCL younger.sibling two PROX what.happen-PRF-NPST

‘When they split wood, as they watched us come, "Hey, what has happened to these two children?"’

502191.1

A final example is shown in (543) below. In this excerpt from a story about an inter-tribal battle, the spies are just returning from the enemy camp. Those who stayed behind saw them coming, then got up and began to dance.

(543) a. *d̄yi begi wodyi-rē tore fr̄i-je f-u bo fukàrì sēi f-u*
 person DEM.FOC spy-IRR1 PLACT go-NFIN be-CMP TOP all sago.leaf.tip be-CMP

bóre # /
 be

‘All the people who went spying wore leaves.’

507110.1

b. *bo to-tor-i-ri bóre # /*
 COORD PLACT-come-INCMP-NFUT be

‘They came.’

507111.1

c. *bo dū begi ou bworyu f-i du ā-tor-i-ri , /*
 COORD man DEM.FOC house sit be-INCMP PROX VIS-come-INCMP-NFUT

‘The men staying in the house saw them coming.’

507113.1

- d. *oi* # /
oh
'Oh.' 507114.1
- e. *yuta-i* *òre wotrór-i-ri* *bóre* # /
stand.up-INCMP SEQ dance-INCMP-NFUT be
'They stood up and then danced and sang.' 507115.1

The WALS chapter on evidentials distinguishes between direct evidentials, indicating sensory evidence, and indirect evidentials, indicating evidence not obtained directly (de Haan 2013). In the 418-language sample, all languages fall into one of three categories: no grammatical evidentials, only indirect evidentials, and both direct and indirect evidentials. “There are no languages in the sample that have grammaticalized direct evidentials, but no grammaticalized indirect evidentials” (de Haan 2013). Abawiri, in contrast to all the languages in this sample, has a single grammaticalized direct evidential but no indirect evidentials. A few of the Highlands New Guinea also have only direct evidentials, although in every case there are multiple direct evidentials (San Roque & Loughnane 2012a).

Many Abawiri verbs of perception and cognition begin with /a/, as does the word *aryu* ‘eye’. While it is too early to postulate a historical pathway for the development of the visual evidential, its development is likely tied to the fact that verbs of perception and cognition also begin with the low vowel, possibly derived historically from *aryu* ‘eye’. These verbs are given in Table 52.

Table 52. Verbs of perception and cognition with initial /a/

Verb	Gloss
<i>abre-</i>	‘perceive’
<i>āde-</i>	‘view’
<i>ateyi</i>	‘watch’
<i>ádi</i>	‘read’
<i>ate-</i>	‘hear’
<i>ādri</i>	‘search’
<i>afre</i>	‘know’
<i>àidór-</i>	‘be confused’

4.10 Chapter summary

Inflectional morphology on the Abawiri verb includes suffixes indicating TAM categories, as well as prefixes indicating other categories including direction, pluractionality, causation, and evidentiality. The most basic TAM distinction, coded with three suffixes in a slot closest to the verb stem, is a three-way aspectual distinction between completive, incompletive, and perfect. The completive is limited to past tense events, while the incompletive can occur with any time reference including past, present, and future. The completive and incompletive suffixes co-occur with largely different sets of TAM suffixes, while the perfect takes a subset of the incompletive suffixes. Tense is coded by means of several suffixes after the basic aspect suffixes: a past tense suffix with the completive, and a non-past tense suffix and a non-future suffix with the incompletive. Irrealis modality is

indicated with two suffixes used in different irrealis constructions: one for purpose constructions and counterfactuals, and the other for future time, conditionals, and hypotheticals. Additional TAM specifications in the incomplete include prospective, habitual, and durative. An emphatic suffix is in complementary distribution with the past tense suffix in completive constructions and the non-past tense suffix in incomplete constructions, where it is used for emphasis. This suffix, along with the non-past tense suffix, is the segmental material with which the two tonal suffixes associate: the polar question marker and the irrealis marker. The negative suffix has three morphologically conditioned allomorphs, each of which occurs in a specific set of TAM constructions. Additional suffixing morphology includes the non-finite suffix used in SVCs.

Various morphophonological changes occur with the TAM suffixes, most of which are conditioned by the final segment of the verb stem. In non-past constructions, verb stems with a final rhotic can occur with or without incomplete basic aspect marking, an alternation not possible with other verb stems. Verb stems ending with any of the three high front vowels *i*, *yi*, *yu* have a different allomorph of the completive suffix; a subset of these do not take the completive suffix at all. These verbs do not take the incomplete suffix, which is a high front vowel *-i* 'INCMP'; further, various other suffixes in incomplete constructions have separate allomorphs with these verb stems. A subset of verbs, most of which end with a low vowel, receives a highly restricted set of TAM suffixes, in most cases being limited to the non-past suffix. Variable verb stems include a set of perfect verb

stems; additional variation in verb stems is found among the most frequently occurring verbs.

Three directional prefixes indicate direction ‘down’, ‘up’, and ‘into’; the prefix indicating ‘into’ is highly restricted and is limited to a few lexicalized expressions. The prefixes indicating ‘down’ and ‘up’, by contrast, occur freely on verbs in any semantically and pragmatically appropriate context. In addition to the vertically oriented directional prefixes, Abawiri has a set of vertically oriented motion verbs, some of which are oriented toward rivers; e.g. ‘upriver’ and ‘downriver’. The large amount of grammatical material for coding vertical space is remarkable given the flat terrain in which the language is spoken.

Three prefixes indicate pluractionality and/or causation. Two of the prefixes can be used to indicate both. The first is the result of two separate grammaticalization pathways, one with ‘hold’ and one with ‘come’, which eroded phonologically into homophonous prefix forms. It is not clear how the second pluractional/causative prefix, from the perfect form of the verb ‘take’, developed both pluractional and causative functions. A third prefix indicates only pluractionality.

Abawiri has a single evidential prefix *ā-* ‘vis’ that indicates visual evidence. This is the only known grammaticalized evidential in the Mamberamo area.

Chapter 5 Verb phrases

While the previous chapter discussed morphological material that is tightly integrated with the verb stem, the current chapter presents additional, less tightly integrated material in the verb complex. This includes constructions with pre-verbal auxiliaries (§5.1) and post-verbal auxiliaries (§5.2), as well as serial verb constructions (SVCs, §5.3). The chapter summary is given in §5.4.

5.1 Pre-verbal auxiliaries

Pre-verbal auxiliaries in Abawiri are uninflected grammatical forms that occur before the lexical verb or SVC and have a function connected to the verb. Pre-verbal auxiliaries do not necessarily occur immediately adjacent to the verb, and some have free position in the clause before the verb. This is in contrast to the post-verbal auxiliaries, which are more tightly integrated with the verb, occurring immediately after the verb and in complementary distribution with a subset of the TAM suffixes.

Pre-verbal auxiliaries encode a variety of TAM categories. Three forms encode illocutionary force: prohibitive *tí* ‘PROH’ (§5.1.1), jussive *kéto* ‘must’ (§5.1.2), and imperative *sira* ‘please’ (§5.1.3). Three additional auxiliaries are related to aspect: *di* ‘transform’, which indicates a change of state (§5.1.4), *tore* ‘until’, which indicates the goal or endpoint of a state of affairs (§5.1.5), and immediate *be* ‘IMMED’, which anchors the clause temporally (§5.1.6).

5.1.1 Prohibitive *ti*

This pre-verbal auxiliary combines with imperative inflection to form a negative imperative. While the emphatic suffix *-o* ‘EMPH’ is optional in the imperative (§4.5.2), in most cases it is obligatory in the prohibitive. Examples are given in (544) and (545).

(544) *ti fa-y-o # /*
PROH return-INCMP-EMPH
‘Don’t go back.’ 808a208.1

(545) *bo ti be ft-o #*
COORD PROH LOC go.INCMP-EMPH
‘But don’t go there.’ 920a7.1

Emphatic *-o* ‘EMPH’ is absent in one set of verbs, and optional in another, discussed in turn here. This suffix is not present in the prohibitive with minimally inflected verbs ending with a low vowel (§4.6.4), as shown in example (546).

(546) *ti kwo bia # /*
PROH badly do.INCMP
‘Don’t do something wrong.’ 507145.1

Emphatic *-o* ‘EMPH’ is optional with certain variable verb stems (§4.6.5) such as *sa* ‘take’, which is used for prohibitives and a few other constructions, but not the imperative, where a different verb stem is used. Examples (547) and (548) show the presence vs. absence of emphatic *-o* ‘EMPH’ with this variable verb stem.

(547) *fwòu bio ti sa-o # /*
characteristic other PROH take-EMPH
‘Do not take on other character.’ 803b432.1

(548) *ti bwàbwei tīe worabrɔr-u # / bo ti sa # /*
 PROH then fish think-NMLZ TOP PROH take
 ‘Do not take on the character of the fish.’ 803b145.1

Like the imperative construction, the prohibitive can be used not only with second person referents, but with first and third person referents as well. With first person plural referents the construction has a cohortative interpretation, as shown in (549), while with third person referents it has a jussive interpretation, as shown in (550).

(549) *e ti fī-o # /*
 1.PL PROH go-EMPH
 ‘Let’s not go.’ 91278.1

(550) *masyarakat ti kra bwrìɔr-u-o # /*
 people PROH pen make-CMP-EMPH
 ‘The people must not make a pen.’ 80426.1

The position of *ti* ‘PROH’ in the clause is variable. When there is one referring expression in the clause, *ti* ‘PROH’ occurs either before it, as shown in example (551), where it comes before the patient *a* ‘1.SG’, or after it, as shown in example (552), where it comes after the patient *deke bra* ‘the young people downriver’. (The sequence *worikre èror-* ‘hand release’ is a noun-verb idiom; see §7.1.3.)

(551) *ti a kàrjer-u-o # /*
 PROH 1.SG leave-CMP-EMPH
 “‘Don’t leave me!’” 40620.1

(552) *deke bra wo fe ti worikre èror-u-o # /*
 younger.sibling downriver 3 also PROH hand release-CMP-EMPH
 ‘Don’t let go of the hands of the young people downriver.’ 804295.1

When there are two referring expressions in the clause, *ti* ‘PROH’ always occurs between the two, regardless of the semantic roles of the referring expressions. Example (10) has APV word order with *ti* ‘PROH’ between the two referring expressions, while example (11) has PAV word order, also with *ti* ‘PROH’ between the two referring expressions.

(553) *masyarakat ti kra bwrìor-u-o # /*
 people PROH pen make-CMP-EMPH
 ‘The people must not make a pen.’ 80426.1

(554) *ro bwàbwei , / (wo) wo dī ti bwàbwei bio gi kwrōrja sa # /*
 then then 3 3 food PROH then other FOC thief take
 ‘And others must not steal their food.’ 91117.1

Prohibitive *ti* ‘PROH’ also occurs between referring expressions with semantic roles other than agent and patient, such as an instrument and a location in example (555).

(555) *sete ti a èyi bia bwa-y-o # /*
 flashlight PROH 1.SG LOC do.INCMP thrust-INCMP-EMPH
 ‘Don’t shine the flashlight on me like this.’ 51372.1

5.1.2 Jussive kéto

The jussive auxiliary *kéto* occurs in imperative, completive, and irrealis constructions, with opposite polarity in the imperative vs. the completive and irrealis. With imperative verbal morphology, jussive *kéto* indicates that the state of affairs encoded by the clause is desired by the speaker. Unlike with the imperative and prohibitive in the second person, it is not understood as a command, but simply as a desirable state of affairs. An example with the second person is shown in (556), and with the third person in (557).

- (556) a. *òru ta dia-w-e*
 woman two say.to-CMP-PST
 ‘The two women said.’ 520107.1
- b. *kéto fiore = gwre toi*
 must carefully = AUG hold
 ‘You should hold on carefully.’ 520108.1
- c. *fiore = gwre éide-ye bworyu ,*
 carefully = AUG pinch-NFIN sit
 ‘Sit and straddle [the branch] carefully.’ 520109.1
- (557) *d̄yi du begi b̄yi du # / kéto wore bo-i # /*
 person PROX FOC shoot PROX must then eat-INCMP
 ‘Let the people we will kill eat first.’ 507191.1

In completive and irrealis constructions jussive *kéto* has the same function, but with opposite polarity: It indicates that the state of affairs is *not* desired by the speaker. It is not clear why this auxiliary has opposite polarity values in these constructions. A completive jussive construction is shown in (558).

- (558) *fero / kéto Lukas gi k̄arjer-u bóre # /*
 then must.not L. FOC leave-CMP be
 ‘It was not supposed to be the case that Lukas would be left behind.’ 40615.1

The irrealis construction with jussive *kéto* is unique, being the only construction in which irrealis *-rē* ‘IRR1’ (§4.3.6) occurs at the end of a final verb. As with the completive use of *kéto*, this construction also indicates a state of affairs *not* desired by the speaker, as shown in examples (559) and (560).

- (559) *de fe kéto togwryi-jo-rē #*
 2.PL also must.not embarrassed-INCMP-IRR1
 ‘You should not be embarrassed.’ 920a52.1

- (560) *wo kéto wo-riai dóyu-jo-rē # /*
 3 must.not 3-REFL roast-INCMP-IRR1
 ‘May he himself not get burned.’ 801c113.1

5.1.3 Imperative *sira*

The pre-verbal auxiliary *sira* ‘please’ is a loanword from Indonesian *silakan* ‘please’. It is occasionally used as a pre-verbal auxiliary in imperatives, as shown in (561) and (562).

- (561) *sira teryi # /*
 please pass
 ‘Please go on.’ 5025.1

- (562) *sira du rakai ro bia*
 please 2.SG neck then do.INCMP
 ‘Do like this with your neck.’ 511a169.1

All corpus examples of this imperative are from a single speaker who has spent significant time in the provincial capital Jayapura and who speaks Indonesian daily. His usage of *sira* might be due to contact-induced change in his individual speech, not reflecting usage of Abawiri more generally.

5.1.4 Change of state *di*

The pre-verbal auxiliary *di* ‘transform’ is used to indicate a change of state. The change of state is either caused by an entity other than the one undergoing transformation, or the cause of change is not in focus. When the change of state is caused by another entity, this auxiliary usually co-occurs with the verb *bwr̄ior-* ‘make’. Example (563) is taken from a song about God creating people.

(563) *d̄yī di bwr̄ior-u-e*
 person transform make-CMP-PST
 ‘He made a person.’

801b40.1

An additional example is given in (564), from a village meeting about marketing crocodile hides. The speaker is explaining about a training program in which young people can learn how to process crocodile hides, manufacturing them into consumer goods.

(564) *gwore kakrefi o dr̄àkr̄úja di bwr̄ior-e tòi-je bo # /*
 crocodile skin FOC goods transform make-NFIN DISTR-NFIN TOP

begi bw̄àbwei o dabre-i-r̄ē-di # /
 DEM.FOC then ALL teach-INCMP-IRR1-PURP

‘Crocodile hides will be made into goods; that’s what will be taught to them.’

80471.1

When the change of state encoded by *di* ‘transform’ is not caused by another entity, this auxiliary typically co-occurs with the verb *ror-* ‘be’, as shown in (565) and (566). In both of these examples, a physical change of state occurs, but the initiator of the change of state is not necessarily an outside entity.

(565) *o bw̄àbwei fweyi / woryu gwrer-u bo , / bo bw̄àbwei*
 COORD then again trunk withdraw-CMP TOP COORD then

gwābiri di ror-u bo d̄erio r̄ōu=gwre # /
 butterfly transform be-CMP TOP good very=AUG

‘And then its body comes out, and then it becomes a butterfly and is very beautiful.’

803a198.1

- (566) (*òru áka bwo-u bo*) , / *òru áka bwe-i òre*
 woman tired become-CMP TOP woman tired become-INCMP SEQ
- bo* , / (*bo twōryi gi*) *twōryi be=jè d̄yi di*
 COORD COORD good.man FOC good.man LOC=LOC person transform
- ror-u bóre #* / *òru bo #* /
 be-CMP be woman TOP
- ‘The woman got tired and then she turned into a person near the good guy; the woman did.’ 80574.1

5.1.5 Resultative *tore*

This frequent pre-verbal auxiliary is used to indicate that a state of affairs in the clause is the result or end goal of something in the previous stretch of talk. Example (567) shows an excerpt from a story about the coming of the first Christian missionary to Fuau. The final line gives a summary, and *tore* ‘until’ is used to indicate that this is the main point of the story.

- (567) a. *fu furku o wojo tor-u bo #* / *torebari-j-e*
 canoe whole REL above come-CMP TOP spin-CMP-PST
 ‘An airplane coming above turned around.’ 40322.1
- b. *fero bwàbwei* / (*die die oiror-u bóre #* /
 then then water water stand-CMP be
 ‘Then it landed on the water.’ 40323.1
- c. *fero (die) / die oiror-u-e* ,
 then water water stand-CMP-PST
 ‘It landed on the water.’ 40324.1
- d. *die biárte-w-e* ,
 water fall-CMP-PST
 ‘It came down on the water.’ 40325.1

e. *dre-i tor-u bóre # /*
 run-INCMP come-CMP be
 ‘It came running.’ 40326.1

f. *tore bwàbwei / fwau d̄yi o be fyu-je f-u du # /*
 until then F. person REL LOC be-NFIN be-CMP PROX
 ‘So it was that he came here to the Fuau people.’ 40327.1

Example (568) below is taken from a folktale where the main protagonist takes a journey through the forest. He then comes to his destination in a clearing; the two clauses coding his arrival include *tore* ‘until’ and are shown here.

(568) a. *bo tore gwa krìjógwro-u bóre # /*
 COORD until in.middle emerge-CMP be
 ‘Then he came out there.’ 805204.1

b. *ro tore gwa krìjógwro-u bóre # / agwa gwa # /*
 then until in.middle emerge-CMP be log in.middle
 ‘Then he came out, out to the log.’ 805205.1

During sermons in church services, preachers use the form *tore* ‘until’ to give the end of a span of Bible verses about to be read. An example is shown in (569). The only Abawiri material in this example is the conjunction *fe* ‘also’ and the auxiliary *tore* ‘until’; this is typical in this context, as borrowed Indonesian numerals are commonly used (§3.10).

(569) *Efesus / empat # fe tore / Efesus lima #*
 Ephesians four also until Ephesians five
 ‘Ephesians four to Ephesians five.’ 803a44.1

This auxiliary is a grammaticalized form of *tor-e* ‘come-NFIN’ as the first verb of an SVC. The same form has also grammaticalized into a marker of pluractionality; however,

the pluractional marker retains its immediate pre-verbal position (§5.3.5.8) unlike *tore* ‘until’, which has flexible position in the clause before the verb.

5.1.6 Immediate *be*

The pre-verbal auxiliary *be* ‘IMMED’ indicates the temporal immediacy of the state of affairs encoded by the clause and is often translated ‘right then’ or ‘right now’. This auxiliary most frequently occurs with the perfect construction (§4.4), emphasizing the immediacy of the resulting state rather than of the past event. A corpus example is shown in (570).

- (570) a. *d̄yi bwó fe be ror-yi-ro #*
 person under also IMMED be-PRF-NPST
 ‘The people down below have been like that too.’ 803b202.1
- b. *worafabar-yi-jéi # /*
 forget-PRF-NEG
 ‘They have not forgotten.’ 803b203.1

In elicitation of the perfect construction, *be* ‘IMMED’ is usually included, as shown in the elicited example in (571).

- (571) a. *be yure wòr-yi-ro*
 1.SG IMMED tree fell-PRF-NPST
 ‘I have felled a tree.’ yaw7.3

The TAM morphology of the perfect construction is a subset of the morphology of incomplete constructions rather than of completive constructions (§4.4). The frequent collocation of *be* ‘IMMED’ with the perfect construction further highlights the focus of the perfect construction on the resulting state of affairs rather than on the past event.

The semantics of *be* ‘IMMED’ are also compatible with the continuous SVC with *f-* (§5.3.5.1), where the auxiliary emphasizes the continuing state encoded by the SVC. In the following example, an elderly woman had just told a story from the time of her youth, and a younger listener was trying to determine whether the story had taken place before or after the first Christian missionaries had come to Fuau. Her answer is shown in (572).

(572) *bo àrá dabyigwa (be) , / be bu-fwè-ye f-u-e*
 COORD God speech IMMED IMMED down-float-NFIN be-CMP-PST

bwò-w-e ,
 NEG-CMP-PST

‘Right then, God’s Word had not come down.’ 81315.1

When used with incompletive constructions, *be* ‘IMMED’ generally indicates the present time, as shown in (573) and (574).

(573) *e ta be fwi gyuror-o # /*
 1.PL two IMMED dregs lift-NPST

‘We two are still picking up sago dregs.’ 814145.1

(574) *tebe sifra gi be sa-ro # /*
 cloth thin FOC IMMED take-NPST

‘Now thin cloth is taken.’ 52390.1

The use of the form *be* as a pre-verbal auxiliary marking immediacy is likely a semantic extension of the locative postposition *be* ‘LOC’ (§3.6.3.1), which can be used to indicate spatial immediacy. Example (575) shows *be* ‘LOC’ being used referentially without a preceding NP, where it anchors the clause spatially. *be* ‘IMMED’, by extension, is used to anchor the clause temporally.

(575) *a be f-u bóre Koredie ou bwó # /*
 1.SG LOC be-CMP be K. house under
 ‘I lived there, down at Koredie’s house.’ 50211.1

5.2 Post-verbal auxiliaries

Abawiri verbs have a great deal of morphological complexity following the verb root. Much of this is in the form of TAM suffixes and is discussed in chapter 4. In addition to this, there are four post-verbal auxiliaries that are phonologically separate from the verb. There are two existential auxiliaries: *bóre* ‘be’ (§1.2.1) and its interrogative counterpart *béyo* ‘be.Q’ (§1.2.2). Two other auxiliaries indicate TAM categories: desiderative *fwori* ‘DES’ (§5.2.3) and habitual *kare* ‘HAB’ (§5.2.4).

5.2.1 Existential *bóre*

The post-verbal auxiliary *bóre* ‘be’ is one of the most frequent lexical items in the Abawiri corpus. As a standalone predicate it functions as an existential verb. The entity can be overtly expressed, as shown in example (576), or understood from context, as seen in the extract from a conversation in example (577).

(576) *ou bóre # /*
 house be
 ‘There was a house.’ 507152.1

(577) a. Y: *bra # /*
 arrow.shaft
 ‘An arrow-shaft.’ 511a191.1

- b. B: *bóre* # /
 be
 ‘That’s it.’

511a191.1

See §7.2.5.1 for further discussion of *bóre* ‘be’ as an existential predicate.

As part of a verb complex, the post-verbal auxiliary *bóre* ‘be’ generally forms emphatic counterparts to suffixing TAM constructions. Each verbal TAM construction with *bóre* ‘be’ as a post-verbal auxiliary is in a paradigmatic relationship with another construction with a suffix. In general, the construction with *bóre* ‘be’ adds additional pragmatic emphasis to the relevant unit. These pairs of constructions are summarized in Table 53.

Table 53: Constructions with and without *bóre* ‘be’

Construction	without <i>bóre</i>		with <i>bóre</i>		See
Past	V- <i>u-e</i>	V-CMP-PST	V- <i>u bóre</i>	V-CMP <i>bóre</i>	§4.2.2
Non-past	V- <i>i-ro</i>	V-INCMP-NPST	V- <i>i bóre</i>	V-INCMP <i>bóre</i>	§4.3.2
Habitual	V- <i>i-e-ro</i>	V-INCMP-HAB-NPST	V- <i>i-e bóre</i>	V-INCMP-HAB <i>bóre</i>	§4.3.4
Non-future	V- <i>i-ri</i>	V-INCMP-NFUT	V- <i>i-ri bóre</i>	V-INCMP-NFUT <i>bóre</i>	§4.3.5
Counterfactual	V- <i>rē-ri</i>	V-IRR1-NFUT	V- <i>rē-ri bóre</i>	V-IRR1-NFUT <i>bóre</i>	§4.3.6
Purpose	V- <i>rē(-di)</i>	V-IRR1-PURP	V- <i>rē(-di) bóre</i>	V-IRR1-PURP <i>bóre</i>	§4.3.7

Past tense -*e* ‘PST’ and non-past -*ro* ‘NPST’ are in complementary distribution with *bóre* ‘be’, as seen in the completive, incomplete, and habitual constructions. By contrast, non-future -*ri* ‘NFUT’ remains in the non-future, counterfactual, and purpose constructions, regardless of the presence or absence of *bóre* ‘be’.

In general, constructions with *bóre* ‘be’ in Table 53 indicate a greater emphasis on the action of the verb, often being used when the verb is in discourse focus (as opposed to a nominal or other element in the clause). In the first line of example (578) below, the focused element is the verb, as this is the new information being presented. The auxiliary is used. In the next two lines, additional new information is introduced along with the same verb, but this time the verb is a completive with no auxiliary.

- (578) a. *bra=ta tor-u bóre* ,
 downriver = ABL come-CMP be
 ‘We came up from below,’ 5028.1
- b. *aruna e ta tor-u-e # /*
 A. 1.PL two come-CMP-PST
 ‘Aruna and I came.’ 5029.1
- c. *d̄yi tori fròku e ta # / bra=ta tor-u-e* ,
 person hair long 1.PL two downriver = ABL come-CMP-PST
 ‘I and a long-haired person [i.e. non-Melanesian Indonesian] came up from
 downriver.’ 50210.1

Below is another example that illustrates the emphatic nature of *bóre* ‘be’ in discourse. The three lines in example (579) show a climactic event in a narrative. The first two clauses, which build to the climax, are coded with past completive verbs, while the clause in (c) indicates climactic event and is coded with the auxiliary.

- (579) a. *yure to-tà-w-e # /*
 tree CAUS-rise-CMP-PST
 ‘It went up on the log.’ 51359.1
- b. *yure to-ror-u-e # /*
 tree CAUS-be-CMP-PST
 ‘It hit the log.’ 51360.1

c. *elus du bo fu èyi=ta fwar-u bóre*

E. PROX TOP canoe LOC=ABL depart-CMP be

'Elus was thrown from the boat '

51361.1

This auxiliary is also used for emphasis in incompletive constructions. In example (580), Yuli is describing the process of making sago. In the first line he says that the sago dregs enter downwards through a certain hole, using the incompletive non-past construction without *bóre* 'be'. In the next line he repeats the first line, this time using the more emphatic incompletive construction with *bóre* 'be'.

(580) a. *ro bwàbwei dre bu-āfwe-i-ro* , /

then then here down-enter-INCMP-NPST

'And then they enter downwards here.'

52343.1

b. *dre bu-āfwe-i bóre # /*

here down-enter-INCMP be

'They enter downwards here.'

52344.1

While speaking line (a) Yuli was looking down, focused on inserting a stick into the ground. Figure 24 shows a still from the video when line (a) was uttered.

Figure 24. Speaker looking down during non-emphasized utterance (52343.1)



By contrast, while speaking the more emphatic repetition in line (b), Yuli looked up at his interlocutor and spoke more loudly and clearly. Figure 25 shows a still from the video when line (b) was uttered.

Figure 25. Speaker looking up to give emphatic utterance (52344.1)



The non-future construction has a similar contrast between emphatic and non-emphatic forms. In the extract shown below in (581), Bwoyusa describes a battle from the past. In most clauses the non-future construction without *bóre* ‘be’ is used, as in lines (a) and (b). The addition of *bóre* ‘be’ in line (c) adds extra emphasis to the climax of the episode, where a victory dance takes place.

- (581) a. *to-fro-i-ri* , /
 P LACT-go-INCMP-NFUT
 ‘They went.’ 507282.1
- b. *yíbwò gwa gwérékari-ri*
 yard in.middle emerge-NFUT
 ‘They came out into the middle of the yard.’ 507283.1

c. *ou du bo torebari-ri bóre # /*
 house PROX TOP spin-NFUT be

‘They spun around the house.’

507284.1

The habitual, counterfactual, and purpose constructions can also occur either with or without *bóre* ‘be’ in a similar manner to the completive, incomplete, and non-future constructions just described.

5.2.2 Interrogative existential *béyo*

Interrogative *béyo* ‘be.Q’ is the interrogative counterpart to existential *bóre* ‘be’. It is used in the constructions shown on the right side of Table 53 on page 312 above, where it forms polar questions rather than statements. The examples below show this auxiliary in a completive question (582), an incomplete question (583), and a habitual question (584). (Note that the verb *toi* ‘hold’ in example (584) is a high vowel-final stem that occurs without a suffix in the incomplete; see §4.6.2.)

(582) *sòri dwòror-u béyo #*
 earth rotate-CMP be.Q

‘Did the world spin?’

50425.1

(583) *o yuta-u bo , ei , wodu ro ber-i béyo # /*
 COORD stand.up-CMP TOP EXCL LOG then do-INCMP be.Q

‘When she got up (she said), “Hey, am I like this?”’

80562.1

(584) *àrá kweyo diror-u d̄yi ror-i-e béyo # /*
 God heart accept-CMP person be-INCMP-HAB be.Q

‘Are the people who believe God like that?’

803b310.1

Like its positive polarity counterpart, *béyo* ‘be.Q’ is also used as a standalone predicate in existential constructions, as shown in (585).

- (585) *fu béyo # /*
 canoe be.Q
 ‘Is the boat here?’ 51370.1

5.2.3 *Desiderative fworì*

Two post-verbal auxiliaries indicate TAM categories: *fworì* ‘DES’ and *kare* ‘HAB’ (§5.2.4). Both of these auxiliaries occur only after bare incomplete verbs. Desiderative *fworì* ‘DES’ indicates that the state of affairs in the clause is desired, typically as the goal or endpoint of something prior. An example from a public meeting is given in (586), where the speaker is encouraging literate attendees to teach others to read and write. The goal of the teaching activity is that the learners will be able to read and write; the clauses indicating this in lines (e) and (f) are marked with *fworì* ‘DES’.

- (586) a. *bwàbwei guru ká bóre # /*
 then teacher same be
 ‘And it’s like a teacher.’ 803b146.1
- b. *du worjor-u āfréi # /*
 2.SG write-NMLZ know.NEG
 ‘You can’t write.’ 803b147.1
- c. *du bo bwàbwei ádi āfréi # /*
 2.SG TOP then read know.NEG
 ‘And you can’t read.’ 803b148.1

d. *ke-jè du o dabre-i-ro # /*
 1.SG-EMPH 2.SG ALL teach-INCMP-NPST
 ‘I will teach you.’ 803b149.1

e. *du fe worjor-u afre bwe-i fworì , /*
 2.SG also write-NMLZ know become-INCMP DES
 ‘You will then learn to write.’ 803b150.1

f. *du fe ádi afre bwe-i fworì # /*
 2.SG also read know become-INCMP DES
 ‘You will then learn to read.’ 803b151.1

Another example from the same speaker during a different public meeting is shown in (587). Here he is explaining how crocodile hides will be marketed, providing income to the village so that more village infrastructure can be built. The goal, stated in line (b), is marked with *fworì* ‘DES’.

(587) a. *wo=ta bwàbwei tebe , / o dràkrúja bio , / wore wo=ta*
 3=ABL then cloth COORD goods other then 3=ABL

to-tor-u du # /
 CAUS-come-CMP PROX
 ‘From there [Surabaya] cloth and other goods will be brought.’ 804111.1

b. *ro dre=jè bwàbwei , / ou yuta-i fworì # /*
 then here=LOC then house stand.up-INCMP DES
 ‘Then houses should be built here.’ 804112.1

This construction has functional overlap with the pre-verbal auxiliary construction with jussive *kéto* (§5.1.2). Both constructions are used to indicate that a state of affairs is desired. However, *fworì* presupposes that the desired state of affairs is the outcome of a process, while *kéto* simply indicates desirability of the state of affairs, independently of the process needed to achieve it. There is also functional overlap with the purpose construction,

particularly its occurrence as an independent clause, where it also indicates a desired state of affairs that is the outcome of a previous process (§8.3).

5.2.4 Habitual *kare*

Habitual *kare* ‘HAB’ occurs after a bare incomplete verb to indicate that the state of affairs is characteristic of a period of time. Examples are given in (588), (589), and (590).

- (588) *aa d̄yi du bo ejagwre-i kare* ,
 EXCL person PROX TOP deceive-INCMP HAB
 ‘Now, this person always deceives us.’ 90752.1
- (589) *áka bwe-i kare # /*
 tired become-INCMP HAB
 ‘It would become tired.’ 803b96.1
- (590) *yesus fwòu bo d̄yi atre-i kare* ,
 Jesus characteristic TOP person love-INCMP HAB
 ‘Jesus’ character was to love people.’ 801b246.1

In addition to the auxiliary construction with *kare* ‘HAB’, habituality is also indicated with the verbal suffix *-e* ‘HAB’ (§4.3.4), which also occurs directly after the incomplete suffix of the main verb. The auxiliary construction is possibly the diachronic predecessor of the suffix construction. This auxiliary, in turn, likely developed from the adjective *kare* ‘strong, hard’, where it was used attributively after a nominalized verb. Compare, for example, a novel use of the adjective *froku* ‘long’ in a written text, shown in (591) below. Here this adjective is used attributively after a verb to indicate an activity that extends over a long period of time. The use of *kare* ‘strong, hard’ in analogous contexts could have given rise to its function as a post-verbal auxiliary.

(591) *àrá dabyigwa ádi fròku bwe-i-ri*
God speech read long become-INCMP-NFUT

‘I would read God’s Word all the time.’ [lit. ‘Reading God’s speech became long.’]

9259.3

5.3 Serial verb constructions

This section is organized as follows. An introductory section presents a typological overview of SVCs, focused especially on SVCs found among Papuan languages, along with an overview of SVCs in Abawiri (§5.3.1). A discussion of argument sharing in Abawiri SVCs (§5.3.2) is followed by a discussion of morphological marking within SVCs (§5.3.3). The following two sections discuss the two major types of SVCs: symmetrical SVCs (§5.3.4) and asymmetrical SVCs (§5.3.5), while the final section presents combinations of SVCs within a single clause (§5.3.6).

5.3.1 Introduction

In the extensive literature on SVCs, a constellation of formal and functional properties have been brought forth as relevant in the definition of SVCs in opposition to related phenomena such as clause combining. A widely adopted definition of SVC is from Aikhenvald: an SVC is “a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination, or syntactic dependency of any other sort. Serial verb constructions describe what is conceptualized as a single event” (Aikhenvald 2006: 1). Formal factors related to SVCs include sharing of TAM marking,

sharing of arguments, presence or absence of overt syntactic marking of the relationship between the two verbs, monoclausality, contiguity of the component verbs, and intonation contours. The primary functional factor discussed in the literature is that of single eventhood, a factor that is difficult to assess empirically (Givón 1991; Comrie 1995; Bisang 2009). See Aikhenvald (2006) for a prototype-based approach to the typology of SVCs, and Bisang (2009) and Haspelmath (2016) for careful critiques of the typological literature on SVCs.

SVCs are common among Papuan languages (Senft 2008; Foley 2018c: 923), and have been described in depth for Yimas (Foley 1991), Kalam (Pawley 2008), Korafe (Farr 1999), Haruai (Comrie 1995), and Mian (Fedden 2011), and others. Among Lakes Plain languages, SVCs are absent from a description of Iau verbs (Bateman 1986). Iau verbs have a large set of post-verbal ‘particles’ indicating various TAM distinctions, illocutionary force, and negation, structurally similar to the Abawiri post-verbal auxiliaries (§5.2). Verb serialization is not present in available descriptions of several of the non-Lakes Plain languages of the Mamberamo region, including Kwerba (de Vries & de Vries 1997) and Berik (Westrum 1988). SVCs are, however, found in Bauzi (Briley 1997).

Many Papuan languages have a small inventory of verb roots (Foley 1986: 127), perhaps most notably Kalam (Pawley 2008). In these languages additional meanings are supplied in various ways including noun-verb idiom constructions, coverb constructions, and SVCs. In contrast, Abawiri has a relatively large number of verb roots and a rather

small set of noun-verb idioms (§7.1.3) and coverbs (§7.1.4). SVCs, however, are highly developed and are very frequent in discourse.

SVCs in Abawiri consist of two verbs. Three-verb sequences within a single clause are the combination of two SVCs, one embedded within the other (§5.3.6). The component verbs in Abawiri SVCs are usually adjacent, with nothing intervening. The first verb is usually suffixed with either non-finite *-ye* ‘NFIN’ or incomplete *-i* ‘INCMP’, the choice between the two suffixes being lexically specific (§5.3.3). All TAM suffixes occur on the second verb, and the TAM specifications take scope over the whole SVC. Symmetrical SVCs are those in which both verbs contribute semantic content to the expression, such as SVCs of motion, caused motion, and manipulation. These constructions show varying degrees of lexicalization (§5.3.4). In asymmetrical SVCs, on the other hand, one of the verbs (usually the second) has grammaticalized into a grammatical marker and indicates a verbal category such as aspect, pluractionality, causation, or negation (§5.3.5). In most asymmetrical SVCs the first verb, minimally marked with *-ye* ‘NFIN’ or *-i* ‘INCMP’, carries the semantic content, while the second verb indicates the grammatical category and also carries the TAM inflectional suffixes. (See the more detailed discussion of symmetrical vs. asymmetrical SVCs in §5.3.4.) Typical examples of Abawiri SVCs are shown below. Example (592) shows a symmetrical SVC of motion, while example (593) shows an asymmetrical aspect SVC.

(592) *bo tràr-e tè-u bóre # /*
 COORD swim-NFIN descend-CMP be
 ‘We swam down.’

50940.1

(593) *gwore wore fwè-ye f-u-e # /*
 crocodile then float-NFIN be-CMP-PST
 ‘The crocodile was floating.’

817128.1

5.3.2 Argument sharing

Establishing whether the two component verbs in a symmetrical SVC share an argument is not straightforward. (In asymmetrical SVCs, one verb has a grammatical function and does not have its own participant structure; see §5.3.5.) There is no indexing of arguments on verbs. More generally, there are no grammatical relations in the language that can be distinguished from semantic roles (agent, experiencer, patient, etc.) and information structure (topic, focus, etc.); in line with this fact, argument sharing has no formal implications for the structure of SVCs. (See the discussion of referring expressions and grammatical relations in chapter 6).

One can, however, compare the semantic participant structures of the component verbs that occur in SVCs. The two component verbs in a symmetrical SVC can both have a single argument in their respective participant frames, in which case the argument is shared between the two. An example is shown in (594), where *e* ‘1.PL’ is the agent of both *dre-* ‘run’ and *fro-* ‘go’.

(594) *e dre-i fro-w-e # /*
 1.PL run-INCMP go-CMP-PST
 ‘We ran.’

502150.1

Conversely, when both component verbs are transitive, both arguments are shared between the two. This is illustrated in (595), where ‘he’ is the semantic agent of both

okafwor- ‘peel’ and *bo-* ‘eat’, while ‘it’ is the patient of both. Note that in this example, both participants (‘he’ and ‘it’) are understood from discourse context and have no overt mention in the clause.

(595) *okafwor-i bo-i-ri* ,
 peel-INCMP eat-INCMP-NFUT
 ‘He peeled and ate it.’ 903a94.1

When the two verbs have different transitivity, the single argument of the intransitive verb is coreferential either with the agent or the patient of the transitive verb. Coreferentiality with the agent is by far the most frequent of the two configurations, as illustrated in (596).

(596) *kàr-e d̀̀r-u bóre # /*
 carry-NFIN go-CMP be
 ‘He carried it and went down.’ 4086.1

The first verb in this example is *kàr-* ‘carry’, which occurs with both an agent and a patient. Here the agent, understood from overt mention in the previous clause, is a boy called Bekai; the patient, understood from overt mention six clauses earlier, is a type of marsupial, *bwōre* ‘tree cuscus’, that had just been shot. The second verb *d̀̀r-* ‘go’, which usually only occurs with an agent, shares the agent argument with the first verb. The two component verbs in the SVC thus share one argument with the same semantic role (Bekai, the agent), but *bwōre* (the patient) is only part of the participant frame of the first verb. This has no grammatical implications, however. As both referents are understood from discourse context, they are simply omitted (see the discussion of zero anaphora in §6.1.3).

Arguments are not marked, and the SVC is structurally identical to SVCs where the two component verbs have the same participant structure.

The single argument of the intransitive verb is occasionally coreferential with the patient of the transitive verb, as seen in (597) and (598). (The form *ba* ‘eat’ in example (598) is a variable stem that does not take basic aspect suffixes; see §4.6.5.)

(597) *wo dígò , tòi , / ba fe worero oryu kàrjer-u bóre*
 3 ax sago.pounder filter also like.that be.at leave-CMP be
 ‘She left her ax, sago pounder, and sago filter remaining in that location.’ 41028.1

(598) *okafwor-i òre kē ror-u bo búbiai ba tè-u bóre ,*
 peel-INCMP SEQ finished be-CMP TOP slowly eat descend-CMP be
 ‘He finished peeling it and then ate it down slowly.’ 903a93.1

In the SVC in example (597), the agent of *kàrjer-* ‘leave’ is a woman, while the patient is a set of sago equipment. The single argument of the intransitive verb *oryu* ‘be at’ is the sago equipment. Similarly, in the SVC in example (598), the agent of *ba* ‘eat’ is a man, while the patient is a banana. The single argument of the intransitive verb *tè-* ‘descend’ is the banana.

Time-of-day verbs are atransitive and do not generally have any arguments (§7.1.1); naturally, when they occur in SVCs, no arguments are shared between the component verbs. In example (599) below, an SVC with a time-of-day verb and an intransitive verb is in the medial clause, while an SVC with a time-of-day verb and a transitive verb is in the final clause.

(599) *bo fwryu tíror-u bo , / wo dwèyi dèbi tar-i*
 COORD anchor dawn.break-CMP TOP 3 sister child waken-INCMP
tíror-u-e ,
 dawn.break-CMP-PST
 ‘He anchored until dawn, and wakened his sister’s child at dawn.’ 52027.1

In most cases, when an argument is coded with an overt form, it occurs before the whole SVC. For example, where a participant belongs semantically only with the first verb, it always occurs before the whole SVC, as shown in (600) and (601).

(600) *bra=ta bo tīe=gwre ba tor-u-e*
 downriver=ABL TOP fish=only eat come-CMP-PST
 ‘When coming up from below, we only ate fish.’ 520336.1

(601) *e ta begi gwore o dreyi t̄a-i-r̄o # /*
 1.PL two FOC crocodile FOC chase-INCMP cross-INCMP-NPST\IRR2
 ‘Let’s chase the crocodile to the other side.’ 817181.1

When the participant is only in the participant frame of the second verb, it sometimes occurs before the whole SVC, as shown in (602); however, it also sometimes occurs intervening between the two component verbs, as shown in (603). This is the only context in which a referring expression can occur between component verbs in an SVC.

(602) *bo bwàbwei , / eyòrù bo fī fr̄i-je tor-i-ri # /*
 COORD then elders TOP sago go-NFIN pound-INCMP-NFUT
 ‘And the old people went to pound sago.’ 81521.1

(603) *wo tà-i dī dī-ro # /*
 3 rise-INCMP food eat-NPST
 ‘They stand and eat food.’ 913e6.1

Example (603) is formally more like a conjoined clause than many other SVCs in that (1) the component verbs are not contiguous, and (2) the first verb *tà-* ‘rise’, which is

lexically specified to take the suffix *-ye* ‘NFIN’ as the first verb of symmetrical SVCs (see Table 54 on page 331 below), here takes *-i* ‘INCMP’ instead. However, the formal properties of the construction do not match those of any other clause combining construction in the language (see chapter 8). This is analyzed as a loosely conjoined SVC in a single clause.

5.3.3 Internal morphology

The first verb in most SVCs is marked with either *-ye* ‘NFIN’ or *-i* ‘INCMP’ (see §4.3.1 on the incompletive suffix in other constructions). The exceptions are the prospective SVC with *ber-* ‘do’ that takes the suffix *-rē* ‘IRR1’ (§5.3.5.4), and the negative SVC with *bwè-* ‘NEG’, where TAM copying takes place (§5.3.5.10). Because of this marking, Abawiri SVCs fall outside Aikhenvald’s definition of an SVC: “[a sequence of verbs] without any overt marker of coordination, subordination, or syntactic dependency of any other sort” (Aikhenvald 2006:1). Abawiri SVCs are, however, very similar to SVCs described in other languages, usually showing contiguity of component verbs, full sharing of TAM marking between the verbs, and component verbs falling under a single intonation contour. Abawiri SVCs are formally distinct from multi-clausal constructions in the language such as relative clauses (§8.1.1), topicalized medial clauses (§8.4), and sequential clauses (§8.5), as well as coordinated clauses (§8.7) and narrative sequences of final verbs (§8.7.4). Therefore I retain the term SVC here.

The suffix *-ye* ‘NFIN’ only occurs in SVCs and is analyzed as a marker of non-finiteness. In the typological literature, finiteness refers to various properties that occur on

main verbs in clauses, including obligatory indexing of arguments, the possibility of independent overt arguments, and TAM morphology (Nikolaeva 2007; Chamoreau & Estrada-Fernández 2016). In Abawiri, arguments are not indexed on the verb and zero anaphora is frequent. Thus an Abawiri verb can be said to be more or less finite to the degree that it exhibits full TAM marking. The first verbs in SVCs, along with the imperative (§4.3.1), are the least finite verbs in Abawiri in that they have the most minimal TAM marking grammatically possible in the language.

The suffix *-ye* ‘NFIN’ has three allomorphs. The allomorph *-e* occurs after stem-final consonants, as shown in (604). The allomorph *-je* occurs after stem-final high front vowels, as shown in (605). Finally, the allomorph *-ye* occurs after other vowels, as shown in (606).

- (604) *bo trâr-e têt-u bóre # /*
 COORD swim-NFIN descend-CMP be
 ‘We swam down.’ 50940.1
- (605) *abu sieye du fe , / foi fryi-je f-u-e ,*
 grandparent S. PROX also rock heat-NFIN be-CMP-PST
 ‘Grandmother Sieye was also heating rocks.’ 81545.1
- (606) *bwàbwei d̄yi bo yuta-ye t̄òì-j-e # /*
 then person TOP stand.up-NFIN DISTR-CMP-PST
 ‘Then the people were all getting up.’ 805128.1

In SVCs, the incompletive suffix *-i* ‘INCMP’ does not carry incompletive semantics as it does in all other constructions where it occurs (§4.3). Rather, it functions simply as a semantically empty linker in SVCs, being a lexically specified counterpart to *-ye* ‘NFIN’. In incompletive constructions, verbs that end with a high front vowel *i*, *yi*, or *yu* do not have

an overtly expressed incompletive suffix *-i* ‘INCMP’, as the form of the suffix is also a high front vowel (§4.6.2). In SVCs, where the first verb ends with a high front vowel and the construction specifies that the verb takes the incompletive rather than the non-finite suffix, the bare verb stem is also used. This is shown below for a verb ending in each of the high front vowels: *i* in (607), *yi* in (608), and *yu* in (609).

- (607) *wo òru brèi fjer-u-e # /*
 3 woman call repeat-CMP-PST
 ‘He called his wife repeatedly.’ 41051.1
- (608) *si du fukàrì dabyi gwa-bia-ro , /*
 here PROX all talk PLACT-do.INCMP-NPST
 ‘Here all these things are being talked about.’ 803b85.1
- (609) *sòri èyi tryu tìa-w-e*
 earth LOC paddle cross-CMP-PST
 ‘He rowed across to land.’ 817144.1

For symmetrical SVCs (§5.3.4), it is the host verb that is lexically specified as taking either *-ye* ‘NFIN’ or *-i* ‘INCMP’. For example, the verb *kàr-* ‘carry’ always takes *-ye* ‘NFIN’ when it occurs as the first verb in a symmetrical SVC, while *tè-* ‘descend’ always takes *-i* ‘INCMP’ in this position. Compare the two SVCs with *kàr-* ‘carry’ in (610) and (611) with the two SVCs with *tè-* ‘descend’ in (612) and (613).

- (610) *kàr-e fi bóre ,*
 carry-NFIN go.INCMP be
 ‘They carry it and go.’ 523135.1
- (611) *bỳje òre (kàr-e tor-u-e) fero kàr-e tor-u-e # /*
 shoot.INCMP SEQ carry-NFIN come-CMP-PST then carry-NFIN come-CMP-PST
 ‘He shot it and then came carrying it.’ 52061.1

(612) *báso èyi tè-i teryi-j-e # /*
 B. LOC descend-INCMP pass-CMP-PST
 ‘They passed by downward at Baso.’ 808a500.1

(613) *bu-tè-i kryijor-u-e # /*
 down-descend-INCMP break-CMP-PST
 ‘It went down and broke.’ 903b66.1

Table 54 below shows a sample of verbs that occur with *-ye* ‘NFIN’ in symmetrical SVCs (left) and verbs that occur with *-i* ‘INCMP’ (right). A roughly equal number of verb stems occurs in each of the two categories. Further, this lexical division does not appear to correlate with any other formal or functional property in the language.

Table 54. Lexically specified suffix on first verb of symmetrical SVCs

Suffixed with <i>-ye</i> ‘NFIN’		Suffixed with <i>-i</i> ‘INCMP’	
Verb	Gloss	Verb	Gloss
<i>kàr-</i>	‘carry’	<i>tè-</i>	‘descend’
<i>tà-</i>	‘rise’	<i>gwa-</i>	‘turn around’
<i>éide-</i>	‘clutch’	<i>dre-</i>	‘chase’
<i>bwe-</i>	‘become’	<i>fa-</i>	‘return’
<i>bo-</i>	‘fasten’	<i>bwa-</i>	‘thrust’
<i>tro-</i>	‘fly’	<i>bed-</i>	‘say’
<i>teryi</i>	‘pass by’	<i>tryu</i>	‘paddle’

For asymmetrical SVCs (§5.3.5), it is the grammaticalized verb that is lexically specified for the suffix on the first verb. This is independent of the position of the grammaticalized verb; thus, a second position aspect verb specifies which suffix is taken by the first lexical verb, while a first position grammaticalized verb specifies which suffix is on

the grammaticalized verb itself. For example, iterative *fijer-* ‘repeat’ occurs in second position and requires the first verb to be suffixed with *-i* ‘INCMP’, while pluractional *tore* ‘PLACT’ always occurs first and is itself always suffixed with *-ye* ‘NFIN’. Table 55 shows the grammaticalized verbs of asymmetrical SVCs, along with the suffixes they require the first component verb to take. Note that asymmetrical SVCs with *bwè-* ‘NEG’ (final row of Table 55) have copying of TAM suffixes instead.

