THE UNIVERSITY *of* EDINBURGH

A GRAMMAR OF AMBEL

An Austronesian language of Raja Ampat, west New Guinea

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I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgment, the work presented is entirely my own.

Signed .....

Date .....

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List of Glosses

The following glosses are used in this description. Many of these glosses are from, or have been adapted from, the Leipzig Glossing Rules.

Gloss	Meaning	See further
1	first person	
2	second person	
3	third person	
ABL	ablative	§11.2.1
ALL	allative	§11.1.1
ALT.INT	alternative interrogative	§9.2.2.3
AN	animate	§5.2
AND	andative	§12.2.1
ART	article	§6.2.9
ATT.INT	attention-monitoring interrogative	§9.2.1.3
BACK	directional prefix: at the back	§12.2.1
BEN	benefactive	§11.1.2
CAUS	causative	§4.2.1
CIR	circumstantial mode	§10.1
CLIM	ideophone marking narrative climax	§15.4.1
CNST.INT	constituent interrogative	§9.2.3.1
COM	comitative	§11.6
DEF	definite	§6.2.9.2.2
DEM.CNT	contrastive demonstrative	§12.2.2.1
DEM.NCNT	non-contrastive demonstrative	§12.2.2.2
DEON	deontic mode	§10.1

Gloss	Meaning	See further
DIST	distal	§12.2.1
DOWN	directional prefix: downwards	§12.2.1
DU	dual	§6.1
E	exclusive	§3.2.3
EMO	marker of emotional involvement	§3.10
EMPH	marker of emphasis	§15.2.1
EPI	epistemic mode	§10.1
EXCESS	ideophone marking excessivity	§15.4.2
FOC.NSPEC	focus marker: non-specific NP	§8.3.2
FOC.SPEC	focus marker: specific NP	§8.3.2
FRONT	directional prefix: at the front	§12.2.1
HES	hesitation	§15.5.1
I	inclusive	§3.2.3
IAM	iamitive perfect	§10.2.1
IAM.EMPH	emphatic iamitive perfect	§10.2.1
IMM.FUT	immediate future	§10.2.3
IN	directional prefix: inside	§12.2.1
INAN	inanimate	§5.2
INCEP	inceptive	§10.2.4
INSTR	instrumental	§§11.1.3, 11.4.1
LAND	directional prefix: landwards	§12.2.1
LOC	locative	§§11.1.4, 11.2.2
MID	mid-distance	§12.2.1
NEG	negative	§10.3.1
NMC.DEF	noun-modifying construction: definite NP	§14.1
NMC.INDEF	noun-modifying construction: indefinite NP	§14.1
NMC.NSPEC	noun-modifying construction: non-specific NP	§14.1
NMC.SPEC	noun-modifying construction: specific NP	§14.1
NMLZ	nominaliser	§5.1.2
NSG	non-singular	§6.1
O	object	§8.2.1.1

Gloss	Meaning	See further
OBL	oblique	§8.2.1.1
ORI	orientative	§11.7
OUT	directional prefix: outside	§12.2.1
PAR	paragogic /a/	§2.4.6
PART	partitive	§3.8
PC	paucal	§6.1
PERL	perlative	§11.3.1
PERS	personal name	§6.2.6
PL	plural	§6.1
PLH	placeholder	§15.5.1
POS.INT	positively-biased interrogative	§9.2.1.2
POSS.I	possessive classifier: Indirect I constructions	§7.1.1
POSS.II	possessive classifier: Indirect II constructions	§7.1.2
PRED	predicate	§8.2.2
PROHIB	prohibitive	§10.3.2
PROX	proximal	§12.2.1
PURP	purposive	§14.3.2.3.1
S	subject	§8.2.1.1
SEA	directional prefix: seawards	§12.2.1
SG	singular	§6.1
SIDE	directional prefix: to the side	§12.2.1
TEMP	temporal	§11.3.2
TERM	terminative	§11.5
TEXT	textual	§11.3.3
UP	directional prefix: upwards	§12.2.1
VEN	venitive	§11.8
VOC	vocative	§15.2.2

Abstract

This thesis is a descriptive grammar of Ambel [WGO], an endangered Austronesian (South Halmahera-West New Guinea) language. Ambel is spoken by approximately 1600 people on Waigeo, the largest island in the Raja Ampat archipelago (West Papua province, Indonesia). This grammar is based on naturalistic and elicited data, collected by the author from native speakers of Ambel.

Ambel is a head-marking language, with basic SV/AVO constituent order. There are 14 native consonant phonemes and five vowel phonemes. Ambel has a tone system, in which /H/ syllables contrast with toneless syllables. Neither stress nor vowel length are contrastive. In verbal clauses, the subject of the clause is marked on the verb. This system makes a four-way number distinction (singular, dual, paucal, and plural), an animacy distinction in the third person, and a clusivity distinction in the non-singular first person.

The Ambel noun phrase is mainly head-initial. There are five distinct morphosyntactic possessive constructions, the choice of which is primarily determined by a lexical specification on the possessed noun. Some nouns (including most body parts and some kin terms) are possessed in one of three constructions in which the person, number, and animacy of the possessor is marked directly on the possessed noun, while most other nouns are possessed in one of two constructions in which the possessor is marked on a prenominal possessive classifier.

Within the clause, all negation particles and most aspect and mode particles are clause-final. There is no passive construction. Ambel has a rich system of spatial deixis, in which six different classes of deictic words (such as demonstratives, deictic prepositions, and deictic nouns) are derived from one of four demonstrative roots or 28 directional stems. Verb serialisation is used to express, among other things, purposive motion and changes of state.

This thesis is the first major description and documentation of the Ambel language. As such, it will be of considerable interest to typologists and historical linguists, as well as others interested in the languages, cultures, and history of New Guinea. All of the data on which this grammar is based have been archived with both the Endangered Languages Archive, and the Center for Endangered Languages Documentation at Universitas Papua in Manokwari. The data will thus be available to future generations, including the Ambel community themselves.

Chapter 1

Introduction

Ambel [ISO 639-3: wgo] is an Austronesian language spoken on the island of Waigeo in the Raja Ampat archipelago, in West Papua province, Indonesia. Within Austronesian, Ambel belongs to the South Halmahera-West New Guinea subbranch, which is a daughter of Eastern Malayo-Polynesian, and a sister to Oceanic (see e.g. Blust 1978).

Other names for Ambel in the literature include Amber, Amberi, Syam, Waigiu, and Waigeo. Speakers of Ambel refer to the language as *galí Ambél* 'Ambel language', *galí Mayá* 'Maˈya language',[1] or simply *galí* 'language';[2] or they use the Indonesian names *bahasa Ambel* 'Ambel language', or *bahasa Raja Ampat* 'the language of Raja Ampat'. The name probably was originally an exonym bestowed on the Ambel by speakers of Biak, in which *amber* means 'foreigner' or 'stranger' (van der Leeden 1993: 9; Remijsen 2001a: 25; Rutherford 1998: 256).

This introduction is structured in the following way. In §1.1, the area in which the language is spoken is described, and the people who live there are introduced. In §1.2, there is a sociolinguistic overview of Ambel, in which information about the vitality of the language and speaker numbers can be found. In §1.3, I summarise previous linguistic work on Ambel, the other languages spoken in

1. As will be described in §1.1.1, Maˈya is a language spoken throughout Raja Ampat, including Waigeo. Ambel and Maˈya are related, but distinct languages. For example, Kamholz (2014) puts the most recent common ancestor of Ambel and Maˈya as proto-Raja Ampat-South Halmahera (see further §1.3.4). Culturally, however, the Ambel are in close contact with speakers of Maˈya, and they consider themselves to be part of the Maˈya tribe.
2. See §2.8.1 for a description the orthography used to transcribe Ambel. Generally, the characters in the Ambel orthography match the IPA, with the following exceptions: <c> = /tʃ/, <j> =/dʒ/, <ny> =/ɲ/, <ng> =/ŋ/, <y> =/j/. High tone is marked with an acute accent: <á>.

Raja Ampat, and throughout the area more widely, as well as some relevant anthropological studies looking at the Ambel and other local groups. In §1.4, I turn to the present project, outlining the theoretical framework, methodologies, and research methods that were used in the creation and analysis of the corpora that are at the heart of this description. Finally, in §1.5, there is a typological overview of the main linguistic features of Ambel, which also serves as an overview of the rest of this description.

1.1 The setting and the speakers

In this section, I provide information about the area in which Ambel is spoken, and the people who live there. In §1.1.1, I describe the geography, climate, and inhabitants of Waigeo. Following this, in §1.1.2, I provide a brief survey of some relevant historical information about Raja Ampat, the Ambel, and neighbouring groups.

1.1.1 The local setting

Waigeo is an island in the Raja Ampat (RA) archipelago, a series of four large and hundreds of smaller islands located at the west tip of the island of New Guinea.[3] The four large islands, from north to south, are Waigeo, Batanta, Salawati, and Misool; smaller islands include Kofiau and Gag. The islands are within the territory of the Republic of Indonesia. Adminstratively, the archipelago forms the Raja Ampat regency, which is part of West Papua province. The total land and sea area of the Raja Ampat regency is 67,379.6km^2.[4] A map of the archipelago is given in Figure 1.1.

The 2016 population of the Raja Ampat regency was 46,613.[5] Until recently, Raja Ampat was remote, sparsely populated, and difficult to access. However, the last

3. Some notes on terminology. Throughout this description, I use 'New Guinea' to refer to the island of New Guinea, which is divided in two by an international border: the eastern half of the island forms the country of Papua New Guinea, and the western half is part of Indonesia. The Indonesian side of the island will be referred to as 'Indonesian Papua'. Indonesian Papua is divided into two administrative units: West Papua province, which encompasses the Bird's Head peninsula in the far west of New Guinea, as well as much of the 'Bird's Neck'; and Papua province, which runs from the border of West Papua province eastwards as far as the border with Papua New Guinea.
4. https://rajaampatkab.bps.go.id/linkTableDinamis/view/id/20, last accessed 2017-07-27.
5. https://rajaampatkab.bps.go.id/linkTableDinamis/view/id/44, last accessed 2017-07-27.

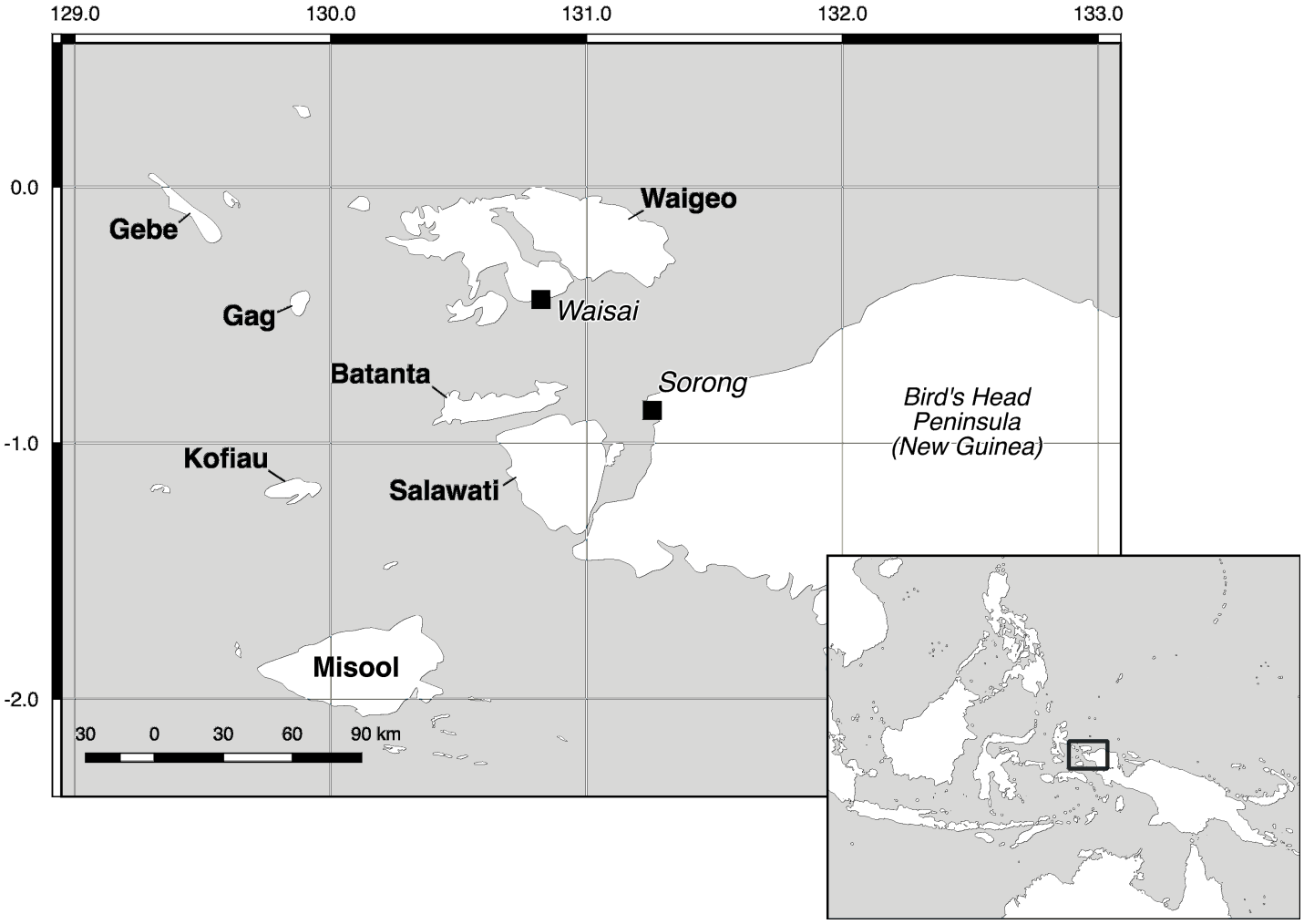


Figure 1.1: Map of the Raja Ampat archipelago

several years have seen a marked increase in population, facilities, and quality of the infrastructure on the islands. There are three main reasons for these changes. First, interest in the Raja Ampat archipelago has recently exploded, from tourists, conservation agencies, and the Indonesian government alike. This is due, at least in part, to the extremely high level of marine biodiversity in the surrounding seas (see e.g. Doubilet 2007). Second, under the Indonesian government's *transmigrasi* policy, people have been encouraged to move from the overcrowded western islands of the Indonesian archipelago (such as Java and Madura), to the more sparsely populated areas (such as West Papua; see e.g. Potter 2012). Finally, there

have been improvements in telecommunications and transportation links across Indonesia more widely, facilitating population movement and communication.

As shown in Figure 1.1, Waigeo is the northernmost of the large islands in RA. The total land area of Waigeo is 3,155km^2. The island is composed of Tertiary oceanic basaltic rocks, Tertiary Waigeo and Dajang limestones, and ultrabasic rocks, many of which hold large deposits of nickel (Webb 2005: 12). The island is nearly divided in two by Mayalibit Bay, a sea inlet.[6] The eastern half of the island is mountainous, with sharp, inaccesible limestone karsts rising abruptly out of the sea. Mount Nok, a distinctively-shaped 958 metre-high extinct volcano visible from many points on the island, is located on this eastern half. The western half of the island, while more accessible, is still quite rugged. However, there are fewer sharp cliffs and valleys on the western half of the island, and many of the limestone karsts widen into broad valleys. Most of the island is covered with lowland forest. In areas of higher elevation, hill and submontane forest occurs. At many points around the coast of Mayalibit Bay, the terrain is swampy mangrove forest.

The climate of Waigeo is tropical: the days are hot and humid, with frequent thunderstorms. In 2016, the average minimum daytime temperature was 24.38°C, and the average maximum 30.61°C;[7] the average humidity was 84%.[8] Between 2011 and 2016, the average annual rainfall was 2917mm; on average, 220 days a year see rainfall, with June and July being the wettest months of the year.[9] From mid-June until mid-September, there are frequently very strong southerly winds.

In 2016, the population of Waigeo was 20,071.[10] A map showing the different settlements on Waigeo is given in Figure 1.2. The capital of the Raja Ampat regency, Waisai, is located on the south coast of Waigeo.[11] Waisai is connected to Sorong, a city on the Bird's Head peninsula on the mainland of New Guinea, by a twice-daily ferry. Since 2014, a flight path operated by Susi Air has connected Waisai with

6. The following description of the landscape of Waigeo is based on my own observations, supplemented by information in Hartzler (1978) and Webb (2005).
7. https://rajaampatkab.bps.go.id/linkTableDinamis/view/id/23, last accessed 2017-07-27.
8. https://rajaampatkab.bps.go.id/linkTableDinamis/view/id/24, last accessed 2017-07-27.
9. https://rajaampatkab.bps.go.id/linkTableDinamis/view/id/25, last accessed 2017-07-27.
10. https://rajaampatkab.bps.go.id/linkTableDinamis/view/id/44, last accessed 2017-07-27. This figure is the total of the populations of the following districts: Kota Waisai, Meos Mansar, Supnin, Teluk Mayalibit, Tiplol Mayalibit, Waigeo Barat, Waigeo Selatan, Waigeo Timur, Waigeo Utara, and Warwabomi.
11. Waisai itself was only founded in 2003; previously, the administrative centre of and 'gateway' to Raja Ampat was Saonek, located on a small island just off the south coast of Waigeo (van der Leeden 1993: 1).

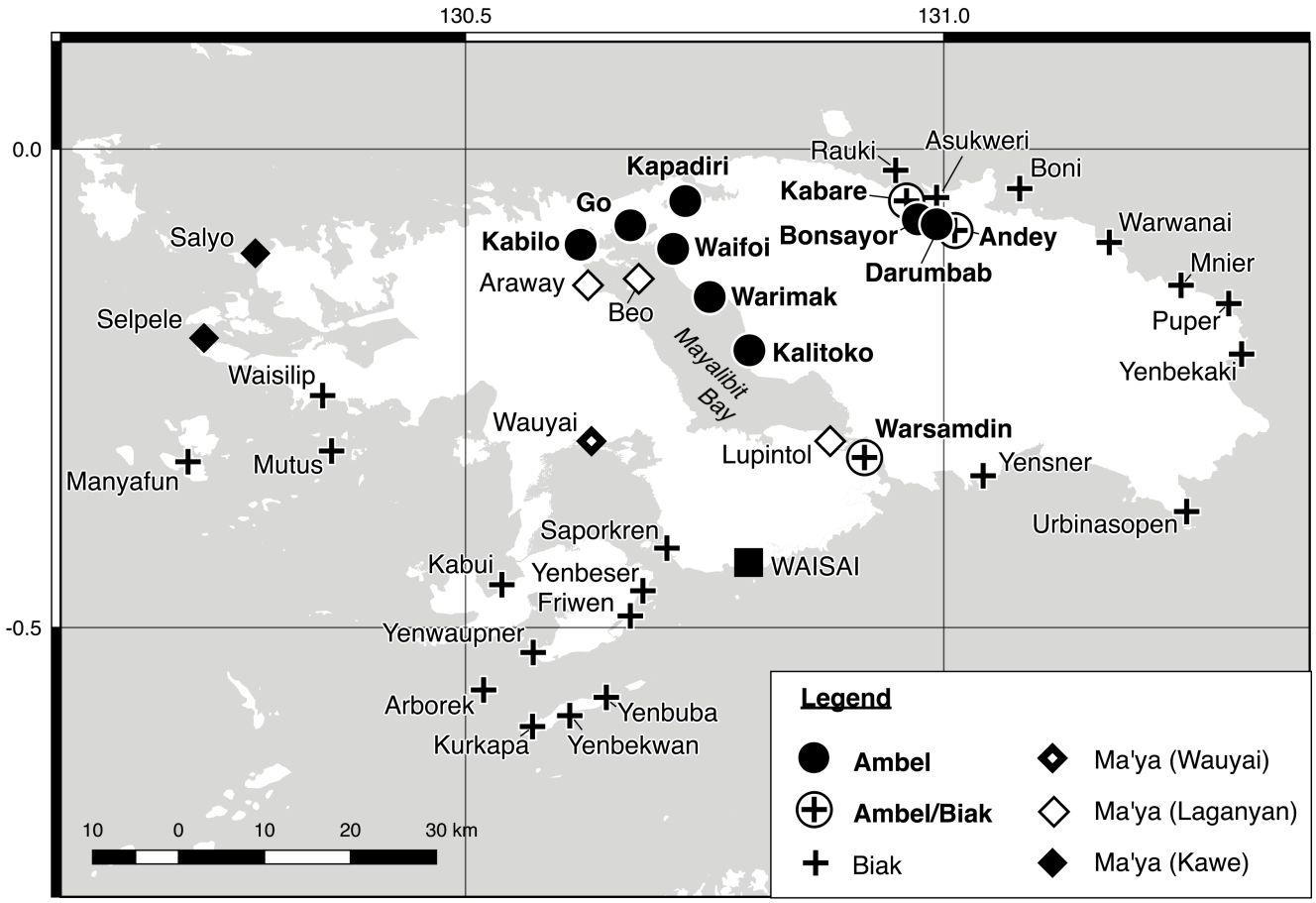


Figure 1.2: Map of Waigeo (Ambel villages in bold)

Sorong, and Kabare on the north coast of Waigeo. Since 2017, a flight path operated by Wings Air has connected Waisai to Sorong, the provincial capital Manokwari, and Makassar.

Of the 20,071 people living on Waigeo, 8,242 are based in Waisai and its suburbs.[12] The rest of the population is scattered in small coastal settlements on the island. There is a road connecting Waisai to the village of Warsamdin at the mouth of Mayalibit Bay, and to the settlements around the coast of Kabui Bay, such as Wauyai. Aside from this, travel around the island is by boat, or by foot.

12. https://rajaampatkab.bps.go.id/linkTableDinamis/view/id/44, last accessed 2017-07-27.

As shown in Figure 1.2, Ambel is spoken in eleven villages. Six of these villages are located around Mayalibit Bay: (from south to north) Warsamdin, Kalitoko, Warimak, Waifoi, Kabilo, and Go. The five remaining villages are on the north coast of the island: (from west to east) Kapadiri, Kabare, Bonsayor, Darumbab, and Andey. There are two dialects of Ambel: Metsam, spoken in Warsamdin and Kalitoko; and Metnyo, spoken in the other nine villages. The dialect represented in this description is Metnyo, as spoken in the village of Kapadiri on the north coast.

In three villages – Warsamdin, Kabare, and Andey – Ambel speakers live alongside speakers of Biak, a somewhat distantly-related South Halmahera-West New Guinea language. As shown in Figure 1.2, Biak is spoken in many other villages on Waigeo. In several villages on Waigeo, dialects of Ma'ya, a more closely related language, are spoken: the Kawe dialect in Selpele and Salyo in the north-west of the island; the Laganyan dialect in Araway, Beo, and Luptintol on the coast of Mayalibit Bay; and the eponymous Wauyai dialect in Wauyai village on Kabui Bay. An outline of the genetic relationship between Ma'ya, Biak, and Ambel can be found in in §1.3.4. Historical interactions between speakers of these three languages will be discussed in the following section.

The Ambel social system is arranged according to exogamous clans: when one marries, one must marry outside of one's own clan. Typically, a household consists of a married couple and their children. The Ambel sustain themselves with fish and other sea produce, such as bivalves, manta rays, and so forth, as well as horticultural produce, such as taro, sweet potatoes, bananas, pineapples, and coconuts. Wild pigs are hunted for their meat. The staple food today is rice; traditionally, it was sago, and most families still engage in sago production, either for consumption or to sell. All of the Ambel I have met are Christian, of the Gereja Kristen Injil (Evangelical Christian Church) denomination. The Ambel were Christianised comparatively recently: for example, the people of Fofak Bay (where present-day Kapadiri is located) converted to Christianity in 1951. Before this, traditional religion was practised. Some pre-Christian beliefs still remain. For example, significant areas of land are associated with one or more *mútum* spirits, who must be appeased before one passes through their territory, or if one wants to begin large operations in the area (for example opening a new garden, or if a company wants to start mining). In addition, most Ambel are afraid of the malevolent *kábyo* spirits, who are said to take human form, and eat human flesh (often translated into the local variety of Malay as *swanggi* or *setan*).

For a full description of these, as well as other aspects of Ambel culture, the reader is encouraged to consult Appendix A.

1.1.2 The historical setting

The Raja Ampat archipelago lies at the crossroads between the Indonesian archipelago to the west, and Melanesia to the east. As such, it has long been a place of human settlement and contact. This section is an overview of what is known of the history of the archipelago.[13]

Humans first migrated into Sahul – the ice age landmass comprised of present-day New Guinea and Australia – at least 65,000 years BP (Clarkson et al. 2017). The most likely migratory route into Sahul was from Borneo to the Bird's Head, via Halmahera and what is now the Raja Ampat archipelago (i.e., the northern route proposed by Birdsell 1977; O'Connell and Allen 2012). It is quite possible that there has been human habitation in Raja Ampat since the time of these migrations. The earliest archaeological evidence of human settlement in the region of RA comes from Gebe, an island midway between RA and Halmahera (around 32,000 years BP; Bellwood 2007: 187).

The expansion of Austronesian-speaking peoples from the proposed homeland of Taiwan began around 4,500–5,000 years BP (Blust 2013: 750). These populations expanded southwards via the Philippines, thence splitting into two or three groups and spreading westwards via Borneo, into mainland Southeast Asia and eventually Madagascar; southwards into Sulawesi; and eastwards towards New Guinea and the Pacific. Austronesian speakers are thought to have arrived in the area of RA approximately 3,500 years BP (Bellwood 2007: 123).

Nothing is known about the history of RA until the arrival of Europeans in the early 16th century. At that time, the archipelago was under the influence of the powerful Tidore sultanate to the east, which, along with the Ternate sultanate, controlled the spice trade throughout the north Moluccas (see e.g. Hanna and Alwi 1990, Huizinga 1998).[14] The power of Tidore was consolidated by the arrival

13. A more detailed history of RA can be found in Appendix C in Remijsen (2001a).

14. According to oral history, the Ambel were once nomadic hunter-gatherers: they did not live in fixed settlements, but moved around in search of food sources. It was influence from the Tidore sultanate that brought groups of Ambel together to live in static settlements; see recording **AM264**. (See Appendix B for the key to the recording codes – five-character strings in bold, beginning **AM** and followed by three numbers – used in this description.)

of the Dutch, who extended their influence in the area by piggy-backing on the Tidore sultanate. The Tidore sultan appointed vassals throughout RA, who were responsible for the extraction and delivery of tribute, typically goods and slaves.[15] Most of these vassals were Ma'ya, rather than Ambel (Remijsen 2001a: 172).[16] A testament of the strength of the relationship between the Ma'ya and the Tidorans is that the Ma'ya, like the Tidorans, are Muslim; this is in contrast to the other groups living in RA, who are Christian (see further Remijsen 2001a: 164-171). If tribute was not forthcoming, Tidore would dispatch a *hongi* war fleet, which would raid and pillage the offending settlements (Huizinga 1998). Around the same time that Tidore was active in the area, strong trade links also existed between RA and Seram to the south, and the Onin peninsula in south-west New Guinea (Goodman 2006).

At some point, Biak migrants arrived from Cenderawasih Bay and settled on the coasts of Waigeo. The precise date of these migrations is unknown. Remijsen (2001a: 180) notes that these migrations must have happened before 1887 – in that year, Frederik de Clercq, a resident commissioner of Ternate (Ploeg 2002: 79), recorded that the Biak settlements on Waigeo were part of Tidore's claim on New Guinea. We can infer from this that these Biak settlements were already long-established by this point.[17]

The influence of the Tidore sultanate began to wane in the 19th century. This was in part due to the Dutch prohibition of *hongi* raids in 1861, and of slavery

15. The most senior of these vassals, the *raja*, is the source of the name 'Raja Ampat' – 'four kings'. According to local mythology, three of the four *raja* dynasties originate from Wauyai village on Waigeo. In this myth, a woman found seven eggs, and took them home. From six of the eggs hatched four men, one woman, and a ghost. One of the men departed for Seram island, to the south of RA; the other three became the *raja* of Waigeo, Salawati, and East Misool. The woman fell pregnant, and departed for Biak in shame. Her son became the prominent mythological figure Gurabesi, who fought on the side of the Tidore sultan against the Ternate sultan. The fate of the ghost is unknown. The seventh, unhatched egg turned to stone, and remains in Wauyai to this day, where it is set on a plinth and treated with the highest respect. The fourth *raja* vassal, the *raja* of West Misool, had no mythological origin, and was appointed by the sultan of Tidore (van der Leeden 1993: 4-5). For a full account of (versions of) the Raja Ampat myth, see van der Leeden (1989) and recording **AM204**.

16. However, according to an account of a Dutch expedition to RA in 1705, the *raja* of Waigeo at that time lived in Kabilo, which is today an Ambel-speaking village (Andaya 1993: 102).

17. According to Andaya (1993: 104), one tradition holds that the Biak migrations to Raja Ampat and Halmahera happened around the same time as the war between Tidore and Ternate, in which the Biak hero Gurabesi fought on the side of Tidore (see footnote 15). According to some Tidore court documents, this war took place during the reign of Sultan Mansur in the late fifteenth century; according to another source, it was during the reign of his successor, Sultan Jamaluddin, who reigned from perhaps 1495 until 1572.

in 1879 (Huizinga 1998). At the end of 19th century and into the early 20th, Dutch influence in the area grew. The Dutch implemented healthcare, education, taxation, and judicial systems; they also moved inland villages to the coast, to facilitate the administration of these systems (Remijsen 2001a: 176-177). European Christian missions began visiting Raja Ampat from 1914 (Kamma 1977, cited in Remijsen 2001a: 177).

During World War II, the Japanese occupied the north coast of west New Guinea and northern Raja Ampat, including Waigeo. After the war ended, there was a four-year struggle between Indonesian republicans, who sought independence from colonial rule, and the Dutch. In 1949, the Dutch formally recognised Indonesian sovereignty over most of the former Dutch East Indies. However, the Dutch retained control of Dutch New Guinea (including Raja Ampat) until 1962, when it was handed to the UN. In 1969, the region was integrated into the Republic of Indonesia, and was renamed Irian Jaya. In 2000, the region was divided into two provinces – Papua and West Papua – and granted Regional Autonomy status (Vickers 2007: 231).

1.2 Sociolinguistic overview

In these sections, I consider some aspects relating to the sociolinguistic status of Ambel. I stated above that Ambel is an endangered language. In §1.2.1, I discuss the reasons for considering it endangered language. Following this, in §1.2.2, I calculate the approximate number of speakers of Ambel.

1.2.1 Vitality

A process of language shift is currently underway in all Ambel communities, from Ambel to Papuan Malay (PM), the local variety of Malay.[18] While all those born earlier than about 1990 are fluent in both Ambel and PM, and favour Ambel for daily conversation with their peers and elders, PM is now the dominant means of communication for those born after 1990. Those born between 1990 and 2000, like those born before 1990, are bilingual in Ambel and PM. Ambel is used to speak

18. Some speakers also speak the national language, Standard Indonesian. Most speakers do not consider PM and Standard Indonesian to be separate languages, but different points on a lectal cline, with PM more basilectal and Standard Indonesian more acrolectal.

with their elders; for communication with their peers, however, PM is preferred. All those born after about 2000 are monolingual in PM. While there are a handful of children born after 2000 who evidentally have a passive understanding of Ambel – for example, if they are ordered to do something in Ambel, they are capable of understanding and following the order – this is the exception, rather than the rule. There are no children born after about 2000 who have an active command of Ambel. Even when those who have a passive understanding of the language are spoken to in Ambel, they will respond in PM. PM is always used to speak with both their elders and peers.[19]

Unless the intergenerational transmission of Ambel can be restored, it is likely that Ambel will become extinct within a few generations. This status is reflected in the Language Status EGIDS level of 7 'shifting' which has been assigned to Ambel by Ethnologue (Simons and Fennig 2017). This EGIDS level is described as: "The child-bearing generation can use the language among themselves, but it is not being transmitted to children" (Simons and Fennig 2017).

1.2.2 Speaker numbers

As stated above, speakers of Ambel live in eleven settlements on the coast of Mayalibit Bay and the north coast of Waigeo: Warsamdin, Kalitoko, Warimak, Waifoi, Kabilo, Go, Kapadiri, Kabare, Bonsayor, Darumbab, and Andey. The population figures for these villages, taken from the 2013 census, are given in Table 1.1.

19. This outline reflects the situation in Kapadiri, Go, and Warimak. In Warimak, I heard a girl aged about 13 speaking to adults in Ambel, and in Kabilo I heard a boy aged around 10 speaking to adults in Ambel; Ambel might be less endangered in these villages (although I have never, in any village, heard children under the age of 15 communicating with each other in Ambel). The situation in the Ambel villages in the Waigeo Utara district, i.e. Kabare, Andey, Darumbab, and Bonsayor, is different again. These villages have better public transportation and communication links to the urban centres on the south of the island and the Bird's Head mainland. Additionally, the inhabitants have been in close contact with Biak speakers who live in these and neighbouring villages. During my brief time in these villages, I met many people born in the 1980s who professed to have no active command of Ambel, and I witnessed several interactions which demonstrated that at least some born in the 1990s do not have even a passive knowledge of Ambel.

This outline also only reflects the situation of the Metnyo dialect of Ambel. The Metsam dialect is much more endangered: it is only spoken by those born before approximately 1960. Those born between 1960 and 2000 who live in originally Metsam-speaking villages, i.e. Kalitoko and Warsamdin, use the Metnyo dialect of Ambel. See §2.6.2 for more information on dialect variation.

Table 1.1: Population figures of Ambel villages (2013)
Source: Badan Pusat Statistik, Cabang Waisai

Village	District	Population
Bonsayor	Waigeo Utara	370
Kabare	Waigeo Utara	330
Darumbab	Waigeo Utara	227
Andey	Waigeo Utara	131
Kapadiri	Supnin	252
Kabilo	Tiplol Mayalibit	193
Go	Tiplol Mayalibit	157
Waifoi	Tiplol Mayalibit	165
Warimak	Tiplol Mayalibit	137
Warsamdin	Teluk Mayalibit	372
Kalitoko	Teluk Mayalibit	258
	TOTAL:	2592

The 2013 census did not include data on the distribution of language use in Raja Ampat. Nevertheless, it is possible, based on these population figures, to estimate the numbers of speakers of Ambel.

The total population of the Ambel villages is given in Table 1.1 as 2,592. There are two reasons why this figure is not an accurate estimate of the number of Ambel speakers. First, not all those who live in these villages speak Ambel. For example, as described in the previous section, those born after about the year 2000 do not have an active command of Ambel. In addition, while non-Ambel women who marry in to Ambel-speaking households typically learn to speak Ambel after a year or so, non-Ambel men who marry Ambel women and subsequently settle in an Ambel village typically learn no more than a handful of basic words and phrases. In each village, there are also small numbers of people who have moved from further west in Indonesia, and do not speak Ambel. These people occupy positions such as teachers, nurses, owners of small shops (PM: *kios*), and, in Warimak, a vicar. Finally, as noted above, there are populations of Biak speakers in Warsamdin, Kabare, and Andey. The second reason that 2,592 is not an accurate estimate of the number of Ambel speakers is that not all speakers of Ambel live in the villages listed in Table 1.1: there are communities of Ambel speakers living

in Waisai and Sorong, as well as some individuals who live in cities further afield such as Manokwari and Jakarta.[20]

These factors, and the lack of concrete data available other than the population figures of the Ambel-speaking villages, mean that only a very rough estimate of the number of speakers of Ambel can be made. Taking the population figures as our baseline, we can first subtract those who were born after the year 2000.[21] Detailed data on the population of Ambel villages broken down by age are not available; however, we can make an estimate of the proportion of those born after 2000 by looking at figures for the Raja Ampat regency as a whole. In 2014, the percentage of the population born after 2000 (i.e., those aged 14 and younger) was 37.37% (16,934 children aged 14 and under, out of a total 2014 population of 45,310).[22] We can therefore comfortably subtract 37.37% (969) from the total population of 2,592, to give a figure of approximately 1,623 people living in Ambel villages who were born before the year 2000.

Calculating the number of speakers of Ambel living in non-Ambel villages, and the number of non-Ambel speakers living in Ambel villages, is a trickier problem. It is my impression that these two figures would more-or-less balance each other out, in that it appears that there are approximately the same number of non-Ambel speakers living in Ambel villages as there are Ambel speakers living in non-Ambel villages. For this reason, I do not add to or subtract from the figure given above. Rounding to the nearest hundred, I therefore estimate that the total number of speakers of Ambel is approximately 1,600.

1.3 Previous studies

In the following sections, I provide an overview of previous studies on Ambel, the other languages spoken on and around the Raja Ampat archipelago, and the

20. I have even heard of one Ambel woman from Kabare, who has married an Australian pilot, and now lives in Melbourne.

21. According to the employee at the local branch of Badan Pusat Statistik in Waisai from whom I collected the population data the figures in Table 1.1 include the entire populations of the villages, including newborn babies.

22. Figures from: https://rajaampatkab.bps.go.id/linkTableDinamis/view/id/47, last accessed 2017-07-27. These figures are not in fact an accurate representation of the demographics of Ambel villages, because they include the demographics of the capital of Waigeo, Waisai. The demographics of urban areas of Waigeo are likely to be different from the demographics of the more rural areas. Nevertheless, the figure 37.37% will serve as an estimate from which we can roughly calculate the number of children born after 2000 in Ambel villages.

languages of the wider area. I begin in §1.3.1 with a look at previous research on Ambel language and culture. In §1.3.2, linguistic and anthropological research on the other 'original' RA languages and cultures will be discussed. Studies that have looked at languages spoken by more recent arrivals to RA – notably, the Biak, and speakers of varieties of Malay – are enumerated in §1.3.3. As stated above, Ambel is a member of the South Halmahera-West New Guinea subbranch of Austronesian; the genetic affiliations of Ambel are discussed in §1.3.4. This section closes in §1.3.5, with a look at some relevant areal and typological studies, and how Ambel fits in to the wider linguistic context.

1.3.1 Previous research on Ambel

Very little has previously been published on Ambel language or culture. The earliest reference to the Ambel that I am aware of is de Clercq (1893: 174, cited in Remijsen 2001a: 25), who states that Ambel ('Amber') is the second original language of Waigeo, after Ma'ya. The next reference to the Ambel ('Amber') can be found in Cheesman (1940) and Cheesman (1949). Evelyn Cheesman was a British entomologist, who spent a significant period of time exploring Melanesia in the late 1920s and throughout the 1930s. Cheesman (1940) is a report of her 1938–1939 collection expedition on Waigeo, as well as Yapen island in Cenderawasih Bay. Cheesman (1949) is a fascinating travelogue, documenting her experiences on Waigeo. While Cheesman's interests lay with insects, rather than infixes, she worked closely with people living in Go, Waifoi, Warimak, and Lamlam (present-day Kapadiri); Cheesman (1949) provides many tantalising glimpses into the daily lives of the pre-Christian Ambel.[23]

Ethnographic and anthropological material regarding the folklore and socio-political structures of the peoples of the RA archipelago have been published in van der Leeden (1980, 1983a, 1989, 1993). The Ambel are referenced only twice in these works (as 'Amber' in van der Leeden 1983a: 82-83, and as 'Syam'

23. Several of the older Ambel men with whom I worked talked proudly about how their fathers had helped Cheesman during her visit. One consultant, **AM**, a man in his late 90s, said that he remembered her visit to Waigeo. When I asked him if he could tell a story about her for me to record, he produced a tale in which she is integrated into a myth belonging to the Gaman clan – see **AM155**. (See Appendix C for the key to the speaker codes – two- or three-letter strings in bold – used in this description.)

in van der Leeden 1993: 9).[24] In Stokhof and Flassy (1982: 55), Ambel ('Amber') is incorrectly identified as a dialect of Biak.

The first linguistic records of Ambel are both unpublished documents: Grace (1955-56) and Hartzler (1978). George Grace visited Waigeo on a tour of Melanesia in 1955 and 1956, and recorded lexical information and some verbal paradigms from Ambel ('Amber') in his notebook 25.[25] The document by Hartzler is a survey report of Waigeo for the Summer Institute of Linguistics, and briefly describes the location and physical appearance of the island, as well as the economic and linguistic situation of its inhabitants. This document contains an Ambel ('Amber') word list, as well as word lists from several other languages and dialects spoken on Waigeo.

The first published linguistic record of Ambel is in Smits and Voorhoeve (1992), an anthology of lexical information from 45 Austronesian languages spoken across Indonesian Papua. There are 121 lexical items from Ambel ('Amber') in this document. In a description of the word-prosodic systems of two other languages spoken in Raja Ampat, Ma'ya and Matbat, Remijsen (2001a) provides basic information about some of the original languages spoken in the archipelago, viz. Ma'ya, Ambel, Matbat, Biga, and the dialects or languages of interior-oriented groups found on Salawati. In this work, he includes a word-list of 131 items from Ambel, as well as a page of grammatical notes. Ambel data are used both in van den Berg's reconstruction of Proto South Halmahera-West New Guinea possessive morphology (2009), and in Kamholz's subclassification of the South Halmahera-West New Guinea branch (2014). Corbey (2017) is a recent publication of ritual art in Raja Ampat, and describes in wonderful detail what can be discerned about the pre-Christian culture and cosmology of the inhabitants of the archipelago, including the Ambel, based largely on artefacts collected during

24. As introduced in §1.1.1, one dialect of Ambel is called Metsam. This name is historically derived from *mét* 'person' and an element clearly related to van der Leeden's 'Syam'. See also recording **AM066**, which includes a story about an ancestor figure called *mon sám* 'ancestor Sam'. I have not been able to trace a source for the element *nyo* in the name Metnyo.

25. Around the same time that George Grace was active in the area, I am told by some of the older people in Kapadiri they were visted by a researcher. This researcher was interested in recording Ambel folk stories and songs, and would take people into the forest to record, so they would not be disturbed. If there was unwanted noise on the recordings, he would start the recording again. The recordings were then pressed onto vinyl, and returned to the community. Unfortunately, these records are all now lost or broken. I have made enquiries with staff at the George Grace Collection at the University of Hawai'i at Mānoa library as to the identity of this mystery researcher, but they are not aware of any field recordings made by Grace at this time.

Dutch colonisation. Finally, there is an Ethnologue entry for Ambel (Simons and Fennig 2017).

Two students at Universitas Papua in Manokwari completed their *skripsi* (final-year undergraduate projects) on Ambel: Mustakim (2013) on the phonological inventory of Metsam Ambel, and Gaman (2013) on Ambel pronouns and subject agreement. Both students are native speakers of Ambel. These *skripsi* are available to view as hard copies at the university.

1.3.2 Previous research on the other original RA languages

In addition to Ambel, there are at least six other original languages spoken in the RA archipelago: Ma'ya, Matbat, Biga, Fiawat, Batta, and Gebe.[26] Kamholz (2014), on the basis of morphological evidence, classifies all of these languages (except Batta, for which he was unable to obtain data) as belonging to the Raja Ampat-South Halmahera subgroup of South Halmahera-West New Guinea (see §1.3.4 below). This section is an overview of the research that has been carried out on the other original RA languages.