Table 55. *Asymmetrical SVCs by suffix required on first verb*

Verb	Gloss	Suffix	Section
<i>f-</i>	continuous	<i>-ye</i> ‘NFIN’	§5.3.5.1
<i>tòì</i>	distributive	<i>-ye</i> ‘NFIN’	§5.3.5.5
<i>trà</i>	intransitive pluractional	<i>-ye</i> ‘NFIN’	§5.3.5.7
<i>tor-</i>	pluractional	<i>-ye</i> ‘NFIN’	§5.3.5.8
<i>tor-</i>	causative	<i>-ye</i> ‘NFIN’	§5.3.5.9
<i>fijer-</i>	iterative	<i>-i</i> ‘INCMP’	§5.3.5.2
<i>fā-</i>	durative	<i>-i</i> ‘INCMP’	§5.3.5.3
<i>ber-</i>	transitive pluractional	<i>-i</i> ‘INCMP’	§5.3.5.6
<i>ber-</i>	prospective	<i>-rē</i> ‘IRR1’	§5.3.5.4
<i>bwè-</i>	negative	TAM copying	§5.3.5.10

In general, the suffixes *-ye* ‘NFIN’ or *-i* ‘INCMP’ are the only material that intervenes between component verb stems in SVCs. Additionally, in certain contexts the second verb can take a prefix, e.g. the transitive pluractional SVC in which the second verb is prefixed with *gwa-* ‘PLACT’ (§5.3.5.6). In cases where one of the pluractional/causative prefixes

(§4.8) has lexicalized with a particular verb stem, this prefix occurs with the stem even when it is the second member of an SVC, as shown in (614).

- (614) *twor-e to-tor-u-e* # /
 tie-NFIN CAUS-come-CMP-PST
 ‘He brought it tied up.’ 90429.1

Directional prefixes (§4.7) have scope over the whole SVC and always occur prefixed to the first verb, as shown in (615) and (616).

- (615) *yu-tèb-i fro-w-e* ,
 up-sleep-INCMP go-CMP-PST
 ‘They spent the night while going up.’ 52011.1

- (616) *die dú begi eigwre fwoyu rōu gwò=jè bu-tror-e*
 water PROX DEM.FOC road intersection big INESS = LOC down-pour-NFIN
kàrjer-u-e # /
 leave-CMP-PST
 ‘He dumped out the water in the middle of the road.’ 913d44.1

5.3.4 Symmetrical SVCs

Here it is useful to make Aikhenvald’s (2006) distinction between ‘symmetrical’ and ‘asymmetrical’ SVCs. Symmetrical SVCs are those in which all component verbs are from an unrestricted word class; asymmetrical SVCs include a verb from a semantically or grammatically restricted class (Aikhenvald 2006: 3). Symmetrical SVCs generally occur as relatively fixed two-verb units and have undergone varying degrees of lexicalization (cf. a similar analysis of SVCs in Dumo (Ingram 2006)). Abawiri symmetrical SVCs include those of motion (§5.3.4.1), caused motion (§5.3.4.2), and manipulation (§5.3.4.3).

- (620) *o ror-u bo (sòri) sòri tryu tìa-w-e*
 COORD be-CMP TOP earth earth paddle cross-CMP-PST
 ‘It was like that and we paddled to land.’ 817138.1
- (621) *bé=ta / fa-i tìa-w-e ya # /*
 LOC = ABL return-INCMP cross-CMP-PST yes
 ‘From there he crossed back over, yes.’ 808a415.1
- (622) *kworarja tè-i teryi-j-e # /*
 Papasena descend-INCMP pass-CMP-PST
 ‘They passed by downward at Papasena.’ 808a503.1
- (623) *bo bwàbwei gwābiri ror-u bo / bo ro wojo tro-ye ror-u*
 COORD then butterfly be-CMP TOP COORD then above fly-NFIN be-CMP

bóre # /
 be
 ‘And then when it becomes a butterfly, it flies up.’ 803a191.1

Highly lexicalized motion SVCs include the form *dreyi fro-* ‘chase.INCMP go’, which occurs as a fixed expression meaning ‘run’, as illustrated in (624).

- (624) *ǎi fe dreyi fro-w-e*
 mother also chase.INCMP go-CMP-PST
 ‘Mother also ran.’ 808a384.1

5.3.4.2 Caused motion

SVCs of caused motion generally include a transitive verb indicating the manner of the action, including *kàrjer-* ‘leave behind’, *kâr-* ‘carry’, and *toi* ‘take’. The other component verb is a general motion verb such as *fro-* ‘come’, a direction verb such as *tè-* ‘descend’ or *teryi* ‘pass by’, or another caused motion verb. In all cases, the shared semantic argument is the more agentive one, the more patient-like argument only being relevant to the transitive

verb. As discussed in §5.3.2 above, argument sharing is understood in terms of semantics rather than grammar; there are no formal differences between caused motion SVCs and other symmetrical SVCs in terms of arguments.

Caused motion SVCs are shown below: a caused motion verb with a general motion verb in (625), with a direction verb in (626), and with another caused motion verb in (627).

(625) *kàr-e dòr-u bóre # /*
 carry-NFIN go-CMP be
 ‘He carried it and went along.’ 4086.1

(626) *dÿi wo bora / àre o bé=ta tà-y-e bo begi be=jè*
 person 3 ball stairs REL LOC=PERL rise-INCMP-HAB TOP DEM.FOC LOC=LOC

yu-bwa-i tà-i bóre
 up-thrust-INCMP rise-INCMP be

‘The person is thrusting the ball and going up on the stairs that ascend there.’
 903b121.1

(627) *be=jè rakre wòr-e kàr-u-e #*
 LOC=LOC foot fell-NFIN throw-CMP-PST
 ‘He put his foot down there [to kick it].’ 903a57.1

5.3.4.3 Manipulation

In addition to motion and caused motion, symmetrical SVCs indicate manipulation of an object, as shown in (628) and (629).

(628) *gwò=gwre késai / begi toi òre tiri-je tor-i fā-w-e # /*
 INESS=AUG small FOC hold SEQ peel-NFIN pound-INCMP all.day-CMP-PST
 ‘They took the small middle part and then were de-barking and pounding it throughout the day.’ 4109.1

- (629) a. *okafwor-i òre kē ror-u bo b̀̀biai ba t̀̀-**u** bóre* ,
 peel-INCMP SEQ finished be-CMP TOP slowly eat descend-CMP be
 ‘He finished peeling it and then ate it down slowly.’ 903a93.1
- b. *okafwor-i bo-i-ri* ,
 peel-INCMP eat-INCMP-NFUT
 ‘He peeled and ate it.’ 903a94.1

In most SVCs indicating manipulation of an object, both component verbs are transitive verbs of manipulation, as shown in (628) and (629) line (b). But as seen in (629) line (a), direction verbs can be used to indicate the direction of manipulation.

5.3.5 Asymmetrical SVCs

In asymmetrical SVCs, one of the component verbs has a grammatical rather than lexical function. There are ten of these constructions in Abawiri. In eight of these, it is the second verb that has a grammatical function, in most cases indicating aspect. These SVCs are used in combination with the TAM suffixes (chapter 4), yielding a complex set of fine-grained TAM distinctions. The aspect SVCs include resultative *f-* (§5.3.5.1), iterative *fjer-* (§5.3.5.2), durative *fā-* (§5.3.5.3), prospective *ber-* (§5.3.5.4), and distributive *t̀̀i* (§5.3.5.5). Additional SVCs mark pluractionality and causation and include transitive pluractional *gwa-ber-* (§5.3.5.6), intransitive pluractional *trà* (§5.3.5.7), pluractional *tore* (§5.3.5.8) and causative *tore* (§5.3.5.9). The final asymmetrical SVC is the negative SVC with *bwè-* ‘NEG’ (§5.3.5.10).

5.3.5.1 Continuous *f-*

As a standalone predicate, the verb *f-* ‘be’ is a stative verb indicating that an entity is present, as shown in (630).

- (630) *fe dràkríja bio be=jè f-u-e*
 also goods other LOC=LOC be-CMP-PST
 ‘And there was another thing there.’ 903a73.1

This verb is also used in clauses with two referring expressions to denote possession, as shown in (631).

- (631) *wo gýu bo / bio ta kíài f-u-e # /*
 3 place TOP other two one be-CMP-PST
 ‘He had three containers.’ 9042.1

SVCs with this verb as the second component verb indicate a continuous event or state. The first verb is marked with *-ye* ‘NFIN’, while *f-* ‘be’ has final inflection. The relationship between the continuous aspect of the construction and the lexical verb is different depending on the lexical aspect of the verb. With stative and activity verbs, the continuous construction indicates that the event continues for some time. Examples (632) and (633) show this construction with stative verbs, while examples (634) and (635) show activity verbs.

- (632) *ba # / fi fe wore tou fworyu f-u-e , /*
 filter sago also then midrib be.at be-CMP-PST
 ‘The sago filter and sago were at the sago fronds.’ 41058.1

- (633) *weire du bo ebri sadri f-u f-u-e # /*
 older.sibling PROX TOP thigh boil be-CMP be-CMP-PST
 ‘One of the older brothers had a boil in his leg.’ 40924.1

(634) *wo dū bo bwàbwei sòbìte-ye f-u-e*
 3 man TOP then hunt-NFIN be-CMP-PST
 ‘And her husband was hunting.’ 41042.1

(635) *tyure e ta fi te-ye f-u-e* ,
 T. 1.PL two sago gather-NFIN be-CMP-PST
 ‘Tyure and I were gathering sago.’ 81377.1

In contrast to stative and activity verbs, the continuous SVC with change-of-state verbs indicates a continuous state that results from the already-completed action of the verb. Examples of this construction with change-of-state verbs are given in (636), (637), and (638).

(636) *kou wójòu bo yurei be wòr-e f-u-e* # /
 K. River body TOP log LOC fell-NFIN be-CMP-PST
 ‘A log had been felled across the Kou River.’ 81564.1

(637) *dwori kwo béyi-je f-u-e* , /
 cockatoo badly put-NFIN be-CMP-PST
 ‘The cockatoos had placed it wrong.’ 520272.1

(638) *yure wójòu dòbu rōu fe àre bé yu-tri-e f-u-e* # /
 tree body big big also stairs LOC up-lean-NFIN be-CMP-PST
 ‘And the ladder had been leaned up against the trunk of a big tree.’ 90416.1

The semantics of the continuous SVC with change-of-state verbs is similar to the semantics of the perfect construction (§4.4).

5.3.5.2 Iterative *fijer-*

The verb root *fijer-* ‘repeat’ is only used in this SVC; it does not exist as a predicating verb on its own. SVCs with this aspectual verb express repetition of an action. The first verb ends with incompletedive *-i*. Examples are given in (639), (640), and (641).

- (639) a. *fì bo wòr-i òre tor-i fijer-u-e # /*
 sago TOP fell-INCMP SEQ pound-INCMP repeat-CMP-PST
 ‘After felling sago, she pounded and pounded it.’ 8146.1
- b. *tor-i fijer-u-e # /*
 pound-INCMP repeat-CMP-PST
 ‘She pounded and pounded it.’ 8147.1
- c. *tor-i fijer-u-e ,*
 pound-INCMP repeat-CMP-PST
 ‘She pounded and pounded it.’ 8148.1
- (640) a. *bé=ta bio tukári / tro-i fijer-u-e*
 LOC=ABL other although cut-INCMP repeat-CMP-PST
 ‘From there they were cutting and cutting others, but...’ 903b254.1
- b. *fe firo-w-e bwò-w-e # /*
 also release-CMP-PST NEG-CMP-PST
 ‘They did not come off.’ 903b255.1
- (641) *fori bo dúke trè bo begi bìbiai=gwre sa fijer-u-e , /*
 cage TOP bird carcass TOP DEM.FOC quietly=AUG take repeat-CMP-PST
 ‘With the cage, she kept quietly taking bird’s carcasses.’ 81228.1

The incompletedive variant of *fijer-* ‘repeat’ is *fijo* and belongs to the class of verbs with minimal TAM inflection that only take the suffix *-ro* ‘NPST’ (§4.6.4). Examples are given in (642) and (643).

(642) *e kotu # du ti be teryi fijo*
 EXCL K. 2.SG PROH LOC pass repeat.INCMP
 ‘Hey, Kotu, don’t keep passing by there.’ 920b32.1

(643) *are èyi kâr-i fijo-ro # /*
 RECP LOC throw-INCMP repeat.INCMP-NPST
 ‘They are throwing it to each other repeatedly.’ 903a61.1

5.3.5.3 Durative *fā-*

As a standalone predicate, the verb *fa-* means ‘return’, as shown in (644).

(644) *wo ta fweyi raika ou fa-u bóre , /*
 3 two again again house return-CMP be
 ‘They two returned home again.’ 4087.1

The aspectual verb *fā-* differs phonologically from *fa-* ‘return’ in that it has /^lH/ tone. The first verb is suffixed with incomplete *-i* ‘INCMP’. The construction is used to indicate a long period of time, usually within a single day, and is often translated into Indonesian with the phrase *sepanjang hari* ‘all day long’. This construction in example (645) from a folktale means that the protagonist smoked pig meat all day long.

(645) *dobe-i fā-w-e # /*
 smoke-INCMP all.day-CMP-PST
 ‘He smoked it all day.’ 40948.1

Another example, from the beginning of a first person narrative, is shown in (646) below. The storyteller indicates here that they traveled for a long time during the day in their search for scrubfowl nests.

(646) a. *dijei fwà-i-rē-di du=ta tà-w-e # /*
 nest scrape-INCMP-IRR1-PURP PROX=ABL rise-CMP-PST
 ‘We went up from here to dig for scrubfowl nests.’ 5045.1

b. *e ta dōr-i fā-w-e , /*
 1.PL two go-INCMP all.day-CMP-PST
 ‘We two walked all day,’ 5046.1

Example (647) is taken from the introduction to an evening church service where the speaker is listing the events of the day, ending in the afternoon when everyone had returned to their homes and sat waiting for the cool of the evening. The durative SVC is used in line (c) to indicate the long period of time in which the people had remained in their houses during the afternoon.

(647) a. *korugwre=ta bwàbwei / bio dra bwe-i-ri dī*
 morning=ABL then other work become-INCMP-NFUT food

bro-w-e # /
 search-CMP-PST
 ‘And beginning in the morning we worked and looked for food.’ 801b6.1

b. *tore bwàbwei bei fwāu du # / ou to-tor-i trā-ro # /*
 until then now evening PROX house PLACT-come-INCMP PLACT-NPST
 ‘And now this afternoon we have all come back to our houses.’ 801b7.1

c. *ou trè bwe-i-jò fā-w-e # /*
 house seated become-INCMP-NFIN all.day-CMP-PST
 ‘We sat and sat in our houses.’ 801b8.1

The durative SVC differs semantically from the inflectional durative construction with *-òu* ‘DUR’ (§4.3.8). Durative *-òu* ‘DUR’ specifies an event that occurs for a period of time, focusing on the inception of the event, while the durative SVC indicates that the duration of the event is within the span of a day.

5.3.5.4 Prospective *ber-*

The prospective SVC is formed with the light verb *ber-* ‘do’ (with the incomplete variant form *bia* ‘do.INCMP’). This verb as a standalone predicate indicates general, non-specific action as illustrated in (648).

- (648) *wo bwàbwei / fe begi ber-i-ri , /*
 3 then also DEM.FOC do-INCMP-NFUT
 ‘He would also always do this.’ 801b208.1

Unlike other asymmetrical SVCs, the prospective SVC includes the irrealis suffix *-rē* ‘IRR1’ on the first verb. This construction indicates an event that will occur soon after the temporal anchor point of the clause, whether past or present. (No future prospective SVCs are attested.) Examples (649) and (650) show the prospective SVC with the default form *ber-*, while examples (651) and (652) show the construction with the incomplete variant form *bia*.

- (649) *eli begi e-jè o tor-ē ber-u bóre # /*
 helicopter FOC 1.PL-EMPH FOC come-IRR1 do-CMP be
 ‘It was that helicopter that we were about to come in.’ 502109.1
- (650) *wo ta dràkríja are bòb-i-rē ber-u-e*
 3 two goods RECP give-INCMP-IRR1 do-CMP-PST
 ‘They two were about to give the thing to each other.’ 913d22.1
- (651) *a du begi dabyi-rē bia bóre*
 1.SG PROX DEM.FOC talk-IRR1 do.INCMP be
 ‘I am about to talk about this.’ 50911.1
- (652) *de bwàbwei àryu abre-i-rē bia-rò # /*
 2.PL then eye perceive-INCMP-IRR1 do.INCMP-NPST\YN
 ‘Do you want to see?’ 808a118.1

The verb *ber-* ‘do’ also occurs in the transitive pluractional SVC (§5.3.5.6) and at the end of sequential clauses after the sequential coordinator *òre* ‘SEQ’ (§8.5).

5.3.5.5 Distributive *tòi*

Distributive *tòi* developed from the verb *toi* ‘hold’, which indicates a semantic agent that holds or places a patient, as illustrated in (653).

- (653) *begi toi òre dà-w-e* ,
 DEM.FOC hold SEQ rock-CMP-PST
 ‘He took hold of it and rocked it.’ 50276.1

The aspectual verb *tòi* ‘DISTR’ differs phonologically from *toi* ‘hold’ in that it has /L/ tone. It has a distributive function. Distributivity is associated with the most patient-like referent in the clause, whether transitive or intransitive. In transitive clauses, a single agent undertakes an action on multiple patients, as shown in examples (654) and (655).

- (654) *bo bwàbwei bo èbai kou du òi bwe-i du # /*
 COORD then 1.SG.GEN uncle loved PROX be.NEG become-INCMP PROX

bo begi bwàbwei , / sòri trì du=ta bwàbwei dÿi
 COORD DEM.FOC then earth clear PROX=ABL then person

brèi-je tòi bóre # /
 call-NFIN DISTR be

‘And my dear uncle who has died, from the cleared land here he called each of the people.’ 81584.1

(655) *bo bwàbwei / ùkási f-u bo # / begi bwàbwei ra*
 COORD then snot be-NMLZ TOP DEM.FOC then footprint

fwòr-e tòi bóre # /
 hide-NFIN DISTR be

‘And the one with snot had hidden each of the footprints.’ 41081.1

In intransitive clauses, the event indicated by the verb occurs multiple times with the single participant, as shown in examples (656) and (657).

(656) *fofweyi / ou fa-ye tòi-j-e # /*
 then house return-NFIN DISTR-CMP-PST

‘We each went back to the house.’ 502103.1

(657) *ro wo-riai be=jè kare=gwre bwe-ye tòi bóre #*
 then 3-REFL LOC=LOC dry=AUG become-NFIN DISTR be

‘They themselves each become very dry there.’ 511a601.1

The semantics of the distributive SVC overlap with those of the inflectional durative construction with *-òu* ‘DUR’ (§4.3.8), which indicates an activity that occurs over a period of time before ceasing. The two examples below are taken from a folktale where a man sharpened arrows all night. In example (658) the speaker uses the distributive construction, emphasizing that each arrow was sharpened in turn.

(658) *korýujòu du bo wo obi bo # bo dou fwor-i o*
 night PROX TOP 3 bamboo TOP COORD fire light-INCMP COM

bwa-ye tòi bóre #
 sharpen-NFIN DISTR be

‘At night he was sharpening his arrows by firelight.’ 520210.1

Almost immediately he rephrased this, as shown in example (659), where he used the durative construction emphasizing the ongoing nature of the activity.

(659) *dou fwor-i o bwa-y-òu bóre #*
 fire light-INCMP INS sharpen-INCMP-DUR be
 ‘He lit a fire and was sharpening.’ 520213.1

5.3.5.6 Transitive pluractional *gwa-ber-*

In addition to its occurrence in the prospective construction (§5.3.5.4), the verb *ber-* ‘do’ also occurs as the second member of a pluractional SVC, where it is prefixed with pluractional *gwa-* ‘PLACT’ (see §4.8.3 on this prefix). The first verb is inflected with incompletive *-i* ‘INCMP’. Examples (660) and (661) show this SVC with the default verb form *ber-*, while examples (662) and (663) show the incompletive variant form *bia*.

(660) *jeria ādri gwa-ber-u-e ,*
 matoa.tree search PLACT-do-CMP-PST
 ‘They went looking for *matoa* trees.’ 4073.1

(661) *bo fu bar-i òre to-tà-u bo / fi wòr-i*
 COORD canoe get.on-INCMP SEQ PLACT-CROSS-CMP TOP sago fell-INCMP

gwa-ber-u bóre # /
 PLACT-do-CMP be
 ‘They got into boats and crossed over, then they were felling sago.’ 814111.1

(662) *si du fukàrì dabyi gwa-bia-ro , /*
 here PROX all talk PLACT-do.INCMP-NPST
 ‘Here all these things are being talked about.’ 803b85.1

(663) *dÿi dú fweyi àidór-i gwa-bia du # /*
 person PROX again be.confused-INCMP PLACT-do.INCMP PROX
 ‘Here these people are all confused again.’ 920a32.1

This pluractional construction indicates multiple agents simultaneously engaging in the action denoted by the verb, most often with transitive verbs, although not exclusively

so. The other two pluractional SVCs have subtly different semantics. The distributive SVC with *tòì* (§5.3.5.5) most typically indicates a single agent undertaking an action multiple times, often on multiple patients. The intransitive pluractional SVC with *trà* ‘PLACT’ most frequently indicates multiple agents simultaneously engaging in the action denoted by the verb, most often with intransitive verbs (§5.3.5.7). However, these are tendencies rather than categorical distinctions. See example (663) above, where the transitive pluractional construction is used with a single referring expression.

5.3.5.7 Intransitive pluractional *trà*

The pluractional SVC with *trà* ‘PLACT’ is used most typically with intransitive predicates to indicate multiple semantic agents or experiencers that all engage in the action of the verb simultaneously. The first verb is always marked with non-finite *-ye* ‘NFIN’. This is one of the verb stems ending with a low vowel that takes only minimal verb inflection (§4.6.4), and is of unknown origin. Since the final verbs of SVCs carry the TAM inflection, inflectional possibilities for this pluractional construction are limited. In final clauses (§8.4) it can occur only with *-ro* ‘NPST’, as shown in (664) and (665).

(664) *buyi gwai tobio bo bwàbwei bé=ta fwè-ye trà-ro # /*
 plantain side side TOP then LOC=PERL grow-NFIN PLACT-NPST
 ‘Along the side of the banana there are several growing.’ 803b260.1

(665) *bo fukàrì bo oryu trà-ro # /*
 COORD all TOP be.at PLACT-NPST
 ‘They are all there.’ 803b46.1

In relative clauses (§8.1.1), the bare stem *trà* occurs before the topic marker.

Example (125) shows a relative clause with a pluractional SVC marked with *du* ‘PROX’, while example (126) shows a relative clause with a pluractional SVC marked with *bo* ‘TOP’.

(666) *késai-ké du bwàbwei tà-ye trà du bo ou fwoyu bóre # /*
small-DIM PROX then rise-NFIN PLACT PROX DIST house rafter be
 ‘The small ones going up here, they are rafters.’ 522109.1

(667) (*ti bwàbwei*) *gwsore bwàbwei worabrór-u kou o ror-e trà bo*
PROH then light then think-NMLZ bad REL be-NFIN PLACT TOP
ti o fî-o # /
PROH COM go.INCMP-EMPH
 ‘And concerning the bad thinking of the city [lit. ‘light’] that is out there, do not go with it.’ 803b175.1

This construction is not limited to intransitive verbs, being used occasionally with transitive verbs as well, as shown in (668), where there is functional overlap with the transitive pluractional SVC (§5.3.5.6).

(668) *wo tafwor-u bei bo die kou for-e trà-ro # /*
3 befriend-NMLZ now TOP water bad drink-NFIN PLACT-NPST
 ‘My friends now like to drink alcohol.’ 81641.1

5.3.5.8 Pluractional *tore*

Two homophonous verbs, both with the form *tore*, occur as the first component verbs of asymmetrical SVCs. The first verb is derived from the serial verb *tor-e* ‘come-NFIN’ and indicates pluractionality (this section), while the other is derived from the sequential verb *toi òre* ‘hold SEQ’ and indicates caused or accompanied motion (§5.3.5.9). In other asymmetrical SVCs, the grammaticalized verb occurs at the end, takes the TAM inflection,

and specifies the suffix taken by the first verb. By contrast, these forms occur as the first verb and do not specify the morphological makeup of the second verb, which takes full TAM inflection. As both of these are fixed form-function pairings, they are glossed here simply as *tore* ‘PLACT’ and *tore* ‘CAUS’, without indication of historical morphological complexity.

The verb *tor-* ‘come’ indicates motion toward the speaker. This verb occurs on its own, as shown in (669), and it also occurs as the lexical verb in asymmetrical SVCs, as shown in (670).

(669) *frèi kou bo tor-u-wéi*
 demon bad TOP come-CMP-NEG
 ‘That bad demon did not come.’ 520162.1

(670) *bo àrá dabyigwa fe tor-e f-u bóre # /*
 COORD God speech also come-NFIN be-CMP be
 ‘God’s news had already come.’ 8156.1

When it occurs as the first verb in an asymmetrical SVC, this verb indicates pluractionality rather than motion toward the speaker. This is illustrated in (671) and (672).

(671) *d̄ȳi fe o tore f̄i-ro # /*
 person also ALL PLACT go-NPST
 ‘The people will also go after them.’ 808a285.1

(672) *bé=ta tore fro-i òre dobyu-je tèb-u-e #*
 LOC=ABL PLACT go-INCMP SEQ place.sideways-NFIN sleep-CMP-PST
 ‘They went away from there and slept.’ 812154.1

The pluractionality of this verb indicates multiple agents performing the same action together, as seen in the examples above. It is not used to indicate repetition of action (iterativity), where the aspectual SVC with *fijer-* is used (§5.3.5.2); further, it is not used to indicate a single agent performing an action on multiple objects (distributivity), where the aspectual SVC with *tòì* is used (§5.3.5.5). However, this construction has functional overlap with the transitive pluractional SVC (§5.3.5.6) and the intransitive pluractional SVC (§5.3.5.7), both of which most typically denote multiple agents engaging in the event.

5.3.5.9 Causative *tore*

Causatives are formed with one of three distinct constructions, which are all related diachronically: a multi-clause sequential construction with *toi òre* ‘hold SEQ’, the pre-verbal auxiliary *tore* ‘CAUS’ (this section), and the verbal prefix *to-* ‘CAUS’ (§4.8.1). However, while both *toi òre* ‘hold SEQ’ and *to-* ‘CAUS’ can indicate unaccompanied causation, *tore* ‘CAUS’ can only refer to carrying events. See §6.7.3 on the syntax of the various causative constructions. Diachronically, the multi-clause sequential construction *toi òre* ‘hold SEQ’ eroded phonologically as the two words merged, losing the diphthong /*oi*/ and losing the /L/ tone, and resulting in the reduced form *tore*. Synchronically this form can only occur in this SVC. It is homophonous with pluractional *tore* ‘PLACT’, which developed from a different source (§5.3.5.8). Both of these forms were further reduced, losing the final syllable and prefixing to the verb, resulting in the polyfunctional pluractional/causative verbal prefix *to-* (§4.8.1).

SVCs with *tore* ‘CAUS’ indicate caused or accompanied motion. Caused motion is illustrated in examples (673) and (674).

(673) *sa òre tore fro-w-e #*
 take SEQ CAUS go-CMP-PST
 ‘They picked it up and took it.’ 903b165.1

(674) *Bwoyusa gi tore fa-i-ro , /*
 B. FOC CAUS return-INCMP-NPST
 ‘Bwoyusa is taking it back.’ 803b277.1

The fact that this form still means ‘hold’ rather than simply being a causative marker is seen in many examples where physical holding rather than caused motion is clearly in view. Examples (675), (676), and (677) illustrate this. Note the ungrammatical causative reading in each case.

(675) *bo ke sù tore ògwri bóre # /*
 COORD 1.SG machete CAUS go.slowly be
 ‘I held a machete and went slowly. *I caused a machete to go slowly.’ 502138.1

(676) *d̄yi bo kwoi tore tà-i-ro*
 person TOP ripe CAUS rise-INCMP-NPST
 ‘The person is holding a ripe banana while standing. *That person is causing a ripe banana to stand.’ 903b256.1

(677) *de fu wōryu tore yu-sréfwor-i #*
 2.PL canoe string CAUS up-leap-INCMP
 ‘Hold the canoe’s rope and jump up. *Cause the canoe’s rope to jump up.’ 817158.1

5.3.5.10 Negative *bwè-*

The verbal negator *bwè-* ‘NEG’ is derived from the light verb *bwe-* ‘become’, the only phonological difference between the two being tonal. This negator occurs only in SVCs and

negates past completive and habitual incomplete constructions. The other verbal negation strategy, with the suffix *-yéi* ‘NEG’, is discussed in §4.5.1. Past completive constructions can be negated with either the suffix *-yéi* ‘NEG’ or the negative SVC, while habitual incomplete constructions can only be negated with the negative SVC. All other verbal negation constructions are formed only with *-yéi* ‘NEG’.

Unlike all other SVCs, this construction involves copying of the TAM inflection between the two component verbs. Both verbs carry the same basic aspect suffix, either completive or incomplete (but not perfect, which does not occur with this SVC).

In completive negative SVCs, both component verbs have the completive and past tense suffixes, as seen in examples (678) and (679).

(678) *e fe fro-w-e bwò-w-e # /*
 1.PL also go-CMP-PST NEG-CMP-PST
 ‘We did not go.’ 502102.1

(679) *a fe dòbu f-u-e bwò-w-e # /*
 1.SG also big be-CMP-PST NEG-CMP-PST
 ‘But I was not big.’ 81573.1

When the completive negative SVC is in a relative clause (§8.1.1), the lexical verb retains the past tense suffix *-e* ‘PST’, while the negative verb has the morphology found on the verbs of relative clauses: the basic aspect suffix and either *bo* ‘TOP’ or *du* ‘PROX’. This is shown in examples (680) and (681).

(680) *bo fwòu [o yesus kweyo diror-u f-u-e bwò-u*
 1.SG.GEN characteristic REL Jesus heart accept-CMP be-CMP-PST NEG-CMP

bo] kou = gwre f-u-e
 TOP bad = AUG be-CMP-PST

‘My character when I hadn’t believed Jesus was very bad.’ 9261.1

(681) [*begi bwàbwei bei fwāu fwrer-u-e bwò-u du] # / bo*
 DEM.FOC then now evening enter-CMP-PST NEG-CMP PROX COORD

wo bo bwàbwei di ká bóre
 3 TOP then food same be

‘For those who did not come this evening, it is like food.’ 803a32.1

In incomplete habitual negative SVCs, both the lexical verb and the negative verb have both the incomplete aspect suffix and the habitual suffix. Additionally, the negative verb has non-past *-ro* ‘NPST’. This is shown in (682) and (683).

(682) *du bo ro fwau eyi bore-y-e bwè-y-e-ro*
 2.SG TOP then F. language tell-INCMP-HAB NEG-INCMP-HAB-NPST

‘You do not usually speak in the Fuau language.’ 801b159.1

(683) *bijer-i-e bwè-y-e-ro*
 bite-INCMP-HAB NEG-INCMP-HAB-NPST

‘It doesn’t bite.’ p192.1

In medial clauses (§8.4), both verbs have the incomplete and habitual suffixes, but the negative verb does not have non-past *-ro* ‘NPST’. This is shown in (684).

(684) *bio fiore = gwre ogwiro-u s-i-e bwè-y-e bo # /*
 other carefully = AUG fit-NMLZ take-INCMP-HAB NEG-INCMP-HAB TOP

bo begi begi dabyi bóre # /
 COORD DEM.FOC DEM.FOC talk be

‘And they do not buy with fair prices – that is what they say.’ 90717.1

5.3.6 Multiple SVCs in a single clause

In other Papuan languages such as Haruai (Comrie 1995), Dumo (Ingram 2006), Yimas (Foley 1991), and Mian (Fedden 2011), SVCs can contain sequences of more than two verbs. In Abawiri, SVCs consist of two verbs only. However, two SVCs can be combined, yielding a three-verb sequence in which one SVC is embedded inside the other. In many cases, the first SVC is a symmetrical SVC of motion, caused motion, or manipulation; this is embedded in an asymmetrical SVC, and the grammatical specification of the final verb has scope over the whole SVC, including the embedded symmetrical SVC. This is illustrated in (685) and (686).

(685) *yure wójòu bar-i tà-ye f-i-e-ro #*
 tree body wrap-INCMP rise-NFIN be-INCMP-HAB-NPST
 ‘It typically grows by climbing up around a tree.’ 511a556.1

(686) *d̄yi bwàbwei ogweyi sijer-e fro-rē ber-i-ri bo , / bo*
 person then edge chase-NFIN go-IRR1 do-INCMP-NFUT TOP COORD
bwàbwei dede gi brèi-ri # /
 then D. FOC call-NFUT
 ‘When people were about to go to chase [game animals out of] the gully, they used to call Dede.’ 4094.1

When multiple SVCs are combined, the choice between the suffixes *-ye* ‘NFIN’ and *-i* ‘INCMP’ is determined in the normal ways: The suffix for the first verb in a symmetrical SVC is determined by the verb itself, while in an asymmetrical SVC it is the grammaticalized verb that determines the suffix. Example (687) illustrates this. The verb stem *tè-* ‘descend’ always takes *-i* ‘INCMP’ in symmetrical SVCs, and it is marked as such in the symmetrical

SVC of motion *bu-tè-i kare-* ‘go downward writhing’. This symmetrical SVC is embedded in an asymmetrical SVC, where the verb *kare-* ‘writhe’ is marked with *-ye* ‘NFIN’ as dictated by the asymmetrical continuous SVC with *f-* ‘be’. If this were a single SVC with three component verbs, both lexical verbs would be expected to have the non-finite suffix as dictated by the continuous SVC.

(687) *bo òke wo-riai bu-tè-i kare-ye f-u bóre #*
 COORD just 3-REFL down-descend-INCMP writhe-NFIN be-CMP be
 ‘And he himself fell down and was writhing.’ 520128.1

Two asymmetrical SVCs can also be combined. Example (688) shows the combination of the distributive and continuous SVCs with the lexical verb *kâr-* ‘extend’, which indicates an object being in horizontal position. The distributive semantics in this example indicate that all the boats were in this position, while the continuous semantics indicate that this state lasted for a period of time.

(688) *fu wo-riai sòri kâr-e tòi-je f-u-e #*
 canoe 3-REFL earth extend-NFIN DISTR-NFIN be-CMP-PST
 ‘The canoes were each lying on the ground.’ 809228.1

A further example of embedded symmetrical SVCs is shown in (689). Here the durative and continuous SVCs are combined, together indicating that the event of the lexical verb (*dòr-* ‘go’) was continuing to take place throughout the day. The durative SVC with *fā-* requires the lexical verb to be suffixed with *-i* ‘INCMP’, while the continuous SVC with *f-* requires the suffix *-ye* ‘NFIN’.

(689) *frè twōryi du bo bwàbwei bio bo bwàbwei , / dōr-i*
 demon good.man PROX TOP then other TOP then go-INCMP

fā-ye f-u-e
 all.day-NFIN be-CMP-PST

‘And this strong demon, another one, was walking along all day.’ 80534.1

Pluractional *tore* can co-occur with an aspectual SVC, in which case the verb carrying the lexical semantics is in the middle, with pluractional *tore* at the beginning and the aspectual verb at the end. An example with durative *fā-* is shown in (690), while an example with continuous *f-* is shown in (691).

(690) *bo begi tore dwòr-i fā-u bóre # /*
 COORD DEM.FOC PLACT dance-INCMP all.day-CMP be

‘It was they who all danced continually.’ 813103.1

(691) *d̄yi begi wodyi-rē tore fr̄i-je f-u bo fukári sēi f-u*
 person DEM.FOC spy-IRR1 PLACT go-NFIN be-CMP TOP all sago.leaf.tip be-CMP

bóre # /
 be

‘The people who were all going to spy, they all wore leaves.’ 507110.1

Finally, the negative SVC can combine with another asymmetrical SVC, as shown in (692), or with a symmetrical SVC, as shown in (693).

(692) *bo bwàbwei fwi du bwàbwei to-tor-e f-u-e*
 COORD then dregs PROX then CAUS-come-NFIN be-CMP-PST

bwò-w-e # /
 NEG-CMP-PST

‘Now these sago dregs had not yet been carried up.’ 5239.1

(693) *a bra = ta bo ror-i tor-u-e bwò-w-e* , /
 1.SG downriver = ABL TOP be-INCMP come-CMP-PST NEG-CMP-PST
 ‘I did not come up from below [the Mamberamo] like that.’ 520181.1

5.4 Chapter summary

The Abawiri verb complex consists of prefixing and suffixing morphology on the verb (chapter 4), as well as auxiliary and serial verb constructions (this chapter). There are two types of verbal auxiliaries defined by their position: pre-verbal and post-verbal. The six pre-verbal auxiliaries are not strictly adjacent to the main verb, occurring in various positions before the verb. This category includes markers of illocutionary force: prohibitive, jussive, and imperative; additionally, auxiliary aspect markers include an auxiliary indicating a change of state, another indicating the endpoint or goal of a previous state of affairs, and one indicating the temporal immediacy of the state of affairs.

The four post-verbal auxiliaries are more tightly integrated with the verbal inflectional morphology than are pre-verbal auxiliaries. The two existential auxiliaries are in complementary distribution with a set of TAM suffixes, where the auxiliaries occur as emphatic counterparts to the TAM suffixes. Two other auxiliaries denote the categories of desiderativity and habituality.

Serial verb constructions consist of sequences of exactly two verbs. There is a basic formal and functional distinction between symmetrical and asymmetrical SVCs. Symmetrical SVCs consist of two lexical verbs, both of which contribute lexical meaning, while asymmetrical SVCs include one verb that has a grammaticalized function.

Symmetrical SVCs are used to code complex motion, caused motion, and manipulation events, while asymmetrical SVCs indicate various grammatical categories. Most of these grammatical categories are related to the internal temporal structure or repetition of an event and include several pluractional SVCs, each with subtly different semantics. Most asymmetrical SVCs have the grammaticalized verb as the second component verb, while for a few asymmetrical SVCs the grammaticalized verb is the first component verb.

In all SVCs, verbal TAM marking occurs on the second component verb. In most SVCs, the first verb is marked with either the incomplete suffix or a dedicated non-finite suffix, the choice between the two being lexically determined. In symmetrical SVCs, the first component verb is specified as taking either the incomplete or non-finite suffix. By contrast, in asymmetrical SVCs it is the grammaticalized verb that specifies the suffix to be taken by the first component verb, regardless of the position of the grammaticalized verb in the sequence. The negative SVC has unique morphological marking in that TAM suffixes are copied between the main verb and the negative verb.

One SVC can be embedded in another, yielding a sequence of three verbs. A symmetrical SVC can be embedded in an asymmetrical SVC; for example, a symmetrical SVC indicating complex motion can be embedded in the iterative asymmetrical SVC to indicate a repeated complex motion event. One asymmetrical SVC can also be embedded in another, creating a complex specification of the internal structure of an event.

Chapter 6 Referring expressions

This chapter presents constructions related to referring expressions in Abawiri, dealing with the issues of grammatical relations, semantic roles, information structure, and related concepts. As the categories of grammatical relations (GRs) do not fit well with the Abawiri data, an introductory section defines the terms and gives the background for the rather non-traditional discussion (§6.1). The next four sections present four constructions organized by their most frequent position in the clause: topic (§6.2), comment (§6.3), focus (§6.4), and antitopic (§6.5). This is followed by a general discussion of word order (§6.6). §6.7 discusses valency adjusting constructions, including reflexives (§6.7.1), reciprocals (§6.7.2), and causatives (§6.7.3). Finally, in section §6.8 I discuss the absence of GRs in Abawiri in a broader theoretical and typological perspective. The chapter summary is given in §6.9.

6.1 Introduction

Nominals within the Abawiri clause present difficulty for description with traditional notions of grammatical relations. While there is extensive marking of the information-structural categories of topic and focus, as well as certain semantic roles such as location, no construction in the language has been found to correlate with a grammatical alignment pattern such as nominative, accusative, ergative, absolutive, or (grammatical) agent/patient. As the relevant Abawiri constructions directly mark semantics and

information structure rather than GRs, the description of referring expressions in this chapter is likely to strike the reader as unusual.

This section introduces the discussion. Terms related to GRs, semantic roles, and information structure as used here are presented and defined in §6.1.1. A summary of the relevant constructions is given in §6.1.2, while §6.1.3 introduces zero anaphora as a complicating factor in the study of Abawiri referring expressions. A subset of the documentary corpus was coded in detail for the study of referring expressions and is introduced in §6.1.4.

6.1.1 *Defining the terms*

Below I define several terms that are important for a presentation of constructions related to the expression of entities in Abawiri. First, I use the term *referring expression* for any expression of an entity in a semantic relationship with a predicate. Referring expressions take the form of full NPs and pronouns, as well as certain demonstratives and postpositions that can be used referentially. (There is also ubiquitous zero anaphora; see §6.1.3). Unlike terms like *subject*, *object*, and *argument*, which are not used here, the term *referring expression* does not imply any particular grammatical relation between the referring expression and the predicate. I use the term in this way to enable a discussion of entities in constructions where there is in fact no apparent grammatical relation holding between the entity and the construction. Abawiri referring expressions are primarily used for first-order entities bound in space and time, as opposed to states of affairs and abstract

ideas (see the discussion of the semantic properties of nouns in §3.1.3). States of affairs are not coded as referring expressions with a predicate; e.g., a sentence meaning ‘John saw that he arrived’ is not possible. Complement clauses are not found in Abawiri, where other clause combining constructions such as sequential clauses and topical medial clauses are used instead.

The discussion here does not distinguish between core arguments and adjuncts. Any referring expression can be marked with a topic or focus marker, regardless of its semantic role in the clause. The locative postpositions (§3.6) are only found with semantically locative referring expressions; however, this is simply due to the semantics of these postpositions. There is no criterion or set of criteria that would distinguish all core arguments from all adjuncts; thus, I do not pursue this distinction further here.

This chapter makes a simple three-way distinction among semantic roles between what are termed *agent*, *patient*, and *theme*. The definitions of the semantic roles as used for the purpose of this description are as follows.

- *Agent*: an entity that engages volitionally in the action of the predicating verb
- *Patient*: an entity that undergoes a change of state
- *Theme*: an entity that is in a state or position – it does not act volitionally or undergo a change of state
- *Other*: any entity whose semantic role is not readily classifiable as an *agent*, *patient*, or *theme*

Abawiri syntax has distinct constructions for the four information-structural categories of *topic*, *comment*, *focus*, and *antitopic*, which I define in turn. The definitions here are notional rather than formal; in the remaining sections of the chapter the formal correlates of these notions are discussed.

Topic is characterized by ‘aboutness’: the topic is the entity to which new information is to be connected (Chafe 1976; 1994; Gundel 1988; Lambrecht 1994; de Vries 1995; Krifka 2007). In most languages, topics are old information that the speaker assumes to be familiar to the listener. Topic constructions in some Papuan languages, however, are not restricted to given entities to which new information is to be connected. Topic constructions can also be used for new topics and ‘frames’ (de Vries 1995). New topics have ‘aboutness’ but are new in the discourse. Frames “present information that the speaker wants the addressee to take for granted” (de Vries 1995: 524). They are not necessarily entities (they can be events), and the rest of the clause is not necessarily ‘about’ them. The Abawiri topic construction is used for all of these types. The term ‘topic’ is used here to refer to a referring expression or clause that is marked as a relevant domain or theme for what follows (Heeschen 1998; de Vries 2019).⁷ Topic constructions have been discussed in several specific Papuan languages including Dani (Bromley 1981), Eipo (Heeschen 1998), Auye (Moxness 2003), and Iau (Bateman 1982b; 2018); typologically oriented discussions of topicality among Papuan languages can be found in Reesink (1994) and de Vries (1995).

7. Heeschen (1998) and de Vries (2019) use the term ‘thematization’ rather than ‘topic’. Reesink (1994) uses the term ‘domain-creating construction’.

The *comment* is the counterpart to *topic*; it is what the clause or sentence asserts about the topic. Together, the topic and comment form *topic-comment structure* (Li & Thompson 1976; Gundel 1988; Lambrecht 1994; Foley 2007). Topic-comment structure is said to be the primary organizational strategy for Iau clauses (Bateman 1982b; 2018); I present similar findings in this chapter for Abawiri. Topic-comment structure in Abawiri is roughly equivalent to Gundel's notion of *relational givenness/newness* (Gundel, Hedberg & Zacharski 1993; Gundel & Fretheim 2004).

Focus is that part of the clause that is signaled as being the most unpredictable piece of information, that to which the hearer should pay special attention (Halliday 1967: 204; Lambrecht 1994: 207). In Abawiri, focus marking occurs only on nominals, as opposed to topic marking that also occurs on whole clauses. Abawiri has four focus markers, three of which mark general information focus, while the fourth marks contrastive or additive focus (Dik & Hoekstra 1981; Gundel & Fretheim 2004).

The *antitopic* occurs outside the usual bounds of the clause, prototypically functioning to confirm the identity of the topic (Chafe 1976; Lambrecht 1994). In Abawiri, antitopics are the only grammatical material following the verb complex, and they are usually marked with topic markers.

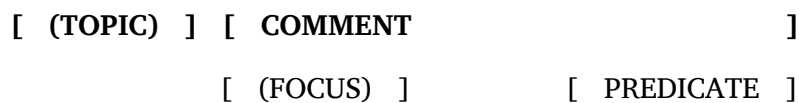
6.1.2 Referring expressions: a summary

Following is a summary of the grammatical structures related to referring expressions in Abawiri. There is no bound person marking on the verb. Postpositional

discourse markers occur frequently on referring expressions of all semantic roles and mark pragmatic topic and focus; a separate set of postpositions marks semantic location. Topic marking is more frequent on full NPs than on reduced referential devices (pronouns, demonstratives, locatives), and whole clauses are often marked as topics. Focus marking is only used for referring expressions within the clause. Pronouns are not differentiated based on case. Word order is strongly verb-final, with a single post-verbal slot for an antitopic, which can be a referring expression, a relative clause, or a topical medial clause. The relative order of referring expressions before the verb correlates with information status (old vs. new information), semantic roles, and semantic features of the referents (animacy, etc.). Reflexives and reciprocals both encode coreferentiality between the agent and another semantic role in the clause. Causatives add a semantic agent to the construction.

The basic order of the clause is topic-comment, with an optional topic and obligatory comment. The comment consists of an optional focused referring expression and an obligatory predicate. This is diagrammed in Table 56.

Table 56. Topic-comment structure of the Abawiri clause



The predicate is the only obligatory part of the clause, and many clauses consist only of a predicate, as shown in (694).

(694) *dre-i frì-j-e , /*
run-INCMP go-CMP-PST
‘They ran.’

81261.1

It is typical for coordinating conjunctions and adverbs to occur between the topic and comment as in (695) and (696), respectively. Pauses are also frequent here, as in (697). Often both a coordinating conjunction and a pause occur between the topic and the comment, as in (698).

- (695) *a bwàbwei (sòri) sòri èyi tryu tijo-rō # /*
 1.SG then earth earth LOC paddle cross-NPST\IRR2
 ‘I will paddle to land.’ 817143.1
- (696) *wo fweyi fro-w-e #*
 3 again go-CMP-PST
 ‘He went again.’ 903b128.1
- (697) *àrá dabyigwa du / byidie eyi # /*
 God speech PROX sea language
 ‘God’s Word here is in Indonesian.’ 801b155.1
- (698) *ayite du bwàbwei , / woro gwájou=ta yu-sréfwor-u-e # /*
 father PROX then back side=ABL up-leap-CMP-PST
 ‘Father jumped up from behind.’ 817166.1

Clause combining constructions (chapter 8) also show no evidence for GRs. Relative clauses relativize semantic agents, patients, themes, and locations, with a distinct relative clause construction for locations. There are two types of medial clauses, neither of which has switch-reference marking as is common in many Papuan languages with clause chaining.

6.1.3 Zero anaphora

A complicating factor in the discussion of referring expressions in Abawiri is ubiquitous discourse-based zero anaphora. Any discourse entity that is understood from shared context can simply be omitted, as shown in example (699).

- (699) a. *òru bo bed-i gwa-ber-u-e wei #*
 woman TOP say-INCMP PLACT-do-CMP-PST hey!
 ‘The women were calling ‘wei’.’ 814142.1
- b. *fero / tore fi bóre , /*
 then PLACT go be
 ‘Then they all went home.’ 814143.1
- c. *bed-u-e eyo , /*
 say-CMP-PST come.on
 ‘They said come on.’ 814144.1
- d. *e ta be fwi gyuror-o # /*
 1.PL two IMMED dregs lift-NPST
 ‘We two will now pick up the sago.’ 814145.1
- e. *ro bwàbwei fro-u bóre # /*
 then then go-CMP be
 ‘Then they went.’ 814146.1

Note from this example that lines (b), (c), and (e) have no referential device for ‘the women’ – in the absence of bound pronominal forms on the verb, reference is absent.

In many languages, coordinated clauses with “gapping” provide evidence for GRs, where the omitted argument of the second clause must be coreferential with the S or A in nominative/accusative languages, and with the S or P in ergative/absolutive languages. This is not the case in Abawiri. Any argument can be omitted when understood from

context, as shown in the second line of (700), where both the agent and the patient are omitted in the second clause. Interpretation of the participant structure of line (b) is based on referential continuity in discourse, with maximal continuity being indicated with zero reference for both the agent and the patient (cf. Givón 2017).

- (700) a. *dì bo gwa dede gi bwòtrýu bóre*
 animal TOP immediately D. FOC pull be
 ‘Dede immediately pulled that animal up.’ 40945.1
- b. *toyí-ri* ,
 cut-NFUT
 ‘He cut it.’ 40946.1

Reference is also possible with headless NPs, where the NPs have overt modifiers such as adjectives (701) and relative clauses (702), but the head noun is not expressed with an overt form.

- (701) *yafei=ta tía-w-e # /*
 tall=PERL CROSS-CMP-PST
 ‘He crossed through the tall [place].’ 80516.1
- (702) [*o trâr-u bo*] *toi-rô* ,
 REL jump-CMP TOP hold-NPST\IRR2
 ‘The one that jumped, if it is caught,’ 80951.1

It is also common to omit NPs with postpositions, as in (703).