Of the original RA languages, Ma'ya is the most widely spoken (approximately 4000 speakers, living on Waigeo, Salawati, and Misool; Remijsen 2001a: 14). There are five dialects of Ma'ya: Misool (spoken on Misool), Salawati (spoken on Salawati), and Kawe, Laganyan, and Wauyai (all spoken on Waigeo). According to van der Leeden (1993: 13), Ma'ya was a former lingua franca of RA; several of the older speakers with whom I worked are proficient in either the Kawe or Laganyan dialects of Ma'ya (see Appendix C).

As well as being the most widely spoken of the original RA languages, Ma'ya is also the best-studied. Wordlists of various dialects of Ma'ya can be found in Fabritius (1855), Wallace (1869), de Clercq (1889), van Peski (1914; all cited in Kamholz 2014: 24), Hartzler (1978), and Smits and Voorhoeve (1992). The phonological system of Ma'ya has attracted a fair amount of attention, particularly the prosodic system, which combines both lexical stress and lexical tone: see van der Leeden (1983a, 1993, 1997) and Remijsen (2001a,b, 2002). Van der Leeden

26. By 'original', I mean those that did not arrive within recorded history, such as Biak or Malay; see §1.3.3. See Remijsen (2001a: 26-28) for a discussion of the number of languages of the 'interior-orientated' groups of Salawati, which includes Fiawat. Remijsen (2001a: 28) also identifies As, spoken on the Bird's Head mainland, as a possible dialect of Ma'ya, with heavy Papuan influence. Kamholz (2014), however, classifies As as a separate language.

(n.d.) is a set of unfinished manuscripts which describe Maʲya morphology and syntax; these manuscripts also include a comprehensive lexicon.[27] Ethnographic and anthropological information about the Maʲya, including the origin myth of the four *raja* dynasties that give Raja Ampat its name, can be found in van der Leeden (1980, 1983b, 1989).

Matbat is spoken by approximately 1000-1500 people on Misool, the southernmost of the four main islands in RA. Wordlists of Matbat can be found in Wallace (1869) and Smits and Voorhoeve (1992). Remijsen (2001a) and Remijsen (2007) are phonological descriptions of Matbat, which focus on the unusually complex tone system; a description of the morphology and syntax of nouns and verbs in Matbat can be found in Remijsen (2010).

There is very little literature available on the remaining RA languages. Grace (1955-56) contains field notes on Biga (spoken by 300-350 people on Misool), as well as Maʲya, Matbat, and Ambel. Wordlists of Biga and Gebe (spoken on the small islands of Gebe and Gag) can be found in Smits and Voorhoeve (1992); there is, however, no wordlist of Batta in this resource. Remijsen (2001a) contains a Biga wordlist and a short treatment of Biga phonology and morphology. Preliminary lexical data from Biga, Batta, and As (spoken on the mainland) were given in Kamholz (2016); these data suggest that, like Maʲya, Matbat, and Ambel, these languages also have lexical tone. Given the current social and linguistic climate in the RA archipelago (see §1.1.1 and §1.2.1), and the small speaker numbers of Biga, Gebe, Batta, and Fiawat, it is likely that these RA languages are highly endangered. Documentation and description of these languages should be a priority.

1.3.3 Previous research on other languages spoken in Raja Ampat

There are two other main languages spoken in the RA archipelago, both of which have arrived in recent history: Biak, spoken in many villages on Waigeo, and varieties of Malay, including Papuan Malay, the present-day lingua franca of the region.

The Biak originate from Biak island, and neighbouring islands, in Cenderawasih Bay, on the other side of the Bird's Head peninsula. As discussed in §1.1.2, the Biak arrived on Waigeo some centuries ago. Steinhauer (1985: 464), citing Kamma (1972: 8), indicates that the Biak spoken on Waigeo constitutes a distinct

27. Thanks to David Kamholz for making these manuscripts available in pdf format.

dialect of the language. Waigeo residents distinguish two dialects: Betew Biak (also known as Beser), spoken in the villages on the south and west coasts of the island; and Usba, spoken in the villages on the north coast. Neither of these dialects have been described to any extent in the literature. However, Biak, as spoken in Cenderawasih Bay, has a fairly comprehensive documentation: there are two recent grammars (van den Heuvel 2006; Mofu 2008), and two dictionaries (van Hasselt and van Hasselt 1947; Soeparno 1977).

Papuan Malay, the local dialect of Malay, has also received a substantial amount of attention in the literature: as well as a comprehensive grammar (Kluge 2014), other descriptive works include Donohue and Sawaki (2007) and Donohue and Smith (1998) on the pronominal system; Donohue (2007a) on the voice system; and Donohue (2011) on the Melanesian influence on Papuan Malay. These studies, however, are either of more eastern varieties of Papuan Malay (for example, Kluge 2014 is a description of Papuan Malay as spoken in Sentani, near Jayapura), or the variety is not specified. Descriptions of other regional Malay varieties spoken in the vicinity include van Minde (1997) on Ambon Malay, spoken in the central Moluccas to the south of RA; and Litamahuputty (2012) on Ternate Malay, spoken in the north Moluccas to the west of RA. To the best of my knowledge, to date nothing has been published about the use of Malay in RA.

Finally, there are two non-Austronesian languages that are spoken to a limited extent in the RA archipelago: Duriankari (Polanksy 1957b, cited in Remijsen 2001a: 30; Voorhoeve 1975), spoken in the village of Duriankari on south Salawati (de Vries 1998: 644 indicates that Duriankari may now be extinct); and Moi, a language spoken by the Moi of the Bird's Head, some of whom have migrated to east and south Salawati. According to Polanksy (1957b; cited in Remijsen 2001a: 31), the dialect of Moi spoken on Salawati is quite different from the dialect spoken on the mainland.

1.3.4 Genetic affiliations

As stated above, Ambel is an Austronesian language. There are more than 1200 Austronesian languages, spoken from Madagascar in the west to Easter Island in the east (Simons and Fennig 2017). These languages are descended from a common ancestor, which, based on linguistic and archaeological evidence, is thought to

have been spoken in Taiwan approximately 5500–6000 years ago (Bellwood 2007: 117-119, Blust 2013: 749).

Within Austronesian, Ambel is classified as a South Halmahera-West New Guinea language (SHWNG; Remijsen 2001a: 32-38, Kamholz 2014). There are 38 SHWNG languages, spoken in southern Halmahera, throughout Raja Ampat, and on the coasts and islands of Cenderawasih Bay; in addition, there are four more languages spoken on the Bomberai Peninsula to the south of the Bird's Head which may also be SHWNG languages (Kamholz 2014: 17). The position of SHWNG within the Austronesian family is given in Figure 1.3. This figure shows that SHWNG is a sister to Oceanic; both are descended from Proto-Eastern Malayo-Polynesian (Blust 1978, 1983/84). A map showing the geographic extent of the SHWNG branch is given in Figure 1.4.[28]

The relationship between the Austronesian languages of Halmahera, Raja Ampat, and Cenderawasih Bay was first recognised by Adriani and Kruyt (1914); this group of languages was first referred to as 'South Halmahera-West New Guinea' by Esser (1938). Blust (1978) established the legitimacy of this grouping on empirical grounds using the comparative method, noting several sound changes, lexical innovations, semantic shifts, and unexpected phonological changes that demonstrate that the SHWNG languages have descended from a common ancestor, to the exclusion of other, non-SHWNG Austronesian languages (see also Blust 1982, 1983/84, 1993; and Ross 1995 for a different proposal of the phonological innovations that define the SHWNG branch).

The existence of the SHWNG branch is uncontroversial. However, there have been several proposals made with regards to the internal subgrouping of the branch. Blust (1978) recognised two main subgroups: South Halmahera (SH), comprised of the SHWNG languages spoken in Halmahera, such as Taba, Buli, and Patani; and Sarera Bay, comprised of the SHWNG languages spoken in the Cenderawasih Bay region, such as Biak, Ron, and Wandamen-Windesi.[29] The SH group is established on the grounds that the SH languages in his sample share the phonological innovations Proto Malayo-Polynesian (PMP) *b > p and PMP *R > $\emptyset$, but the Sarera Bay languages do not.

28. The four languages spoken on the Bomberai peninsula that may also be SHWNG are included in Figure 1.4.
29. 'Sarera Bay' is an obsolete name for Cenderawasih Bay.

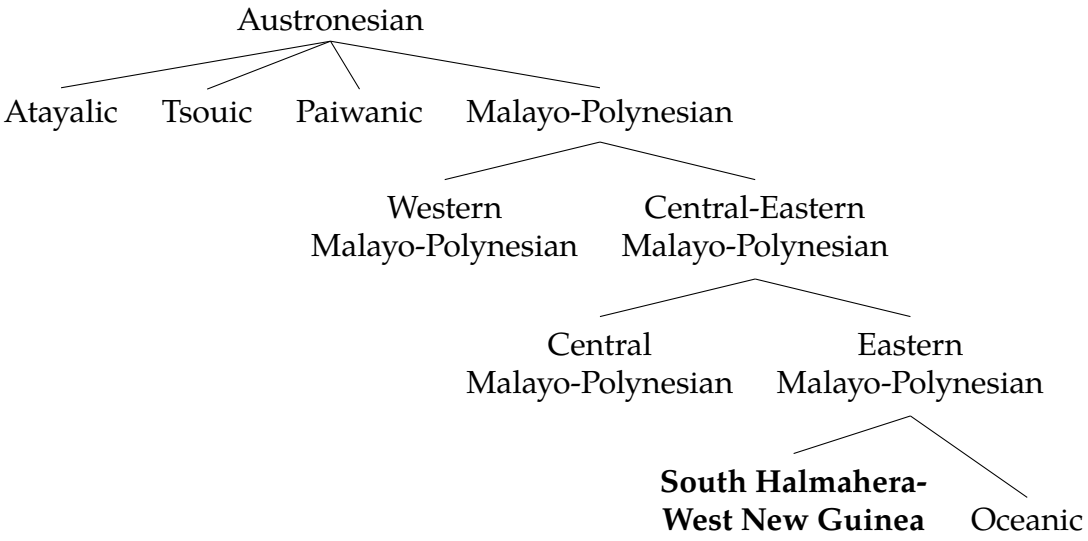


Figure 1.3: The Austronesian family tree (highest levels only), after Blust (1978)

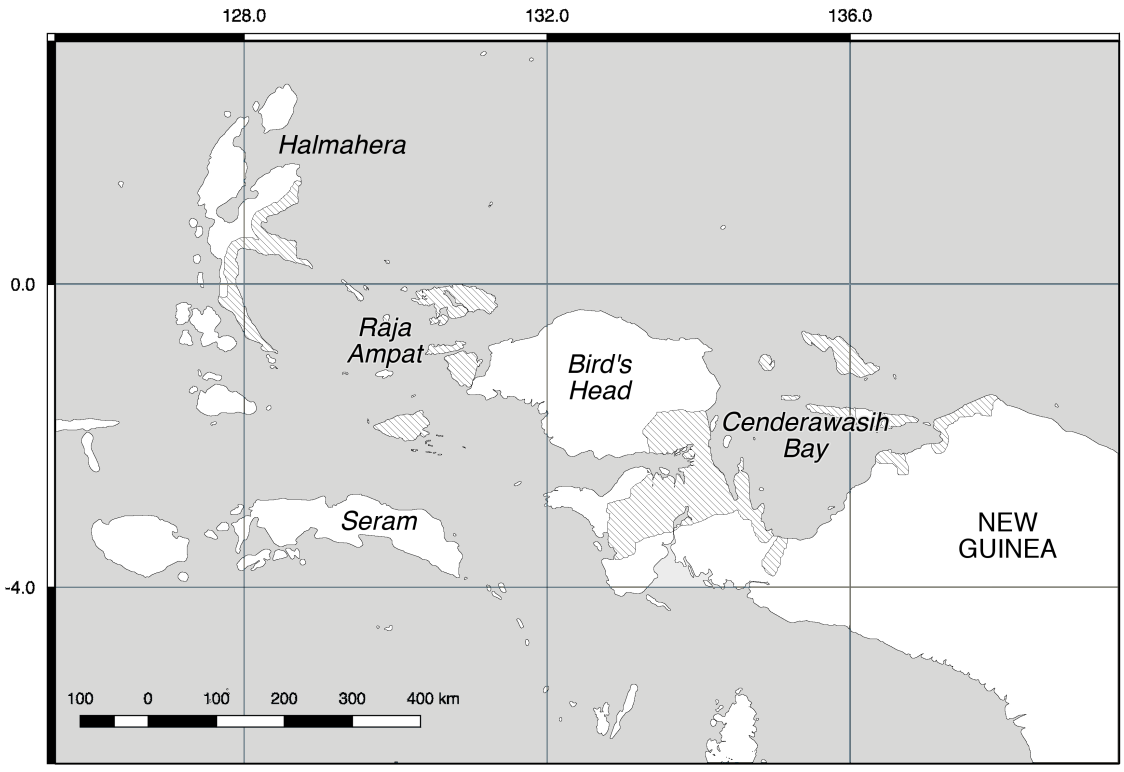


Figure 1.4: Map showing the geographic extent of South Halmahera-West New Guinea languages (shaded areas) Adapted from: http://langscape.umd.edu/map.php

With regards to the subclassification of the original RA languages within SHWNG (i.e., those introduced in §1.3.2), two questions remain a matter of debate. The first is whether the original RA languages form a distinct subgroup within SHWNG. The second question, regardless of whether the RA languages form a distinct subgroup, is what the precise position of these languages is within SHWNG. In his 1978 proposal, Blust only makes reference to two languages spoken in RA: Matbat, and the Misool dialect of Maʻya.[30] On the basis of 40 shared lexical innovations and some unspecified shared phonological innovations, he classifies these two RA languages with the SH languages (1978: 202-203). As noted by Remijsen (2001a: 32-33), however, Blust is not explicit about the position of Maʻya and Matbat within the SH subgroup. The position of Maʻya and Matbat within SHWNG according to Blust (1978) is shown in Figure 1.5. Following Remijsen (2001a: 33), the ambiguity of the position of Maʻya and Matbat is marked with dashed lines.

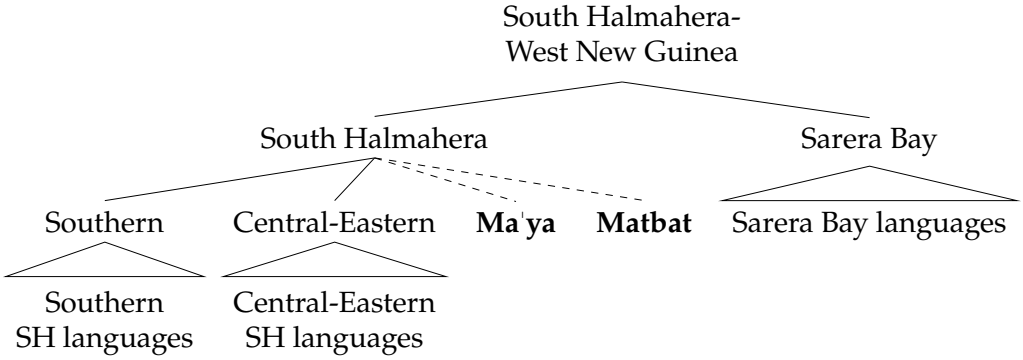


Figure 1.5: South Halmahera-West New Guinea, according to Blust (1978)

Simons and Fennig (2017) consider the original RA languages to form a single subbranch within SHWNG, and classify them not with the South Halmahera languages, but with the West New Guinea languages, in a Cenderawasih Bay subgroup. However, they do not provide any indication of how this analysis was reached. This subgrouping proposal is shown in Figure 1.6.[31]

30. Blust names both of these languages 'Misool'. However, Remijsen (2001a: 17, 22-23) identifies one as Matbat, and the other as the Misool dialect of Maʻya.

31. Some of the languages in this tree, for example Kawe and Wauyai, are dialects of Maʻya; see Remijsen (2001a). Remijsen identifies Maden as an alternative name for the Kawit language/dialect, spoken by one of the 'interior-oriented' groups in southern Salawati (2001a: 27).

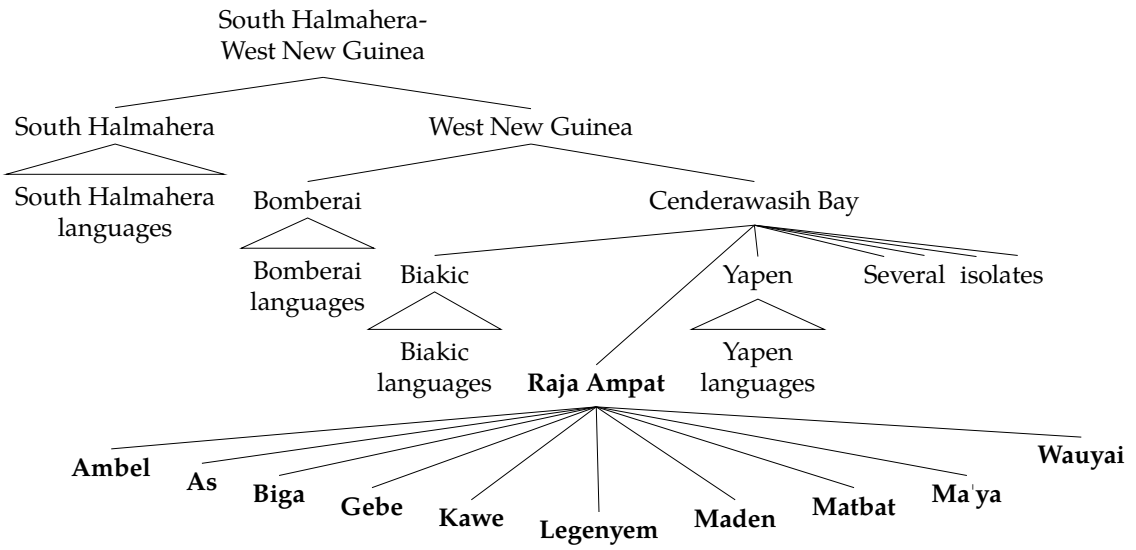


Figure 1.6: South Halmahera-West New Guinea, according to Simons and Fennig (2017)

Wurm (2007) proposes that the original RA languages form a primary branch of SHWNG, which he calls 'Raja Empat'. Like Simons and Fennig (2017), however, he does not explain how he reached this conclusion. Unlike either Blust (1978) or Simons and Fennig (2017), Wurm proposes that the Raja Ampat languages are a first-order subgroup in SHWNG. Wurm's subgrouping proposal is shown in Figure 1.7.[32]

Van der Leeden, like Wurm (2007), proposes that the RA languages form a first-order subgroup within SHWNG (1993: 15). Van der Leeden's evidence for this is the nature of the tone systems of the Raja Ampat languages, which he states "are of a type not to be found elsewhere" (1993: 15). He also cites the presence of possessive suffixes in inalienable possessive constructions as a reason to group the RA languages to the exclusion of other SHWNG languages. Remijsen (2001a: 34) rejects van der Leeden's analysis, on the grounds that other SHWNG languages have possessive suffixes (see e.g. van den Berg 2009), and that not all of the languages spoken in RA are tonal.[33]

32. Like Simons and Fennig, Wurm considers Kawe and Laganyan to be separate languages, rather than dialects of Ma'ya. Map 36 on p. 144 indicates that Palamul is spoken on Salawati. Remijsen (2001a: 14-15) suggests that Palamul is either a dialect of Ma'ya, or an alternative name for Kawit; see f.n. 31. 'Geelvink Bay', like Sarera Bay, is an obsolete name for Cenderawasih Bay.

33. Remijsen cites Ambel as an example of a RA language which "definitely is not" tonal (2001a: 34). As will be shown in §2.3.2, Ambel does in fact have a tone system (see also Arnold forthcoming).

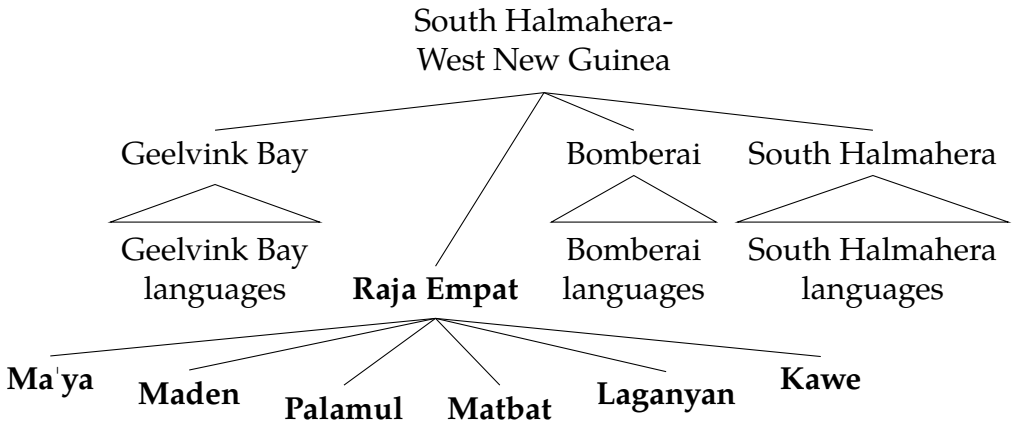


Figure 1.7: South Halmahera-West New Guinea, according to Wurm (2007)

Remijsen (2001a: 34-37) also considers the question of the position of the RA languages within SHWNG. He looks at data from the RA languages, in order to determine whether the reflex of Proto Austronesian (PAN) **d, D, z, Z, l, r* is /l/ (as in the South Halmahera languages) or /r/ (as in the West New Guinea languages); and whether the reflex of PAN **R* is /r/ (as in the West New Guinea languages), or whether it is lost (as in the South Halmahera languages). He finds that, in most cases, the RA languages unambiguously show the South Halmahera reflexes (i.e. PAN **d, D, z, Z, l, r* > /l/, PAN **R* > Ø). On these grounds, he posits a subgroup within SHWNG, comprising the languages spoken in South Halmahera and Raja Ampat. He proposes the name 'Raja Ampat-South Halmahera' (RASH) for this subgroup.

Kamholz (2014), in a major recent study, uses shared phonological and morphological innovations to determine the internal subgrouping of SHWNG. Kamholz identifies two major branches of SHWNG: the Cenderawasih Bay (CB) languages, and the RASH languages.[34] The CB languages share three morphological innovations (a 2SG subject infix **<u>*, a 3SG subject infix **<i>*, and a

In addition, recent data from As, Batta, and Biga suggest that these languages may also have tone (Kamholz 2016). This re-opens the question of whether the innovation of tone defines a RA subgroup. Arnold (submitted) suggests not. This study is a preliminary look at the relationships between the tone systems of Ma'ya, Matbat, and Ambel. The data presented point to at least two instances of tonogenesis in the RA languages: once in Ambel, and once in a common ancestor to Ma'ya and Matbat.

34. Kamholz also identifies five languages that share the features that define the SHWNG branch, but which do not share any other phonological or morphological innovations with each other or

3SG subject prefix **dy-*; p.138), and the RASH languages share one phonological innovation (**R* > *Ø*) and one morphological innovation (a 1SG and 2SG infix **<y>*; p.136). Kamholz's subgrouping proposal thus supports Blust's (1978) basic two-way split in SHWNG, between the languages of Cenderawasih Bay and those spoken further west, as well as Remijsen's (2001a) grouping of the languages of Raja Ampat with the languages of South Halmahera.

Unlike other subgrouping proposals, Kamholz rejects a Raja Ampat subgroup, either as a primary branch of SHWNG (as in the proposals of van der Leeden 1993 and Wurm 2007), or as a branch of RASH. In other words, he does not posit a common ancestor from which all and only the RA languages are descended. Instead, within RASH, he posits three primary branches (South Halmahera, Ambel-Biga, and Maʲya-Matbat), and two isolates (Fiawat and As). The position of the RA languages within Kamholz's proposal is shown in Figure 1.8.

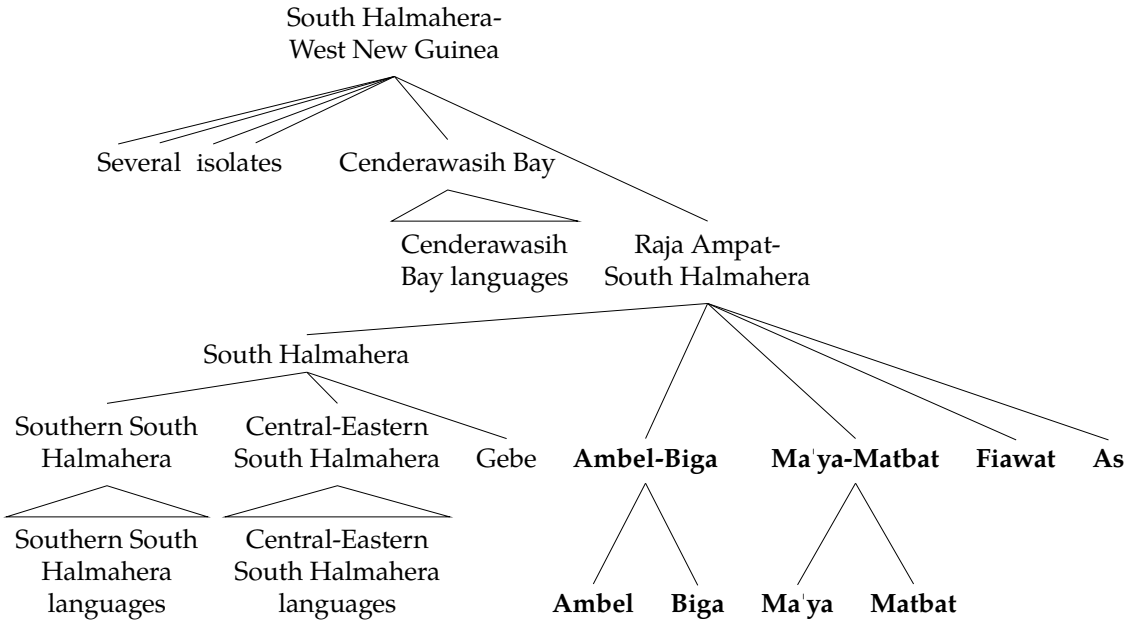


Figure 1.8: South Halmahera-West New Guinea, according to Kamholz (2014)

The subgrouping proposal by Kamholz (2014) is strongly supported, in that it is based on phonological and morphological innovations. However, it is not

any of the other SHWNG languages: Moor, Tandia, Waropen, Warembori, and Yoke. He classifies these languages as primary branches of SHWNG (2014: 140).

the final word on the position of the original RA languages in SHWNG. For example, Kamholz (2017: 10 f.n.4) has subsequently retracted the Ambel-Biga branch of RASH, citing a misinterpretation of the Biga data; and Kamholz (2015), which attempts a reconstruction of Proto-SHWNG morphology, casts doubt on the validity of the Ma'ya-Matbat subbranch. While all of the original Raja Ampat languages are undoubtedly RASH languages, the precise position of Ambel and the other original RA languages within RASH is a matter for further investigation.

1.3.5 Ambel from a typological and areal perspective

The area of east Nusantara and west New Guinea has long been a place of intense contact between speakers of Austronesian languages and speakers of Papuan languages.[35] In this section, I will summarise the literature which looks at common features in the Austronesian and Papuan languages of the area, and the extent to which Ambel exhibits these features. I will then move on to a discussion of two linguistic areas that have been proposed that encompass Raja Ampat.

Several studies draw a distinction between the typological profiles of the Austronesian languages spoken in east Nusantara, and those spoken further west: see, for example, Klamer (2002), Himmelmann (2005), and Donohue (2007b). These studies show that common features of these languages include possessor-possessed order in possessive constructions, an alienability distinction, and clause-final negation. Klamer and Ewing (2010: 10) present a list of typological features that are characteristic of the Austronesian languages of east Nusantara, presented in Table 1.2. As can be seen from this table, Ambel shares fifteen of the seventeen features of the Austronesian languages of east Nusantara.

Klamer and Ewing (2010: 11) also present a list of features commonly found in Papuan languages, summarised from several different sourches (viz. Foley 1986, 2000, Pawley 2005, and Aikhenvald and Stebbins 2007). These features are given in Table 1.3. Note that some of the features typical of Papuan languages more generally are also typical of the Austronesian languages of the area. While Ambel patterns more closely with the Austronesian languages of the region than with the

35. 'Nusantara' is a non-political term for the Indonesian archipelago, which includes East Timor. I use the term 'Papuan' to refer to non-Austronesian languages spoken on and around New Guinea; no genetic affiliation between the languages is implied by the term.

Table 1.2: Typologically common features of Austronesian languages spoken in east Nusantara

Austronesian languages of East Nusantara	**Ambel**	
Phonology		
Prenasalised consonants	Yes	§2.2.4
Preference for CVCV roots	Yes	§2.2.1
Metathesis	No	§2.5.2
Morphology		
No productive voice system on verbs	Yes	§8.3.1.1.1
Agent/subject indexed on verb as prefix/proclitic	Yes	§4.1.1
Morphological distinction between alienable and inalienable nouns	Yes[a]	Chap.7
Left-headed compounds	Yes	§5.1.3.1
Inclusive/exclusive distinction in pronouns	Yes	§3.2.3
Syntax		
Verb-object order	Yes	§8.2.1.1
Prepositions	Yes	§3.5, Chap.11
Genitive-noun order (possessor-possessum)	Yes	Chap. 7
Noun-numeral order	Yes	§6.2.3
Absence of a passive construction	Yes	§8.3.1.1.1
Clause-final negators	Yes	§10.3
Clause-initial indigenous complementisers	Yes	§14.2.2
Formally marked adverbial/complement clauses	Yes	§14.2.2
Other		
Parallelisms without stylistic optionality	No	–

[a] The possessive system is described in Chapter 7. While I analyse possessive constructions primarily on the basis of their morphosyntax, the two main morphosyntactic types of possessive construction in Ambel – Direct and Indirect possessive constructions – correspond to some extent with the alienability distinction described for other languages in the area.

Papuan languages, Ambel exhibits eight out of the fifteen features which are more typical of Papuan languages.

On the basis of these typological investigations, Klamer et al. (2008) and Klamer and Ewing (2010) define the linguistic area 'East Nusantara'. This area is characterised by the following five features, which occur in both Austronesian and Papuan languages in the region: (1) SVO constituent order; (2) An inclusive/exclusive distinction in pronouns; (3) A morphosyntactic distinction between alienable and inalienable nouns; (4) Possessor-possessum order in adnominal possessive constructions; (5) Clause-final negation. They also propose a sixth feature, tone, as characteristic of a 'tonal area' within East Nusantara, extending from Raja Ampat, across the Bird's Head, to the Cenderawasih Bay area.

Table 1.3: Typologically common features of Papuan languages

Papuan languages	**Ambel**	
Phonology		
No distinction between *r*/*l*	No	§2.1.1
Morphology		
Marking of gender	Yes	§5.2
Subject marked as suffix on verb	No	§8.2.1.1
No inclusive/exclusive distinction in pronouns	No	§3.2.3
Morphological distinction between alienable and inalienable nouns	Yes	Chap.7
Syntax		
Subject-Verb	Yes	§8.2.1.1
Object-Verb	No	§8.2.1.1
Postpositions	No	Chap.11
Genitive-noun order (possessor-possessum)	Yes	Chap. 7
Clause-final negators	Yes	§10.3
Clause-final conjunctions	Some	§3.9
Clause-chaining	No	–
Switch reference	No	–
Tail-head linkage	Yes	§8.3.1.3.1
Serial verb constructions	Yes	§13.1

In another areal study of the region, Schapper (2015) presents four features which are indicative of an ancient linguistic area in Wallacea, encompassing Nusa Tenggara (including East Timor), Maluku, the Bird's Head and Neck of New Guinea, and Cenderawasih Bay. The features characteristic of this area are: (1) A system of semantic alignment, manifesting in, for example, a Split-S or Fluid-S system; (2) The presence of neuter gender (e.g. non-human as opposed to human, or inanimate as opposed to animate); (3) A reflex of the form **muku* 'banana'; (4) Synchronic metathesis.

It is beyond the scope of this overview to evaluate the proposals of Klamer et al. (2008) and Schapper (2015) in detail. The features of each of these proposals, however, and the extent to which they occur in Ambel, are summarised in Table 1.4.

As can be seen from Table 1.4, Ambel exhibits all of the proposed features of the East Nusantara linguistic area, including tone, a feature which is not typical of all the languages in the area. Klamer et al. (2008: 135) and Klamer and Ewing (2010: 12-3) note that the isoglosses of the five main features of the area overlap

Table 1.4: Areal features of Austronesian and Papuan languages in the East Nusantara and Wallacea lingustic areas

Areal features	**Ambel**	
Of East Nusantara (Klamer et al. 2008):		
SVO constituent order	Yes	§8.2.1.1
Inclusive/exclusive distinction in pronouns	Yes	§3.2.3
Morphosyntactic distinction between alienable and inalienable nouns	Yes	Chap.7
Possessor-possessum order	Yes	Chap. 7
Clause-final negation	Yes	§10.3
Tone	Yes	§2.3.2
Of Wallacea (Schapper 2015):		
Semantic alignment	No	§8.2.1.1
Neuter gender	Yes	§5.2
*muku 'banana'	No	–
Synchronic metathesis	No	§2.5.2

in the Bird's Head and Halmahera. In addition, Klamer et al.'s (2008) tonal area within the East Nusantara linguistic area comprises the Bird's Head and the Raja Ampat archipelago. As Waigeo is geographically near the centre of both of these areas, it is unsurprising that Ambel patterns so strongly with the other languages of East Nusantara.

Ambel exhibits fewer of the features of the Wallacea linguistic area. Of the four features, only neuter gender is found in Ambel (see §5.2). The isoglosses of the Wallacea linguistic area are centred on a quite different geographic region to the East Nusantara linguistic area: they overlap in east Nusa Tenggara. Raja Ampat, and Waigeo in particular, is on the northern periphery of the Wallacea linguistic area. It is therefore not unexpected that Ambel exhibits so few of the features associated with the Wallacea lingusitic area.

1.4 The project

The data used in this description were collected during five field trips to Waigeo. In this section, some issues relating to the data collection and research methods are addressed. In §1.4.1, I outline the aims of this description, and the theoretical

framework within which the data are analysed and presented. In §1.4.2, the fieldwork itself is described. This section closes in §1.4.3, in which I delineate the methodologies and research methods used in this project, and provide an overview of the naturalistic and elicited corpora that form the backbone of this description.

1.4.1 Aims and theoretical framework

The aim of this grammatical description is to present a theoretical analysis of Ambel which can be understood by anyone with basic linguistic training, and which uses language that is as clear and as precise as possible. To that end, this description has been influenced by Haspelmath (2009), who recommends, to the greatest extent possible, a framework-free theoretical description.

In practice, however, this research was not carried out in a vacuum. While I have not approached the description of Ambel from any one particular framework, certain frameworks have been very influential in the development of certain analyses, or in the provision of insights. Most notably, the framework of Basic Linguistic Theory (BLT) has been very helpful. BLT as presented in, for example, Dixon (1997: 128-138, 2010a; 2010b; 2010c) and Dryer (2006), is a framework in which emphasis is placed on: "...the attempt to describe each language in its own terms, rather than trying to force the language into a model based on European languages" (Dryer 2006: 211).[36] Other works that have been influential include typological works such as Comrie (1989), Croft (2003), Payne (1997), and Shopen (2007); works on field methods such as Bowern (2008), Crowley (2007), Kidwai (2013), Davis et al. (2014), Matthewson (2004), and the chapters in Newman and Ratliff (2001, especially Gil 2001 and Hyman 2001); literature outlining best-practice in grammar writing such as Evans (n.d.), Noonan (2006), Pawley (2014), Rice (2006), Roberts (1992), and Weber (2006a,b); and works on Austronesian and Papuan languages, such as Blust (2013), Foley (1986),

36. In this way, BLT is very similar to the framework-free description advocated by Haspelmath (2009). However, as Haspelmath points out, the difference between the two approaches is that, whereas a linguist working in BLT is encouraged to rely heavily on concepts introduced in the long tradition of grammar writing, in order to make the description accessible to as wide a range of linguists (and other scholars) as possible (2009: 393-396), there is no such prerogative in a framework-free approach, as to do so could introduce bias from the structure of another language into the description.

Himmelmann (2005), Klamer (2002), and Klamer et al. (2008). The influence of all of these works can be found throughout this description.

Several descriptive works were also extremely valuable in the development of the analyses presented in this description: Bowden (2001) on Taba, van den Heuvel (2006) on Biak, van der Leeden's (n.d.) unfinished manuscripts on the lexicon and morphosyntax of Ma'ya, Remijsen (2010) on nouns and verbs in Matbat, and van Staden (2000) on Tidore.[37] Kluge's grammar of Papuan Malay (2014), aside from being an outstanding description of an Austronesian language, was critical in helping me to understand fine-grained distinctions speakers communicated through the lingua franca. Other grammars or descriptive works that I frequently consulted during this project include Berry and Berry (1999) on Abun; Dalrymple and Mofu (2012) on Dusner; Dol (1999) on Maybrat; Gasser (2014) on the morphophonology of Windesi Wamesa; Gravelle (2004) on Meyah; Jackson (2014) on Irarutu; Jukes (2006) on Makassarese; Klamer on Kambera (1998), Teiwa (2010), and Alorese (2011); Kratochvíl (2007) on Abui; Odé (2002) on Mpur; Schapper on Bunaq (2009) and Kamang (2014); Smith (2015) on Papapama; and Wilson (2017) on Yeri.

1.4.2 Fieldwork setting

This grammar is a description of the Metnyo dialect of Ambel, as spoken in the village of Kapadiri, on the north coast of Waigeo. The total duration of the fieldwork was over 8 months in the field 'proper'; 14 months in total in West Papua. The time spent in the field is summarised in Table 1.5.

During my first trip to Waigeo, in December 2013, I spent several weeks trying to find Ambel speakers in Waisai. Once I had located the daughter of Henky Gaman, the Ambel speaker consulted in Remijsen (2001a), we arranged travel to Mayalibit Bay, so that I could visit the village of Waifoi, meet some people, and generally get a feel for the place. While I was in Waifoi, I was lucky enough to meet Wolter Gaman (**WG**), a native speaker of Ambel and a recent graduate from

37. Frequent reference will be made throughout this description to the grammars of Taba (Bowden 2001) and Biak (van den Heuvel 2006). This is for two reasons. First, Taba and Biak are the most comprehensively-described SHWNG languages. Second, these two languages provide an interesting point of comparison with Ambel. Taba, as a RASH language (see §1.3.4), is somewhat closely related to Ambel, but is quite geographically distant. Biak, on the other hand, as a non-RASH SHWNG language, is more distantly related, but is in close contact with Ambel (for example, several Ambel villages are shared with Biak speakers; see §1.1).

Table 1.5: Summary of fieldwork: Dates and locations

Inclusive dates	Village(s)	No. of nights
Field trip 1		
2/1/2014 - 3/1/2014	Waifoi	1
4/1/2014 - 14/1/2014	Survey of villages	10
11/2/2014 - 25/2/2014	Kapadiri	14
Field trip 2		
6/10/2014 - 8/11/2014	Go	33
17/11/2014 - 4/12/2014	Waifoi, Warimak, Go	17
15/12/2014 - 11/1/2015	Kapadiri	27
Field trip 3		
25/6/2015 - 4/8/2015	Kapadiri	40
15/8/2015 - 12/09/2015	Kapadiri	28
Field trip 4		
1/6/2016 - 8/7/2016	Kapadiri	37
25/7/2016 - 12/8/2016	Kapadiri, Kabare	18
Field trip 5		
12/5/2017 - 29/5/2017	Kapadiri, Kabare	17
18/6/2017 - 26/6/2017	Kapadiri	8
TOTAL:		250

Universitas Papua (UNIPA) in Manokwari, who had written about verbal subject marking for his final undergraduate project (Gaman 2013). I returned to Waisai to pick up my bags and equipment, and together we arranged a tour of the Ambel villages, so that I could meet speakers, and identify a potential field site.

I chose Kapadiri as a field site for three reasons. First, and most importantly, of all the villages we visited on the tour, the use of Ambel appeared to me to be most vibrant in Kapadiri.[38] Second, Kapadiri provided a more comfortable living environment than many of the other villages: the houses are cooler; there are fewer mosquitoes; there was (at the time of my first visit) a daily electricity supply from a communal generator;[39] and the roofs are closed off with ceilings, which

38. I have since reassessed this judgement: as noted in §1.2.1, it is my impression that Ambel is more vital in the villages of Warimak and Kabilo.

39. Unfortunately, during my second, third, and fourth field trips, this generator was no longer in use, and I had to charge my equipment once every two or three days using a household generator. When I returned in 2017, solar panels had been installed in the village.

prevents the rats from falling on one's head during the night. Finally, while I found the people of the Ambel villages in Mayalibit Bay to be rather shy, in Kapadiri I received a warm welcome, and found it very easy to make friends quickly. Latterly, I also found that, as Kapadiri is located on the north coast of Waigeo, the village is sheltered from the worst of the effects of the windy season (described in §1.1.1); during this time, food can be scarce in the villages in Mayalibit Bay, because the high winds make it more difficult to find fish and other sea produce.

As detailed in §1.2.2, in 2013 the population of Kapadiri was 252. Each family unit has their own house. Most of the houses are modern houses on land, made of concrete, rather than the traditional wooden houses that stand above the sea on stilts. Many of the houses have indoor bathing and toilet facilities. There is a primary school (Ind: *sekolah dasar*) and a church in the village, but there is no market. One can send to Kabare (approximately 2 hours' boat ride away, if the sea is calm) for basic supplies, such as notebooks, pens, fuel for the generator, and (poor-quality) batteries. At the time of my fieldwork, there was no phone signal in Kapadiri.[40] All in all, I found Kapadiri to be an excellent choice of fieldsite.

While in Kapadiri, I stayed in the household of Yubel Kein and Konstantina Wakaf, and their two (latterly three) sons: Salomo (born in 2011), Jarobeam (born in 2013), and Asail (born in 2017). Their house is very comfortable: I had my own room, and a small space in the communal rooms to work in. I was fed with fish, bivalves, vegetables, rice, and sago. Their house is in the centre of the village, by the pier; this meant I was right in the thick of day-to-day Ambel life.

Before my first fieldtrip, I prepared myself by learning some Standard Indonesian, using Byrnes and Nyimas (2010) and Oey and Davidsen (2013). While I was in Waisai, searching for Ambel speakers, I made the most of my time by converting the Standard Indonesian that I knew into a more local variety, i.e. Papuan Malay. When I first arrived in Kapadiri, I made the mistake of letting on that I already had some competence in PM. Thus, at first, I found it quite difficult to persuade people to talk to me in Ambel: if they saw I was having difficulty understanding what was being said, they would switch immediately to PM, and would rarely switch back, even if I continued to speak in Ambel.[41] By the middle

40. By 2017, a phone tower had been erected on the island of Beo in Mayalibit Bay, which meant there was limited phone signal in several of the villages in Mayalibit Bay.
41. Cf. the approaches by Bowden (2001: 19) and Schapper (2009: 33), who did not learn a large amount of Indonesian before arrival at their field sites; or Jendraschek (2012: 17), who, during his

of my third trip, however, this had changed, and most of my daily interactions in the village took place in Ambel. While, like nearly all other Ambel households, Yubel and Konstantina use PM to speak with their children (see §1.2.1), the two of them speak to each other in Ambel. In 2015, Yubel built a small shady resting place on the seafront outside their house; this attracted many passing villagers to stop by and chat, so I was never short of people with whom to practice my language skills.