- (703) *o dabyi # /*
 ALL talk
 ‘Tell them.’ 803a35.1

The headless NPs in examples (701)-(703) above are not cases of zero anaphora in that there is overt reference. However, the omission of the head noun in these examples

follows the same principle of omission under high referential continuity (Givón 2017) as in examples (699) and (700) above. When a referent can be inferred from preceding context, it can be omitted. Modifiers, when necessary for clarity, can be retained. Zero anaphora also has a second function, that of referring to the main protagonist in narratives (Grimes 1978; Dooley & Levinsohn 2001) even in cases of low referential continuity.

For extended examples of zero anaphora in discourse, see the excerpt from a narrative in §8.4.3, as well as the text excerpts in Appendix C, Appendix D, and Appendix E.

6.1.4 The data

In order to facilitate a careful study of referring expressions, a subset of the Abawiri documentary corpus was coded in detail for grammatical, semantic, and pragmatic features related to referring expressions. One text was selected from each of three genres: narrative, procedure, and hortatory. In order not to over-represent speech from a single speaker or genre, I only included about one third of the hortatory text, which is much longer than the other two texts. Table 57 shows the texts, with the number of clauses, the number of referring expressions in each, and the rate of referring expressions per clause.

Table 57. Texts for coding of referring expressions

Text	Clauses	Referring expressions	Referring expressions per clause
817 (narrative)	167	216	1.29
523 (procedure)	96	105	1.1
801 (hortatory)	127	189	1.49
TOTAL	390	510	1.31

In all, 504 referring expressions were coded for the features and values shown in Table 58.

Table 58. Features and values for coding properties of referring expressions

Feature	Values
form	NP, pronoun, demonstrative, locative postposition
postposition	<i>bo, du, du bo, gi, begi, o, fe</i> , locative postposition, other, none
syntax	topic, comment, other
animacy	locutor, human, other
semantic relation	agent, patient, theme, other
information structure	new, old

In addition, the following two features of clauses were coded.

Table 59. Features and values for coding properties of clauses

Feature	Value
word order (two referring expressions)	APV, PAV
referring expressions per clause	0, 1, 2, 3

In the study, all medial and final clauses (see chapter 8) were included except for repetition such as Tail-Head Linkage (§8.6) or repetition indicating iterativity (§8.7.4), in which case only the first clause was coded. Subordinate clauses such as relative clauses and purpose clauses were excluded, as were incomplete clauses and disfluencies. Referring expressions in non-verbal predicates were excluded. Clauses with code-switching into Indonesian were included, as these in all cases simply included insertion of a single Indonesian word into an Abawiri clause, complete with topic markers, postpositions, etc. on the Indonesian word as dictated by the relevant Abawiri construction. Clauses spoken in Indonesian were not included.

This coded data is used for several quantitative summaries throughout the chapter and is the source of all numbers in figures. Textual examples illustrating specific phenomena, however, were not limited to this data, being drawn from the entire corpus.

The remainder of this chapter discusses constructions related to referring expressions in Abawiri. The following four sections present four constructions organized by their most frequent position in the clause: topic (§6.2), comment (§6.3), focus (§6.4), and antitopic (§6.5). This is followed by a general discussion of word order (§6.6). §6.7 discusses valency adjusting constructions including reflexives (§6.7.1), reciprocals (§6.7.2), and causatives (§6.7.3). Finally, in section §6.8 I discuss the absence of GRs in Abawiri in a broader theoretical and typological perspective. The chapter summary is given in §6.9.

6.2 Topic

Topics, when present, occur before the comment in the clause. Topics can be marked grammatically with the postpositional topic marker *bo* ‘TOP’ (§6.2.1) or, in contexts where temporal-spatial or discourse proximity is involved, with *du* ‘PROX’, or with a combination of *du* ‘PROX’ + *bo* ‘TOP’ (§6.2.2). Both referring expressions and whole clauses can have topic marking. Topics can also be unmarked, with word order alone dividing the topic from the comment (§6.2.3). Multiple nominal topics in a clause are common, while multiple clausal topics (topical medial clauses, §8.4) are also possible, although not common (§6.2.4). The function of topic marking is presented next (§6.2.5). Antitopics, which are postposed topics occurring after the verb, have largely the same possibilities for topic marking, although they have a distinct intonation contour (§6.5).

6.2.1 Topic marker *bo*

The primary grammatical means for marking topics is the postposition *bo* ‘TOP’. This marker was derived historically from the distal demonstrative *bo* ‘DIST’, a common source of topic markers among Papuan languages (de Vries 1995; 2006; 2019). The Lakes Plain language Obokuitai has a topic marker *bu* (Jenison 1995). In Abawiri, the form *bo* still has a synchronic function as a distal demonstrative (§3.7.6), although this is far less common than its topic marking function. The topic marker has, in turn, developed into a clausal coordinator, likely from contexts where the topic was left unexpressed and only the topic marker was left (§8.7.1.1).

Most commonly, *bo* ‘TOP’ occurs after the first portion of the clause, dividing the topic from the comment. Examples are shown in (704) and (705).

(704) **Makris** *bo bu-fwa-w-e* # /
 M. TOP down-descend-CMP-PST
 ‘Makris came down.’ 40330.1

(705) **dì** *bo bwó=ta freror-e tà-w-e* # /
 food TOP under=ABL go-NFIN rise-CMP-PST
 ‘Game animals came running up.’ 40934.1

In addition to semantic agents as in (704) and (705) above, semantic patients can also be topics as in (706) and (707).

(706) **jeria** *bo àryu abro-w-e* # /
 matoa.tree TOP eye see-CMP-PST
 ‘They saw the *matoa* trees.’ 4074.1

(707) **d̄yi** *trè bo srī béyi-je f-u-e*
 person carcass TOP platform put-NFIN be-CMP-PST
 ‘A person’s carcass had been placed on the platform.’ 40811.1

In clauses with both an agent and patient, either the agent or the patient can be the topic as dictated by discourse considerations. As the agent is most frequently activated, background information, in these cases it is most frequent to have agent as topics, as shown in (708) and (709).

(708) **dwèyi krijai** *bo bwàbwei dígò tor-e fobre-i-ri* , /
 sister little TOP then ax grasp-NFIN dance-INCMP-NFUT
 ‘Then the young women held axes and danced.’ 80650.1

(709) **òru** *bo fwi di-j-e* # /
 woman TOP dregs knead-CMP-PST
 ‘The woman was squeezing sago.’ 41021.1

It is also common to have patient topics. In this case it is usual (but not grammatically obligatory) for the agent to be marked with *gi* ‘FOC’ in a pattern resembling the optional ergativity found in many Papuan languages (Riesberg 2018). In Abawiri, *gi* ‘FOC’ is best analyzed as a focus marker rather than an optional ergative marker, as discussed in §6.4 below. Example (710) illustrates a patient topic where the agent is marked with *gi* ‘FOC’, while example (711) illustrates a patient topic where the agent is not marked with *gi* ‘FOC’.

(710) *die bo òru gi bu-tror-u-e # /*
 water TOP woman FOC down-pour-CMP-PST
 ‘It was the woman who poured the water down.’ 913d46.1

(711) *ou bo bwàbwei wo-ri kàrjer-u bóre # /*
 house TOP then 3-REFL leave-CMP be
 ‘They left the house behind.’ 40822.1

NPs of any other semantic role can also be topics, such as location (712) and instrument (713).

(712) *yure o wo-ri be=ta to-i òre báí kàr-i du , bo*
 tree REL 3-REFL LOC=ABL take-INCMP SEQ across carry-INCMP PROX COORD

be=jè bo fwoyu-j-e # /
 LOC=LOC TOP tie-CMP-PST
 ‘The log that he himself had put across to the other side, he tied it there.’ 520115.1

(713) *fofweyi fōru bo bar-i-ro ,*
 then string TOP wrap-INCMP-NPST
 ‘Then it is tied with string.’ 511a409.1

In addition to NPs, whole clauses can be topics. Example (714) shows a clausal topic.

(714) [*a o die biárte-u bo*] àrá dabyigwa be bu-fwè-ye
 1.SG FOC water fall-CMP TOP God speech IMMED down-float-NFIN

f-u-ò #
 be-CMP-EMPH\YN

‘When I fell in the water, had God’s Word already come down?’ 8134.1

Topical medial clauses as in example (714) are a primary clause combining strategy in Abawiri, as detailed in §8.4.

6.2.2 *du* ‘PROX’ as a topic marker

The proximal demonstrative *du* ‘PROX’ indicates proximity relative to the speaker (§3.7.1). When used as a topic marker, its function in addition to that of *bo* ‘TOP’ is indication of immediacy in the discourse context; as such, it is the default topic marker for first person pronouns, while *bo* ‘TOP’ is the default topic marker for second and third person pronouns and noun phrases. Its use as a topic marker on a pronoun is illustrated in (715), while (716) shows it marking a noun phrase.

(715) *a du āfréi* # /
 1.SG PROX know.NEG

‘I did not know.’ 50222.1

(716) *bo d̄yi du yuta-i* òre *wotrór-i-ri bóre* # /
 COORD person PROX stand.up-INCMP SEQ dance-INCMP-NFUT be

‘Then the people stood up, and then danced.’ 507133.1

In addition to agents as in (715) and (716) above, patients can also be marked with *du* ‘PROX’ as in (717).

(717) *bo ro tōu kre du bu-āfwe-i-ro #*
 COORD then cuscus(sp.) bone PROX down-enter-INCMP-NPST
 ‘Then this cuscus bone goes down inside.’ 511a429.1

In clauses with both an agent and patient, either the agent (718) or the patient (719) can be the topic as dictated by discourse considerations – this mirrors the use of *bo* ‘TOP’ as discussed above.

(718) *òru du fi béyi bóre*
 woman PROX sago put be
 ‘The women put down sago.’ 50742.1

(719) *firi du two òru gi kàr-u-e ,*
 plate PROX immediately woman FOC carry-CMP-PST
 ‘The woman threw down this plate.’ 913e24.1

In addition to agents and patients, referring expressions with any other semantic role can be topics marked with *du* ‘PROX’, including location as in (720).

(720) *ou du bo torebari-ri bóre # /*
 house PROX TOP spin-NFUT be
 ‘They spun around the house.’ 507283.1

6.2.3 Unmarked topics

A topic marker is not a grammatically required part of the topic-comment construction, and many topics are not marked with *bo* ‘TOP’ or *du* ‘PROX’. In many cases, word order alone delineates the boundary between topic and comment; in other cases, a coordinating conjunction or adverb intervenes between the two. The coordinating

conjunction *bwàbwei* ‘then’ frequently delineates the boundary between the topic and comment as in (721) and (722).

(721) *wo bwàbwei / fe begi ber-i-ri , /*
 3 then also DEM.FOC do-INCMP-NFUT
 ‘He would also always do this.’ 801b208.1

(722) *ou bwàbwei sũ gi bro-w-e # /*
 house then leaf.rib FOC search-CMP-PST
 ‘Concerning a house, I was looking for palm midribs.’ 5135.1

The temporal adverb *fweyi* ‘again’ also occurs in this position, as in (723).

(723) *wo ta fweyi be=ta fori gwò yu-tâ-u bóre # /*
 3 two again LOC=ABL sago.swamp INESS up-rise-CMP be
 ‘They two went up again to the middle of the sago swamp.’ 40820.1

Where no grammatical morpheme intervenes between the topic and comment, word order is the only formal property that distinguishes the topic from the comment. The clause in example (724) contains an unmarked topic *e*, followed by a comment *ótrè biaro*.

(724) *e ótrè bia-ro*
 1.PL how do-INCMP-NPST
 ‘What shall we do?’ 81738.1

The division between topic and comment is in certain cases apparently ambiguous. In the clause in example (725), the topic could be *fu* ‘canoe’, in which case the numeral *ta* ‘two’ would be a numeral predicate with a light verb (§7.2.6), and the literal meaning would be something like ‘Concerning canoes, two of them were being there’. On the other hand, *fu ta* ‘two boats’ could be a topical NP, in which case this would be an existential construction roughly meaning ‘Concerning two canoes, they were being there’.

(725) *fu ta ror-e f-u bóre ,*
 canoe two be-NFIN be-CMP be
 ‘There were two boats.’

81753.1

Prosody also does not offer clues as to the appropriate division in this case. As the semantics of the two possible interpretations are nearly identical, this also does not offer clues. A syntactic test might be devised whereby the topic marker is inserted in the projected boundary positions, e.g. *fu bo ta ror-e fu bóre* vs. *fu ta bo ror-e fu bóre*. This is not pursued here. The crucial point is that in actual discourse, constructions exist in which the exact boundary between the topic and the comment is not delineated formally.

6.2.4 Multiple topics

Multiple nominal topics are quite frequent in discourse. Examples (726) and (727) both have two topics: an agent and a patient.

(726) *abu bo dì bo tukári báje fru bwe-i òre*
 grandparent TOP food TOP although 1.SG.BEN cook become-INCMP SEQ
béyi-je f-i-ri
 put-NFIN be-INCMP-NFUT

‘Even though grandmother always cooked and put food out for me,’ 50927.1

(727) *bwàbwei twōryi bo , / sō bo byi-j-e # /*
 then good.man TOP pig TOP shoot-CMP-PST

‘Then the good guy shot a pig.’ 8057.1

(728) shows three topics: a theme, a temporal referring expression, and an agent.

(728) *bo duru bo bwàbwei eke bo digwréjou bo ro bwàbwei*
 COORD PROX.EMPH TOP then first TOP the.elderly TOP then then

ror-u bóre # /
 be-CMP be

‘And this is what the old people long ago were like.’ 803b158.1

du ‘PROX’ can also mark multiple topics, as in (729), where it marks both an agent and a patient.

(729) *àrá dabyigwa du / e bei fwāu du # / begi e-jè*
 God speech PROX 1.PL now evening PROX DEM.FOC 1.PL-EMPH

ate-i bóre
 hear-INCMP be

‘This word of God, we here this afternoon, we will hear it.’ 801b178.1

In discourse, speakers frequently state a general topic, then give a comment about the topic in the form of another topic-comment construction. Examples are shown in (730), (731), and (732).

(730) *fero bwó du # / du bwàbwei ba áje bóre # /*
 then under PROX PROX then filter BEN be

‘Then under here, this one is for the filter.’ 52359.1

(731) *sòri du=jè e sòri dre bworyu-ro ,*
 earth PROX=LOC 1.PL earth here sit-NPST

‘About this world, we live in this world.’ 801b234.1

(732) *yesus o wo-ri begi toi òre / bwó bwe-yi bo # / e ba ká*
 Jesus REL 3-REFL FOC hold SEQ under become-PRF TOP 1.PL TOP same

ror-i # /
 be-INCMP

‘Jesus who made Himself low, let’s be like that.’ 801b173.1

Multiple clausal topics are possible, although rare. An example is shown in (733); see chapter 8 for further discussion.

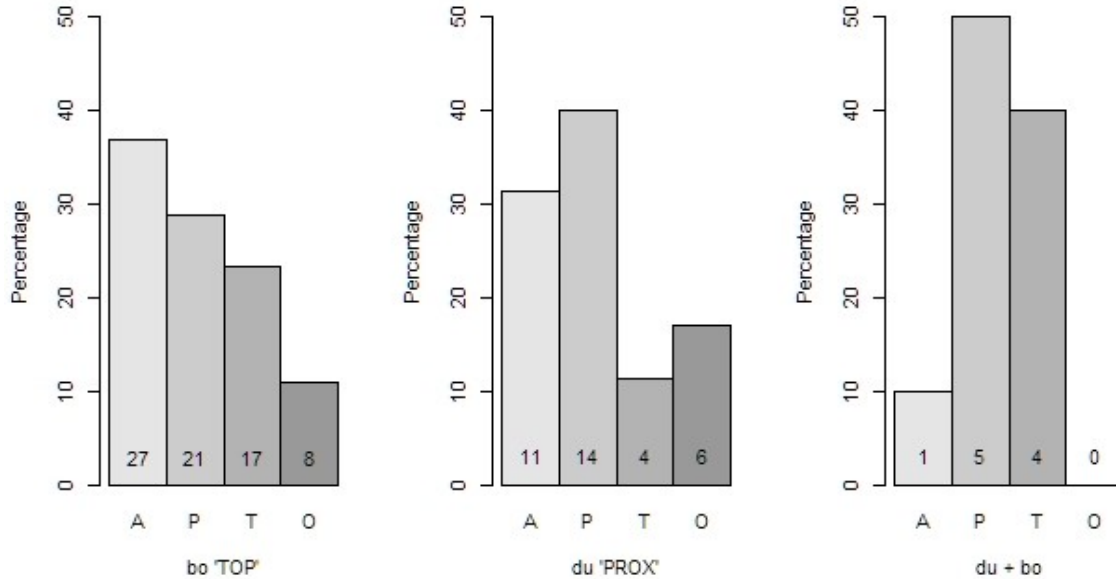
- (733) *bo bwàbwei (fyu o bwàbwei , / òi bwo-u bo) , /*
 COORD then earthquake FOC then be.NEG become-CMP TOP
[fyu o bwàbwei òi bwo-u bo] [d̄yi bo bwàbwei
 earthquake FOC then be.NEG become-CMP TOP person TOP then
(fu) , / fu bo sa àre kē ror-e tòi bo] , / bo d̄yi
 canoe canoe TOP make SEQ finished be-NFIN DISTR TOP COORD person
bo ro tore gwrò-u bóre kou=ta bo # /
 TOP then PLACT emerge-CMP be K. River = ABL TOP
 ‘And then the earthquake was gone, and the people finished making canoes and came out, from the Kou River.’ 81577.1

This clause chain is unusually long. Clause chaining is not as extensively developed in Abawiri as it is in many Trans New Guinea languages (Pawley & Hammarström 2018: 104).

6.2.5 The function of topic marking

Figure 26 shows all occurrences of the topic markers *bo* ‘TOP’, *du* ‘PROX’, and *du + bo* in the sample of three texts, here cross-tabulated with the semantic role of the associated nominal: agent, patient, theme, and other. The percentage of the topic marker’s co-occurrence with a particular semantic role is shown on the y axis; the number in the center of each bar represents the actual count of each combination.

Figure 26. Topic markers by semantic role



The default topic marker *bo* 'TOP' is used most frequently to mark agents, and only rarely to mark semantic roles other than agent, theme, or patient. *du* 'PROX' and *du + bo* often mark patients. Proximal topic marking was used frequently in the procedural text as the speaker showed various things he was manipulating.

Topic marking is not closely correlated with given or old information in Abawiri. Given the right context, new information can be a topic, as shown in (734) below, the first seven lines of a folktale. The main character is introduced in (b) as a topic; in line (g) a secondary character, the pig, is also introduced as a topic.

(734) a. *eya # /*
 yes
 'Yes.'

8051.1

- b. *bwàbwei (twōryi bo) , / twōryi bo fi tōride o fro-w-e # /*
 then good.man TOP good.man TOP sago cover ALL go-CMP-PST
 ‘The good guy went to see a sago-pounding place.’ 8052.1
- c. *mm # /*
 mm
 ‘Mm.’ 8053.1
- d. *twōryi bo fi tōride o fro-u bo , / frāre ei gi ber-u*
 good.man TOP sago cover ALL go-CMP TOP moon trunk FOC do-CMP

bo # /
 TOP
 ‘When the good guy went to the sago-pounding place, it was a full moon.’ 8054.1
- e. *ou kobyuja f-u # /*
 house grass be-CMP
 ‘The house had grass growing on top.’ 8055.1
- f. *bo òke ou kobyuja f-u bwe-ye dou o ti-j-e # /*
 COORD just house grass be-CMP become-NFIN fire COM put.down-CMP-PST
 ‘The house had grass growing on top and it was burned with fire.’ 8056.1
- g. *bwàbwei twōryi bo , / sō bo b̀yì-j-e # /*
 then good.man TOP pig TOP shoot-CMP-PST
 ‘Then the good guy shot a pig.’ 8057.1

A short way into the same folktale, the speaker introduces another character with the proximal topic marker (735).

- (735) *fr̀ei twōryi du bo bwàbwei bio bo bwàbwei , / d̀òr-i*
 demon good.man PROX TOP then other TOP then go-INCMF

fa-ye f-u-e
 return-NFIN be-CMP-PST
 ‘And this other strong demon was walking along all day.’ 80534.1

Another example comes from an interruption in a first-person narrative. The narrator in example (736) below cut off his utterance in line (a), searching for an Abawiri equivalent for the Indonesian word *ukuran* ‘measurement’. In line (b) he asks how ‘measurement’ is said, and marks *ukuran* ‘measurement’ with *bo* ‘TOP’. Here he has made no previous indication that he was about to talk about this, and it cannot be assumed to be activated from context.

- (736) a. *gwore bo , /*
 crocodile TOP
 ‘The crocodile....’ 817120.1
- b. *ukuran bo trò bed-i-ro # /*
 measurement TOP how say-INCMP-NPST
 ‘How do you say ‘measurement?’’ 817121.1

Two further examples of the function of topic marking are shown in (737) and (738) below. Here the topic marker sets off the topic nominal *ba* ‘filter’ and *gwore* ‘crocodile’, respectively, as the thing to be discussed; information about this topic is given in the comment. The exact semantic relation between the topic and the comment in these two examples is difficult to define in terms of traditional semantic roles.

- (737) *ba bo tebe s-i-e-ro # /*
 filter TOP cloth take-INCMP-HAB-NPST
 ‘For the filter, cloth is taken’ 52350.1
- (738) *gwore du bo bwàbwei , / frāre gi gwore bwe-yi-ro # /*
 crocodile PROX TOP then snake FOC crocodile become-PRF-NPST
 ‘Concerning this crocodile, it was a snake that had become a crocodile.’ 817195.1

The lack of correlation between topic marking and activation status is not unique to Abawiri among Papuan languages, with many Papuan languages having a topic construction that marks the topic as loosely relevant to the rest of the clause or sentence (Reesink 1994; Heeschen 1998; de Vries 2006; 2019).

6.3 Comment

While the topic is optional and precedes the comment, the comment is obligatory and follows the topic. The comment consists of all elements of the clause after the topic, including any non-topic referring expressions and the predicate. The comment consists minimally of the predicate, which is obligatory in the clause. In discourse, the comment is generally what is being asserted about the topic. Comments are primarily indicated by word order; secondary grammatical indicators of the comment include (1) topic markers signaling the end of the topic (and by extension, the beginning of the comment), and (2) optional focus markers on referring expressions (§6.4), which are restricted to the comment. Examples (739), (740), and (741) below show comments with verbal predicates.

(739) *wo bo dre worabror-u-wéi aa # /*
 3 TOP like.this think-CMP-NEG EXCL
 ‘He would not think, okay.’ 801b256.1

(740) *d̄yī bo kèbi gi do-i-ro # /*
 person TOP guitar FOC tap-INCMP-NPST
 ‘The person is playing the guitar.’ 903a204.1

(741) *digwréjou bo bwàbwei kou bworyu-ro # /*
 the.elderly TOP then bad sit-NPST
 ‘The old people do not live well.’ 801c43.1

Example (742) shows a clause consisting only of a comment, the comment consisting of a focused referring expression and the verbal predicate. Example (743) shows a minimal clause, consisting only of the verbal predicate in the comment.

(742) *twōre gi worsre-yi bóre # /*
 new FOC wear-PRF be
 ‘A new one is already put on.’ 803b361.1

(743) *tor-i fjer-u-e # /*
 pound-INCMP repeat-CMP-PST
 ‘She pounded and pounded it.’ 8147.1

Comments can also consist of a non-verbal predicate such as a nominal predicate (744) or an adjectival predicate (745).

(744) *duru bo fiau # /*
 PROX.EMPH TOP bat(sp.)
 ‘This is a bat.’ 5123.1

(745) *(fwàre) , / de fwàre bo twōre , /*
 bow 2.PL bow TOP new
 ‘Your bow is new.’ 50732.1

6.4 Focus

Speakers use markers of information focus to single out a referent of a nominal within the comment for special attention. Unlike topic markers that occur with both referring expressions and clauses, focus markers only occur with referring expressions: NPs,

pronouns, and referential demonstratives. Referential locative postpositions do not occur with focus markers. Instead, a full NP is used and flagged with both the postposition and the focus marker.

There are three markers of information focus: *gi* ‘FOC’ (§6.4.1), *begi* ‘FOC’ (§6.4.2), and *o* ‘FOC’ (§6.4.3), all of which are largely restricted to the comment. In addition, there is a marker of contrastive or additive focus, *fe* ‘also’, which occurs regularly in both the topic and the comment and is also used for clause combining (§6.4.4). Multiple focus in a clause is attested (§6.4.5). The function of focus marking is discussed in §6.4.6, along with the correlation between focus marking, semantic roles, and givenness.

6.4.1 Focus marker *gi*

The focus marker *gi* ‘FOC’ indicates that the referent of the associated NP, pronoun, or demonstrative is new or noteworthy in some way. It is typically used to introduce new characters as in (746) and (747).

(746) *sō gi fwe-i-ro # /*
 pig FOC see-INCMP-NPST
 ‘We see the pig.’ 51323.1

(747) *e yire gi fwa-i bóre # /*
 1.PL song FOC sing-INCMP be
 ‘We will sing a song.’ 801b14.1

In discourse, new participants are often introduced as patients (cf. Du Bois 1987), so *gi* ‘FOC’ frequently occurs with patients; this is seen in (746) and (747) above. This is, however, a discourse tendency rather than a grammatical requirement. When other

semantic roles are in focus they are marked with *gi* ‘FOC’ as well. Semantic agents are marked with *gi* ‘FOC’ as in (748) and (749):

(748) *eya bo arikei òru ta gi bed-u bóre # /*
 yes COORD parrot(sp.) woman two FOC say-CMP be
 ‘Yes, those two parrot sisters were the ones talking.’ 520101.1

(749) *bora d̄yi gi bwòr-u-e ,*
 ball person FOC kick-CMP-PST
 ‘A person kicked the ball.’ 903a41.1

Semantic themes are marked with *gi* ‘FOC’ as in (750) and (751):

(750) *dwèyi ta gi ber-i bwe-i-ri #*
 sister two FOC do-INCMP become-INCMP-NFUT
 ‘The two sisters were there continually.’ 520389.1

(751) *eya bo dwèyi dèbi gi ror-u bóre #*
 yes COORD sister child FOC be-CMP be
 ‘Yes, it was his sister’s child.’ 52069.1

Semantic instruments are marked with *gi* ‘FOC’ as in (752) and (753):

(752) *bo òke fā yábrèi=gwre gi atre-i-ri-wéi # /*
 COORD just randomly mouth=only FOC love-INCMP-NFUT-NEG
 ‘He did not just love with his lips.’ 801b207.1

(753) *rakre gi to-tà-i-ro # /*
 foot FOC CAUS-rise-INCMP-NPST
 ‘He is taking it up with his feet.’ 903b122.1

Semantic locations are marked with *gi* ‘FOC’ as in (754) and (755), often with a postposition indicating the spatial relationship involved:

(754) *ro brá gi dre bu-tror-u bóre ,*
 then pot FOC like.this down-pour-CMP be
 ‘Then it is poured in the pot like this.’ 52383.1

(755) *g̀yukou gi be t̀yijo-ro # fwrē f-u # /*
 mud FOC LOC cross.INCMP-NPST thorn be-CMP
 ‘We cross over mud, with thorns.’ 803b239.1

Semantic recipients are marked with *gi* ‘FOC’ as in (756) and (757), sometimes along with the allative postposition *áje* ‘ALL’.

(756) *Filipi d̀yi gi áje dabyi-j-e # /*
 Philippi person FOC ALL talk-CMP-PST
 ‘He talked to the Philippian people.’ 801b186.1

(757) *fe / wo / d̀yi bio gi b̀òb-u-e , /*
 also 3 person other FOC give-CMP-PST
 ‘Then they gave it to another person.’ 913c48.1

6.4.2 Focus marker *begi*

The form *begi* probably arose historically from the distal demonstrative *bo* ‘DIST’ in focus, where it fused with *gi* ‘FOC’. This form is usually used referentially, as a focused pronominal form. It is used to refer to any person/number combination, including 1st person singular (758) and plural (759), 2nd person plural (760), and third person singular (761) and plural (762). The absence of 2nd person singular is assumed to be an accidental gap.

(758) a. *bo dwèyi du kou gi bed-u-e*
 1.SG.POSS sister PROX loved FOC say-CMP-PST
 ‘Then my brother-in-law who I love said,’ 51231.1

b. *begi kor̀yuj̀du b̀yi-je f-u-e # /*
 DEM.FOC night shoot-NFIN be-CMP-PST
 ‘At night I shot it.’ 51232.1

- (759) a. *bwàbwei begi ayite gi àryu abro-u bo , ayite bed-u-e*
 then DEM.FOC father FOC eye see-CMP TOP father say-CMP-PST
 ‘Then we saw this father, and the father said,’ 502178.1
- b. *de ótror-i-ro # /*
 2.PL do.what-INCMP-NPST
 ‘What happened to you?’ 502179.1
- (760) *duyi wōbi / ka begi boidi-rō # /*
 money leaf same DEM.FOC request-NPST\IRR2
 ‘You will ask for the same money.’ 804166.1
- (761) a. *d̄yi be=jè ófari-ri-ō*
 person LOC=LOC hungry-NFUT-EMPH\IRR2
 ‘If a person was hungry there,’ 801b249.1
- b. *fe begi d̄i bòb-i-ri # /*
 also DEM.FOC food give-INCMP-NFUT
 ‘Then he would give them food.’ 801b250.1
- (762) *begi tor-u bóre ,*
 DEM.FOC come-CMP be
 ‘They came.’ 502116.1

Thus unlike pronouns, *begi* ‘DEM.FOC’ does not distinguish number or gender; it is used when an already-activated referent of any person or number is in focus.

Examples (758)-(762) above show *begi* referencing agents. First and second person references with *begi* in the corpus are all references to agents, likely simply from the fact that these entities are highly animate and very often agents, regardless of the referential device used to encode them. *begi* ‘DEM.FOC’ is used to refer to third person entities of other semantic roles as well. Semantic patients are marked with *begi* ‘DEM.FOC’ as in (763) and (764):

(763) *begi bo-ye bóre , fiáu du # /*
 DEM.FOC eat-NFIN be bat(sp.) PROX
 ‘That is what it eats, this bat.’ 5127.1

(764) *begi sre-to-i #*
 DEM.FOC PLACT-take-INCMP
 ‘Take these.’ 511a211.1

Semantic themes are marked with *begi* ‘DEM.FOC’ as in (765) and (766):

(765) *begi bo Daud , /*
 DEM.FOC TOP
 ‘These are Daud,’ 804127.1

(766) *bo begi fukári bo e-riai # /*
 COORD DEM.FOC all TOP 1.PL-REFL
 ‘All of that is we ourselves [our own responsibility].’ 804162.1

Semantic instruments are marked with *begi* ‘DEM.FOC’ as in (767) and (768):

(767) *bo begi tōu kre o drēbar-u bóre # /*
 COORD DEM.FOC cuscus(sp.) bone FOC sharpen-CMP be
 ‘That is what is used to sharpen cuscus bones.’ 511a356.1

(768) *(begi) begi o b̀yi bóre # /*
 DEM.FOC DEM.FOC INS shoot be
 ‘That is what he shot with.’ 51219.1

Semantic locations are marked with *begi* ‘DEM.FOC’ and flagged with the appropriate postposition, as shown in (769) and (770):

(769) *begi o t̃a-i-rē dre-i fro-i-ri , /*
 DEM.FOC ALL cross-INCMP-IRR1 run-INCMP go-INCMP-NFUT
 ‘He ran to cross over to it.’ 41045.1

(770) *e du begi be fwobyi-je tor-u bóre # /*
 1.PL PROX DEM.FOC LOC get.on.boat-NFIN come-CMP be
 ‘We got into it [his canoe].’ 81590.1

Semantic benefactives are marked with *begi* ‘DEM.FOC’ and flagged with the appropriate postposition, as in (771):

- (771) *begi áje yu-dabyi-ro* , /
 DEM.FOC BEN up-talk-NPST
 ‘We will pray for that.’ 801b90.1

The form *begi* is frequently used as a resumptive referential device within relative clauses, referring to the relativized NP (see §8.1.1.3).

- (772) *yikare [begi o fro-i-ri du] wo sō gwryu bóre #*
 village DEM.FOC ALL go-INCMP-NFUT PROX 3 pig butchering.place be
 ‘That place for butchering pigs belonged to the village they were going to.’ 507119.1

The form *begi* is also used non-referentially as a focus marker on NPs; in this usage, it mirrors the distribution of *gi* ‘FOC’. Like *gi* ‘FOC’, it marks focus on NPs of various semantic roles. Semantic agents are marked with *begi* ‘FOC’ as in (773) and (774):

- (773) *e begi yudabyi # /*
 1.PL FOC pray
 ‘Let’s pray.’ 502153.1
- (774) *de begi satu liter gwỳi s-i-rē t̃a-i # /*
 2.PL FOC one liter place take-INCMP-IRR1 cross-INCMP
 ‘Go across to get a one-liter container.’ 511a206.1

Semantic patients are marked with *begi* ‘FOC’ as in (775) and (776):

- (775) *bo / òbia ka sorikei rōu=gwre du begi e-jè*
 COORD buttocks same red big=AUG PROX FOC 1.PL-EMPH
ā-tè-u bóre # /
 VIS-descend-CMP be
 ‘We saw that same large, red buttocks coming down.’ 502148.1

(776) *bo dijei begi bei fwà-w-e* , /
 COORD nest FOC now scrape-CMP-PST
 ‘And she was the one who dug the scrubfowl nest.’ 50418.1

Semantic locations are marked with *begi* ‘FOC’ as in (777) and (778):

(777) *fiare gi begi o tà-i-rē dre-i fro-i-ri* , /
 cassowary FOC FOC ALL cross-INCMP-IRR1 run-INCMP go-INCMP-NFUT
 ‘He ran to cross over to the cassowary.’ 41046.1

(778) (*fweyi ýurà bio ká yure ká begi fweyi tà-i òre wojo=jè*
 again fruit other same tree same FOC again rise-INCMP SEQ above=LOC
fweyi sworyi bóre # /
 again pick be
 ‘And he went up the same tree again and then he picked fruit again up top.’ 90424.1

Semantic recipients are marked with *begi* ‘FOC’ as in (779) and (780):

(779) *bei fwāu du bo ke-jè / de begi worabror-u bòb-i-ro* # /
 now evening PROX TOP 1.SG-EMPH 2.PL FOC think-NMLZ give-INCMP-NPST
 ‘This evening I am giving advice to you.’ 803b197.1

(780) *twōryi gi òru eke begi bòb-u-e* # /
 good.man FOC woman younger.sibling FOC give-CMP-PST
 ‘The man gave it to the younger woman.’ 809137.1

6.4.3 Focus marker *o*

The information focus marker *o* ‘FOC’ is very similar in function to *gi* ‘FOC’, indicating that the associated referent is new or noteworthy in some way. The exact distinction between *o* ‘FOC’ and *gi* ‘FOC’ is currently unclear. Referring expressions of any semantic role can be marked with *o* ‘FOC’. Agents can be marked with *o* ‘FOC’ as in (781):

(781) *òu wodyi or-i-ri bo , / gyu o jèr-i-ri bo , / d̄yi*
 clan spy aux-INCMP-NFUT TOP koel FOC do-INCMP-NFUT TOP person

o bwàbwei kre gyuror-i-ri bóre # /
 FOC then foot lift-INCMP-NFUT be

‘At night they spied on the house and then, when the koel called, then the people started going.’ 507184.1

Patients can be marked with *o* ‘FOC’ as in (782) and (783):

(782) *d̄yi o trèbar-yi-ro # /*
 person FOC die-PRF-NPST

‘These are the people who have died.’ 50711.1

(783) *d̄yi o bwàbwei two àryu abre-i-ri # /*
 person FOC then immediately eye see-INCMP-NFUT

‘She immediately saw the people.’ 41087.1

Themes can be marked with *o* ‘FOC’ as in (784) and (785):

(784) *fi bo tore d̄òbu=gwre bwo-u bo , fi o s̄yi f-u bo ,*
 sago TOP until big=AUG become-CMP TOP sago FOC flower be-CMP TOP

twōryi ro òru s-u-e # /
 good.man then woman take-CMP-PST

‘After that tree got very big and flowered, the good man got married.’ 4103.1

(785) *fi o kou bwo-w-e # /*
 sago FOC bad become-CMP-PST

‘The sago became bad.’ 5105.1

Temporal referring expressions can be marked with *o* ‘FOC’ as in (786):

(786) *bwàbwei* , / *begi ká bwior-i òre bwàbwei* , / *gwari dòbu rōu*
 then DEM.FOC ALL gather-INCMP SEQ then day big big

o teryi-rē-di bóre # /
 FOC pass-IRR1-PURP be

‘We gather together and then it is for celebrating holidays [lit. passing by very big days].’ 90791.1

Instruments can be marked with *o* ‘FOC’ as in (787):

(787) *duyi o sa-ro # /*
 money FOC take-NPST

‘They buy it with money.’ 907106.1

The form *o* has multiple grammatical functions. As one of the locatives, it indicates accompaniment (comitative function), goal (allative function), or instrument (see §3.6.3.4).

The comitative function is exemplified in (788), the allative function in (789), and the instrument function in (790).

(788) *fweyi àrà o / býifwe-i fworì # /*
 again God COM meet-INCMP DES

‘And may I meet with God again.’ 801b271.1

(789) *droku=gwre gwa-i ror-i òre berue , fweyi raika ou o*
 far = AUG turn.around-INCMP be-INCMP SEQ SEQ again again house ALL

fa-u bóre # /
 return-CMP be

‘They went around very far and then returned again to the house.’ 40823.1

(790) *dúke trè o sito bwe-i-ro # /*
 bird carcass INS fish become-INCMP-NPST

‘We will fish using birds’ carcasses [for bait].’ 81239.1

The form *o* is also a relativizer (§8.1.1.2) and, clause-initially, a coordinating conjunction (§8.7.1.2). This form likely developed diachronically from the nominal

coordinator *òro* ‘COM’ (§3.1.4.7), which first came to be used as a comitative postposition and then was extended to instruments (see COMITATIVE > INSTRUMENT (Kuteva et al. 2019: 113)). It could also have extended to clausal coordination (see COMITATIVE > S-AND (Kuteva et al. 2019: 111)). In Abawiri, instruments are typically in discourse focus and synchronically are usually marked with a focus marker. Over time, *o* could have generalized beyond marking instruments (which happened to be in focus) to marking focus more generally. The focus marker, in turn, could have developed into a relativizer; see the discussion of the overlap between the focus marking and relativizing functions of *o* (§8.1.1.2).

A related fact is that the other focus marker, *gi* ‘FOC’, is also frequently used with instruments. The diachronic origin of *gi* ‘FOC’ is not yet known. The synchronic pattern is thus two focus markers, both of which are used frequently with instruments. *gi* ‘FOC’ usually indicates direct, physical causation as in (791), while *o* ‘FOC’ usually indicates indirect causation as in (792), here repeated from (787) above.

(791) *sù gi wobwe-i-ro* , /
 machete FOC shape-INCMP-NPST
 ‘It is shaped using a machete.’ 511a346.1

(792) *duyi o sa-ro* # /
 money FOC take-NPST
 ‘They buy it with money.’ 907106.1

A grammatical co-occurrence restriction is that after referential *begi* ‘DEM.FOC’, only *o* ‘FOC’ can be used, even in situations of direct causation, as shown in (793).

- (793) *begi o b̄yi-j-e # /*
 DEM.FOC FOC shoot-CMP-PST
 ‘That is what he shot with.’ 51221.1

6.4.4 Contrastive focus marker *fe* ‘also’

The contrastive focus marker *fe* ‘also’ has a somewhat different function from the three information focus markers, indicating that the associated referent is in addition to or in contrast with another, previously mentioned referent. A basic example is shown in (794).

- (794) a. *Makris bo bu-fwa-w-e # /*
 M. TOP down-descend-CMP-PST
 ‘Makris came down.’ 40330.1
- b. *abu frori fe bu-fwa-w-e # /*
 grandparent F. also down-descend-CMP-PST
 ‘Grandfather Frori also came down.’ 40331.1

As an additive focus marker, *fe* ‘also’ is often used in lists of entities, as in (795) and (796).

- (795) a. *ba # / fi fe wore tou fworyu f-u-e , /*
 filter sago also then midrib be.at be-CMP-PST
 ‘The sago filter and sago were at the sago fronds.’ 41058.1
- b. *dígò tòi fwi fe worero de-ye f-u-e # /*
 ax sago.pounder dregs also like.that place.horizontally-NFIN be-CMP-PST
 ‘The ax, sago pounder, and sago dregs were also lying flat.’ 41059.1
- (796) a. *d̄yi bio ta k̄ài bóre ,*
 person other two one be
 ‘There were three people.’ 90492.1

- b. *bio fe ýurà kíài bio # /*
 other also fruit one other
 ‘One of them had one fruit.’ 90493.1
- c. *bio fe ýurà kíài bio # /*
 other also fruit one other
 ‘Another one had another fruit.’ 90494.1
- d. *bio fe ýurà kíài bio*
 other also fruit one other
 ‘Another one had another fruit.’ 90495.1

Entities of various semantic roles can be marked with contrastive focus, including agents as in (794) above, themes as in (795) and (796) above, and patients as in (797) and (798) below. *fe* ‘also’ does not normally occur with other semantic roles such as location or instrument.

- (797) *kiai wori késai fe sa-ro , /*
 coconut drop small also take-NPST
 ‘We buy a bit of coconut milk.’ 90776.1
- (798) a. *òru dū òro ta bo bworyu-ro ,*
 woman male COM two TOP sit-NPST
 ‘A woman and a man are sitting.’ 903a1.1
- b. *tebe fe eyikire béyi-jei-ro # /*
 cloth also close put-PRF-NPST
 ‘And clothing has been placed nearby.’ 903a2.1

fe ‘also’ can also occur clause-initially, where it has scope over a whole clause. When used additively, it is similar to a coordinating conjunction (§8.7), meaning roughly ‘and then’. This is illustrated in (799).

(799) a. *bo òru du bu gyu gwa-ber-u du , bo fiti*
 COORD woman PROX firewood split PLACT-do-CMP PROX COORD basket

kàr-i òre be=ta freror-u-e # /
 carry-INCMP SEQ LOC=ABL go-CMP-PST

‘The women who were splitting wood picked up their baskets and ran from there.’
 502196.1

b. *fe e-ri fwoje ou ká bo gwryi kàr-i bóre # /*
 also 1.PL-REFL all house ALL TOP sago.basket carry-INCMP be

‘And then we all came out to a house and were carrying the baskets.’ 502197.1

When *fe* is used contrastively, the event in the current clause is contrasted with the event in the previous clause, and *fe* can be roughly translated ‘but’ (800).

(800) a. *okafwor-u-e ,*
 peel-CMP-PST

‘He peeled it.’ 913d71.1

b. *fe bo-w-e bwò-w-e ,*
 also eat-CMP-PST NEG-CMP-PST

‘But he did not eat it.’ 913d73.1

Quite frequently, the nominal and clausal uses of *fe* ‘also’ are combined: The event in the current clause is contrasted with the event in the previous clause, and within that, an entity in the current clause is contrasted with an entity in the previous clause. The linear order of this construction is [*fe* [NP] *fe* [rest of clause]]. Examples are shown in (801) and (802).

(801) a. *d̄yi ta bo are bora bòb-i-rà-ro*
 person two TOP RECP ball give-INCMP-PROSP-NPST

‘Two people are about to give a ball to each other.’ 903b236.1

b. *fe bio fe sa dròr-o # /*
 also other also take tire-NPST
 ‘But one of them does not want to take it.’ 903b237.1

(802) a. *bwàbwei bwòr-u-e ,*
 then kick-CMP-PST
 ‘Then they kicked.’ 903b15.1

b. *fe bio fe to-w-e bwò-w-e ,*
 also other also take-CMP-PST NEG-CMP-PST
 ‘But one of them did not catch it.’ 903b16.1

6.4.5 Multiple focus

Just as clauses can have multiple topics (§6.2.4), clauses can also have multiple focused referring expressions. Both an agent and patient can be marked with *gi* ‘FOC’ in a clause, as in (803) below.

(803) *o báí tì-a-u du gwrēbi gi / yure gi to-w-e ,*
 COORD across cross-CMP PROX armor FOC tree FOC take-CMP-PST
 ‘And when he was going across, his armor got stuck in a tree.’ 808a422.1

This excerpt is the beginning of the climax in a battle narrative. The protagonist had been warding off enemies, but then as he crossed the river his bark protective armor got stuck in a tree; he thus became an easy target for enemy arrows and died shortly afterwards. In this clause, both the armor and the tree are new in the discourse and highly important for the outcome of the narrative; thus, they both receive focus marking. A few lines later, shown here in (804), the same information is repeated as background information in a medial clause. Now the armor is marked as a topic and the tree remains

unmarked in the comment. (The final clause in line (b) begins with a new focused referent, but the clause remains unfinished.)

(804) *(bo gwrēbi gi) bwàbwei gwrēbi bo , / yure to-u bo , /*
 COORD armor FOC then armor TOP tree take-CMP TOP

dworu d̄yi gi bwàbwei , /

Mamberamo person FOC then

‘The armor got stuck in a tree and the Pagai person...’

808a427.1

Multiple contrastive focus can be accomplished with *fe* ‘also’, as shown in (805).

(805) a. *gwore f̄a-i-r̄o , /*
 crocodile hunt-INCMP-NPST\IRR2

‘We will search for crocodiles.’

804116.1

b. *e fe dre=jè fe gora fe f-u # /*

1.PL also here=LOC also salt also be-CMP

‘Even here, even we will even have salt.’

804117.1

Here, in the context of an after-church village meeting, the speaker is telling other village leaders about his hope that crocodile hides can be marketed as a source of sustainable income. In the preceding stretch of talk he discusses the outside world and the goods available there, contrasting it with the lack of resources in Fuau. Then he says the lines in (805), where he contrasts *e* ‘we’ with the outsiders, *drejè* ‘here’ with the outside world, and *gora* ‘salt’ with other goods he had just discussed.

Contrastive focus and information focus can co-occur, as in (806).

(806) a. *ou bare bo s̄yure # /*
 house main.post TOP ironwood

‘The house poles are ironwood.’

52295.1

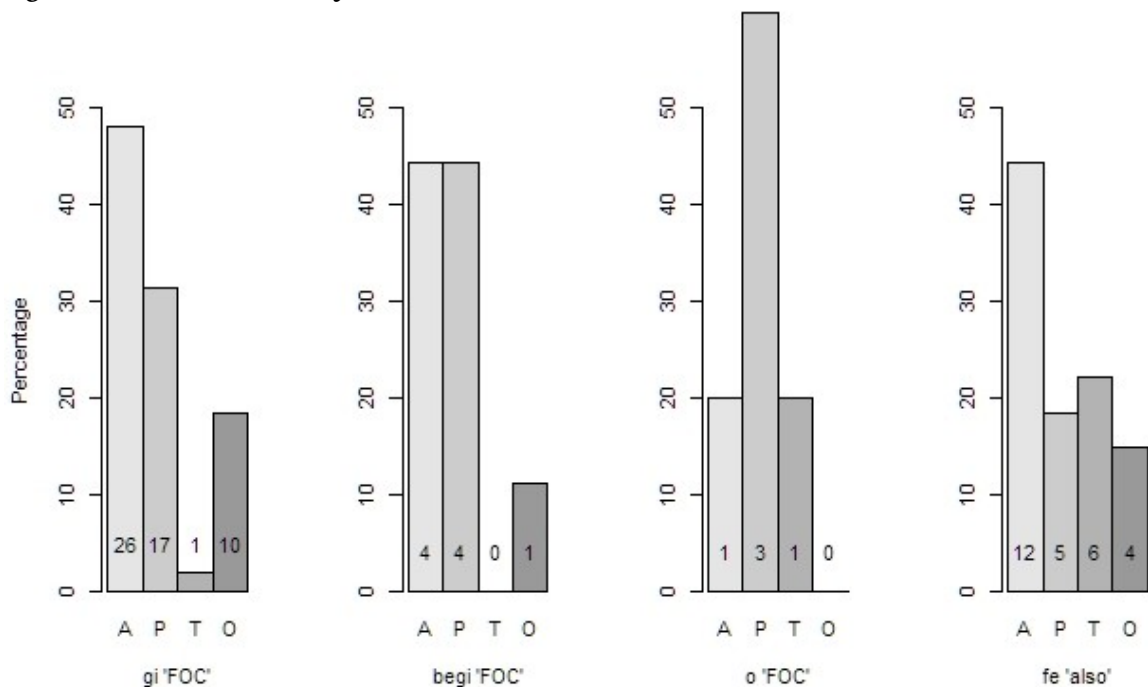
- b. *ou gwōto fe s̄yure gi yugwryu-ro # /*
 house foundation.post also ironwood FOC be.in.row-NPST
 ‘For the foundation poles ironwood is standing all in a row.’ 52296.1

The speaker here has been showing the various parts of his house for the documentation project. He is walking to various places in the house, pointing to beams and talking about the wood used for each. In line (a) he says that the main post is made of ironwood; in line (b) he adds a similar entity, the lower foundation post, and marks it with *fe* ‘also’. The main point of line (b) is that these posts are made of ironwood; *s̄yure* ‘ironwood’ is appropriately marked with information focus *gi* ‘FOC’.

6.4.6 The function of focus marking

Figure 27 shows the focus markers, here cross-tabulated with the semantic roles of agent, patient, theme, and other.

Figure 27. Focus markers by semantic role



Both *begi* ‘FOC’ and *o* ‘FOC’ are quite rare, with nine and five occurrences, respectively, so it is difficult to make generalizations about them. *gi* ‘FOC’ occurs most frequently with agents, somewhat less frequently with patients, and less frequently with other semantic roles. There is only one instance of occurrence with a theme. *fe* ‘also’ also occurs most frequently with agents, but it occurs with patients, themes, and other semantic roles with roughly equal frequency.

The function of information focus marking is seen clearly in example (807). In this excerpt, Paulus was in his open-walled house overlooking the Dijai River; he had been telling a folktale to a group of men. When he heard a motorized boat coming up the river, Paulus paused his story and the group began discussing who was coming upriver. One man guessed that the people in the boat were a group of non-Papuan Indonesians on their way to collect *gaharu*, or agarwood. Another man guessed that they were local Fuau people on their way to hunt game. Then Paulus and Yuli, one of the listeners, agreed together on the makeup of the group. This agreement interaction is shown in (807).