I began and ended each of my trips to Papua with a visit to Manokwari, the administrative centre of West Papua province, in order to visit the Center for Endangered Languages Documentation (CELD, based at UNIPA), and arrange the relevant travelling permits (Ind: *surat jalan*). The aims of CELD are to document, describe, and promote the languages and cultures of Indonesian Papua. CELD has been my sponsor and partner throughout this project. In return for providing administrative support, help with immigration issues, equipment, and office space, I have archived all the materials associated with this project with them, and contributed, where possible, to the training and advancement of the students and staff at CELD.[42] In addition, during each fieldtrip (except the trip in 2017), I had to visit Manokwari at least once, in order to extend my visa. These trips were valuable in that I was able to use the internet, top up on supplies that weren't available in Kabare, and repair faulty equipment.

1.4.3 Methodologies, research methods, and the corpus

During my first, pilot field trip in early 2014, I focussed on collecting elicited data. During my preliminary tour of the Ambel villages, in January 2014, I collected word lists and basic sentences from at least one speaker in each of the villages we visited. When I returned to Kapadiri in February 2014, I began collecting verb and possessive paradigms. I also recorded and annotated three naturalistic texts during this time: two children's tales (**AM019** and **AM020**), and a short history of Fofak Bay (**AM021**).

In subsequent trips, I turned my attention to the collection and annotation of naturalistic data. In all, 114 naturalistic texts were recorded, amounting to over

time in Iatmul villages, generally did not let on that he was able to speak the lingua franca, Tok Pisin.

42. My primary supervisor, Bert Remijsen, also spent one week at CELD in association with this project, in order to lead a week-long capacity-building course.

14 hours of data. A detailed summary of the naturalistic corpus is provided in Appendix B; an overview is provided below. As well as the CELD archive, all of the naturalistic recordings are archived with the Endangered Languages Archive (ELAR) at SOAS (https://elar.soas.ac.uk/Collection/MPI845897).

Where possible, I recorded the naturalistic data with a video camera (Canon Legria HF G25) and a stereo condenser microphone (a Superlux E524D, connected to the camera through a Beachtek DXAHDV XLR adapter). The video files were recorded in .mts format, which I would then convert to .mp4 for use in Elan (see below), and from which I would extract a .wav audio file. If I was only recording audio data, I would use a Marantz PMD661, Zoom H4n, or Zoom H5n audio recorder, and either the internal microphone of the recorder, or a Shure SM10A-CN head-mounted microphone. The files were recorded in .wav format. Informed consent was collected from all speakers prior to recording.[43] For each of the naturalistic recordings, I compiled detailed metadata in Arbil (Withers 2012). These metadata files include information about the project as a whole; the individual recording (e.g. date, location); the participant(s) (e.g. age, sex); and protocol information (i.e., accessibility issues). The consent forms and metadata are archived with the relevant recordings.

After the recordings were made, I used Elan (Brugman and Russel 2004) to transcribe and translate each of the recordings, with the help of a native speaker. Early on, these transcriptions consisted of a phonetic transcription (compiled by myself), along with a tier for an orthographic transcription, a translation into PM, and an additional tier for lingusitic or socio-cultural notes. After a short while, once I had got to grips with the phonological system of Ambel, I stopped making phonetic transcriptions. I later added an English translation to several of the recordings.[44] While I was working with native speakers on the transcription and translation, I also took detailed notes in my field notebooks, describing specific meanings or uses of forms, flagging up important examples of various constructions, and taking notes of questions to follow up on in elicitation sessions (see below) and unclear sentences that needed to be checked with

43. One exception to this is reccording **AM064**. I recorded the data in **AM064** by asking a roomful of people (none of whom I knew very well) if I could turn an audio recorder on while they caught up on each others' news; I then explained I was going to leave the room while they chatted. Permission to archive this recording was gained retroactively; all the speakers in this recording were enthusiastic about me storing it on the internet.

44. In the coming months, I intend to add an English translation to the remaining texts.

other speakers (where possible, the author of the text). I generally worked with younger, unmarried men on the transcription and translation work.[45] Alfred Gaman (**AEG**) was my primary assistant on this task. During this project, Alfred was studying for a degree in Economics at UNIPA in Manokwari; during my third and fourth fieldtrips, which were timed to coincide with the university holidays, he accompanied me to Kapadiri. I also worked with Wolter Gaman (**WG**), Darius Wakaf (**DTW**), Echa Wakaf (**EW**), and Mesak Kein (**MeK**) on the annotations. For some of the recordings, I produced a morpheme-by-morpheme gloss of the text, using Fieldworks Language Explorer (FLEx; SIL International 2014). These glosses were subsequently imported back to Elan, so that the annotations are saved in a single file. The fieldnotes and Elan files are archived with the appropriate recordings in the CELD and ELAR archives. FLEx was used to create a trilingual dictionary of Ambel (Ambel-Papuan Malay-English), which was printed and distibuted to the Ambel villages. A bilingual version of this dictionary (Ambel-English) can be found in Appendix E.

In making the naturalistic corpus, an effort was made to record texts from as many different genres as possible (see e.g. Bowern 2008: Chap. 9, Payne 1997: §12.2, Sakel and Everett 2012: 146). A summary of the composition of this corpus is given in Table 1.6.[46]

Some notes about the composition of the naturalistic corpus are warranted. First, I found it easy to record folk tales, mythologies, histories, and (especially) songs.[47] In contrast, I found it comparatively difficult to record Ambel people having everyday conversations. When it came to making recordings, older speakers were more interested in telling narratives rich in historical content. Younger speakers, on the other hand, did not like to be recorded without having practised or thought about what they were going to say beforehand, primarily because they were afraid of using Malay loanwords, or code-switching into PM.[48]

45. Married men were generally too busy sourcing food for their family to dedicate much time to annotation work; and, despite my best efforts, I had no success persuading any women to work with me on this task.
46. The genre categories are adopted from van den Heuvel (2006: 15) and Payne (1997: 356-363). See Appendix B for further information on each of the different genres, and an explanation of how the recordings were categorised.
47. As the phonology and syntax can be different from that of day-to-day conversation, I have avoided using data from songs in any of the analyses presented in this description.
48. This fear of code-switching and using borrowings was, in fact, expressed by many Ambel speakers, young and old alike; it was the topic of many conversations while I was there.

Table 1.6: Summary of the naturalistic corpus: Genre

Genre	Number	Time (H:MM:SS)
SPOKEN GENRES		
Narrative		
- Folk tale	13	1:07:51
- Mythological	9	4:03:59
- Historical	5	1:06:55
- Personal	4	0:16:09
- Religious	1	0:11:15
Procedural	9	0:19:24
Performative	3	0:52:07
Expository	6	0:18:09
Conversation	4	0:37:07
Hortatory	5	0:58:31
Description	2	0:03:04
Task	3	0:16:28
Total (spoken)	64	9:54:31
OTHER GENRES		
Song	41	3:38:17
Instrumental music	8	0:27:30
Total (other)	50	4:08:12
TOTAL	114	14:02:43

Two methods were used to capture additional conversational data reflecting the quotidian use of Ambel. First, I was never far from my notebook while I was in the field. As my proficiency in Ambel grew, this meant I was able to make a written record of constructions I heard while people were chatting. These notes were sometimes used as the basis for questions in elicitation sessions (see below). Secondly, for more narrative texts, I quickly learnt that having the speaker tell the narrative to another native Ambel speaker often produced more interactive data. I often asked the person who was currently assisting me with transcription and translation to be a participant in these recordings (see, for example, recordings **AM066**, **AM107**, **AM135**, **AM157**, and **AM204**).[49]

49. As well as helping to create more natural dialogue, this technique had three further benefits. First, if the additional participant was also assisting me with transcription and translation, this meant there was easier access to information relating to the pragmatic intent of the main speaker. For example, with regards to the pragmatics of articles (see §6.2.9), during transcription I could easily elicit information about why a speaker may have used one particular article rather than

There are 49 different speakers or performers in the naturalistic corpus. A breakdown of the speakers in the corpus by gender and year of birth is given in Table 1.7.[50]

Table 1.7: Summary of the naturalistic corpus: Speakers

Year of birth	**Gender**		**TOTAL**	
	Male	*Female*		
≤1939	1	2	3	(6.12%)
1940-1949	1	0	1	(2.04%)
1950-1959	5	0	5	(10.2%)
1960-1969	9	7	16	(32.65%)
1970-1979	6	2	8	(16.33%)
1980-1989	6	4	10	(20.41%)
1990-1999	5	1	6	(12.24%)
TOTAL	33 (67.35%)	16 (32.65%)	49	

In terms of gender, Table 1.7 shows that just over two-thirds of the speakers in the naturalistic corpus are male (67.35%), and just under one-third are female (32.65%). I tried to get as equal a gender balance in the corpus as possible. However, when I tried to persuade women – particularly younger women – to let me record them, they often politely refused, and I did not press the matter further. In terms of year of birth, the most represented groups are those born 1960-1969 (32.65%), 1980-1989 (20.41%), and 1970-1979 (16.33%). The corpus contains recordings of intergenerational interaction (e.g. **AM042**, **AM125**) and language practices amongst younger generations (e.g. **AM024**, **AM029**).

The naturalistic corpus provided the starting point for further elicitation work. In a departure from the typical methodology used in some recent descriptive grammars of the languages of west New Guinea and its environs (e.g. Bowden 2001: 19-20, van Staden 2000: 2-4, Gravelle 2004: 22), I rely almost equally on

another. Second, this technique meant that, if there was something in the content that was unclear at the time of narration – the name of a person or place, for example, or which character was the current discourse topic – the assistant could ask for this information on the spot, so that when it came to translating the text, the assistant was already clear in his mind about the main speaker's intent. Finally, several of the recordings represented older speakers 'passing on' cultural knowledge to the younger speakers. This is particularly true, for example, of recordings **AM066**, **AM157**, and **AM204**.

50. As the percentages are rounded to two decimal places, they may not add up to 100%.

elicted data and naturalistic data in this description. Elicited data is often used to demonstrate the ungrammaticality of a certain construction, or its infelicity in certain contexts; or to demonstrate a subtle pragmatic or semantic difference between two constructions. The reason for this use of elicited data is that I want this descriptive grammar to be as exhaustive as possible. As has been discussed at length elsewhere (e.g. Davis et al. 2014, den Dikken et al. 2007, Krifka 2011, Matthewson 2004), there are several disadvantages to relying solely or mainly on naturalistic data: for example, there may be gaps in paradigmatic data; and negative data are not available.

However, there are several different kinds of elicited data, some of which are more helpful to the descriptive linguist than others. As has been noted by, for example, Chelliah (2001), Mithun (2001), and Matthewson (2004), eliciting direct transaltions from a lingua france (in this case, Papuan Malay) into the target language is methodologically unsound: for example, it may introduce interference from the lingua franca into the data. While I used this elicitation technique during my first, pilot field trip, in order to gather targeted data to explore the phonological system and basic clause structure of Ambel, in subsequent trips I moved away from this kind of elicitation. Translation of a particular target sentence from PM into Ambel often provided a starting point for manipulation of the sentence in order to prompt speaker introspection into the kinds of contexts that that construction can occur in. However, the majority of the elicitation sessions were based on hypotheses that I had formed, based on the naturalistic data, which I then attempted to falsify. Thus, if I state that a particular construction is 'ungrammatical', 'infelicitous', or 'not possible', this means I have checked the grammaticality and felicity of that construction with native speakers of Ambel. If I talk about a construction in terms of attestation – for example, 'construction X is not attested in the corpus' – this means that I have not checked whether the construction is ungrammatical, but rely instead on inductive reasoning, based on the presence or absence of the construction in the corpus.[51]

The majority of the elicted recordings in the corpus are of Martinus Wakaf (**MW**), my main teacher; I recorded nearly all of these sessions, using either a Marantz PMD661, Zoom H4n, or Zoom H5n audio recorder, and a Shure

51. As my proficiency in PM always remained higher than my proficiency in Ambel, I used PM, or a mixture of Ambel and PM, as the medium of communication in these sessions, in order to ensure the accuracy of the responses I was getting.

SM10A-CN head-mounted microphone. In addition, I worked less formally with other speakers (such as Matius Kein **MaK**, Aplena Awom **AA**, Mesak Kein **MeK**, and Yubel Kein **YK**), to check and double-check the elicited data; these sessions were generally not recorded. With all of the people I worked with, I made it clear that a 'no, you can't say that' answer was often just as exciting as a 'yes, you can say that' answer – and that I very much wanted to be corrected if something was wrong. In addition, I checked many of the analyses with more than one speaker, in order to ensure the answers I was getting were representative of the speech community more widely, rather than any single speaker's ideolect.

In total, the elicited corpus amounts to nearly 147 hours of material. All of the recorded elicitation sessions are archived, along with the accompanying fieldnotes, metadata, and consent forms, in the CELD and ELAR archives.

1.5 Overview and typological sketch

In this section, I provide a typological overview of Ambel. This overview also serves as a summary of this description.

Ambel is a head-marking, head-initial language with basic AVP/SV constituent order and prepositions. However, most mode, aspect, and polarity particles are clause-final. Ambel has accusative alignment, in that S and A pattern together to the exclusion of P; and indirective alignment, in that P and T pattern together to the exclusion of R. The grammatical relations of subject and object are primarily marked with word order and subject-marking morphology on the verb.

Chapter 2 is a description of Ambel phonology. Ambel has 14 native consonant phonemes, and five vowels. Neither vowel length nor stress is contrastive. Ambel does, however, have a tone system: in Metnyo Ambel, /H/ syllables contrast with toneless syllables, in a system that is culminative, but not obligatory. Most words are monosyllabic or disyllabic. The most common syllable structure is CV or CVC; the minimal syllable is V, and the maximal syllable is CVCC, CCVC, or CCCV. Complex syllable onsets and codas adhere to the Sonority Sequencing Principle (Clements 1990).

In chapter 3, the morphological units affix, clitic, particle, and word are defined. Ambel has both inflectional and derivational morphology. The distinction between nouns and verbs is generally clear: verbs function as the predicates of verbal

clauses, and take morphology to mark the person, number, and animacy of the subject, whereas nouns function as the heads of NPs, which themselves function as arguments, adjuncts, or predicates. However, some roots can function either as verbal predicates, or as heads of NPs; these roots are analysed as underspecified for word class. The nominal inventory is categorised in three separate classification systems: a noun class (gender) system, in which animate and inanimate entities are distinguished; a system of possessive classification; and a weak system of numeral classification. There is no separate class of adjectives, but there are 21 adjectival verbs, which are analysed as a subclass of verb. There are several small classes of adverbs, including a handful of manner adverbs. Other, smaller word classes are also introduced in this chapter, including prepositions, demonstratives, articles, and conjunctions.

Chapter 4 is a closer look at the verb in Ambel. In this chapter, the subject-marking paradigms for each of the four different subclasses of verb are presented. All of these paradigms make a clusivity distinction in the first person, an animacy distinction in the third person, and, for animate entities, a four-way number distinction (singular, dual, paucal, plural). This is followed by a classification of the verbal inventory on syntactic grounds, by the number and types of arguments a verb can take. This chapter closes with a discussion of some other verbal affixes: the unproductive causative prefix *ha-* 'CAUS', and several fossilised valency-changing affixes.

In chapter 5, issues to do with the Ambel noun are discussed. This chapter begins with a look at noun derivation strategies: reduplication, nominal compounding, and the nominalising prefix *a-* 'NMLZ'. Following this, the noun class system, which categorises the nominal inventory based on animacy, is discussed in detail.

Ambel noun phrases, discussed in chapter 6, are underspecified for whether they function as arguments or predicates of a clause. For example, an NP can function as the predicate of an ambient/existential clause, without any additional marking. The NP in Ambel is head-initial: the only modifier that occurs before the head is a possessor NP. Modification by elements such as other nouns, adjectival verbs, quantifiers, demonstratives, and pronouns is described in this chapter. Particular attention is paid to the rich system of articles. Articles in Ambel encode definiteness and specificity; in addition, different articles are used depending on

whether the NP is more or less accessible, and whether the speaker wants to provide information about the spatial location of a referent.

Chapter 7 is a close look at possessive constructions in Ambel. Possessive constructions, like other NPs, are underspecified for whether they are attributive or predicative: the same construction is used as both an argument, and as the predicate of a possessive clause. There are five different possessive constructions in Ambel. In all of these constructions, the possessor noun precedes the possessed noun. Two of these constructions are indirect constructions, in which the person, number, and animacy of the possessor is marked on a prenominal possessive classifier; the other three constructions are direct constructions, in which the same information is marked directly on the possessed noun. Like the verbal subject-marking paradigms, all five of the possessive paradigms make a clusivity distinction in the first person, an animacy distinction in the third person, and a four-way number distinction for animate entities. The choice of possessive construction is determined by a lexical specification on the possessed noun – for nouns referring to body, animal, or plant parts, there is an additional semantic component.

Chapter 8 is a discussion of issues relating to the clause. As well as verbal clauses, Ambel also has syntactically distinct locative, nominal, and quantifier clauses. As introduced above, NPs and possessive constructions can be used as the predicates of ambient/existential clauses and possessive clauses, respectively. Variation in the clause, including the use of a 'preclausal frame', is also discussed in this chapter. The preclausal frame plays a major role in Ambel grammar. Nominal, adverbial, or clausal material may occur in this frame; it functions to provide a framework for the addressee to interpret the rest of the sentence – for example, clausal material in the preclausal frame receives a temporal or conditional reading.

In chapter 9, I discuss non-declarative speech acts in Ambel. Ambel is unusual in that imperatives and hortatives are generally unmarked; they are identical with their declarative counterparts, and can only be distinguished from the context. Different ways of forming polar, alternative, and constituent interrogatives are also discussed in this chapter.

Clausal modification by mode, aspect, and polarity particles is described in chapter 10. Most of these particles occur in a clause-final complex; the syntax of this complex is discussed in this chapter. Issues relating to the nine prepositions in Ambel are described in chapter 11.

Chapter 12 is a detailed look at the rich system of spatial deixis in Ambel. There are 32 deictic units in Ambel, which encode information about the location of an entity relative to the speaker and the addressee, as well as more fine-grained information about the location of the entity in the wider physical environment. These deictic units are used in the derivation of seven different types of word: two different demonstratives (contrastive and non-contrastive); deictic articles; deictic nouns; deictic locative predicates; deictic prepositions; and demonstrative verbs.

Verb serialisation is used in Ambel to express the direction in which an entity is transferred; change of state; manner; and purposive motion. Each function corresponds to a distinct phonological and syntactic type of serial verb construction, which are discussed in chapter 13. Two other types of complex verb are discussed in this chapter: verb-noun compounds, and verb-verbal suffix constructions.

In chapter 14, multi-clausal constructions in Ambel are discussed. Noun-modifying constructions, of which relative clauses are a subtype, are described in this chapter, as are complement clauses (including periphrastic causative constrictions). This chapter also addresses syndetic and asyndetic strategies for clause-combining; as in many other languages of the area, subordinating and coordinating conjunctions cannot be distinguished on morphological or syntactic grounds. Finally, this description closes in chapter 15, with a description of some salient discourse phenomena in Ambel.

Chapter 2

Phonetics and phonology

2.1 Segmental phonology

2.1.1 Consonant inventory

The consonant inventory of Ambel is given in Table 2.1.[1]

Table 2.1: The consonant inventory of Ambel
(phonemes only occuring in loanwords in brackets)

Active articulator	apico-		lamino-	dorso-	labio-	glottal
Passive articulator	dental	alveolar	palatal	velar	labial	
stop						
voiceless	t			k	p	
voiced		d		g	b	
fricative						
voiceless		s				h
affricate						
voiceless			(tʃ)			
voiced			(dʒ)			
nasal		n	(ɲ)	(ŋ)	m	
lateral		l				
rhotic		r				
semivowel			j	w		

1. Throughout this chapter, all transcriptions are in IPA, unless otherwise noted.

Ambel has fourteen native consonant phonemes, and four phonemes that occur in loanwords (/tʃ/, /dʒ/, /ɲ/, and /ŋ/). The phonetic affricates [tʃ] and [dʒ] in indigenous words are analysed as realisations of underlying /tj/ and /dj/, respectively (see §2.2.3.1).

Minimal and near-minimal sets demonstrating the contrasts for the native consonant phonemes given in Table 2.1 are given in (1)–(9). Contrasts are given for those consonants that are similar in terms of place of articulation, as in (1)–(3), or manner of articulation, as in (4)–(9).[2]

(1) Bilabials: /p - b - m - w/

/pát/	'west wind'	/bát/	'ground, earth'
/wáte/	'cross-aunt'	/matén/	'world'

(2) Dental and alveolars: /t - d - s - n - r - l/

/tú/	'wash.1PL.I'	/dú/	'pull.1PL.I'
/su/	'nose.3SG.AN'	/núk/	'same.sex.sibling.1SG'
/rúmun/	'shark'	/lu/	'shadow.3SG.AN'

(3) Velars and glottal: /k - g - w - h/

/kop/	'branch, twig'	/gop/	'jambu fruit'
/wop/	'sell.1PL.I'	/ho/	'kind of arrow'

(4) Voiceless stops: /p - t - k/

/pál/	'side'	/tálo/	'egg'
/kálo/	'star'		

(5) Voiced stops: /b - d - g/

/bu/	'white'	/du/	'obey.1PL.I'
/gu/	'hole'		

2. The following diacritics are used throughout this chapter to transcribe pitch and tone: [á] High Level, [à] Low Level, [ā] Mid Level, [â] High-Low Fall, [ǎ] Low-High Rise, [ǎ̂] Low-High-Low Rise-Fall. Unless otherwise noted, the realisations of tone in this chapter are of words in intonation phrase-medial context (see §2.3.1 for a description of the intonation phrase).

(6) Fricatives: /h - s/

/hun/	'king'	/sun/	'enter.1PL.I'

(7) Nasals: /m - n/

/mán/	'man, male'	/nán/	'kind of tree, PM *kayu oka*'

(8) Liquids: /l - r/

/rawé rawé/	'kind of sea cucumber'	/lawé/	'thread'

(9) Glides: /w - j/

/we/	'water'	/jé/	'island'

The realisations of the seventeen consonants given above in Table 2.1 are presented in Table 2.2. The environments in which each allophone can occur are also given.

Table 2.2: Realisations of consonant phonemes

Phoneme	**Realisation**	
/p/	[p]	a voiceless unaspirated bilabial stop, all positions
	[p̚]	an unreleased voiceless bilabial stop, pre-pausally
	[pʰ]	a voiceless aspirated bilabial stop, pre-pausally when a word is emphasised
/b/	[b]	a voiced unaspirated bilabial stop, all positions
/t/	[t̪]	a voiceless apico-dental stop, all positions
	[t̪̚]	an unreleased voiceless apico-dental stop, pre-pausally
	[t̪ʰ]	a voiceless aspirated apico-dental stop, pre-pausally when a word is emphasised
	[m̊]	a voiceless bilabial nasal, preceding /m/ within a phonological word (see §2.4.2)
	[n̊]	a voiceless apico-alveolar nasal, preceding /n/ within a phonological word (see §2.4.2)

Continued on next page...

Table 2.2 – *Continued from previous page*

Phoneme	Realisation	
	[ɬ]	a voiceless lateral fricative, preceding /l/ within a phonological word (see §2.4.2)
	[h]	a voiceless glottal fricative, preceding /w/ within a phonological word (see §2.4.2)
/d/	[d]	a voiced unaspirated apico-alveolar stop, all positions
/k/	[k]	a voiceless dorso-velar stop, all positions
	[k˺]	an unreleased voiceless dorso-velar stop, pre-pausally
	[kʰ]	a voiceless aspirated dorso-velar stop, pre-pausally when a word is emphasised
	[x]	a voiceless dorso-velar fricative, in free variation with [k] in fast speech
/g/	[g]	a voiced unaspirated dorso-velar stop, all positions
	[ɣ]	a voiced dorso-velar fricative, in free variation with [g] in fast speech
/s/	[s]	a voiceless apico-alveolar fricative, all positions
/h/	[h]	a voiceless glottal fricative, all positions, particularly in fast speech
	[ɸ]	a voiceless bilabial fricative, in free variation with [h], particularly in careful speech (see §2.1.1.1)
	[f]	a voiceless labiodental fricative, in free variation with [h], particularly in careful speech (see §2.1.1.1)
/m/	[m]	a voiced bilabial nasal, all positions
/n/	[n]	a voiced apico-alveolar nasal, all positions
	[m]	a voiced bilabial nasal, preceding a bilabial segment within a phonological word (see §2.4.1)
	[ɲ]	a voiced lamino-palatal nasal, preceding /j/ within a phonological word (see §2.4.1)
	[ŋ]	a voiced dorso-velar nasal, preceding a velar segment within a phonological word (see §2.4.1)
/ɲ/	[ɲ]	a voiced palatal nasal, all positions
/ŋ/	[ŋ]	a voiced dorso-velar nasal, all positions

Continued on next page...

Table 2.2 – *Continued from previous page*

Phoneme		Realisation
/l/	[l]	a voiced alveolar lateral approximant, all positions
/r/	[r]	a voiced alveolar trill, all positions
	[ɾ]	a voiced alveolar flap, in free variation with [r] in fast speech
/w/	[w]	a bilabial voiced labio-velar approximant, all positions
/j/	[j]	a voiced palatal approximant, all positions
/tʃ/	[tʃ]	a voiceless postalveolar affricate, all positions
/dʒ/	[dʒ]	a voiced postalveolar affricate, all positions

2.1.1.1 On the status of /h/

In this section, I discuss the sounds [f ~ ɸ ~ h], and justify the analysis that they are all realisations of underlying /h/.

For older speakers (those aged approximately 50+), [f ~ ɸ ~ h] are mostly in free variation. Some examples of [f ~ ɸ ~ h] realisations are given in (10).

(10) Realisations of [f ~ ɸ ~ h]:

[fá]	~	[ɸá]	~	[há]	'rice'
[fít]	~	[ɸít]	~	[hít]	'seven'
[fùn]	~	[ɸùn]	~	[hùn]	'king'
[kàflé]	~	[kàɸlé]	~	[kàhlé]	'wing'
[jà-fjá]	~	[jà-ɸjá]	~	[jà-hjá]	'1SG-feel'
[jà-flór]	~	[jà-ɸlór]	~	[jà-hlór]	'1SG-jump.forwards'

For the older speakers that have this [f ~ ɸ~ h] variation, the realisation depends on the speed and care of speech: in slow, careful speech, the realisation is [f], whereas in faster, less careful speech, the realisation is [ɸ] or [h].

In natural speech, where older speakers have [f ~ ɸ ~ h], younger speakers generally only produce [h]. Younger speakers will, however, accept [f] and [ɸ] pronunciations, and will happily replace [h] with either [f] and [ɸ] if their attention is brought to the variation.

There are three reasons to consider [f ~ ɸ ~ h] allophones of a single phoneme. First, there are no reliable minimal pairs demonstrating an underlying distinction.[3] Second, all three phones are in free variation in older speakers' speech (with four exceptions; see below). Third, younger speakers only have [h], where older speakers have [f ~ ɸ ~ h].

There are two observations that justify the analysis that [f ~ ɸ ~ h] are realisations of underlying /h/ (as opposed to /ɸ/ or /f/). First, there are four attested words for which realisations of [ɸ] and [f] are not possible, indicating that the underlying phoneme is neither /ɸ/ nor /f/. These words are given in (11).

(11) Examples of obligatory [h]:

[áhār]	*[áɸār]	*[áfār]	'lime'
[àhál]	*[àɸál]	*[àfál]	'forest jambu fruit'
[àhón]	*[àɸón]	*[àfón]	'plank'
[hò]	*[ɸò]	*[fò]	'kind of arrow'

Second, for the majority of speakers, only [h] is attested in natural speech. While most members of the speech community will accept [ɸ] and [f] as variants of [h], and will produce them in unnatural settings (e.g. elicitation sessions), it is my experience that, in natural speech, [ɸ] and [f] are vanishingly rare. It is worth noting that the oldest speakers that I have worked with insist that pronunciation with [f] is the 'correct' pronunciation, suggesting that at least some speakers have an underlying /f/. However, the prominence of [h] realisations throughout the Ambel speech community suggests that, for most speakers, the underlying phoneme is now /h/.[4]

3. One speaker, **MW**, identified what appear to be two minimal pairs: [fàním] 'watch.1PL.I' vs. [hàním] 'mirror'; and [tàfáj] 'beckon.1PL.I' vs. [tàháj] 'recognise.1PL.I'. However, these minimal pairs are suspect for a number of reasons, not least that I have not been able to successfully replicate the distinction with other speakers (who would accept [f ~ ɸ ~ h] for either of the pair, with no difference in meaning).

4. This analysis is, incidentally, supported by the fact that the main assistant who worked on the transcription and translation of Ambel texts (**AEG**) was reluctant to use the grapheme <f> in transcription, even when the sound being transcribed was [f]. It is also supported by feedback I received from younger members of the community on a draft of the Ambel dictionary, produced by myself and my main teacher (**MW**). While **MW** insisted that we should transcribe all words that can be realised with [f] with <f>, I was told by many people who looked at the dictionary that this would cause confusion, because this was not the normal way to pronounce these words. Some people also pointed out that, by using <f> rather than <h>, the dictionary would be more representative of the Metsam dialect of Ambel than Metnyo, as Metsam generally has [f] where

2.1.2 Vowel inventory

Ambel has a five-vowel system, shown in Table 2.3. There is no phonemic vowel length in Ambel.

Table 2.3: The vowel inventory of Ambel

	Front	Central	Back
High	i		u
Mid	e		o
Low		a	

Minimal and near-minimal pairs demonstrating contrasts between the five vowels given in Table 2.1.2 are presented in (12).

(12) Vowel contrasts: /i - e - a - o - u/

/i/	[jíl]	'hill'	[tí]	'pass.1PL.I'
/e/	[jél]	'sago pulp'	[té]	'spear.1PL.I'
/a/	[j-ál]	'1SG-take'	[t-à]	'1PL.I-depart'
/o/	[j-ól]	'1SG-stand'	[tó]	'stay.1PL.I'
/u/	[j-úl]	'1SG-call'	[tú]	'wash.1PL.I'

Figures 2.1 and 2.2 show the results of an instrumental analysis on the F1 and F2 values for each of the five vowel phonemes in a range of phonetic contexts. The data in Figure 2.1 come from 86 vowel tokens in utterance-medial context by a 30-year-old male speaker, **YK**, and the data in Figure 2.2 come from 97 vowel tokens in utterance-medial context by a 24-year-old female speaker, **KW**.[5]

Most vowel realisations are in free variation, and occur unconditioned in most environments. One exception is /u/, which in connected speech is regularly realised as [y] when preceding /j/. An example is given in (13).[6]

Metnyo has [f ~ ɸ ~ h] (see §2.6.2). In the end, **MW** and I decided to transcribe these words with both <f> and <h>.

5. For each vowel token, F1 and F2 were measured at the mid-point of each vowel. The values were then normalised with the Nearey 1 formula (Nearey 1977), scaled to Hz, and visualised using NORM (Thomas and Kendall 2007). The ellipses plot the F1 and F2 values to 1.5 standard deviations.

6. See §2.2.2.1 for the realisation of coda /j/ as [j ~ i].

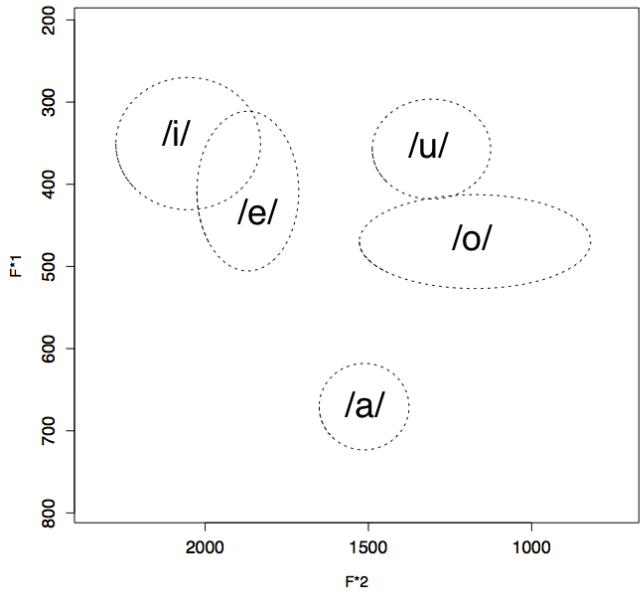


Figure 2.1: Plot of mid-point F1 versus F2 values for 86 vowel tokens in utterance-medial position in a range of phonetic contexts, produced by a 30-year-old male speaker (**YK**).

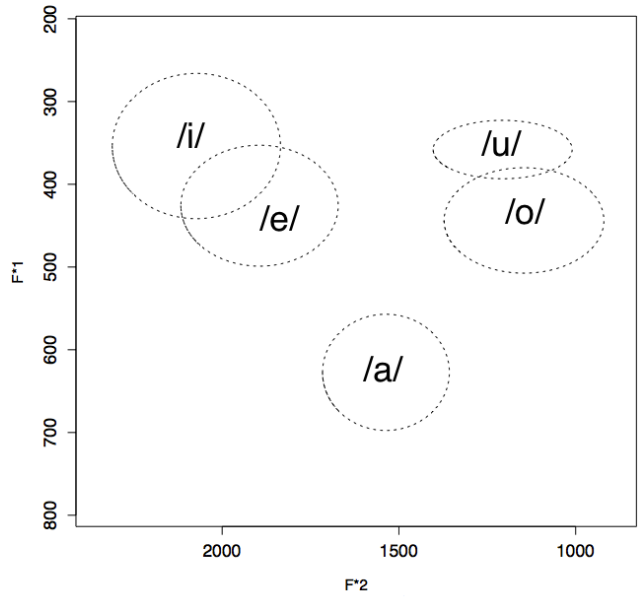


Figure 2.2: Plot of mid-point F1 versus F2 values for 97 vowel tokens in utterance-medial position in a range of phonetic contexts, produced by a 24-year-old female speaker (**KW**).

(13) /u/ → [y] / ____/j/

/l-asúj/	→	[làsýj] ~ [làsýi]
3PL.AN-speak		'They speak.'

2.2 Phonotactics

In this section, the phonotactics of Ambel will be discussed and exemplified. In §2.2.1, the syllable structure of Ambel is presented, and illustrated with words of different lengths. In §2.2.2, there is a discussion of syllable-internal and inter-syllable vowel sequences. §2.2.3 is an examination of the complex consonant onsets and codas that are permitted in Ambel. This section closes in §2.2.4, with a look at how words are syllabified.

2.2.1 Syllable structure

The syllable structure in Ambel is given in (14). In this notation, C represents a consonant, and V represents a vowel.

(14) Syllable structure in Ambel
(C_1) (C_2) (C_3) V (C_4) (C_5)

The maximal syllable structure is represented schematically in Figure 2.3.

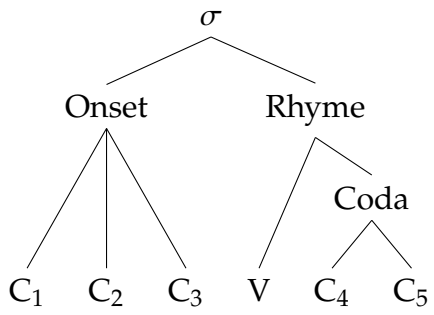


Figure 2.3: Maximal syllable structure

Both the onset and the coda are optional in Ambel: a minimal syllable consists of a single nucleus. There are no restrictions on what vowel may occur in the V

slot. The following restrictions apply on the C slots in a syllable with three onset consonants. C_1 is the most highly restricted C slot: only the segment /m/ and the possessive prefix /t-/ '1PL.I' are attested in C_1 (see §2.2.3.1.1). Any consonant given in Table 2.1 can occur in C_2. Only sonorant consonants, i.e. /m n l r w j/, can occur in C_3. In the coda of the syllable, only the glides /j w/ may occur in C_4. Any consonant, except the voiced stops /b d g/, the voiceless fricative /h/, and the loan phonemes /tʃ/, /dʒ/, and /ɲ/, can occur in C_5. If the onset or the coda of the syllable is complex, i.e. if there is more than one consonant in the onset or coda, there are restrictions on what combinations of consonants may occur; these restrictions are discussed in §2.2.3.

The possible syllable structures in monosyllabic and disyllabic words are exemplified in Table 2.4. Note that there are no attestations of monosyllabic words in which all three C slots in the onset are occupied.

Table 2.4: Examples of syllable structure in monosyllabic and disyllabic words

Monosyllabic words														
(C_1)	(C_2)	(C_3)	V	(C_4)	(C_5)									
			i											'3SG.AN.O'
			á	j										'tree, wood'
		d	u											'beetle'
		g	á	m										'night'
	n	j	u											'river eel'
	n	j	i	w										'high tide'
		l	á	j	m									'sago funnel'
Disyllabic words														
(C_1)	(C_2)	(C_3)	V	(C_4)	(C_5)	(C_1)	(C_2)	(C_3)	V	(C_4)	(C_5)			
			á						i					'dog'
		d	o						í					'closed bay'
		k	á						i		n			'rabbitfish'
		m	a	n			s	j	á		n			'widower'
m	n	j	á				r		a		n			'diligence'
	b	j	á					l	a	m				'kind of tree'
		b	a					l	á	j	k			'azure kingfisher'

The majority of Ambel words are monosyllables or disyllables. Trisyllabic words are not uncommon; monomorphemic words up to five syllables long, and morphologically complex words up to six syllables long, have been attested.

Representative examples of words three, four, five, and six syllables long are given in (15)–(18).

(15) Words of three syllables:

/ká.wa.sa/	'group of people, community'
/da.rí.an/	'soursop'
/ka.ú.kuj/	'kind of shellfish'
/in.sá.man/	'emperor fish'
/ka.lú.bu/	'rat'
/ja.-ga.li/	'1SG-help'
/ja.-ká.tu/	'1SG-fix.canoe'
/ma.túm-súp/	'2PC-bathe'

(16) Words of four syllables:

/lá.wi.a.ta/	'calm season'
/mal.sán.di.a/	'long loincloth'
/man.ki.ri.ó/	'kind of brushturkey'
/mál.ka.bya.lat/	'kidney'
/u.la.-ká.tu/	'3DU-fix.canoe'
/ja.-wo.ka.súj/	'1SG-yawn'

(17) Words of five syllables:

/man.ka.pá.ra.ran/	'kind of small snake'
/a.tú.ma.-ká.tu/	'1PC.E-fix.canoe'
/u.ma.-wo.ka.súj/	'1DU.E-yawn'

(18) Words of six syllables:

/a.tú.ma.-wo.ka.súj/	'1PC.E-yawn'
/a.tú.ma.-ka.má.ra/	'1PC.E-tear'

2.2.2 Vowel sequences

The maximal Ambel syllable, as presented in (14) and Figure 2.3, has a single vowel in the nucleus. However, phonetic diphthongs [VV], where two vowels are realised

within a single nucleus, are attested. In §2.2.2.1, I will present evidence to suggest that the most parsimonious analysis of syllable-internal [VV] sequences is that they are realisations of underlying sequences of vowel plus glide /VG/, justifying the syllable structure given above. In §2.2.2.2, I will turn to [V.V] vowel sequences, in which two adjacent vowels straddle a syllable boundary. I will show that these [V.V] sequences are best analysed as realisations of underlying /V.V/.

2.2.2.1 Phonetic diphthongs [VV]

The realisation of two vowels within a single nucleus, [VV], is not particularly common. Table 2.5 presents the nucleus-internal [VV] sequences that are attested in Ambel, along with the number of lexical items that are attested with this realisation.

Table 2.5: Attested nucleus-internal [VV] sequences (number of attestations in brackets)

V_1V_2	i	e	a	o	u
i	ii (16)	*ie	*ia	*io	iu (16)
e	ei (24)	*ee	*ea	*eo	eu (14)
a	ai (71)	*ae	*aa	*ao	au (31)
o	oi (12)	*oe	*oa	*oo	ou (43)
u	ui (17)	*ue	*ua	*uo	*uu

As can be seen from Table 2.5, the only vowels that occur as the second element of these [VV] sequences are [i] and [u]. In this position, [i] and [u] are in free variation with [j] and [w], i.e. the phonemic distinctions /i/-/j/ and /u/-/w/ are neutralised in this context. Some examples of how [Vi] and [Vu] sequences alternate with [Vj] or [Vw] are given in (19).

(19) Variation in the realisation of [VV] sequences:

ii ~ ij	[míi] ~ [míj]	'rain'
ei ~ ej	[bèi] ~ [bèj]	'uncooked sago'
ai ~ aj	[ái] ~ [áj]	'wood, tree'
oi ~ oj	[kàm.bói] ~ [kàm.bój]	'portable bed'
ui ~ uj	[sùi] ~ [sùj]	'smoke.fish.1SG'
iu ~ iw	[síu] ~ [síw]	'nine'
eu ~ ew	[kéu] ~ [kéw]	'kind of tree, PM *kayu palaka*'
au ~ aw	[dàu] ~ [dàw]	'make.fire.1PL.I'
ou ~ ow	[hòu] ~ [hòw]	'spit.out.1PL.I'

In this description, I adopt the analysis that sequences of [VV] within a single syllable peak are realisations of underlying /Vj/ and /Vw/ sequences. There are two motivations for this: (1) This analysis accounts for the free variation of [i] ~ [j] and [u] ~ [w] in the realisations of these sequences; (2) It explains why only [i] and [u] occur as the second element in [VV] sequences – they are realisations of /j/ and /w/, respectively.

Note that, while the sequence of a high front vowel and a palatal glide /ij/ is permitted, the sequence of a high back vowel and labio-velar glide /uw/ is not attested. This may be because */uw/ is not permitted, or it may be an accidental gap.

2.2.2.2 Sequences of [V.V]

Two adjacent vowels may form two syllable peaks, in a [V.V] sequence. This occurs when two syllables of the form (C)(C)V_1 and V_2(C)(C) occur together. The boundary between V_1 and V_2 is minimally a syllable boundary, but can also be a morpheme or a word boundary. When two identical vowels are in hiatus across a morpheme or word boundary, vowel hiatus resolution occurs; this process is discussed in §2.4.5.1 below.

Root-internal [V.V] sequences are rare in Ambel – in a lexicon of 1755 words, only 47 exhibit a [V.V] sequence. Table 2.7 presents the attested root-internal [V.V]

sequences in the Ambel. The number of lexical roots attested with each [V.V] sequence is given in brackets.