- (807) a. P: *gaharu d̄yi gi èror-o #*
 agarwood person FOC deliver-NPST
 ‘Agarwood people are being taken.’ 520233.1
- b. Y: *eya # /*
 yes
 ‘Yes.’ 520234.1
- c. *toyure gi èror-o #*
 T. FOC deliver-NPST
 ‘Toyure is taking (them).’ 520235.1

The constructions in line (a) and (c) are nearly identical: a single focus-marked NP followed by the verb *èror-* ‘deliver’. However, in line (a) the NP *gaharu d̄yi* ‘agarwood people’ is a patient, while in line (c) the NP *toyure* ‘Toyure’ is an agent. The agreement token in line (b) makes it clear that the utterances in lines (a) and (c) are to be regarded as compatible with each other. The semantic roles are pragmatically determined from context, roughly as follows. The group knows that the referents of *gaharu d̄yi* ‘agarwood people’ are non-Papuan Indonesians who are temporarily in the area and do not have their own boats; further, these people require transportation when they go out to collect the agarwood. Thus, *gaharu d̄yi* ‘agarwood people’ are people who are transported in boats by others. The group also knows that Toyure is a local man with a boat who transports the agarwood people to their desired destinations. In this context, no listener could have construed *gaharu d̄yi gi èroro* to mean *‘agarwood people are transporting someone else’, neither could they have construed *toyure gi èroro* to mean *‘Toyure is being transported’. Syntactic structure leaves the interpretation of semantic roles ambiguous, but real-world contextual knowledge provides the necessary disambiguation with very little room for confusion.

6.5 Antitopic

Antitopics (Chafe 1976; Lambrecht 1994) are the only post-verbal constituents in the Abawiri clause. They are postposed topics and are typically flagged with the topic marker *bo* ‘TOP’ or *du* ‘PROX’ (§6.5.1). Antitopics have a distinct low-flat intonation contour (§6.5.2) and serve a disambiguating or clarifying function in discourse (§6.5.3). Rarely, a

focused nominal with *gi* ‘FOC’ occurs in antitopic position (§6.5.4). The naming construction includes an antitopic as part of the basic construction (§6.5.5).

6.5.1 Syntax

Antitopics are frequent in discourse. Internally they are topical NPs, topical medial clauses, or relative clauses; like nominal and clausal topics, they are typically marked with *bo* ‘TOP’ or *du* ‘PROX’. Antitopics follow the verb complex, as shown in (808) and (809).

(808) *wo bo be=ta yu-fro-w-e èbai kou bo #*
 3 TOP LOC=ABL up-go-CMP-PST uncle loved TOP
 ‘He went up from there, the uncle whom he loved.’ 52049.1

(809) *begi bo-ye bóre , fiaú du # /*
 DEM.FOC eat-NFIN be bat(sp.) PROX
 ‘That is what it eats, this bat.’ 5127.1

A nominal with any semantic role can be a topic (§6.2); this is also true of antitopics. In addition to semantic agents, as shown in (808) and (809) above, other semantic roles of antitopics include patients (810), possessors (811), themes of stative verbs (812), recipients of verbs of speech (813), and locations (814).

(810) *yesus bo / o tor-u bo begi bwàbwei to-tor-u bóre*
 Jesus TOP REL come-CMP TOP DEM.FOC then CAUS-come-CMP be
atre-u #
 love-NMLZ
 ‘Jesus, who came, brought this: love.’ 801b263.1

(811) *wo òì bóre # / fiaú du # /*
 3 food be bat(sp.) PROX
 ‘That is its food, this bat.’ 51211.1

(812) *bworyuja bóre-ro / fukári du # /*
 string.holder be-NPST all PROX
 ‘They are string-holders, all of them.’ 511b21.1

(813) *fofweyi bwàbwei dabyi-je tòi-j-e # / wo bio # /*
 then then talk-NFIN DISTR-CMP-PST 3 other
 ‘Then they all talked to their neighbors.’ 803b205.1

(814) *àre bóre si bo*
 stairs be here TOP
 ‘There are stairs, here.’ 52090.1

Topic marking is not obligatory on antitopics as seen in examples (810) and (813) above. The topic markers are not obligatory on preverbal topics either (§6.2).

Clausal antitopics are also quite common. These are topical medial clauses (§8.4) that, like antitopic NPs, serve a clarifying function. Examples are shown in (815), (816), and (817).

(815) *(gwa) d̄yi gwa-dri-ri [d̄yi gi toi-ri bo] # /*
 ILL person PLACT-itch-NFUT person FOC hold-NFUT TOP
 ‘A person would get itchy, if the person touched it.’ 803a197.1

(816) *e worabror-i-e-ro [sòri du=jè d̄or-u du] , /*
 1.PL think-INCMP-HAB-NPST earth PROX=LOC go-CMP PROX
 ‘We think, about going around here in this world.’ 801c109.1

(817) *de èyi=ta f-u-ò # / [begi yu-dabyi-rē-di] # /*
 2.PL LOC=ABL be-CMP-EMPH\YN DEM.FOC up-talk-IRR1-PURP
 ‘Is there anything from you, to pray for?’ 801b104.1

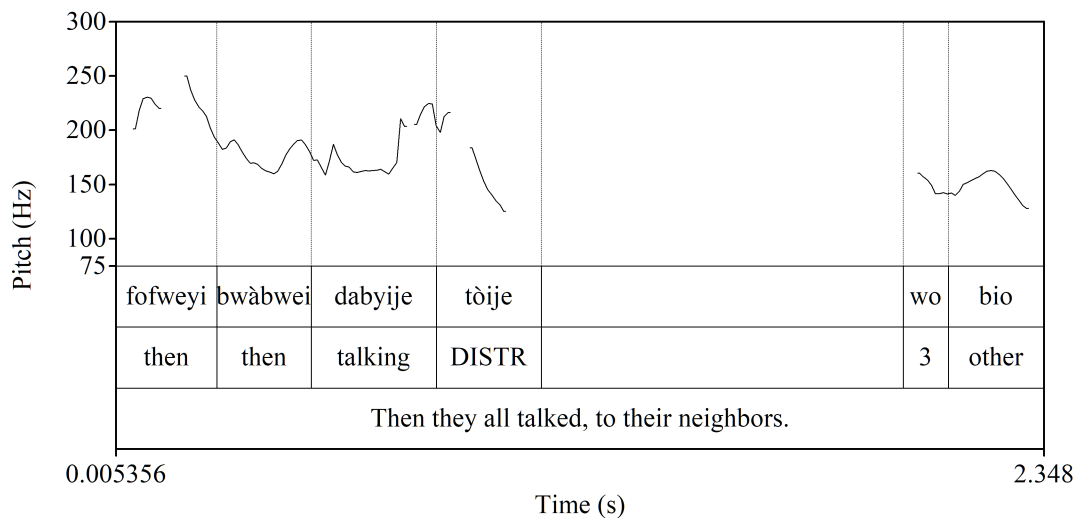
There is no syntactic requirement on the occurrence of a coreferential nominal in the regular preverbal position in the clause. In some cases there is none, as in examples

(809), (813), and (814) above, while in other cases a coreferential form appears. This can be a reduced referential form as in (808), (810), and (811), or an NP as in (812).

6.5.2 Prosody

Final verbs have final boundary L tone (§2.5), and antitopics are the only elements that follows this L. Antitopics are generally produced with a low, flat intonation contour that does not rise much above the pitch of the boundary L on the verb. There is typically a prosodic break between the verb and antitopic, as seen in examples (809), (811), (812), (813), and (817) above and (818) below; however, a break is not always present, as seen in (808), (810), (814), (815), and (816) above. Figure 28 below shows a pitch trace of example (813) above, exemplifying the clear prosodic break that can occur between the verb and the antitopic.

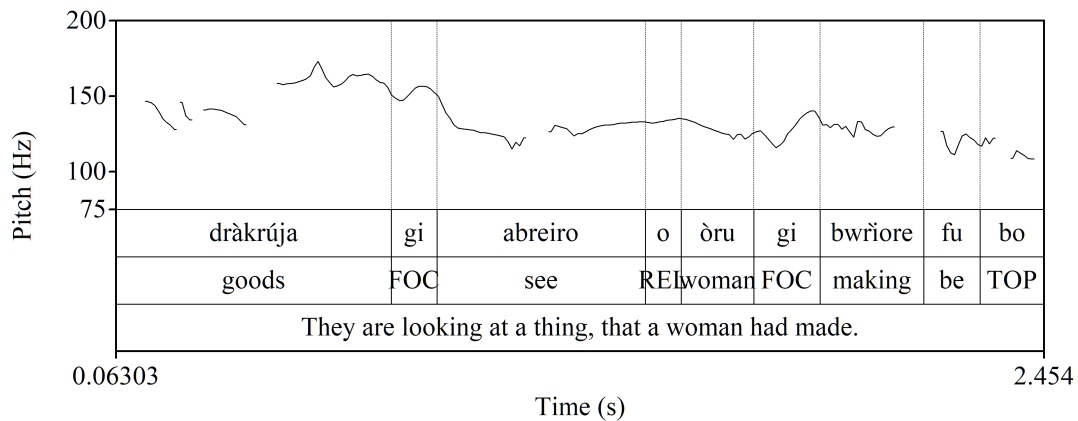
Figure 28. Pause and low pitch prosody of nominal antitopics (803b205.1)



Example (818) and the corresponding pitch trace in Figure 29 show a clausal antitopic with a typical prosodic break, here a relative clause that is non-contiguous with the matrix NP (see §8.1.1).

(818) *dràkrúja gi abre-i-ro , [o òru gi bwrìor-e f-u bo] # /*
 goods FOC see-INCMP-NPST REL woman FOC make-NFIN be-CMP TOP
 ‘They are looking at a thing that the woman had made.’ 903a150.1

Figure 29. Low pitch prosody of clausal antitopics (903a150.1)



6.5.3 Function

A primary function of antitopics is clarification of the referent. This can be seen clearly in the questions in (819) and (820) where, in both cases, the speaker wants to be sure the interlocutors know the exact entity about which the question is being asked.

(819) *bo bwàbwei , / de gwabu die afre-ò jerbai gwabu bo # /*
 COORD then 2.PL G.River water know-EMPH\YN J.River G.River TOP
 ‘And do you all know the Gwabu River, the Gwabu River belonging to the Jerbai River?’ 81734.1

(820) *de bo wo äi wo worabror-ò # / kròkàre äi bo # /*
 2.PL TOP 3 mother name think-NPST\YN K. mother TOP
 ‘Do you remember his mother’s name, Krokare’s mother?’ 808a27.1

Both of the above antitopics have a coreferential referring expression in the regular preverbal position in the clause. This is quite common, and the referring expression in the antitopic is typically expanded compared to the pre-verbal referring expression, sometimes adding an attributive noun as in (819) and (820) above, or an attributive adjective as in (821) below, or changing from a pronoun to a full NP as in (808) above, here repeated as (822).

(821) *bo duru bo tebe f-u f-i-e-ro tebe sifra # /*
 COORD PROX.EMPH TOP cloth be-CMP be-INCMP-HAB-NPST cloth thin
 ‘Usually there is cloth here, thin cloth.’ 52389.1

(822) *wo bo be=ta yu-fro-w-e èbai kou bo #*
 3 TOP LOC=ABL up-go-CMP-PST uncle loved TOP
 ‘He went up from there, the uncle whom he loved.’ 52049.1

6.5.4 Focused nominals as antitopics

The function of antitopics is to disambiguate a referent or to provide additional background information for clarification. As such, it has little functional overlap with focus markers, which function to highlight the most salient new information in the clause. However, occurrence of focus marking on antitopics is not ungrammatical, and this does occur in specific contexts. Example (823) shows one speaker’s referentially dense description of an image in the Staged Events recordings (*124B_rampkickup.jpg* in van Staden et al. 2001).

- (823) *bora gi / àre g̀ỳu=ta to-tà-i-ro # rakre gi # /*
 ball FOC stairs place=PERL CAUS-rise-INCMP-NPST foot FOC
 ‘They are taking the ball upwards along the stairs area, using their feet.’ 903b154.1

This clause includes reference to three entities: the ball (patient), the ramp (location), and the feet (instrument), all of which are important and necessary for communication of the situation to the naive listener. The speaker first only includes the ball and the ramp, but then adds the feet as an afterthought, coding it with *gi* ‘FOC’ as important information. Similar examples of focally important information which the speaker only mentioned after the final verb are shown in (824), (825), and (826).

- (824) *kàr-i-ri bóre # / díróbi o # /*
 carry-INCMP-NFUT be tree(sp.) FOC
 ‘Then they carried (it), a *dirobi* tree.’ 507215.1

- (825) *bwàbwei to-ye t̀d̀i-ri bóre , two ou gi # /*
 then take-NFIN DISTR-NFUT be battle.starter FOC
 ‘Then they caught them, the people who had attacked.’ 507232.1

- (826) *elus e áje yu-dabyi-ro # / àrá dabyigwa du gi # /*
 E. 1.PL BEN up-talk-NPST God speech PROX FOC
 ‘Elus will pray for us, about this Word of God.’ 803b469.1

6.5.5 *The naming construction*

The antitopic construction confirms the identity of an ongoing topic, in a position after the verb, and as an alternative to the pre-verbal topic construction. However, there is a single construction where the antitopic is a required part of the construction, and the post-verbal antitopic is not an alternative to a pre-verbal topic. This is the naming

construction, where the word *wo* ‘name’ occurs before the verb and the name of the entity in question is in antitopic position. There is usually no prosodic break between the predicate and the antitopic. Examples are shown in (827), (828), and (829).

- (827) *d̄yi wo bóre sugwa # /*
 person name be S.
 ‘The person’s name was Sugwa.’ 51312.1
- (828) *die wójòu wo bóre torefeyo # /*
 water body name be T. River
 ‘The name of the river was Torefeyo.’ 51333.1
- (829) *du wo bóre ògwo # /*
 PROX name be nibung.palm
 ‘This thing’s name is ogwo.’ 52365.1

6.6 Word order

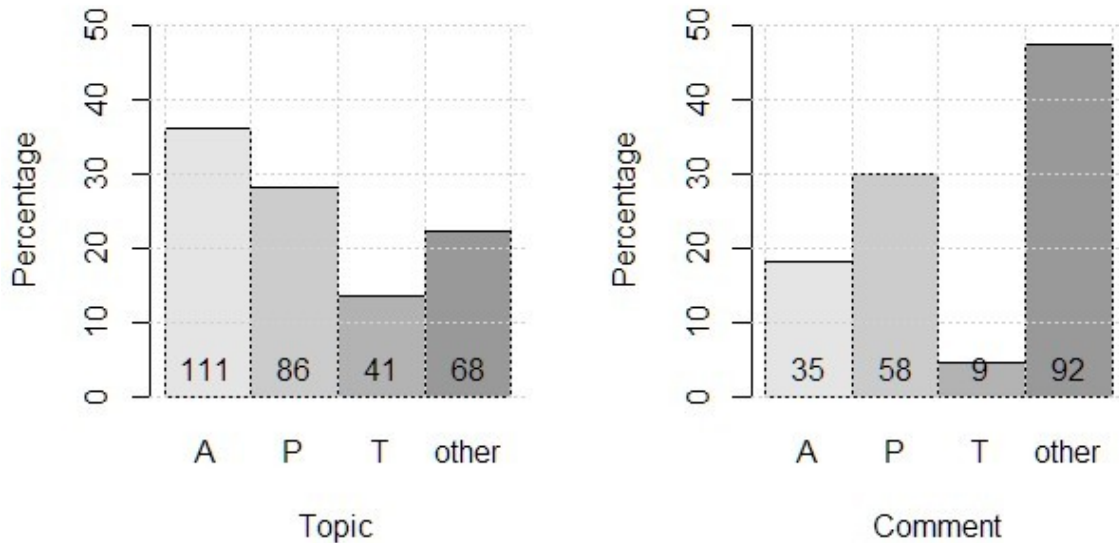
Within the clause, the predicate must occur at the end, with the exception of antitopics. This restriction is categorical rather than gradient, and there are no clear exceptions in the corpus. The order of referring expressions, on the other hand, is governed not by syntax but by information structure, as discussed in the preceding sections. This section examines the word order of referring expressions in the clause as related to various semantic and pragmatic features of the referring expressions. Word order as related to semantic roles is discussed first (§6.6.1), followed by a discussion of word order as related to the animacy of referring expressions (§6.6.2) and their activation status in the discourse

(§6.6.3). Final sections present the overall relative order of agents and patients (APV vs. PAV word order; §6.6.4) and word order in surrounding languages (§6.6.5).

6.6.1 Topic-comment and semantic roles

While word order can be defined in terms of topic-comment structure, certain semantic and pragmatic categories occur with greater frequency in the topic position, while others occur with greater frequency in the comment position. These correlations are derived from topic-comment structure and general principles of information flow. In terms of semantic roles, topics tend to be agents, while comments tend to be non-agents. Figure 30 shows the frequency of references to agents (A), patients (P), themes (T), and other semantic roles in topics (left) and comments (right) in the coded data described in §6.1.4. In each figure, the y axis represents the percentage of new vs. old information. The raw number of occurrences in the sample is shown in the bottom center of each bar.

Figure 30. Semantic roles of topics and comments



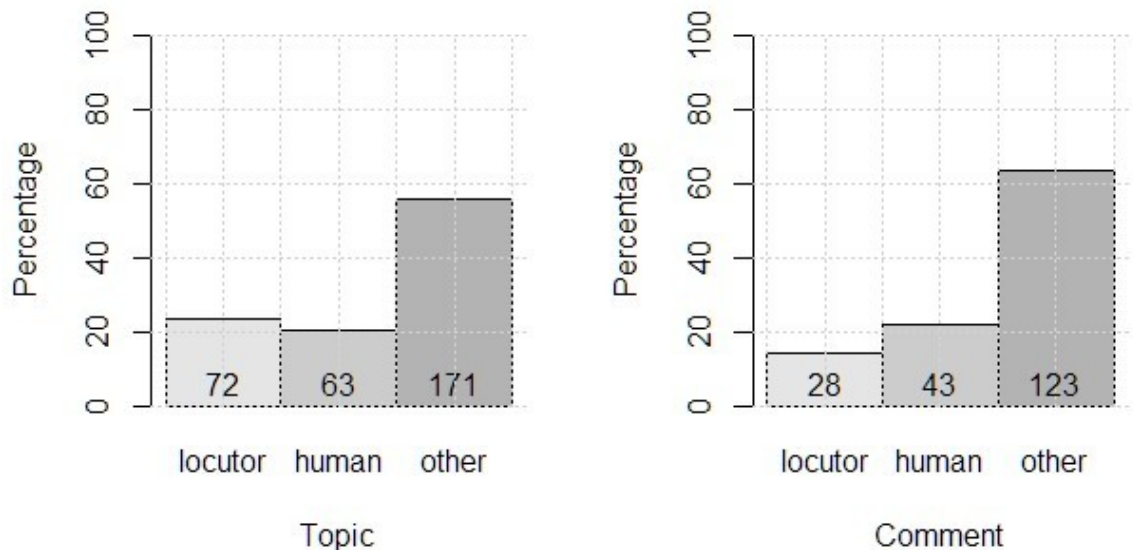
The distributions of semantic roles in the topic and comment are quite different. References in topics are most frequently agents (111, 36%), while references in comments are most frequently of other semantic roles (92, 47%). References to patients make up just under 30% of references in both topics and comments. Themes are overall the least frequent semantic role; they are especially rare in comments, with only 9 examples (5%). Given the connection between agency and topicality (cf. Du Bois 1987), the distribution here is expected.

6.6.2 Topic-comment and animacy

In terms of lexical semantics, referents in topics tend to be higher in animacy than those in comments. A slightly higher percentage of first and second person pronouns (“locutor” pronouns (Kibrik 2011)) are topics. Comments, by contrast, tend to be less

animate. Figure 31 shows the frequency of references to locutors, humans, and non-humans in topics (left) and comments (right).

Figure 31. Animacy of topics and comments



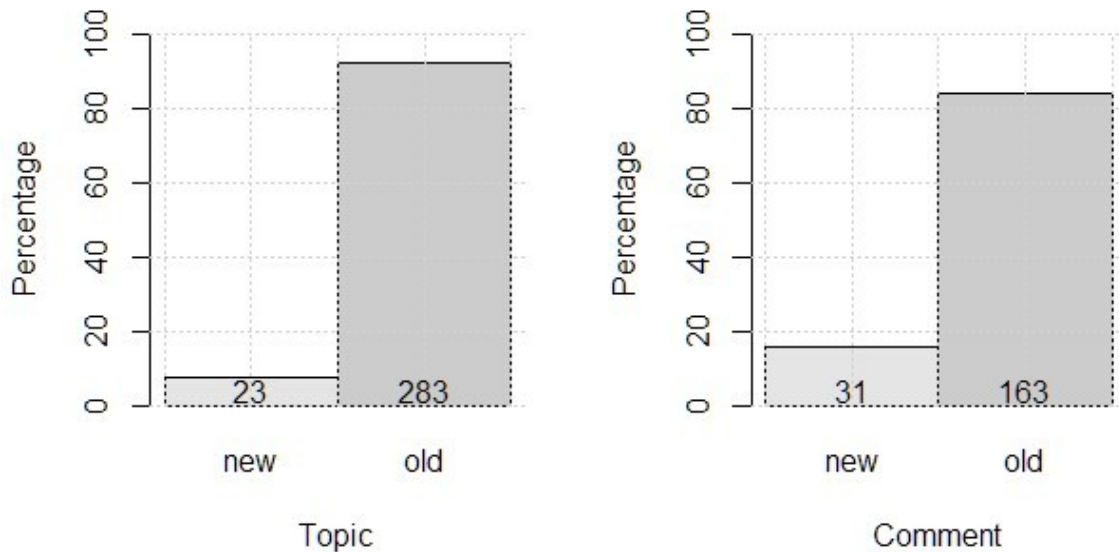
24% (72) of all topical references are to discourse participants using 1st and 2nd person (locutor) pronouns, while only 14% (28) of comment references are to locutors. 3rd person references to humans make up just above 20% of references in both topics and comments. 56% (171) of topic references are to non-human entities, while 64% (123) of comment references are to non-humans. There is thus a slight tendency for locutors to be in topics, and for non-humans to be in comments. This tendency is expected: locutors are inherently given in any speech situation as they are physically present (Kibrik 2011); this tendency coincides with the tendency of topics to contain old information (§6.6.3). Non-humans are the least likely of the three categories to be construed as agents. This tendency coincides with the tendency of topics to be agents and comments to have other semantic

roles (§6.6.1), and with the more general cognitive fact that humans think of non-humans as being less agentive.

6.6.3 *Topic-comment and activation status*

In terms of information structure, topics cross-linguistically tend to code definite, old, backgrounded information (see Li & Thompson 1976; Chafe 1976; Du Bois 1987; Gundel 1988; Lambrecht 1994; Gundel & Fretheim 2004; Foley 2007). However, in Abawiri comments also most frequently code old information and are only somewhat more likely than topics to code new information. Figure 32 shows the frequency of new vs. old information in topics (left) and comments (right).

Figure 32. *New and old information in topics and comments*



Rather unexpected here is the high percentage of new referents in topics: 23 new referents in topics, as opposed to 31 new referents in comments. New information is

introduced in the topic in 43% of cases, and in the comment in 57% of cases. By comparison, old information is presented in the topic in 63% of cases, and in the comment in 37% of cases. The 23 new topics go against the (in Abawiri, rather slight) tendency for new information to be in the comment. New topics are not differentiated prosodically from old topics.

The fact that new information is presented in topic constructions in Abawiri is in line with topicality as an areal feature of Papuan languages (Reesink 1994; de Vries 1995), where topic constructions simply indicate that the topic is a relevant domain or context for the following information. This is independent of the information status of the topic as old or new. An example of a new topic from the first column of Figure 32 is shown in (830) below.

- (830) *d̄yi bo / gwore fa-i-rē tore fror-e ber-u-e dijai*
 person TOP crocodile hunt-INCMP-IRR1 PLACT go-NFIN do-CMP-PST D. River
wore jwa # /
 river upriver
 ‘Some people were going to go hunt crocodiles, upriver on the Dijai.’ 8173.1

In this example from the beginning of a narrative, the referents of *d̄yi* ‘people’ are new in the discourse; further, they feature prominently in the rest of the narrative. While these referents might be expected to be introduced in a comment, or even in a special presentative construction, they are backgrounded in the topic here. However, the important bit of information is communicated in the comment: the story about to be told concerns

crocodile hunting upriver. In the immediately following discourse, the narrator introduces the individuals that make up the group of people and then develops the narrative further.

A further example of a new topic, from the same narrative, is shown in (831).

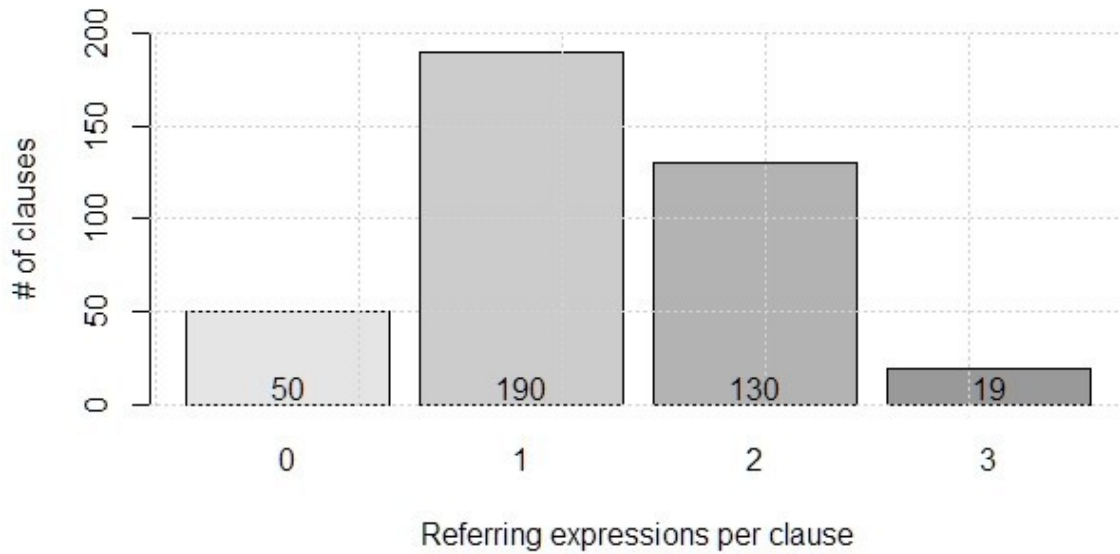
(831) *ukuran bo trò bed-i-ro # /*
measurement TOP how say-INCMP-NPST
'How do you say 'measurement'?' 817121.1

Here the narrator stops the story to ask his interlocutors how one might translate the Indonesian word *ukuran* 'measurement' into Abawiri. While young adults typically just use Indonesian terms in situations like this, this speaker wanted to speak only in Abawiri for the sake of the recording being made. In this line, *ukuran* 'measurement' is new; however, it is unimportant and simply background information necessary for the question of how one should say this in Abawiri.

6.6.4 *Relative order of agents and patients*

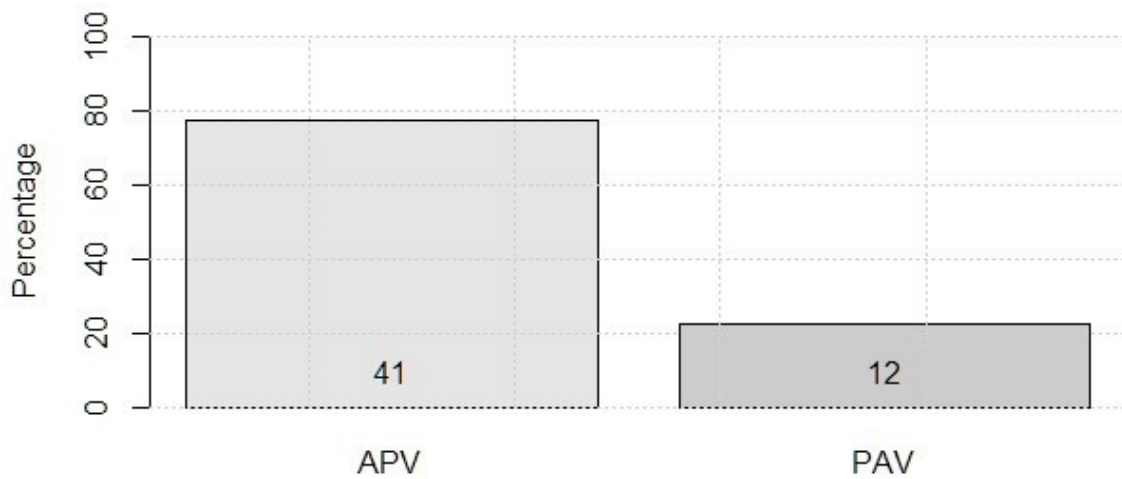
Abawiri clauses in the corpus have zero, one, two, or three referring expressions, as shown in Figure 33. This figure shows the raw number of (overt) referring expressions in a clause, regardless of the semantic role of the referring expression or the valency of the verb.

Figure 33. Number of referring expressions per clause



Among the 149 clauses with two or three referring expressions, most have at least one reference to a semantic role coded as “other” - that is, not an agent, patient, or theme. Of these, 53 clauses have both an agent and a patient before the verb. Figure 34 shows the frequency of APV vs. PAV word order among these 53 clauses.

Figure 34. Frequency of APV vs. PAV word order



The higher frequency of APV word order is expected and corresponds to the tendencies mentioned in the subsections above: topics, in clause-initial position, most frequently have old information, referring to entities high in animacy that are semantic agents in the clause.

6.6.5 *Word order in surrounding languages*

Among other Lakes Plain languages, Iau has topic-comment structure similar to that in Abawiri (Bateman 1982b; 2018). In Iau, topic is coded primarily by its strict clause-initial position and only sometimes takes a topic marker. When more than one referring expression occurs in a single clause, they are ordered ‘on a sliding scale of definiteness’, from most definite to least definite (Bateman 2018: 72). Unlike in Abawiri, it does not appear to be possible to postpose topics to antitopic position after the verb (§6.5).

Obokuitai has ‘fairly rigid’ APV word order, with a highly marked PAV construction (Jenison 1995). In Kirikiri, nearly all clauses with two arguments are either APV with no flagging or PAV, where the agent in second position has an ergative marker (Donohue 2006). The Kirikiri pattern is common more broadly among Papuan languages. The default word order is typically SOV (or APV), with OSV (or PAV) being a frequent secondary order (Foley 2018c) that often carries special marking such as an optional ergative marker (Riesberg 2018). In most languages, the optionality of the ergative marker is dependent on semantic and pragmatic factors; e.g. the relative agentivity of the referent in Folopa (Anderson & Wade 1988).

With respect to the relative preverbal word order of agent and patient, Abawiri is a typical Papuan language, with the relative order being dictated by semantic and pragmatic considerations. Optional ergativity, however, is not present.

6.7 Valency adjusting constructions

Constructions that interact with the participant structure of verbs include reflexives (§6.7.1), reciprocals (§6.7.2), and causatives (§6.7.3).

6.7.1 Reflexives

Reflexives and reciprocals are both used when the semantic agent in a clause is coreferential with any other semantic role in the same clause. In the reflexive construction, the agent is referred to with a normal nominal, while the other semantic role is coded with a reflexive pronoun. Other semantic roles include patient, location, and the possessor of another referent.

When a patient is coreferential with the agent, it is coded with a reflexive pronoun (§3.5.1.3), as shown in (832) and (833).

(832) *wodu o wòjo yu-kàr-u bo # / wodu wo-ri begi àryu*
 LOG FOC shoulder up-throw-CMP TOP LOG 3-REFL FOC eye

abro-w-e # /
 see-CMP-PST

‘When I was born, I saw myself.’

808a10.1

(833) *du fe dwori be=tò bwàbwei bed-i aa # /*
 2.SG also 2.SG.REFL DEM=DEM then say-INCMP EXCL
 ‘Talk about yourself.’ 803a142.1

The ordering is not critical. The reflexive patient can occur before the agent as in (834), or the agent can be zero when understood from context, as in (835) and (836).

(834) *aa wo-ri fe wo fe àryu abro-w-e ,*
 EXCL 3-REFL also 3 also eye see-CMP-PST
 ‘Yes, he saw himself.’ 808a325.1

(835) *dwori be=tò bwrìor-i # /*
 2.SG.REFL DEM=DEM make-INCMP
 ‘Take care of yourself.’ 803b108.1

(836) *bo / firo=gwre bwàbwei e-ri e eyi ádei fwori # /*
 COORD carefully=AUG then 1.PL-REFL 1.PL language read DES
 ‘And we will read well in our own language.’ 801b94.1

When the agent is coreferential with a location, the reflexive location is flagged with the appropriate locative postposition, as in (837).

(837) *boriwore fweyi sa òre wo-ri èyi béyi-j-e # /*
 B. again take SEQ 3-REFL LOC put-CMP-PST
 ‘Boriwore then took it and placed it by herself.’ 814202.1

When the agent is coreferential with the possessor of another referent, the possessive marker is a double pronoun: first a reflexive pronoun, followed by a plain pronoun. The possessed NP can have any semantic role, including patient (838), location (839), and instrument (840).

(838) *e begi (e-ri) / e-ri e wójòu du bwrìor-i # /*
 1.PL FOC 1.PL-REFL 1.PL-REFL 1.PL body PROX make-INCMP
 ‘Let’s fix our own lives.’ 803b313.1

(839) *bwàbwei tokwre bwo ri bo èbre ke be bu-āfwe-i-ro* , /
 then head 1.SG.REFL 1.SG.POSS nest 1.SG LOC down-enter-INCMP-NPST
 ‘I will put my head into my own nest.’ 803a113.1

(840) *wo fā wo-ri wo worikre gi to-w-e # /*
 3 randomly 3-REFL 3 hand FOC take-CMP-PST
 ‘They just held [the fruit] with their own hands.’ 913c28.1

A reflexive pronoun can refer anaphorically to an agent outside the boundaries of the clause. In example (841) below, the reflexive pronoun in line (c) refers to the man from line (a).

(841) a. *d̄yi kiài-ké bio / fero yurai / bo begi be=jè bora f̄ari*
 person one-DIM other then board TOP DEM.FOC LOC=LOC ball play
bóre ,
 be
 ‘Concerning a certain other person and some boards: he is playing football there.’
 903a76.1

b. *bo bora bo yurai s-i-e-ro*
 COORD ball TOP board hit-INCMP-HAB-NPST
 ‘And the ball hits the boards.’ 903a77.1

c. *fero fweyi wo-ri èyi fa-i fiyo-ro # /*
 then again 3-REFL LOC return-INCMP repeat-INCMP-NPST
 ‘And then it comes back to him repeatedly.’ 903a78.1

Reflexive pronouns can thus also be used simply as emphatic pronouns. See examples (842) and (843) below, and the more detailed discussion of the plain, reflexive, and emphatic pronoun series in §3.5.1.

(842) *fia bo wo-ri begi tokwre bwe-ye f-u bóre # /*
 F. TOP 3-REFL FOC head become-NFIN be-CMP be
 ‘It was Fia himself who was the chief.’ 50713.1

- (843) *e-ri késai-ké=ta jwor-u-e # /*
 1.PL-REFL small-DIM = ABL care.for-CMP-PST
 ‘We ourselves raised them from very small.’ 908a86.1

6.7.2 Reciprocals

Reciprocals in Abawiri are formed with a reciprocal nominal strategy (Evans 2008) using the nominal *are* ‘RECP’, unlike in some Trans New Guinea languages in which reciprocals are formed with multi-verb constructions (Fedden 2013). Semantically, Abawiri reciprocals encode a situation in which there are two referents, both of which are simultaneously agent and some other semantic role such as patient, benefactive, goal, or possessor of another referent. When the referents are simultaneously agent and patient, the reciprocal nominal occurs after the agent and before the verb, as in (844) and (845).

- (844) *tīe kore wo ta bwàbwei , / are fwādi-e # /*
 fish turtle(sp.) 3 two then RECP rebuke-PST
 ‘The fish and the turtle rebuked each other.’ 803a81.1

- (845) *wo-ri fwoje are brèi òre berue , syugyu fwoi ir-i-rē*
 3-REFL all RECP call SEQ SEQ sugar.palm inner.sago open-INCMP-IRR1
fro-w-e # /
 go-CMP-PST
 ‘They all called to each other and then went to get young shoots from the *syugu* tree.’ 4064.1

The reciprocal nominal can also be used when the two referents are simultaneously agent and benefactive (846), goal (847), or recipient (848), in which case the reciprocal nominal is flagged with the appropriate postposition.

(846) *e fwoje are áje # / bwàbwei drabia kíàì bwe-i-ro* , /
 1.PL all RECP BEN then work one become-INCMP-NPST
 ‘We will all work together for each other.’ 804140.1

(847) *d̄yì bo bio fe òru òro bio fe òru òro wo-ri fwoje*
 person TOP other also woman COM other also woman COM 3-REFL all

are áje èitòì-j-e # /
 RECP ALL greet-CMP-PST
 ‘The people, one with a woman, another with a woman, all greeted each other.’
 90214.1

(848) *are o dabre-i bóre # /*
 RECP ALL teach-INCMP be
 ‘We teach each other.’ 803b130.1

The reciprocal nominal can also be used when the referents are simultaneously the agent and the possessor of another nominal, in which case the reciprocal occurs in the prenominal possessor slot (849).

(849) *are wójòu fe torédra-ro #*
 RECP body also guard-INCMP-NPST
 ‘We also take care of each other’s bodies.’ 803b156.1

The function of *are* as a reciprocal nominal developed diachronically from its function as a nominal indicating the separateness or individuation of an entity. The noun *are* meaning ‘a separate place’ is still attested synchronically as shown in (850).

(850) *are bio bo bà fì-ro* ,
 separate.place other TOP where go-NPST
 ‘Where else would he go?’ 520356.1

As part of a complex construction with a reflexive pronoun, *are* can also mean ‘by itself’ as in (851) and (852).

- (851) *tōu kre fwara fe wo-riai are sre-to-i #*
 cuscus(sp.) bone war.arrowhead also 3-REFL seperately PLACT-take-INCMP
 ‘Place the war-arrowheads from cuscus bone by themselves.’ 511a221.1
- (852) *e ótrò bwàbwei , / e-riai are yuta-i-rò # /*
 1.PL how then 1.PL-REFL seperately stand.up-INCMP-NPST\YN
 ‘How can we ourselves advance on our own?’ 80488.1

It might be argued that the reflexive and reciprocal constructions provide some evidence for the category of subject; specifically, for the grammatical neutralization of the semantic roles of A and S. Reflexive and reciprocal pronouns always refers anaphorically to the most agentive referent in the clause. Following the approach in Croft (2001), Bickel (2010), and Witzlack-Makarevich (2011), where GRs are construction-specific, one might posit a grammatical category of subject specifically for the reflexive and reciprocal constructions. The constructions are, however, semantically transparent. There are no attested cases where the referent of *are* ‘RECP’ is not the semantic agent; thus, in the absence of other grammatical constructions that make use of the same categorization, it does not at this point seem necessary to posit a category of subject.

6.7.3 Causatives

Abawiri has several causative constructions at various stages of grammaticalization: a sequential clause construction with *toi* ‘hold’, a serial verb construction with *tore* ‘CAUS’ (§5.3.5.8), and a construction with one of several pluractional/causative prefixes (§4.8). The details of the three morphological causatives have been discussed in the relevant

sections of chapters 4 and 5; here I focus on the syntax of the causative constructions, particularly on the connection of causative constructions with verbal participant structure.

All causatives add an agent participant to the construction. The referent that would be a theme or agent in the non-causative counterpart to the construction is now a patient in the causative construction. Example pairs are given below with the non-causative and causative counterparts of a main verb. Example (853) shows a causative sequential clause with *toi* ‘hold’, while example (854) shows a non-causative clause with the same verb.

(853) *bo du dèria àrá gi bwàbwei to-i òre dèria bwe-i-ro # /*
 COORD 2.SG good God FOC then take-INCMP SEQ good become-INCMP-NPST
 ‘God will take your goodness and make it good.’ 801b286.1

(854) *dèria bwe-i bóre ,*
 good become-INCMP be
 ‘It is good.’ 804307.1

Example (855) shows a causative serial verb construction with *tore* ‘CAUS’, while example (856) shows a non-causative clause with the same verb.

(855) *bio bora tore dre-i fro-w-e ,*
 other ball CAUS run-INCMP go-CMP-PST
 ‘One of them took the ball running.’ 903b103.1

(856) *e dre-i fro-w-e , /*
 1.PL run-INCMP go-CMP-PST
 ‘We ran.’ 502150.1

Example (857) shows a causative construction with the prefix *to-* ‘CAUS’, while example (858) shows a non-causative clause with the same verb.

(857) *ro bwó = ta to-tà-u bóre # /*
 then under = ABL CAUS-rise-CMP be
 ‘Then they were carried up from below.’ 5237.1

(858) *twōryi bo bwàbwei ou tà-u bóre*
 good.man TOP then house rise-CMP be
 ‘The good man then went up to the house.’ 40958.1

Example (859) shows a causative construction with the prefix *tro-* ‘CAUS’, while example (860) shows a non-causative clause with the same verb.

(859) *dia sù tro-byu-rō ,*
 2.SG.EMPH machete CAUS-be-NPST\IRR2
 ‘Supposing you are carrying a machete.’ 803b123.1

(860) *a / fworjébi ou gi be byu-ro # /*
 1.SG thatch house FOC LOC be-NPST
 ‘I live in a thatched roof house.’ 80682.1

Example (861) shows a causative construction with the prefix *sre-* ‘CAUS’; an example of a non-causative clause with the same verb has been shown in (860) above. The prefixes *tro-* ‘CAUS’ and *sre-* ‘CAUS’ both only occur with a few verb roots, and the meaning of the resulting forms is not entirely predictable, as can be seen by comparing the verb stems in (859) and (861).

(861) *gwari bo àrá wo-ri sre-byu-ro*
 day TOP God 3-REFL CAUS-be-NPST
 ‘God himself has set the day.’ r1914.1

Causative semantics are sometimes achieved by simply adding a referring expression for an agent in a clause that otherwise has only a theme, with no additional causative

syntax or morphology. Examples are shown in (862) and (863); compare the usual, non-causative use of the same verb in (864).

- (862) *dèbi du ke-jè dòbu bwe-yi-ro # /*
 child PROX 1.SG-EMPH big become-PRF-NPST
 ‘I have raised this child.’ 908a46.1
- (863) *wo bo ái gi kou bwe-yi-ro #*
 3 TOP mother FOC bad become-PRF-NPST
 ‘It was his mother that had destroyed him.’ 805229.1
- (864) *wo àryu kou bwe-yi-ro*
 3 eye bad become-PRF-NPST
 ‘His eye had become bad.’ 81798.1

The most productive causative construction is also the most periphrastic: sequential clauses with *toi* ‘hold’. Causative prefixes, on the other hand, are highly lexicalized, occurring only with a few verb roots, and are not very productive (see tables in §4.8). All causative constructions add an agent to the participant structure of the construction, and referring expressions are treated in the normal way, with topic-comment structure and topic and focus postpositions.

6.8 Does Abawiri have grammatical relations?

This section explores the question of whether GRs are relevant in a description of Abawiri grammar. After a very brief overview of GRs in §6.8.1, §6.8.2 discusses whether GRs are present in Abawiri, concluding that they are not relevant to the basic organization of Abawiri grammar. §6.8.3 discusses the functional question of how speakers can then

distinguish between various semantic roles in a clause, and §6.8.4 discusses broader implications of the findings.

6.8.1 *Grammatical relations cross-linguistically*

GRs are at the core of both formal and functional approaches to linguistic structure. There is a vast literature on the topic, and it is beyond the scope of this dissertation to give even a summary of the work on GRs. For a detailed examination of GRs from a functional and typological perspective see the dissertation (Witzlack-Makarevich 2011) and the edited volume (Witzlack-Makarevich & Bickel 2019), as well as the many references therein. In this section I state how GRs are conceptualized in the current work.

GRs involve a neutralization of contrast between semantic roles of arguments – that is, a grammatical construction treats two or more semantic roles identically, as opposed to another set of semantic roles, which are treated differently (Siewierska & Bakker 2012). A function of GRs is to allow discrimination of semantic roles between multiple arguments in a clause (Comrie 2005; Sinnemäki 2010).

An early line of research (Keenan 1976; Comrie 1989; Givón 1997) viewed GRs as clusters of grammatical features, realized in different ways, and to a greater or lesser extent, in different languages. Thus, *subject* in one language may be realized by identical treatment of A and S in terms of word order and relativization (Keenan & Comrie 1977), while in another language it may be realized in bound person forms on the verb. More recent work has emphasized the construction-specific nature of GRs (Mithun & Chafe 1999;

Croft 2001; Bickel 2010; Malchukov, Haspelmath & Comrie 2010; Witzlack-Makarevich 2011; Malchukov & Comrie 2015; Witzlack-Makarevich & Bickel 2019, *inter alia*). This work captures the insight that different constructions in the same language do not necessarily converge on the same set of neutralizations. Many Papuan languages, for example, have uniformly nominative/accusative syntax, but also have an ergative case marker. See, for example, Hua (Haiman 1980), Auye (Moxness 2003) and Folopa (Anderson & Wade 1988).

6.8.2 *Looking for grammatical relations in Abawiri*

In Abawiri, no construction has been found in which there is a neutralization in the grammatical treatment of semantic roles. There is therefore no language-internal reason to posit the existence of GRs. Table 60 shows grammatical properties often found to correlate with GRs in Papuan languages, along with a summary of this construction in Abawiri, where applicable.

Table 60. Constructions related to GRs

Construction	Expected	Abawiri	Section
case marking	optional ergative, possibly dative	topic and focus, locatives	§6.2, 6.4, 3.6
switch-reference	same subject, different subject	N/A	
person marking on the verb	subject, possibly object	N/A	

Construction	Expected	Abawiri	Section
word order	SOV, pragmatically marked OSV	preverbal word order pragmatically determined	§6.6
complement clauses	subject zero anaphora	zero anaphora not limited to this context	§6.1.3
reflexives and reciprocals	coreference with subject	coreference with semantic agent	§6.7.1, 6.7.2
imperatives	reference to subject	reference to semantic agent	§4.3.1
zero anaphora (“gapping”)	S/A of previous clause coreferential with S	any referent omitted when understood from context	§6.1.3

The discussion in this chapter has not made use of any terminology related to GRs; the same is true of chapter 8 on clause combining constructions. The building blocks of Abawiri grammar are most adequately described in other ways, e.g. by semantic roles (agent, theme, patient) and information structure (topic and focus).

6.8.3 *How functional is the Abawiri system?*

If Abawiri indeed has no GRs, the following question arises: In clauses where there are multiple referring expressions, how are the semantic roles determined? That is, how could one distinguish between ‘*John hit Mary*’ vs. ‘*Mary hit John*’? In actual language use, the context alone usually makes it quite clear who is the agent and who is the patient, as discussed at length for example (807) on page 401 above. Zero anaphora in Abawiri makes

it plain that in most situations interlocutors do not need grammatical aids to help them disambiguate who did what to whom, zero anaphora being based on referential continuity. When there is potential for ambiguity, it is generally between two participants that would have the same semantic role; e.g., between two people in a story who both might be the agent of a verb of cutting. In these cases, overt mention of the relevant referent, often with additional clarifying material such as a relative clause or antitopic, serves to disambiguate.

While Abawiri is used primarily among people who continue to have a large amount of shared knowledge, today the community is beginning to disperse, resulting in an increase in contexts where new information is communicated. Crucially, there are now certain situations in which context does not provide enough information to determine the semantic roles of participants in a clause. The introduction of new objects and processes during the language documentation project has given rise to such contexts. The following example is from a retelling of the Staged Events recordings (van Staden et al. 2001) in which the speaker introduces two people: a man and a woman. Unlike in most spontaneous speech, shared encyclopedic knowledge between the speaker and hearer plays no role here as the content of the recording is entirely unknown to the hearer.

- (865) a. *òru dū òro ta bo dī gyu be bworyu-ro # /*
 woman male COM two TOP food place LOC sit-NPST
 ‘The woman and the man are sitting at the dining table.’ 903a9.1
- b. *òru bo (teh gi) / gura die gi sa àre ber-u-e # /*
 woman TOP tea FOC sugar water FOC take SEQ do-CMP-PST
 ‘The woman took tea and then,’ 903a10.1

- c. *kiai bu-tror-i òre berue teh fe f-u*
 bowl down-pour-INCMP SEQ SEQ tea also be-CMP
 ‘She poured it into a bowl, and then there was tea.’ 903a11.1
- d. *sidu fe sa àre berue gura die be=jè / bwrìor-u bóre ,*
 spoon also take SEQ SEQ sugar water LOC=LOC make-CMP be
 ‘She also took a spoon and then made tea there.’ 903a12.1
- e. *dwòror-u-e # /*
 rotate-CMP-PST
 ‘She stirred.’ 903a13.1
- f. *dū bo òke be=jè ateyi bóre ,*
 male TOP just LOC=LOC watch be
 ‘The man just watched there.’ 903a14.1
- g. *òru begi ateyi-j-e # /*
 woman FOC watch-CMP-PST
 ‘He watched the woman.’ 903a15.1

In line (a), both the woman and the man are introduced in a nominal coordinating construction (§3.1.4.7) as the joint theme of the verb *bworyu* ‘sit’. In line (b), the woman is singled out as the agent of the verb *s-* ‘take’; in lines (c) through (e) she understood as the agent through referential continuity with the overt mention in line (b). Note that in lines (a) through (e), there is only one semantic role for each verb that could be plausibly filled by a human participant. In line (f), the agent is now the man; an overt NP in that clause makes this clear. If, by contrast, the agent was still the woman and she was now watching the man rather than stirring tea, markers of temporal discontinuity would need to be present, such as the conjunction *bwàbwei* ‘then’ or Tail-Head Linkage (§8.6). Line (g) on its own is ambiguous. It could either mean that it was the woman who watched (she was the

agent), or that it was the woman who was watched (she was the theme). In this case, resonance with the previous clause disambiguates. In line (f) the man is the agent of the same verb *ateyi* ‘watch’. The default interpretation is one of referential continuity of the agent of *ateyi* ‘watch’, and the additional reference *òru begi* ‘the woman’ must be an additional, non-agent participant.