Table 2.7: Attested root-internal [V.V] sequences (number of attestations in brackets)

V_1V_2	i	e	a	o	u
i	–	–	i.a (13)	i.o (2)	–
e	–	–	e.a (1)	–	–
a	a.i (12)	a.e (3)	a.o (1)	–	a.u (5)
o	o.i (4)	–	–	–	–
u	u.i (1)	–	u.a (5)	–	–

Examples of root-internal [V.V] sequences are given in (20).[7]

(20) Examples of words with [V.V] sequences:

a.i	ma.la.í	'bored'
	ká.in	'rabbitfish'
o.i	jo.i-	'heart'
	do.í	'closed bay'
u.i	gú.it	'kind of fish, PM *ikan mas laut*'
a.e	ja-ka.é.loj	'1SG-roll'
	aN=ta.é.loj	'3SG.INAN=be.rolling'
i.a	da.rí.an	'soursop'
	mal.sán.di.a	'long loincloth'
e.a	lé.a	'different'
u.a	mam.bu.á.rak	'kind of shrimp, PM *udang bambu*'
	tu.a	'bed' < Tidore
i.o	man.ki.ri.ó	'brushturkey'
a.o	j-a.ol	'1SG-anchor'
	aN=ma.ó	'3SG.INAN=be.long'
a.u	j-a.ú	'1SG-blow'
	ka.ú.kuj	'kind of shellfish'

7. The word /tu.a/, with a [u.a] sequence, is borrowed from Tidore *tua* 'bed'. Other words in (20), such as the names for flora and fauna on the list, may also have been borrowed. Two languages that have historically exerted influence over Ambel are Tidore and Biak (§1.1.2). While [V.V] syllables are somewhat common in Tidore (van Staden 2000: 55), similar vowel sequences in Biak are very rare (van den Heuvel 2006: 42). Biak is thus less likely as the donor of these sequences.

2.2.3 Consonant clusters

The syllable structure given in Figure 2.3 shows that it is possible to have up to three consonants in the syllable onset, and up to two consonants in the syllable coda. Within complex onsets and codas, however, there are restrictions on what segments may occur. In this section, permitted syllable onsets and codas are discussed, in §2.2.3.1 and §2.2.3.2, respectively. Both root forms and inflected forms will be considered. In §2.2.3.3, I present arguments in favour of analysing the phonetic affricates [tʃ] and [dʒ] as realisations of underlying sequences of /tj/ and /dj/.

2.2.3.1 Onset consonant clusters

Onset consonant clusters can consist of three segments, i.e. $C_1C_2C_3$, or two segments, i.e. C_2C_3. Three-consonant onset clusters are discussed in §2.2.3.1.1, and two-consonant onset clusters in §2.2.3.1.2.

2.2.3.1.1 Three-consonant onset clusters

Only two words are attested with three consonants in the onset: the morphologically simplex /**mnj**áran/ 'diligence', realised [**mnj**árān], and the morphologically complex /**t-nj**ai-n/ '1PL.I-belly-NSG.POSS', realised as [**n̊nj**àìn] (see §2.4.2 for an explanation of the realisation of /t/ as [n̊] in this context).[8]

2.2.3.1.2 Two-consonant onset clusters

Table 2.8 shows the consonant clusters found in two-consonant onset clusters. In this table, both root-internal clusters and clusters arising from inflectional prefixation are given; the inter-morpheme clusters are in italics, and the prefix is separated from the root by a hyphen. The number of lexical items attested with each of the onset clusters is given in brackets.[9]

8. In the Metsam dialect of Ambel, the verb root /mnat/ has a complex onset (compare Metnyo /mát/). When inflected to mark a 1SG subject, this verb also has a three-consonant onset in Metsam, i.e. /mn<j>at/ '<1SG>die', realised [**mnj**át]. See §2.6.2 for more on the phonological differences between Metnyo and Metsam Ambel.

9. Throughout this section, the phonetic affricates [tʃ] and [dʒ] are treated as realisations of underlying /tj/ and /dj/, respectively. The motivation for this analysis is presented in §2.2.3.3.

Table 2.8: Onset consonant clusters in monomorphemic words
(Clusters arising from inflection in italics; number of attestations in brackets)

C_2C_3	m	n	l	r	w	j
p	–	–	–	pr (3)	–	pj (4)
t	*t-m*	*t-n*	*t-l*	–	*t-w*	tj (23)
k	km (2)	–	–	kr (1)	kw (3)	kj (4)
b	–	–	bl (6)	br (13)	–	bj (20)
d	–	–	–	–	–	dj (32)
g	–	–	–	–	–	–
s	–	–	–	–	–	sj (3)
h	–	–	hl (2)	–	–	hj (2)
m	–	mn (1)	–	–	–	mj (1)
n	–	–	–	–	–	nj (21)
l	–	–	–	–	–	–
r	–	–	–	–	–	–
w	–	–	–	–	–	–
j	–	–	–	–	–	–

In the remainder of this section, I will discuss two-consonant onset clusters which occur within a single morpheme, before moving on to discuss two-consonant onset clusters arising as the result of prefixation.

Table 2.8 shows that, if a syllable has a complex onset C_2C_3, then C_2 cannot be a glide (/j w/) or a liquid (/l r/). In other words, only obstruents and nasals can occur as C_2 in C_2C_3 onsets. Besides the velar stop /g/, any obstruent or nasal in C_2 may combine with /j/ as C_3 to form a complex onset. Examples of /Cj/ clusters are given in (21).

(21) Examples of roots with complex onset /Cj/:

/pj/	pjá	'hair'
/tj/	tjun	'baked sago'
/kj/	kjá	'kind of fish, PM *ikan garopa*'
/bj/	bjálam	'kind of tree, PM *kayu agatis*'
/dj/	dju	'kind of fish, PM *ikan gabus kali*'
/sj/	sjonkér	'trotter'
/hj/	hjów	'red jambu fruit'
/mj/	mjáran	'diligent person'
/nj/	nju	'river eel'

While /Cj/ onsets are comparatively rare, they are the most frequently attested type of morpheme-internal onset consonant cluster. The other possible morpheme-internal two-consonant onsets are attested only sporadically. In addition, many can be identified as loan words. Examples of roots with complex onsets other than /Cj/ are given in (22).

(22) Examples of roots containing complex syllable onsets other than /Cj/:

/pr/	práj	'kind of mangrove tree'	<Biak
/km/	in.kmáj	'kind of tuna, PM *cekalan batu*'	<Biak?
/kr/	krís	'kind of tree'	<Biak
/kw/	man.kwáj	'fruit bat'	<Biak
/bl/	aN=na.bé.blen	'3SG.INAN=reflect'	
/br/	la.brán	'wire'	
	á.bru	'mung bean'	<Biak?
	wam.bráw	'south wind'	<Biak
/mn/	mnát	'strength'	

Many of the roots in (22) are loans from Biak. The range of consonants involved in complex onsets is much larger in Biak than in Ambel (van den Heuvel 2006: 37–40). All of the consonant clusters, with the exception of /km/ and /mn/, are also permitted in Papuan Malay (Kluge 2014: 82). Some older speakers of Ambel are fluent in Biak, and all speakers are bilingual in Papuan Malay (see Appendix C); thus, these consonant clusters may have entered Ambel through the influence of these two languages.

We turn now to consonant clusters arising from prefixation. For one of the consonant-initial verb classes (Class III), a 1PL.I subject is marked on the verb with the prefix /t-/ (see §4.1.1). This prefix is also used to mark a 1PL.I possessor on sonorant-initial possessed nouns in some Direct possessive constructions (see §7.2). These inflectional processes give rise to all attested /tm/, /tn/, /tl/, and /tw/ onset consonant clusters. The realisation of /t-/ '1PL.I' depends on the initial consonant of the root to which it inflects. Some examples are given in (23).

(23) Consonant clusters arising from the prefixation of /t-/: '1PL.I'

Underlying form		Surface form	
/t-mát/	1PL.I-die	[n̊mmát]	'We die.'
/t-njái-n/	1PL.I-stomach-NSG.POSS	[n̊njàìn]	'our stomach'
/t-lá/	1PL.I-swim'	[ɬlá]	'We swim.'
/t-wáy/	1PL.I-return	[hwáy]	'We return.'

The realisation of /t/ when preceding a sonorant consonant is returned to in §2.4.2.

2.2.3.2 Coda consonant clusters

Complex codas are very rare in Ambel. Similar to complex onsets, there are restrictions on what consonants can occur in complex codas. In a complex coda C_4C_5, only the glides /j/ and /w/ are permitted as C_4. Attested complex codas are given in Table 2.9. The number of attested lexical roots is given in brackets.

Table 2.9: Coda consonant clusters (number of attestations in brackets)

C_4C_5	p	t	k	s	h	m	n
j	–	jt (3)	jk (1)	–	–	jm (3)	jn (15)
w	–	–	wk (1)	–	–	–	wn (3)

Table 2.9 shows that the most frequently attested complex coda is the sequence /jn/. The other sequences /jt/, /jk/, /wk/, /jm/, and /wn/ are attested only sporadically.

Examples of words containing complex codas are given in (24).

(24) Roots containing complex codas:

/jt/	kájt	'abormal (fruit)'
/jk/	balájk	'azure kingfisher, *Alcedo azurea*'
/jm/	lájm	'sago funnel'
/jn/	péjn	'child's spouse's parents'
/wk/	kówk	'hooded butcherbird'
/wn/	pown	'umbrella'

2.2.3.3 On phonetic affricates

Ambel has two loan phonemes, /tʃ/ and /dʒ/. Realisations of these phonemes are found in borrowed words such as [dʒów] 'respectful greeting' (< Tidore), [sàdʒàrà] 'history', and [kàtʃàmàtà] 'mirror' (both < PM). Both affricates [tʃ] and [dʒ] are also found in native words. In this section I will argue that affricates occurring in native words derive from underlying sequences of /tj/ and /dj/, rather than /tʃ/ and /dʒ/.

Affricates are relatively rare in native monomorphemic Ambel roots. Some examples are given in (25):[10]

(25) Phonetic affricates in native monomorphemic words:

[tʃ]	[tʃùn]	'baked sago'	[hà.tʃú]	'corn'
[dʒ]	[dʒù]	'kind of fish, PM *ikan gabus kali*'	[há.dʒūm]	'shellfish'

There are two arguments for analysing [tʃ] and [dʒ] in native words as realisations of /tj/ and /dj/. The first argument is the distribution of [tʃ] within the syllable. Both [tʃ] and [dʒ] only occur in syllable onsets. Neither are attested in syllable codas. As voiced plosives are not permitted in syllable codas (§2.2.1), it is not surprising that the voiced affricate [dʒ] is restricted to syllable onsets. However, voiceless segments are permitted in syllable codas. If [tʃ] derives from underlying /tʃ/, there is no structural reason why [tʃ] should not occur in a coda.

By itself, the limited distribution of [tʃ] within the syllable is not an argument that [tʃ] is derived from /tj/. In Papuan Malay, for example, both [tʃ] and [dʒ] are restricted to syllable onsets, and yet these sounds are analysed as realisations of /tʃ/ and /dʒ/ (Kluge 2014: 80). However, if [tʃ] is analysed as /tj/, a structural explanation arises as to why [tʃ] does not occur in codas. Recall the discussion of the restrictions on coda clusters in the previous section. In coda clusters, the first consonant can only be a glide /j/ or /w/. A sequence of /tj/ in the coda would thus violate this syllable structure (*CVtj). The restriction of [tʃ] to onsets is therefore taken as evidence that this affricate is derived from /tj/.

10. Both [tʃ] and [dʒ] are common in inflected verbal forms. In §2.5.1.1 I will show these affricates result from an interaction between the initial consonant of the verbal root and a process of /<j>/ infixation. The discussion in this section will be restricted to affricates found in monomorphemic words.

The second argument in favour of analysing [tʃ] and [dʒ] as /tj/ and /dj/ regards the distribution of /Cj/ onset across the phonological inventory. In §2.2.3.1, I showed that the most frequent onset clusters are /Cj/ clusters. Table 2.8 shows that the /Cj/ onset clusters /pj/, /bj/, /kj/, /hj/, /sj/, /mj/, and /nj/ are permitted. The /Cj/ onsets */gj/, */lj/, */rj/, */jj/ and */wj/ are not attested. Whether sequences of /tj/ and /dj/ are permitted depends on the analysis of the segments underlying the affricates [tʃ] and [dʒ].

If we analyse [tʃ] and [dʒ] as /tʃ/ and /dʒ/, the distribution of permitted /Cj/ sequences across the consonant inventory can be summarised as in Table 2.10.

Table 2.10: The distribution of permitted /Cj/ sequences in the consonant inventory: [tʃ] and [dʒ] analysed as /tʃ/ and /dʒ/

	bilabial	dental/ alveolar	velar	glottal
stops	pj bj	*tj *dj	kj *gj	
fricatives		sj		hj
nasals	mj	nj		
liquids		*lj *rj		
semivowels		*jj	*wj	

Following this analysis, there is a gap in the distribution of permitted /Cj/ onsets: while all other obstruents (except /g/) can occur in /Cj/ onsets, /t/ and /d/ apparently cannot. It is therefore difficult to account for the distribution of permitted /Cj/ sequences across the consonant inventory by making reference to natural classes: there is no natural class that includes /p, b, k, s, h, m, n/, to the exclusion of /t, d, g, l, r, j, w/.

If, on the other hand, [tʃ] and [dʒ] are analysed as underlyingly /tj/ and /dj/, the distribution of segments permitted in /Cj/ sequences becomes simpler to account for. This analysis is shown in Table 2.11. Following this analysis, we can account for the distribution of consonants permitted in /Cj/ onsets by making reference to natural classes: stops (with the exception of the voiced velar stop /g/), fricatives, and nasals may occur in /Cj/ sequences, but liquids and semivowels may not.[11]

11. The lack of /gj/ onsets in the corpus may be an accidental gap; /g/ occurs relatively infrequently, and, as discussed in §2.2.3.1, /Cj/ sequences are quite uncommon.

Table 2.11: The distribution of permitted /Cj/ sequences in the consonant inventory: [tʃ] and [dʒ] analysed as /tj/ and /dj/

	bilabial	dental/ alveolar	velar	glottal
stops	pj bj	tj dj	kj *gj	
fricatives		sj		hj
nasals	mj	nj		
liquids		*lj *rj		
semivowels		*jj	*wj	

While the analysis that [tʃ] and [dʒ] are underlyingly /tʃ/ and /dʒ/ is possible with the attested data, the analysis that surface affricates in native words are realisations of /tj/ and /dj/ sequences is a more parsimonious way to account for the distribution of [tʃ] within the syllable, and the distribution of permitted /Cj/ sequences. I therefore adopt the latter analysis in this description. The realisation of /tj/ and /dj/ as [tʃ] and [dʒ] will be returned to below in §2.5.1.1, in which the morphophonemics of verbal subject-marking morphology will be discussed.

2.2.4 Syllabification

In this section, I describe how words are syllabified in Ambel. In order to understand the syllabification process, reference will be made to the Sonority Sequencing Principle (SSP). The SSP attempts to explain the phonotactic restrictions on syllable structures found in some languages (see e.g. Clements 1990). This principle makes reference to the relative sonority of different segments, based on the degree of constricton: vowels, as the least constricted segments, are the most sonorant, followed by glides, liquids, nasals, fricatives and affricates, with obstruents the most constricted, and thus least sonorant segments. In many languages, the most sonorant segment of a syllable is found in the nucleus, with relative sonority decreasing in the onset and coda the further a segment is from the nucleus.

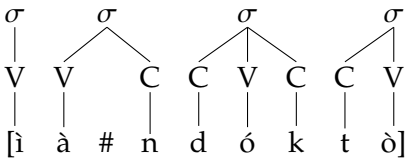
Phonetically, all syllable onsets and codas in Ambel adhere strictly to the SSP. Underlyingly, however, there are some onsets which could potentially violate the SSP: specifically, onsets which are created through the prefixation of the Class III

3SG.AN subject marker /N-/ onto a fricative- or obstruent-initial root (e.g. /N-tum/ '3SG.AN-follow', /N-bun/ '3SG.AN-kill').

In such cases, there are two strategies for ensuring the surface form does not violate the SSP. First, if the prefix occurs in the middle of an intonation phrase (IP), there is a syllabification process that reassigns the /N-/ prefix to the coda of a preceding open syllable (see §2.3.1 for a definition of the intonation phrase). This is shown schematically in (26).

(26) Reassignment of the IP-medial prefix /N-/ to a preceding open syllable:

/ia	**N-**dók	to/	→	[ì.à**n**.dók.tò]
3SG.AN	3SG.AN-arrive	IAM		'He/she has arrived.'

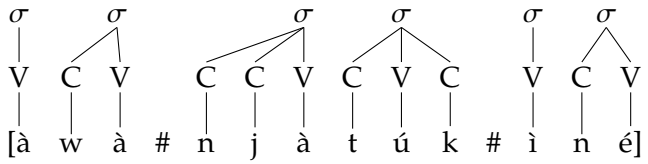


If the /N-/ '3SG.AN' prefix cannot be reassigned to a preceding syllable – either because it is preceded by a closed syllable, or because it is IP-initial – then the prefix is realised as prenasalisation on the first consonant of the verb root. In this case, the prenasalised consonant behaves as a single segment, thus preventing violation of the SSP. The realisation of the /N-/ '3SG.AN' prefix as prenasalisation on the first consonant of the root will be returned to in the section on the morphophonemics of verbal subject-marking morphology, in §2.5.1.2 below.

In all other cases, Ambel syllables are determined within the word. Thus, if a word has a complex onset, all of the consonants are realised in the onset of the syllable, regardless of the position of the syllable in the utterance or the surrounding phonological context. In other words, segments are not reassigned across word boundaries (unlike, for example, in the South Halmahera language Taba; Bowden 2001: 37-41). An example of syllabification in Ambel is given in (27).

(27) Syllabification in Ambel:

/awa	nj-atúk	ine/	→	[à.wà.njà.túk.ì.né]
2SG	2SG-trick	1SG		'You trick me.'



As shown in (27), if the underlying onset cluster does not violate the SSP, then a word boundary blocks the reassignment of a segment to the preceding syllable. Thus, the /nj/ cluster in /nj-atúk/ '2SG-trick' is realised with both consonants in the onset of the first syllable of the word; unlike with /N-/prefixation, shown in (26), word-initial /n/ is not reassigned to the coda of the preceding open syllable.

2.3 Suprasegmental phonology

This section deals with suprasegmental phonology in Ambel. In §2.3.1, the intonation phrase will be introduced and defined. An understanding of the intonation phrase is necessary for the description of the tone system, which will be presented in §2.3.2. This is followed in §2.3.3 by a brief description of the (lack of) predicatable or contrastive stress in Ambel. In §2.3.4, several intonation contours will be discussed, and, in §2.3.5, the units bearing lexical and post-lexical tone will be identified.

2.3.1 The intonation phrase

The intonation phrase (IP) in Ambel is defined as the minimal unit in fluent speech which may be preceded or followed by a pause. The IP is the domain of intonation contours, discussed in §2.3.4.

In fluent speech, the IP overlaps to a large extent (but not wholly) with the syntactic clause. An example of an utterance with two IPs, in this case occurring in a single syntactic clause, is given in Figure 2.4. The first IP is realised with Continuation intonation. As will be described below, one feature

of Continuation intonation is a LH% final boundary tone; in this example, the LH% boundary tone is realised on the ablative preposition /po/ 'ABL'. The second IP is realised with Declarative/imperative intonation. Declarative/imperative intonation is characterised by a HL% final boundary tone; this boundary tone is realised on the marker of the iamitive perfect /to/ 'IAM'.[12]

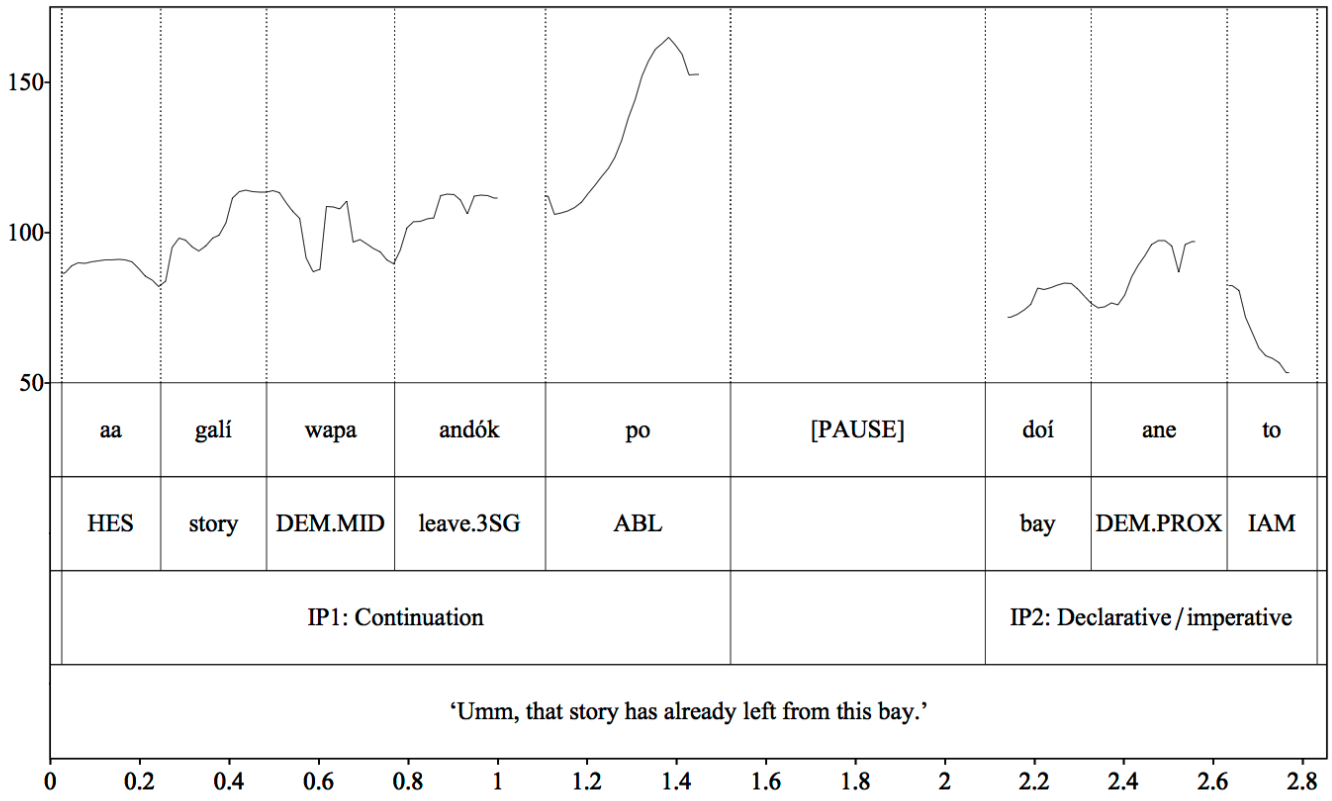


Figure 2.4: An example of a single clause with two intonation phrases (Speaker: **KFT**)

As well as being the domain of the intonation contours discussed in §2.3.4, the IP is also the domain of three phonological processes in Ambel: (1) The assimilation of IP-medial /n/ to the place of articulation of the following segment (§2.4.1); (2) Deletion of one segment where two adjacent IP-medial segments are

12. For all figures of pitch traces throughout this description, the the relevant audio files are embedded in the electronic manuscript. To play the audio file, please click on the symbol next to the caption.

identical (§2.4.5); (3) The reassignment of the 3SG.AN subject prefix /N-/ to the coda of a preceding open syllable when IP-medial (introduced above in §2.2.4, and described in more detail in §2.5.1.2).

2.3.2 Tone

Ambel is a tone language. In the Metnyo dialect, there is a single tonal specification /H/, which operates in a system which is culminative, i.e. no more than one syllable per word can have a /H/ specification, but not obligatory, i.e. words can occur without a tonal specification.[13] The system is privative, in that /H/ syllables contrast with toneless syllables /Ø/. The realisation of /H/ and toneless syllables varies depending on the utterance context.

Minimal and near-minimal pairs demonstrating the tonal contrasts in monosyllabic, disyllabic, and trisyllabic words are given in Tables 2.12, 2.13, and 2.14, respectively.

Table 2.12: Tonal minimal and near-minimal pairs: Monosyllabic words (realisation in IP-medial position)

/H/			/Ø/		
Nouns:					
tún	[tún]	'moon'	tun	[tùn]	'thorn'
wów	[wów]	'steam'	wow	[wòw]	'rainbow'
jé	[jé]	'island'	we	[wè]	'water'
kút	[kút]	'coconut'	kit	[kìt]	'octopus'
ná	[ná]	'kind of spear'	ma	[mà]	'kind of eagle'
Verbs:					
j-ún	[jún]	'1SG-pick.up'	j-un	[jùn]	'1SG-know'
sów	[sów]	'wash.dishes.1SG'	sow	[sòw]	'fart.1SG'
sín	[sín]	'exchange.1SG'	sin	[sìn]	'catch.1SG'
súp	[súp]	'bathe.1SG'	sup	[sùp]	'repeat.1SG'
djú	[dʒú]	'pull.1SG'	dju	[dʒù]	'obey.1SG'

13. The tone system of the Metsam dialect has not yet been systematically studied. However, as will be outlined in §2.6.2, preliminary investigations suggest that Metsam Ambel has a more complex tone system than Metnyo Ambel, contrasting /H/, /LH/, and toneless syllables.

Table 2.13: Tonal minimal and near-minimal pairs: Disyllabic words (realisation in IP-medial position)

/H.Ø/	/Ø.H/	/Ø.Ø/
Nouns:		
kámuk	kamúk	–
[kámūk]	[kàmúk]	–
'reciprocal namesake'	'in-law.1SG'	
kábom	kabóm	–
[kábōm]	[kàbóm]	–
'widow'	'bone'	
káwa	kawá	kata
[káwā]	[kàwá]	[kàtà]
'room divider'	'kind of seaweed'	'cape'
Verbs:		
j-ámtin	j-amtén	ja-tin
[jámtīn]	[jàmtén]	[jàtìn]
'1SG-fasten'	'1SG-name'	'1SG-point'
j-ámi	j-amí	ja-maw
[jámī]	[jàmí]	[jàmàw]
'1SG-laugh'	'1SG-suck'	'1SG-want' (< PM)

Table 2.14: Tonal minimal and near-minimal pairs: Trisyllabic words (realisation in IP-medial position)

/H.Ø.Ø/	/Ø.H.Ø/	/Ø.Ø.H/	/Ø.Ø.Ø/
Nouns:			
kásjawa	kabábat	kalabét	kapaja
[kásjāwà]	[kàbábāt]	[kàlàbét]	[kàpàjà]
'kind of manta'	'butterfly'	'goanna'	'papaya' (< Tidore)
sábokol	–	sapurér	sadʒara
[sábōkòl]		[sàpùrér]	[sàdʒàrà]
'kind of shellfish'		'black-capped lory'	'history' (< PM)
Verbs:			
j-ágali	j-agáli	ja-galí	–
[jágàlì]	[jàgálì]	[jàgàlí]	
'1SG-help'	'1SG-dive'	'1SG-speak.language'	
–	ja-kátu	ja-kapá	ja-katu
	[jàkátū]	[jàkàpá]	[jàkàtù]
	'1SG-fix.canoe'	'1SG-pull.out'	'1SG-fold'

In this section, I will present evidence to motivate the analysis of the Ambel tone system given above. In §2.3.2.1, I will describe the phonetic realisation of /H/ and toneless syllables, and in §2.3.2.2, I will present data to show that the Ambel tone system is culminative but not obligatory. Data from realisations of the IP-final HL% boundary tone that characterises Declarative/imperative intonation (described in §2.3.4.1) are required to identify the unit bearing lexical tone; for this reason, discussion of the evidence indicating that the tone-bearing unit is the first mora of the syllable is postponed until §2.3.5.

2.3.2.1 Realisations

Intonation phrase (IP)-medially, /H/ syllables are realised as [H] (unless there is another /H/ syllable in the same phonological word; see §2.3.2.2). A pitch contour showing the IP-medial realisation of /H/ on the monosyllabic word /tún/ 'moon' is given in Figure 2.5.

IP-medial toneless syllables are realised as [L], unless following a [H] syllable, in which case the realisation of the toneless syllable assimilates to the [H] target; in this context, toneless syllables are realised [M] or [H].[14] A pitch contour showing the IP-medial realisation of the toneless monosyllabic word /tun/ 'thorn' is given in Figure 2.6. Figure 2.7 is a pitch contour showing the realisation of the disyllabic word /pánje/ 'morning'; this figure exemplifies the assimilation of the toneless second syllable of this word to [H ~ M] when following the first syllable, which is realised [H].

IP-finally, the realisation of lexical tone depends on and interacts with one of several IP-final boundary tones, depending on the utterance type (declarative, polar interrogative, etc). The realisations of IP-final /H/ and toneless syllables in different utterance types will be described in §2.3.4, in the section on intonation.

2.3.2.2 Obligatoriness and culminativity

Reference was made above to the culminative, but non-obligatory nature of the Ambel tone system. In this section, this analysis will be expanded on.

14. For the remainder of these sections, '[H] syllable' should be understood to mean a [H] syllable derived from lexical /H/ (rather than postlexical [H] found in various intonation contours; see §2.3.4).

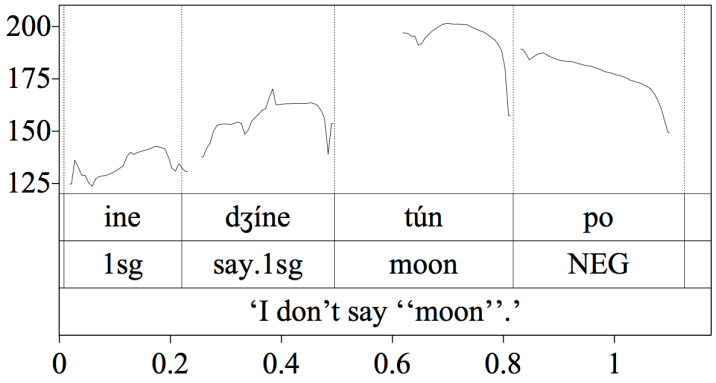


Figure 2.5: IP-medial realisation of /H/ in a monosyllabic word, /tún/ 'moon' (Speaker: **AEG**)

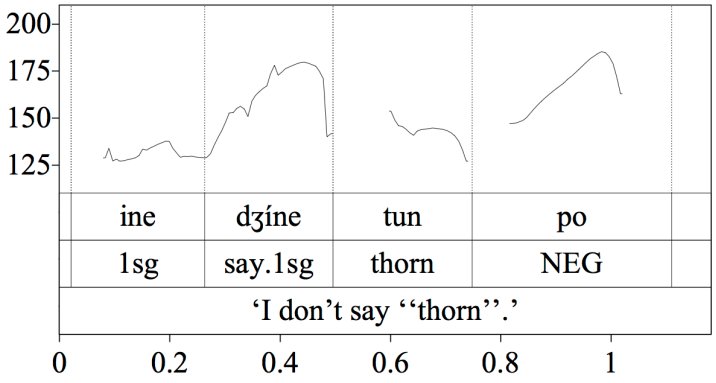


Figure 2.6: IP-medial realisation of a toneless monosyllabic word, /tun/ 'thorn', when not immediately following a [H] syllable (Speaker: **AEG**)

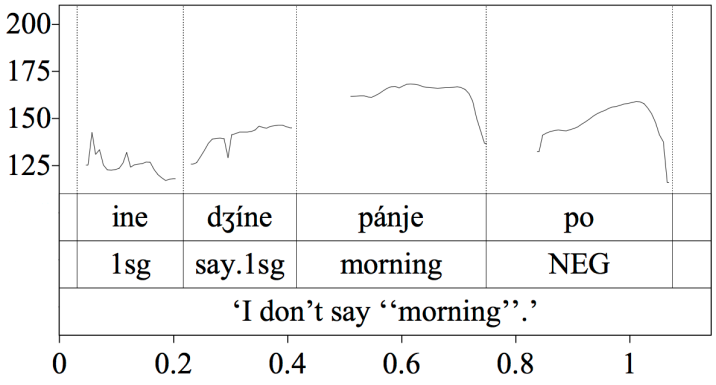


Figure 2.7: IP-medial realisation of a toneless syllable (the second syllable of /pánje/ 'morning') when immediately following a [H] syllable (Speaker: **AEG**)

Minimal and near-minimal pairs demonstrating the tonal contrast in Ambel were given in Tables 2.12–2.14. From these tables, we can extract the surface pitch patterns that are attested in Ambel. These pitch patterns are given in Table 2.15. The pitch patterns are arranged according to the number of syllables in a word, for words up to four syllables long.[15]

Table 2.15: Attested IP-medial pitch patterns

	Monosyllables	Disyllables	Trisyllables	Quadrisyllables
	H	H.L	H.L.L	H.L.L.L
	L	L.H	L.H.L	L.H.L.L
		L.L	L.L.H	L.L.H.L
			L.L.L	L.L.L.H
				L.L.L.L
Total:	2	3	4	5

As can be seen in Table 2.15, there are two pitch patterns for monosyllabic words; three pitch patterns for words with two syllables; four pitch patterns for words with three syllables; and five pitch patterns for words with four syllables. In other words, the number of different pitch patterns observed for words comprised of x syllables is $x + 1$. In addition, while there is a maximum of one [H] realisation per word, patterns without a [H] target are attested (i.e. [L], [L.L], [L.L.L], and [L.L.L.L]). In other words, the realisation of [H] is culminative, in that there can be no more than one [H] per phonological word; but [H] is not obligatory within a phonological word.

The patterns in Table 2.15 hold for both monomorphemic and morphologically complex words. For monomorphemic words, this indicates that there is a maximum of one /H/ specification per morpheme, but that a /H/ specification is not obligatory. For morphologically complex words, however, two /H/ specifications may be present within a single phonological word. In this context, only one /H/ is realised, and the others are deleted; this process of /H/-deletion is progressive, in that the first /H/ is realised as [H], and all subsequent /H/ syllables are realised as if they are toneless (i.e., [H ~ M] when following a [H] syllable, otherwise [L]).

15. For clarity, the predictable assimilation of [L] syllables to [M ~ H] when immediately following a [H] syllable is not represented in Table 2.15. Owing to a lack of data, words with five or six syllables are not discussed in this section.

For example, in the system of subject-marking morphology (described in §4.1.1), there are five prefixes that bear a /H/ specification: /(a)tút(a)-/ '1PC.I', /atúm(a)-/ '1PC.E', /matúm(a)-/ '2PC', /atúl(a)-/ '3PC', and /ám(a)-/ '1PL.E'.[16] When these prefixes attach to a verbal root that also bears a /H/ specification, the /H/ of the root is not realised, behaving instead as if it were toneless. Consider the data in Table 2.16, in which the Class II verbal roots /áti/ 'run' and /abáj/ 'play' are inflected to mark 1SG, 1DU.I, and 1PC.I subjects.

Table 2.16: Inflection of the verbs /áti/ 'run' and /abáj/ 'play' to index 1SG, 1DU.I, and 1PC.I subjects

	/áti/ 'run'		/abáj/ 'play'	
1SG	/j-áti/	[játī]	/j-abáj/	[jàbáj]
1DU.I	/tut-áti/	[tùtátī]	/tut-abáj/	[tùtàbáj]
1PC.I	/tút-áti/	[tútātì]	/tút-abáj/	[tútàbàj]

While 1SG and 1DU.I subjects in Table 2.16 are marked with the toneless prefixes /j-/ and /tut-/, respectively, 1PC.I subjects are marked with the /H/-toned prefix /tút-/. When this /H/-toned prefix attaches to a root with /H/ specification, the /H/ syllable of the root behaves as if it were toneless: IP-medially, it is realised as [H~M] if it follows a [H] syllable (as in the penultimate syllable of /tút-áti/ [tútātì] '1PC.I-run'), and [L] elsewhere (as in the final syllable of /tút-abáj/ [tútābàj] '1PC.I-play').

Culminativity of [H] can also be seen in nominal compounding processes (§5.1.3), as well in complex verbs (Chapter 13). The realisation of tone in these constructions will be addressed in the relevant sections.

2.3.3 Stress

There is no evidence for recognising either predictable or contrastive stress in Ambel. Stress systems are associated with the syllable: within the domain of

16. The realisation of the final /a/ of these prefixes is predictable based on the class of the root to which it attaches: if the verb is Class I or IV, the /a/ is present, whereas if the verb is Class II or III, the /a/ is not present. The form of the 1PC.I subject prefix with an initial /a/ is in free variation with the form without an initial /a/; in other words, the realisation of the 1PC.I prefix as [atút(a)-] or [tút(a)-] is not conditioned. See §4.1.1 for further dicussion.

the word, at least one and a maximum of one syllable are marked as metrically prominant (i.e. stress systems are both culminative and obligatory; Hyman 2006). Correlates of stress can include F0, duration, and intensity.

F0 is already employed in Ambel, as the phonetic realisation of /H/ tone, in the culminative (but not obligatory) system discussed above. Duration and intensity, however, are not used systematically at the lexical level. There is both intra- and inter-speaker variation in which syllable within a word is prominent in terms of duration or intensity.

2.3.4 Intonation

In this section, I discuss several intonation contours in Ambel: Declarative/imperative (§2.3.4.1), Polar Interrogative (§2.3.4.2), Constituent Interrogative (§2.3.4.3), Doubtful intonation (§2.3.4.4), and Continuation intonation (§2.3.4.5). The domain of these intonation contours is the intonation phrase (IP), as defined in §2.3.1 above.

2.3.4.1 Declarative/imperative intonation

Intonationally, declarative and imperative utterances are identical. At the beginning of the utterance, the pitch is quite low, rising throughout the utterance. Declarative and imperative utterances are marked by an IP-final HL% boundary tone.

Preliminary examples of the Declarative/imperative intonation contour are given in Figures 2.8 and 2.9. Figure 2.8 shows the HL% boundary tone in a declarative utterance, and Figure 2.9 shows the HL% boundary tone in an imperative utterance. In both examples, the HL% boundary tone is realised on the marker of the iamitive perfect /to/ 'IAM' (see §10.2.1 for a description of the function of /to/ 'IAM').

The realisation of the HL% boundary tone depends on several factors; the rest of this section will be dedicated to discussing these factors. First, the realisation is conditioned by whether the final word of the sentence is lexical or grammatical. If the final word is lexical, the realisation of HL% is on the final syllable of the word, and is conditioned by an interaction between the syllable weight and the tonal specification of that syllable. If the final word is grammatical, the realisation depends first of all on the tonal specification of the word; if this word is toneless,

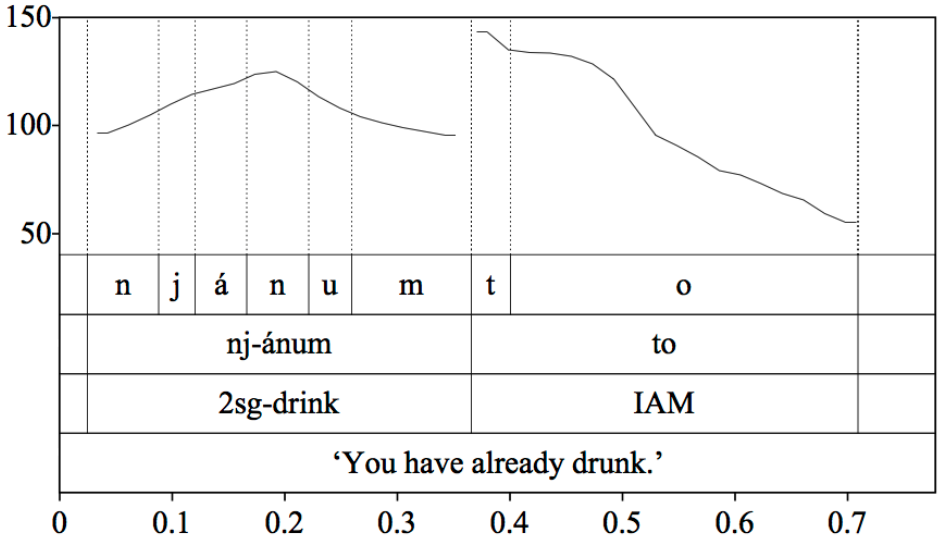


Figure 2.8: An example of the HL% Declarative/imperative boundary tone: Declarative utterance (Speaker: **MW**)

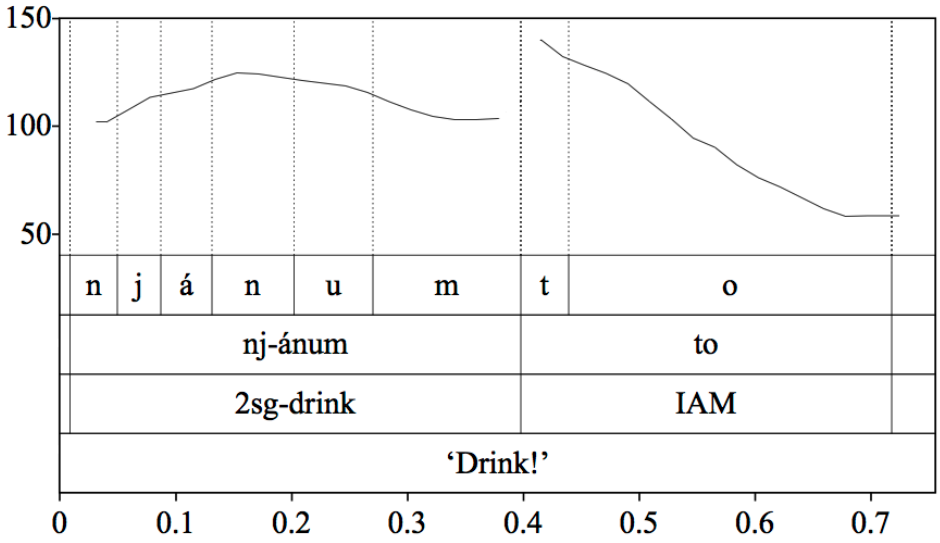


Figure 2.9: An example of the HL% Declarative/imperative boundary tone: Imperative utterance (Speaker: **MW**)

then the realisation is conditioned by an interaction between the length of the grammatical word, and whether there is [H] tone (occurring as a realisation of lexical /H/) on the final syllable of the preceding word.

I first discuss the realisation of the HL% boundary tone when the final word is lexical, and then the realisation when the final word is grammatical.

2.3.4.1.1 When the final word is lexical

Lexical words in Ambel belong to the following word classes: nouns, verbs, adverbs, numerals, and the interjections /i/ 'yes' and /po/ 'no' (see Chapter 3 for more on these word classes). When the final word in a sentence is lexical, the HL% boundary tone is realised on the final syllable of the final word. If the syllable is heavy (i.e. the rhyme of the syllable is bimoraic, consisting of a vowel plus sonorant consonant /w j l r m n/), the boundary tone is realised as [HL]; if the syllable is light (i.e. if the rhyme is monomoraic, consisting of a single vowel, or vowel plus non-sonorant consonant /p t k s/), the boundary tone is realised as [H].

The HL% boundary tone also interacts with lexical tone. If the final syllable of the word is /H/, the [H] component of the HL% boundary tone is not realised, and the syllable is realised as [H] if light, and [HL] if heavy. This is shown in Figures 2.10 and 2.11, respectively. In Figure 2.10, the light IP-final monosyllable /láp/ 'fire' is realised as [láp], i.e. without the low component of the HL% boundary tone, and with a vacuous realisation of the [H] component. In Figure 2.10, the heavy IP-final monosyllable /dún/ 'fish' is realised [dûn], with a [HL] fall. The [H] component of the HL% boundary tone still applies vacuously; the [L] component, however, is realised.

If the final syllable is toneless (realised [L]), the syllable will be realised [LH] if light, and [LHL] if heavy. This is shown in Figures 2.12 and 2.13. In Figure 2.12, only the [H] component of the HL% boundary tone is realised on the light IP-final toneless syllable /we/ 'water', and it is realised [wě]; on the heavy IP-final toneless monosyllable /tun/, however, both the [H] and [L] components of the HL% boundary tone are realised, and the word is realised [tǔn].

The realisations of IP-final syllables of lexical words in declarative and imperative utterances are summarised in Table 2.17.

If the final syllable of a lexical word is toneless, but is immediately preceded by a [H] syllable, then there is assimilation of the final toneless syllable to the [H]

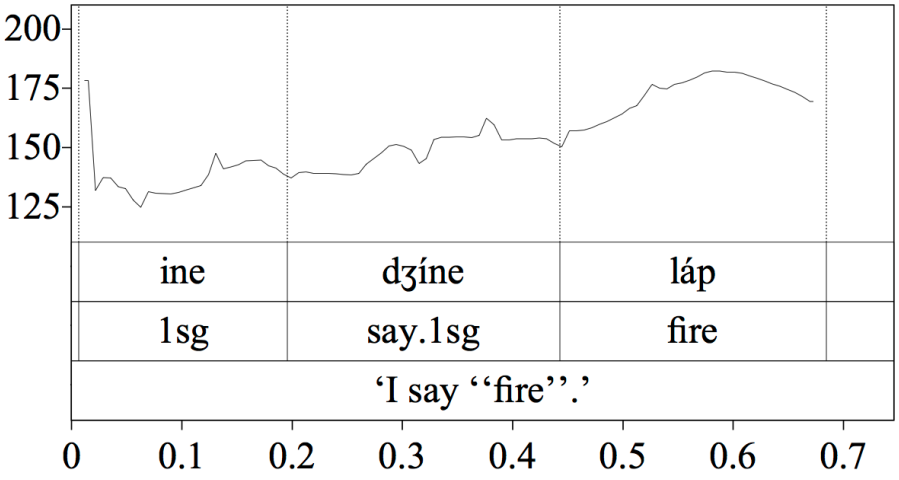


Figure 2.10: Realisation of the HL% boundary tone on light IP-final /H/ syllable /láp/ 'fire': [H] (Speaker: **YK**)

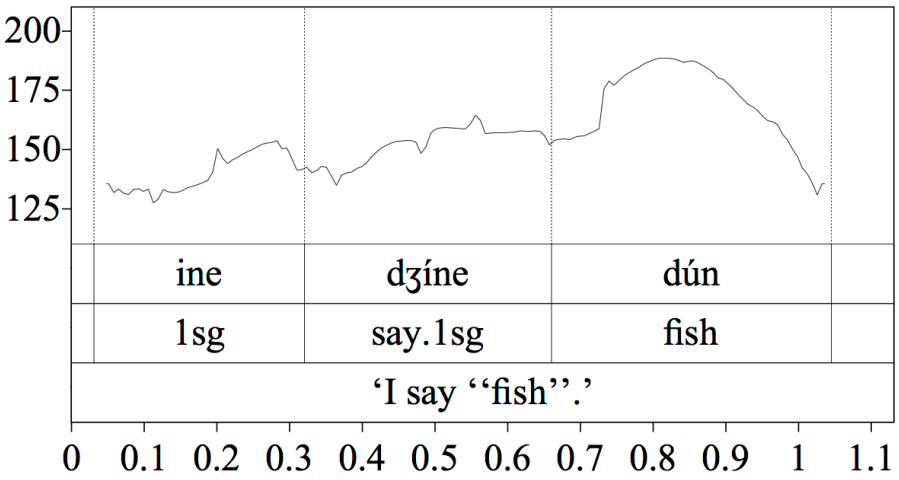


Figure 2.11: Realisation of the HL% boundary tone on heavy IP-final /H/ syllable /dún/ 'fish': [HL] (Speaker: **YK**)

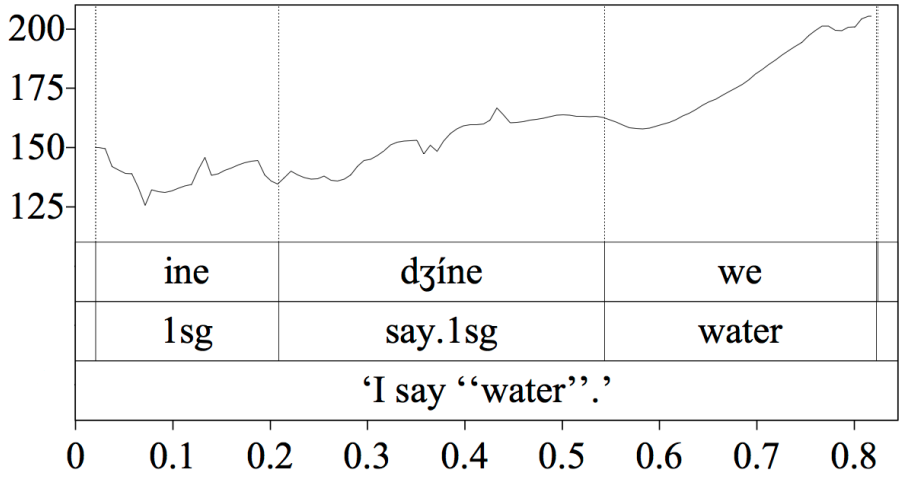


Figure 2.12: Realisation of the HL% boundary tone on light IP-final /Ø/ syllable /we/ 'water': [LH] (Speaker: **YK**)

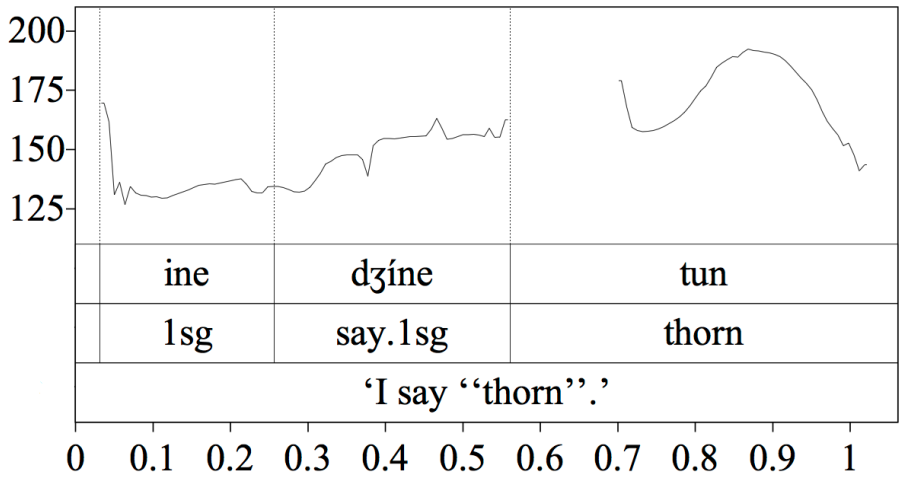


Figure 2.13: Realisation of the HL% boundary tone on heavy IP-final /Ø/ syllable /tun/ 'thorn': [LHL] (Speaker: **YK**)

Table 2.17: Realisation of IP-final syllables of lexical words in declarative/imperative utterances

Syllable weight	**Tonal specification** /H/	/Ø/
Light	[H]	[LH]
Heavy	[HL]	[LHL]

of the preceding syllable (see §2.3.2.1 above). This assimilation overrides the [L] which is usually linked to toneless syllables. The realisation of an IP-final toneless syllable of a lexical word when immediately preceded by a [H] syllable is thus [H(L)] ~ [M(L)], rather than the expected *[LH(L)]. This is exemplified in (28).

(28) The interaction of the HL% boundary tone with IP-final toneless syllables in lexical words, immediately preceded by a [H] syllable:

		/kábom/ 'widow'
1.	/H/ assimilation	kábōm
2.	HL% boundary tone docks	kábōm
		[kábōm], *[kábőm]

2.3.4.1.2 When the final word is grammatical

If the final word of the IP is a grammatical word (i.e. an article, §3.7; any of the forms derived with deictic units, including demonstratives, §12.2; a clause-final particle, Chapter 10; or a pronoun, §3.2.3), then the realisation of the HL% boundary tone depends on the tonal specification of the grammatical word, the number of syllables in the grammatical word, and the realisation of tone on the previous word.

If the IP-final grammatical word has /H/ specification, such as the marker of continuative aspect /rín/ 'CONT', then it is realised as if it were a /H/ syllable in a lexical word, i.e. [HL] if bimoraic, and [H] if monomoraic (see preceding section). However, if the IP-final grammatical word is toneless, then the realisation of the HL% boundary tone depends on the number of syllables in the word, and whether or not it is immediately preceded by a [H] syllable (where the [H] is a realisation of lexical /H/). The realisation of the HL% boundary tone on grammatical words

of various lengths and preceded by words with different tonal specifications is shown in Table 2.18. In this table, three disyllabic nouns representing all possible tonal specifications found on disyllabic words (i.e., /Ø.H/, /H.Ø/, and /Ø.Ø/) are modified the article /pa/ 'ART', and the contrastive demonstratives /wa-pa/ 'DEM.CNT-MID' and /wa-lu-pa/ 'DEM.CNT-SEA-MID'. The syllables on which the HL% boundary tone is realised are highlighted in boldface.

Table 2.18: Realisation of IP-final syllables of grammatical words in declarative/imperative utterances

	/pa/ 'ART'	/wa-pa/ 'DEM.CNT-MID'	/wa-lu-pa/ 'DEM.CNT-SEA-MID'
/kabóm/ 'bone'	[kàbóm pà]	[kàbóm wà**pá**]	[kàbóm wà**lúpà**]
/kábom/ 'widow'	[kábōm **pá**]	[kábōm **wápà**]	[kábōm wà**lúpà**]
/kamus/ 'dictionary'	[kàmùs **pá**]	[kàmùs **wápà**]	[kàmùs wà**lúpà**]

Table 2.18 shows that, if the grammatical word is monosyllabic (e.g. /pa/ 'ART') and not immediately preceded by a [H] syllable (e.g. following /kábom/ 'widow' or /kamus/ 'dictionary'), the [H] component of the boundary tone is realised on the grammatical word, and the [L] component is not realised. If the IP-final grammatical word is monosyllabic and is immediately preceded by a [H] syllable (e.g. following /kabóm/ 'bone'), the HL% boundary tone is not realised at all, and the monosyllabic IP-final grammatical word is realised [L].

If an IP-final grammatical word is disyllabic or longer (e.g. /wa-pa/ 'DEM.CNT-MID' or /wa-lu-pa/ 'DEM.CNT-SEA-MID'), then in most contexts the [H] component of the HL% boundary tone is realised on the penultimate syllable, and the [L] component is realised on the final syllable. The exception to this generalisation is if the syllable immediately preceding the penultimate syllable of the grammatical word is realised [H] (for example, when /wa-pa/ 'DEM.CNT-MID' follows /kabóm/ 'bone'). In this case, the penultimate syllable is realised [L]; the [H] component of the HL% boundary tone is shifted one syllable to the right and is realised on the final syllable; and the [L] component of the HL% boundary tone is not realised.

2.3.4.2 Polar Interrogative intonation

Polar interrogative sentences – i.e., sentences in which the speaker is expecting a yes-no answer – are marked by an utterance-final extra-high boundary tone (henceforth 'E%'). As will be described in §9.2.1, this intonation contour is the only feature distinguishing unmarked polar interrogative speech acts from their declarative and imperative counterparts. An example of the E% boundary tone is given in Figure 2.14. In this figure, the E% boundary tone is realised on the clause-final marker of the iamitive perfect /to/ 'IAM'.

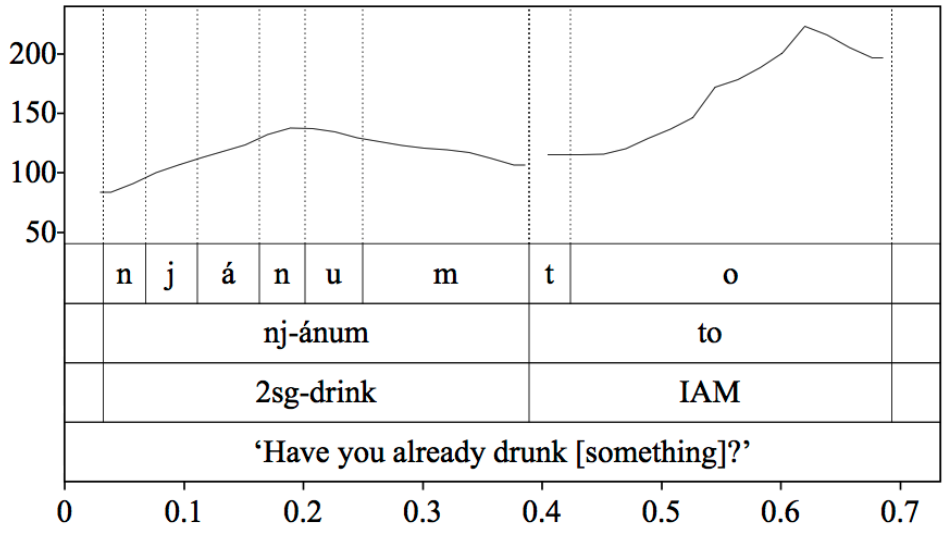


Figure 2.14: An example of the E% Polar Interrogative boundary tone (Speaker: **MW**)

As with the HL% boundary tone in declarative/imperative utterances, the E% boundary tone in polar interrogatives interacts with the lexical tone of the final syllable. If the final syllable is lexically specified for /H/ and is realised [H], the syllable is realised [E]. This is shown in Figure 2.15, in which the E% boundary tone is realised on /tún/ 'moon'. If the final syllable is toneless, the [L] target is realised on the syllable, before the contour rises to the [E]. This is shown in Figure 2.16, in which the E% boundary tone is realised on /tun/ 'thorn'.[17]

17. In the data given in Figures 2.15 and 2.16, the inflected form of the verb /bíne/ 'say' is [dʒíne], rather than the expected [ⁿdʒíne] or [n.dʒíne], with the prenasalisation marking a 2SG subject

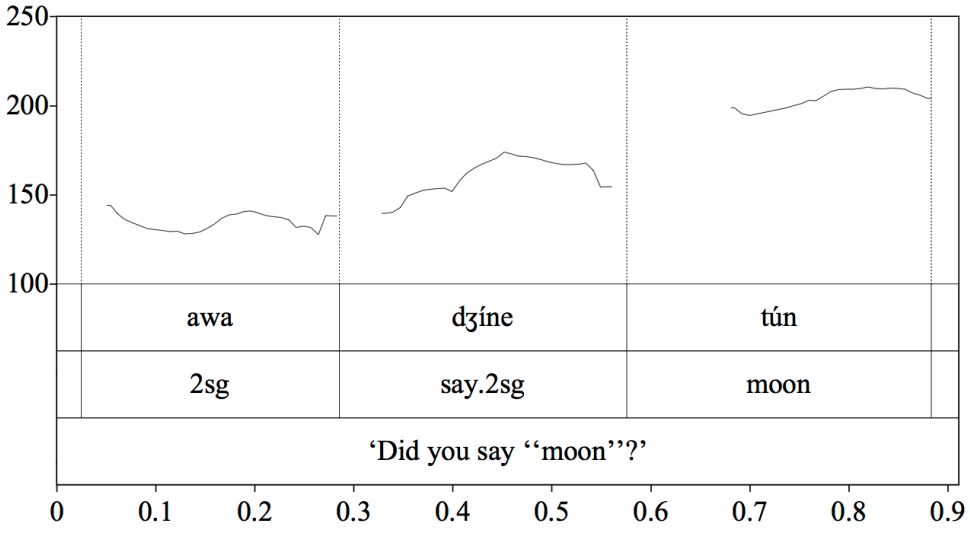


Figure 2.15: Realisation of the E% boundary tone on IP-final /H/ syllable /tún/ 'moon': [E] (Speaker: **AEG**)

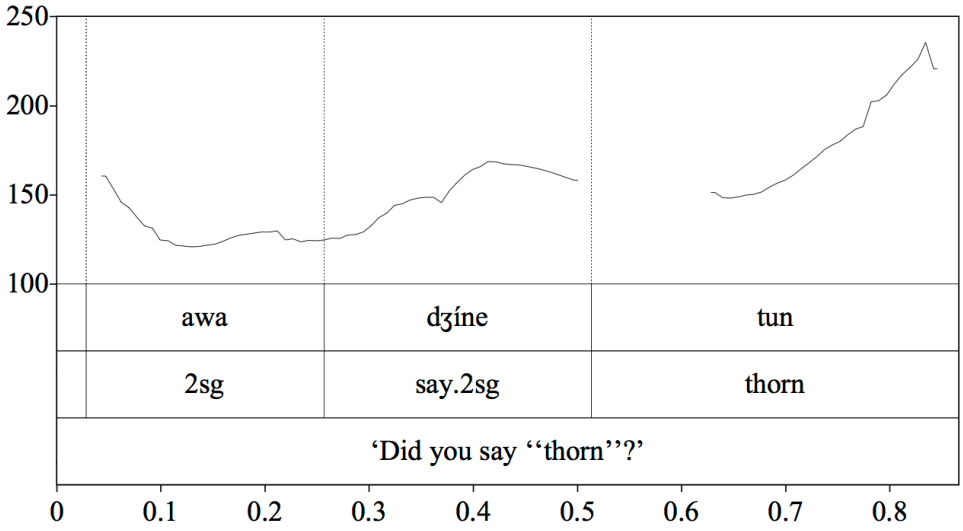


Figure 2.16: Realisation of the E% boundary tone on IP-final toneless syllable /tun/ 'thorn': [LE] (Speaker: **AEG**)

The extra-high final target disambiguates the realisation of Polar Interrogative boundary tone on toneless syllables (i.e. [LE]) from the realisation of the HL% Declarative/imperative boundary tone on light toneless syllables (i.e. [LH]).

Unlike the HL% Declarative/imperative boundary tone, there is no difference in the realisation of the E% polar interrogative boundary tone depending on whether the sentence-final word is lexical or grammatical. This is shown in Figures 2.17 and 2.18. In both of these figures, the 3SG.INAN pronoun /ana/ is realised with a [L] target, followed by the E% boundary tone on the final syllable. This realisation is the same, regardless of the tonal specification of the preceding word.

2.3.4.3 Constituent Interrogative intonation

Constituent interrogative sentences – i.e., sentences in which the speaker is attempting to elicit a specific piece of information – are marked by an utterance-final H extra-L% boundary tone (henceforth 'HEL%'), realised over the final two syllables of the IP. This intonation contour is distinct from the HL% Declarative/imperative boundary tone, in that the end point is lower in pitch; in addition, unlike the HL% Declarative/imperative boundary tone, the HEL% constituent interrogative boundary tone is not sensitive to whether the IP-final word is lexical or grammatical. An example of the constituent interrogative HEL% boundary tone is given in Figure 2.19; the HEL% boundary tone is realised on /a/ 'what'.

2.3.4.4 Doubtful intonation

The particle /ke/ 'EPI.may' marks weak epistemic modality, communicating that what the speaker is saying is not certain (see §10.1.6). Clauses marked with /ke/ 'EPI.may' are also obligatorily marked with a distinctive intonation contour, which I will refer to as 'Doubtful intonation'.

Doubtful intonation is characterised by an IP-final HM% boundary tone, i.e. the pitch rises to [H], and then has a slight drop to [M]. It often co-occurs with the phonetic lengthening of the vowel of /ke/. An example of a Doubtful

(see §2.5.1 for the morphophonology of verbal subject morphology). This is because the speaker from whom these data were gathered does not produce /N-/ prefixation for Class III verbs; this is quite common for younger speakers of Ambel (see §2.6).

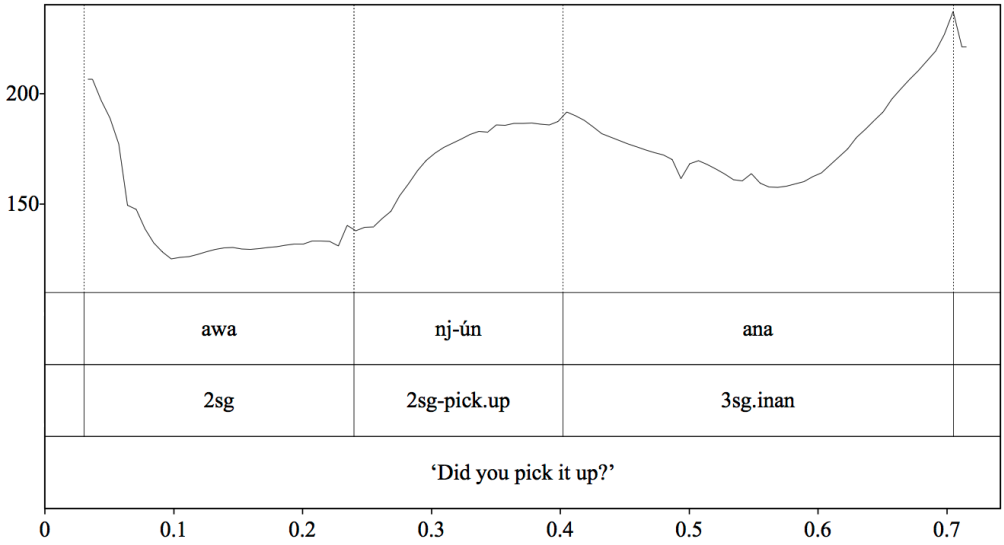


Figure 2.17: Realisation of the E% boundary tone on IP-final /ana/ '3SG.INAN' when preceded by /ún/ 'pick up': [LE] (Speaker: **AEG**)

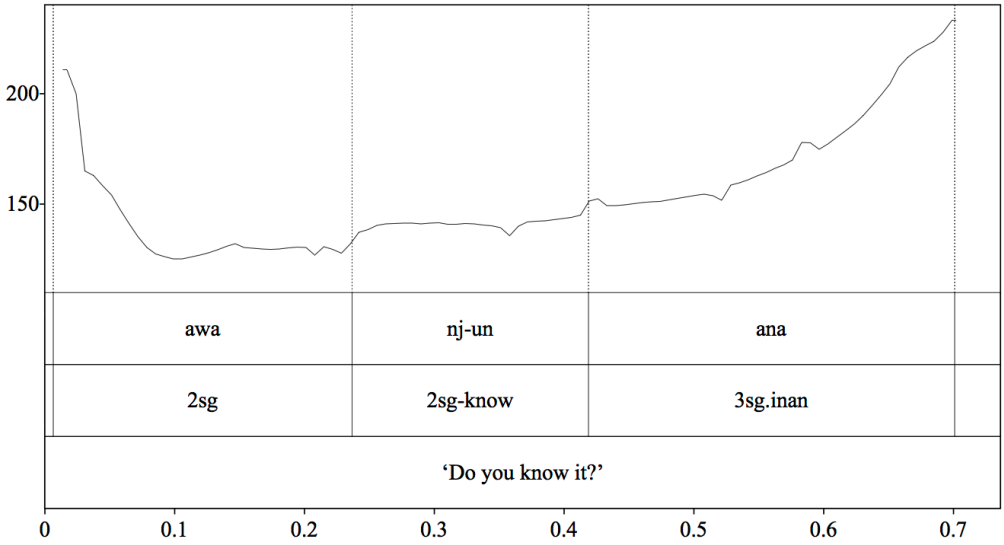


Figure 2.18: Realisation of the E% boundary tone on the IP-final /ana/ '3SG.INAN' when preceded by /un/ 'know': [LE] (Speaker: **AEG**)

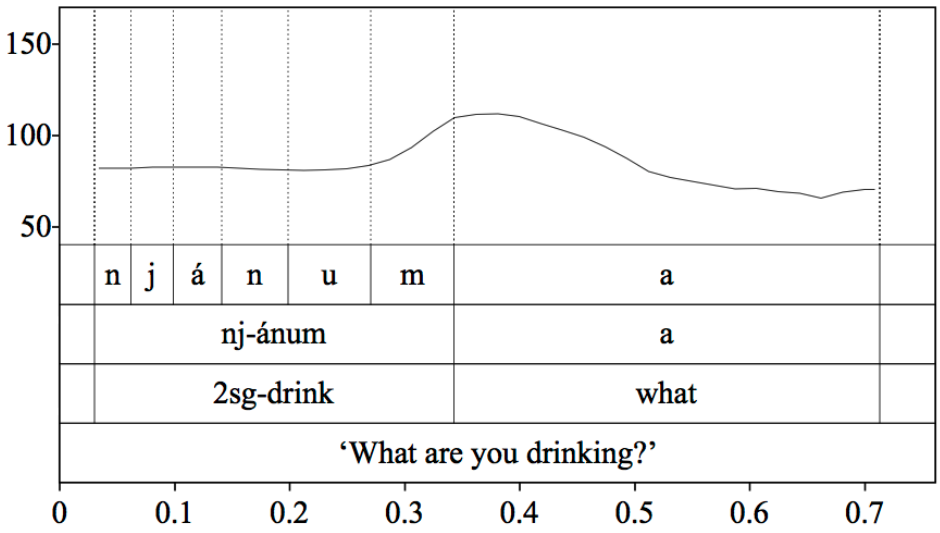


Figure 2.19: An example of the HEL% constituent interrogative boundary tone (Speaker: **MW**)

intonation contour is given in Figure 2.20; the HM% boundary tone is realised on the clause-final marker of epistemic modality /ke/ 'EPI.may'.

2.3.4.5 Continuation intonation

Continuation intonation is used to signal that the speaker has not yet finished what they are saying, and will follow up with further material. Clausal, adverbial and nominal material that appears within the preclausal frame is marked with Continuation intonation (see §8.3.1); it is also found on asyndetically combined NPs used in enumeration or listing (see §6.3.1.4); or if a speaker wants to maintain his or her turn.

Continuation intonation is characterised by a LH% boundary tone, spread over the final few syllables of the IP. An example of continuation intonation is given in Figure 2.21. In this example, there are two IPs: both are marked in the figure. The LH% continuation boundary tone is realised at the end of the first IP, on the clause-final conjunction /beposa/ 'after'.

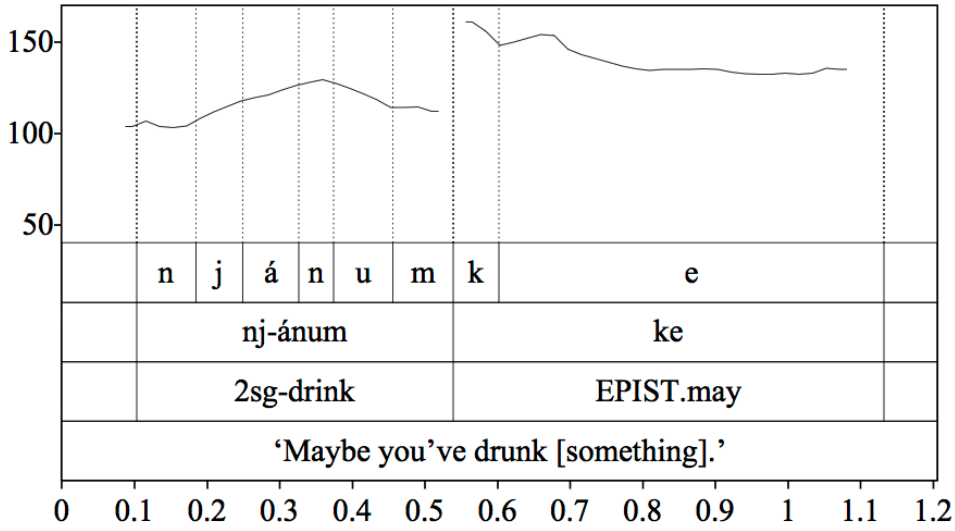


Figure 2.20: An example of the HM% Doubtful boundary tone (Speaker: **MW**)

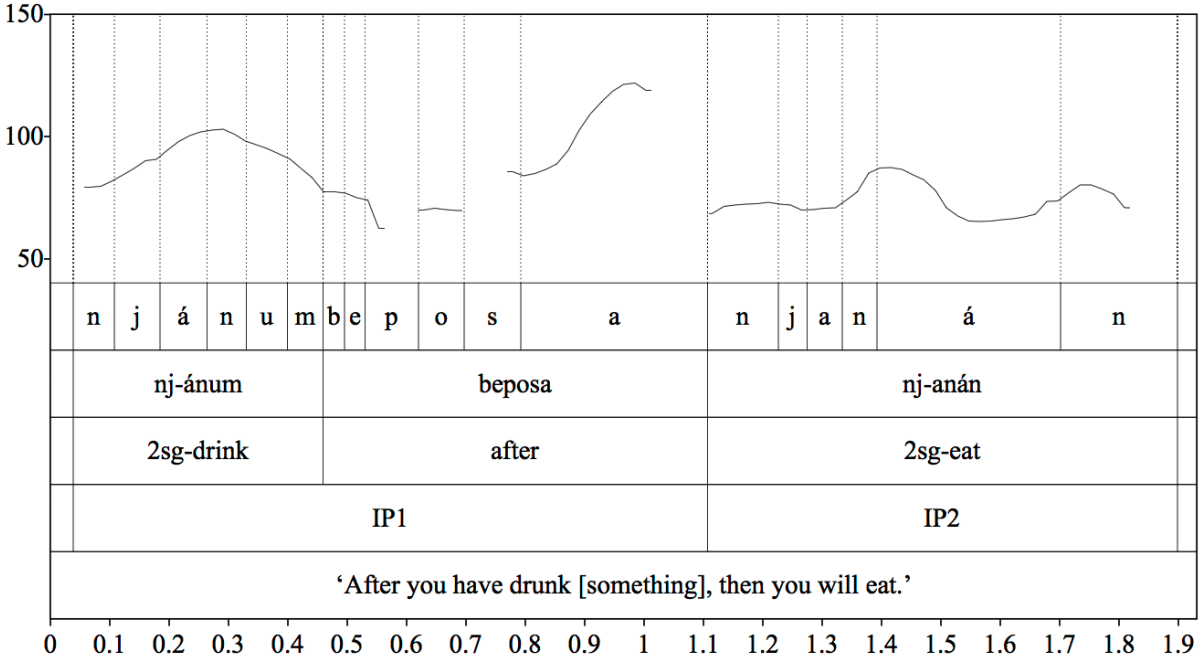


Figure 2.21: An example of the LH% continuation boundary tone (Speaker: **MW**)

2.3.5 The tone-bearing units of lexical and post-lexical tone

In §2.3.4.1, an IP-final HL% boundary tone was described for declarative and imperative utterances. In that section, it was shown that the [L] component of the HL% boundary tone is only realised on the final syllable of lexical words if that syllable is bimoraic, i.e. is a vowel plus a sonorant consonant /w j l r m n/. The [H] component, however, is realised regardless of syllable weight. From this, we can infer than the unit that bears the [H] component of the HL% boundary tone is the first mora of the syllable, and the unit that bears the [L] component is the second mora of the syllable. If a syllable is monomoraic, i.e. a single vowel, or a vowel plus non-sonorant consonant /p t k s/, the [L] component cannot dock, and is not realised.

The same argumentation can be used to identify the unit that bears lexical tone. Lexical /H/ is realised, regardless of the weight of the syllable. This is shown in Figure 2.22 and 2.23. These figures show the IP-final (isolation) realisations of two /H/-specified monosyllables: the bimoraic monosyllable /tún/ 'moon', and the monomoraic monosyllable /láp/ 'fire'. The figures show that lexical /H/ is realised as [H] on both heavy and light syllables. As the realisation of lexical tone does not depend on the presence or absence of a second mora in the syllable, the unit that bears lexical tone is therefore identified as the first mora of the syllable.

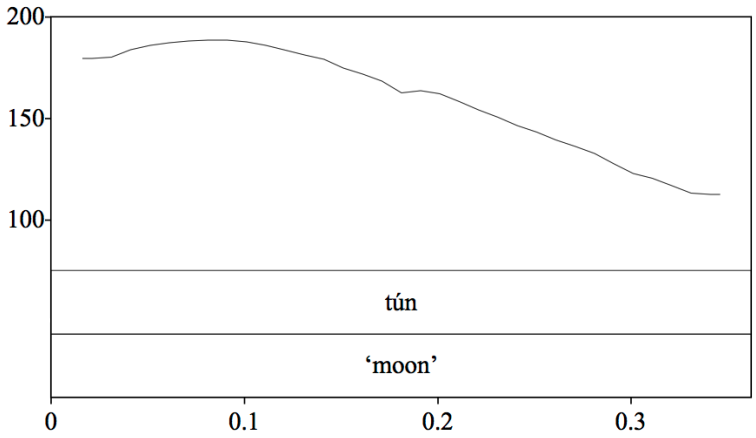


Figure 2.22: IP-final realisation of heavy /H/ syllable: /tún/ 'moon' (Speaker: **AEG**)

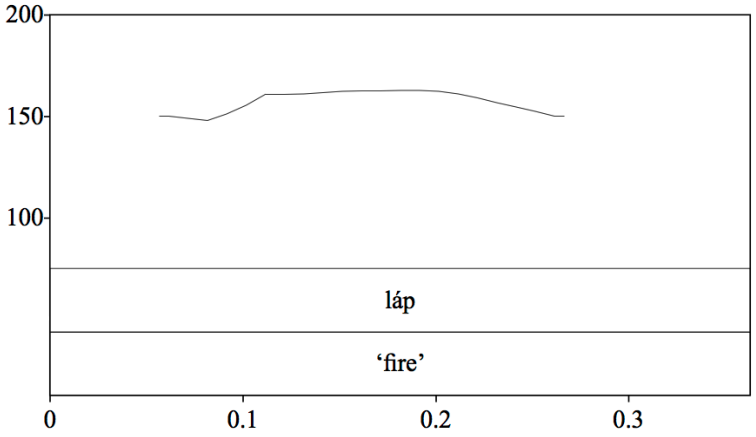


Figure 2.23: IP-final realisation of light /H/ syllable: /láp/ 'fire' (Speaker: **AEG**)

2.4 Phonological processes

In this section, the following regular phonological processes will be discussed: the assimilation of /n/ to the place of articulation of the following segment (§2.4.1); the assimilation of /t/ to a following sonorant (§2.4.2); root-initial glide elision (§2.4.3); intervocalic glide epenthesis (§2.4.4); vocalic and consonantal hiatus resolution (§2.4.5); paragogic /a/ on verbs and some other word classes (§2.4.6); and the prosodic phrase-medial elision of word-final /a/ on pronouns, determiners, and forms built around deictic units (§2.4.7). This section closes with a summary of these phonological processes, in §2.4.8.

2.4.1 Assimilation of /n/

When IP-medial, the alveolar nasal /n/ assimilates to the place of articulation of a following bilabial, palatal, or velar consonant. This assimilation occurs in all but the most careful speech. Thus, /n/ is realised as [m] before the bilabial segments /p/, /b/, and /m/; [ɲ] before palatal /j/; and [ŋ] before velar /k/ or /g/. This process will be referred to as '/n/ assimilation'. Some word-internal examples of this assimilation are given in (29)–(31).

(29) /n/ → [m] / ____ [+bilabial]

/b<j>óro**n**po n-áp/	→	[dʒórō**m**pò náp]
<1SG>guess 3SG-paddle		'I guess he's gone to sea.'

(30) /n/ → [ɲ] / ____ [+palatal]

/j-á**n**jar/	→	[jáɲjār]
1SG-handsome		'I am handsome.'

(31) /n/ → [ŋ] / ____ [+velar]

/h<j>a**n**kárin to/	→	[hjàŋkárīn tó]
<1SG>give.birth IAM		'I've given birth.'

An example of this process applying across word boundaries within an IP is given in (32).[18]

(32) /n/ assimilation across a word boundary

/N-bí	a**n**a	be	nók/	→	[mbí ā**m** bè nók]
3SG.AN-give	3SG.INAN	OBL	Nok		'He gave it to Nok.'

While the outcomes of /n/ assimilation are similar to some of the outcomes of /N-/ prefixation and /aN=/ procliticisation, discussed in §§2.5.1.2 and 2.5.1.3 below, /n/ assimilation is triggered in fewer environments.

2.4.2 Assimilation of /t/

When /t/ precedes a sonorant consonant within a phonological word, the realisation of /t/ varies according to the place and manner of the following sonorant. This process will be referred to as '/t/ assimilation'. If the initial consonant is a non-glide sonorant consonant, /t/ assimilates to the place and manner of articulation of the sonorant, while remaining voiceless. Thus, when preceding /m/, /t/ is realised as the voiceless bilabial nasal [m̥]; when preceding

18. In this example, /a/ elision, discussed in §2.4.7, applies to the 3SG.INAN pronoun /ana/ before /n/ assimilation, thus creating the environment for /n/ assimilation.

/n/, /t/ is realised as the voiceless alveolar nasal [n̊]; when preceding /l/, /t/ is realised as the voiceless lateral [ɬ]. When /t/ precedes /w/, it is debuccalised, and is realised as [h]. There are no examples in the corpus of /t/ preceding the sonorant /r/; the realisation of /tj/ sequences as [tʃ] was discussed in §2.2.3.3, and will not be returned to here.

Sequences of /t/ plus sonorant frequently arise as the result of the subject prefixes /t-/ '1PL.I', /tut-/ '1DU.I', and /(a)tút-/ '1PC.I' when they attach to a sonorant-initial root (see §4.1.1); or through the prefixation of the possessive prefixes /t-/ '1PL.I', /tut-/ '1DU.I', and /(a)tút-/ '1PC.I' onto a sonorant-initial noun root in Direct possessive constructions, or the sonorant-initial prenominal possessive particle /ni/ 'POSS.I' in Indirect possessive constructions (see Chapter 7). Examples of /t/ assimilation resulting from subject and possessive prefixation are given in (33)–(36).

(33) /t/ → [m̊] / ____ /m/

/t-mát/	→	[m̊mát]
1PL.I-die		'We die.'

(34) /t/ → [n̊] / ____ /n/

/t-njái-n/	→	[n̊ɲjàìn]
1PL.I-stomach-NSG		'our stomach'

(35) /t/ → [ɬ] / ____ /l/

/t-lá/	→	[ɬlá]
1PL.I-swim		'We swim.'

(36) /t/ → [h] / ____ /w/

/t-wáj	wéj	to/	→	[hwáj wéj tó]
1PL.I-return	again	IAM		'We've returned again.'

In elicited speech, the /t/ segments of the /t-/ '1PL.I', /tut-/ '1DU.I', and /(a)tút-/ '1PC.I' subject and possessive prefixes do not assimilate to a following

sonorant, and are realised as [t]. However, in spontaneous speech, I have never heard these prefixes realised with a final [t] when they attach to a sonorant-initial root.

While the conditions for /t/ assimilation most frequently arise from the subject and possessive morphology, the process also occurs in the pronouns /tutne/ '1DU.I', which is optionally realised as [tùn̊nè], and /atútne/ '1PC.I', which is optionally realised as [àtún̊nē]. The realisation of the 1PL.I pronoun /isne/ also warrants discussion here: in all but the most careful speech, this form is realised as [ìn̊.né], with the segment /s/ assimilating to the manner of articulation of the following nasal /n/.[19] There are no other examples in the corpus of word-initial /s/ + non-glide sonorants to determine whether /s/ also regularly undergoes assimilation in this environment.

There are also a few examples in the corpus of /t/ assimilation across morpheme boundaries in compounds. Example (37) is taken from a narrative about how two men from the Lapon clan taught two women from the Nok clan how to make fire.

(37) [dʒàdì mèɬ-làpón nē tù mèn̊-nók nē idò]
/ dʒadi mét-Lapón ne tu mét-Nók ne ido/
so person-Lapon ART COM person-Nok ART FRA

"So as for the person from the Lapon clan and the person from the Nok clan..."
AM066_32.58

In this example, /mét-Lapón/ 'person-Lapon' and /mét-Nók/ 'person-Nok' are left-headed nominal compounds (see §5.1.3.1); this place and manner assimilation is thus word-internal. No examples of place and manner assimilation of /t/ across word boundaries has been attested.

19. Intrestingly, Grace (1955-56) transcribes the 1PL.I pronoun as *etne*, with an alveolar stop /t/ instead of the fricative /s/. This suggests that, historically, this form may have contained /t/, which underwent the same assimilation to the manner of articulation of the following nasal described above for word-internal /t/ + sonorant sequences. Another explanation would be that this is a dialectal difference. From a note on p.6, regarding the word meaning 'stone' (which Grace transcribes as /atin/, noting "katin in other dial."), it appears that his data represent the Metsam dialect (see §2.6.2).

2.4.3 Root-initial glide elision

There is a phonological rule which optionally elides root-initial /j/ before the high front vowel /i/, and root-initial /w/ before the non-low back vowels /u/ and /o/. I will refer to this rule as 'root-initial glide elision'.[20] Root-initial glide elision can be summarised as in (38):

(38) Root-initial glide elision:

a. /j/ → { Ø, j } / + __ V [+HIGH, +FRONT]

b. /w/ → { Ø, w } / + __ V [-LOW, +BACK]

Some examples of this rule applied to nominal and pronominal roots are given in (39) below:[21]

(39) Examples of root-initial glide elision

a. Optional elision of root-initial /j/:

/jíl/	'hill'	[íl] ~ [jíl]
/ji/	'kind of manta ray'	[i] ~[ji]
/jine/	1SG pronoun	[ine] ~ [jine]

b. Optional elision of root-initial /w/:

/wól/	'kind of fish'	[ól] ~ [wól]
/wórtel/	'carrot' (< Malay)	[órtel] ~[wórtel]

This rule elides an underlying root-initial glide, rather than epenthesises an initial glide when a root is /i/-, /o/-, or /u/-initial. This is shown by the minimal pair in (40), in which the glide-initial /ji/ 'kind of manta ray' optionally undergoes

20. There is one root in which /j/ is optionally elided when immediately preceding /e/: /jéke/ 'sago porridge' can be realised as [jéke] or [éke]. This is an exception, however: for all other roots in which root-initial /j/ immediately precedes /e/, elision of /j/ is not possible. For example /jé/ 'island' is realised as [jé], never *[é]; /jén/ 'mushroom' is realised as [jén], never *[én]; and /jét/ 'anchor' is realised as [jét], never *[ét].

21. No /wu/-initial nouns or pronouns are attested in the corpus; /wu/-initial verbs will be returned to below.

glide elision, but the non-glide-initial 3SG.AN object pronoun /i/ cannot undergo glide epenthesis.

(40) The contrast between roots with an underlying initial glide and those without:

/i/	3SG.AN.O pronoun	[ì]	*[jì]
/ji/	'kind of manta ray'	[ì]	~ [jì]

Turning now to the domain of glide elision. This rule applies to root-initial /j/ and /w/. This is shown by how the rule interacts with subject-marking morphology, for example, subject-marking prefixation on /wo/- and /wu/-initial roots. The relevant data are given in (41). These data show that /wo/- and /wu/-initial verbal roots are realised either with or without /w/ after prefixation by subject-marking morphology.

(41) Glide elision applies to word-medial root-initial /w/:

/la-wokasúj/	'3PL.AN-yawn'	[làòkàsúj] ~ [làwòkàsúj]
/la-wók/	'3PL.AN-be.greedy'	[làók] ~[làwók]
/la-wul/	'3PL.AN-beat'	[làùl] ~[làwùl]

If glide elision applied to word-initial /w/, rather than root-initial /w/, elision of /w/ should not be possible for the inflected forms given in (41), as the /w/ in these forms is not word-initial. These data therefore show that glide elision targets the root.