Another example of a lack of shared knowledge arose during a transcription session in May 2019. During the session I was working with Otis, a speaker who had spent the majority of his life in town; together we were transcribing texts I had recorded earlier. While he rarely had trouble understanding the participants’ semantic roles, he was unsure in one particular instance while transcribing the Staged Events recordings, video clips he had not seen and with which he was unfamiliar (van Staden et al. 2001; text 903). The relevant excerpt, Ananias’s retelling of the video clip *160M_woodswitchactor.mpg*, is shown in (866).

- (866) a. *d̄yi bio bo tà-i-ro* ,
 person other TOP rise-INCMP-NPST
 ‘A certain person is standing.’ 903b245.1
- b. *bio bo tor-i òre ber-u-e # /*
 other TOP come-INCMP SEQ do-CMP-PST
 ‘Someone else came and then,’ 903b246.1
- c. *dígò béyi-je f-u bo begi to-fro-i òre ber-u-e # /*
 ax put-NFIN be-CMP TOP DEM.FOC CAUS-go-INCMP SEQ do-CMP-PST
 ‘An ax was placed there; they took it and then,’ 903b247.1

- d. *d̄yi bio wokre béyi-j-e # /*
 person other hand put-CMP-PST
 ‘They gave it to the other person.’ 903b248.1
- e. *bed-u-e*
 say-CMP-PST
 ‘They said,’ 903b249.1
- f. *babe = tò bu wore tro-i # bu wore o dia*
 DEM = DEM firewood branch cut-INCMP firewood branch REL 2.SG.EMPH

tro-byu bo
 CAUS-be TOP
 ‘Cut firewood sticks with that, the firewood sticks that you are holding.’
 903b250.1
- g. *tor-i òre ber-u-e /*
 come-INCMP SEQ do-CMP-PST
 ‘They came and then,’ 903b251.1
- h. *bio bo tro-w-e # /*
 other TOP cut-CMP-PST
 ‘Some cutting happened in relation to a different entity.’ 903b252.1
- i. *firo-w-e*
 release-CMP-PST
 ‘It came off.’ 903b253.1
- j. *bé = ta bio tukári / tro-i fjer-u-e*
 LOC = ABL other although cut-INCMP repeat-CMP-PST
 ‘From there they were cutting and cutting others.’ 903b254.1
- k. *fe firo-w-e bwò-w-e # /*
 also release-CMP-PST NEG-CMP-PST
 ‘However, they did not come off.’ 903b255.1

In the video clip being described here, one man hands an ax to another man, who then proceeds to chop a stick into small pieces. As Otis watched Arnold retelling the clip,

he could only rely on the linguistic cues for interpretation; the usual contextual cues and cues from general shared knowledge were absent. The crucial line is (h), which has a transitive verb that usually occurs with both an agent and patient. The word *bio* ‘other’ signals that a different entity is being referred to from the entity referred to in the preceding discourse; however, there are already multiple entities on the stage and several likely referents. Either (1) the same person is cutting different wood, or (2) a different person is cutting the same wood. The English translation of line (h) approximates the semantics of this clause. In the absence of linguistic clues disambiguating the participants, Otis didn’t know which of these interpretations was correct. We watched the clip together, and he then knew that *bio* ‘other’ referred to the other person (in opposition to the agent in lines b-f).

How did a system like the Abawiri one arise? Some preliminary thoughts on the historical origins of such a system follow, subject to further evaluation. Until 50 years ago, Abawiri was spoken by a single nomadic clan (§1.1), isolated in an area with very low population density, and interacting only with a few rival nomadic clans with whom they fought. Thus the language was used almost exclusively in the context of tight-knit social relationships with a large amount of shared information. In other places the context of a long-term, tight-knit community has been said to help foster the development of polysynthesis through the gradual phonological erosion of grammatical material and concomitant increase in complexity (Trudgill 2011; 2017). However, in Abawiri perhaps a different result has been achieved through similar means: Rather than phonologically

reduced grammatical material attaching to the verb, it eroded away completely. Or perhaps things were never specified in the first place, and in Abawiri overt specification never developed. While little is known about the syntax of other Lakes Plain languages, it is interesting to note that Iau also lacks GRs (Bateman 1982b; 2018). Much more work on Lakes Plain languages of different branches in the family is required before the validity of this hypothesis can be judged in a principled way.

6.8.4 *Implications*

From a functional-typological perspective, GRs are not a necessary component of language; that is, languages without GRs are a plausible kind of language. Subjects, for example, are simply the grammaticalization of topic (Li & Thompson 1976; Chafe 1976; 1994) or agent (Silverstein 1976; Dixon 1994). While this is a very widespread grammaticalization pathway, it is not a universal one, and particular languages may happen to have developed strategies other than GRs for the functional niche filled by GRs in other languages. Many authors have argued against the universality of GRs from a cross-linguistic perspective (Bhat 1991; Foley & Van Valin 1997; Dryer 1997; Kibrik 1997; Siewierska & Bakker 2012). Givón (2001), in his discussion of GRs as related to the coding properties of word order, verbal indexing and case marking, takes a conservative approach: “Pidgin communication is the only linguistic mode in which all three overt-coding features of GRs are totally absent. At best, Pidgins code the *topicality* of event participants...” (2001: 177; emphasis original). Kibrik (1997), on the other hand, considers the presence of GRs to

be just one of several options. He develops a ‘relational typology’ based on the three main dimensions of relations that can hold between a referent and the clause: semantic roles, information flow, and deictic anchoring. Traditional grammar has focused on the grammaticalization of semantic roles in GRs; Abawiri, on the other hand, has a grammaticalized system for managing information flow, lacking GRs. It fits well with Li & Thompson’s (1976) notion of ‘topic-prominent language’.

Descriptions of individual languages have also argued for the absence of GRs in those languages. These include a few Sino-Tibetan languages: Lisu (Li & Thompson 1976), Mandarin Chinese (LaPolla 1990; 1993; 1995), Mongsen Ao (Coupe 2007), and Khatso (Donlay 2015), as well as varieties of Indonesian: Riau Indonesian (Gil 2003; 2005a; 2005b), and Jakarta Indonesian (Connors, Bowden & Gil 2015). These languages are all in the general Southeast Asia region and are all morphologically isolating. The Sino-Tibetan languages have topic-comment structure as a primary clause organization strategy, as well as verb-final word order (except Mandarin). Abawiri is also verb-final and has basic topic-comment clause structure; however, verbal morphology is agglutinating.

Foley (1986) argues that among Papuan languages syntax plays a less central role in the organization of arguments in clauses than it does in European languages. However, GRs are usually indicated at a minimum through verbal indexing, and verbs minimally index the grammatical subject. See, for example, Haruai, where subjects are marked on verbs by means of suffix indices and switch-reference markers (Comrie 1991). Foley (2018c: 907) notes, however, that indexing is not found among Lakes Plain languages, Lower Ramu

languages, or the languages of Kolopom Island. Abawiri, while sharing many Papuan typological characteristics, is divergent in its lack of verbal indexing, and more broadly, in its apparent complete lack of formal devices for indicating GRs.

6.9 Chapter summary

Referring expressions in Abawiri clauses are organized according to a basic topic-comment structure. The optional topic comes first and is followed by the comment, which consists of an optional focused referring expression and the predicate. Clauses consist minimally of a predicate. In terms of frequency, topics more often contain old information, while new information more frequently appears in comments. However, new topics are not infrequent. Topics tend to be inherently more animate than comments, and they tend to be more agentive. All of these frequencies are expected given general principles of information flow.

Topics are marked with the dedicated topic marker *bo* 'TOP', derived from the distal demonstrative, with the proximal demonstrative *du* 'PROX', or with a combination *du + bo*. Overt marking is not obligatory, however, and topics can be indicated by clause-initial position alone. Nominals of any semantic role can occur as topics. Both nominals and clauses can be topics, with topical clauses being a dominant clause combining strategy. Multiple nominal topics are common, but topical clauses generally occur singly and do not form clause chains. As in many other Papuan languages, topics in Abawiri establish a loose

'aboutness' relationship between the topic and the comment, and the correlation between old information and topic is not a strong one.

The comment is indicated primarily by word order. It is indicated secondarily by (1) topic markers signaling the end of the topic (and by extension, the beginning of the comment), and (2) optional focus postpositions on NPs, which are generally restricted to the comment.

Three markers of information focus and one marker of contrastive focus are used. Of the three information focus markers, *gi* 'FOC' is the most common. *begi* 'FOC' has lexicalized from a focused demonstrative and has subsequently lost referentiality in certain contexts, being used as a rough equivalent of *gi* 'FOC'. *o* 'FOC', derived historically from a locative, is also a marker of information focus. Both *gi* 'FOC' and *o* 'FOC' are frequently used to mark instruments: *gi* 'FOC' is generally used for instruments that directly impact the patient, while *o* 'FOC' is generally used for instruments that have a more indirect effect. Unlike the information focus markers, the contrastive focus marker *fe* 'also' is not restricted to the focus position and is frequently used to mark contrastive or additive topics. Like topical referring expressions, focused referring expressions can be of any semantic role.

Antitopics occur after the verb, either expanding a preverbal referential expression or adding a new one. While nominals are the most frequent antitopics, relative clauses and topical medial clauses can also be in this position. Further, focused nominals can occur in the antitopic position, especially in discourse of high referential density. Antitopics generally have a clarifying or disambiguating function in discourse.

There are three constructions that interact with the participant structure of verbs: reflexives, reciprocals, and causatives. Reflexives are formed with a reflexive suffix on personal pronouns. They establish a coreferential relationship between the agent and another semantic role, which can be patient or possessor of another entity, among others. Reciprocals are formed with a reciprocal nominal; like reflexives, the coreferential relationship is between the most agentive participant in the clause and one of several other semantic roles. There are several causative constructions, including a sequential clause construction with *toi* 'hold', a serial verb construction with *tore* 'CAUS', and a prefixed verb with one of several prefixes. Causatives function to add an agent in the participant structure of the construction.

Functional and typological linguists generally agree in principle that languages without GRs exist; however, there are few descriptions of languages where there are in fact no GRs. Several Sino-Tibetan languages have been argued to be of this type. Among Papuan languages, several come close to lacking GRs, but in most cases there is at least indexation of grammatical subject on the verb. The Lakes Plain language Iau has been argued to lack GRs entirely, and this chapter has attempted to show that GRs are not central in the organization of Abawiri grammar.

Chapter 7 Clauses

Abawiri clauses are organized in terms of topic-comment structure. The comment consists minimally of the predicate, which is the only obligatory part of the clause (see §6.1.2). There is a tight association between verbs and predication: verbs occur exclusively in predicates, and the majority of predicates are verbal. However, non-verbal predicates are also possible. This chapter explores both verbal and non-verbal predicates as related to clause structure. Further, it investigates illocutionary force in clauses, which is primarily indicated in the (verbal) predicate.

Verbal predicates are quite complex; the internal structure of verbal predicates is discussed in chapter 4 (verbal morphology) and chapter 5 (verb phrases). Various issues related to verbal predication in the clause are presented in §7.1, including verbal valency and participant structure (§7.1.1), as well as three specific constructions: external possession (§7.1.2), noun-verb idioms (§7.1.3), and coverb constructions (§7.1.4). The external possession construction and the noun-verb idiom construction are closely related, and are both considered to be types of noun incorporation.

Non-verbal predicating constructions (§7.2) constitute a single general type, and several word classes occur as non-verbal predicates. These include nouns (§7.2.1), adjectives (§7.2.2), locatives (§7.2.3), and numerals (§7.2.4), as well as existential predicates (§7.2.5). Additional issues related to non-verbal predicates include the use of

light verbs allowing TAM specification (§7.2.6), negation (§7.2.7), and polar questions (§7.2.8).

The specification of illocutionary force takes place primarily in the predicate (§7.3). Types include declarative clauses (§7.3.1), negative clauses (§7.3.2), polar (§7.3.3) and content (§7.3.4) questions, imperative/desiderative clauses (§7.3.5), purpose clauses (§7.3.6), and counterfactual clauses (§7.3.7). A summary of the chapter is given in §7.4.

7.1 Verbal predicates

7.1.1 Verbal valency and participant structure

In discussing verbal valency, it is useful to distinguish between a verb's grammatical *argument structure* on the one hand, and the discourse-pragmatic *participant structure* on the other. In Abawiri, grammatical argument structure has not been shown to be of central importance, since the relationship between referring expressions and the predicating verb is not organized in terms of grammatical relations, and no distinction between core arguments and adjuncts has been established (see chapter 6). Further, pervasive zero anaphora means that it is often difficult to determine categorically whether a particular referent is semantically present or not in a specific discourse context. By contrast, participant structure is discourse-pragmatic in nature, where the participant structure of a verb consists of the entities involved in the event or state typically encoded by the verb (Nakayama 2001). Verbs are used to encode events and states; as such, they are typically associated with

certain types of participants in discourse. The verb *tè-* ‘descend’, for example, encodes an event where someone moves, while *dòyu* ‘roast’ encodes an event where there is someone doing the roasting and something being roasted; further, *bòb-* ‘give’ encodes an event involving a giver, a recipient, and something being transferred from the giver to the recipient, while *sror-* ‘send’ involves someone who sends, someone who is sent, and the locative goal of the sending. See also a similar approach to participant structure in Jakarta Indonesian, where the authors use the term ‘valency preference classes’ (Connors, Bowden & Gil 2015). In their work, valency preference classes are statistical tendencies of nominal co-occurrence with a verb, determined by the semantics of the verb rather than by verbal valency or subcategorization requirements.

I use the term *participant structure* to refer to the emergent co-occurrence tendency of a verb with participants of certain semantic roles. By contrast, and for convenience, I use the term *participant frame* to refer to a particular instance of a verb embedded in a specific discourse-pragmatic context.

A detailed investigation of the participant structure of individual verbs is beyond the scope of this dissertation. Here I examine a few cases in which the participant frame of a verb in a specific discourse context deviates from the prototypical participant structure. In some cases, verbs have a participant in addition to the ones in their participant structure, while in other cases a seemingly central participant is missing from the participant frame.

First I examine two cases in which there is an extra participant in the participant frame of a verb. The verb *tíror-* ‘become morning’ usually has no participants in its participant frame, as in (867).

- (867) *tíror-u-e* # /
 become.morning-CMP-PST
 ‘It became morning.’ 805118.1

At one particular place in a traditional narrative, the two main characters stayed up all night, during which time they changed form. It then became morning. The dawn of a new day was specifically relevant to them since they could now see each other and the fact that they had changed form. Since these two participants are relevant in this situated context, they are included in the participant frame of this occurrence of *tíror-*, as shown in (868).

- (868) *bìari bo wo ta tíror-u-e* , /
 what TOP 3 two become.morning-CMP-PST
 ‘Concerning that, it became morning for those two.’ 814192.1

The verb *dreder-* ‘be like this’ has a quite flexible participant structure arising from the semantics of the verb. Most typically it involves one participant as in (869) and (870), or no participants as in (871) and (872), where ‘being like this’ is true of a state of affairs in general with no particular entity.

- (869) *du bo fukàrì=gwre (be) be dreder-u-ō* # /
 PROX TOP all=AUG IMMED IMMED like.this-CMP-EMPH\IRR2
 ‘Supposing all this is like this.’ 803b342.1

(870) *du bo dreder-i du # /*
 2.SG TOP like.this-INCMP PROX
 ‘You be like this.’ 801b267.1

(871) *dreder-i-e bwè-y-e-ro ,*
 like.this-INCMP-HAB NEG-INCMP-HAB-NPST
 ‘It isn’t like this.’ 803b263.1

(872) *bo dreder-u-e*
 COORD like.this-CMP-PST
 ‘It happened like this.’ 4034.1

In certain contexts, two participants can ‘be like this’, as in (873). It is not the case that the two participants are coordinated here; see the discussion of nominal coordination in §3.1.4.7.

(873) *a du bo gwore bo dreder-u-o ,*
 1.SG PROX TOP crocodile TOP like.this-CMP-EMPH
 ‘It happened like this concerning me and a crocodile.’ 809167.1

The usual participants in the participant structure of a verb may be omitted in specific discourse contexts. An example is the verb of speaking *bed-* ‘say’, which introduces reported speech (§8.8) and includes in its participant structure a single participant, the speaker. The speaker can be overtly expressed as in (874), or as understood from preceding context through zero anaphora as in (875), where the speaker in line (c) is understood to be coreferential with *e* ‘1.PL’ in line (a).

(874) a. *àryi kwòryu bo bed-u-e*
 aunt K. TOP say-CMP-PST
 ‘Aunt Kworyu said,’ 803b232.1

- b. *bwàbwei trou késai gi gwórker-u-e , /*
 then snake(sp.) small FOC strike-CMP-PST
 ‘She hit a small *tro* snake.’ 803b233.1
- (875) a. *e kòre fī-ro # /*
 1.PL underbrush go-NPST
 ‘We go to the forest.’ 803b238.1
- b. *g̀yukou gi be t̀yi-jo-ro # fwrē f-u # /*
 mud FOC LOC cross-INCMP-NPST thorn be-CMP
 ‘We cross over mud, with thorns.’ 803b239.1
- c. *bed-i-ro ,*
 say-INCMP-NPST
 ‘We say.’ 803b240.1
- d. *a du bé ráfyu-jo du # / du fe bo ká be*
 1.SG PROX LOC step-INCMP PROX 2.SG also 1.SG.GEN same LOC

ráfyu-jo # /
 step-EMPH
 ‘Where I am stepping, you also step there.’ 803b241.1

In certain cases, however, the participant frame of *bed-* ‘say’ has no specific speaker.

An extended example, including the relevant context, is shown in (876). The verb of speech appears in line (e).

- (876) a. S: *korugwre bwe-i-rē ber-u bo # /*
 morning become-INCMP-IRR1 do-CMP TOP
 ‘We were about to do it in the morning.’ 502111.1
- b. Y: *korugwre = gwre tor-ē-ri #*
 morning = AUG come-IRR1-NFUT
 ‘Had it come very early in the morning.’ 502112.1

- c. *ya # /*
yes
'Yes.' 502113.1
- d. S: *bo a fe bo trèbar-i f-i-rē-ri # /*
COORD 1.SG also TOP die-INCMP be-INCMP-IRR1-NFUT
'Then I would be dead.' 502114.1
- e. *bed-u-e , /*
say-CMP-PST
'It was said,' 502115.1
- f. *begi tor-u bóre ,*
DEM.FOC come-CMP be
'They came.' 502116.1
- g. *fweyi fu furku gi s-u-e ,*
again canoe whole FOC take-CMP-PST
'And then they got an airplane.' 502117.1

In this excerpt from a first person narrative, the speaker is concluding a story in which he had ridden in a helicopter, which later crashed. In lines (a-d) the storyteller (Stefanus) and a listener (Yuli) co-construct a hypothetical scenario about what could have happened but did not. Then Stefanus reports some speech in lines (d-e), where the speaker is never specified. It had been reported to him that an airplane was used instead of the helicopter. The people who spoke lines (f-g) are never specified, and do not enter into the narrative. Stefanus is not asserting here that there was no speaker, rather that the speaker is irrelevant in the current participant frame.

A further example of a participant frame without one of the prototypical participants is below. The verb *bòb-* 'give' typically includes a giver, a recipient, and

something that is given. These can all three be overtly mentioned as in (877), or understood from context as in (878).

(877) *tyuya gi bwàbwei ýurà e bòb-i bóre # /*
 sir FOC then fruit 1.PL give-INCMP be
 ‘And it was a boss who gave us batteries.’ 5133.1

(878) *to-tà-i òre wojo=jè bòb-u-e # /*
 CAUS-rise-INCMP SEQ above=LOC give-CMP-PST
 ‘He took it up and gave it to him above.’ 80546.1

The giver may be left unspecified, and not inferrable from discourse context, in a particular participant frame. An example is given in (879), from a procedural text about building a house. The verb *bòb-* ‘give’ appears in lines (d) and (e).

(879) a. *òru bo fi dâr-o # /*
 woman TOP sago pound-NPST
 ‘The women will pound sago.’ 52250.1

b. *die f-u-ò*
 dog be-CMP-EMPH\IRR2
 ‘If there are dogs,’ 52251.1

c. *fe soyida-ro # /*
 also dog.hunt.pigs-NPST
 ‘pigs will also be hunted.’ 52252.1

d. *soyida àre dī fwe-i bo , / dīi bòb-i-rē-di òu*
 dog.hunt.pigs SEQ food see-INCMP TOP person give-INCMP-IRR1-PURP clan

begi bwàbwei tū tro-i bo dīi bòb-i-rē-di # /
 FOC then leaf cut-INCMP TOP person give-INCMP-IRR1-PURP
 ‘Pigs will be hunted and then the game will be seen; it will be for giving to the people, for giving to the people who cut leaves.’ 52253.1

e. *dì késai d̄yi b̀òb-i-ro* , /
 food small person give-INCMP-NPST
 ‘A little food will be given to the people.’

52254.1

In this excerpt Stefanus is describing how food is made for the house builders. In line (a) the women pound sago. In lines (b-e), no semantic agent is specified. All else being equal, information continuity would dictate that the women would be understood as the agents (see §6.1.3); however, encyclopedic knowledge about men’s work vs. women’s work rules out an interpretation whereby women go hunting with dogs. Thus, the interpretation is that unspecified males hunt, find the game, and give it to the people. Stefanus does not assert that there is no agent, since there clearly is, but rather that the identity is not important and thus can simply be left out.

In summary, verbal predicates have participant structure based on the conventionalized use of verbs to encode events and states with specific participants. Verbal participant structure is a statistical co-occurrence tendency, in contrast to grammatical argument structure in which the argument structure of a verb has grammatical implications.

7.1.2 *External possession*

In the literature, the term *external possession* is used for constructions that code a semantic possessor as a grammatical core argument, and the possessum as a separate constituent (Payne & Barshi 1999; O’Connor 2007). In Abawiri, there is a construction whereby a possessor is placed in the usual slot for topics or comments, and the possessum

occurs immediately before the verb. The possessum shows tighter integration with the verb than other referring expressions and cannot be marked for topic, focus, or location. The external possession construction is typically used for human body parts, as in examples (880)-(883).

- (880) *du bo bwàbwei àrá wórýugwre be kweyo fwrer-yì-rò*
 2.SG TOP then God spirit IMMED heart enter-PRF-NPST\YN
 ‘Has God’s Spirit come into your heart?’ 803b369.1
- (881) *deke bra wo fe ti worikre èror-u-o # /*
 younger.sibling downriver 3 also PROH hand release-CMP-EMPH
 ‘Don’t let go of the hands of the young people downriver.’ 804295.1
- (882) *bo wo ro woru krujér-u-e # /*
 COORD 3 then stomach spurt-CMP-PST
 ‘And gas came out of his stomach.’ 808a451.1
- (883) *korebi duru bo bwàbwei abu sieye gi eria to-w-e # /*
 K. PROX.EMPH TOP then grandparent S. FOC hand take-CMP-PST
 ‘And Grandmother Sieye brought Korebi by holding her hand.’ 81574.1

The external possession construction is also used with other things associated with people, such as *fwòu* ‘character’ (884) and *trè* ‘carcass’ (885).

- (884) *a fe bwori bo fwòu bóre # /*
 1.SG also 1.SG.REFL 1.SG.GEN characteristic be
 ‘This is my character.’ 803b81.1
- (885) *esi du bo , / du bo bweibere trè fwè-ye bwè-y-e-ro # /*
 here PROX TOP 2.SG TOP quickly carcass float-NFIN NEG-INCMP-HAB-NPST
 ‘And now, in a short time your carcass will not float up.’ 803a134.1

This construction fits with Mithun’s type I noun incorporation (Mithun 1984) where a noun is incorporated with a verb by juxtaposition; it is not accompanied by markers of

definiteness or demonstratives. A single Abawiri construction shows signs of further formal incorporation of the noun into the verb. The verb *abre-* ‘perceive’, when used to mean ‘see’, obligatorily occurs with *àryu* ‘eye’ (886).

- (886) *jeria bo àryu abro-w-e # /*
 matoa.tree TOP eye perceive-CMP-PST
 ‘They saw the *matoa* trees.’ 4074.1

The tight integration between the body part and the verb is seen in example (887), where the verbal directional prefix *yu-* ‘up’ occurs before the whole unit.

- (887) *e be=ta yu-àryu abro-u bo gwore rōu bwàbwei wogwre*
 1.PL LOC=ABL up-eye perceive-CMP TOP crocodile big then pool

tà-i f-u bóre # /
 rise-INCMP be-CMP be
 ‘When we looked up from there, a large crocodile was climbing up in a small pond.’ 81760.1

7.1.3 Noun-verb idioms

The noun-verb idiom construction in Abawiri involves a colexicalized noun + verb combination. The noun and verb are strictly adjacent, together having conventionalized semantics. Similar constructions are widespread among Papuan languages; in much of the literature they are termed ‘adjunct nominals’ (Healey 1964; Lang 1975; Foley 1986; 2000; Donohue 2006; San Roque 2008); see also the term ‘complement + verb combinations’ (Ross 1980: 90; Donohue 2006: 193). Here I follow Riesberg (2019) in using the term ‘noun-verb idiom construction’. In Abawiri, this term is appropriate because the nouns in

this construction are not adjuncts in a grammatical sense; that is, there is not a well-defined grammatical distinction between arguments and adjuncts (see chapter 6).

A full list of noun-verb idioms as identified in the corpus is given in Table 61; each is exemplified in turn in examples (888)-(893) below.

Table 61. Noun-verb idioms

Noun	Verb	Lit. gloss	Meaning	Example
<i>kre</i>	<i>gyuror-</i>	foot lift	'start going'	(888)
<i>gwēbi</i>	<i>béyi</i>	nose put	'lead'	(889)
<i>gwáku</i>	<i>tà-</i>	ear rise	'listen well'	(890)
<i>kweyo</i>	<i>diror-</i>	heart accept	'love'	(891)
<i>wotu</i>	<i>tor-</i>	armpit come	'tickle'	(892)
<i>woi</i>	<i>i-</i>	whistle call	'whistle'	(893)

(888)	<i>e áje deyidau kre gyuror-yi bóre # /</i> 1.PL ALL war.people foot lift-PRF be 'The warriors had started coming toward us.'	808a333.1
(889)	<i>ro begi deke gwēbi béyi-ri bóre</i> then DEM.FOC younger.sibling nose put-NFUT be 'It was they who led the younger children.'	50791.1
(890)	<i>gwáku tà-u bóre # /</i> ear rise-CMP be 'She listened.'	809257.1
(891)	<i>fe firore = gwre wo-ri kweyo diror-e f-i-ri #</i> also carefully = AUG 3-REFL heart accept-NFIN be-INCMP-NFUT 'And she would love him very much.'	90961.1

(892) *dū du tor-i òre òru begi wotu tor-u-e # /*
 male PROX come-INCMP SEQ woman DEM.FOC armpit come-CMP-PST
 ‘This man came and then he tickled the woman.’ 913c20.1

(893) *dwèyi dèbi fweyi woi i-j-e # /*
 sister child again whistle call-CMP-PST
 ‘His sister’s child began to whistle.’ 520318.1

As seen in all the above examples, the noun and verb are immediately adjacent, with no intervening material. The order of the other referring expressions in the clause is not affected by the noun-verb idiom. In this way, noun-verb idioms are also type I noun incorporation (Mithun 1984).

Thus Abawiri has two noun incorporation constructions. Noun-verb idioms and external possession both include a noun, usually but not always a body part, that occurs immediately before the verb and is not marked for any nominal categories. The two constructions are distinct in that noun-verb idioms involve colexicalization between the noun and the verb, with a resulting idiomatic expression, while external possession constructions do not. The distinction is thus semantic rather than formal, and gradient rather than categorical.

7.1.4 Coverb constructions

A coverb construction includes an uninflected word (the coverb) and an inflected (light) verb. It is distinct from noun incorporation (external possession and noun-verb idioms) in two ways: the first element is not drawn from another word class (i.e. not a noun), and the verb is from a restricted set. Coverb constructions have been called many

things in the Papuanist literature, including “verb adjunct constructions” in Duna (San Roque 2008), “function verb constructions” in Mian (Fedden 2011), “complex phrasal verbs” in Inanwatan (de Vries 2004), “phasal serial verb constructions” in Koromu (Priestley 2019), and “adjunct plus light verb” (Foley 2000), among others. Here I use the term “coverb construction”, where a *coverb* is an uninflected word not drawn from any other word class and that occurs only with a following inflected verb (Schultze-Berndt 2006; Riesberg 2019).

The Abawiri coverb construction is not as extensive as in many other Papuan languages. The only inflected verb that can occur in this construction is *bwe-* ‘be, become’; further, the set of lexical coverbs is quite small. The current lexical database has only eight coverbs: *deiko* ‘agree’, *fru* ‘cook’, *fwei* ‘steer canoe’, *kweye* ‘want’, *sito* ‘fish’, *trè* ‘seated’, *tyu* ‘crouched’, and *woyafei* ‘worship’. The following examples illustrate four of the coverbs: *fru* ‘cook’ in (894), *sito* ‘fish’ in (895), *trè* ‘seated’ in (896), and *woyafei* ‘worship’ in (897).

- (894) *dì fru bwe-i-ro # /*
 food cook become-INCMP-NPST
 ‘They are cooking food.’ 903b232.1
- (895) *e ta dúke trè gi o sito bwe-i-ro # /*
 1.PL two bird carcass FOC INS fish become-INCMP-CONT
 ‘We two will fish with bird’s carcasses.’ 81240.1
- (896) *be trè bwe-ye f-i-ri , /*
 LOC seated become-NFIN be-INCMP-NFUT
 ‘They still were sitting there.’ 507187.1

(897) *àrá woyafei bwe-i bóre # /*
 God worship become-INCMP be
 ‘They worship God.’ 803b455.1

The form *trè* in other usage means ‘dead’ or ‘corpse’. However, since it has distinct semantics in the coverb construction, I consider *trè* ‘seated’ to be a separate lexical entry.

The form *woyafei* ‘worship’ is a recently coined term, transparently a compound of *wo* ‘name’ and *yafei* ‘high’. It is used only in the context of Christian worship practices.

The formal incorporation of *woyafei* ‘worship’ in a coverb construction mirrors a more general trend whereby loan verbs from Indonesian/Malay are incorporated into Abawiri. While loanwords of other word classes are easily borrowed as there is little morphology, loan verbs are a different matter. The Abawiri strategy is to put loan verbs in the coverb position, where no morphology is necessary and all TAM specifications are in the following verb. This is one of the major strategies whereby languages with complex verbal morphology borrow loan verbs (Wichmann & Wohlgemuth 2008). Abawiri examples are below, with the Indonesian/Malay loan verbs *rasa* ‘feel’ (898), *tabrak* ‘strike’ (899), *kirim* ‘send’ (900), *jaga* ‘guard’ (901), and *terjemahkan* ‘translate’ (902), respectively.

(898) *gwàu=jè bo rasa bwe-i-yéi # /*
 body=LOC TOP feel become-INCMP-NEG
 ‘He did not feel (sick) in his body.’ 520361.1

(899) *are tabrak bwo-w-e # /*
 RECP strike become-CMP-PST
 ‘They ran into each other.’ 90452.1

- (900) *ba a du bwàbwei deke kirim bwe-i-ro # /*
 COORD 1.SG PROX then younger.sibling send become-INCMP-NPST
 ‘And I will send young people.’ 80465.1
- (901) *kumkum-jòu du bo jaga bwo-w-e # /*
 K.-OLD PROX TOP guard become-CMP-PST
 ‘Kumkum guarded.’ 81265.1
- (902) *fweyi terjemahkan bwe-i dèriā , /*
 again translate become-INCMP good\YN
 ‘And will it be good to translate again?’ 801b156.1

It is typical for speakers to rephrase the coverb constructions with loan verbs, the second time using Abawiri words; compare, for example, lines (a) and (c) of (903).

- (903) a. K: *tyuya tùru terima bwo-w-e # /*
 sir white receive become-CMP-PST
 ‘They received the white person.’ 81389.1
- b. *(tyuya tùru gi) / tyuya tùru gi bwàbwei , / tore dwòr-u-e*
 sir white FOC sir white FOC then PLACT dance-CMP-PST

gwokare , /
 afternoon
 ‘They danced toward the white person, at midday.’ 81390.1
- c. Y: *tyuya tùru to-w-e #*
 sir white take-CMP-PST
 ‘They received the white person.’ 81391.1

Here Kworyu uses a coverb construction with the Indonesian loan verb *terima* ‘receive’ in line (a); Yuli rephrases this in line (c) with the Abawiri word *to-* ‘take’. As in this example, rephrasing of coverb constructions with Abawiri verbs usually takes place as listeners try to help keep the recordings ‘pure’ for the documentation project.

A construction that lies on the boundary of coverb construction and inflected verb includes the word *afre* ‘know’. When used in the coverb construction, *afre bwe-* means ‘learn’, as in (904).

- (904) *du fe worjor-u afre bwe-i fworì , /*
 2.SG also write-NMLZ know become-INCMP DES
 ‘So that you will learn to write.’ 803b150.1

Unlike prototypical coverbs, *afre* ‘know’ can also be used clause-finally as a verb, as in (905). The only TAM inflections that occur with it are *-ō* ‘EMPH\IRR2’ (906) and *-ò* ‘EMPH\YN’ (907).

- (905) *e du fukàrì bo afre # /*
 1.PL PROX all TOP know
 ‘We all know.’ 801c4.1

- (906) *de bwàbwei àrà dabyigwa afre-ō # /*
 2.PL then God speech know-EMPH\IRR2
 ‘If you know God’s Word,’ 801b217.1

- (907) *àrà dabyigwa afre-ò # /*
 God speech know-EMPH\YN
 ‘Do we know God’s Word?’ 801b276.1

afre ‘know’ thus differs from regularly inflected verbs in the greatly reduced number of inflectional possibilities, and from coverbs in that it can also occur on its own without *bwe-* ‘be, become’.

7.2 Non-verbal predicates

The word class distinction between verbs and other word classes is quite clear, and there is little overlap between the two (see §3.2). When words of other word classes are used predicatively, a separate non-verbal predicate construction is used, here schematized in Table 62.

Table 62. The non-verbal predicate construction

TOPIC	COMMENT	
- referring expression - topical medial clause (adjectival predicates only)	- NP - adjective - locative - numeral -existential form	(light verb)

The above construction is typical of non-verbal predicates in Papuan languages, which, according to Pawley and Hammarström (2018: 97), always take the form of a topic-comment construction. While descriptions of non-verbal predicates are not common in descriptive and typological work on Papuan languages (Pawley & Hammarström 2018), in most grammars where they are described a wide variety of non-verbal predicating constructions are attested. Waskia has nominal, adjectival, and postpositional predicates (Ross & Paol 1978). Koromu has nominal, adjectival, postpositional, locative, and numeral predicates (Priestley 2019), while Manambu has predicates of nearly every word class (Aikhenvald 2008). Ma Manda has a similarly large number of non-verbal predicate types (Pennington 2018). By contrast, in Komnzo non-verbal predicates are a marginal construction (Döhler 2019).

In Abawiri, NPs can be predicates (§7.2.1), as can adjectives (§7.2.2), which are the only non-verbal predicates that occur with clausal topics. Locatives (§7.2.3) and numerals (§7.2.4) can also be predicates; further, there are three dedicated existential predicate forms (§7.2.5). Most types of non-verbal predicates optionally have a light verb, which carries TAM inflection (§7.2.6). Non-verbal predicates without light verbs are negated with the dedicated form *yài* ‘NEG’ (§7.2.7). Polar questions with non-verbal predicates are formed in two ways: either with a light verb that carries the TAM inflection, or with a final question particle *ò/ō* ‘YN’ (§7.2.8).

7.2.1 Nominal predicates

In the nominal predicate construction, an NP occurs in the predicate of a clause following the topical referring expression, as in (908) and (909).

(908) *du die* ,
 PROX water
 ‘This is water.’ 50527.1

(909) *fu furku Doyo fu furku # /*
 canoe whole D. canoe whole
 ‘The airplane was an airplane from Doyo.’ 502118.1

The semantic relationship that holds between the topical referring expression and the predicating NP is broadly equative, with the details of the relationship left to context. Generally, the coreferential referring expressions in the topic and the predicate give different properties of the referent; the ones in the topic are understood from context, and

the ones in the predicate are being pragmatically asserted. This is the case in examples (908) and (909) above.

In addition to equative semantics, the relationship can be one of location (910), attribution (911), or possession (912) and (913).

(910) *túkrou bo fukári de trè=gwre # /*
 grass(sp.) TOP all 2.PL carcass = only
 ‘The reeds will all be [filled with] your carcasses.’ 803a138.1

(911) *fukári tori fròku # /*
 all hair long
 ‘They all will have long hair.’ 808a283.1

(912) *d̄yi bo bwàbwei gweya # /*
 person TOP then divination
 ‘The people had magic.’ 803a156.1

(913) *bo begi fukári bo e-riai # /*
 COORD DEM.FOC all TOP 1.PL-REFL
 ‘All of that is we ourselves [our own responsibility].’ 804162.1

Nominal predication as in examples (912) and (913) is not the primary predicative possessive construction. Predicative possession is more frequently expressed with the verb *f-* ‘be’, usually in a SVC with continuous *f-* (§5.3.5.1). An example is given in (914).

(914) *twōryi bo / eke f-u f̄u-e # /*
 good.man TOP younger.sibling be-CMP be.CMP-PST
 ‘The good man had a younger sibling.’ 8095.1

7.2.2 Adjectival predicates

In the adjectival predicate construction, an adjective is in the predicate. The assertion of the construction is that the adjective is a property of the referring expression in the preceding topic. (See §3.1.4.2 on attributive adjectives in NPs.) Examples of adjectival predicates are given in (915), (916), and (917).

- (915) *èrei bo dèrio rōu=gwre # /*
 daughter TOP good very=AUG
 ‘The daughter was very beautiful.’ 41033.1
- (916) *kweyo gwa kou=gwre # /*
 heart ILL bad=AUG
 ‘In our hearts it was not good.’ 502176.1
- (917) a. *fwrifai jebi fe dèria ou fwoyu bo # /*
 tree(sp.) also good house rafter TOP
 ‘Fwri fai jebi wood is also good, for rafters.’ 52244.1
- b. *kwri fe dèria , /*
 tree(sp.) also good
 ‘Kwri wood is also good.’ 52245.1
- c. *tiaire fe dèria , /*
 tree(sp.) also good
 ‘Tiaire wood is also good.’ 52246.1

Unlike other non-verbal predicates, adjectival predicates frequently have a topical medial clause (§8.4) as a topic. In this construction, the medial clause gives a state of affairs about which the property of the adjective is said to hold, as in examples (918), (919), and (920).

- (918) [*bo dèria breror-u bo] kou , /*
 1.SG.GEN good reject-CMP TOP bad
 ‘Losing the good I have is bad.’ 801b127.1
- (919) [*begi dabyi bo] ká # /*
 DEM.FOC talk TOP same
 ‘The thing that’s being said is the same.’ 803b230.1
- (920) *o bwàbwei , / [yure f-u bwo-u bo] kebiári # /*
 COORD then tree be-CMP become-CMP TOP recent
 ‘And the existence of trees was new.’ 80637.1

7.2.3 Locative predicates

The locative predicating construction includes a topical referring expression and a locative postposition (§3.6) in the predicate giving the static location of the referent.

Examples are in (921), (922), and (923).

- (921) *ou gwōto bo bwó du # /*
 house foundation.post TOP under PROX
 ‘The foundation poles are under here.’ 522124.1
- (922) *mahal bo báí # /*
 expensive TOP across
 ‘Expensive [prices] are on the other side [in town].’ 804109.1
- (923) *de fukári du / wojo , /*
 2.PL all PROX above
 ‘All of you are up here.’ 804233.1

Content questions about location take the form of a locative predicate construction with the question word *bà* ‘where’ (924).

(924) *fu du bà # /*
 canoe PROX where
 ‘Where is the boat?’ 51367.1

7.2.4 Numeral and quantifier predicates

When a numeral is in a predicate, the number of entities in the topic is specified.

Examples are in (925), (926), and (927).

(925) *bo bwàbwei (fu) / fu bo ta # /*
 COORD then canoe canoe TOP two
 ‘And the boats were two.’ 81749.1

(926) *e worero bwàbwei , / kíài-ké # /*
 1.PL like.that then one-DIM
 ‘And we are one.’ 801b170.1

(927) *weire bo bio ta bio kíài # /*
 older.sibling TOP other two other one
 ‘The three older children, there were three.’ 50790.1

The numeral predicate construction is quite uncommon, as people do not usually talk about quantities of things; further, when they do, the information contained in the numeral is usually not of great enough importance to be in a predicate. Most corpus examples of numeral predicates have at least some connection to modernity and the arrival of outside ideas; it is, in fact, quite common to use Indonesian numerals rather than Abawiri ones. This is seen in example (928), where the speaker uses the Indonesian numerals *satu* ‘one’ and *empat puluh* ‘forty’. His assertion is that the cost per inch of crocodile hide is 40,000 rupiah.

- (928) *satu bo bwàbwei worero empat puluh #*
 one TOP then like.that forty
 ‘And one inch is forty.’ 80418.1

Quantifiers also occur in predicates as shown in (929).

- (929) *sỳi bo kou = gwre # /*
 flower TOP much = AUG
 ‘The flowers were very many.’ 808a475.1

7.2.5 Existential predicates

Existential predicates are formed with one of several uninflected stative forms: the post-verbal auxiliary *bóre* ‘be’ (§7.2.5.1), the negative existential *ōi* ‘be.NEG’ (§7.2.5.2), and the existential *béso* ‘done’ (§7.2.5.3).

7.2.5.1 Existential *bóre*

The post-verbal auxiliary *bóre* ‘be’ most frequently occurs as part of verbal constructions (§5.2.1). Additionally, it is used as a standalone predicate where it indicates that the entity in the clause exists. In example (930), Paulus is telling a folktale and introduces the main protagonists of the story in a presentative construction with *bóre* ‘be’.

- (930) *(arikei) arikei dwèyi ta bóre ,*
 parrot(sp.) parrot(sp.) sister two be
 ‘They were two parrot sisters.’ 52073.1

A few minutes into the folktale, Paulus is distracted from storytelling when a boat comes up the river. He makes two statements about entities he observes, using *bóre* as an existential predicate in both statements. This is shown in (931).

- (931) a. *d̄yi kor-u bio bóre # /*
 person hunt-NMLZ other be
 ‘There is another hunting-person.’ 520187.1
- b. *keti bóre*
 motor.boat be
 ‘There is a *Ketintim* motor boat.’ 520188.1

When it is used as a standalone clause, *bóre* ‘be’ indicates that an entity understood from discourse context exists. An example is shown in (39), where Yuli gives the name of an entity in line (a) and Bwoyusa agrees with his identification in lines (b) and (c).

- (932) a. Y: *bra tokwre #*
 arrow.shaft head
 ‘The head of an arrow-shaft.’ 511a279.1
- b. B: *ya #*
 yes
 ‘Yes.’ 511a280.1
- c. *bóre # /*
 be
 ‘That’s it.’ 511a281.1

When used as an existential predicate, *bóre* ‘be’ can take the non-past suffix *-ro* ‘NPST’. This is the only context in which any non-verbal predicate takes TAM inflection. Examples are in (933) and (934).

- (933) *bàtúia bóre-ro # /*
 squash be-NPST
 ‘This is a squash.’ 81645.1
- (934) *bworyuja bóre-ro / fukári du # /*
 string.holder be-NPST all PROX
 ‘They are string-holders, all of them.’ 511b21.1

See §5.2.1 for further discussion of this post-verbal auxiliary in verbal constructions.

7.2.5.2 Negative existential *ōi*

The negative existential predicate *ōi* ‘be.NEG’ is used as a negative counterpart to existential *bóre* ‘be’, indicating the absence of the entity in question. Unlike *bóre* ‘be’, it only occurs as a standalone predicate and cannot occur in verbal constructions. Examples of its function as a negative existential predicate are in (935) and (936).

(935) *die bo ōi #*
water TOP be.NEG
‘There was no water.’ 809241.1

(936) *wo dèbi weire ōi , /*
3 child older.sibling be.NEG
‘His oldest son was not there.’ 808a207.1

As a standalone utterance, *ōi* ‘be.NEG’ indicates that a referent in the previous clause does not exist in the context set by the current discourse. In example (937), Boyei notices that a boat is passing by the house and speculates that the occupants are ‘agarwood people’. Paulus responds in the second line with negative *ōi*, stating that there are no agarwood people, followed by another IU in which he offers the alternative referent with *d̄yi koru* ‘people who are going hunting’.

(937) a. B: *gaharu d̄yi yu-teryi-ro # /*
agarwood person up-pass-NPST
‘Agarwood people are passing by upwards.’ 520226.1

b. P: *ōi* # /
 be.NEG
 ‘No.’ 520227.1

c. *d̄yi kor-u* # /
 person hunt-NMLZ
 ‘It’s people hunting.’ 520228.1

This predicate is also used to negate nominalized clausal topics, as shown in (938) and (939).

(938) *biárte-u fe ōi* # /
 fall-NMLZ also be.NEG
 ‘There was no falling.’ 808a161.1

(939) *trâr-u fe ōi bwo-w-e* # /
 swim-NMLZ also be.NEG become-CMP-PST
 ‘There was no swimming.’ 81346.1

As seen in example (939), *ōi* often occurs with a following light verb as do other non-verbal predicates (§7.2.6). See also §3.12.1 on nominalization in Abawiri.

Unlike the other two existential predicates, the negative existential can occur with the augmentative enclitic =*gwre* ‘AUG’, where the absence of the entity is emphasized. Example (940) shows this with a nominal topic, while example (941) shows this with a nominalized clausal topic.

(940) *worakayi bo ōi=gwre fû-e* # /
 desire TOP be.NEG=AUG be-PST
 ‘He did not have lust at all.’ 808a132.1

(941) *bé=ta d̄òr-u k̄esai fe ōi=gwre* # /
 LOC=ABL go-NMLZ small also be.NEG=AUG
 ‘There is definitely no walking from there.’ 803a95.1

Negative existential *ōi* also occurs with two referring expressions, in which case the negative-existential semantics apply to the more patient-like argument. The resulting reading is possessive, as shown in examples (942) and (943).

(942) *du bo worabror-u ōi # /*
 2.SG TOP think-NMLZ be.NEG
 ‘You do not have wisdom.’ 801c39.1

(943) *a du mudia=ta tor-u bo # / ba a du / di worabror-u*
 1.SG PROX M.=ABL come-CMP TOP COORD 1.SG PROX eat think-NMLZ
fo ōi # /
 also be.NEG
 ‘When I came from Mudia, I did not have thoughts for eating.’ 50920.1

7.2.5.3 Existential *béso*

The word *béso* ‘done’ is used as a standalone stative predicate, where in addition to existential semantics it indicates that the entity in question is complete in some way.

Examples are given in (944), (945), and (946).

(944) *dràkrúja (woru) woru tro-u kou du bo béso # /*
 animal stomach stomach cut-NMLZ bad PROX TOP done
 ‘Here is the animal that has had the bad entrails cut out.’ 51249.1

(945) *o bwàbwei be=jè fe bwàbwei , / fukàrì béso ,*
 COORD then LOC=LOC also then all done
 ‘And that’s just how everything was there.’ 803a159.1

(946) *esi àrà dabyigwa èyi=jè bo béso # /*
 here God speech LOC=LOC TOP done
 ‘That’s it concerning God’s word.’ 804245.1

This word is often used on its own, in much the same way as an interjection (§3.11), where speakers use it to indicate that they have finished any previous activities and are now ready for something. This is shown in (947), an extract from a conversation between two people as they prepared to tell a story for the documentation project. In line (f) Yuli states that all preliminaries are completed and all is ready for storytelling; Stefanus responds in line (g) by beginning the story.

- (947) a. Y: *òró* , /
 hey
 ‘Hey!’ 5021.1
- b. *ogweyi=gwre=ta fwa-i* , /
 edge=AUG=ABL begin-INCMP
 ‘Start from the very beginning.’ 5022.1
- c. *tí gwò toyi-jéi #*
 PROH INESS cut-NEG
 ‘Don’t cut off in the middle.’ 5023.1
- d. S: *gwò toyi-jéi # /*
 INESS cut-NEG
 ‘I will not cut off in the middle.’ 5024.1
- e. Y: *sira teryi # /*
 please pass
 ‘Please go on.’ 5025.1
- f. *béso #*
 done
 ‘Ready.’ 5026.1
- g. S: *a yikare dōbu rōu báí bo āfréi f-u-e # /*
 1.SG village big very across TOP know.NEG be-CMP-PST
 ‘I did not know the city.’ 5027.1

7.2.6 Light verbs with non-verbal predicates

Non-verbal predicates optionally have a light verb *bwe-* ‘be, become’ or *f-* ‘be’, or one of the auxiliaries *bóre* ‘be’ or *béyo* ‘be.Q’. The light verbs carry TAM inflection and are always used when a temporal, aspectual, or modal specification needs to be made with a non-verbal predicate. Without a light verb expressing TAM distinctions, non-verbal predicates are interpreted as declarative and realis, with temporal anchoring (past, present, or future) determined by context. Examples (948) and (949) show the nominal predicate construction with light verbs. (948) has *bwe-* ‘be, become’, here with an aspectual SVC specified as progressive past, while (949) has *f-* ‘be’, here specified as completive.

- (948) *fia bo wo-ri begi tokwre bwe-ye f-u bóre # /*
 F. TOP 3-REFL FOC head become-NFIN be-CMP be
 ‘It was Fia himself who was being the chief.’ 50713.1
- (949) *yesus du bwàbwei / àrà f-u-e # /*
 Jesus PROX then God be-CMP-PST
 ‘Jesus was God.’ 801c7.1

Examples (950) and (951) show the adjectival predicate construction with light verbs. Example (950) has *bwe-* ‘be, become’, here specified as incompletive, while (951) has *f-* ‘be’, here specified as completive.

- (950) *wodu / bwàbwei dèbi du gi kàr-i òre dre-i fì bo gwiruku*
 LOG then child PROX FOC carry-INCMP SEQ run-INCMP go TOP heavy
bwe-i-ro ,
 become-INCMP-NPST
 ‘If I run while carrying this child, it will become heavy.’ 808a391.1

(951) *fyu fe dōbu rōu=gwre f-u-e # /*
 earthquake also big big=AUG be-CMP-PST
 ‘The earthquake was very big.’ 50434.1

The auxiliaries are used for forming polar questions as in line (a) of (952), or for emphasis as in line (c).