Further evidence in support of this analysis comes from the /i/-initial Class II verb root /in/ 'make'. When this root marks a 1SG subject, it takes the Class II 1SG prefix /j-/. If glide elision applied to the word after affixation, the inflected verb /j-in/ '1SG-make' would provide the environment for its application. However, /j-in/ '1SG-make' is always realised as [jìn], never *[ìn]. Glide elision therefore does not apply to non-root-initial glides.

2.4.4 Intervocalic glide epenthesis

When two vowels $V_1.V_2$ are adjacent across a syllable boundary within a phonological word, an optional rule of intervocalic glide epenthesis applies if V_1 is [+HIGH] (i.e., if V_1 is /i/ or /u/). If V_1 is /i/, the glide [j] is optionally epenthesised

between V_1 and V_2; if V_1 is /u/, the glide [w] is optionally epenthesised. If V_1 is [-HIGH] (i.e. /e/, /a/, or /o/), intervocalic glide epenthesis does not apply.

Some examples of intervocalic glide epenthesis are given in (42) and (43).

(42) Intervocalic [j] epenthesis:

/darían/	'soursop'	→	[dàríān] ~ [dàrí**j**ān]
/mankirió/	'brushturkey'	→	[màŋkìrìó] ~ [màŋkìrì**j**ó]
/láwiata/	'calm season'	→	[láwīàtà] ~ [láwī**j**àtà]

(43) Intervocalic [w] epenthesis:

/tua/	'bed' (< Tidore)	→	[tùà] ~ [tù**w**à]
/gúit/	'kind of fish, PM *ikan mas laut*'	→	[gúīt] ~ [gú**w**īt]

Intervocalic glide epenthesis does not occur across word boundaries. This is demonstrated in (44); when the final /i/ of /háwisi/ 'ask permission' is immediately followed by the initial /a/ of the 2SG pronoun /awa/, the glide [j] cannot be epenthesised.

(44) Intervocalic glide epenthesis does not apply across word boundaries:

/h<j>áwisi	awa/	→	[hjá.wī.sì.áwā]	~	*[hjá.wī.sì.**j**áwā]
<1SG>take.leave	2SG				
'I take leave of you.'					

2.4.5 Hiatus resolution

There are two types of hiatus resolution in Ambel: vowel hiatus resolution, and consonant hiatus resolution. As the processes involved in each kind of hiatus resolution are slightly different, they are discussed separately: vowel hiatus resolution in §2.4.5.1, and consonant hiatus resolution in §2.4.5.2.

2.4.5.1 Vowel hiatus resolution

If two IP-medial vowels V_1 and V_2 come together across a syllable or word boundary, and the vowels are identical, then the sequence is realised as a single vowel, even in careful speech. This process is shown in (45).

(45) /wán **pa** **a.na**.ka.ta.rán to/ → [wán.**pà.nà**.kà.tà.rán.tò]
canoe ART land.3SG.INAN IAM

'The canoe has landed.'

In example (45), the combination of underlying /pa/ 'ART' and /anakatarán/ 'land.3SG.INAN' leads to an underlying sequence of /a a/, which is realised as [a]. This process leads to syllable deletion: there is one fewer syllable in the surface realisation than there is in the underlying form.

Less frequently, [V.V] sequences across word boundaries lead to segment deletion when the vowels are not identical. For example, in (46) an underlying sequence of /e.á/ is realised as [á], with deletion of the first vowel in the sequence; in (47), an underlying sequence of /e.a/ is realised as [e], with deletion of the second vowel of the sequence.

(46) /ám-**be** **á**-mát/ → [àm.**bá**.mát]
1PL.E-become 1PL.E-die

'We're going to die.'

(47) /na-k-a katʃamata **ne** **a**narów to/
POSS.II-1SG-PAR glasses ART clean.3SG.INAN IAM

'My glasses are now clean.'

→ [nà.kà.kà.tʃà.mà.tà.**nè.nà**.rów.tò]

2.4.5.2 Consonant hiatus resolution

When two identical consonants are directly adjacent within a single IP, the first consonant is deleted in all but the most careful speech. Two instances of consonant deletion, of /m-m/ and /t t/, are shown in (48).

(48) /mi**m-m**á**t** **t**o/ → [mì.**m**á.**t**ò]
2PC-die IAM

'You all are dead.'

Example (48) shows that this rule applies across syllable boundaries within the word (with the realisation of the inter-syllabic and intermorphemic /m-m/

sequence as [m]), and across word boundaries (with the realisation of the inter-word /t t/ sequence as [t]). Example (49) shows that the deletion process also applies across a morpheme boundary, within a single syllable. This example also shows that the deletion process is ordered after the assimilation of the 2SG and 3SG.AN subject prefix /N-/ to the place of articulation of the first consonant of the root to which it attaches (to be discussed in §2.5.1.2).

(49) Consonant deletion within a single syllable; ordering of deletion relative to /N-/ '3SG.AN' prefixation and /N-/ assimilation

	/mát/ 'die'
1. /N-/ prefixation	N-mát
2. /N-/ assimilation	m-mát
3. Deletion of identical consonant	mát
	[mát] 'he/she dies'

2.4.6 Paragogic /a/

IP-medially, paragogic /a/ is optionally realised on verbal predicates, prepositions, manner adverbs, and the inflected prenominal possessive particles /ni/ 'POSS.I', /ni/ 'POSS.II', and /na/ 'POSS.II'. An example of paragogic /a/ is given in (50). In this example, paragogic /a/ is realised on the perlative preposition /del/ 'PERL'.

(50) Paragogic /a/:

[atúsūn	**dèlà**	áj	pā	ìgù	pá]
/atú-sun	del-a	áj	pa	i-gu	pa/
3PC-enter	PERL-PAR	tree	ART	3INAN-hole	ART

'They entered into the hole of the tree.' **AM042-03_00.27**

Paragogic /a/ is realised if the word is C-final. It is also realised on V-final words, unless the V is both [-HIGH] and [-FRONT], i.e. unless the word is /o/- or /a/-final. Thus, the C-final preposition /del/ 'PERL' is a candidate for /a/ paragoge. The V-final prepositions /mi/ 'INSTR', /be/ 'ALL', and /tu/ 'COM' are also candidates, as the vowels in these prepositions are either [+HIGH] (/u/),

[+FRONT] (/e/), or both [+HIGH, +FRONT] (/i/). However, the prepositions /po/ 'ABL' and /la/ 'ORI' are never realised with paragogic /a/, as the vowels in these prepositions (/a/ and /o/) are both [-HIGH] and [-FRONT].

As will be described in §2.8.1, paragogic /a/ is represented in the Ambel orthography. In the interlinear glosses, it is glossed 'PAR'.

2.4.7 Prodosic phrase-medial elision of word-final /a/

Many /a/-final grammatical words undergo a phonological rule, whereby final /a/ is elided if the word is disyllabic or longer, and is prosodic phrase-medial.[22] The definition of the prosodic phrase (ProP) will be discussed below – simply put, a ProP comprises all the material in a clause up to, but not including, the predicate; or all of the material from the predicate to the end of the clause. I will refer to this rule as '/a/-elision'.

An illustrative example of /a/-elision is given in (51). In (51a), the pronoun *sia* '3PL.AN' and non-contrastive demonstrative *a-lu-pa* 'DEM.NCNT-SEA-MID' do not undergo /a/-elision, as they are both ProP-final. In (51b), however, in which the pronoun and the the non-contrastive demonstrative are ProP-medial, both forms undergo /a/-elision.

(51) a. Non-ProP-medial position (/a/-elision does not apply):

[**sia**]$_{\text{PROP}}$ [la-síri **a-lu-pa**]$_{\text{PROP}}$
3PL.AN 3PL.AN-fish DEM.NCNT-SEA-MID

'They are fishing seawards there.'

b. ProP-medial position (/a/-elision applies):

[**si** bey]$_{\text{PROP}}$ [la-síri **a-lu-p** to]$_{\text{PROP}}$
3PL.AN all 3PL.AN-fish DEM.NCNT-SEA-MID IAM

'All of them have fished seawards there.'

In this section, I will identify the candidate forms for this rule, present an argument to analyse this rule as a process of elision of underlying /a/ (rather than epenthesis of word-final /a/ in ProP-final position), and discuss the domain of application of the rule, the prosodic phrase.

22. In this section, '/a/-final' should be understood as both words that end in toneless /a/, such as the pronoun /ia/ '3SG.AN', and words that end in /H/ /á/, such as the pronoun /mewá/ '2PL'.

All pronouns (§3.2.3), articles (§3.7), and words derived from deictic units (viz. demonstratives, deictic articles, deitic nouns, deictic locative predicates, deictic prepositions, and demonstrative verbs; see §12.2) are candidates for /a/-elision. The constitutent interrogative *lapa* 'CNST.INT' is also a candidate (§9.2.3). This is a rule of elision of a ProP-medial final /a/ on polysyllabic words, rather than a rule of ProP-final [a]-paragoge. There are some polysyllabic pronouns, articles, or words derived from deictic units which are never realised with final [a], regardless of the position within the ProP, viz. words built around the demonstrative root /ne/ 'PROX'; the first person pronouns /jine/ '1SG', /tutne/ '1DU.I', /(a)tútne/ '1PC.I', /isne/ '1PL.I', /umne/ '1DU.E', /atúmne/ '1PC.E', /ámne/ '1PL.E'; and the third person object pronouns /i/ '3SG.AN.O' and /asi/ '3NSG.INAN.O'. An analysis of ProP-final [a]-paragoge would require an explanation for why [a] does not occur on these elements. There is a minimal pair provided by the subject and object forms of the 3SG.AN pronoun: the subject pronoun /ia/ undergoes /a/-elision in the appropriate environment, whereas the object pronoun /i/ never undergoes [a]-paragoge. The simplest analysis is therefore that forms which are realised, ProP-finally, with final [a] have an underlying final /a/, which is elided when the same word is ProP-medial.

I turn now to the domain in which /a/-elision applies. I have identified this domain as the prosodic phrase, defining the ProP above as either (1) all the material in a clause up to, but not including, the predicate; or (2) all of the material in a clause from the predicate onwards. While this definition of the ProP does coincide to a certain extent with the syntactic units of clause and phrase, in the following paragraphs I will show that the domain of /a/-elision is identical with neither the syntactic clause, nor the syntactic phrase. Instead, a specific phonological unit must be defined to capture the operation of this rule.

First, the domain of /a/-elision cannot be said to be the syntactic phrase. As the example in (52) below shows, the purposive conjunction /be/ 'PURP', which is not syntactically part of the preceding noun phrase, optionally triggers /a/-elision.[23] In this example, the noun phrases are marked in bold.

23. As will be described in §14.3.2, some conjunctions (such as purposive /be/ 'PURP') trigger /a/-elision, while others (such as the homophonous conjunction /be/ 'and') do not.

(52) [la-kasál **sana** **wa-p** / **wa-pa** be]$_{ProP}$ [l-in **an** be
3PL.AN-strip.bamboo one DEM.CNT-MID PURP 3PL.AN-make 3SG.INAN OBL
letem-a ***i-got***]$_{ProP}$
SIM-PAR 3SG.INAN-gutter

'They strip that one [a kind of bamboo] in order to make it into a kind of gutter.'
AM057_02.08

In addition, the most common material that triggers /a/-elision are clause-final aspect, mode, and polarity markers, shown in (53). As these aspect, mode, and polarity markers have scope over the whole clause, they also cannot be said to be syntactically part of the preceding noun phrase.

(53) [**hun~hun** **a**]$_{ProP}$ [na-*ciptakan* **si** tu-a **le** **wa-p** / ***wa-pa** to]$_{ProP}$
RED~king PERS 3SG-create 3PL.AN.O COM-A thing DEM.CNT-MID IAM

'God created them with that thing.' **AM057_01.34**

The data in (52) and (53) show that the domain of /a/-elision is not the syntactic noun phrase. Neither, however, is the domain of operation the syntactic clause. As shown in (54), the predicate does not trigger /a/-elision.

(54) [i-ni bísar **wa-pa** / ***wa-p**]$_{NP}$ na-marków hey
3SG-POSS.I wife DEM.CNT-MID 3SG-scold good

'That wife of his frequently scolded.' **AM181_04.22**

The simplest definition of the domain of /a/-elision that accounts for all the data discussed thus far is: /a/-elision applies if the candidate form is ProP-medial, where the ProP is defined as: (1) all the material up to, but not including, the predicate; and (2) all the material from the predicate to the end of the clause. The ProP applies recursively to subordinated clauses: thus a subordinated clause also contains two ProP, and so on.

2.4.8 Summary

Table 2.19 is a summary of the phonological processes discussed in this section.

Table 2.19: A summary of the phonological processes in Ambel

Rule	Process				Domain
/n/ assimilation	/n/	→	[m]	/ ____ [+bilabial]	Intonation Phrase
		→	[ɲ]	/ ____ [+palatal]	
		→	[ŋ]	/ ____ [+velar]	
		→	[n]	elsewhere	
/t/ assimilation	/t/	→	[m̊]	/ ____ /m/	Phonological word
		→	[n̊]	/ ____ /n/	
		→	[ɬ]	/ ____ /l/	
		→	[h]	/ ____ /w/	
		→	[t]	elsewhere	
Root-initial glide elision	/j/	→	{Ø, j}	/ + ____ V [+HIGH, +FRONT]	Root
	/w/	→	{Ø, w}	/ + ____ V [-LOW, +BACK]	
Intervocalic glide epenthesis	Ø	→	{Ø, j}	/ i____ V	Phonological word
		→	{Ø, w}	/ u____ V	
Vowel hiatus resolution	Where two adjacent vowels /V_1/ and /V_2/ are identical, /V_1/ is deleted i.e. αV → Ø / ____ αV				Intonation Phrase
Consonant hiatus resolution	Where two adjacent consonants /C_1/ and /C_2/ are identical, /C_1/ is deleted i.e. αC → Ø / ____ αC				Intonation Phrase
/a/ paragoge	Paragogic /a/ is realised on prepositions, verbal predicates, and inflected prenominal possessive particles, if the word is C-final, or V-final (unless the V is [-HIGH -FRONT])				Intonation Phrase
/a/ elision	Where a pronoun, article, or deictic form is /a/-final, final /a/ is elided when (1) the word is disyllabic or longer, and (2) the word is ProP-medial				Prosodic phrase

2.5 Morphophonemics

In this section, morphophonemic processes in Ambel will be discussed. In §2.5.1, three processes in the subject-marking morphology will be considered. This is followed by a brief look at (the lack of) metathesis in §2.5.2, and a description of the phonology of reduplication patterns in §2.5.3.

2.5.1 Verbal subject-marking morphology

When functioning as predicates, verbs in Ambel obligatorily take prefixes, infixes, or proclitics to mark the person, number, and animacy of the subject of the clause. Based on the phonological form of the subject morphology, verbs can be divided into four inflectional classes. Membership of a verbal class is lexically specified. The morphology of verbal inflection is discussed in §4.1.1.

In §2.5.1.1 and §2.5.1.2, I discuss two morphophonological processes that occur in the subject-marking paradigm for one of these verb classes: Class III verbs. All Class III verbs are consonant-initial. The two morphophonological processes are /<j>/-infixation when the subject is 1SG or 2SG, and /N-/ prefixation when the subject is 2SG or 3SG.AN. §2.5.1.3 discusses realisation of /aN=/, the marker of a 3SG.INAN subject on verbs of all classes.

2.5.1.1 /<j>/ infixation

One of the characteristics of Class III verbs is that, when the subject of the clause is 1SG or 2SG, this is marked on the verb with /<j>/ infixation. The /<j>/ occurs between the onset and the nucleus of the first syllable of the root.

Class III verbal roots beginning with /t/, /d/, /b/, /h/, /s/, /l/, /m/, and /w/ are attested. The /<j>/ infix attaches to all of these roots (except /s/-initial roots, on which a 1SG or 2SG subject is unmarked). If the root is /h/-, /l/-, /m/-, or /w/-initial, the /<j>/ infix is realised as [j]. If the initial consonant of the root is /t/, /d/, or /b/ – i.e., if the initial consonant of the root is [+PLOSIVE] – the plosive plus /<j>/ infix sequence is realised as the voiceless affricate [tʃ], if the plosive is voiceless, or the voiced affricate [dʒ], if the plosive is voiced. The effect of /<j>/ infixation on the realisation of verbs with a 1SG subject is shown in Table 2.20.

In §2.2.3.3 above, I showed that the phonetic affricates [tʃ] and [dʒ] in native monomorphemic words are best analysed as/tj/ and /dj/, respectively. The

Table 2.20: The effect of /<j>/ infixation on the realisation of Class III verbs marking a 1SG subject. (The realisation of the plosive plus /<j>/ infix is highlighted in bold.)

	/t/-initial	/d/-initial	/b/-initial	/h/-initial	/l/-initial	/m/-initial	/w/-initial
Root	/tán/ 'go'	/du/ 'obey'	/bun/ 'kill'	/huj/ 'erase'	/lá/ 'swim'	/mát/ 'die'	/wáj/ 'return'
Underlying form	/t<j>án/	/d<j>u/	/b<j>un/	/h<j>uj/	/l<j>á/	/m<j>át/	/w<j>áj/
Surface form	**[tʃán]**	**[dʒù]**	**[dʒùn]**	[hjùj]	[ljá]	[mját]	[wjáj]

realisation of /t<j>/ and /d<j>/ sequences as affricates in inflected verbs provides more support in favour of this analysis: just as morpheme-internal sequences of /tj/ and /dj/ are realised as [tʃ] and [dʒ], so too are inter-morpheme sequences of /t<j>/ and /d<j>/. The realisation of /b<j>/ sequences as [dʒ], however, does not have a parallel in monomorphemic /bj/ sequences; /bj/ in monomorphemic words is realised as [bj] (as, for example, in /bjálam/ [bjálām] 'kind of tree, PM *kayu agatis*').

2.5.1.2 /N-/ prefixation

When the subject of a Class III verb is 2SG or 3SG, this is marked on the verb with a prefix /N-/. As mentioned above, all Class III verbal roots are consonant initial. The prefixation of /N-/ to any of these verbal roots thus potentially leads to a violation of the Sonority Sequencing Principle, described above in §2.2.4. In this section, I discuss the two strategies that exist to prevent violation of the SSP: (1) Prenasalisation of the root-initial consonant, if the inflected form is preceded by a closed syllable or occurs intonation phrase-initially; (2) Reassignment of /N-/ to the coda of a preceding open syllable within the same IP.

When /N-/ is realised as prenasalisation on roots beginning with /t/, /d/, /b/, /l/, /m/, /w/, or /s/, prenasalised /N-/ assimilates to the place of articulation of this consonant. This is shown in (55)–(61). If a root is /h/-initial, the /N-/ prefix is not realised IP-initially, or if preceded by a closed syllable; it is only

realised in the coda of a preceding open syllable. Note that, when the prenasalised /N-/ prefix attaches to a /m/-initial root, as in (58), the resolution of consonant hiatus through deletion applies after assimilation (see §2.4.5.2); the /N-/ prefix is thus not realised.

(55) Realisation of /N-/ on /t/-initial verb:

/N-tum	ine/	→	[^{n}tùm ínè]
3SG.AN-follow	1SG		'He/she follows me.'

(56) Realisation of /N-/ on /d/-initial verb:

/N-dók/	→	[^{n}dók]
3SG.AN-arrive		'He/she arrives.'

(57) Realisation of /N-/ on /b/-initial verb:

/N-bun	kalúbu	pa/	→	[^{m}bùn kàlúbū pá]
3SG.AN-kill	rat	ART		'He/she kills that rat.'

(58) Realisation of /N-/ on /m/-initial verb:

/N-mát	del-a	lájntopana/	→	[mát dèlà lájntòpànà]
3SG.AN-die	TEMP-PAR	yesterday		'He/she died yesterday.'

(59) Realisation of /N-/ on /l/-initial verb:

/N-láw/	→	[^{n}láw]
3SG.AN-howl		'He/she is howling.'

(60) Realisation of /N-/ on /w/-initial verb:

/N-wul	i/	→	[^{ŋ}wùl í]
3SG.AN-beat	3SG.AN		'He/she beats him/her.'

(61) Realisation of /N-/ on /s/-initial verb:

/N-sóm	i/	→	[ⁿsóm ì]
3SG.AN-respect	3SG.AN		'He/she respects him/her.'

(62) Realisation of /N-/ on /h/-initial verb:

/N-hamánkor/	→	[hàmáŋkōr]
3SG.AN-decorate		'He/she is decorating.'

If /N-/ prefixation follows an open syllable within an IP, in most cases /N-/ is reassigned to the coda of the preceding syllable, where it is realised as a nasal segment. This reassignment occurs across word boundaries, as shown in (63).

(63) Reassignment of /N-/ across syllable boundaries:

/Láwra	a	**N-**dók	to/	→	[Láw.rā**n**.dók.tò]
Laura	PERS	3SG.AN-arrive	IAM		'Laura has arrived.'

The only case in which /N-/ is not reassigned to the coda of a preceding syllable is when the prenasalised consonant is /m/. This is shown in (64), in which /ia N-mát/ is realised as [ì.à.mát], and not *[ì.àm.mát].

(64) No reassignment of /N-/ to coda of preceding syllable when prefixing a /m/-initial root:

/ia	N-mát	to/	→	[ì.à.má.tò]	*[ì.àm.má.tò]
3SG.AN	3SG.AN-die	IAM		'He/she has died.'	

This indicates that the process of consonant hiatus resolution described in §2.4.5 happens before the rule that reassigns /N-/ to the coda of a preceding open syllable within an IP.

There is some demographic variation in the realisation of the Class III /N-/ prefix, in that the youngest speakers of Ambel (born between approximately 1990-2000) do not produce /N-/ prefixes; this will be discussed in §2.6.1.

2.5.1.3 /aN=/ procliticisation

The proclitic /aN=/ marks a 3SG.INAN subject. For Class I and II verbs, /aN=/ attaches to a stem which has already been inflected with /na-/ (Class I) or /n-/

(Class II), both of which mark a 3SG subject. In this context, /aN=/ is realised as [an=]. This process is described in §4.1.1.

When the proclitic /aN=/ attaches to a Class III or Class IV verb, however, it attaches directly to the root. In this case, the nasal segment of the proclitic assimilates to the following consonant. This assimilation is generally in terms of place of articulation. Thus, /aN=/ is realised as [am=] before the bilabial segments /p, b, m/ and the labial realisations of /h/ (i.e. [f] and [ɸ]); [an=] before the alveolar segments /t, d, n, s, r/; and [aŋ=] before the velar segments /k, g/. When /aN=/ precedes the alveolar lateral /l/ or the glottal realisation of /h/ (i.e. [h]), the proclitic is often realised as [ã=], with nasalisation on the vowel. The proclitic /aN=/ is not attested preceding the palatal glide /j/, the labio-velar glide /w/, or a vowel.

Some examples of assimilation of /aN=/ are given in (65)–(68).

(65) Before a bilabial segment /p, b, m/, [f] and [ɸ] → [am=]

/aN=bjáw/	→	[àmbjáw]
3SG.INAN=blue		'It is blue.'

(66) Before an alveolar segment /t, d, n, s, r/ → [an=]

/aN=tálim/	→	[àntálīm]
3SG.INAN=be.sharp		'It is sharp.'

(67) Before a velar segment /k, g, w/ → [aŋ=]

/aN=gu/	→	[àŋgù]
3SG.INAN=be.holey		'It is holey.'

(68) Before the alveolar lateral /l/ or the glottal [h] → [ã=]

/aN=hej/	→	[ãhèj]
3SG.INAN=good		'It is good.'

As discussed in §2.4.1, the alveolar nasal /n/ also assimilates to the place of articulation of a following bilabial, palatal, or velar segment that occurs within the

same word. Unlike the nasal archiphoneme found in the proclitic /aN=/, however, the alveolar nasal /n/ is not realised as nasalisation on the preceding vowel when followed by [l] or [h].

2.5.2 Metathesis

Metathesis is only attested in one form in Ambel: the compound /kaum-bín/ 'daughter-in-law.3sG', comprised of the elements /kamú/ 'in-law' and /bin/ 'woman'. Metathesis does not have a grammatical function, and this metathesised form is in free variation with its non-metathesised counterpart.

2.5.3 Reduplication

There are three kinds of reduplication in Ambel: full lexical reduplication, and two kinds of partial reduplication. In the first kind of partial reduplication, referred to as C(a)-reduplication, a prefix is formed by copying the onset and nucleus of the first syllable of a verbal root, and replacing the vowel with /a/. In the second kind of partial reduplication, referred to as CaC-(<j>-)reduplication, a prefix is formed by copying the first syllable of a verbal root with a nasal in the coda, and replacing the vowel with /a/; /<j>/ may be infixed following the second consonant of the root. None of these processes are productive in Ambel, and CaC-(<j>-)reduplication in particular is highly marginal.

2.5.3.1 Full lexical reduplication

Full lexical reduplication is not very common in Ambel. If the non-reduplicated form is independently attested, the function of full lexical reduplication is to communicate intensity, iterativity, or a lexicalised meaning. Nominal, verbal, and numeral roots undergo this kind of reduplication; all of the reduplicated forms, except /hun~hún/ 'God', are adverbs. Some examples are given in (69).

(69) Examples of full lexical reduplication:

Root	Word class	Meaning	Reduplicated form	Meaning	Word class
/lanján/	NOUN	'day'	/lanján lanján/	'every day'	ADVERB
/pánje/	NOUN	'morning'	/pánje pánje /	'very early in the morning'	ADVERB
/kitém/	NUMERAL	'one'	/kitém kitém/	'consecutively'	ADVERB
/pám/	VERB	'connect'	/pam~pám/	'in a connected way'	ADVERB
/láw/	VERB	'be far'	/law~láw/	'very long time'	ADVERB
/hun/	NOUN	'king'	/hun~hún/	'God'	NOUN

If the root is disyllabic (e.g. /lanján/ 'day'), there are two instances of [H] in the reduplicated form. This violates the culminativity principle discussed above in §2.3.2.2: in Ambel, a phonological word is realised with a maximum of one [H]. The output of this kind of reduplication therefore cannot be said to be a single phonological word. However, if the root is monosyllabic, the output is a single phonological word: for example, the reduplication of /H/ root /pám/ 'side' leads to a reduplicated form with only one /H/, i.e. /pam~pám/ 'in a connected way'. The root /hun/ 'king' is toneless; however, the reduplicated form /hun~hún/ 'God' has a /H/ second syllable. The reason for this is unclear.[24]

There are a handful of examples in the corpus of forms which appear to be reduplicated, for which no independent root can be identified. Like the forms given above in (69), some of these reduplications also have two instances of [H]. An exhaustive list is given in (70).

(70) Attested reduplicated forms with no identifiable independent root:

Reduplicated form	Reduplicated meaning
rawé rawé	'kind of sea cucumber '
sewá sewá	'mallet'
ruwá ruwá	'bellows'
marmár	'kind of seagull'
Mesmés	name of island
Manmán	name of island
Lamlám	name of settlement

24. It will be shown in the following sections that words derived through C(a)- and CaC-(<j>-)reduplication where there is no /H/ syllable in the root also receive a /H/ specification on the reduplicated form. Furthermore, as will be discussed in §13.1.2, one type of serial verb construction in Ambel, change of state serialisation, also acquires a /H/ specification if the composite roots are toneless. It is possible that /H/ tone – or a precursor to it – was once obligatory in polysyllabic words, and was assigned to toneless outputs in these word-formation processes. More research, however, is required to confirm this speculation.

2.5.3.2 C(a)-reduplication

C(a)-reduplication is attested for verbal roots in Ambel.[25] It is not productive; only a small subset of verbs can be reduplicated. The majority of roots that undergo C(a)-reduplication are Class III (although not all Class III verbs can undergo C(a)-reduplication); three Class I verbs and one Class II verb also undergo C(a)-reduplication. C(a)-reduplication of verbal roots is a nominalisation strategy; the function of C(a)-reduplication will be discussed in more detail in §5.1.1.

The majority of roots that undergo C(a)-reduplication are consonant-initial. For consonant-initial verbs that undergo C(a)-reduplication, the pattern is as follows. The input to the reduplication process is the onset and nucleus of the first syllable of the root; this is copied, and the vowel is replaced with /a/ to form a reduplicant of the shape /Ca/. The reduplicant is then attached to the left edge of the root. If the root has a tonal specification, the tonal specification of the reduplicated form is on the same syllable as the root; if the root has no tonal specification, as in /hej/ 'be good', the reduplicant is assigned /H/, for example /há~hej/ 'goodness'. The reduplication process for consonant-initial verbs is represented diagrammatically and exemplified in Table 2.21.

Table 2.21: C(a)-reduplication patterns on C-initial verbs

Root							**Reduplicated form**									
#	C_1	V	$(C_2)\ldots$		#	Meaning	#	C_1	a	~	C_1	V	$(C_2)\ldots$		#	Meaning
	h	á	n			'shoot with bow'	h	a	~	h	á	n				'bow shot'
	s	á	k			'bite'	s	a	~	s	á	k				'bite (n.)'
	h	e	j			'be good'	h	á	~	h	e	j				'goodness'
	d	u				'obey'	d	á	~	d	u					'person who obeys'
	s	í	r	i		'buy'	s	a	~	s	í	r	i			'thing that is bought'
	t	u	b	ú	l	'respond'	t	a	~	t	u	b	ú	l		'response'

There is one V-initial root that undergoes C(a)-reduplication: the Class II verb /akáj/ 'write'. For this root, the first segment of the root, /a/, is ignored in the reduplication process; the first consonant of the root, /k/, is copied, and is attached to the left edge of the root. The reduplication processes for /akáj/ 'write' is represented diagrammatically in Table 2.22.

25. Ca-reduplication is attested in other SHWNG languages, such as Biak (van den Heuvel 2006: 263–265), as well as in many other Austronesian languages further afield, such as Saisiyat, spoken in Taiwan (Li 1973: 281), Sangir, spoken in the Sangihe Islands (Sneddon 1984: 43), and Tetum, spoken on Timor (Morris 1984). Ca-reduplication has also been reconstructed to proto-Austronesian (Blust 1998).

Table 2.22: C(a)-reduplication on V-initial /akáj/ ‘write’

Root							**Reduplicated form**								
#	V	C_1	V	C_2	#	Meaning	#	C_1	~	V	C_1	V	C_2	#	Meaning
	a	k	á	j		‘write’		k	~	a	k	á	j		‘writing’

2.5.3.3 CaC-(<j>-)reduplication

CaC-(<j>-)reduplication is extremely rare in Ambel: only four forms are attested with this reduplication pattern. The roots of all four CaC-(<j>-) reduplicated forms are Class III verbs. As with C(a)-reduplication, CaC-(<j>)-reduplication is a nominalisation strategy; the nominalising function of CaC-(<j>)-reduplication is discussed further in §5.1.1.

While the attested forms are too few to make any firm generalisations, the pattern of CaC-(<j>)-reduplication seems to be as follows. All four verbs attested with this reduplication pattern are monosyllabic; the whole root is copied, and the nucleus vowel is replaced with /a/, forming a reduplicant of the shape /CaC/, which is then attached to the left edge of the root. For two of the roots, the segment /j/ is also infixed between the first consonant and the vowel of the root. As with C(a)-reduplication discussed above, if the root has a tonal specification, the tonal specification of the reduplicated form is on the same syllable as the root; if the root has no tonal specification, as in /sun/ ‘enter’, the reduplicant is assigned /H/. CaC-(<j>)-reduplication is shown for all four attested roots in Table 2.23.[26]

26. These four reduplicated forms may be fossilised remnants of an earlier, more productive system of CaC-(<j>)-reduplication in Ambel. Alternatively, it may be that CaC-(<j>)-reduplication was never productive in Ambel, and that these forms have been borrowed wholesale from another language which does have productive CaC-(<j>)-reduplication. It is worth noting, for example, that Biak has both the verbal form /sun/ ‘enter’, the reduplicated form /sansun/ ‘clothes’, and that Biak has CaC-reduplication, similar to the CaC-(<j>)-reduplication pattern described here (van den Heuvel 2006: 265). Ma'ya also has the verbal form /su$_3$N/ ‘enter’, the reduplicated form /saN'sju$_3$N/ ‘clothes’, and CaC-reduplication (van der Leeden n.d.b: 7). It is therefore possible that these reduplicated forms were borrowed directly into Ambel from either Biak or Ma'ya.

Table 2.23: CaC-(<j>)-reduplication patterns

Root						**Reduplicated form**									
#	C_1	V	C_2	#	Meaning	#	C_1	a	C_2	~	C_1	(j)	V	C_2	#	Meaning
	t	á	n		'go'		t	a	n	~	t	j	á	n		'journey'
	t	é	n		'share (v.)'		t	a	n	~	t	j	é	n		'share (n.)'
	s	u	n		'enter'		s	á	n	~	s		u	n		'clothes'
	s	ó	m		'respect (v.)'		s	a	m	~	s		ó	m		'respect (n.)'

2.6 Sociolinguistic variation

In this section, sociolinguistic variation in Ambel is briefly discussed. In §2.6.1, some of the more salient inter-generational differences are outlined; and in §2.6.2, I discuss the main differences between the two major dialects of Ambel, Metnyo and Metsam. The variation discussed in these sections is mostly phonological; some morphological and lexical differences are also described.

2.6.1 Variation by age

There are several inter-generational differences in the use of Ambel, which are summarised here.

In §2.1.1.1, I presented arguments in favour of analysing [f ~ ɸ ~ h] as realisations of /h/. One of these arguments was that, at least for younger speakers (below approximately 50 years old), [f] and [ɸ] realisations are very rare. Older speakers, however, have a wider allophonic range in the realisation of /h/.

There are demographic differences in the perception and production of /N-/ prefixation on Class III verbs (§2.5.1.2). All of the older speakers with whom I worked insisted that I transcribe /N-/ with either <n> or <m>. If I had difficulty perceiving a prenasalised consonant, they would emphasise the prenasalisation. However, younger speakers (under 25) do not produce /N-/, either as a prenasalised consonant, or reassigned to a preceding open syllable. In addition, the younger speakers (under 25) with whom I transcribed the data were not happy when I transcribed prenasalised consonants with <n> or <m>, even when the nasal segment was clearly audible on a preceding open syllable.

There are a handful of examples in the corpus of words with /ú/ that are optionally realised as the diphthong [óu] by the oldest speakers of Ambel (those aged approximately 70 and older). An exhaustive list of these words is given in (71).

(71)

Underlying form	Optional realisation	Meaning
/kún/	[kóun]	'charcoal'
/kút/	[kóut]	'coconut'
/n-ún/	[n-óun]	'3SG-swim (of fish)'
/n-ún/	[n-óun]	'3SG-pick.up'
/tún/	[tóun]	'moon'

With the exception of /kút/ 'coconut', all of the words in (71) end in the nasal /n/. However, not all syllables with an /ún/ rhyme vary systematically in this way; for example, /dún/ 'fish' is never realised as *[dóun].

2.6.2 Dialect variation

The dialect described in this grammar is the Metnyo dialect of Ambel, spoken in most of the Ambel villages. There is one other major dialect: Metsam, spoken in the villages of Warsamdin and Kalitoko. As mentioned in footnote 19, Metsam is highly endangered: only those born before approximately the year 1960 speak Metsam fluently. Metsam and Metnyo are very close to one another. There are, however, some differences between the two dialects. These differences are outlined in this section.

The most salient difference between Metsam and Metnyo is the prosodic system. Both Metsam and Metnyo have lexical tone. While the tone system of Metnyo is very simple (/H/ syllables contrast with toneless syllables; see §2.3.2), the tone system of Metsam is more complex. A full analysis of the tone system of Metsam awaits further research; preliminary data, however, suggest that Metsam contrasts /H/, /LH/, and toneless syllables.[27] Metsam appears to have the same HL% Intonation Phrase-final boundary tone marking declarative speech acts, described for Metnyo in §2.3.4.1.

Phonologically, there are several segmental differences between Metsam and Metnyo. In Metsam, [h] and [ɸ] realisations of /h/ are rare; it seems more likely

27. As the tone system of Metsam has not yet been analysed, I do not mark tone on Metsam words in this description.

that Metsam [f ~ ɸ ~ h] are realisations of underlying /f/. Several monosyllabic words with /u/ in Metnyo have a diphthong /ou/ in Metsam; examples are given in (72). A similar variation by age for the oldest speakers of Metnyo was described in the previous section.

(72)

Metnyo	**Metsam**	
/kút/	/kout/	'coconut'
/kún/	/koun/	'charcoal'
/ut/	/out/	'louse'
/tún/	/toun/	'moon'

Metnyo /íj/ corresponds to Metsam /ej/ (e.g., Metnyo /gíj/ ~ Metsam /gej/ 'areca nut'; Metnyo /míj/ ~ Metsam /mej/ 'rain'). Metnyo word-initial /k/ is lost for some words in Metsam (e.g. Metnyo /kátin/ ~ Metsam /atin/ 'stone'; Metnyo /kajáw/ ~ Metsam /ajaw/ 'pig') but not others (e.g. Metnyo /kalabét/ ~ Metsam /kalabit/ 'goanna'). Whereas the root meaning 'die' in Metnyo is /mát/, in Metsam it is /mnat/, with a complex onset.

In addition to these phonological differences, there are lexical differences between Metsam and Metnyo. Some of these lexical differences are given in Table 2.24.

One morphological difference between Metsam and Metnyo has been attested: in the verbal subject-marking paradigms (described in §4.1.1), Metnyo marks a 2PL subject on Class II verbs with the prefix /m-/, whereas Metsam marks a 2PL subject on Class II verbs with the prefix /mim-/ (see §4.1.1). In addition, as will be described in §3.8.1.1, the possessed noun /i-kapju/ '3INAN-fruit' appears to be grammaticalising as a classifier in Metnyo, but not Metsam Ambel. No other morphological or syntactic differences between Metsam and Metnyo Ambel are attested.[28]

28. The Metsam data in the corpus amounts to 4 hours 37 minutes of elicited material, and just over 18 minutes of naturalistic data. More data from Metsam may reveal syntactic differences between the two dialects.

Table 2.24: Lexical differences between Metsam and Metnyo Ambel

	Metsam	**Metnyo**
'crocodile'	/kuabe/	/lenkawáj/
'early afternoon'	/lajntatutut/	/lajntatopón/[a]
'fly (n.)'	/lale/	/lán/
'k.o. fish, PM *ikan garopa*'	/mot/	/kjá/
'be heavy'	/mawon/	/món/
'knife'	/sin/	/túlu/
'shark'	/ui/	/rúmun/
'snake'	/kok/	/lemát/
'sun'	/lajntagi/[b]	/lájnta/

[a] A lexicalised compound, formed of the elements /lájnta/ 'sun', /tó/ 'stay', and /pón/ 'top', i.e. 'the sun stays on top'. The Metsam form is also a historical compound, formed with the element /lajnta/ 'sun'; the rest of the compound, however, is obscure.

[b] A lexicalised compound, formed of the elements /lanjan/ 'day' and /tagi/ 'eye'; the Metnyo equivalent is a truncated form of this compound. See Gil (2015) for a discussion of 'eye-day' lexicalisations meaning 'sun' in as a feature of a linguistic macro-area stretching from the Mekong in peninsular south-east Asia to the Mamberamo in New Guinea.

2.7 Incorporation of loans

In this section, the incorporation of loans from two different donor languages are discussed: (Papuan) Malay in §2.7.1; and Biak in §2.7.2. While there are undoubtedly loans from other sources in Ambel, the state of documentation of both (Papuan) Malay and Biak allows for a more detailed discussion of how these loans are incorporated.

2.7.1 Loans from (Papuan) Malay

In this subsection, the Papuan Malay phonological inventory as analysed by Kluge (2014) is used to describe how loans from Malay are incorporated into Ambel.

Words containing /h/ in Malay are realised with the same allophonic variation described above in §2.1.1.1; thus Malay /helem/ 'helmet' is realised as [hèlèm], [ɸèlèm], or [fèlèm].

The Malay affricates /tʃ/ and /dʒ/, while not part of the phonological inventory of Ambel, have the same realisation as underlying sequences of /tj/ and /dj/, i.e. [tʃ] and [dʒ] (see §2.2.3.3).

The Malay nasals /ɲ/ and /ŋ/ are realised as [ɲ] and [ŋ], respectively.

Syllables which, in more standard varieties of Indonesian, are analysed with an underlying schwa /ə/ in the nucleus, are realised with either /a/ or /i/ when they are borrowed into Ambel (e.g. /sadʒara/ 'history' < Malay /sədʒara/; /tipun/ 'flour' < Malay /təpun/).

2.7.2 Loans from Biak

In this subsection, the Biak phonological inventory as analysed by van den Heuvel (2006) is used to describe how loans from Biak are incorporated into Ambel.

Segmentally, Biak and Ambel are very similar; almost all of the consonants and vowels in the Biak phonological inventory are also found in Ambel, and thus no incorporation is required. There are a couple of exceptions. First, the Biak phoneme /v/ (realised as [β] or [b]; van den Heuvel 2006: 22) is not found in Ambel. No Biak loans containing /v/ have yet been identified, so it is unclear how this phoneme is incorporated. Second, there is a length distinction in the Biak vowel inventory, which is not found in Ambel. These loans are realised without length in Ambel.

Phonotactically, several words borrowed from Biak which have onset consonant clusters have been borrowed with the complex clusters intact; in §2.2.3.1, some of the less frequent onset consonant clusters attested in Ambel were identified as loans from Biak, particularly onset consonant clusters in monomorphemic words where the second element is a segment other than /j/ (for example, /krís/ 'kind of tree' < Biak /kris/; /mambrí/ 'hero' < Biak /mambri/). However, for at least some borrowings, an epenthetic vowel is inserted to break up these clusters (thus Biak /**sw**a:n/ 'palm wine' is borrowed into Ambel as /**sáw**an/; Biak /wammu**rm**/ 'east wind' is borrowed into Ambel as /wamú**rum**/). Occasionally, epenthetic vowels are attested in words from a Biak source, even when there is no consonant cluster (for example, Biak /sara**k**/ 'bracelet' is borrowed into Ambel as /sará**ka**/). More work is needed to identify Biak loans in Ambel in order to explore the patterns of consonant cluster borrowing in more detail.

2.8 Orthography and glossing conventions

In this section, the orthographic system used to transcribe Ambel is introduced, and the glossing conventions used in the presentation of examples are explained.

2.8.1 Orthography

Ambel is rarely written by its speakers, and there is no official or standardised Ambel orthography. When speakers do write Ambel, there is some variation in the orthography that they use. As such, in order to transcribe the corpus, a semi-standard orthography was developed in collaboration with native speakers.[29]

The Ambel orthography used in the transcription of the corpus is based on Standard Indonesian. It is also very close to standard IPA. The orthographic conventions used to write Ambel are given in Table 2.25; deviations from the IPA are highlighted in bold. Note in particular that [tʃ] and [dʒ] (realisations of underlying /tj/ and /dj/; see §2.2.3.3) are written <c> and <j>, respectively; [j] is written <y>; [ɲ] (occuring as a realisation of /n/, and in Malay loanwords/code-switches) is written <ny>; and [ŋ] (occurring as a realisation of /N-/ '3SG.AN', or in Malay loanwords/code-switches) is written <ng>.

Table 2.25: Ambel orthography compared with standard IPA symbols (Deviations from the IPA are highlighted in bold)

CONSONANTS																	
IPA	p	t	k	b	d	g	s	h	tʃ	dʒ	m	n	ɲ	ŋ	l	r	j	w
Ambel	p	t	k	b	d	g	s	h	**c**	**j**	m	n	**ny**	**ng**	l	r	**y**	w
VOWELS																		
IPA	i	e	a	o	u													
Ambel	i	e	a	o	u													

The orthography used for the transcription of the corpus is very close to the orthography used in this description, with one important exception: the marking of tone. The native speakers of Ambel with whom I worked decided that they found marking of tone cumbersome and unnecessary, so we did not transcribe tone in the corpus. In this description, however, both underlying and surface lexical High tone is marked with an acute accent over the relevant vowel (*í*, *é*, *á*, *ó*, *ú*).

While vowel length is not phonemic in Ambel, lengthened vowels do have ideophonic functions (see §15.4). This lengthening is represented orthographically

29. I say 'semi-standard' rather than 'standard' because the orthography is only standard in the context of this documentation and description project. Native speakers of Ambel continue to write their language however they see fit; variation in orthographic preferences does not appear to hinder communicability in written language.

in examples throughout this description, with the lengthened vowels indicated by triplication.

The orthographic representation of Ambel utterances is closer to the surface realisation than it is to the underlying form of these utterances. The surface outputs of the following rules are represented in the orthography: Paragogic /a/ (§2.4.6); prosodic phrase-medial elision of final /a/ (§2.4.7); /<j>/ infixation (§2.5.1.1); /N-/ prefixation (§2.5.1.2); and /aN=/ procliticisation (except when attaching to a /l/- or /h/-initial root, in which case the proclitic, realised as [ã], is transcribed as <an>; §2.5.1.3). In addition, only the culminative surface realisation of lexical tone is represented in the orthography (§2.3.2.2) – although all syllables that are underlyingly specified for tone are marked in the phonemic representation in the second line of examples (see the following section). The surface outputs resulting from the following rules are not represented in the orthography: /n/ assimilation (§2.4.1); /t/ assimilation (§2.4.2); root-initial glide elision (§2.4.3);[30] intervocalic glide epenthesis (§2.4.4); and deletion of vowels or consonants in hiatus resolution (§2.4.5). With the exception of the representation of tone, the decisions on which phonological processes and morphophonological rules to represent in the orthography were based largely on preferences expressed by native speakers.

2.8.2 Presentation of examples

Most examples in this description comprise four lines. On the first line, an orthographic representation of the utterance is given, using the conventions outlined in the previous section. On the second line, a phonemic representation is provided, with the division of the words into their consituent morphemes. On the third line, there is a gloss of each morpheme. On the fourth line, there is a free translation into English. An example of a typical example is given in (73).

30. One exception to this is the elision of root-intial /j/ from the 1SG pronoun /jine/. Owing to the frequency of the non-/j/-initial form in the corpus, if this pronoun was realised /ine/, it is transcribed <ine>.

(73) monkone: “po, hana jók be kalíw alua”
monkone po hana <y>dók be kalíw a-lu-a
say.3SG.AN NEG AND <1SG>arrive ALL village DEM.NCNT-SEA-AND

‘He said: “No, earlier I arrived at the village [that is] in a seawards location”.’

AM113_02.00

If a gloss only has three lines, this means the orthographic representation is omitted, as in (74).

(74) y-ánum we mári
1SG-drink water hot

‘I drink hot water [e.g., tea or coffee].’ **AM001_el.**

As can be seen in (73) and (74), each example is followed by a reference number, which is right-aligned and in bold text. In example (73), this reference number is **AM113_02.00**. The format of this reference number indicates that the example is taken from the naturalistic corpus. The material preceding the underscore points to the recording that the example is taken from (in this case, recording **AM113**); the material following the underscore is a time stamp, in the format (HH.)MM.SS, indicating the precise location of the example within that recording (in this case, **02.00**).

The majority of examples from this point on will be taken from the naturalistic corpus. Where necessary, points will be illustrated with or supplemented by data from the elicited corpus. In example (73), the reference number is **AM001_el.**. The format of this reference number indicates that this example is taken from the elicited corpus. As with the naturalistic reference number just discussed, the material preceding the underscore points to the recording that the example is taken from; unlike the naturalistic reference number, however, the material following the underscore is not a time stamp, but the string **el.**, indicating that the material was elicited.

In addition to the orthographic representation outlined in §2.8.1, there are several other conventions used in the presentation of examples in this description. Many of these conventions follow the Leipzig Glossing Rules.[31] An outline of the

31. Available online at http://www.eva.mpg.de/lingua/resources/glossing-rules.php, last accessed 15/5/2018.

conventions used in the presentation of examples is given in Table 2.26. A list of the glosses used in the segmentation is provided in the front matter.

Neither biological gender nor tense are marked in Ambel; aspect marking is optional. In cases where the gender, tense, or aspect is not directly inferable from the example given, the gender, tense, or aspect of the original context is reflected in the the free translation.

When parts of an example, or other Ambel words are quoted in the body of the text, these are given in *italics*, with the English gloss or translation enclosed in single quotation marks (‘’). If both a gloss and a translation are given in the body of the text, then the gloss is enclosed in square brackets, and the translation is within single quotation marks.

Table 2.26: Conventions used in the presentation of Ambel examples

Convention	Meaning
Orthographic representation	
italics	Indicates code-switches and shallow loans from Malay
bold	Highlights the part of the example that is under discussion
...	Indicates that some material not relevant for the discussion has been omitted
[small caps]	Indicates non-verbal information, e.g. laughter, eye contact
[ ]	Indicates constituents relevant for the discussion
Subscript caps	Labels constituents relevant for the discussion
*	Precedes non-grammatical examples
??	Precedes questionable or marginally grammatical examples
VVV	Vowel lengthening
,	Intonational Phrase boundary (§2.3.1), or a pause
?	Indicates interrogative mood (§9.2), and thus either Polar Interrogative intonation (§2.3.4.2) or Constituent Interrogative intonation (§2.3.4.3)
!	Indicates an imperative or hortative mood (§9.1), and thus Declarative/imperative intonation (§2.3.4.1)
“ ”	Indicates that the utterance is direct speech
Phonemic representation	
-	Marks a prefix or suffix boundary (§3.1.2)
< >	Encloses an infix (§3.1.2)
\	Marks a suprafix (§3.1.2)
=	Marks a clitic boundary (§3.1.3)
<blank space>	Marks a word boundary (§3.1.1) or a particle boundary (§3.1.4)
~	Reduplication
Ø	Zero-morpheme
Interlinear gloss	
.	Used where one Ambel word requires two or more English words in the gloss, e.g. *gámnyay* ‘dry.sago.leaf.litter’
Translation	
bold	Highlights the part of the translation that is under discussion
( )	Encloses information which is found in the original example, but is superfluous to the English translation
[ ]	Encloses additional context-setting information, or information not found in the original example, e.g. omitted arguments
[small caps]	Indicates non-verbal information, e.g. laughter, eye contact
...	Indicates that some material not relevant for the discussion has been omitted

Chapter 3

Word classes

In this chapter, the different word classes in Ambel are defined and exemplified. The chapter opens in §3.1 with an examination of the different morphological units in Ambel, viz. affixes, clitics, particles, and words. Following this, the properties of each of the word classes will be presented. These properties are mainly morphological and syntactic; where necessary, reference is also made to pragmatic, semantic, and phonological properties. As nouns and verbs are the core constituents of the prototypical verbal clause, these word classes are discussed first, in §3.2 and §3.3, respectively. After this, the following word classes are treated in turn: adverbs (§3.4); prepositions (§3.5); demonstratives (§3.6); articles (§3.7); quantifiers, including numerals (§3.8); and conjunctions (§3.9). In §3.10, I describe the distribution and semantics of the clitic *ki*= 'EMO', which signals the emotional involvement of the speaker with an entity.

Like many other languages in the region, as well as other Austronesian languages spoken further afield, there are a number of roots in Ambel which show variation in membership between the classes of noun and verb. This chapter closes in §3.11, with a discussion of these roots, which are analysed as underspecified for word class.

3.1 Morphological units

In this section, I discuss the diagnostics that can be applied to different meaning-bearing elements in Ambel, in order to describe their phonological and morphosyntactic behaviour. Following e.g. Zwicky and Pullum (1983),

Klavans (1985), and Dixon and Aikhenvald (2002), I make a distinction between phonological and syntactic independence.

A phonologically independent element in Ambel is defined according to prosodic and segmental features, and the domain of phonological rules. These are as follows:

1. Prosodic:
   (a) There is a maximum of one realisation of lexical /H/ tone per phonologically independent element (§2.3.2.2);
2. Segmental:
   (a) Phonologically independent units minimally consist of a nucleus: V (§2.2.1);
3. Domain of phonological rules:
   (a) Complex onsets that do not violate the Sonority Sequencing Principle are not resyllabified across boundaries between phonologically independent units (§2.2.4);
   (b) /t/ assimilation (§2.4.2) does not apply across boundaries between phonologically independent units;
   (c) Intervocalic glide epenthesis (§2.4.4) does not apply across boundaries between phonologically independent units.

A syntactically independent element in Ambel can be defined according to the following criteria (following Dixon and Aikhenvald 2002: 19):

1. A syntactically independent element is syntagmatically mobile, i.e. is not restricted to one position in the clause;
2. If a syntactically independent element is made up of more than one morpheme, these morphemes:
   (a) are cohesive, i.e. always occur together;
   (b) are fixed in their order;

(c) 'have a conventionalised coherence and meaning' (Dixon and Aikhenvald 2002: 19).

Finally, there is one feature that applies to units that are both phonologically and syntactically independent:

1. A phonologically and syntactically independent element can occur as a free form, e.g. as the answer to a question.

In §§3.1.1–3.1.4, I use the features of phonological and syntactic independence to identify four types of morphological unit in Ambel: the word, which is both phonologically and syntactically independent; the clitic, which is syntactically independent but phonologically dependent; the particle, which is phonologically independent but syntactically dependent; and the affix, which is both phonologically and syntactically dependent.

3.1.1 Word

A **word** in Ambel is defined as an element that is both phonologically and syntactically independent, according to the criteria given above. Two further terms are relevant to the discussion of the concept of 'word': **root** and **stem**. A root is a form that typically has lexical content, and can be used as the base for derivational morphological processes. A stem is a root that may have undergone derivational morphological processes, but which has not yet undergone any inflectional morphological processes. (Derivational and inflectional morphological processes are discussed in more detail in the following section.)

The minimal word in Ambel is identical with the root, i.e. a form that has not undergone any morphological processes. An example containing two minimal words, the 3SG.AN subject pronoun *ia* and the noun *mánsar* 'old man', is given in (1).

(1)

WORD	WORD	
ia	mánsar	'He is an old man.'
3SG.AN	old.man	

3.1.2 Affix

An **affix** in Ambel is an element that contributes to a phonologically independent element, but by itself is not phonologically independent; and that contributes to a syntactically independent element, but by itself is not syntactically independent. The lack of both phonological and syntactic independence means that an affix must attach to a root or stem before it can be realised. The syntactic dependence of an affix means that each affix is associated with a root or stem of a particular word class.

Ambel has four types of affix: (1) **prefixes**, which attach root-initially; (2) **suffixes**, which attach root-finally; (3) **infixes**, which attach within the root; and (4) a **suprafix**, which is a suprasegmental (tonal) affix. Prefixation is the most frequent kind of affixation in Ambel. Examples of prefixation, suffixation, infixation, and suprafixation are given in (2)–(5).[1]

(2) Prefixation:
n-áti
3SG-run

'He runs.'

(3) Suffixation:
ni**-k** we ne
POSS.I-1SG child ART

'my child'

(4) Infixation:
m**<y>**át
<1SG>die

'I die.'

(5) Suprafixation:
tají-k**\H** ne
eye-1SG**\1|2SG.POSS** ART

'my eyes'

A distinction can be made in Ambel between **inflectional** and **derivational** morphological processes. Derivational processes create new lexemes, whereas inflectional processes create grammatical variants of the same lexeme. There are two inflectional morphological processes in Ambel, both of which involve affixation. These processes are as follows:

- Verbal subject-marking morphology, in which the person, number, and animacy of the subject of a verbal clause is marked on the verb with prefixes, infixes, or a proclitic (see §4.1.1);

1. As will be described in §7.2, the suprafix *\H*, illustrated in (5), is used to mark a 1SG or 2SG possessor on some nouns. This suprafix attaches to the first syllable of the root, which is then realised [H], regardless of the underlying tonal specification of the root.

- Possessive morphology, in which the person, number, and animacy of the possessor in a possessive construction is marked with prefixes, suffixes, infixes, and a suprafix, on either a prenominal classifier (in Indirect possessive constructions; see §7.1), or directly on the possessed noun (in Direct possessive constructions; see §7.2).

There are twelve derivational processes in Ambel. These derivational processes are summarised below:

- Zero-conversion of prepositions (see §3.11);
- Causativisation with the prefix *ha-* 'CAUS' (see §4.2.1);
- Reduplication (see §5.1.1);
- Nominalisation with the prefix *a-* 'NMLZ' (see §5.1.2);
- Nominal compounding (see §5.1.3);
- Derivation of demonstratives from deictic units, using the prefix *a-* 'DEM.NCNT' or *wa-* 'DEM.CNT' (see §12.2.2);
- Derivation of deictic articles from deictic units (see §6.2.9.2 and §12.2.3);
- Derivation of deictic nouns from deictic units, using the prefix *lo-* 'DEIC.N' (§12.2.4);
- Derivation of locative predicates from deictic units, using the prefixes given in §8.2.2 (see §12.2.5);
- Derivation of deictic prepositions from deictic units, using the prefix *la-* 'DEIC.PREP' (§12.2.6);
- Derivation of demonstrative verbs from demonstrative roots *pa* 'MID' and *ne* 'PROX', using the prefix *la-* 'DEM.V' (§12.2.7);
- Derivation of predicates of complex monoclausal constructions (Chapter 13).

Of the twelve derivational processes in Ambel just summarised, seven involve affixation: causativisation with *ha-* 'CAUS', nominalisation with *a-* 'NMLZ', and the derivation of words of different classes from deictic roots, using the prefixes *a-*

'DEM.NCNT', *wa-* 'DEM.CNT', *lo-* 'DEIC.N', *la-* 'DEIC.PREP', *la-* 'DEM.V', and the predicative prefixes discussed in §8.2.2.[2]

3.1.3 Clitic

A clitic is phonologically dependent, in that it must attach to another element before it can be realised. However, clitics are syntactically independent, in that when a clitic and another element combine, the resulting form does not adhere to the criterion of cohesiveness – in other words, clitics, unlike affixes, are not necessarily restricted to stems of a particular word class. Clitics attach to stems that have already undergone affixation. As such, they are always ordered outside of affixes.

Distributionally, there is one kind of clitic in Ambel: **proclitic**, which attach to the left edge of another element. There are two proclitics in Ambel: *aN=*, which marks a 3SG.INAN subject in verbal clauses (see §4.1.1); and *ki=* 'EMO', the marker of a speaker's emotional involvement with a referent (see §3.10).

An example of both *ki=* 'EMO' and *aN=* '3SG.INAN' is given in (6). This example shows the phonological dependence but syntactic independence of *ki=* 'EMO', and the ordering of *aN=* '3SG.INAN' outside of *ki=* 'EMO'.

(6) kátin kapyu **ki=**wa-pa **aN=ki=**bu
stone fruit EMO=DEM.CNT-MID 3SG.INAN=EMO=white
'That small stone is white.' **AM121_el.**

3.1.4 Particle

The final kind of morphological unit in Ambel is the particle. Particles are elements which are not syntactically independent, in that they are not syntagmatically mobile, but are phonologically independent, in that they do not combine with any adjacent elements to create a new phonologically independent form. Ambel has many particles, including clausal modifiers such as markers of mode (e.g. the markers of circumstantial mode *nun* 'CIR.know' and *cam* 'CIR.can'; §10.1), aspect markers (e.g. the marker of the iamitive perfect *to* 'IAM', the marker of continuative

2. There is also evidence that, historically, there were more derivational affixes in Ambel: the now-fossilised derivational prefixes **ka-*, **ta-*, and **m(a)-* will be discussed in §4.2.2.

aspect *rín* 'CONT'; §10.2), and markers of negation (e.g. *po* 'NEG', *are* 'PROHIB'; §10.3); sentence-final question tags (e.g. *ni* 'POS.INT' and *pu* 'ATT.INT'; §9.2.1); and NP-internal particles such as *i* 'NSG' (§6.2.5) and the possessive classifiers *ni* 'POSS.I' and *ni/na* 'POSS.II' (§7.1).

Examples of particles are given in (7)–(10). In each example, the particle is highlighted in bold.

(7) aN=lál **po**
3SG.INAN=big NEG

'It [a canoe] is not big.' **AM027_02.22**

(8) N-mát **to**
3SG.AN-die **IAM**

'It [a crocodile] is dead.' **AM067_10.19**

(9) ... l-amcát awa **pu**?
3PL.AN-afraid 2SG **ATT.INT**

'...They're afraid of you, get it?' **AM113_02.10**

(10) ... **na**-Ø rómbyon **i** pa si-mábu
POSS.II-3SG.AN pandanus.leaf NSG ART 3NSG.INAN-many

'...Her pandanus leaves are many.' **AM076_01.50**

3.2 Nouns

Nouns are a large, open word class in Ambel. Ambel nouns have the following properties:

1. The noun functions as the head of a noun phrase (NP). Nouns can thus be modified by NP modifiers, viz. possessor noun phrases, other nouns or noun phrases, adjectival verbs, quantifiers and numeral classifiers, the marker of emotional involvement *ki*= 'EMO', the non-singular particle *i*, the marker

of personal names *a* 'PERS', noun-modifying constructions, demonstratives, articles, pronouns, and prepositional phrases (see §6.2 for more on the internal structure of the NP). This behaviour is exemplified in (11), in which the noun *mé* 'person' is the head of an NP, and is modified by a relative clause (a sub-type of noun-modifying construction, marked with *wa* 'NMC.DEF'; see §14.1) and an article (*a-pa* 'ART.NMC-ART').

(11)

[**mé**	wa	líy	apa]$_{NP}$	lamát	aya	si	po
mé	wa	l-íy	a-pa	la-mát	aya	sia	po
person	NMC.DEF	3PL.AN-eat	ART.NMC-ART	3PL.AN-die	TERM	3PL.AN	NEG

'The people who ate [the turtle meat] died until there was no one left.'

AM125_03.58

2. In possessive constructions, NPs function as either the possessor or the possessed NP (see Chapter 7). This is shown in (12). In this example, the noun *mácu* 'servant' functions as head of a possessor NP, and *kagalá* 'skull' functions as as the head of a possessed NP.

(12)

natákukamtu	**[[mácu**	**pa]$_{PossR}$**	**[kagala**	**pa,]$_{PossD}$]$_{NP}$**	beposa	ido
na-táku-kámtu	mácu	pa	kagalá	pa	beposa	ido
3SG-chop-break	servant	ART	skull.3SG.AN	ART	after.that	FRA
mát						
N-mát						
3SG.AN-die						

'She chopped the servant's head so that it broke, after that he died.'

AM074_03.45

3. In verbal clauses, NPs function as core arguments: subject, object, or oblique (see §8.2.1.1). This is exemplified in (13). In the verbal clause in this example, the NP headed by *máni* 'bird' functions as the subject, and the NP headed by *lán* 'fly' functions as the object. Example (13) also shows that, when an NP occurs as the subject of a verbal clause, the person, number, and animacy of the NP is marked on the verb using subject-marking morphology (in this case, the prefix *N-* '3SG.AN'; see §4.1.1). See §8.2.1 for more on verbal clauses.

(13) **[máni pa]$_{NP:S}$** nsáka **[lán wana]$_{NP:O}$**
máni pa N-sák-a lán wana
bird ART 3SG.AN-bite-PAR fly DEF

'The bird bit the fly.' **AM042-06_00.35**

4. NPs can also occur in clausal adjuncts, as the complement of a preposition. This is shown in (14). In this example, the NPs headed by *doí* 'closed bay' and *pál* 'side' are the complements of the ablative preposition *po* 'ABL' and the perlative preposition *del* 'PERL', respectively. Prepositional phrases are discussed in Chapter 11.

(14) latán **po doí**, ladók **dela pál kawé**
la-tán po doí la-dók del-a pál kawé
3PL.AN-go ABL closed.bay 3PL.AN-leave PERL-PAR side Kawe

'They went from [Mayalibit] Bay, they left via the Kawe side [on the west of Waigeo].' **AM058_02.04**

5. In nominal clauses, NPs can function as either a core argument (subject), or as the predicate of the clause. An example of a nominal clause is given in (15). In this example, the NP headed by *mét* 'person' functions as the subject of the clause, and the NP headed by *mám* 'father' functions as the predicate. Nominal clauses are discussed in more detail in §8.2.3.

(15) [mét wa nól apa]$_{NP:S}$ [nik mám wapa]$_{PRED}$
mét wa n-ól a-pa ni-k mám wa-pa
person NMC.DEF 3SG-stand ART.NMC-MID POSS.I-1SG father DEM.CNT-MID

'The person who is standing is my father.' **AM035_el.**

6. In ambient/existential clauses, NPs function as the predicate (see §8.2.5.1). An example of two NPs functioning as predicates of ambient/existential clauses (*bin* 'woman' and *mé* 'person') is given in (16).

(16)

ido	kinsúy		la	hanín	ido	kiném	ido
ido	ki=N-súy		la	hanín	ido	ki=n-ém	ido
so.then	EMO=3SG.AN-go.home		ORI	to.there	FRA	EMO=3SG-see	FRA

[[bin]$_{NP:PRED}$	**po,]$_{CL}$**	**[[mé]$_{NP:PRED}$**	**póto]$_{CL}$**
bin	po	mé	póto
woman	NEG	person	NEG.IAM

'So then, when he went home (to there) and looked, there were no women, there were no people anymore.' **AM020_04.59**

7. A noun cannot be used as the predicate in a verbal clause, nor take verbal subject morphology. [3]

Based on morphosyntactic criteria, the category of noun can be further subdivided. In the following sections, the following subclasses of noun will be discussed: count nouns vs. mass nouns (§3.2.1), and proper nouns vs. common nouns (§3.2.2). Two small, closed classes of noun are then described: pronouns in §3.2.3, and directional nouns in §3.2.4. In §3.2.5, the indefinite noun *gana* 'one' will be briefly discussed.

In addition to the morphosyntactic distinctions discussed in this section, the nominal inventory in Ambel is categorised along semantic lines, in three independent and cross-cutting systems: a noun class (gender) system, which distinguishes animate from inanimate entities; a system of possessive classification; and a weak system of numeral classification. The system of numeral classification is described in §3.8 below, and the animacy distinction is discussed in §5.2, in the chapter on the noun. Possessive classification is the topic of Chapter 7.

3.2.1 Count and mass nouns

The first distinction that can be made is between mass and count nouns. While count nouns refer to separate, countable entities, mass nouns refer to a mass of a material. Count nouns are readily modified by quantifiers, including numerals (§3.8), or can be the subject of the quantifying adjectival verb *mábu* 'be

3. As will be discussed in §3.11, some roots are underspecified in Ambel, in that they can function either as the head of NPs, or as verbal predicates. Underlyingly nominal roots, however, cannot function as verbal predicates.

many' (§3.3.1), without changing the semantics of the noun. This is shown in (17), in which the count noun *arakák* 'kind of crow' is modified by the numeral *low* 'two'.

(17) **máni arakák low pa** ulasúy
máni arakák low pa ul-asúy
bird kind.of.crow two ART 3DU-speak

'The two crows spoke.' **AM113_08.46**

Some mass nouns, such as *gányul* 'sunshine', cannot be modifed by quantifiers, or be the subject of the adjectival verb *mábu* 'be many'. This is shown in (18).

(18) * y-ém gányul lim
1SG-see sunshine five

[Intended reading:] 'I see five sunshines.' **AM222_el.**

Other mass nouns can be modified by quantifiers, or be the subject of the adjectival verb *mábu* 'be many'. In these contexts, the mass noun is coerced to a count reading: the modification forces a change in the semantics of the noun, such that the noun is understood to refer to a bounded portion of or different varieties of a material. This is shown in (19), in which the modification of the head noun *we* 'water' by the numeral *lim* 'five' prompts the reading that it is ladlefuls of water, rather than a body of water, that the speaker is referring to.

(19) ya-káta we lim
1SG-ladle water five

'I ladle five [ladlefuls of] water.' **AM222_el.**

Another property distinguishing count from mass nouns is that mass nouns are modified by the quantifier *(i)loki* 'little bit', whereas count nouns are modified by the quantifier *kilow* 'few' (see §3.8.2 for more on *kilow* and *(i)loki*). This is shown in (20).

(20) a. Count noun *ái* 'dog':
y-ém ái kilow(/*iloki) bi
1SG-see dog few just

'I see just a few dogs.'

b. Mass noun *gányul* 'sunshine':

y-ém	gányul	iloki(/*kilow)	bi
1SG-see	sunshine	little.bit	just

'I see just a little bit of sunshine.' **AM264_el.**

3.2.2 Proper nouns and common nouns

Count nouns can be further subdivided into proper nouns and common nouns. While common nouns have a general reference, proper nouns refer to individual persons, places, or groups (cf. Givón 2001: 58). Proper nouns have the following morphosyntactic property:

- Proper nouns, unlike common nouns, do not readily occur as the possessed noun in a possessive noun phrase.

Proper nouns can be subdivided once more, into placenames and personal nouns. The class of personal nouns includes personal proper names; some kinship terms (such as *mám* 'father', *nén* 'mother', and *béle* 'cross-cousin') can also be used as personal nouns.[4] There is one property that distinguishes place names from personal nouns:

- Personal nouns can be modified by the article *a* 'PERS', whereas placenames cannot. Example (21) shows two personal nouns, *Manarmakéri* and *Kónor*, modified by *a* 'PERS'.

(21)

mánsar	**Manarmakéri**	**a**	ini	we	pa	gain	wa,	léna,	
mánsar	Manarmakéri	a	i-ni	we	pa	gáin	wa	léna	
respected.man	Manarmakeri	PERS	3SG-POSS.I	child	ART	name.3SG	PRED	PLH	
aa, gain	wa	**Kónor**	**a**,	Kónor					
aa gáin	wa	Kónor	a	Kónor					
HES name.3SG	NMC.DEF	Konor	PERS	Konor					

'The name of Mr. Manarmakeri's child was, y'know, umm, his name was Konor, Konor.' **AM112_09.33**

4. The class of personal nouns is similar to the Oceanic personal noun class, which is comprised of personal proper nouns and some kinship terms (Lynch et al. 2002: 37).

Examples of placenames attested in the corpus are given in Table 3.1, and examples of personal nouns are given in Table 3.2. People from Ambel villages tend to have two names: a formal name, which is typically an adaptation of a Biblical name, or a name from a European language; and an informal name, which is a shortened or simplified version of the formal name. Both the formal name, and the equivalent short name, are provided in Table 3.2.[5]

Table 3.1: Placenames

Placename	**Refers to**
Waykéw	Waigeo island
Kapadíri	Village on north coast of Waigeo
Wayfóy	Village on east coast of Mayalibit Bay
Fófak	Bay on which Kapadiri is situated
Manmán	Island on the north coast of Waigeo
Kaflakút	Garden near Waifoi village
Íl Monokíl	Mount Nok
Yé Sabáka	The 'Tobacco Islands' in Mayalibit Bay

Table 3.2: Personal names: Biblical and European origin

Male		**Female**	
Formal	Informal	Formal	Informal
Wólter	Óter	Konstantína	Tánti
Álfred	Ésri	Apelína	Ápe
Salómo	Ómo	Oktofína	Ofína

5. Modern monosyllabic names are /H/-specified, and modern polysyllabic names, including the informal variants, take /H/ specification on the penultimate syllable.

Some traditional Ambel names are also attested in the corpus, particularly in historical and mythological texts; no one today has a traditional name.[6] Some examples of traditional names are given in Table 3.3.

Table 3.3: Personal names: Traditional Ambel

Male	**Female**
Aliáp	Malélen
Bálum	Únya
Sobén	Sombersáw
Áhuy	Binarí

In addition to the personal names in Table 3.2, everyone bears the name of their father's clan as a second name. Some examples of clan names, and the name of the clan in Malay, are given in Table 3.4.

Table 3.4: Clan names

Clan name	**Malay name**
Áka	Wakaf
Kéyn	Kein
Hyáy	Fiay
Kábet	Kabet
Gáman	Gaman

Nicknames are also common among the Ambel, particularly for older members of the community. The nickname is introduced with the honorific *mánsar* 'old/respected man' or *bísar* 'old/respected woman'. These nicknames are treated as personal nouns by the grammar, i.e. are modified by *a* 'PERS'. Three examples of nicknames are given in (22).

6. The last generation to bear traditional names were the parents of the current oldest generation of Ambel, i.e. the generation born in the early twentieth century. When the Ambel were Christianised in the middle of the twentieth century, that generation adopted Biblical/European names in addition to their traditional names. Subsequent generations have only borne Biblical/European names.

(22) Examples of nicknames:

a. *mánsar Jepang* 'mister Japan'
The nickname for my main consultant, **MW**, who was born during the Japanese occupation of Waigeo.

b. *mánsar Awa Nim Háhey* 'mister "Awa Nim Háhey"'
The nickname for another consultant, **KFT**, whom I recorded singing the song *Awa Nim Háhey* 'You Have Goodness' (**AM039**). This recording was extremely popular with the people of Kapadiri.

c. *mánsar Kios* 'mister shop'
The nickname for a third consultant, **MaK**, who owns the small shop (Ind: *kios*) in Kapadiri.

3.2.3 Pronouns

Pronouns are a small, closed subclass of noun. The pronoun paradigm distinguishes person, number, clusivity (in the first person), and animacy (in the third person). The full paradigm is given in Table 3.5.

Table 3.5: Ambel pronouns

	SG	DU	PC	PL
1INC	-	tutne	(a)tútne	isne
1EX	(y)ine	umne	atúmne	ámne
2	awa	mowá	matúa	mewá
3AN	ia (s)/i (o)	ua	atúa	sia (s) / si(a) (o)
3INAN	ana	sia (s) / asi (o)		

Table 3.5 shows that, for animate pronouns, four numbers are distinguished: singular, dual, paucal, and plural. For inanimate pronouns, however, only two numbers are distinguished: singular and non-singular. The 3SG.AN pronoun has a subject (*ia*) and object (*i*) form, as does the 3NSG.INAN pronoun (subject = *sia*,

object = *asi*). The 3PL.AN object pronoun is variably realised as *si* or *sia*; these forms are in free variation. However, the 3PL.AN subject pronoun only occurs as *sia*.[7]

Pronouns share several of the properties of nouns given above in §3.2. There are some properties that are exhibited by nouns, however, that are not exhibited by pronouns; and there are some properties exhibited by pronouns that are not exhibited by nouns. The following properties characterise the class of pronouns:

1. Within the noun phrase, pronouns have similar distributional properties to nouns. They can head an NP, and thus can be modified by many elements of an NP, viz. other nouns and NPs, quantifiers, noun-modifying constructions, demonstratives, and prepositional phrases. Example (23) shows the pronoun *ine* '1SG' functioning as the head of an NP, modified by a relative clause (a subtype of noun-modifying construction; see §14.1.2).

(23) ... lablápa bey ne be lin an be yéke
la-bláp-a bey ne be l-in ana be yéke
3PL.AN-cook-PAR sago ART PURP 3PL.AN-make 3SG.INAN OBL sago.porridge
be lahán **[ine** wa yamínki]$_{NP}$
be la-hán ine wa ya-mínki
PURP 3PL.AN-feed 1SG NMC.DEF 1SG-small

'...They cooked sago in order to make it into sago porridge, in order to feed me who was small.' **AM032_05.36**

Pronouns can adnominally modify nouns. This is shown in (24); in this example, *ámne* '1PL.E' is modifiying the head noun *mákay* 'child', to provide person and number information about the head noun. The adnominal use of pronouns is discussed in more detail in §6.2.10.

(24) *jadi* [mákay bábo **ámne**]$_{NP:S}$ *masi*a ámtil an rín
jadi mákay bábo ámne masi-a ám-til ana rín
so child young 1PL.E still-PAR 1PL.E-tell.history 3SG.INAN CONT

'So we young people [i.e., the descendents of the people in the story] still tell the history.' **AM058_02.57**

7. The 3PL subject pronoun occasionally occurs as *sina*, which is an archaic form: see for example (58) in Appendix D.1.

However, unlike nouns, pronouns cannot be modified by other pronouns, articles, or by adjectival verbs.

2. NPs headed by pronouns can function as core arguments in verbal clauses. As with nouns, the person, number, and animacy of an NP headed by a pronoun functioning as the subject of a clause is marked on the verbal predicate. Example (25) shows the pronoun *ia* '3SG.AN' used as the subject in a verbal clause; the person, number, and animacy of this subject is marked on the verb *tán* 'go' with the prefix *N-* '3SG.AN'.

(25) [**ia**]$_{NP:S}$ ntán be nakátown po loipeee
ia N-tán be na-kátown po lo-i-pa:VVV
3SG.AN 3SG.AN-go PURP 3SG-sit LOC DEIC.N-OUT-MID:EXCESS

'She has gone to sit far outside over there.' **AM064_05.11**

3. Like nouns, NPs headed by pronouns can function as either the subject or the predicate of a nominal clause. In example (26), the pronoun *awa* '2SG' is used as the predicate in a nominal clause.

(26) ... "[mán]$_{NP:S}$ [**awa**]$_{NP:Pred}$ ido nyál naka yét ne"
mán awa ido ny-ál na-k-a yét ne
man 2SG FRA 2SG-take POSS.II-1SG-PAR anchor ART

'[Ancestor Sam said:] "If you are a man, then take my anchor".'

AM066_11.14

4. Like nouns, NPs headed by pronouns can occur as the complement of a preposition. In (27), the pronoun *ine* '1SG' is the complement of the comitative preposition *tu* 'COM'.

(27) ... "i, nabá **tu** **ine** rín"
i na-bá tu ine rín
yes 3SG.AN-stay.behind COM 1SG CONT

'[And then the old woman said:] "Yes, he will stay behind with me".'

AM098_00.15

5. Like nouns, NPs headed by pronouns can function as the possessor in adnominal possessive constructions. This is shown in (28), where the pronoun *ine* '1SG' encodes the possessor, coreferent with the possessive suffix *-k* '1SG' on the possessive classifier *ni* 'POSS.I'.

(28)

"[**ine**]$_{PossR}$	[nik	mánsar	pa]$_{PossD}$	kia	kintán	
ine	ni-k	mánsar	pa	ki=ia	ki=N-tán	
1SG	POSS.I-1SG	husband	ART	EMO=3SG.AN	EMO=3SG.AN-go	
ahana"...						
a-hana						
DEM-AND						

'[She said:] "My husband, he is travelling away"...' **AM020_04.19**

Unlike nouns, however, a pronoun cannot head an NP that functions as the possessed NP in an adnominal possessive NP.[8]

3.2.4 Directional nouns

There are seven nouns in Ambel which describe directions based on the surrounding environment. These nouns form a distinct subclass of nouns in Ambel. A full list of directional nouns is given in Table 3.6.

Table 3.6: Directional nouns

Noun	Meaning
lúl	'seawards direction'
líl	'landwards direction'
mul	'inwards direction'
li	'outwards direction'
il[a]	'upwards direction'
pul	'downwards direction'
pál[b]	'sideways direction'

[a] Probably related to the noun *yíl* 'hill, mountain'
[b] There is also a non-directional noun *pál* 'side'

8. Pronouns can, however, function as the possessed noun in predicative possessive NPs, which, as will be shown in §8.2.5.2, are structurally identical to adnominal possessive NPs.

Several of the properties of nouns discussed above do not apply to directional nouns. For example, directional nouns cannot function as the head of either the possessor NP or the possessed NP in a possessive NP, nor can they be modified by NP-internal elements, such as other noun phrases, adjectival verbs, quantifiers, and so forth. In addition, directional nouns cannot function as core arguments, but only occur as complements of prepositions communicating movement, such as the allative preposition *be* 'ALL', signalling movement to an entity; the orientative preposition, *la* 'ORI' signalling movement in the direction of an entity; and the venitive preposition *ma* 'VEN', signalling movement towards the speaker. Indeed, as will be described in §11.8, the preposition *ma* 'VEN' can only take a directional noun as its complement.

3.2.5 The indefinite noun *gana* 'one'

The word *gana* 'one' (and its fast-speech counterpart *sana*) is morphosyntactically a noun, in that it has all of the properties of a noun outlined above. An example of *gana* 'one' is given in (29). This example comes from a text in which the speaker is demonstrating how to make sago biscuits. In this example, *gana* 'one' heads an NP, and is modified by the contrastive demonstrative *wa-ne* 'DEM.CNT-PROX'; the NP functions as a complement of the ablative preposition *po* 'ABL'.

(29) nyíy po [**gana** wane]$_{NP}$
ny-íy po gana wa-ne
2SG-eat ABL one DEM.CNT-PROX

[GESTURING TO A BAG CONTAINING SAGO BISCUIT:] 'Eat from this one!' **AM069_39.25**

However, *gana* 'one' is an unusual noun in two regards. First, most nouns refer to people, places, things, ideas, concepts, and so forth; *gana* 'one', however, has no semantic content outside of the context in which it is uttered. This is shown in (29): one can only make sense of this utterance using the extra-linguistic context, which shows that the speaker is using *gana* 'one' to refer to a bag full of sago biscuit. Second, *gana* 'one' has an additional property not exhibited by any other noun: it can be used as an article, to modify indefinite NPs. This use of *gana* 'one' will be described in §6.2.9.3.

3.3 Verbs

Verbs in Ambel constitute another large, open word class. The following properties distinguish verbs from words of other classes:

1. The primary use of a verb is as the predicate of a verbal clause. When used with this function, verbs have intrinsic valency, taking one, two, or three core arguments. The person, number, and animacy of syntactic subject is obligatorily marked on the verb. These properties are illustrated in (30).

   (30)

nélci	a	ném	i,	ném	mákay	kine
nélci	a	n-ém	i,	n-ém	mákay	ki=ne
Nelci	PERS	3SG-see	3SG.AN.O	3SG-see	child	EMO=ART

   'Nelci saw him, she saw the young man.' **AM113_05.59**

   In (30), the verb *ém* 'see' functions as the predicate of two verbal clauses. In the first iteration of *ém* 'see', it takes two core arguments, a subject (the NP headed by *nélci* 'Nelci') and an object (the pronoun *i* '3SG.AN.O'); in the second iteration of *ém* 'see', it takes an overt object (the NP headed by *mákay* 'child'), and the subject is omitted (see §8.3.3 for more on argument omission). In both iterations, the person, number, and animacy of the subject (overt or omitted) is marked on the verb, in this case with the prefix *n-* '3SG'.

2. When used to modify a noun within a noun phrase, verbs must be subordinated within a noun-modifying construction. This is shown in (31), where the subordinated verb *tó* 'live' modifies the head noun *now* 'house'.

   (31)

[now	wa	**ámto**	asi	ane]$_{NP}$	no	nun
now	wa	ám-tó	asi	a-ne	no	n-un
house	NMC.DEF	1PL.E-live	3NSG.INAN	ART.NMC-PROX	also	3SG-know

asi	po
asi	po
3NSG.INAN	NEG

   'The houses [in] which we live, she also doesn't know [about] them.'

   AM160_01.29

3. Verbs can be modified by adverbs of degree and intensity. This is shown in (32); in this example, the verb root *mági* 'be glowing' is modified by the adverb of intensity *barári* 'too, too much'.

(32)

kasút	ne	amági	barári,	rani	amtow	
kasút	ne	aN=mági	barári	rani	aN=mtow	
sago.oven	ART	3SG.INAN=be.glowing	too	so	3SG.INAN=be.tough	

'The sago oven is glowing too much [i.e., is too hot], so it [the sago biscuit] is tough.' **AM069_31.13**

4. Some verbs can be used in serial verb constructions (SVCs). In example (33), the verb roots *ále* 'descend' and *súy* 'go home' are used in a manner SVC. SVCs will be discussed in more detail in §13.1.

(33)

bísar	ne	**nále**	**súy**	la	pál	líl
bísar	ne	n-ále	súy	la	pál	líl
respected.woman	ART	3SG-descend	go.home	ORI	side	landwards

'The woman descended again towards the landward side.' **AM074_03.23**

Verbs can be subdivided further, using either morphological or syntactic criteria. Morphologically, verbs can be divided into four lexical classes, depending on the form of subject-marking morphology the verb takes. Syntactically, verbs can be divided into seven lexical classses, depending on the number and types of argument the verb is specified to take. The morphological and syntactic subclasses of verb will be discussed in §4.1.

3.3.1 Adjectival verbs

There are 21 verbs that refer to property concepts, which display all of the characteristics of verbs outlined above. These 21 property verbs, however, have one additional property not exhibited by other verbs: they can attributively modify a head noun within a noun phrase, without subordination in a noun-modifying

construction. These 21 verbs are referred to as 'adjectival verbs'. A full list of the adjectival verbs in Ambel is given in Table 3.7.[9]

Table 3.7: Adjectival verbs

Word	Meaning	Semantic field	Verb class	Transitivity
bu	'white'	Colour	IV	intr.
byáw	'blue'	Colour	IV	intr.
mahá	'grey'	Colour	IV	intr.
maláw	'green'	Colour	IV	intr.
malélen	'multicoloured'	Colour	IV	intr.
máni	'yellow'	Colour	IV	intr.
marúr	'brown'	Colour	IV	intr.
matém	'black'	Colour	IV	intr.
támi	'red'	Colour	IV	intr.
lál	'big'	Dimension	IV	intr.
mínki	'small'	Dimension	IV	intr.
bábo	'young, new'	Age	IV	intr.
kwár	'old (objects)'	Age	IV	intr.
hey	'good'	Value	III	intr.
bálu	'raw'	Physical property	IV	intr.
máy	'cooked'	Physical property	IV	intr.
mále	'sweet'	Physical property	IV	intr.
míl	'sour'	Physical property	IV	intr.
máre	'ripe'	Physical property	IV	intr.
múk	'unripe'	Physical property	IV	intr.
mábu	'be many; make s.t. many'	Quantification	IV	S=O

Example (34) demonstrates the use of the adjectival verb *lál* 'big' to modify the head noun *áy* 'tree'.

(34) ncán do [áy **lál** alima]$_{NP}$
N-<y>tán do áy lál a-li-ma
2sg-<2sg>go perl tree big dem.ncnt-land-dist

'Go via that big tree far inland there.' **AM181_03.06**

9. This table includes information on the morphological class and transitivity of each of the adjectival verbs; these properties will be discussed in §4.1.1 and §4.1.2, respectively.

While adjectival verbs can modify a noun without subordination, as in (34), they can also be subordinated within a noun-modifying construction, like other verbs. This is shown in (35), where the adjectival verbs *matém* 'black' is subordinated, in order to modify a head noun *bey* 'raw sago'.