(952) a. Y: *du fe fukàrì fwara béyo #*
 PROX also all war.arrowhead be.Q
 ‘Are all these war-arrowheads?’ 511a216.1

b. *tōu #*
 cuscus(sp.)
 ‘Cuscus.’ 511a217.1

c. B: *fukàrì bo fwara bóre #*
 all TOP war.arrowhead be
 ‘They are all war-arrowheads.’ 511a218.1

Locative predicates and numeral predicates are rare; to date none have been found with light verbs, although it is expected that they are possible.

7.2.7 Negation of non-verbal predicates

Non-verbal predicates are negated with the final negator *yài* ‘NEG’ (cf. the verbal negative suffix *-yéi* ‘NEG’; §7.3.2). This negator occurs with nominal predicates (953), adjectival predicates (954), and numeral predicates (955).

(953) *bo òru yài ,*
 DIST woman NEG
 ‘It is not a woman.’ 50275.1

(954) *fiare teikoru bo dèri yài #*
 cassowary footprint TOP good NEG
 ‘There were many (lit. not-good) cassowary tracks.’ 520223.1

(955) *bo kíài yài # /*
 DIST one NEG
 ‘It is not one.’ 803b284.1

The function of *yài* ‘NEG’ is to reverse the semantic relationship that holds with non-verbal predication. This differs from the negative existential *ōi* ‘be.NEG’ (§7.2.5.2), as shown in the following two examples. In the first, the entity is said not to be a pig (956), while in the second the entity is said not to exist (957).

(956) *du sō yài*
 PROX pig NEG
 ‘This is not a pig.’ 50526.1

(957) *sō bo ōi # /*
 pig TOP be.NEG
 ‘There was no pig.’ 50522.1

Non-verbal predicates with light verbs are not negated with *yài* ‘NEG’, but instead use the regular verbal negation strategies on the light verb (see §7.3.2). Examples are in (958) and (959).

(958) *fī bo dèria bwo-w-e bwò-w-e # /*
 sago TOP good become-CMP-PST NEG-CMP-PST
 ‘The sago did not become good (ripen).’ 5104.1

(959) *e fe dèria bwe-i-yéi # /*
 1.PL also good become-INCMP-NEG
 ‘We will not become good.’ 801b232.1

7.2.8 Polar questions with non-verbal predicates

With verbal predicates, polar questions are formed with the /L/ tone enclitic, which is associated with the final syllable of the verb. This is either the emphatic suffix *-o* (→ *-ò* ‘EMPH\YN’) or non-past *-ro* (→ *-rò* ‘NPST\YN’ (§7.3.3)). With non-verbal predicates, it is most usual to have a light verb that bears the TAM inflection, including the polar question /L/ tone enclitic, as in (960) and (961).

(960) *d̄yi du bwàbwei , / kou bwo-w-ò # /*
 person PROX then bad become-CMP-EMPH\YN
 ‘Is this person bad?’ 91255.1

(961) *esi d̄yi du kou f-u-ò*
 however person PROX bad be-CMP-EMPH\YN
 ‘But is this person bad?’ r1410.2

However, polar questions are also formed with non-verbal predicates that do not have a light verb. In this case the polar question marker *ò* ‘YN’ occurs at the end of the clause. The question marker is used for questioning nominal predicates (962), adjectival predicates (963), and locative predicates (964). Questioned numeral predicates are not attested.

(962) *(twōryi) twōryi koreifu eke ò # /*
 good.man good.man date younger.sibling Q
 ‘The younger sibling of the man’s girlfriend?’ 809122.1

(963) *si bore du bo kou ò*
 here 1.SG.GEN PROX TOP bad Q
 ‘Was mine bad?’ 920b33.1

(964) *atau yikare bio èyi ò # /*
or village other LOC Q
'Or in another village?'

804131.1

7.3 Illocutionary force

This section discusses the illocutionary force of main (final) clauses. In Abawiri, illocutionary force is indicated primarily in the predicate of the clause. Types include declarative clauses (§7.3.1), negative clauses (§7.3.2), polar questions (§7.3.3), content questions (§7.3.4), imperative/desiderative clauses (§7.3.5), purpose clauses (§7.3.6), and counterfactual clauses (§7.3.7). Not included here are the various non-final clause constructions, which are discussed in chapter 8. Illocutionary force is primarily indicated grammatically through verbal suffixing morphology (chapter 4) and elements of verb phrases (chapter 5); here the various grammatical morphemes are brought together and organized by broad type, with references to the relevant sections of chapters 4 and 5.

7.3.1 Declarative clauses

Declarative clauses are the most frequent clause type in discourse and also display the most variation. Declarative clauses can have completive, incompletive, or perfect basic aspect (§4.1). The most frequent completive declaratives are shown in Table 63 and exemplified in order in examples (965)-(967).

Table 63. *Completive declarative clauses*

Final element	Gloss	Example	See
- <i>u-e</i>	-CMP-PST	(965)	§4.2.2
- <i>u bóre</i>	-CMP be	(966)	§5.2.1
- <i>u-o</i>	-CMP-EMPH	(967)	§4.5.2
(965)	<i>Duréi bo fro-w-e</i> , D. TOP go-CMP-PST 'Durei went.'		808a454.1
(966)	<i>wo ta bo tòkóru tà-u bóre # /</i> 3 two TOP sky rise-CMP be 'They two went up to the sky.'		80689.1
(967)	<i>dúke gwai f-u-o # /</i> bird body.hair be-CMP-EMPH 'There were bird feathers!'		507271.1

The most frequent incompletive declaratives include non-past, habitual, prospective, and non-future inflections and are shown in Table 64. They are exemplified in order in examples (968)-(971) below.

Table 64. *Incompletive declarative clauses*

TAM suffixes	Gloss	Example	See
- <i>i-ro</i>	-INCMP-NPST	(968)	§4.3.2
- <i>i-e-ro</i>	-INCMP-HAB-NPST	(969)	§4.3.4
- <i>i-rà-ro</i>	-INCMP-PROSP-NPST	(970)	§4.3.3
- <i>i-ri</i>	-INCMP-NFUT	(971)	§4.3.5

- (968) *seregwyi bwrìor-e tà-i-ro # /*
 bench make-NFIN rise-INCMP-NPST
 ‘The side platforms are put up.’ 52289.1
- (969) *tere fe kou=gwre f-i-e-ro # /*
 mosquito also much=AUG be-INCMP-HAB-NPST
 ‘There are usually many mosquitoes.’ 52326.1
- (970) *wèi bo bworì s-i-rà-ro # /*
 tail TOP 1.SG.REFL take-INCMP-PROSP-NPST
 ‘I myself am about to take the tail.’ 80952.1
- (971) *fe begi òi bòb-i-ri # /*
 also DEM.FOC food give-INCMP-NFUT
 ‘Then he would give them food.’ 801b250.1

There are two perfect declarative inflections, shown in Table 65 and exemplified in order in examples (972)-(973) below.

Table 65. Perfect declarative clauses

Final element	Gloss	Example	See
- <i>yi-ro</i>	-PRF-NPST	(972)	§4.4
- <i>yi bóre</i>	-PRF be	(973)	§4.4
(972) <i>a fe orafabar-yi-ro # /</i>	1.SG also forget-PRF-NPST	‘But I have forgotten.’	808a29.1
(973) <i>dworu òyi bwàbwei fwàre bwe-yi bóre # /</i>	Mamberamo person then bow become-PRF be	‘The Pagai people have prepared weapons.’	808a331.1

7.3.2 Negative clauses

Most negation of verbal predicates is accomplished with the suffix *-yéi* ‘NEG’. In addition, two specific TAM constructions are negated with a separate verb stem *bwè-* ‘NEG’. See also negation of non-verbal predicates, where another construction is used (§7.2.7). A summary of verbal negation strategies is provided in Table 66; examples are given in (974)-(978) beneath.

Table 66. Verbal negation strategies

Construction	Negation	Example	See
most verbal predicates	<i>-yéi</i>	(974), (975), (976)	§4.5.1
past completive- <i>u-e</i>	<i>bwè-</i>	(977)	§5.3.5.10
incompletive habitual <i>-i-e</i>	<i>bwè-</i>	(978)	§5.3.5.10
(974)	<i>a du de fi ði-yéi # /</i> 1.SG PROX 2.PL sago eat-NEG		
	‘I will not eat your sago.’		808a104.1
(975)	<i>fweyi fa-yi-jéi # /</i> again return-PRF-NEG		
	‘She has not returned.’		41073.1
(976)	<i>du èbai kou bo tor-u-wéi ,</i> 2.SG uncle loved TOP come-CMP-NEG		
	‘Your uncle did not come.’		805167.1
(977)	<i>gwore bwo-w-e bwò-w-e # /</i> crocodile become-CMP-PST NEG-CMP-PST		
	‘She did not become a crocodile.’		812107.1

- (978) *du bo ro Fwau èyi bore-y-e bwè-y-e-ro*
 2.SG TOP then F. LOC tell-INCMP-HAB NEG-INCMP-HAB-NPST
 ‘You do not usually speak in the Fwau language.’ 801b159.1

7.3.3 Polar questions

Polar questions for verbal predicates are formed with the polar question /L/ tone enclitic (§4.5.3), which associates with the final syllable of the clause. In completive constructions this is always the suffix *-o* ‘EMPH’ (§4.5.2) as in example (979), while in incomplete and perfect constructions it is the suffix *-ro* ‘NPST’ (§4.3.2), as in examples (980) and (981), respectively.

- (979) *de bo fror-e f-u-ò # /*
 2.PL TOP go-NFIN be-CMP-EMPH\YN
 ‘Have you all gone there?’ 81735.1
- (980) *fweyi bio gi bore-i-rò # /*
 again other FOC tell-INCMP-NPST\YN
 ‘Will another thing be said?’ 801b157.1
- (981) *bore du kou bwe-yi-rò*
 1.SG.GEN PROX bad become-PRF-NPST\YN
 ‘Has mine turned out bad?’ 920b22.1

Polar questions are also formed with the post-verbal auxiliary *béyo* ‘be.Q’, the interrogative counterpart to *bóre* ‘be’. An example is shown in (982).

- (982) *sòri dwòror-u béyo #*
 earth rotate-CMP be.Q
 ‘Did the world spin?’ 50425.1

See also the formation of non-verbal polar questions (§7.2.8).

7.3.4 Content questions

The construction for content questions is a declarative clause (§7.3.1) with one of the interrogative words (§3.5.2) in place of the questioned referring expression. Examples are below with the question words *biári* ‘who’ (983), *biari* ‘what’ (984), *bà* ‘where’ (985), *ótrò* ‘how’ (986).

- (983) *du dī du biári gi du bòb-u-o* ,
 2.SG food PROX who FOC 2.SG give-CMP-EMPH
 ‘Who gave your food to you?’ 40960.1
- (984) *fe biari gi bed-i-ro # /*
 also what FOC say-INCMP-NPST
 ‘What else shall I say?’ 520190.1
- (985) *fe bà fre-rà-ro # /*
 also where go-PROSP-NPST
 ‘Where are you going?’ 507230.1
- (986) *dìgwréjou ótrò dabyi-ri*
 the.elderly how talk-NFUT
 ‘How would old people talk?’ 801c42.1

Events and states can be questioned with the pro-verb *ótror-* ‘do what’ (§3.5.3), as shown in (987).

- (987) *wo òru du ótror-u-o* , /
 3 woman PROX do.what-CMP-EMPH
 ‘What happened to my wife?’ 41061.1

The past tense suffix *-e* ‘PST’ that typically occurs in declarative complete constructions (§7.3.1) cannot occur in content questions. *-o* ‘EMPH’ is used instead, as in examples (983) and (987) above.

7.3.5 Imperative/desiderative clauses

The imperative/desiderative construction formally consists of a clause with a verb bearing only the incomplete suffix *-i* ‘INCMP’ (§4.3.1). It occurs with all persons and expresses desire: an invitation to joint action with 1st person plural (988), a command or request with 2nd person (989), and a wish for someone else with the 3rd person (990).

- (988) *e fa-i # /*
 1.PL return-INCMP
 ‘Let’s go back.’ 40814.1
- (989) *de ro ou fro-i , /*
 2.PL then house go-INCMP
 ‘You go to the house,’ 502188.1
- (990) *eke fu kíàì-ké gi diror-i # /*
 first canoe one-DIM FOC go-INCMP
 ‘One canoe must go first.’ 817110.1

7.3.6 Purpose clauses

The purpose construction is formally similar to the counterfactual construction (§7.3.7) and is formed with the suffixes *-rē* ‘IRR1’ (§4.3.6) + *-di* ‘PURP’ (§4.3.7). The construction can occur as a main clause or embedded in a matrix clause. Its main clause use is exemplified in (991) and (992); for its subordinate clause use see §8.3.

(991) *gwari dōbu rōu teryi-rē-di* , /
 day big big pass-IRR1-PURP
 ‘We want to celebrate our holidays.’ 9072.1

(992) *fweyi bwābwei wo ta / eyito-i-rē-di*
 again then 3 two help-INCMP-IRR1-PURP
 ‘They want them to help the two of them’ 908a76.1

The desiderative construction is functionally quite similar to the purpose construction, but is formally distinct, including an incompletive verb and the post-verbal auxiliary *fworī* ‘DES’ (§5.2.3). Unlike the purpose construction, the desiderative construction only occurs as a main clause and cannot be embedded in a matrix clause. Examples are shown in (993) and (994).

(993) *e ro dèria bwe-i fworī # /*
 1.PL then good become-INCMP DES
 ‘We want to become good.’ 801c50.1

(994) a. *ke-jè du o dabre-i-ro # /*
 1.SG-EMPH 2.SG ALL teach-INCMP-NPST
 ‘I will teach you.’ 803b149.1

b. *du fe worjor-u afre bwe-i fworī , /*
 2.SG also write-NMLZ know become-INCMP DES
 ‘You will then learn to write.’ 803b150.1

c. *du fe ádi afre bwe-i fworī # /*
 2.SG also read know become-INCMP DES
 ‘You will then learn to read.’ 803b151.1

7.3.7 Counterfactual clauses

Counterfactuals are formed with the irrealis suffix *-rē* ‘IRR1’ (§4.3.6) and the non-future suffix *-ri* ‘NFUT’ (§4.3.5). Examples are in (995) and (996).

- (995) *òru kweyo kou bwe-i-rē-ri # /*
woman heart bad become-INCMP-IRR1-NFUT
‘[In that case] the woman would get offended.’ 91032.1
- (996) *bworiai f-i-rē-ri bo a du kobe-rē-ri # /*
1.SG.REFL be-INCMP-IRR1-NFUT TOP 1.SG PROX die-IRR1-NFUT
‘If it had been me myself, I would have died.’ 502123.1

7.4 Chapter summary

Clausal predicates include both verbal and non-verbal predicate types. Verbal predicates are complex and involve TAM suffixing on verbs, pre-verbal and post-verbal auxiliaries, serial verb constructions, external possession constructions, noun-verb idioms, and coverb constructions. Individual verbs have a discourse-pragmatic *participant structure* that is defined by the participants that most typically occur with the verb.

With non-verbal predicates, a referring expression is in the topic position and a non-verbal predicate is in the comment. Non-verbal predicates include nouns, adjectives, locatives, and numerals, as well as several existential forms. Adjectival predicates can have a topical medial clause in the topic; this is not attested for other non-verbal predicate types. Non-verbal predicates optionally include a light verb, which carries TAM specification. Negation of non-verbal predicates is accomplished either with a verbal negation strategy on

the light verb or, in the absence of a light verb, with the non-verbal negator *yàì* 'NEG'. Polar questions are formed with non-verbal predicates either with a verbal polar question strategy on the light verb or, in the absence of a light verb, with the non-verbal polar question marker *ō/ò* 'YN'.

Clausal modality is indicated primarily in the (verbal) predicate. The most frequent clause type is declarative. Several strategies are used to form negative clauses, including a verbal suffix, negative auxiliaries, and a negative inflected verb. There are separate clausal constructions for polar questions and content questions, the content question construction more closely resembling the declarative type. A single construction is used for cohortative, imperative, and jussive modality and is used with all persons. The purpose construction is formed with suffixing morphology on the verb, while the desiderative construction is formed with a post-verbal auxiliary.

Chapter 8 Clause combining

This chapter presents strategies for combining clauses in Abawiri, beginning with the constructions most tightly integrating a subordinate clause with a superordinate clause and ending with coordination of independent/final clauses. Abawiri has three Noun-Modifying Clause Constructions: relative clauses (§8.1.1), nominalized relative clauses (§8.1.2), and noun complements (§8.2). Purpose clauses can be either syntactically embedded or independent, as discussed in §8.3. Sections 8.4-8.6 present constructions related to medial clauses: topical medial clauses (§8.4), sequential medial clauses (§8.5), and tail-head linkage (§8.6). The final two sections discuss clause coordination (§8.7) and reported speech (§8.8), which is accomplished through juxtaposition of final clauses. The chapter summary (§8.9) recapitulates the contents of the chapter in a succinct way.

8.1 Relative clauses and other Noun Modifying Clause Constructions

Abawiri has several Noun Modifying Clause Constructions or NMCCs (Matsumoto, Comrie & Sells 2017). While many of the constructions are related, here I make a three-way primary distinction between (regular) relative clauses (§8.1.1), nominalized relative clauses (§8.1.2), and noun complements (§8.2).

Relative clause constructions most frequently relativize semantic agents, patients, themes, and locations.⁸ Nominalized relative clauses only have themes as heads, while noun

8. The same semantic roles presented in chapter 6 are used here, with the addition of location. Location relative clauses form a separate sub-type of relative clause.

complements have agents, patients, locations, and other general associative semantic relationships. To give an approximation of the relative frequency of each type, a sample of 122 NMCCs was examined. Table 67 shows the three NMCC types by semantic role. Each cell in Table 67 contains the number of occurrences out of the 122-clause sample.

Table 67. NMCC by semantic role

	A	P	T	LOC	Other	TOTAL
relative clause	28	36	33	10	1	108
nominalized relative clause			6			6
noun complement	3			2	3	8
TOTAL	31	36	39	12	4	122

Regular (non-nominalized) relative clauses are frequent and can relativize semantic agents, patients, themes, location, and, rarely, other semantic roles. Nominalized relative clauses are the most restrictive of the three types, only relativizing themes. This is derivative of the fact that only a single verb can occur in this construction, as discussed further in §8.1.2. Noun complements are used in two ways. In spontaneous speech they most frequently have a general associative semantic relationship with the head noun ('other' in Table 67). Noun complements are also a preferred strategy for coining new terminology in translated material; in this context, the head noun is often the semantic agent. There are no noun complements with patients or themes in the sample, although in the wider corpus there are several religious terms with noun complement patients. Noun

complements with themes are not attested in the corpus, but they are judged to be grammatical in elicitation (§8.2).

Cross-linguistically, NMCCs can be classified according to the types of arguments in the dependent clause that can be coreferential with the head NP. For example, early work showed that many languages have restrictions on the grammatical roles that can be relativized; e.g. subjects only (Keenan & Comrie 1977). Matsumoto, Comrie, & Sells (2017) develop a broader typology of NMCCs with a three-way distinction between argument NMCCs, adjunct NMCCs, and extended NMCCs. While this typology is not directly applicable in Abawiri because of the absence of grammatical relations (see chapter 6), a useful comparison can be drawn. The semantic roles of agent, patient, and theme are associated in most languages with core grammatical arguments, while location is associated with a grammatical adjunct or oblique. Associative semantic relationships ('other' in Table 67 above) roughly correspond to the 'extended NMCC' in this typology. Thus Abawiri relative clauses correspond in an indirect way to argument and adjunct NMCCs; nominalized relative clauses correspond to argument NMCCs; noun complements correspond primarily to extended NMCCs but in certain circumstances (discussed below) to argument and adjunct NMCCs as well.

8.1.1 Relative clauses

A typical relative clause is shown in (997).⁹

9. In this chapter, subordinate clauses under discussion in examples are delineated with [brackets].

(997) *d̄yi* [*o begi kwr̄orja bwe-i-ri bo] begi o*
 person REL DEM.FOC thief become-INCMP-NFUT TOP DEM.FOC COM

fwobre-i-ri # /
 fight-INCMP-NFUT

‘They would fight with the person who stole.’

91148.1

The relative clause construction is schematized in Table 68, along with the grammatical morphemes that can occur in each position.

Table 68. *Relative clauses*¹⁰

NP _{mat}				
N	relativizer	S _{rel}	topic marker	coreferential form
	<i>o</i> ‘REL’	(including	<i>bo</i> ‘TOP’	demonstrative
	<i>du</i> ‘PROX’	resumptive referential form)	<i>du</i> ‘PROX’	locative personal pronoun
				NP

Relative clauses are optionally introduced with the relativizer *o* (or *du* ‘PROX’; see §8.1.1.6). The relative clause itself is a full medial clause (§8.4) and can have any of the referring expressions and other grammatical elements of medial clauses, including an NP_{rel} that refers to the noun being relativized. This is in contrast to nominalized relative clauses (§8.1.2) and noun complements (§8.2), which are highly reduced clauses with restricted possibilities for referring expressions. A topic marker signals the end of the relative clause,

¹⁰ The following abbreviations are used in the discussion of relative clauses: NP_{mat} = the matrix noun phrase in which a relative clause is embedded; S_{rel} = the relative clause; NP_{rel} = the noun phrase that is being relativized.

which coincides with the end of the NP in the matrix clause. A reduced coreferential form often occurs after the NP, especially if the relative clause is long. This is typically the focused demonstrative *begi* ‘DEM.FOC’, the emphatic demonstrative *babe* ‘DEM’, or the distal demonstrative *bo* ‘DIST’. An example of a relative clause with all positions filled is shown in (998).

- (998) *si d̄yi [o begi bwàbwei / d̄yi d̄i kwrōrja s-u bo] #*
 here person REL DEM.FOC then person food thief take-CMP TOP
/ bo d̄yi kou # /
 DIST person bad
 ‘Now the person who stole someone else’s food, that is a bad person.’ 91127.1

The relative clause itself can be complex and can include a serial verb construction as shown in (999) or a sequential clause as shown in (1000).

- (999) *bo fweyi bwàbwei , / wo ǎi ayite òro bwàbwei / [o begi*
 COORD again then 3 mother father COM then REL DEM.FOC
breror-e kàrjer-i bo] wo ta fweyi tore f̄t-rō , /
 reject-NFIN leave-INCMP TOP 3 two again CAUS go-NPST\IRR2
 ‘And their mother and father who deserted and left them, supposing they two take them again.’ 908a105.1

- (1000) *d̄yi [o begi bwàbwei ýurà sa òre fror-e f-u bo] begi*
 person REL DEM.FOC then fruit take SEQ go-NFIN be-CMP TOP DEM.FOC
eyito-w-e # /
 help-CMP-PST
 ‘They helped the person who was taking the fruit and then going.’ 90459.1

All of the grammatical elements of the construction are optional. Relative clauses can occur without a head noun, without a relativizer, without a resumptive referential

device within the S_{rel} , without a topic marker, and without a coreferential form following the NP in the matrix clause. Each of these is discussed in turn below. Headedness of relative clauses is presented in §8.1.1.1; the role of the relativizer *o* ‘REL’ is discussed in §8.1.1.2. Various types of referring expressions can be relativized (§8.1.1.3). The relative clause ends with a topic marker (§8.1.1.4). Post-NP coreferential forms are occasionally present (§8.1.1.5). Relative clauses marked with *du* ‘PROX’ are a formally and functionally distinct construction among relative clauses and are discussed in §8.1.1.6.

8.1.1.1 Headedness

Generally, relative clauses have an external nominal head. Most typically, the NP that heads a relative clause consists of the head noun only, as shown in (1001).

- (1001) *dràkrúja* [*o d̄yi begi e áje bedre-ye f-i-e bo*] # /
 goods REL person DEM.FOC 1.PL ALL say-NFIN be-INCMP-HAB TOP
 ‘The goods that people order from us.’ 907109.1

More complex NPs also occur, including those with a possessor (1002) or an adjective (1003) in the NP before the relative clause.

- (1002) *du dabyigwa* [*o ro báje dabyi bo*] # / *dèriò* # /
 2.SG speech REL then 1.SG.ALL talk TOP good\YN
 ‘Your story that you are telling to me, is it good?’ 803a99.1

- (1003) *sō rōu* [*o tryujofwei bo-u bo*] *frèi rōu f-u-e* # /
 pig big REL sugarcane eat-CMP TOP demon big be-CMP-PST
 ‘The large pig eating water-reeds, it was a large demon.’ 51328.1

While not common, relative clauses can be linearly non-contiguous with the matrix NP when they occur in antitopic position after the clause. In keeping with the function of

the antitopic to add clarifying or disambiguating information concerning a referent (§6.5), relative clauses in antitopic position are non-restrictive and provide additional information about the entity in question. An example is given in (1004).

- (1004) *dràkrúja gi abre-i-ro , [o òru gi bwrìor-e f-u bo] # /*
 goods FOC see-INCMP-NPST REL woman FOC make-NFIN be-CMP TOP
 ‘They are looking at a thing, which the woman had made.’ 903a150.1

When the referent of the head noun can be inferred from pragmatic context, relative clauses can occur without an overt NP_{mat}. Examples of headless relative clauses are shown in (1005) and (1006).

- (1005) a. *[o tràr-u bo] toi-rō ,*
 REL jump-CMP TOP hold-NPST\IRR2
 ‘The one that jumped, if it is caught,’ 80951.1

- b. *wèi bo bwori s-i-rà-ro # /*
 tail TOP 1.SG take-INCMP-PROSP-NPST
 ‘I myself want to have its tail.’ 80952.1

- (1006) *bwàbwei , / [du tà-ye duru bo] buyi # /*
 then PROX rise-NFIN PROX.EMPH TOP plantain
 ‘What grows on the side is *buyi* bananas.’ 803b264.1

Headless relative clauses also occur when the referent is non-specific, as shown in (1007).

- (1007) *[o soyida-u] fe ka # /*
 REL dog.hunt.pigs-NMLZ also same
 ‘Also people hunting pigs with dogs.’ 80626.1

Both headed and headless relative clauses have an optional resumptive referential form within the clause (see fuller discussion in §8.1.1.3 below). Examples of headless relative clauses with resumptive forms in S_{rel} are shown in (1008) and (1009).

(1008) *ou dèbe-ye tòì bo [begi fu ber-i gwa-ber-u]*
 house run.back-NFIN DISTR TOP DEM.FOC canoe do-INCMP PLACT-do-CMP

fe ká # /
 also ALL

‘When they all came running back to the house, those who were making canoes also arrived.’ 81560.1

(1009) *[begi dabyi bo] ká # /*
 DEM.FOC talk TOP same

‘The thing that’s being said is the same.’ 803b230.1

In summary, Abawiri relative clauses occur after the head NP and are externally headed. Head NPs with relative clauses are optionally absent, as with all NPs (§6.1.3). Further, NP_{rel} within the relative clause can be marked with one of several resumptive forms, although it is often not expressed with an overt form.

8.1.1.2 The relativizer *o*

There is a wide variety of grammatical functions associated with the form *o*. Clause-initially, *o* is a coordinating conjunction (§8.7.1.2). It has four distinct functions after NPs: a locative postposition marking direction toward a goal (allative function), accompaniment (comitative function), or instrument (§3.6.3.4), a focus marker (§6.4.3), and a relativizer, occurring after the head noun and before the relative clause. The distinction is quite clear between *o* as a coordinating conjunction, as a locative, and as a relativizer. However, in

certain contexts there is functional overlap between its functions as a relativizer and as a focus marker. In example (1010) below, the structure of (b) is unambiguously an independent clause, with *o* functioning as a marker of focus. However, the clause as a whole has a disambiguation function, clarifying the referent of the previous clause.

Disambiguation of the referent is also one of the main functions of relative clauses; this example thus shows functional overlap but not formal overlap.

- (1010) a. *ke-jè d̄yi begi de áje wofre-i-ro # /*
 1.SG-EMPH person FOC 2.PL ALL name-INCMP-NPST
 ‘I will name the people for you.’ 50710.1
- b. *d̄yi o trèbar-yi-ro # /*
 person FOC die-PRF-NPST
 ‘These are the people who have died.’ 50711.1

In other contexts, there is both functional and formal overlap. For example, (1011) shows a sentence where the marker *o* could be interpreted either as a focus marker, in which case the first clause is a medial clause (§8.4), or as a relativizer, in which case the first clause is a non-restrictive relative clause modifying *Jesus* ‘Jesus’.

- (1011) *yesus [o bwàbwei sòri ká dre =jè wòjo yu-kàr-u bo]*
 Jesus REL/FOC then earth same here =LOC shoulder up-throw-CMP TOP

/ fofweyi tòkóru tà-w-e # /
 then sky rise-CMP-PST
 ‘Jesus, who was born into this world, ascended to heaven. OR It was Jesus who was born into this world and then ascended to heaven.’ 803a150.1

This construction, with ambiguity between medial clause syntax and relative clause syntax, is likely to be the diachronic origin of the relative clause construction. Erstwhile

medial clauses would have developed a relative clause interpretation like in (1011) above, and later this interpretation could have spread to other contexts where only a relative clause interpretation was possible. This hypothesis fits with Givón's 'clause chaining pathway' to relative clause formation (Givón 2012).

Many relative clauses do not have an overt relative clause marker. In these cases, the NP_{mat} is followed directly by the relative clause, which like other relative clauses is a full medial clause. Examples are shown below in (1012) and (1013). Note the two adjacent relative clauses in (1013).

(1012) *du eke [tore fryi du] fe a du wor-o ,*
 2.SG younger.sibling PLACT go.PRF PROX also 1.SG PROX cry-NPST
 'I also cry for your younger siblings who have gone.' 803b381.1

(1013) *to-fro-i-ri bo bwàbwei , / ou [be=ta wodyi-ri du] # /*
 PLACT-go-INCMP-NFUT TOP then house LOC=ABL spy-NFUT PROX

[be=ta ou toira-i-rē ber-i-ri du] fiti du be
 LOC=ABL house attack-INCMP-IRR1 do-INCMP-NFUT PROX basket PROX LOC

bu-toi-ri bóre # /
 down-put-NFUT be
 'They went, then they put the baskets down at the house from which they spied,
 from which they were going to attack (other) houses.' 507168.1

It is not currently clear whether there are constraints on the omission of *o* 'REL'.

Relative clauses can also be introduced with *du* 'PROX' (§8.1.1.6).

8.1.1.3 Resumptive referential devices within the relative clause

As seen in Table 67 above, it is possible to relativize the semantic roles of agent, patient, theme, and location. For agents, patients and themes, most commonly there is no overt resumptive device within the relative clause. That is, NP_{rel} within S_{rel} is most frequently zero when an agent, patient, or theme is being relativized. The following examples show relativization of an agent (1022), a patient (1015), and a theme (1016).

- (1014) *sō rōu [o tryujofwei bo-u bo] frèi rōu f-u-e # /*
 pig big REL sugarcane eat-CMP TOP demon big be-CMP-PST
 ‘The large pig eating water-reeds, it was a large demon.’ 51328.1
- (1015) *obi [o korýujòu bwa-ye tòi-ri bo] bà # /*
 arrow REL night sharpen-NFIN DISTR-NFUT TOP where
 ‘Where are the arrows that were made last night?’ 520325.1
- (1016) *du [o ror-i bo] # / wo fe ká ror-i bóre # /*
 2.SG REL be-INCMP TOP 3 also same be-INCMP be
 ‘You who exist, they are also the same.’ 803b192.1

Occasionally a referential form, most commonly *begi* ‘DEM.FOC’, can occur in this position, as shown in (1017). In this example from a Pear Film retelling, the focused demonstrative *begi* ‘DEM.FOC’ is used to contrast the person who took fruit from the other participants.

- (1017) *dýi [o begi bwàbwei ýurà sa òre fror-e f-u bo] begi*
 person REL DEM.FOC then fruit take SEQ go-NFIN be-CMP TOP DEM.FOC
eyito-w-e # /
 help-CMP-PST
 ‘They helped the person who took the fruit and then went.’ 90460.1

In contrast to other relative clauses, location relative clauses obligatorily have a locative postposition within the relative clause, most commonly *be* ‘LOC’, as shown in (1018).

(1018) *wo fi wōbi [o be=ta fwe-i-ri bo] , be=ta ādo-w-e # /*
 3 sago leaf REL LOC = ABL see-INCMP-NFUT TOP LOC = ABL see-CMP-PST
 ‘He looked from the sago palm fronds from where he would usually look.’ 41016.1

Table 69 shows the correlation between overt vs. zero reference and semantic role of NP_{rel}. Included in the tally are the 108 relative clauses in the sample of 122 NMCCs.

Table 69. Overt vs. zero coding and argument types of NP_{rel}

	A	P	T	LOC	Other	TOTAL
overt	2	3	4	10	0	19
zero	26	33	29	0	1	89
TOTAL	28	36	33	10	1	108

One of the occurrences is listed in Table 69 as ‘other’. The semantic relationship between this NP_{rel} and S_{rel} is difficult to specify; it is shown in (1019).

(1019) *tyuya [o bwābwei ke-jè ou yu-fwar-i bo] gwore begi*
 sir REL then 1.SG-EMPH house up-depart-INCMP TOP crocodile FOC
to-i-rē-di # /
 take-INCMP-IRR1-PURP
 ‘He wanted to get crocodile skins from the boss who I was going to his house.’
 50241.1

The semantic role of the NP *tyuya* ‘sir’ in S_{rel} could be characterized as possessor of the house, or perhaps as the goal of motion. It is not clearly a grammatical possessor, as possession is typically expressed by juxtaposition of a genitive noun before a head noun

(§3.1.4.1). It is also not clearly a goal of motion, which is most typically expressed with a locative postposition (§3.6). This relative clause seems to fit in the ‘extended NMCC’ type (Matsumoto, Comrie & Sells 2017). As these relative clauses are extremely rare, it is difficult to make generalizations about them.

In summary, relative clauses with agents, patients, and themes all strongly tend to occur without a resumptive referential device, although these devices are occasionally present. By contrast, relative clauses with locations always have a resumptive referential device, which is a locative postposition.

8.1.1.4 Topic marking of relative clauses

91% of the 108 relative clauses in the sample have a topic marker immediately following. This is usually *bo* ‘TOP’, as shown in preceding examples, but can also be *du* ‘PROX’, as discussed in §8.1.1.6 below. The remaining 9% simply end with a verb, as shown in (1020).

(1020) *ou dèbe-ye tòi bo [begi fu ber-i gwa-ber-u]*
 house run.back-NFIN DISTR TOP DEM.FOC canoe do-INCMP PLACT-do-CMP

fe ká # /
 also ALL

‘When they all came running back to the house, those who were making canoes also arrived.’ 81560.1

The topic marker signals the end of the relative clause, which coincides with the end of the matrix NP. The topic marker indicates topicality of the whole matrix NP and not just the relative clause; for this reason, the topic marker might be expected to occur outside the

bounds of the relative clause. However, one piece of formal evidence suggests otherwise. When a relative clause is in an antitopic, it always has a topic marker at the end. The preverbal head noun, by contrast, does not necessarily have a topic marker. See, for example, (1021), where the preverbal noun phrase *bu wore* ‘firewood sticks’ is not marked for topicality, but the expanded version in the antitopic, with a relative clause, is marked for topicality.

(1021) *babe=tò bu wore tro-i # bu wore [o dia*
 DEM=DEM firewood branch cut-INCMP firewood branch REL 2.SG.EMPH

tro-byu bo]
 CAUSE-be TOP

‘Cut firewood sticks with that, the firewood sticks that you are holding.’

903b250.1

A further example is given in (1022), where the headless relative clause in the antitopic has *bo* ‘TOP’.

(1022) *bo bóre [fofweyi e-jè dabyi-j-e bo] # /*
 DIST be then 1.PL-EMPH talk-CMP-PST TOP

‘That is it, what we said.’

808b7.1

8.1.1.5 Post-NP coreferential forms

Among the 108 relative clauses in the sample, 24 (22%) are followed by a reduced coreferential form in the clause after NP_{mat}. The form of this coreferential device depends on the semantic role of the referent in the matrix clause. For NPs with the semantic role of location in the matrix clause, the coreferential form is a locative as shown in (1023).

(1023) *gwa-i* *ror-e* *fro-i* *òre fofweyi eigwre* [*o* *be=ta*
 turn.around-INCMP be-NFIN go-INCMP SEQ then road REL LOC=PERL

tà-ye *f-u* *bo]* *be=ta* *tà-w-e* ,
 rise-NFIN be-CMP TOP LOC=PERL rise-CMP-PST

‘It turned and went along and then it went up along the road where it had gone in the beginning.’ 903b71.1

For NPs that have a semantic role of possessor in the matrix clause, the coreferential form is a possessor pronoun from the plain pronoun series (§3.5.1.1), as shown in (1024). This duplicity of referential forms mirrors the reflexive possessive construction where the reflexive possessor pronoun is followed by a coreferential plain pronoun (§6.7.1).

(1024) *yikare* [*begi* *o* *fro-i-ri* *du]* *wo sō* *gwryu* *bóre* # /
 village DEM.FOC ALL go-INCMP-NFUT PROX 3 pig butchering.place be

‘That place for butchering pigs belonged to the village they were going to.’ 507119.1

For NPs with other semantic roles in the matrix clause, the coreferential form, when overtly expressed, is most commonly *begi* ‘DEM.FOC’ (1025). In addition, the emphatic demonstrative *babe* ‘DEM’ (1026) and the distal demonstrative *bo* ‘DIST’ (see example (998) on page 487 above) can occur here; further, the head noun of NP_{mat} can also be repeated in this position (1027).

(1025) *twōryi* [*o* / *fī* *tōride* *o* *fror-e* *f-u* *bo]* # / *begi*
 good.man REL sago cover ALL go-NFIN be-CMP TOP DEM.FOC

to-tor-i-ro , /
 CAUS-come-INCMP-NPST

‘The good guy who had gone to the sago-pounding place, it was he who brought [her].’ 80577.1

- (1026) *worabrór-u bwàbwei [eke / yesus gi bwàbwei to-dòr-u bo] # /*
 think-NMLZ then first Jesus FOC then CAUS-go-CMP TOP
[yesus èyi=jè f-u bo] # / babe=tò de-jè firo=gwre toi
 Jesus LOC=LOC be-CMP TOP DEM=DEM 2.PL-EMPH carefully=AUG hold
òre bworyu f-i # /
 SEQ sit be-INCMP
 ‘Thoughts which Jesus brought in the beginning, what Jesus has, hold onto that
 well and live.’ 801b196.1

- (1027) *aa àre bo [du dwori doboru be=ta tà-ye f-u bo] #*
 EXCL stairs TOP 2.SG 2.SG.REFL yesterday LOC=ABL rise-NFIN be-CMP TOP
bo àre bo bóre # /
 COORD stairs TOP be
 ‘Ah, the ladder that you yourself came up yesterday, here is the ladder.’ 520386.1

The functional differences between coreferential *begi*, *babe*, *bo*, and head noun is currently unclear. More generally, it is also currently unclear what motivates the presence vs. absence of a coreferential form after NP_{mat} in cases where the NP is not a semantic location (in which case the coreferential form is a locative) or a possessor (in which case the coreferential form is a possessive pronoun).

In summary, the referent of NP_{rel} can be referred to by zero, one, two, or three coreferential forms, including a head noun, a resumptive form within S_{rel}, and a coreferential form in the clause after NP_{mat}. None of these is grammatically obligatory. All combinations of overt and zero marking in these three positions are attested, as shown in Table 70, where the numbers in the cells refer to the relevant examples.

Table 70. Overt vs. zero marking of referents in relative clauses

		Post-NP coreferential form		
		zero	overt	
Head NP	zero	zero	1005, 1007	1006, 1031
		overt	1008, 1009, 1020	1118
	overt	zero	1002, 1004, 1011, 1012, 1022, 1014, 1015, 1019, 1028	1003, 1025, 1026, 1030, 1033
		overt	1001, 1032, 1034	997, 998, 999, 1000, 1013, 1018, 1017, 1023, 1024, 1027, 1029

The occurrence of zero vs. overt referential forms is likely related to information flow, a subject not explored further here.

8.1.1.6 Relative clauses with *du*

Relative clauses marked with *du* ‘PROX’ are a subset of relative clauses in both form and function and so are treated separately here. Formally, they have the same structural possibilities discussed in the preceding sections, with the exception that the relativizer and the topic marker are both *du* ‘PROX’. As with *o* ‘REL’, relativizer *du* is optional at the beginning of the relative clause. However, topic marker *du* at the end is obligatory in this construction. Example (1028) shows the *du* relative clause construction with the head noun as a theme in the relative clause. Example (1029) shows the construction with the head

noun as an agent, while example (1030) shows the construction with the head noun as a patient.

- (1028) a. P: *foi fròku rōu [du dre kâr-e f-u du] # /*
 rock long very PROX like.this extend-NFIN be-CMP PROX
 ‘The rock that extended across [the water] like this.’ 52020.1
- b. Y: *eya # /*
 yes
 ‘Yes.’ 52021.1
- c. P: *bwàbwei fu wora be tà-u bóre # /*
 then canoe stern LOC rise-CMP be
 ‘Then the stern of the canoe went up there.’ 52022.1
- (1029) *(fe bwàbwei) fweyi bwàbwei wo ayite äi òro [du begi breror-e*
 also then again then 3 father mother COM PROX DEM.FOC reject-NFIN
f-u du] fe bìari=jè begi fweyi sa-ro #
 be-CMP PROX also what=for DEM.FOC again take-NPST
 ‘Why would their father and mother who have let them go take them back again?’
 908a47.1
- (1030) *fī [du bo-ye du] wā kre #*
 sago PROX eat-NFIN PROX 3.fruit bone
 ‘The fruit of the sago that is eaten.’ 511a584.1

There are no clear corpus examples of *du* relative clauses where the head noun is a locative argument in the relative clause, although in elicitation these are judged to be grammatical.

Like *o* ‘REL’, *du* ‘PROX’ as a relativizer is optional. Examples (1031) and (1032) show this construction with the relativizer omitted.

(1031) (*àrá*) [*àrá gi bwàbwei to-i òre béyi-jei du*] # / *fwòu*
 God God FOC then take-INCMP SEQ put-PRF PROX characteristic

ká bóre # /
 same be

‘What God has placed [in us] is that same character.’ 803b431.1

(1032) *e [begi bei to-tor-yi du]* , / *woyafei bwe-i* , /
 1.PL DEM.FOC now PLACT-come-PRF PROX worship become-INCMP

bwàbwei / kē ror-u bóre , /
 then finished be-CMP be

‘We who have just gathered have finished worshipping.’ 801c125.1

As with other relative clauses, *du* relative clauses function to disambiguate referents and to background information. Additionally, *du* ‘PROX’ adds temporal and/or spatial proximal semantics. This construction indicates a head noun that is spatially proximal at the place of speaking, temporally proximal to the time of speaking, or discourse-proximal. An example of temporal proximity using *du* ‘PROX’ has been shown in (1032) above. In (1033) below, the speaker is standing inside his house pointing at the rafters. He uses a spatially proximal *du* relative clause to refer to the rafters.

(1033) *késai-ké [du bwàbwei tà-ye trà du] bo ou fwoyu bóre #*
 small-DIM PROX then rise-NFIN PLACT PROX DIST house rafter be

‘The small ones going up here, they are rafters.’ 522109.1

In (1034), the speaker is reporting the speech of someone in another town who observed people from Fuau with crocodile hides. According to the reported speech, the Fuau people carrying crocodile hides were spatially proximal at the time of speaking.

- (1034) a. *bwàbwei ro d̄yi áje bed-u bóre # /*
 then then person ALL say-CMP be
 ‘He said to that person.’ 80475.1
- b. *eya # /*
 yes
 ‘Yes.’ 80476.1
- c. *d̄yi [du begi fror-e f-u du] bwàbwei , / gwore f-u*
 person PROX DEM.FOC go-NFIN be-CMP PROX then crocodile be-CMP
f̄u-o # /
 be-EMPH
 ‘These people who traveled around had crocodiles.’ 80477.1

8.1.2 Nominalized relative clauses

Unlike regular relative clauses, which have many of the formal properties of medial clauses, the nominalized clause is highly restricted. It is schematized in Table 71.

Table 71. Nominalized relative clauses

Head noun [**THEME** *f-u* ‘be-NMLZ’]

This construction contains only a theme argument and a nominalized form of the verb *f-* ‘be’. It establishes a possessive relationship between the head noun and the theme in the relative clause: the theme is a typical, characteristic possession of the head noun.

Examples are given in (1035) and (1036) below.

- (1035) *òru [t̄u f-u] wotrór-u bóre # /*
 woman leaf be-NMLZ dance-CMP be
 ‘The women with (decorative) leaves danced.’ 80532.1

(1036) *bo bwàbwei , d̄yi [fwàre f-u] tore bwàbwei tà-u bóre # /*
 COORD then person bow be-NMLZ until then rise-CMP be
 ‘And I came to soldiers [lit. ‘people who have bows’] and stood there.’ 50240.1

Both nominalized relative clause constructions and noun complement constructions (§8.2) are frequently lexicalized. Most occurrences of nominalized relative clauses are, in fact, lexicalized expressions, both for entities traditionally part of Fuau culture and newly introduced items. Table 72 shows some lexicalized nominalized relative clauses.

Table 72. *Lexicalized expressions with nominalized relative clauses*

<i>d̄yi [d̄uyi f-u]</i> person money be-NMLZ ‘a merchant’	<i>d̄yi [fwàre f-u]</i> person bow be-NMLZ ‘a soldier’
<i>d̄yi [tiaí f-u]</i> person sickness be-NMLZ ‘a sick person’	<i>d̄yi [sēi f-u]</i> person sago.fronde be-NMLZ ‘a warrior wearing clothing made from sago fronds’
<i>d̄yi [ùkási f-u]</i> person snot be-NMLZ [a bad character in a folktale]	<i>d̄yi [òru f-u]</i> person woman be-NMLZ ‘a married man’
<i>òru [tù f-u]</i> woman leaf be-NMLZ ‘a woman wearing a leaf skirt and dancing in celebration of a victory after battle’	<i>òru [dèbi f-u]</i> woman child be-NMLZ ‘a mother’
<i>ou [rakre f-u]</i> house foot be-NMLZ ‘a house with stairs, a stilt house’	<i>obi [s̄yi f-u]</i> arrowhead flower be-NMLZ ‘an arrowhead with a flower-shaped mark’
<i>ou [kobuyja f-u]</i> house grass be-NMLZ ‘a type of thatch-roofed house’	<i>d̄yi [satubaro f-u]</i> person enmity be-NMLZ ‘an enemy’
<i>yure [fwrē f-u]</i> tree thorn be-NMLZ ‘a thorn bush’	<i>frāre [sofworu f-u]</i> moon pig.tusk be-NMLZ ‘crescent moon’

8.2 Noun complements

Unlike relative clauses, noun complements precede the head noun. Internally, noun complements consist of usually one, sometimes two, referring expressions followed by a verb, which immediately precedes the head noun. The referring expressions have the semantic roles of agent, theme, or patient. This construction is schematized in Table 73.

Table 73. Noun complements

[(Referring expression) (Referring expression) Verb] Head noun

The verb is minimally inflected with incomplete *-i* ‘INCMP’ as shown in (1037), complete *-u* ‘CMP’ as shown in (1038), or nominalizer *-u* ‘NMLZ’ as shown in (1039). With verbs that end in a high front vowel (§4.6.2), the bare verb stem is used (1040). Noun complements with perfect *-yi* ‘PRF’ are not attested.

(1037) [fi kro-i] gwa fe ate-i-ri # /
 sago fall-INCMP sound also hear-INCMP-NFUT
 ‘He could also hear the sound of a sago tree falling.’ 808a47.1

(1038) yusuf bo tèb-u bo , [àrà srór-u] d̄yi tòkóru wojo = ta
 Joseph TOP sleep-CMP TOP God commission-CMP person sky above = ABL
 tè-w-e
 descend-CMP-PST
 ‘When Joseph slept, an angel [lit. ‘person whom God commissioned’] came down
 from the sky.’ r0811.1

(1039) gwadrór-u bo , / Agus du fero [d̄yi wor-u] gwa ate-w-e # /
 long.time-CMP TOP A. PROX then person cry-NMLZ sound hear-CMP-PST
 ‘After a while, Agus heard the sound of the person crying.’ 40612.1

Noun complements consisting of just the verb are attested, as shown in (1040).

(1040) *bwàbwei* , / [*fwoyu*] *ou béyi-je f-u-e # /*
 then tie house put-NFIN be-CMP-PST
 ‘And he had been put in prison [lit. ‘house of tying’].’ 803a153.1

There is a single corpus example of a purposive noun complement, shown in (1041). This example comes from a retelling of the Pear Film, where the speaker is attempting to describe the basket into which the man was placing pears.

(1041) [*ýurà be toi-rē*] *gýu # /*
 fruit LOC put-IRR1 place
 ‘A container for putting fruit there.’ 9044.1

There are two formal differences between noun complements in spontaneous speech and noun complements in translated material. First, in spontaneous speech the suffix *-u* does not indicate completivity, while in translated material it does. In example (1039) above, the act of crying was ongoing at the time of the action of the main verb. In example (1042) below, the event of dancing referred to in the noun complement is atemporal – it is a property of the head noun *ýibwò* ‘field’.

(1042) *bwàbwei gwa krùjógwro-u bo (ýibwò) / bwàbwei [dýi dwòr-u] ýibwò*
 then ILL emerge-CMP TOP yard then person flip-NMLZ yard

gwa krùjógwro-w-e
 ILL emerge-CMP-PST
 ‘Then when he came out, he came out into a clearing where people were dancing.’ 80520.1

In translated material the suffix *-u* indicates completion, in opposition to *-i* ‘INCMP’. Noun complements appear in translated material primarily as a strategy for coining new religious terminology, which is similar to the use of the nominalized relative clause

construction for coining new terminology as discussed in §8.1.2. Table 74 below lists newly coined terms that use this strategy.

Table 74: New religious terms with noun complements

Noun complement construction	English term
[àrá dabyigwa bore-i / ereifore-i] tokwre / d̄yi God news tell-INCMP / connect-INCMP head / person 'a chief/person who tells/delivers God's news'	pastor, church leader, prophet
[àrá fwojedabyi] d̄yi God talk.PLACT person 'A person who talks about God to others'	pastor, church leader
[yesus dabre-i] d̄yi Jesus teach-INCMP person 'a person whom Jesus teaches'	disciple
[dràkrúja ātwore tro-i dóyu] doto animal living cut-INCMP burn fireplace 'a fireplace where animals are cut and burned'	altar
[àrá srór-u] d̄yi tokoru = ta ¹¹ God order-CMP person sky = ABL 'a person God sent, from the sky'	angel
[kweyo dirór-u] d̄yi heart accept-CMP person 'a person who has believed'	(Christian) believer
[yesus srór-u] d̄yi Jesus order-CMP person 'a person Jesus sent'	apostle
[àrá d̄yi dèria bwe-i] gwari God person good become-INCMP day 'the day when God will make people well'	the Day of Salvation

11 It is uncertain why the word tokórù = ta 'from the sky' follows the noun in this term.

Noun complement construction	English term
<p>[àrá àryu kiai] ou God eye close house ‘a house where people close their eyes to God’</p>	<p>church</p>

The terms with incomplete marking denote events that are not complete; those that are undertaken habitually. For example, a term for church leader is *àrá dabyigwa borei d̄yi* ‘a person who tells God’s news’, with incomplete *-i* on the verb *bore-* ‘tell’. The telling event indicated by the verb must be ongoing in order for someone to be designated as such. This is also true for the terms for ‘disciple’, while the ‘day of salvation’ lies in the future. By contrast, the term for apostle is *Yesus sroru d̄yi* ‘person whom Jesus sent’, with complete *-u* on the verb *sror-* ‘send’. Having already been sent by Jesus is a necessary condition for being an apostle. This is also true of the terms for ‘angel’ and ‘believer’. Note that the second term for ‘pastor’ and the term for ‘altar’ have verbs ending with a high front vowel that do not take basic aspect marking (§4.6.2).

The second difference between noun complements in spontaneous speech and noun complements in translated material is the following. In spontaneous speech, the semantic role of the head noun within the noun complement often has a general associative semantic role – that is, they are ‘extended NMCCs’ (Matsumoto, Comrie & Sells 2017). Examples of this type are given in (1037) and (1039) above. Other spontaneous noun complement constructions are locations, as shown in (1041) above and (1043) below.

(1043) [fi to-bar-i] be = ta be = jè fi to-bar-i-ri bo
sago PLACT-pound-INCMP LOC = ABL LOC = LOC sago PLACT-pound-INCMP-NFUT TOP

be = ta ògwr-i-ri # /
LOC = ABL go.slowly-INCMP-NFUT
‘From the sago pounding place, where they were pounding sago, they went slowly
from there.’ 507165.1

By contrast, in translated material noun complements are usually ‘argument NMCCs’, with the head noun functioning as an agent, patient, or theme in the complement clause. They can also be locations – see Table 74 above.

8.3 Purpose clauses

There are two closely related purpose clause constructions. They are both marked with *-rè* ‘IRR1’ (which also serves other functions; §6.7.1). The two constructions vary along the three syntactic, morphological, and prosodic parameters shown in Table 75.

Table 75. Variation among purpose clauses

Parameter	Construction 1	Construction 2
syntactic embedding	purpose clause is between referring expressions and verb in the clause	purpose clause is a standalone clause
presence of <i>-di</i> ‘PURP’	usually absent	present
prosodic integration	purpose clause is in a single IU with matrix clause	purpose clause is in its own IU

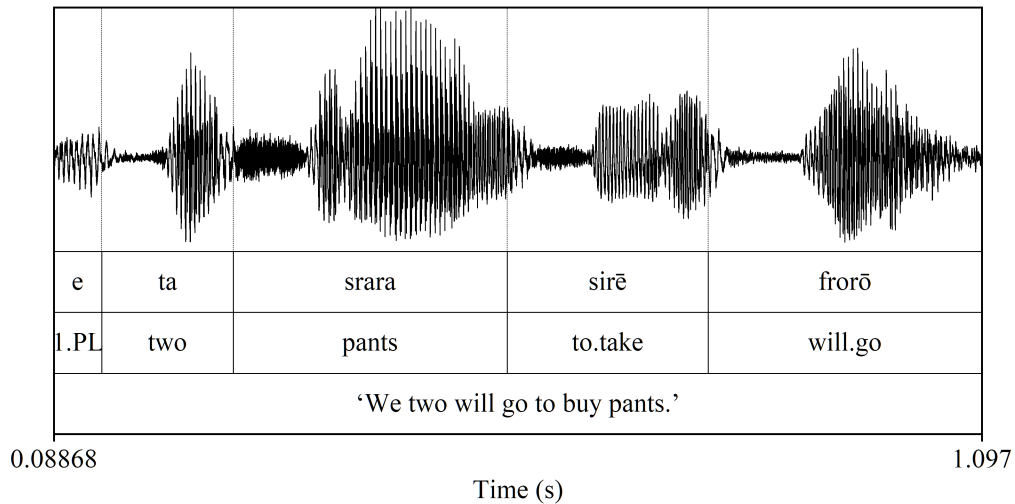
In construction 1, the purpose clause is syntactically embedded, usually not marked with *-di* ‘PURP’, and under a single intonation contour with a matrix clause. Examples of this are shown in (1044) and (1045).

(1044) *de begi [satu liter gwỳi s-i-rē] t̃a-i # /*
 2.PL FOC one liter place take-INCMP-IRR1 cross-INCMP
 ‘Go across to get a one-liter container.’ 511a206.1

(1045) *e ta [srara s-i-rē] fro-rō # /*
 1.PL two pants take-INCMP-IRR1 go-NPST\IRR2
 ‘We two will go to buy pants.’ 50250.1

A waveform showing the single IU of example (1045) is given in Figure 35 below.

Figure 35. Single IU of embedded purpose clause with matrix clause (50250.1)



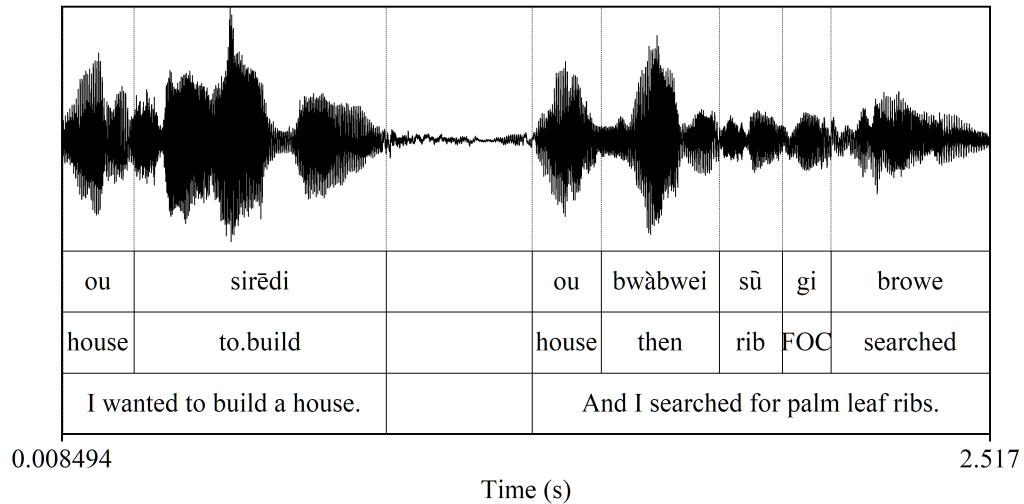
In construction 2, the purpose clause is a separate clause, marked with *-di* ‘PURP’, and in a separate intonation contour. Typical examples are below. In example (1046), the purpose clause follows the clause whose purpose it expresses, while in example (1047) the purpose clause precedes it.

(1046) a. *drè yure ta bóre ,*
 midrib tree two be
 ‘There are two pieces of wood from palm leaf midribs.’ 52339.1

- b. *ba be bwa-i-rē-di* # /
 filter LOC thrust-INCMP-IRR1-PURP
 ‘[They are] for inserting the filter there.’ 52340.1
- (1047) a. *ou s-i-rē-di* , /
 house make-INCMP-IRR1-PURP
 ‘I wanted to build a house.’ 5134.1
- b. *ou bwàbwei sū gi bro-w-e* # /
 house then rib FOC search-CMP-PST
 ‘And I searched for palm leaf ribs.’ 5135.1

A waveform of example (1047) showing the separate IUs of the purpose clause and the clause with which it is semantically associated is given in Figure 36.

Figure 36. Separate IU of independent purpose clause (5134-5)



Occasionally, the dedicated purpose suffix *-di* ‘PURP’ can occur in an embedded clause, as shown in (1048).

- (1048) *ayite bo gwò=jè [ou bare a-rē-di] dōr-u bóre # /*
 father TOP INESS=LOC house main.post cut-IRR1-PURP go-CMP be
 ‘A father in the middle (of the road) was going along to cut house posts.’ 502177.1

8.4 Medial clauses

Many Papuan languages have highly developed clause chaining constructions. Clause chains involve one or more clauses ending in a verb with reduced inflectional possibilities, followed by a single clause with a fully inflected verb. In Papuan linguistics the non-final clauses have been called ‘medial’ clauses, while clauses with fully inflected verbs at the end of the chain have been called ‘final’ clauses (Thurman 1975; Haiman 1987; Haspelmath 1995; Sarvasy 2015). In many clause chaining Papuan languages, narrative discourse is dominated by long series of medial clauses, punctuated by an occasional final clause at points of discourse discontinuity (Longacre 1985; Sarvasy 2015). Many languages have a switch-reference system on medial verbs, with suffixes indicating sameness or differentness of subject (or event integration (Givón 1983; Roberts 1997; Comrie 1998; Farr 1999)). Switch-reference systems also often indicate simultaneity or sequentiality of action.

Switch-reference in the New Guinea area is largely confined to the Trans New Guinea languages (Pawley & Hammarström 2018: 99). Among the Lakes Plain languages, switch-reference appears to be completely absent, and clause chaining is not as extensive as in many Trans New Guinea languages. This is true at least in Sikaritai (Martin 1986) and Obokuitai (Jenison 1995). Iau has short clause chains in narratives, but no switch-reference marking (Bateman 2018). Among other languages of the region, the East Geelvink Bay language Bauzi has both clause chaining and switch-reference. Somewhat atypically, Bauzi medial verbs receive a large portion of the inflectional possibilities of final verbs, including

TAM marking (Briley 1996). The Tor language Berik, spoken to the northwest of Abawiri, does not have clause chaining or switch-reference (Westrum 1988).

In Abawiri, the topical medial clause construction is ubiquitous in discourse; compare similar constructions in Ama (Foley 2018b: 349), Wambon and Urim (de Vries 1995) and the more general discussion in de Vries (2006). The long chains of medial clauses common in many Papuan languages are not found in Abawiri, with typically one medial clause before a final clause. (There are rare corpus examples with two medial clauses.) There is no switch-reference marking. This section first presents the syntax of medial clauses (§8.4.1), followed by a brief section on medial clause prosody (§8.4.2). Section 8.4.3 discusses the functions of medial clauses in discourse, while §8.4.4 presents the non-canonical uses of medial clauses as antitopics and independent clauses. A formally distinct type of medial clause, the sequential clause, is discussed in §8.5. Tail-Head Linkage, which is related to medial clauses, is discussed in §8.6.

8.4.1 Syntax

The Abawiri medial clause construction consists of usually one and maximally two topical medial clauses followed by a final clause. Final verbs can take the full range of TAM suffixes discussed in chapter 4. Medial verbs, on the other hand, are somewhat reduced. In terms of material that comes after the verb (TAM suffixes and post-verbal auxiliaries), they can take only the basic aspect suffixes *-i* ‘INCMP’, *-u* ‘CMP’, or *-yi* ‘PRF’, negative *-yéi* ‘NEG’, and non-future *-ri* ‘NFUT’. Medial clauses end with a topic marker, which is either *bo* ‘TOP’ or

du ‘PROX’ (see discussion of topic marking in §6.2). An example of a topical medial clause with *bo* ‘TOP’ is shown in (1049), while an example of a topical medial clause with *du* ‘PROX’ is shown in (1050).

(1049) [*o debo-u bo*] *bwàbwei fro-u bóre # /*
 COORD go.quickly-CMP TOP then go-CMP be
 ‘Going quickly there, he went.’ 805105.1

(1050) [*a du dre-i tè-u du*] *fu wōryu a fe fwòrjar-u-e*
 1.SG PROX run-INCMP descend-CMP PROX canoe string 1.SG also release-CMP-PST
bwò-w-e # /
 NEG-CMP-PST
 ‘When I ran down, I didn’t untie the rope.’ 51350.1

The structure of these clauses is in certain contexts ambiguous between a medial clause and a relative clause (§8.1.1). Example (1051) below shows a non-final clause that could be interpreted either as a medial clause or as a relative clause relativizing the main participant of the clause. Note the two possible translations.

(1051) *èbai kou du yu-fro-u du # bo bìari fwo-u bóre #*
 uncle loved PROX up-go-CMP PROX COORD what see-CMP be
 ‘The uncle went up, and then this is what he saw. OR The uncle who went up, this is what he saw.’ 52067.1

While verbal suffixation is limited in medial clauses, the full range of serial verb constructions (§5.2) and verbal prefixes (chapter 4) can occur in medial clauses. In example (1052) below, an asymmetrical SVC with the distributive verb *tòi* ‘DISTR’ (§5.3.5.5) occurs in a medial clause.

- (1052) [*ou fa-ye tòi bo*] *fweyi heli gi s-u-e # /*
 house return-NFIN DISTR TOP again helicopter FOC take-CMP-PST
 ‘Having each gone back to the house, we then took a helicopter.’ 502104.1

In (1053) below, an SVC of motion occurs in a medial clause.

- (1053) [*o gwai fwri tà-u bo*] , / *ro bwàbwei frāre bwo-u*
 COORD body.hair wrap rise-CMP TOP then then snake become-CMP

bóre # /
 be
 ‘His body hair stood up, then he became a snake.’ 81446.1

A three-verb sequence, including a motion SVC and an aspectual SVC, can also occur in medial clauses, as shown in (1054).

- (1054) [*d̄yi bwàbwei ogweyi s̄ijer-e fror-ē ber-i-ri bo*] , / *bo*
 person then edge chase-NFIN go-IRR1 do-INCMP-NFUT TOP COORD

bwàbwei dede gi br̄i-ri # /
 then D. FOC call-NFUT
 ‘When people wanted to go to the gully, they used to call Dede.’ 4094.1

The causative/pluractional prefixes (§4.8) and directional prefixes (§4.7) can also occur in medial clauses, as shown in (1055) and (1056), respectively.

- (1055) [*a abu gi bra=ta to-tor-u bo*] , / *a d̄i fe*
 1.SG grandparent FOC downriver=ABL CAUS-come-CMP TOP 1.SG food also

bo-i-ri-wéi # /
 eat-INCMP-NFUT-NEG
 ‘When grandmother brought me up from below, I did not usually eat food.’ 50918.1

- (1056) [*wo yu-ādo-u bo*] *ei / òru ta gi bworyu-rò #*
 3 up-see-CMP TOP EXCL woman two FOC sit-NPST\YN
 ‘He looked up, eh, are there two women sitting above?’ 52075.1

TAM distinctions expressed by suffixes are not possible on medial verbs, and are instead inherited from the specifications on the final verb. Example (1057) shows the negation of the final verb having scope over the whole sentence, including the previous medial clause.

- (1057) [*a fe bwàbwei du dabyigwa ate-i òre*] *fì-yéi* # /
 1.SG also then PROX speech hear-INCMP SEQ go-INCMP-NEG
 ‘I will not hear your words and go.’ 803a116.1

Example (1058) shows the imperative mood of the final verb having scope over the whole sentence, including the previous medial clause.

- (1058) [*bra ker-i òre*] *drà bwe-i* # /
 arrow.shaft break-INCMP SEQ arrow become-INCMP
 ‘Break arrow sticks and make arrows.’ 50736.1

While there is usually only one medial clause before a final clause, there are occasionally chains of two medial clauses, as shown in (1059) below. This is quite unusual in narrative discourse and even more uncommon in other types of speech.

- (1059) [*bwàbwei báí krùjógwro-u bo*] [*bìari gi fwo-u bo*] , / *diafrei dÿi*
 then across emerge-CMP TOP what FOC see-CMP TOP as.if person

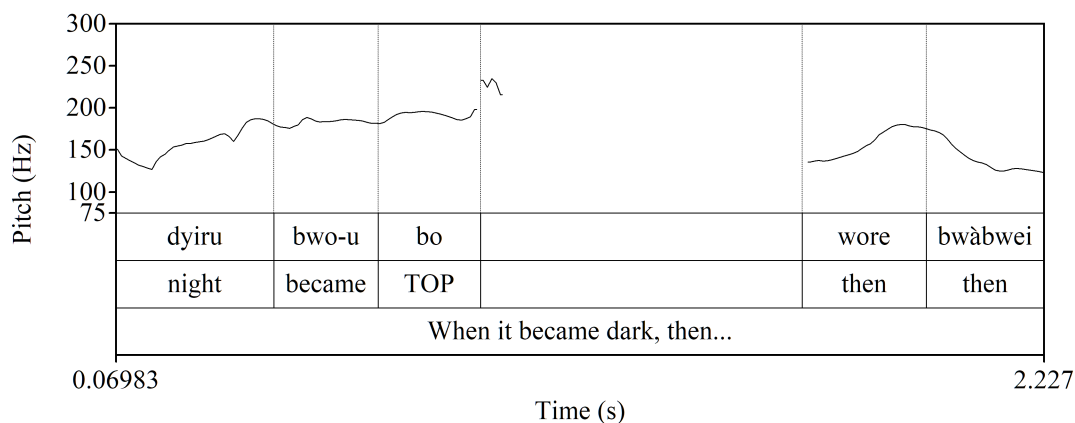
gi dÿi ā-tor-o # /
 FOC person VIS-come-NPST
 ‘Then he came out on the other side and this is what he saw: like a person looking at a person coming.’ 805174.1

8.4.2 Prosody

In the majority of cases, medial clause syntax is accompanied by a level or rising intonation contour indicating the non-finality of the unit, while final clause syntax is

accompanied by a final boundary /L/ tone indicating the finality of the unit (see §2.5 on intonation contours). Figure 37 shows a typical intonation contour associated with a medial clause. Note the pitch rise at the topic marker.

Figure 37. Continuing intonation of medial clauses (808a354.1)



To obtain a preliminary estimate of the correlation between clause type (medial vs. final) and intonation contour type (continuing vs. final), I counted occurrences in a single narrative text 114 clauses in length. I only counted clauses with medial or final verbal predicates, of which there were 79. The results are shown in Table 76 below.

Table 76. Intonation contours of medial and final clauses (text: 815)

	Continuing prosody	Final prosody	Total
Medial clause	11	1	12
Final clause	12	55	67
Total	23	56	79

In this particular text, 82% of final clauses have final intonation, while 92% of medial clauses have continuing intonation. Continuing intonation on a final clause is simply a speaker's indication that more is to come. Example (1060) below, from this text, illustrates this. Note the non-falling pitch contour (indicated by <, >) and lack of a pause after the final verb in line (a).

- (1060) a. *e eyórù bo fì frì-je tor-i-ri* ,
 1.PL elders TOP sago go-NFIN pound-INCMP-NFUT
 'Our old people would go to pound sago.' 81524.1
- b. *bio bwàbwei / fu ber-i gwa-ber-u-e # /*
 other then canoe do-INCMP PLACT-do-CMP-PST
 'And the others were making canoes.' 81525.1

The two clauses in this example indicate the activities undertaken by the two main groups of people in the narrative. The fact that these two utterances are tightly linked is indicated linguistically through the final rising intonation at the end of the first intonation unit and the lack of a pause between the two.

Medial clauses with final prosody generally have a different function from regular medial clauses and are discussed in more detail in §8.4.4.2 below.

8.4.3 Functions

In many other Papuan languages clause chaining is used extensively in narratives for mainline or foreground events.¹² When participants have been introduced and the

¹² I use the terms 'foreground' and 'background' here in a non-technical way, using 'foreground' to refer roughly to events that move the storyline forward, and 'background' to refer roughly to events that provide supporting information such as place, time, etc. for the foreground events. See, e.g.,

sequence of actions is progressing toward the story climax, a chain of medial clauses is the preferred grammatical device for indicating this sequence of actions. See, for example, the descriptions of Korafe (Farr 1999) and the Dumut languages (de Vries 2010). However, medial clauses are not used for this purpose in Abawiri. Mainline events are narrated using final clauses. In discourse with a high degree of continuity (Givón 2017), narrators typically use a series of final clauses consisting solely of final verbs, perhaps with various connectives and discourse markers. An example of this is seen in (1061) below.

- (1061) a. *sāku yai brì-j-e # /*
 cigarette piece roll-CMP-PST
 ‘She rolled cigarettes.’ 814134.1
- b. *bòb-u-e ,*
 give-CMP-PST
 ‘She gave her the cigarettes.’ 814135.1
- c. *sāku oi tro-ye gwar-u-e # /*
 cigarette smoke descend-NFIN surround-CMP-PST
 ‘Cigarette smoke came out.’ 814136.1
- d. *sāku oi , /*
 cigarette smoke
 ‘Cigarette smoke.’ 814137.1
- e. *fī dóyu-j-e ,*
 sago roast-CMP-PST
 ‘She roasted sago.’ 814138.1
- f. *fī bo tīe o béyi-j-e #*
 sago TOP fish COM put-CMP-PST
 ‘She put the sago there with the fish.’ 814139.1

Labov & Waletzky (1967), Hopper (1979), Tomlin (1987), and Shirtz & Payne (2015), among many others.

- g. *bo-w-e* # /
eat-CMP-PST
'She ate.' 814140.1
- h. *bo bwàbwei fwāu bwo-u bóre*
COORD then evening become-CMP be
'Then it became evening.' 814141.1
- i. *òru bo bed-i gwa-ber-u-e wei #*
woman TOP say-INCMP PLACT-do-CMP-PST hey!
'The women called 'wei'.' 814142.1
- j. *fero / tore fī bóre , /*
then PLACT go be
'Then they went home.' 814143.1

Medial verbs in Abawiri are not generally used to move the storyline forward, but are instead used for background information and tail-head linkage. The following subsections discuss the most frequent backgrounding functions of medial clauses in discourse: sequential actions (§8.4.3.1), simultaneous actions (§8.4.3.2), and conditionality (§8.4.3.3).

8.4.3.1 Sequential actions

Medial clauses very commonly indicate an event that occurs prior to the event of the final clause. The event in the medial clause is necessary background information to the mainline event in the final clause. A sequential example of this type from a narrative is shown in (1062), while an example from a procedural text is shown in (1063).

(1062) [*lyu-fwar-u bo*] , / *bìari begi fwo-u bóre* ,
 up-depart-CMP TOP what FOC see-CMP be
 ‘Having gone up, this is what we saw.’ 50949.1

(1063) [*bwàbwei késai bwe-i bo*] / *sō fwoi gi sa bóre #*
 then small become-INCMP TOP pig tusk FOC take be
 ‘It becomes small and then a pig’s tusk is taken.’ 511a347.1

There is functional overlap here between topical medial clauses used to indicate sequential actions and clauses marked with the dedicated sequential marker *òre* ‘SEQ’ (§8.5). However, while *òre* ‘SEQ’ specifically indicates sequentiality, medial clauses can simply refer to a sequence of events but do not specifically indicate sequentiality as part of the semantics of the construction.

8.4.3.2 Simultaneous actions

Medial clauses can also be used to indicate an action that occurs simultaneously with the action of the following final clause (cf. Haiman 1978). Examples are given in (1064) and (1065) below.

(1064) [*fyu o tor-u bo*] *e du kou gi be fyu-je fù-e #* /
 earthquake FOC come-CMP TOP 1.PL PROX K. River FOC LOC be-NFIN be-PST
 ‘When the earthquake came, we lived at the Kou River.’ 8155.1

(1065) [*e du du=jè bo bwàbwei*] , / *gwari dòbu rōu teryi-rē ber-u du*
 1.PL PROX PROX=LOC TOP then day big big pass-IRR1 do-CMP PROX
 # / *e du / dui fe ōi* ,
 1.PL PROX money also be.NEG
 ‘Here when we are about to celebrate a holiday, we do not have money.’ 9079.1

8.4.3.3 Conditionals

Medial clauses are frequently used to indicate conditions for the final clauses with which they are associated. Other Papuan languages that use topic marking to indicate conditionals include Hua (Haiman 1978) and Usan (Reesink 1994). This is illustrated for Abawiri in (1066) and (1067).

(1066) [*èyi=ta fi bo*] # / *d̄yi bio gi sa-ro* ,
 LOC=ABL go TOP person other FOC take-NPST
 ‘If they go away, another person will take them.’ 908a78.1

(1067) [*yesus èyi fi bo*] *e du bwàbwei dèria bwe-i-ro* # /
 Jesus LOC go TOP 1.PL PROX then good become-INCMP-NPST
 ‘If we go to Jesus, we will be well.’ 801b78.1

In many cases, it is not possible to distinguish clearly between conditional and sequential use of medial clauses. An ambiguous example is shown in (1068).

(1068) [*bo bé=ta / fi bo*] *fe kweyo kou bwe-i-ro* # /
 COORD LOC=ABL go TOP also heart bad become-INCMP-NPST
 ‘And if/when they go from there, they will feel bad.’ 908b12.1

In addition to the medial verb strategy, Abawiri also has an inflectional construction on final verbs that indicates conditionality. This construction includes the emphatic suffix and the irrealis 2 /^LH/ tone -*ō* ‘EMPH\IRR2’ (see §4.5.4). Medial verb conditionals generally indicate a tight semantic relationship between the medial and final clauses; on the other hand, conditionals with -*ō* ‘EMPH\IRR2’ are rather more loosely associated with the following clause.

8.4.4.2 Insubordination

The use of medial clauses as standalone clauses might be termed ‘insubordination’, “the conventionalized main clause use of what, on prima facie grounds, appear to be formally subordinate clauses” (Evans 2007: 367). Here I do not enter the discussion on to what extent Papuan medial clauses represent a case of subordination (Reesink 1983; Longacre 1985; Foley & Van Valin 1997; Foley 1986; Haspelmath 1995, inter alia).

Prototypical Abawiri medial clauses do not occur on their own. However, speakers sometimes use medial clause syntax with a final intonation contour and no associated final clause, as shown in (1071) below.

- (1071) *bio wo worabror-u f-i-e bo # /*
 other 3 think-NMLZ be-INCMP-HAB TOP
 ‘Some people’s thoughts are like that.’ 90733.1

While prototypical medial clauses are frequently marked with *bo* ‘TOP’, and only rarely with *du* ‘PROX’, standalone medial clauses appear more frequently with *du* ‘PROX’ than with *bo* ‘TOP’. An example is shown in (1072) below, where the standalone medial clause in line (b) encodes a mainline story event in a series of final clauses.

- (1072) a. *e ði kəsai f-u bwe-i , /*
 1.PL food small be-CMP become-INCMP
 ‘Let’s have a little food.’ 52248.1
- b. *bwàbwei , / ou tû tro-i ðu # /*
 then house leaf cut-INCMP PROX
 ‘Then, we will cut the leaves for thatch.’ 52249.1

- c. *òru bo fì dâr-o # /*
 woman TOP sago pound-NPST
 ‘The women will pound sago.’ 52250.1

Standalone medial clauses with *du* ‘PROX’ can be used to indicate immediacy in the discourse context, for events that are spatially and temporally proximal. In example (1073) below, the quoted speaker is emphasizing the fact that he is leaving at that very moment, which is important because his mother needs to be holding the angry dog when he leaves.

- (1073) a. *wo ăi dia-w-e*
 3 mother say-CMP-PST
 ‘He said to his mother,’ 805157.1
- b. *wodu fì du # /*
 LOG go.INCMP PROX
 ‘I am now going.’ 805158.1
- c. *die etra du bo firore=gwre toy-e # /*
 dog angry PROX TOP carefully=AUG hold-EMPH
 ‘Hold this dog tightly.’ 805159.1

In example (1074) below, the speaker is butchering a bat as he speaks. He first tells the story of how the bat had been killed, then he utters these lines, bringing the discourse both spatially and temporally back from the narration of the hunt to the current situation.

- (1074) a. *trè bóre-ro # /*
 carcass be-NPST
 ‘This is its carcass.’ 51233.1
- b. *bei bóre si du ke-jè toyi du # /*
 now be here PROX 1.SG-EMPH cut PROX
 ‘And now here I am cutting it.’ 51234.1

8.5 Sequential clauses

Like topical medial clauses, sequential clauses are medial clauses: they precede a final clause (they are syntactically dependent), but they are not embedded in the main clause. Clause-internally, sequential clauses differ from topical medial clauses in that they have incomplete inflection on the verb and end with the sequential subordinating conjunction *òre* ‘SEQ’. These clauses generally function to show sequentiality of action as shown in (1075) and (1076).

(1075) [*ro gwrer-i òre*] *dre to-tor-u-e* # /
 then pluck-INCMP SEQ here CAUS-come-CMP-PST
 ‘After being cut, the branches were brought here.’ 52313.1

(1076) [*òru ta bo tor-i òre*] *are àjé-w-e* # /
 woman two TOP come-INCMP SEQ RECP greet-CMP-PST
 ‘The two women came and greeted each other.’ 90220.1

Sequentiality can also be indicated with a medial clause followed by the generic final verb *ber-u-e* ‘do-CMP-PST’. While this is formally a final clause, semantically it only indicates that another event follows. In example (1077) below, line (a) has a medial sequential clause followed by a final sequential clause with *berue*. The rising intonation, in addition to the sequential marker, indicates that more is to come.

(1077) a. [*boriwore gi sa òre*] *fwobyi òre ber-u-e* , /
 B. FOC take SEQ get.on.boat SEQ do-CMP-PST
 ‘Boriwore got him and loaded him into the canoe.’ 814195.1

b. *keiri bed-u-e*
 K. say-CMP-PST
 ‘Keiri said,’ 814196.1

c. *a du / bo worikre bo toi-yéi # /*
 1.SG PROX 1.SG.GEN hand TOP hold-NEG
 ‘My hands cannot hold him.’

814197.1

Sequential medial clauses get their modality from the final verbs, as seen in the imperative in example (1078).

(1078) [*ate-i òre] bwàbwei ber-i # /*
 hear-INCMP SEQ then do-INCMP
 ‘Listen and then do.’

801c61.1

However, other types of TAM marking, such as the prospective, are not shared between the final and medial sequential verbs. Example (1079) below is from the Staged Events recordings (van Staden et al. 2001). The image being described here is a still from a video where a man has already taken an ax and is about to take it to another man.

(1079) [*d̄yī du dígò sa òre] d̄yī o bòb-i-rà-ro # /*
 person PROX ax take SEQ person ALL give-INCMP-PROSP-NPST
 ‘This person took an ax and is about to give it to another person.’

913e46.1

In extended uses, *òre* ‘SEQ’ can be used for events that are not sequential in the real world, when the perception of these events is being construed as sequential. Examples from the Staged Events recordings are given in (1080) and (1081) below, where it is clear from the context that the events are simultaneous rather than sequential.

(1080) [*d̄yī du bo bworyu òre] kèbi f̄ari-ro # /*
 person PROX TOP sit SEQ guitar play-NPST
 ‘This person is sitting and playing the guitar.’

913b41.1

(1081) [*bu begi toi òre] tà-w-e # /*
 firewood FOC hold SEQ stand-CMP-PST
 ‘He stood holding firewood.’

913e28.1

8.6 Tail-head linkage

Tail-head linkage (THL) is a common feature of Papuan languages in which a portion of a preceding clause is recapitulated at the beginning of the following clause. THL can be used for discourse cohesion, reducing information density and allowing a processing pause (cf. de Vries 2019). See de Vries (2005; 2006) on the typology of THL in Papuan languages, and the recent edited volume (Guérin & Aiton 2019) for THL examined from a broader typological perspective. Among Papuan languages, THL takes different forms depending on the grammatical resources of the language. Chaining languages typically use medial verbs as the ‘head’ to recapitulate a portion of the preceding final clause (the ‘tail’). Languages such as Wambon that have a subordinating construction with a demonstrative marking topicality use this construction for THL (de Vries 1995; 2006); this is also the case in Abawiri.

In Abawiri, both topical and sequential medial clauses are commonly used for THL. In this construction a portion of a previous (final) clause is recapitulated at the beginning of the following sentence. Examples of topical medial clauses being used for THL are given in (1082) and (1083).

- (1082) a. *raibokokou du bo bwàbwei debo-u bóre # /*
 bad.man PROX TOP then go.quickly-CMP be
 ‘The bad man went there quickly.’ 805104.1
- b. [*o debo-u bo*] *bwàbwei fro-u bóre # /*
 COORD go.quickly-CMP TOP then go-CMP be
 ‘Going quickly there, he went.’ 805105.1

(1083) a. *ro* , / *tèb-u bóre #*
 then sleep-CMP be
 ‘Then she slept.’ 81466.1

b. [*tèb-u bo*] , / *fērti duru bo bwàbwei worero wobu*
 sleep-CMP TOP snake(sp.) PROX.EMPH TOP then like.that column

bwó du be brì-je tèb-u bóre # /
 under PROX LOC roll-NFIN sleep-CMP be
 ‘She slept, and the snake slept curled up under the house poles.’ 81467.1

Often only the verb from the tail is repeated in the head, as shown in the above two examples. However, other clausal elements are sometimes repeated as well, as seen in

(1084).

(1084) a. *ro bwàbwei gwai bo fwri tà-u bóre*
 then then body.hair TOP wrap rise-CMP be
 ‘Then his body hair stood up.’ 81445.1

b. [*o gwai fwri tà-u bo*] , / *ro bwàbwei frāre bwo-u*
 COORD body.hair wrap rise-CMP TOP then then snake become-CMP

bóre # /
 be
 ‘His body hair stood up, then he became a snake.’ 81446.1

Indeed, the whole clause can be recapitulated, as shown in (1085) below.

(1085) a. *ou feyi fwoyu bóre # /*
 house tie.beam tie be
 ‘The gable-end ceiling joists are tied.’ 52233.1

- b. [*ou feyi fwoyu bo*] , *sábìà ta deror-e*
house tie.beam tie TOP main.purlin two lie.horizontally-NFIN
tòì-ro # /
DISTR-NPST
‘After tying the gable-end ceiling joists, the two lower roof purlins are put in place.’ 52234.1

In narratives, sequential clauses (§8.5) are also commonly used for THL. An example from a folktale is given in (1086), while an example from a Pear Film retelling is given in (1087).

- (1086) a. *bo begi bòb-i-rē-dì to-tà-w-e # /*
COORD DEM.FOC give-INCMP-IRR1-PURP CAUS-rise-CMP-PST
‘He brought it up to give [it to him].’ 80545.1
- b. [*to-tà-i òre*] *wojo=jè bòb-u-e # /*
CAUS-rise-INCMP SEQ above=LOC give-CMP-PST
‘He took it up and gave it to him above.’ 80546.1
- (1087) a. *bo ro bwàbwei sefeda beri du gi be woyu bóre # /*
COORD then then bicycle whatchamacallit PROX FOC LOC lift be
‘And then he loaded it on the bicycle’s whatchamacallit.’ 90444.1
- b. [*woyu òre*] *to-fro-u bóre # /*
lift SEQ CAUS-go-CMP be
‘He loaded it and took it.’ 90445.1

A combined construction using both a sequential clause and a medial clause with *kē* ‘finished’ is frequently used to indicate temporal discontinuity in narrative, as shown in (1088).

- (1088) a. *bo ro bwàbwei dū gi dwòror-u-e , /*
COORD then then male FOC rotate-CMP-PST
‘Then the man stirred it.’ 913d45.1

- b. *[dwòror-i òre] [kē ror-u bo] fero bwàbwei òru gi*
 rotate-INCMP SEQ finished be-CMP TOP then then woman FOC
bo-w-e # /
 eat-CMP-PST
 ‘After he finished stirring it, then the woman drank it.’ 913d46.1

While it is most common for verbal predicates to be connected via THL, non-verbal predicates can be as well. Example (1089) shows an adjectival predicate recapitulated with THL.

- (1089) a. *frèi gwàu wo-riai be=jè sorikei=gwre bwo-w-e # /*
 demon body 3-REFL LOC=LOC red=AUG become-CMP-PST
 ‘The demon’s body was very red there.’ 502140.1
- b. *[sorikei=gwre bo] , / ke bed-u-e*
 red=AUG TOP 1.SG say-CMP-PST
 ‘It being very red, I said,’ 502141.1
- c. *fiare # /*
 cassowary
 ‘A cassowary.’ 502142.1

Recapitulation of the previous final clause is accomplished with both medial clauses and sequential clauses. Additionally, some speakers prefer to simply repeat the final verb. This is not THL from a grammatical point of view as it is simply a series of final clauses, and the recapitulated material is not at the beginning of the next sentence. However, it serves a similar function to THL in that it slows down the discourse temporally and reduces information density. See §8.7.4 on juxtaposition as a clause coordination strategy.

This section has shown that Abawiri speakers use several constructions, including topical medial clauses, sequential medial clauses, and series of final clauses, to recapitulate

just-uttered speech and, in the process, to slow the discourse and decrease information density.

8.7 Clause coordination

Up to this point the chapter has focused on subordinating constructions; that is, formal means for joining a non-final clause to a final clause. This section presents coordinating constructions, which indicate a semantic relationship between two clauses of any type, whether final or non-final. A coordinating conjunction can establish a semantic link between two final clauses, between two medial clauses, or between a medial clause and a final clause. Coordinating conjunctions are less integrated into the syntax than subordinating conjunctions and are distributionally similar to adverbs (§3.4). However, the fact that their semantic scope crosses clausal boundaries warrants a discussion here. Coordination of noun phrases is discussed in §3.1.4.7. A single coordinator *tukári* ‘although’ links whole sentences rather than clauses (§8.7.1.5).

Clause coordinating constructions are common in discourse of all types, and coordinating conjunctions are among the most frequent lexical items in the corpus. Most coordinating conjunctions occur at or near the beginning of the second clause. These words vary widely in the degree of flexibility of their placement within the clause, from fixed clause-initial position to free occurrence in various pre-verbal positions in the clause. An exceptional coordinating conjunction, *tukári* ‘although’, indicates a semantic relationship between two sentences rather than between two clauses and occurs in the first sentence.

Semantically the coordinating conjunctions can be divided roughly into those that indicate logical relationships between clauses (§8.7.1) and those that indicate temporal sequential relationships between clauses (§8.7.2). Loanwords from Indonesian/Malay are occasionally used as coordinating conjunctions in speech (§8.7.3). An additional clause coordinating strategy involves juxtaposition with no conjunction (§8.7.4). Juxtaposition of final clauses is also the formal strategy used for reported speech (§8.8).

8.7.1 Logical coordinators

The coordinating conjunctions that indicate a logical relationship between two clauses are shown in Table 77 and discussed in turn in the following subsections.

Table 77: Logical coordinating conjunctions

Conjunction	Gloss	Notes
<i>bo</i>	‘COORD’	General conjunction. First position, second clause
<i>o</i>	‘COORD’	General conjunction. First position, second clause
<i>beira</i>	‘so’	First or second position, second clause
<i>esi</i>	‘however’	First position, second clause
<i>tukári</i>	‘although’	Sentence coordinator. Flexible position in the first sentence.

8.7.1.1 *bo* ‘COORD’

The form *bo* is associated with many grammatical functions in Abawiri, including 1st person possessive pronoun (§3.5.1.4), distal demonstrative (§3.7.6), topic marker (§6.2.1), and coordinating conjunction. The final three functions are likely related to each other

diachronically. The function of *bo* as a coordinating conjunction appears to be derived from its topic marking function (which, in turn, came from its distal demonstrative function).

Topics are nearly obligatorily marked in clauses (§6.2), and topic marking is a primary clause combining strategy (§8.4). Further, zero anaphora is ubiquitous in discourse.

Coordinator *bo* likely came from a clausal topic marker (i.e. topical medial clause) with a zero topic. Synchronically, it has the meaning of ‘given [clause 1], it follows that [clause 2]’. This conjunction occurs clause-initially. Examples are given in (1090) and (1091).

- (1090) a. *bed-u-e*
 say-CMP-PST
 ‘He said.’ 808a492.1
- b. *e du / bu-fi-rō # / fabi kou bra # /*
 1.PL PROX down-go.INCMP-NPST\IRR2 mountain bad downriver
 ‘We will go down, to the bad mountain downriver.’ 808a493.1
- c. *bo gýufyuro-u bóre # /*
 COORD migrate-CMP be
 ‘And they migrated [toward it].’ 808a494.1
- (1091) a. *dýi duyí f-u èyi tore fī-ro # /*
 person money be-CMP LOC CAUS go-NPST
 ‘We take it to a merchant.’ 90780.1
- b. *ya # /*
 yes
 ‘Yes.’ 90781.1
- c. *bo ror-i-e bóre # /*
 COORD be-INCMP-HAB be
 ‘And that’s how it is.’ 90782.1

- (1094) a. *bo de-jè kwo ber-i-ro* ,
 COORD 2.PL-EMPH badly do-INCMP-NPST
 ‘You all make mistakes.’ 520269.1
- b. *a du beiro biárte-y-e-ro* # /
 1.SG PROX so fall-INCMP-HAB-NPST
 ‘So I keep falling.’ 520270.1
- (1095) a. *d̄yi bo bed-u-e*
 person TOP say-CMP-PST
 ‘The person said,’ r044.1
- b. *a du o gwor-o* # /
 1.sg PROX ALL fear-NPST
 ‘‘I am afraid of you.’ r044.2
- c. *a gwafare*
 1.SG naked
 ‘I am naked.’ r044.3
- d. *a beiro boyiror-i-ro*
 1.SG so hide-INCMP-NPST
 ‘Therefore I am hiding.’ r044.4

8.7.1.4 *esi* ‘however’

This rare coordinating conjunction occurs clause initially and indicates that the information in the clause is unexpected, given the previous context. It is a specialized use of the proximal demonstrative (*e*)*si* ‘here’ (§3.7.4). Examples are given in (1096) and (1097).

- (1096) a. S: *bo bóre* ,
 DIST be
 ‘That’s it.’ 50286.1

b. *bo kē bóre # /*
 DIST finished be
 ‘That is all.’ 50287.1

c. Y: *esi báí f-u bo gwari úbìari bwo-u bo fweyi*
 however across be-CMP TOP day how.many become-CMP TOP again

fa-w-o # /
 return-CMP-Q
 ‘But when you were there, how many days passed before you returned?’
 50288.1

(1097) a. *yure kíàì bio bo , ā d̄yi gi ba àre trèbar-u-wéi*
 tree one other TOP fruit person FOC eat SEQ die-CMP-NEG
 ‘One of the trees, a person would eat the fruit and not die.’ r019.1

b. *esi yure kíàì bio bo , ā d̄yi gi ba àre dèria fa afre ,*
 however tree one other TOP fruit person FOC eat SEQ good also know

kou fa afre
 bad also know
 ‘But the other tree, a person would eat and know good and bad.’ r0110.1

8.7.1.5 *tukári* ‘although’

The conjunction *tukári* ‘although’ indicates a semantic relation between two sentences (including a final clause and any preceding medial clauses) rather than between two clauses. It occurs somewhere in the first sentence. Like *esi* ‘but’, it indicates that the following information is unexpected. However, while *esi* ‘but’ indicates this relationship between the clause and the preceding context in general, *tukári* ‘although’ specifically indicates an adversative relationship between the first and second sentences. An example is given in (1098) below.

(1098) a. *bwàbwei d̄yì satubaru f-u tukári tor-ō*
 then person enemy be-NMLZ although come-NPST\IRR2
 ‘And even though an enemy might come,’ 9127.1

b. *e d̄eria bwe-i-ro # /*
 1.PL good become-INCMP-NPST
 ‘We win.’ 9128.1

The fact that the relationship expressed by this conjunction is between sentences rather than between clauses is illustrated in example (1099). Here *tukári* ‘although’ occurs in a sequential clause preceding a final clause; however, it establishes a semantic relationship between the whole sentence and the following whole sentence rather than between the two clauses of the sentence in which it is present.

(1099) a. *abu bo d̄i bo tukári báje fru bwe-i àre*
 grandparent TOP food TOP although 1.SG.BEN cook become-INCMP SEQ

béyi-je f-i-ri
 put-NFIN be-INCMP-NFUT
 ‘Even though grandmother always cooked and then put food out for me,’ 50927.1

b. *a fe d̄i fe bo-i-ri-wéi # /*
 1.SG also food also eat-INCMP-NFUT-NEG
 ‘I myself would not eat the food.’ 50928.1

8.7.2 Sequential coordinators

There are three coordinating conjunctions that primarily indicate a temporal sequential relationship between two clauses. While each has a somewhat different distribution, the semantic and pragmatic differences between the three are currently

unclear. Further, the three sequential coordinators frequently co-occur in various combinations. They are shown in Table 78 and discussed in turn in the following subsections.

Table 78: Sequential coordinating conjunctions

Conjunction	Gloss	Distribution
<i>bwàbwei</i>	‘then’	Usually first or second position in second clause
<i>ro</i>	‘then’	Flexible position in second clause
<i>fero</i>	‘then’	Usually first or second position in second clause

8.7.2.1 *bwàbwei* ‘then’

The sequential conjunction *bwàbwei* ‘then’ is probably derived historically from the inflected verb *bwabwe-i* ‘repay-INCMP’. This is the most common of all conjunctions, accounting for nearly 3% of the total word count in the corpus. It has a somewhat flexible distribution, occurring most frequently either clause initially, as shown in (1100), or in second position, as shown in (1101).

- (1100) a. *yafei = ta tìa-w-e # /*
 tall = PERL CROSS-CMP-PST
 ‘He crossed where it was tall.’ 80516.1
- b. *bwàbwei eija èyi dre doti-j-e # /*
 then knee LOC here reach.edge-CMP-PST
 ‘Then it only reached this high, to his knees.’ 80517.1

(1101) a. *wodu o wòjo yu-kàr-u bo # / wodu wo-ri begi àryu*
 LOG FOC shoulder up-throw-CMP TOP LOG 3-REFL FOC eye
abro-w-e # /
 see-CMP-PST
 ‘When I was born, I saw myself.’ 808a10.1

b. *wodu bwàbwei , / yure wòri-j-e # /*
 LOG then tree fell-CMP-PST
 ‘And I felled a tree.’ 808a11.1

Unlike other coordinating conjunctions, *bwàbwei* ‘then’ often occurs at a prosodic boundary. Most typically it is the last element in a continuing intonation unit, with level or rising intonation. This can be seen in example (1101) above and (1104) and (1105) below.

The conjunction *bwàbwei* frequently follows another conjunction, most commonly *ro* ‘then’ (1102), *bo* ‘COORD’ (1103), and *fero* ‘then’ (1104).

(1102) a. *bo / òbia ka sorikei rōu=gwre du begi e-jè*
 COORD buttocks same red big=AUG PROX FOC 1.PL-EMPH
ā-tè-u bóre # /
 VIS-descend-CMP be
 ‘We saw that same large, red buttocks coming down.’ 502148.1

b. *e du ro bwàbwei dre-i fro-u bóre # /*
 1.PL PROX then then run-INCMP go-CMP be
 ‘Then we ran.’ 502149.1

(1103) a. *fe e-jè bwàbwei sa òre tore fro-w-e #*
 also 1.PL-EMPH then take SEQ CAUS go-CMP-PST
 ‘And we took them and carried them.’ 908a58.1

b. *bo bwàbwei e-jè dōbu bwo-w-e #*
 COORD then 1.PL-EMPH big become-CMP-PST
 ‘And then we raised them.’ 908a59.1

(1104) *bo bwàbwei du bo kē ror-u bo fero bwàbwei / bra*
 COORD then PROX TOP finished be-CMP TOP then then arrow.shaft

du doyuror-u bóre #
 PROX straighten-CMP be

‘And then after finishing this, then this arrow-shaft is shaped in fire.’ 511a492.1

A series of the three conjunctions, *bo* ‘COORD’, *ro* ‘then’, and *bwàbwei* ‘then’, is also common, as shown in (1105).

(1105) a. *bo dèria # /*
 DIST good

‘It was good.’

81370.1

b. *bo ro bwàbwei / e f-u bo , / bo àrá dabyigwa*
 COORD then then 1.PL be-CMP TOP COORD God speech

bu-fwò-u bóre # /
 down-descend-CMP be

‘And then when we were there, God’s Word came down.’

81371.1

8.7.2.2 *ro* ‘then’

The conjunction *ro* ‘then’ primarily indicates sequentiality of action between two clauses. It usually occurs in the second position in the clause, as shown in (1106), or clause-initially, as shown in (1107).

(1106) a. *fweyi soto bio tà-i bóre # /*
 again edge other rise-INCMP be

‘We were going up on the other side again.’

51389.1

b. *e ta ro be=jè fìari bóre #*
 1.PL two then LOC=LOC laugh be

‘Then we two laughed there.’

51390.1

(1107) a. *ro firore=gwre bwàbwei si # /*
 then carefully=AUG then here
 ‘Receive it well.’ 803b466.1

b. *ro bwàbwei dra bwe-ye ber-i # /*
 then then work become-NFIN do-INCMP
 ‘And then do it.’ 803b467.1

In non-narrative discourse, *ro* ‘then’ sometimes indicates a logical relationship between clauses and not a specific temporal one, as shown in (1108) and (1109).

(1108) a. *wo-ri wo wójòu fe torédra-ro , /*
 3-REFL 3 body also guard.INCMP-NPST
 ‘One takes care of one’s own body.’ 803b155.1

b. *are wójòu fe torédra-ro #*
 RECP body also guard.INCMP-NPST
 ‘We also take care of each other’s bodies.’ 803b156.1

c. *ro are atre-i-ro # /*
 then RECP love-INCMP-NPST
 ‘And we love each other.’ 803b157.1

(1109) a. *wo dui ai béyi-j-e # /*
 3 money shoulder put-CMP-PST
 ‘He is stingy with his money [lit. ‘put money on his shoulder’].’ 907116.1

b. *e du ro bed-i-e-ro # /*
 1.PL PROX then say-INCMP-HAB-NPST
 ‘And we say that.’ 907117.1

8.7.2.3 *fero* ‘then’

This conjunction is a compound from *fe* ‘also’ and *ro* ‘then’. It has relatively flexible position in the clause and usually indicates sequentiality of action as shown in (1110) and (1111).

- (1110) a. *bo ro b̀̀biai=gwre fro-u bóre # /*
COORD then quietly=AUG go-CMP be
‘Then he went quietly along.’ 4066.1
- b. *Bekai du fero àryu abro-w-e ,*
B. PROX then eye see-CMP-PST
‘Then Bekai saw.’ 4067.1
- (1111) a. *f̀i o kou bwo-w-e # /*
sago FOC bad become-CMP-PST
‘The sago was bad.’ 5105.1
- b. *a fero fweyi ou fa-w-e # /*
1.SG then again house return-CMP-PST
‘Then I went back to the house.’ 5106.1

8.7.3 *Loanword coordinators*

Loanwords from Indonesian/Malay are occasionally used in speech for clause coordination. These coordinators typically occur in their own IU. Borrowed coordinators include *terus* ‘then’, *jadi* ‘so’, and *tapi* ‘but’ and are more frequent in the speech of individuals who have had more contact with Indonesian/Malay-speaking people. Use of loanword conjunctions is not (yet) a widespread practice among Abawiri speakers. Examples are given in (1112) and (1113).

(1112) *jadi* , / *fukàrì bo bwàbwei / bo worabror-u bóre # /*
 so all TOP then 1.SG.GEN thought-NMLZ be
 ‘And so all of those things are my thoughts.’ 804231.1

(1113) *terus* , / *d̄yì o dworu wojo trè bwe-i du , /*
 then person REL Mamberamo above seated become-INCMP PROX
 ‘And also the people who live at the headwaters of the Mamberamo.’ 920a16.1

8.7.4 Juxtaposition

While most clauses have a coordinating or subordinating conjunction indicating the semantic relationship of the clause with the surrounding clauses, it is also possible to simply juxtapose clauses without any overt markers of coordination. In these cases, the semantic relationship between the clauses is inferred pragmatically. Example (1114) illustrates this.

(1114) a. *d̄iréi du bo fwe-i bworyu f-u-e*
 D. PROX TOP steer-INCMP sit be-CMP-PST
 ‘Durei was sitting in the back and steering.’ 81324.1

b. *kwaryu dà duru fúfweyo f-u-e # /*
 K. ASSOC PROX.EMPH first be-CMP-PST
 ‘Kwaryu and company were in the front.’ 81325.1

Two more specific constructions are based on juxtaposition. One is reported speech, discussed in §8.8. The other is repetition of final clauses to indicate iterativity or habituality of an event. In the most prototypical cases, the non-initial clauses in the series contain only a verb with final inflection, which is repeated between two and five times. An example is shown in (1115).

- (1115) a. *jerbai bo f-u bo , / (jerbai begi yu-) , / jerbai to-fro-u*
 J. TOP be-CMP TOP J. DEM.FOC up J. PLACT-go-CMP
bóre ,
 be
 ‘The Jerbai River was there and we went at the Jerbai River.’ 81729.1
- b. *jerbai yu-to-fro-w-e ,*
 J. up-PLACT-go-CMP-PST
 ‘We went up at the Jerbai River.’ 81730.1
- c. *to-fro-w-e ,*
 PLACT-go-CMP-PST
 ‘We went.’ 81731.1
- d. *to-fro-w-e ,*
 PLACT-go-CMP-PST
 ‘We went.’ 81732.1
- e. *to-fro-w-e , /*
 PLACT-go-CMP-PST
 ‘We went.’ 81733.1

8.8 Reported speech

Speech is reported in Abawiri with the clause coordinating strategy of juxtaposition (§8.7.4). The speech clause occurs first in a final clause, followed by the clause(s) containing the reported speech. The verb most commonly used to introduce reported speech is *bed-* ‘say’, as shown in (1116) and (1117).

- (1116) a. *kore gi bwàbwei , / tie áje bed-u-e # /*
 turtle(sp.) FOC then fish ALL say-CMP-PST
 ‘Then the turtle said to the fish.’ 803a97.1

b. *ya # /*
 yes
 ‘Yes.’ 803a98.1

c. *du dabyigwa o ro báje dabyi bo # / dèriò # /*
 2.SG speech REL then 1.SG.ALL talk TOP good\YN
 ‘Your story that you are telling to me, is it good?’ 803a99.1

(1117) a. *bed-i-ro*
 say-INCMP-NPST
 ‘One says.’ 803b332.1

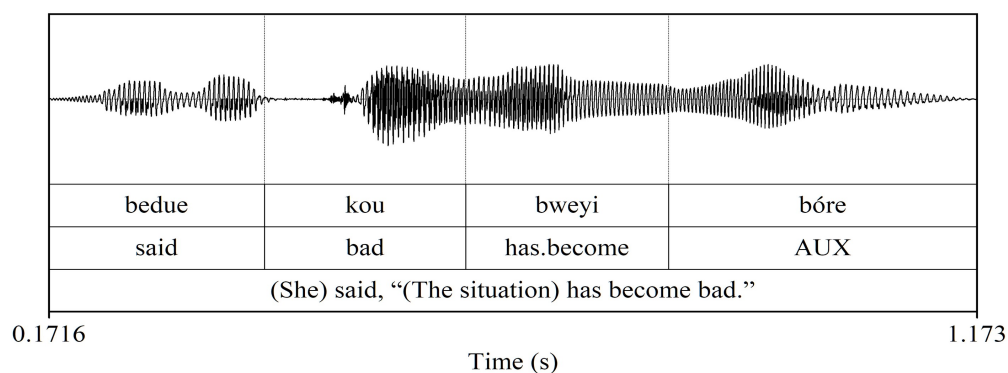
b. *aa bo bo fwòu kou # /*
 EXCL DIST TOP characteristic bad
 ‘Oh, that is bad character.’ 803b333.1

The tight integration of speech clauses with reported speech is realized prosodically rather than syntactically. Speech clauses often occur in the same intonation unit as the following reported speech. In cases of referent continuity, where the agent of the speech verb is not specified, the whole clause consists only of the verb and is often realized as a highly reduced form at the beginning of the intonation unit containing reported speech. An example is shown in example (1118) and Figure 38 below. Note the short duration of the trisyllabic speech verb *bedue* ‘said’, which is approximately of the same duration as the following monosyllabic word.

(1118) a. *bed-u-e*
 say-CMP-PST
 ‘(She) said,’ 805165.1

b. *kou bwe-yi bóre # /*
 bad become-PRF be
 ‘(The situation) has become bad .’ 805166.1

Figure 38. Phonetic reduction of the speech verb *bed-* ‘say’ (805166.1)



Roughly half of the verbs of saying in the corpus are used to introduce reported speech. Table 79 shows the verbs that introduce reported speech on the left, and those that do not on the right.

Table 79. Verbs of speaking used to report speech

Speech introducers		Other speech verbs	
<i>bed-</i>	‘say’	<i>bore-</i>	‘tell’
<i>brèi</i>	‘call’	<i>dabyi</i>	‘talk’
<i>dia-</i>	‘say to someone’	<i>dáfworyi</i>	‘spread news’
<i>dyiryi</i>	‘ask’	<i>éidwe-</i>	‘answer’
<i>óforyu</i>	‘say’	<i>i-</i>	‘call’
<i>te-</i>	‘scream’	<i>wofre-</i>	‘name’
<i>yáfwri</i>	‘cry out’		

The examples below illustrate the speech verbs *brèi* ‘call’ (1119), *dyiryi* ‘ask’ (1120), and *dia-* ‘say to someone’ (1121). As with *bed-* ‘say’ discussed above, each speech verb is a final verb followed by a juxtaposed clause of speech.

- (1119) a. *tyuya bo t̄a-i òre fweyi a br̄eì-j-e aa # /*
 sir TOP CROSS-INCMP SEQ again 1.SG call-CMP-PST EXCL
 ‘The boss came and called me again, ah!’ 50269.1
- b. *du bo bìari o gwor-o # /*
 2.SG TOP what ALL fear-NPST
 ‘What are you afraid of?’ 50270.1
- (1120) a. *dw̄èyi d̄èbi dyiryi-j-e*
 sister child ask-CMP-PST
 ‘His sister’s child asked,’ 520174.1
- b. *du s̄o k̄àrjer-u-ò , /*
 2.SG pig leave-CMP-EMPH\YN
 ‘Did you leave the pig behind?’ 520175.1
- (1121) a. *wo äi dia-w-e*
 3 mother say-CMP-PST
 ‘He said to his mother,’ 805157.1
- b. *wodu f̄i du # /*
 LOG go PROX
 ‘I am now going.’ 805158.1

Clauses with the other speech verbs (those on the right in Table 79) do not introduce reported speech, but instead can have a nominal referring expression in the clause indicating what is being spoken about. See, for example, *dabyi* ‘talk’ in (1122) and *wofre-* ‘name’ in (1123).

- (1122) *worabror-u d̄èria àrà gi bwàbwei e áje , / dabyi-jei-ro # /*
 think-NMLZ good God FOC then 1.PL ALL talk-PREF-NPST
 ‘God has spoken good thoughts to us.’ 801b180.1
- (1123) *bo ro wofre-i bóre fwara # /*
 COORD then name-INCMP be war.arrowhead
 ‘It is called a war-arrowhead.’ 511a234.1

8.9 Chapter summary

This chapter has examined clause combining strategies in Abawiri, including three Noun Modifying Clause Constructions (NMCCs), two medial clause constructions, Tail-Head Linkage, clause coordination, and reported speech.

The NMCCs include a widely used relative clause construction and two more restricted constructions: nominalized relative clauses and noun complements. Relative clauses follow the matrix NP and usually relativize a semantic agent, patient, theme, or location; there are rare examples of a general associative semantic relationship between the NP being relativized and the relative clause. Relative clauses of agents, themes, and patients are not usually represented within the relative clause with an overt form since they are understood from context; however, it is possible to refer to them with an overt referential device such as *begi* ‘DEM.FOC’. Relative clauses of location, by contrast, always have a locative postposition within the relative clause. Most relative clauses have an overt nominal head; however, all NPs can be left out when understood from context, and this is true of NPs with relative clauses. NPs with relative clauses can have an overt or zero head and overt or zero reference within the relative clause; all possible combinations are attested. Relative clauses are usually introduced with the dedicated relativizer *o* ‘REL’, derived from the focus marker, but it is not obligatory. Relative clauses usually end with the topic marker *bo* ‘TOP’ or *du* ‘PROX’. Particularly after long relative clauses, or when the referent of the NP is being emphasized, a coreferential form such as *begi* ‘DEM.FOC’ or *babe* ‘DEM’ occurs in the main clause after the noun phrase with the relative clause. A special

relative clause construction with *du* 'PROX' is structurally similar to regular relative clauses except that both the (optional) relativizer at the beginning of the relative clause and the topic marker at the end are *du*. In addition to the regular functions of relative clauses, this construction indicates spatial, temporal, or discourse proximity.

Nominalized relative clauses are a highly restricted construction with a matrix noun followed by a theme (which must be overt) and the nominalized verb *f-u* 'be-NMLZ'. It is commonly lexicalized in terms for people (e.g. *òru tũ fu* 'women with leaves' refers to women who traditionally danced in costumes made of leaves to celebrate victory after battle).

Noun complements precede the head noun. They consist of usually one, sometimes two, referring expressions followed by a verb that usually has a single suffix: *-u* 'CMP', *-u* 'NMLZ', or *-i* 'INCMP'. Noun complements are used differently in translated material and in spontaneous speech. In spontaneous speech, they usually have a general associative semantic relationship with the head noun, and the use of *-u* vs. *-i* on the verb does not indicate a difference in aspect. In translated material, noun complements are usually semantic agents, patients, or locations; further, *-u* indicates completive aspect while *-i* indicates incompletive aspect. This construction, along with nominalized relative clause construction, is commonly used to coin new terminology.

Abawiri has two medial clause constructions: topical medial clauses and sequential medial clauses. Verbs in topical medial clauses have minimal inflection, usually limited to the basic aspect suffixes *-i* 'INCMP', *-u* 'CMP', or *-yi* 'PRF' and occasionally including negative

-*yéi* 'NEG', and non-future -*ri* 'NFUT'. Medial clauses end with a topic marker, which is either *bo* 'TOP' or *du* 'PROX'. Medial clauses are not used in long chains in narratives as in many other Papuan languages; instead, their main function is backgrounding of information, with specific uses including indication of sequential actions, simultaneous actions, and conditionals. These clauses can be used non-canonically as antitopics and as independent clauses.

Sequential clauses have many of the properties of topical medial clauses but always end with an incomplete verb followed by the sequential marker *òre* 'SEQ'. Both topical and sequential medial clauses can be used for Tail-Head Linkage, where part of a previous (final) clause is recapitulated at the beginning of the following clause for discourse continuity.

Clause coordination is a loose syntactic construction in Abawiri involving at least one and up to three coordinating conjunctions out of a total set of eight conjunctions. These conjunctions are very frequent in discourse and establish a logical or temporal relationship between two clauses. Coordinating conjunctions can connect clauses of any type, whether medial or final. Each conjunction has a different distribution, usually first or second position in the second clause, with varying degrees of flexibility. One conjunction, *tukári* 'although', expresses a semantic relation between whole sentences rather than between clauses and occurs in the first sentence.

A final clause coordinating strategy is juxtaposition, where two (final) clauses are adjacent with no overt marker of the relationship between them. Two specific constructions

make use of juxtaposition: an iterative construction and reported speech. In the iterative construction, a series of final verbs is repeated in a rapid-fire manner in narrative to indicate that the action occurred over and over again or for a prolonged period of time. Speech is reported by juxtaposing a final clause with a verb of speaking with a following final clause containing the reported speech.

Appendix A: List of texts in the documentary corpus

Table 80 lists all the texts in the documentary corpus. The first column contains the three-digit abbreviation used for each text; this abbreviation corresponds to the first three digits of the reference numbers in numbered examples throughout the dissertation. Also in Table 80 are the number of words in each text, the main speaker(s) (see Appendix B), the genre, and a brief description of the speech contained in the text. The documentary corpus is archived at the SIL International Language and Culture Archives and is available online at <https://www.sil.org/resources/archives/84819>.

Table 80. Texts in the documentary corpus

Abb.	Words	Speaker(s)	Genre	Description
403	240	YW	narrative	The arrival of the first missionary
407	52	MW	narrative	Harvesting <i>matoa</i> trees
408	130	MW	narrative	Two young people discover a corpse in the forest
409	450	MW	folktale	Dede and his two sisters
410	572	MW	folktale	The good Abaruda man and the bad, snotty man
502	1,028	SW, AG	narrative	Stefanus tells about his first trip to Jayapura; Agustina tells about being chased by a demon
504	187	OW	narrative	A big earthquake
505	204	DG	narrative	Women hear strange sounds from the river while pounding sago
507	1,358	YG	narrative	The last war raid of the Guani clan
509	269	OG	narrative	Kisai pretends to be a pig and scares his sister

Abb.	Words	Speaker(s)	Genre	Description
510	54	LK	narrative	There was no sago, so Lafi went hungry
511	2,383	YG, YW, SW	conversation, description, procedure	Old war arrows are brought down from the rafters of a house, and three men discuss how each is made and what it is for. See excerpt in Appendix D.
512	244	SW	procedure, narrative	While butchering a bat, SW discusses its anatomy and tells the story of hunting it
513	451	SW	narrative	Two men encounter someone's ghost in the forest
514	116	YG	song	Two locally authored Christian songs
520	1,555	PW	folktale	Two parrot sisters prank an unsuspecting man
522	589	SW	description, procedure	SW walks around his house, describing the wood and how the house was built
523	659	YW	procedure	At an old sago processing site, YW demonstrates the process
801	2,439	BG	hortatory	A weeknight church service
803	3,289	YW	hortatory	A Sunday evening sermon
804	1,382	YW	exposition	After text 803, YW explains his plans for marketing crocodile hides from Fuau. See excerpt in Appendix E.
805	1,350	DW	folktale	A man joins a party of demons dancing in the night
806	526	HeG	folktale	The two deities Kwìági and Eri at the beginning of time
808	2,670	YW	narrative	A man with supernatural powers of perception
809	1,195	EW	folktale	The traditional importance of Mount Kwrìgwà. Only partially transcribed.

Abb.	Words	Speaker(s)	Genre	Description
812	870	SuM	folktale	A folktale from the Manji clan
813	623	K	narrative	Yuli fell out of a boat as a child, and Kwòryu rescued him
814	1,486	I	folktale	A woman and her husband who became a snake
815	613	S	narrative	A big earthquake. See excerpt in Appendix C.
816	351	SiW	elicited	Picture sequencing task (San Roque et al. 2012)
817	1,135	BiG	narrative	A group of men go crocodile hunting
902	133	YaW	elicited	Reciprocal constructions (Evans et al. 2004)
903	2,771	AnG	elicited	Staged Events (van Staden et al. 2001)
904	684	YaW	elicited	Pear Film retelling
905	185	[group]	song	The coming of Jesus
906	137	[group]	song	God's children
907	587	BG, YaW	elicited conversation	Reasoning in language 4 (Senft 2003)
908	749	BG, YaW	elicited conversation	Reasoning in language 1 (Senft 2003)
909	393	BG, YaW	elicited conversation	Reasoning in language 3A (Senft 2003)
910	391	BG, YaW	elicited conversation	Reasoning in language 3B (Senft 2003)
911	246	BG, YaW	elicited conversation	Reasoning in language 7 (Senft 2003)
912	577	BG, YaW	elicited conversation	Reasoning in language 2 (Senft 2003)
913	2,219	SiW	elicited	Staged Events (van Staden et al. 2001)

Abb.	Words	Speaker(s)	Genre	Description
914	97	BG	song	God is good
915	112	[group]	song	Jesus forgave my sins
916	85	BG	song	The new Jerusalem
918	105	EW, BG	song	Jesus is good to me
919	135	[group]	song	Jesus is God's son
920	844	LK	conversation	A group of women gather to record stories. Only the conversations between stories are transcribed.
925	783	ArW	written	God changed my life
926	255	OtW	written	God is good to Kreturujòu
927	55	YaW	written	Coming to Jayapura

Appendix B: Speakers in the documentary corpus

The speakers who participated in the documentation project are listed in Table 81. The abbreviations given in the first column here correspond to the speaker abbreviations listed in the third column of Table 80. In total, the speech of 24 individuals is represented in the corpus.

Table 81. Speakers

Abb.	Name	Info
AnG	Ananias Guani	young man; has spent much time in town
ArW	Arnold Wau	young man; has spent much time in town; helped with translation and transcription
BG	Bastian Guani	older man, church leader, husband of MW; helped organize documentation project
BiG	Binus Guani	young man
DG	Dina Guani	middle-aged woman
DW	Daud Wau	older man, church leader
EW	Elus Wau	older man, church leader
HeG	Herman Guani	very old man
I	Iji	very old woman
K	Kwòryu	very old woman
LK	Lafi Kabdo	middle-aged woman, wife of YaW; mother tongue is Taburta
MW	Marice Wau	older woman, wife of BG
OG	Oktofina Guani	middle-aged woman
OtW	Otis Wau	young man; has spent much time in town; helped with translation and transcription

Abb.	Name	Info
OW	Onice Wau	middle-aged woman, wife of SW, sister of YW
PW	Paulus Winim	very old man
RG	Rahel Guani	young woman, daughter of BG and MW
S	Swoi	middle-aged woman
SiW	Simei Wau	young man, son of YaW and LK
SM	Susana Manji	middle-aged woman
SW	Stefanus Wau	middle-aged man, husband of OW
YaW	Yahya Wau	middle-aged man, husband of LK, church leader; helped with translation and transcription
YG	Yonas Guani	very old man, father of BG; also known as Bwoyusa
YW	Yulianus Wau	brother of OW, helped with translation and transcription, primary initiator of documentation project

Appendix C: Narrative text

The following excerpt is from the beginning of a first person narrative (815; see Table 80). The speaker, a middle-aged woman named Swoi, is from the *Fori* ('sago swamp') clan, known in Indonesian/Malay as *suku Negasi*. This recording was made in the village *puskesmas* ('clinic'), a building used to house traveling health workers as well as other guests from outside of Fuau. I and my local collaborators had set up the recording session, specifically seeking to record more speech from women. A group of about five men and five women spent a few hours in the *puskesmas* main room, where the conversation was centered around recording the womens' narratives. Two folktales and two first person narratives were recorded (812, 813, 814, and 815; see Table 80 above). This narrative was the last to be recorded. A still from the video recording of the narrative is shown in Figure 39, where Swoi is shown wearing the headworn microphone. Iji is seated on the right, while Filipus is seated on the left.

Figure 39. Still from narrative text (815)



In this narrative, Swoi tells about a time when her clan experienced a big earthquake. This excerpt gives the background, including the participants and the temporal and spatial setting. The narrator then tells how the various groups of clan members experienced the earthquake, beginning with those at home and continuing with a group of people who were building canoes and another group of people who were pounding sago. The story continues after the excerpt: Among the group of people who had been making canoes when the earthquake occurred, two individuals tried to cross a river on a log, and one of them was knocked into the water. Not long after the earthquake, the Fori clan moved from the Kou River to Fuau, where they came to ‘hear God’s News’.

The total length of the recording is 4 minutes and 33 seconds; this excerpt is 2 minutes and 40 seconds long. The recording was made on December 4, 2018.

- (1) *f̄y* *o* *tor-u* *bo e* *du* *kou* *gi* *be* *f̄y-je*
 earthquake FOC come-CMP TOP 1.PL PROX K. River FOC LOC be-NFIN
f̄u-e # /
 be-PST
 ‘When the earthquake came, we lived at the Kou River.’ 8155.1
- (2) *bo* *àrá* *dabyigwa* *fe* *tor-e* *f-u* *bóre* # /
 COORD God speech also come-NFIN be-CMP be
 ‘God’s news had already come.’ 8156.1
- (3) *be* *die* *diau* *tor-e* *f-u* *bóre* # /
 COORD water estuary come-NFIN be-CMP be
 ‘It had come to the river mouth.’ 8157.1
- (4) *bo* (*fori* *òu* *ogweyi* *bie*) *fori* *òu* *ogweyi* *bie* *bo*
 COORD sago.swamp clan edge other sago.swamp clan edge other TOP
trè *bwe-ye* *f-u* *bóre* # /
 seated become-NFIN be-CMP be
 ‘People from the Negasi clan were living on the opposite side.’ 8158.1
- (5) *bo* *siari* *dà* *bóre* #
 DIST S. ASSOC be
 ‘It was Siari and company.’ 8159.1
- (6) *siari* , *sorfei* , / *fafu* , /
 S. S. F.
 ‘Siari, Sorfei, and Fafu.’ 81510.1
- (7) *bo* *d̄yī* *o* *be* *trè* *bwe-ye* *f-u* *bóre* # /
 COORD person FOC LOC seated become-NFIN be-CMP be
 ‘And those people were living there.’ 81511.1
- (8) *kou* *wojo* #
 K. River above
 ‘Up above at the Kou River.’ 81514.1

- (9) *bo trè bwe-ye f-u bóre #*
 COORD seated become-NFIN be-CMP be
 ‘They were living there.’ 81515.1
- (10) *kou eigwre woru=ta / wojo bo , /*
 K. River road stomach=ABL body TOP
 ‘Above the beginning of the Kou River path.’ 81517.1
- (11) *bio be=jè fu sa gwa-ber-u bóre # /*
 other LOC=LOC canoe make PLACT-do-CMP be
 ‘Some [of the people] made canoes there.’ 81518.1
- (12) *bo bwàbwei tore gwrer-ē-di ror-u bóre # /*
 COORD then PLACT withdraw-IRR1-PURP be-CMP be
 ‘And that was so that we could leave.’ 81519.1
- (13) *be=jè fu sa gwa-ber-u bóre # /*
 LOC=LOC canoe make PLACT-do-CMP be
 ‘They made canoes there.’ 81520.1
- (14) *bo bwàbwei , / eyórù bo fi frì-je tor-i-ri # /*
 COORD then elders TOP sago go-NFIN pound-INCMP-NFUT
 ‘And the old people were going to pound sago.’ 81521.1
- (15) *fe gwari fa āfréi ,*
 also day also know.NEG
 ‘And we did not even know the day.’ 81522.1
- (16) *f̄yū o begi o tor-u bo , e du gwari fa*
 earthquake FOC DEM.FOC ALL come-CMP TOP 1.PL PROX day also
āfréi # /
 know.NEG
 ‘When the earthquake came to us, we did not even know the day.’ 81523.1
- (17) *e eyórù bo fi frì-je tor-i-ri ,*
 1.PL elders TOP sago go-NFIN pound-INCMP-NFUT
 ‘Our old people were going to pound sago.’ 81524.1

- (18) *bio bwàbwei / fu ber-i gwa-ber-u-e # /*
 other then canoe do-INCMP PLACT-do-CMP-PST
 ‘And the others were making canoes.’ 81525.1
- (19) *bio bwàbwei fi frì-je tor-i-ri , / e äi bo # /*
 other then sago go-NFIN pound-INCMP-NFUT 1.PL mother TOP
 ‘And the others, our mothers, were going to pound sago.’ 81526.1
- (20) *a du bwàbwei , / dòbu=gwre f-u-e bwò-w-e ,*
 1.SG PROX then big=AUG be-CMP-PST NEG-CMP-PST
 ‘And I was not very big.’ 81527.1
- (21) *e du bwàbwei siari ou gi be f-u-e # /*
 1.PL PROX then S. house FOC LOC be-CMP-PST
 ‘And we were at Siari’s house.’ 81528.1
- (22) *raibokou o bwó bworyu-ro wo ou # /*
 bad.man REL under sit-NPST 3 house
 ‘The house of that character who lives below.’ 81529.1
- (23) *sòri ou f-u-e*
 earth house be-CMP-PST
 ‘It was a house on the ground.’ 81530.1
- (24) *kwasere ou e du be f-u bóre # /*
 thatch house 1.PL PROX LOC be-CMP be
 ‘A thatched-roof house, we were there.’ 81531.1
- (25) *ba äi fe ká be bworyu f-u bóre ,*
 1.SG.GEN mother also same LOC sit be-CMP be
 ‘My mother was also living at the same place.’ 81532.1
- (26) *ba ayite kou fe ká bworyu f-u bóre # /*
 1.SG.GEN father loved also same sit be-CMP be
 ‘My dear father was also living at the same place.’ 81533.1

- (27) *bo bwàbwei ba äi bo fi eigwre=ta tor-u bóre #*
 COORD then 1.SG.GEN mother TOP sago road=ABL come-CMP be
 ‘And my mother came back from the sago path.’ 81534.1
- (28) *bo fwāu bwe-ye f-u bóre # /*
 COORD evening become-NFIN be-CMP be
 ‘It was becoming evening.’ 81535.1
- (29) *fwāu bwe-ye f-u bo tor-i òre bwàbwei / die bo*
 evening become-NFIN be-CMP TOP come-INCMP SEQ then water TOP
fwi-e , /
 draw-PST
 ‘When it was becoming evening, she came and then drew water.’ 81536.1
- (30) *die bo fwi òre ber-u-e # /*
 water TOP draw SEQ do-CMP-PST
 ‘She drew water and then...’ 81537.1
- (31) *dou bo fwa-j-e ,*
 fire TOP begin-CMP-PST
 ‘She made a fire.’ 81538.1
- (32) *dou fwa-i òre berue foi bo fryi bóre # /*
 fire begin-INCMP SEQ SEQ rock TOP heat be
 ‘She made a fire and then heated rocks.’ 81539.1
- (33) *foi bo (fryi) / fryi bo , / bworyu f-u bóre # /*
 rock TOP heat heat TOP sit be-CMP be
 ‘After heating rocks, she was sitting there.’ 81540.1
- (34) *bio bo kòre brar-e tòi-j-e #*
 other TOP forest be.there-NFIN DISTR-CMP-PST
 ‘The others were all still in the forest.’ 81541.1
- (35) *fȳu du bo tor-u bóre # /*
 earthquake PROX TOP come-CMP be
 ‘The big earthquake came.’ 81542.1

- (36) *f̄yu o tor-u bo f̄yu bo d̄obu=gwre # /*
 earthquake FOC come-CMP TOP earthquake TOP big=AUG
 ‘When the earthquake came, the earthquake was very big.’ 81543.1
- (37) *a du gwor-u ba ǎi o yu-t̄iror-u-e # /*
 1.SG PROX fear-CMP 1.SG.GEN mother ALL up-reach-CMP-PST
 ‘I was afraid and reached up toward my mother.’ 81544.1
- (38) *abu sieye du fe , / foi fryi-je f-u-e ,*
 grandparent S. PROX also rock heat-NFIN be-CMP-PST
 ‘Grandmother Sieye was also heating rocks.’ 81545.1
- (39) *wo tobio=j̄è ba ǎi fe , / foi fryi-je f-u-e # /*
 3 side=LOC 1.SG.GEN mother also rock heat-NFIN be-CMP-PST
 ‘Beside her, my mother was also heating rocks.’ 81546.1
- (40) *bo foi dou du # /*
 COORD rock fire PROX
 ‘The rock-fire.’ 81547.1
- (41) *ba ǎi foi dou du bo bwàbwei f̄yu gi*
 1.SG.GEN mother rock fire PROX TOP then earthquake FOC
tworidar-u-e # /
 dismantle-CMP-PST
 ‘My mother’s rock-fire was knocked apart by the earthquake.’ 81548.1
- (42) *foi bo wo-riai gwa s̄ori búfrori-j-e # /*
 rock TOP 3-REFL immediately earth fall-CMP-PST
 ‘The rocks themselves immediately fell to the ground.’ 81549.1
- (43) *f̄yu gi tworidar-u bóre # /*
 earthquake FOC dismantle-CMP be
 ‘They were knocked apart by the earthquake.’ 81550.1
- (44) *abu dre fe ká ror-u-e ,*
 grandparent have also same be-CMP-PST
 ‘Grandmother’s were the same.’ 81551.1

- (45) *abu sieye dre fe ká ror-u-e # /*
 grandparent S. have also same be-CMP-PST
 ‘Grandmother Sieye’s were also the same.’ 81552.1
- (46) *bio bo kòre brar-e tòi-j-e ,*
 other TOP forest be.there-NFIN DISTR-CMP-PST
 ‘The others were all in the forest.’ 81553.1
- (47) *bio bo bwàbwei / fu ber-i gwa-ber-u fe be=jè àryu*
 other TOP then canoe do-INCMP PLACT-do-CMP also LOC=LOC eye

abro-w-e , /
 perceive-CMP-PST
 ‘Then the others who were building canoes also saw [it] there.’ 81554.1
- (48) *bo ro ou frì ror-e frì bóre # /*
 COORD then house go be-NFIN go be
 ‘Then they ran to the house.’ 81555.1
- (49) *fukàrì ou frì ror-e frì bóre # /*
 all house go be-NFIN go be
 ‘They all ran to the house.’ 81556.1
- (50) *òru begi fi tor-u yakare bwe-i gwa-ber-u*
 woman DEM.FOC sago pound-NMLZ long.time become-INCMP PLACT-do-CMP

bo fe , / fi fe kàrjer-e tòi-j-e ,
 TOP also sago also leave-NFIN DISTR-CMP-PST
 ‘The women who were taking a long time to pound sago left all the sago behind.’ 81557.1
- (51) *bio wo-riai fwi fe bwri ror-e tòi-j-e # /*
 other 3-REFL dregs also erase be-NFIN DISTR-CMP-PST
 ‘The others were getting rid of the sago dregs.’ 81558.1
- (52) *raika ou dèbe-ye tòi bóre # /*
 again house run.back-NFIN DISTR be
 ‘They all came running back to the house.’ 81559.1

(53) *ou dèbe-ye tòi bo begi fu ber-i gwa-ber-u*
house run.back-NFIN DISTR TOP DEM.FOC canoe do-INCMP PLACT-do-CMP

fe ká # /
also arrive

‘When they all came running back to the house, those who were making canoes also arrived.’

81560.1

Appendix D: Procedural text

The following excerpt is from a conversation between three men (511; see Table 80). It was recorded during my first trip to Fuau, in which the people were eager to show me aspects of their life. On this occasion, the men decided to show me some old arrows that had been stored in the rafters of the house where I was staying. They told me that most of these arrows, which had ornate designs, were only used for battles in the olden days. The art of making the various designs on the arrows, particularly the arrowheads, has largely been forgotten and is remembered by only a few people.

Stefanus, my host, went into the walled area of the house and brought out a handful of arrows. He placed them on the floor of the porch, and then Yuli and Bwoyusa gathered around the arrows with him and began describing them. After they discussed for a few minutes, I asked how the arrows were made. Yuli picked up on my question as seen in the first line of the excerpt below. He directed the question to Bwoyusa, the oldest of the three and the only one who had participated in the old war raids. The conversation in this extract largely centers around Yuli's prompts and Bwoyusa's answers about the process of making arrowheads. A still from the video recording of the event is shown in Figure 40. In this figure, Bwoyusa is seated on the right in the purple hat, while Yuli is seated in the middle and Stefanus is seated on the left.

Figure 40. Still from procedural text (511)



In the transcription, speech by Yuli is marked with <Y:>, while speech from Bwoyusa is marked with <B:>. Stefanus does not speak during this time. The total length of the recording is 14 minutes and 36 seconds; this excerpt is 1 minute 13 seconds long.

The recording was made on June 5, 2015.

- (1) Y: *fero drà / bwàbwei / bwrìor-i-e bo tròr-i-e-ro # /*
 then arrow then make-INCMP-HAB TOP what.happen-INCMP-HAB-NPST
 ‘Then when arrows are made, what is done?’ 511a316.1
- (2) *o ro bwrìor-i-e bo tròr-i-e-ro #*
 COORD then make-INCMP-HAB TOP what.happen-INCMP-HAB-NPST
 ‘And when they are made, what is done?’ 511a317.1
- (3) B: *oo , /*
oo
 ‘Oh.’ 511a318.1

- (4) Y: *bra* #
 arrow.shaft
 ‘An arrow-shaft.’ 511a319.1
- (5) *ror-i-e bóre bwàbwei / tōu , /*
 be-INCMP-HAB be then cuscus(sp.)
 ‘It is done like this, then, a cuscus,’ 511a320.1
- (6) *tōu bo bwàbwei , /*
 cuscus(sp.) TOP then
 ‘Then the cuscus,’ 511a321.1
- (7) *tōu du bo di – ,*
 cuscus(sp.) PROX TOP ---
 ‘This cuscus,’ 511a322.1
- (8) B: *duru bo drēbar-o #*
 PROX.EMPH TOP sharpen-NPST
 ‘This is sharpened.’ 511a323.1
- (9) Y: (*tōu*) *tōu du / bo bwàbwei , /*
 cuscus(sp.) cuscus(sp.) PROX TOP then
 ‘Then this cuscus,’ 511a324.1
- (10) B: *bo-y-e-ro # /*
 eat-INCMP-HAB-NPST
 ‘It is eaten.’ 511a325.1
- (11) *bo dī #*
 COORD food
 ‘It is food.’ 511a326.1
- (12) Y: *dī # /*
 food
 ‘Food.’ 511a327.1

- (13) B: *ya* #
 yes
 ‘Yes.’ 511a328.1
- (14) Y: *tōu* # /
 cuscus(sp.)
 ‘Cuscus.’ 511a329.1
- (15) *bo bwàbwei , / trè bo tōu gi bwàbwei b̀yì-jo-rō* # /
 COORD then carcass TOP cuscus(sp.) FOC then shoot-INCMP-NPST\IRR2
 ‘Then about the carcass, if the cuscus is shot,’ 511a330.1
- (16) *ro bwàbwei wo kre du* # /
 then then 3 bone PROX
 ‘Then its bone here.’ 511a331.1
- (17) B: *ro gwra-ro* # /
 then pluck-NPST
 ‘Then it is taken out.’ 511a332.1
- (18) Y: *ro kre du gi gwra-ro* # /
 then bone PROX FOC pluck-NPST
 ‘Then this bone is taken out.’ 511a333.1
- (19) *kre du gi gwrer-i òre bia-ro* # /
 bone PROX FOC pluck-INCMP SEQ do-INCMP-NPST
 ‘After this bone is taken out,’ 511a334.1
- (20) B: *ro twōre fwri-ro* #
 then green wrap-NPST
 ‘Then it is wrapped with greens.’ 511a335.1
- (21) Y: *ro bwàbwei / twōre fwri-ro* #
 then then green wrap-NPST
 ‘Then it is wrapped with greens.’ 511a336.1

- (22) B: *twōre* --
green
'Green --' 511a337.1
- (23) *ya* ,
yes
'Yes.' 511a338.1
- (24) *twōre fwri òre bia-ro wori du # /*
green wrap SEQ do.INCMP-NPST meat PROX
'It is wrapped with greens, this meat.' 511a339.1
- (25) Y: *ya # /*
yes
'Yes.' 511a340.1
- (26) B: *bo dī-ro # /*
COORD eat-NPST
'And it is eaten.' 511a341.1
- (27) Y: *wori bo dī-ro # /*
meat TOP eat-NPST
'The meat is eaten.' 511a342.1
- (28) *kre du bo sa-ro # /*
bone PROX TOP take-NPST
'This bone is taken.' 511a343.1
- (29) B: *kre du bo sa àre wobwe-i bóre # /*
bone PROX TOP take SEQ shape-INCMP be
'This bone is taken and then shaped.' 511a344.1
- (30) Y: *ro bwàbwei fwà-i bóre #*
then then scrape-INCMP be
'Then it is scraped.' 511a345.1

- (31) B: *sù gi wobwe-i-ro* , /
 machete FOC shape-INCMP-NPST
 ‘It is shaped using a machete.’ 511a346.1
- (32) *bwàbwei késai bwe-i bo / sō fwoi gi sa bóre #*
 then small become-INCMP TOP pig tusk FOC take be
 ‘It becomes small and then a pig’s tusk is taken.’ 511a347.1
- (33) Y: *ya #*
 yes
 ‘Yes.’ 511a348.1
- (34) B: *ro sō fwoi gi drēbar-o # /*
 then pig tusk FOC sharpen-NPST
 ‘Then it is sharpened with a pig’s tusk.’ 511a349.1
- (35) *sō wei # /*
 pig tooth
 ‘A pig’s tooth.’ 511a350.1
- (36) Y: *de ti gwa sa # /*
 2.PL PROH sound take
 ‘You all don’t be loud.’ 511a351.1
- (37) *de ti gwa sa # /*
 2.PL PROH sound take
 ‘You all don’t be loud.’ 511a352.1
- (38) B: *ro sō wei du #*
 then pig tooth PROX
 ‘Then this pig’s tooth.’ 511a353.1
- (39) *sō fwoi du # /*
 pig tusk PROX
 ‘This pig’s tusk.’ 511a354.1

- (40) Y: *ya #*
yes
'Yes.' 511a355.1
- (41) B: *bo begi tōu kre o drēbar-u bóre # /*
COORD DEM.FOC cuscus(sp.) bone FOC sharpen-CMP be
'That is what is used to sharpen cuscus bones.' 511a356.1
- (42) Y: *ya # /*
yes
'Yes.' 511a357.1
- (43) B: *bo tōu kre / bo drēbar-u bóre ,*
COORD cuscus(sp.) bone TOP sharpen-CMP be
'Cuscus bones are sharpened.' 511a358.1
- (44) *sō fwoi gi sa àre tōu kre drēbar-o # /*
pig tusk FOC take SEQ cuscus(sp.) bone sharpen-NPST
'A pig's tusk is taken and cuscus bones are sharpened.' 511a359.1
- (45) *bo ror-i-e bóre # /*
COORD be-INCMP-HAB be
'That's how it is done.' 511a360.1
- (46) Y: *ya # /*
yes
'Yes.' 511a361.1
- (47) *fero bwàbwei / o ror-u bo tōu kre drēbar-u bo /*
then then COORD be-CMP TOP cuscus(sp.) bone sharpen-CMP TOP

fofweyi bwàbwei du bo bà=ta s-i-e-ro ,
then then PROX TOP where=ABL take-INCMP-HAB-NPST
'Then, after doing like that, after sharpening the cuscus bones, then where is this taken from?' 511a362.1
- (48) *bìari s-i-e-ro ,*
what take-INCMP-HAB-NPST
'What is taken?' 511a363.1

- (49) *bìari kre # /*
 what bone
 ‘What bone?’ 511a364.1
- (50) B: *si duru # /*
 here PROX.EMPH
 ‘This one here.’ 511a365.1
- (51) Y: *eya # /*
 yes
 ‘Yes.’ 511a366.1
- (52) B: *ror-i-e bóre bijai # /*
 be-INCMP-HAB be tree(sp.)
 ‘This one is from the *bijai* tree.’ 511a367.1
- (53) Y: *ya # /*
 yes
 ‘Yes.’ 511a368.1
- (54) B: *bijai ai # /*
 tree(sp.) piece
 ‘A piece from a *bijai* tree.’ 511a369.1
- (55) Y: *bijai ai # /*
 tree(sp.) piece
 ‘A piece from a *bijai* tree.’ 511a370.1
- (56) B: *bijai ai bóre-ro # /*
 tree(sp.) piece be-NPST
 ‘This is a piece from a *bijai* tree.’ 511a371.1

Appendix E: Hortatory/expository text

This excerpt (804; see Table 80) contains both explanation and instructions by a speaker named Yuli. The setting is the GIDI church building on a Sunday evening after the evening church service. As soon as the service ended, Yuli began to talk. The layout of this speech event is shown in Figure 41, where Yuli is sitting in the center in a gray shirt facing the camera, one arm outstretched. Not shown in the image is the group of women and children sitting along the opposite wall.

Figure 41. Still from hortatory/expository text (804)



Yuli lives in the provincial capital of Jayapura, where he engages in various projects to help the Fuau community. One of his long-term projects involves setting up a process whereby crocodile hides can be legally harvested and marketed directly from Fuau to

outside vendors, providing a source of income for the village. In the months prior to this visit to Fuau, he had been working with the Department of Forestry to obtain legal permissions for processing hides; he had also been in contact with a company that promised to train Fuau people in the process of curing crocodile hides.

Yuli takes the opportunity after the Sunday evening church service to explain to the group of people what he had been working on, and to instruct them in what they would need to do. In this excerpt, near the beginning of his monologue, he passes on instructions from the Department of Forestry stating that pens must not be built for crocodiles; they must instead be taken wild from lakes. He also says that the Department of Forestry has promised to set up a trading post in Fuau for crocodile hides; further, young people from Fuau will be taken to a factory where crocodile hides are processed and will be taught how to process the hides. After the excerpt shown here, Yuli continues discussing this topic for around 100 lines. The rest of his ten-minute speech ranges over a variety of topics, including sending young people to school, clan relations, and the new Bible translation program. Yuli's speech is followed by a five-minute speech from another individual before the group disperses.

The total length of Yuli's speech is 10 minutes and 40 seconds; this excerpt is 1 minute and 40 seconds long. The recording was made on December 2, 2018.

- (1) *(bwàbwei gwrè) / gwrè duru bwàbwei kehutanan gi báje*
 then lake lake PROX.EMPH then forestry FOC 1.SG.ALL
bed-u bóre #
 say-CMP be
 ‘And concerning the lake, the Department of Forestry said to me.’ 80424.1
- (2) *bed-u-e*
 say-CMP-PST
 ‘They said.’ 80425.1
- (3) *masyarakat ti kra bwrìor-u-o # /*
 people PROH pen make-CMP-EMPH
 ‘The people must not make a pen.’ 80426.1
- (4) *gwore trèbar-u wore # /*
 crocodile die-CMP may.not
 ‘The crocodiles should not die.’ 80427.1
- (5) *worero gwrè dre bo be=ta worero s-i # /*
 like.that lake have TOP LOC=ABL like.that take-INCMP
 ‘They should take from what the lake has.’ 80428.1
- (6) *aa ,*
 EXCL
 ‘Ah.’ 80429.1
- (7) *si bwàbwei gwrè du=jè f-u-ō #*
 here then lake PROX=LOC be-CMP-EMPH\IRR2
 ‘And if they are in the lake,’ 80430.1
- (8) *bo kra kàrjer-i # /*
 COORD pen leave-INCMP
 ‘Then leave them in a pen.’ 80431.1
- (9) *gwore bo toi # /*
 crocodile TOP put
 ‘Put the crocodiles [there].’ 80432.1

- (10) *kra kàrjer-i eke mudiai=jè ror-e f-u bo # /*
 pen leave-INCMP first M.=LOC be-NFIN be-CMP TOP
 ‘Leave them in a pen [like] it was done at first in Mudiai.’ 80433.1
- (11) *kra kàrjer-i , /*
 pen leave-INCMP
 ‘Leave them in a pen.’ 80434.1
- (12) *ro gwore bo toi # /*
 then crocodile TOP put
 ‘Then put the crocodiles in.’ 80435.1
- (13) *gwore bo toi # /*
 crocodile TOP put
 ‘Put the crocodiles in.’ 80436.1
- (14) *kehutanan / báje bed-u bóre #*
 forestry 1.SG.ALL say-CMP be
 ‘The Department of Forestry said to me.’ 80437.1
- (15) *worio kweyo bwàbwei kehutanan bo báje bedre-yi-ro ,*
 3.REFL heart then forestry TOP 1.SG.ALL say-PRF-NPST
 ‘And the Department of Forestry has told me their desire.’ 80438.1
- (16) *du=jè bwàbwei fos yu-tà-i-rō # /*
 PROX=LOC then post up-rise-INCMP-NPST\IRR2
 ‘And they will set up a post here.’ 80439.1
- (17) *aa bo / fe dèria bo bóre #*
 EXCL COORD also good TOP be
 ‘And that is good.’ 80440.1
- (18) *ōi ō (fā a fe) / aa / báje bedre-yi-ro #*
 be.NEG COND randomly 1.SG also EXCL 1.SG.ALL say-PRF-NPST
 ‘If there aren’t any, they have said to me.’ 80441.1

- (19) *fero bwàbwei bwe-i-ro* ,
 then then become-INCMP-NPST
 ‘It will happen.’ 80442.1
- (20) *d̄yi yu-tà-i-ro* # /
 person up-rise-INCMP-NPST
 ‘One person will be appointed.’ 80443.1
- (21) *bo dabyigwa ro bedre-yi-ro* # /
 COORD speech then say-PRF-NPST
 ‘And these things have been said.’ 80444.1
- (22) *ta begi bedre-yi bóre* #
 two DEM.FOC say-PRF be
 ‘They have said these two things.’ 80445.1
- (23) *fofweyi bo báje bedre-yi-ro*
 then TOP 1.SG.ALL say-PRF-NPST
 ‘They have said to me.’ 80446.1
- (24) *du=jè yu-tà-i-ro* # /
 PROX = LOC up-rise-INCMP-NPST
 ‘It will be set up here.’ 80447.1
- (25) *a be ate-i-ro*
 1.SG IMMED hear-INCMP-NPST
 ‘I will see.’ 80448.1
- (26) *bwe-i-rò* , /
 become-INCMP-NPST\YN
 ‘Will it happen?’ 80449.1
- (27) *bwe-i-ro* , /
 become-INCMP-NPST
 ‘It will happen.’ 80450.1

- (28) *jadi / a du bwàbwei bei bo kehutanan fe / e fwoje drabia*
 so 1.SG PROX then now TOP forestry also 1.PL all work
kíài bwo-u bóre # /
 one become-CMP be
 ‘So now I and the Department of Forestry, we all have developed a partnership.’
 80451.1
- (29) *dèria bwo-u bóre # /*
 good become-CMP be
 ‘It became good.’
 80452.1
- (30) *aa / bo bwàbwei / gwore èyi=ta bóre # /*
 EXCL COORD then crocodile LOC=ABL be
 ‘And that’s about the crocodiles.’
 80453.1
- (31) *aa*
 EXCL
 ‘Ah.’
 80454.1
- (32) *bei ro fì-rō , /*
 now then go-NPST\IRR2
 ‘Now I will go.’
 80455.1
- (33) *worio kweyo bwàbwei gwore harga du #*
 3.REFL heart then crocodile price PROX
 ‘The hope concerning the price of crocodiles.’
 80456.1
- (34) *bo ro bia-ro , /*
 COORD then do.INCMP-NPST
 ‘And then it will be like this.’
 80457.1
- (35) *a fero fweyi de áje bed-i-ro aa ,*
 1.SG then again 2.PL ALL say-INCMP-NPST EXCL
 ‘Then I will say to you again, ah.’
 80457.1
- (36) *gwore harga bo / bwàbwei dèria=gwre bwe-yi bóre # /*
 crocodile price TOP then good=AUG become-PRF be
 ‘The price of crocodiles has become very good.’
 80458.1

- (37) *a fofweyi bwàbwei / de áje dabyi-ro*
 1.SG then then 2.PL ALL talk-NPST
 ‘And then I will tell you.’ 80459.1
- (38) *ro ber-i bóre # /*
 then do-INCMP be
 ‘That’s how it is.’ 80460.1
- (39) *fero fî-rō , /*
 then go-NPST\IRR2
 ‘And I will go.’ 80461.1
- (40) *aa # /*
 EXCL
 ‘Ah.’ 80462.1
- (41) *wore two fî-rō ,*
 then immediately go-NPST\IRR2
 ‘I will go soon.’ 80463.1
- (42) *fweyi bwàbwei / tou twōre ò # /*
 again then year new Q
 ‘And will it be the new year?’ 80464.1
- (43) *ba a du bwàbwei deke kirim bwe-i-ro # /*
 COORD 1.SG PROX then younger.sibling send become-INCMP-NPST
 ‘And I will send young people.’ 80465.1
- (44) *deke kirim bwe-i-ro*
 younger.sibling send become-INCMP-NPST
 ‘I will send young people.’ 80466.1
- (45) *óbìari bwe-i-ro*
 how.many become-INCMP-NPST
 ‘How many will it be?’ 80467.1

- (46) *fabrik # /*
 factory
 ‘Factory.’ 80468.1
- (47) *begi (bwàbwei) bwàbwei be = ta / o ro bwàbwei dràkrúja o*
 DEM.FOC then then LOC = PERL REL then then goods FOC

bwrìor-i-e bo
 make-INCMP-HAB TOP
 ‘That [process] through which goods are made.’ 80469.1
- (48) *begi bwàbwei dabre-i-rē-di # /*
 DEM.FOC then teach-INCMP-IRR1-PURP
 ‘And that is what should be taught.’ 80470.1
- (49) *gwore kakrefi o dràkrúja di bwrìor-e tòi-je bo # /*
 crocodile skin FOC goods transform make-NFIN DISTR-NFIN TOP

begi bwàbwei o dabre-i-rē-di # /
 DEM.FOC then ALL teach-INCMP-IRR1-PURP
 ‘Crocodile hides being made into goods: that’s what should be taught to them.’
 80471.1

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