(35)

bey	**wa**	**amatém**	**apa**	antó	pál
bey	wa	aN=matém	a-pa	aN=tó	pál
raw.sago	NMC.DEF	3SG.INAN=black	ART.NMC-MID	3SG.INAN-stay	side

apapa...
a-pa-pa
DEM.NCNT-SIDE-MID

[Talking about sifting sago:] 'The raw sago that is dark stays on that side...'

AM069_15.52

In Table 3.7, information is provided about the semantic field of each of the adjectival verbs. All six semantic fields – colour, dimension, age, value, physical property, and quantification – are found in the 13 semantic types identified by Dixon (2010b: 73–76) that are, cross-linguistically, typically associated with the class 'adjective'. In addition, four of the semantic types (dimension, age, value, and colour) are what Dixon refers to as 'core semantic types'. In languages with small adjectival verb classes, all or nearly all members tend to be drawn from these core semantic types.

This is not to say, however, that all verbs in these six semantic fields are adjectival verbs in Ambel. The following summarises the extent to which each of the different semantic fields are represented by adjectival verbs:

- Colour: All colour terms are adjectival verbs;

- Dimension: Only two dimension terms (*lál* 'big' and *mínki* 'small') are adjectival verbs. All other dimension terms (e.g. *marápo* 'be wide', *mamón* 'be deep') are non-adjectival verbs (typically intransitive Class IV verbs);

- Age: The only two verbal words for age (*bábo* 'young, new' and *kwár* 'old (of objects)') are both adjectival;[10]
- Value: There is only one value term in Ambel, *hey* 'good', which is an adjectival verb;[11]
- Physical property: Physical properties of food tend to be adjectival verbs (although this is not always true; cf. *mán* 'be dry (food)', *mnyó* 'be soft (food)', *másin* 'be salty', which are non-adjectival verbs). Other physical properties (e.g. *másut* 'be wet', *món* 'be heavy', *narów* 'be clean') are non-adjectival verbs;
- Quantification: There is only one verb that expresses quantification: *mábu* 'be many; make something many', which is an adjectival verb. All other terms for quantification are non-verbal (see §3.8).

3.4 Adverbs

The following properties are characteristic of adverbs in Ambel:

1. Adverbs modify verbal predicates, clauses, or sentences. This is shown in (36); in this example, there are two adverbs, which are highlighted in bold.

10. There is nominal suppletion to refer to old animate entities: *mánsar* 'old man' or *bísar* 'old woman', depending on the sex of the individual. This is shown in (i).

(i) ia mánsar to
3sg.an old.man iam

'He is old' [Lit: 'He is an old man'] **AM200_el.**

The same strategy is used to refer to the old age of non-human animate entities, such as dogs, pigs, and even fish. A more accurate translation/gloss for *mánsar* and *bísar* would therefore by 'old male animate entity' and 'old female animate entity' respectively.

11. The only strategy for identifying something as 'bad' is to negate the adjectival verb *hey* 'good'.

(36) **gáhana**, súy la líl wana, jóronpo nané to,
gáhana Ø-súy la líl wana <y>bóronpo n-ané to
last.night 1SG-go.home ORI landwards DEF <1SG>guess 3SG-sleep IAM
padahal pórin
padahal pórin
in.fact NEG.CONT

'Last night, when I went home (towards the land), I guessed she was already asleep, in fact [she was] not yet [asleep].' **AM064_01.50**

2. Adverbs cannot take inflectional morphology;

3. Adverbs cannot function as a predicate, or as the head of an argument of a predicate.

Adverbs can be divided into several groups in Ambel. This subdivision is made partly on distributional grounds; for clarity, adverbs are also grouped based on their semantic function. The following subdivisions are made: temporal adverbs (§3.4.1), adverbs of degree and intensity (§3.4.2), focus adverbs (§3.4.3), and manner adverbs (§3.4.4). Other strategies used to express adverbial concepts are also discussed in these sections.

3.4.1 Temporal adverbs

Temporal adverbs indicate the time at which the event expressed by the predicate occurred, is occurring, or will occur. As Ambel does not have a tense system, such adverbs play an important role in providing the temporal orientation for an event or state. Temporal adverbs can modify all of the clause types in Ambel (discussed in §8.2 below).

There are nine native temporal adverbs in Ambel, and two temporal adverbs that have been borrowed from PM. A list of all attested temporal adverbs is given in Table 3.8.

Table 3.8: Temporal adverbs

Word	Gloss	Position within the clause	
		PRE-PRED	POST-PRED
anta(nane)	'later'	✓	
gáhana	'last night'	✓	
gaynkiáne	'recently'	✓	
láyntopana	'yesterday'	✓	
láyntohana	'a few days ago'	✓	
mansope[a]	'just now'	✓	
nyelál	'tomorrow'	✓	
píow	'two days before/after today'	✓	
lokia	'little while'	✓	
skarang	'now'	✓	
langsung	'immediately'	✓	

[a] The word *mansope* is also used as a clausal conjunction, meaning 'then'. The use of *mansope* to mean both 'then' and 'just now' may be a calque on PM *baru*, which has the same range of meanings; and cf. van den Heuvel (2006: 120, fn 46), for the similar polysemy of Biak *insape* 'then, recently'.

Table 3.8 shows that temporal adverbs can only appear before the predicate. Some of the temporal adverbs in this table are exemplified in (37) and (38).

(37) *kalo* **anta** atútmat, beposa ido **antanane** atúthey wéy...
kalo anta atút-mát beposa ido antanane atút-hey wéy
if later 1PC.I-die after.that FRA later 1PC.I-live again

'If later we die, after that then later we will live again...' **AM112_02.13**

(38) ane amámul rín, **mansope** yín ana
a-ne aN=mámul rín mansope y-ín ana
DEM.NCNT-PROX 3SG.INAN=be.wobbly CONT just.now 1SG-make 3SG.INAN

[Talking about a canoe:] 'This is still wobbly, I've just made it.' **AM027_03.10**

Certain temporal nouns referring to the day and times of day, for example *lanyán* 'day', *gám* 'night', *pánye* 'morning', *layntatopón* 'early afternoon', and *lányun* 'late afternoon', can head NPs that are used adverbially. In these cases, the NP appears at the left edge of the clause, in a preclausal frame (see further §8.3.1). An

example of an adverbially-used NP headed by a temporal noun is given in (39). In this example, the temporal noun is modified by a demonstrative, demonstrating its nounhood. However, the NP does not function as an argument of the predicate; instead, it is used adverbially.

(39) **lanyán wapa,** nolkalíw
lanyán wa-pa n-olkalíw
day DEM.CNT-MID 3SG-fish.during.day.with.spear

'That day, he [a member of the Fiay clan] fished with a spear.' **AM135_09.25**

3.4.2 Adverbs of degree and intensity

Adverbs of degree and intensity are given in Table 3.9. These adverbs can only modify verbal clauses (described in §8.2.1).

Table 3.9: Adverbs of degree and intensity

Adverb	Gloss	Position within the clause
aya[a]	'very, really'	Clause-final
láwa	'nearly'	Pre-predicate
kup	'very, a lot'	Post-predicate
barári	'too'	Post-predicate
bísay	'really'	Clause-final

[a] Related to the preposition *aya* 'TERM' (see §11.5). I have observed an equivalent macrofunctionality in the local variety of PM, in which the prepositon *sampe* 'until' can occur clause-finally, to express repetition or excessivity. The use of *aya* 'a lot' with a similar function in Ambel may be a calque on the PM construction.

Of the adverbs given in Table 3.9, only *láwa* 'nearly' can occur before the predicate. It occurs either before the subject, as in (40), or between the subject and the predicate, as in (41).

(40) potó, **láwa** *acara* *nika* wana antán to
potó láwa acara nika wana aN=tán to
that's.that nearly ceremony marry DEF 3SG.AN=go IAM

'That was that, the marriage ceremony was nearly getting going.' **AM113_13.31**

(41) mét wane **láwa** mbun ine wap to
mét wa-ne láwa N-bun ine wa-pa to
person DEM.CNT-PROX nearly 3SG.AN-kill 1SG DEM.CNT-MID IAM

'This person nearly killed me.' **AM263_el.**

Two of the adverbs listed in Table 3.9 occur after the predicate: *barári* 'too' and *kup* 'very, a lot'. Both of these adverbs can occur either between the predicate and the object of the clause (where present), or to the right of the object, without any difference in meaning. The post-predicate position of *barári* 'too' is exemplified in (42), and the position of *kup* 'very, a lot' in (43).

(42) a. namcát **barári** kábyo ne ...
na-mcát barári kábyo ne
3SG-be.frightened too ghost ART

'[The Kein clan] were too afraid of the ghosts...' **AM135_22.16**

b. namcát kábyo ne **barári**
na-mcát kábyo ne barári
3SG-be.frightened ghost ART too

'He is too afraid of the ghosts.' **AM264_el.**

(43) a. ia N-sóro sabáka **kup**
3SG.AN 3SG.AN-smoke tobacco a.lot

b. ia N-sóro **kup** sabáka
3SG.AN 3SG.AN-smoke a.lot tobacco

'He smokes tobacco a lot.' **AM263_el.**

Finally, the focus adverb *bísay* 'really' only occurs clause-finally. This is shown in (44); in this example, *bísay* 'really' modifies the verb *abí* 'want'.

(44) mákay ne abí líy há **bísay**, ape há po...
mákay ne abí l-íy há bísay ape há po
child ART want 3PL.AN-eat rice really but rice NEG

'The children really want to eat rice, but there is no rice...' **AM176_00.19**

Expressing the diminishing concept 'quite' is achieved with a periphrastic constuction, of the type shown in (45).

(45) láwa n-abí na-lál to
nearly 3SG.AN-want 3SG.AN-big IAM

'He is quite big [lit: 'He is nearly going to be big'].' **AM264_el.**

3.4.3 Focus adverbs

Focus adverbs serve to emphasise a particular aspect of a clause, by highlighting information or to indicate there is some kind of restriction. Table 3.10 lists the focus adverbs in Ambel; these adverbs modify all of the clause types described in §8.2 below.

Table 3.10: Focus adverbs

Adverb	Gloss	Position within the clause
no	'also'	Pre-predicate, post-predicate
díri	'as well'	Pre-predicate, post-predicate
wéy	'again'	Pre-predicate, post-predicate
bi	'just, only'	Clause-final

Aside from *bi* 'just, only', all of the focus adverbs given in Table 3.10 can occur either before the predicate or after the predicate, depending on what information the adverb is highlighting or restricting. For example, compare (46) and (47), illustrating the different positions of *no* 'also'. In (46), *no* 'also' occurs between the subject of the clause and the predicate; in this case, it is the information in the subject noun phrase that is highlighted.

(46) ará i pa **no** simós
ará i pa no si-mós
bait NSG ART also 3SG.INAN-be.prepared

'The bait is also prepared.' **AM172_00.28**

In (47), however, *no* 'also' occurs after the predicate, clause-finally; but in this example, the information in the predicate and the object is emphasised.

(47) lanyán kasíp ido ntán be mbun anán **no**
lanyán kasíp ido N-tán be N-bun anán no
day every.time FRA 3SG.AN-go PURP 3SG.AN-kill food also

'Every day, he goes to kill food as well.' **AM172_00.28**

Examples of the focus adverb *díri* 'as well' are given in (48) and (49). The appropriate context for the felicitous use of pre-predicate and post-predicate *díri* 'as well' are also provided. In (48), the highlighted information is the subject: the second person being pointed to is afraid of ghosts, just like the first person indicated.

(48) mét wane namcát kábyo, i wane **díri**
mét wa-ne na-mcát kábyo, ia wa-ne díri
person DEM.CNT-PROX 3SG-be.afraid ghost 3SG.AN DEM.CNT-PROX as.well

namcát kábyo
na-mcát kábyo
3SG-be.afraid ghost

'[POINTING TO ONE PERSON] This person is afraid of ghosts, [POINTING TO ANOTHER PERSON] she too is afraid of ghosts.' **AM263_el.**

In example (49), the highlighted information is the object noun phrase; as well as being afraid of *mankẃay* 'bats', the subject is also afraid of *kábyo* 'ghosts'.

(49) ia namcát mankwáy, ia namcát kábyo **díri**
ia na-mcát mankwáy ia na-mcát kábyo díri
3SG.AN 3SG-be.afraid bat 3SG.AN 3SG-be.afraid ghost as.well

'She is afraid of bats, she is afraid of ghosts as well.' **AM263_el.**

The final focus adverb given in Table 3.10, *bi* 'just, only', only occurs clause-finally. An example of *bi* 'just, only' is given in (50).

(50) ido ulala pul, ido ubíne: “hyaranáw are, be
ido ula-la pul ido u-bíne N-<y>haranáw are be
so.then 3DU-ORI downwards FRA 3DU-say 2SG-<2SG>make.noise PROHIB and
tutbá i **bi**”
tut-bá i bi
1DU.I-lift 3SG.AN.O just

[Two evil spirits on their next victim:] ‘So then when the two of them went downwards, the two of them said [to each other]: “Don’t make a noise, and let’s just lift him”.’ **AM057_01.58**

3.4.4 Manner adverbs

There is a small group of manner adverbs in Ambel. Manner adverbs are lexical words that modify a clause, but are not attested with any other function (for example, as a predicate or an argument). A list of the manner adverbs attested in Ambel is given in Table 3.11.

Table 3.11: Manner adverbs

Adverb	Gloss	Position within the clause
abában	‘slowly, carefully’	Post-predicate
akúk	‘randomly’	Post-predicate
aró	‘completely’	Post-predicate
atép	‘touching’	Post-predicate
taból	‘leaving.behind’	Post-predicate
warák	‘constantly’	Post-predicate

As can be seen from Table 3.11, all manner adverbs in Ambel occur after the predicate. This can either be between the object and the verb, as in (51a); or after the object, towards the end of the clause, as in (51b).

(51) a. y-ásil **abában** kái-k\H ne
1SG-comb.finely carefully head-1SG\1|2SG.POSS ART

b. y-ásil kái-k\H ne **abában**
1SG-comb.finely head-1SG\1|2SG.POSS ART carefully

‘I carefully comb my hair [lit: ‘head’].’ **AM281_el.**

3.5 Prepositions

Prepositions are a small, closed class in Ambel. Ambel prepositions have the following properties:

1. Prepositions take an NP complement, to form a Prepositional Phrase (PP). The preposition marks the semantic relationship between the NP and the predicate. This is shown in (52); in this example, the locative preposition *po* 'ABL' takes the noun *ginya* 'top half of sago trunk' as its complement.

(52) ... mé sia láw [**po** ginya]$_{PP}$...
mé sia l-áw po ginya
person 3PL 3PL.AN-harvest.sago ABL top.half.of.sago.trunk

'[When we harvest sago,] some people harvest sago from the top half of the sago trunk...' **AM183_01.17**

2. A preposition cannot take inflectional or derivational morphology of any kind, and can be used neither as the head of an argument, nor as the predicate of any kind of clause.[12]

Ambel has ten different prepositions, presented in Table 3.12. The semantics and distribution of each of these prepositions is discussed in Chapter 11.

12. Some prepositions can undergo zero-conversion to be used as verbs; see §3.11.

Table 3.12: Prepositions

Preposition	Gloss	Marks	Semantic relation
be	ALL	allative	movement to referent
	BEN	benefactive	benefaction
	INSTR	instrumental	instrumentation
	LOC	locative	static location
po	ABL	ablative	movement away from referent
	LOC	locative	static location
del	PERL	perlative	movement along referent
	TEMP	temporal	temporal location
	TEXT	textual	textual reference
mi(n)	LOC	locative	static location
	INSTR	instrumental	instrumentation
aya, ay(a)sága(i)do	TERM	terminative	arrival at a spatial or temporal endpoint
tu	COM	comitative	accompaniment
la	ORI	orientative	movement in the direction of referent
ma	VEN	venitive	movement in the direction of speaker
dadi	SIM	similative	similarity to another entity
letem	SIM	similative	similarity to another entitiy

3.6 Demonstratives

The primary function of demonstratives is to provide deictic information about an entity or event. There are two types of demonstrative in Ambel: contrastive demonstratives (marked with *wa-* 'DEM.CNT', or its non-singular counterpart *we-* 'DEM.NCNT.NSG') and non-contrastive demonstratives (marked with *a-* 'DEM.NCNT').

The following properties are used to distinguish demonstratives from other word classes:

1. Demonstratives can be used adnominally, pronominally, or adclausally.

2. When used adnominally, only one demonstrative can occur per NP. The structure of the NP in Ambel will be provided in §6.2; within the NP, demonstratives can only occur in the demonstrative 'slot'.

3. Once derived, demonstratives cannot take further inflectional or derivation morphology of any kind (except the marker of emotional involve-

ment *ki*= 'EMO'); nor can verbs be derived from demonstratives through zero-conversion (§3.11).

An example from the corpus is given in (53). There are three demonstratives in this example, all of them adnominal. These demonstratives are highlighted in bold. The NPs headed by *sárita* 'history' and *galí* 'story' are modified by the contrastive demonstrative *wa-pa* 'DEM.CNT-MID', and the NP headed by *doí* 'closed bay' is modified by the non-contrastive demonstrative *a-ne* 'DEM.NCNT-PROX'.

(53)

jadi	sárita	**wapa**,	aa,	galí	**wapa**	andók	po	doí
jadi	sárita	wa-pa	aa	galí	wa-pa	aN=dók	po	doí
so	history	DEM.CNT-MID	HES	story	DEM.CNT-MID	3SG.AN=leave	ABL	closed.bay

ane	to
a-ne	to
DEM.NCNT-PROX	IAM

'So that history, umm, that story has already left this closed bay [i.e., Mayalibit Bay].'
AM058_04.38

The deictic system of Ambel is very rich. The demonstrative prefixes *a-* 'DEM.NCNT' and *wa-* 'DEM.CNT' can attach to two types of deictic unit: one of four **demonstrative roots**, which provide basic information about deixis; or one of 28 **directional stems**, which provide more fine-grained deictic information. As well as forming the base for the demonstratives, these deictic units are used as deictic articles (see §3.7 and §6.2.9.2); they can also take various prefixes that derive words of different classes, viz. deictic nouns (*lo-* 'DEIC.N'; §12.2.4), deictic locative predicates (§12.2.5), deictic prepositions (*la-* 'DEIC.PREP'; §12.2.6), and demonstrative verbs (*la-* 'DEM.V'; §12.2.7).

The deictic units play a major role in the structure of Ambel. As such, they are briefly introduced here. A full semantic-pragmatic characterisation of the deictic units, and words derived from them, can be found in §12.2.

Demonstrative roots provide general information about the location of a referent, relative to the speaker (S) and addressee (A). There are four demonstrative roots in Ambel: the proximal *ne* 'PROX' for entities close to S; the mid-distance *pa* 'MID' for entities relatively far away from S, or closer to A than S; the distal or venitive *mana* 'DIST' for static entities far from both S and A, or entities moving towards S; and the andative *hana* 'AND', for entities moving away from S.

Directional stems are derived by attaching a directional prefix to one of the four demonstrative roots just described.[13] Directional prefixes provide further information about the location of a referent relative to the local environment. There are seven directional prefixes in Ambel: *lu-* 'SEA', for entities located in a seawards direction; *li-* 'LAND', for entities located in a landwards direction; *ta(y)-* 'FRONT', for entities located in front of or towards the front of something; *i-* 'UP', for entities located in an upwards direction; *pu-* 'DOWN', for entities located in a downwards direction; *mu-* 'IN' or 'BACK', for entities located inside, at the back of, or towards the back of something; and *pa(y)-* 'SIDE', for entities to the side of something.

The deictic units are summarised in (54).

(54) a. Demonstrative roots:

ne	'PROX'
pa	'MID'
mana	'DIST'
hana	'AND'

b. Directional stems:

Prefix \ Root		ne 'PROX'	pa 'MID'	mana 'DIST'	hana 'AND'
lu-	'SEA'	lu-ne	lu-pa	lu-ma	lu-a
li-	'LAND'	li-ne	li-pa	li-ma	li-a
ta(y)-	'FRONT'	ta-ne	ta-pa	ta-ma	tay-a
i-	'UP, OUT'	i-ne	i-pa	i-ma	i-a
pu-	'DOWN'	pu-ne	pu-pa	pu-ma	pu-a
mu-	'IN, BACK'	mu-ne	mu-pa	mu-ma	mu-a
pa(y)-	'SIDE'	pa-ne	pa-pa	pa-ma	pay-a

3.7 Articles

The primary function of articles is to modify NPs with information about definiteness and specificity; one subclass of articles, deictic articles, secondarily provides supplemental information about deixis. The following properties are characteristic of articles:

13. When a directional prefix is attached to the demonstrative roots *mana* 'DIST' and *hana* 'AND', these demonstrative roots have the allomorphs *ma* 'DIST' and *a* 'AND', respectively.

1. The definite article *wana* 'DEF' (and its non-singular counterpart *wena* 'DEF.SG') can occur both adnominally and adclausally; all other articles can only occur adnominally. Unlike demonstratives, articles cannot be used pronominally.

2. When used adnominally, only one article can occur per NP. In the NP, articles can only occur in the article 'slot' (see §6.2).

3. Once derived (where applicable), articles cannot take further inflectional or derivational morphology of any kind (except the marker of emotional involvement *ki=* 'EMO'); nor can verbs be derived from articles through zero-conversion (§3.11).

An example of the modification of an NP by an article, in this case the singular definite article *wana* 'DEF', is given in (55). In this example, *wana* 'DEF' modifies the NPs headed by *wán* 'canoe' and *mesin* 'machine'.

(55) ido umala lúl be umsá be **wán** **wana**, posa ido
ido uma-la lúl be um-sá be wán wana posa ido
so.then 1DU.E-ORI seawards PURP 1DU.E-embark ALL canoe DEF after.that FRA

jú, aa, ***mesin*** ki**wana**
<y>dú aa mesin ki=wana
<1SG>pull HES machine EMO=DEF

'So then we two will go seawards to embark the canoe, after that I will pull, umm, the machine [i.e., the motor].' **AM078_02.54**

The following is a brief overview of articles in Ambel. A full discussion of articles, including the theoretical background to and data in support of the summary presented here, can be found in §6.2.9.

Articles can be divided into deictic articles and non-deictic articles. Deictic articles are formed from the deictic units introduced in the previous section. Deictic articles mark definite and semantically specific NPs, when the speaker wishes to provide additional information about the spatial location of the referent. There are three non-deictic articles: *wana/wena* 'DEF/DEF.NSG', *ne* 'ART', and *pa* 'ART'. The article *wana/wena* 'DEF/DEF.NSG' is used to mark definite and semantically specific NPs, when deictic information is irrelevant and the NP is less accessible. The articles *ne* and *pa* are used to modify definite and semantically specific NPs when deictic information is irrelevant the NP is more accessible. Both *ne* and *pa*

'ART' can also be used to modify indefinite, semantically specific NPs.[14] Indefinite, semantically non-specific NPs are unmarked. Finally, the indefinite noun *gana* 'one', introduced in §3.2.5 above, can also be used as an article, to modify both semantically specific and semantically non-specific indefinite NPs.

The properties of Ambel articles are summarised in Table 3.13.

Table 3.13: Articles

Article	**Gloss**	**Marks NPs...** that are definite	that are semantically specific	that are accessible	for which deixis is relevant
Deitic article	See §12.2.1	✓	✓	✗	✓
wana/wena	'DEF/DEF.NSG'	✓	✓	✗	✗
ne, pa	'ART'	✓	✓	✓	✗
		✗	✓	n/a	n/a
gana	'one'	✗	✓/✗	n/a	n/a

3.8 Quantifiers and classifiers

The class of quantifiers in Ambel includes all numerals, the non-numeral quantifier *kilow* 'some' and the interrogative quantifier *hita* 'how many'. Quantifiers exhibit the following properties:

1. Quantifiers can be used adnominally, to modify a head noun within a noun phrase. This is shown in (56); in this example, the quantifier *low* 'two' modifies the head noun *bin* 'woman'.

   (56) [bin **low** pa]$_{NP}$ ulamcát láp
   bin low pa ula-mcát láp
   woman two ART 3DU-afraid fire

   'The two women were afraid of fire.' **AM066_30.38**

   If the semantics of the head noun permits, the quantifier can optionally be used with a classifier when modifying an NP. This is shown in (57); in this

14. The articles *ne* and *pa* have grammaticalised from the deictic units *ne* 'PROX' and *pa* 'MID', respectively.

example, the quantifier *lim* 'five' is used with the classifier *way* 'CL.HOUSE' to modify the head noun *now* 'house':

(57)

kalíw	wane	amina	[now	i	way	ki**lim**]$_{NP}$
kalíw	wa-ne	aN=min-a	now	i	way	ki=lim
village	DEM.CNT-PROX	3SG.INAN=INSTR-PAR	house	NSG	CL.HOUSE	EMO=five

'This village has five households.' **AM032_00.14**

2. Quantifiers can be used as the predicate in a quantifier clause. In (58), the numeral quantifier *hát* 'four' is used as the predicate in a quantifier clause. Quantifier clauses are discussed in §8.2.4.

(58)

jadi	[kapúk	i	ne]$_{S}$	[**hát**]$_{PRED}$
jadi	kapúk	i	ne	hát
so	line.of.descent	NSG	ART	four

'So there are four lines of descent.' **AM135_19.28**

3. Quantifiers can take the partitive suffix *-a* 'PART'. This is shown in (59), in which the suffix *-a* 'PART' attaches to the numeral *low* 'two'. This example comes from a recording of a ritual offering to the *mútum* spirits; the speaker is explaining to the participants of the ritual where they should throw the offerings to the spirits.

(59)

pál	ane	**lowa**,	pál	ane	**lowa**,	lopapa	
pál	a-ne	low-a	pál	a-ne	low-a	lo-pa-pa	
side	DEM.NCNT-PROX	TWO-PART	side	DEM.NCNT-PROX	TWO-PART	DEIC.N-SIDE-MID	

lowa,	lopane	**lowa**
low-a	lo-pa-ne	low-a
TWO-PART	DEIC.N-SIDE-PROX	TWO-PART

'[Throw] two of them this side, two of them this side; two of them to the place at the side there, two of them to the place at the side here.' **AM280_10.10**

4. As well as the partitive suffix *-a* 'PART', the clitic *ki=* 'EMO' can also attach to quantifiers. Other than this, quantifers cannot take further inflectional

or derivation morphology of any kind; nor can verbs be derived from quantifiers through zero-conversion (§3.11).

Quantifiers can be further subdivided into numerals, discussed in §3.8.1, and non-numeral quantifiers, discussed in §3.8.2.

3.8.1 Numerals

The following property distinguishes cardinal numerals from non-numeral quantifiers in Ambel:

1. Cardinal numerals (with the exception of *kitém* 'one') can be prefixed with *i-* 'ORD' to form ordinal numbers (see below).

The numeral system in Ambel is decimal. Cardinal numbers up to ten, and selected larger numbers, are given in Table 3.14.[15]

Table 3.14: Cardinal numerals

#	Number	#	Number
1	*kitém*	20	*láhe low*
2	*low*		ten two
3	*túl*	21	*láhe low may kitém*
4	*hát*		ten two NUM.LINK one
5	*lim*	30	*láhe túl*
6	*wanóm*		ten three
7	*hit*	100	*útun*
8	*wál*		hundred
9	*siw*	263	*útun low may láhe wanóm may túl*
10	*láhe*		hundred two NUM.LINK ten six NUM.LINK three
11	*láhe may kitém*	1,000	*calan* (< Tidore?)
	ten NUM.LINK one		thousand
12	*láhe may low*	10,000	*calan láhe*
	ten NUM.LINK two		thousand ten
13	*láhe may túl*	1,000,000	*juta* (< PM)
	ten NUM.LINK three		million

15. The Ambel numeral *calan* '1000' is not cognate with Ma'ya *'i^{3}p* '1000' (Remijsen 2001a: 185); note the similarity, however, with Biak *syáran* (van den Heuvel 2006: 140), Taba *calan* '1000' (Bowden 2001: 248), and Wamesa *siaran* '100' (Gasser 2014: 208). The Papuan language Tidore has *cala* '1000', which van Staden implies may be native to Tidore, as it is not obviously borrowed from another language (2000: 166, fn 125); Tidore is therefore a likely candidate as donor of this form into the SHWNG languages. The numeral *juta* '1,000,000' is a transparent loan from PM *juta*.

The formulation of complex numerals is represented schematically in (60).

(60) Formulation of complex numerals:
(*juta* DIGIT) may (*calan* DIGIT) may (*útun* DIGIT) may (*láhe* DIGIT) may DIGIT

To express a complex numeral (i.e., all numerals higher than 10), the following procedure is used. First, the highest power of ten is given. If this power of ten is a multiple of another digit (e.g. 20 is two lots of 10; 400 is four lots of 100), it is modified by the appropriate digit (e.g. *láhe low* '20' is literally 'ten two'; *útun hát* '400' is literally 'hundred four'). To connect smaller units, such as tens to hundreds, or hundreds to thousands, the numeral linker *may* is used.[16] This process is repeated until the tens unit (1–10) is expressed (if necessary).

When referring to dates, time, money, and particularly years, speakers tend to use PM numerals, as shown in (61).

(61)

ana*mulay*	po	*taun*	*empat*	*pulu*	*dua*...	
aN=na-mulay	po	taun	empat	pulu	dua	
INAN=3SG-begin	ABL	year	four	ten	two	

'It [the Second World War] began in '42...' **AM125_05.43**

Ordinal numerals from *low* 'two' upwards are formed by attaching the prefix *i-* 'ORD' to the cardinal numeral. (The ordinal number equivalent to cardinal *kitém* 'one' is the suppletive *iamanta* 'first, beginning'.) The derived ordinal number can be used either the head of a noun phrase, or in a noun-modifying construction to modify a head noun. An example of an ordinal numeral used as the head of a noun phrase is given in (62).

(62)

ido	anáti	*taun*	túl,	[**ihát**	pa]$_{NP}$	mansope	*kemerdekaan*	
ido	aN=n-áti	taun	túl	i-hát	pa	mansope	kemerdekaan	
so.then	INAN=3SG-run	year	three	ORD-four	ART	then	independence	

'So it [the Second World War] went on [for] three years, [in] the fourth [year], then there was independence [from the Dutch].' **AM125_05.47**

An example of an ordinal numeral modifying a noun in a NMC is given in (63). Noun-modifying constructions are discussed in more detail in §14.1.

16. This linker is probably related to the noun *máy* 'leftovers'.

(63) ... láw beposa, ido lanyán wa **iwanóm** pa ido
l-áw beposa ido lanyán wa i-wanóm pa ido
3PL.AN-harvest.sago after FRA day NMC.DEF ORD-SIX ART FRA
lasúy to...
la-súy to
3PL.AN-go.home IAM

'...After they had harvested sago, then [on] the day that was the sixth [day], then they went home...' **AM032_03.54**

3.8.1.1 Numeral classifiers

Ambel has a very restricted numeral classifier system. There are two forms that are unambiguous classifiers: *way* 'CL.HOUSE', used in the quantification of the noun *now* 'house'; and *sa* 'CL.CANOE', used in the quantification of the noun *wán* 'canoe'. There are also two possessed nouns which exhibit some characteristics of numeral classifiers, and appear to be grammaticalising: *i-kapyu* '3INAN-fruit', and *i-tamtém* '3INAN-animal classifier'. In this section, I will first describe the unambiguous classifiers, and then turn to the two grammaticalising forms.

The morphological, syntactic, and semantic properties of numeral classifiers in Ambel are as follows:

1. Numeral classifiers appear within NPs, when the head noun is modified by a numeral quantifier. This is shown in (64), in which the head noun *now* 'house' is modified by the numeral *láhe* 'ten' (marked with the marker of emotional involvement *ki*= 'EMO'), and the classifier *way* 'CL.HOUSE'.

(64) *tinggal*a **now** **way** **kiláhe**
tinggal-a now way ki=láhe
remain-PAR house CL.HOUSE EMO=ten

'Ten houses remained.' **AM125_04.41**

2. Numeral classifiers are optional. If a classifier is omitted, there is no change in meaning. This is shown in (65), in which the head noun *now* 'house' is modified by the numeral *fit* 'seven' (also marked with the marker of emotional involvement *ki*= 'EMO'), without the classifier *way* 'CL.HOUSE'.

(65)

Go	ne	iamanta	ahana	ido	ambe	**now**
Go	ne	i-amanta	a-hana	ido	aN=be	now
Go	ART	3INAN-beginning	DEM.NCNT-AND	FRA	3SG.INAN=become	house

kifit	bi
ki=fit	bi
EMO=seven	just

'At the beginning of [the village of] Go, it had only seven houses.'

AM031_06.16

3. The choice of numeral classifier is restricted by the semantics of the head noun (unlike, for example, quantifiers; see §3.8).

Example (64) illustrates the use of the house classifier *way* 'CL.HOUSE'. The classifier *sa* 'CL.CANOE' is only attested in the elicited corpus. An example of *sa* 'CL.CANOE' is given in (66).[17]

(66)

yém	wán	sa	túl
y-ém	wán	sa	túl
1SG-see	canoe	CL.CANOE	three

'I see three canoes.' **AM022_el.**

Turning now to the two nouns that are grammaticalising as numeral classifiers: *kapyu* 'fruit' and *tamtém* 'animal classifier'. When nouns referring to fruit occur in a quantified NP, a possessive construction with *kapyu* 'fruit' as the possessed noun is obligatory. An example is given in (67):

17. Both Ma'ya and Matbat have systems of numeral classification. Ma'ya has a classifier *'sa*$_3$, which is used with boats and aeroplanes (van der Leeden n.d.f: 17), and Matbat has a boat classifier *ha-*, which is used with boats and houses (Remijsen 2010: 292). Ma'ya also has a classifier *'a*^{21}*i*, which is used with 'high and large entities such as houses' (van der Leeden n.d.f: 9–10). These classifiers in Ma'ya and Matbat may be cognate with the Ambel classifiers *sa* 'CL.CANOE' and *way* 'CL.HOUSE', respectively. Alternatively, Ambel may have borrowed the classifiers. If these classifiers were borrowed, then Ma'ya is the more likely source language, as Ma'ya was historically used as a lingua franca throughout Raja Ampat, and Ambel speakers are in much closer contact with Ma'ya speakers than speakers of Matbat.

(67) **kút** **ikapyu** **túl** **pa** simdól apa
kút i-kapyu túl pa si-mdól a-pa
coconut 3INAN-fruit three ART 3NSG.INAN-fall DEM.NCNT-MID

'Three coconuts are falling.' **AM035_el.**

In §7.4, it will be shown that the head of a possessive NP is the possessed NP. In an example like (67), *kapyu* 'fruit' is the head of both the possessed NP, and the possessive NP as a whole. Syntactically, it therefore does not behave like a classifier, which cannot head an NP.

However, there are two pieces of evidence to suggest that *i-kapyu* '3INAN-fruit' is grammaticalising. First, the phonetic realisation of *i-kapyu* can be very reduced. This is shown in (68), in which /i-kapyu/ '3INAN-fruit' is realised as [i̯kə̀p].

(68) kút ikapyu [i̯kə̀p] kitém wa amdól apa
kút i-kapyu kitém wa aN=mdól a-pa
coconut 3INAN-fruit one NMC.SPEC 3SG.INAN=fall ART.NMC-MID

'There is one coconut that is falling.' **AM035_el.**

Alongside phonological reduction, the original lexical meaning of *kapyu* 'fruit' is becoming bleached; a variety of nouns are attested in numeral NPs involving a possessive constructions with *kapyu* 'fruit' as the possessed head noun. There are some semantic limitations to what nouns can occur with *i-kapyu* '3INAN-fruit': the referent of the head noun is (typically) inanimate, and is small enough to be held in the hands. Example (69) shows the use of *i-kapyu* '3INAN-fruit' in a quantified NP where the possessor noun is *hó* 'arrow'.[18]

18. The default numeral classifier for inanimate objects in Standard Indonesian is *buah* (Sneddon et al. 2010: 138-139); the examples given in (69) and (70) may therefore be calques from Standard Indonesian. However, the contact between (older) Ambel speakers and Standard Indonesian has not been particularly intense, so there is no reason to assume this is the case. Papuan Malay, the Malay variety with which Ambel speakers have daily contact, has only one classifier, *ekor*, used to count animals (Kluge 2014: 286). However, as discussed in §1.3.3, the variety of Papuan Malay described by Kluge is a more eastern variety. Van Minde describes a classifier *bua* in Malayu Ambong, another local variety of Malay spoken in the central Moluccas, to the south of Raja Ampat, which "applies not only to fruits, but also to other inanimate things" (1997: 153).

(69) uhána **ho** **ikapyu** **low** **pa** ido ...
u-hán-a ho i-kapyu low pa ido
3DU-shoot.arrow-PAR kind.of.arrow 3INAN-fruit two ART FRA

'When the two of them shot two *ho* arrows, then...' **AM020_00.29**

While *i-kapyu* '3INAN-fruit' is generally only used as a pseudo-classifier in quantified NPs where the possessor noun is inanimate, as in (67)–(69), there are exceptions, such as the one given in (70). In this example, the possessor NP, *pimám* 'sea cucumber', is semantically animate (and is treated as such by the noun class system, discussed in §5.2); the quantified NP, however, contains the possessed noun *i-kapyu*.[19]

(70) ido uméma **pimáma**, aa, **cerameray** **ikapyu [ìkàpù]**
ido um-ém-a pimám-a aa cerameray i-kapyu
so.then 1DU.E-see-PAR sea.cucumber-PAR HES k.o.sea.cucumber 3INAN-fruit
dua belas
dua belas
twelve

'And then we two saw twelve, umm, *ceremeray* sea cucumbers.' **AM167_01.20**

A second possessed noun that has some characteristics of a numeral classifier is *i-tamtém* '3INAN-animal.classifier'. This noun is optionally used in quantified NPs when the head noun is an animal, as shown in (71).

(71) máni itamtem kihát wapa, ido...
máni i-tamtém ki=hát wa-pa ido
bird 3INAN-animal.classifier EMO=four DEM.CNT-MID so.then

'There were these four birds, and then...' **AM042-03_00.03**

The word *tamtém* is not independently attested as a noun. When asked for the meaning of *tamtém*, all of my consultants translated it as Papuan Malay *ekor* – one of the functions of which is a classifier for animals (Kluge 2014:

19. Anecdotally, it appears that the use of *i-kapyu* '3INAN-fruit' in quantified NPs is more semantically restricted in Metsam Ambel than in Metnyo Ambel. In other words, *i-kapyu* '3INAN-fruit' has not undergone the same semantic bleaching in Metsam. For example, I was once privy to a conversation between speakers of Metsam, who were gently mocking speakers of Metnyo for using *i-kapyu* '3INAN-fruit' to count animate entities.

258).[20] The form *tam'te^{21}m* occurs as a classifier in Ma'ya, and is glossed as 'individuation.of.animals' (van der Leeden n.d.f: 9-10, 18). This suggests that the grammatical function of classifier has been borrowed from Ma'ya, without any lexical content.[21]

The phonological reduction and semantic bleaching of *i-kapyu* '3INAN-fruit' and the lack of a lexical meaning for *i-tamtém* '3INAN-animal.classifier' suggest that these two forms are grammaticalising as classifiers. Synchronically, however, they both function as head nouns in quantified NPs.[22] For the purposes of this description, these two forms are therefore analysed as nouns; the only two forms which can be unambiguously identified as a numeral classifiers are *way* 'CL.HOUSE' and *sa* 'CL.CANOE'.

3.8.2 Non-numeral quantifiers

There are two non-numeral quantifiers in Ambel, i.e. non-numeral words that exhibit the morphosyntactic properties outlined in §3.8 above. For expository reasons, other strategies for quantification – henceforth referred to as 'pseudo-quantifiers' – are also discussed in this section. Table 3.15 gives the non-numeral quantifiers in Ambel, along with other quantification strategies.

Table 3.15: Non-numeral quantifiers and other quantification strategies

Form	Meaning	Word class
Non-numeral quantifiers		
hita	'how many'	QUANTIFIER
kilow	'some'	QUANTIFIER
Pseudo-quantifiers		
loki	'little bit'	NOUN
mábu	'be many'	ADJECTIVAL VERB
bey	'all, together, competely'	See §3.8.2.1

20. The Papuan Malay classifier *ekor* also has a lexical meaning 'tail'; the lexeme meaning 'tail' in Ambel is *ságale*.

21. No information is given in van der Leeden (n.d.f) about the original meaning of *tam'te^{21}m*. Bert Remijsen (p.c., 2017) notes the similarity of the second syllable of the Ma'ya classifier to the Matbat numeral *te^{3}m* 'one' (Remijsen 2010: 292), as well as the second syllable of the word for 'one' in many other RA languages, e.g. Salawati and Misool Ma'ya *ka'te^{12}m*, Kawe and Laganyan Ma'ya *a'tem*, Biga *ka'tem*, and indeed Ambel *kitém* (Remijsen 2001a: 140, 147).

22. The use of possessed nouns as pseudo-classifiers is also attested in Maybrat (Dol 1999: 95) and Hatam (Reesink 1999: 57), both of which are Papuan languages spoken on the Bird's Head.

An example of the use of the interrogative quantifier *hita* 'how many, how much' is given in (72).

(72) *kilo* igana ido abí itamtem **hita**?
kilo i-gana ido abí i-tamtém hita
kilogram 3INAN-one FRA want 3INAN-animal.classifier how.many

'As for one kilogram [of small *kasí* crabs], how many [crabs] will it be?'
AM067_07.53

The quantifier *kilow* 'some' is transparently derived from the procliticisation of the marker *ki*= 'EMO', one of the functions of which is diminution (see §3.10), to the numeral *low* 'two'. It is often only the context that distinguishes the reading 'some' from the reading 'EMO=two'. An example of *kilow* 'some' is given in (73).

(73) mákay ne abí líy há bísay, ape há po, rani atumsíri be há
mákay ne abí l-íy há bísay ape há po rani atum-síri be há
child ART want 3PL.AN-eat rice really but rice NEG so 1PC.E-buy INSTR rice

kilo **kilowa**
kilo kilow-a
kilogram some-PART

'The children really want to eat rice, but there is no rice, so we will use [the money] to buy a few kilograms of rice.' **AM176_00.19**

As discussed in §3.2.1 above, *kilow* 'some', like other quantifiers (including numerals), can only modify count nouns. To achieve the same reading with a mass noun, the noun *loki* 'little bit' must be used. This noun is also used when talking about a little bit of a whole. An example of this is given in (74).

(74) anaharwáy galí Maláy **ilokia**, galí Báyt
aN=na-harwáy galí Maláy i-loki-a galí Báyt
INAN=3SG-mix language Indonesian 3INAN-little.bit-PART language Biak

ilokia
i-loki-a
3INAN-little.bit-PART

'It [the Ambel language] is mixed with a little bit of Indonesian, a little bit of Biak.'
AM204_50.01

Example (74) shows that, morphosyntactically, *loki* 'little bit' exhibits some features of a noun, and some features of a quantifier. For example, *loki* 'little bit' can take the partitive suffix *-a* 'PART', which is a feature of quantifiers. However, (74) also shows that *loki* 'little bit' can occur as the possessed noun in a possessive noun phrase; this is shown by the possessive prefix *i-* '3INAN', which marks the possessor (in this case, *galí Maláy* 'Indonesian language' and *galí Báyt* 'Biak language'). It will be shown in §7.4 that the head of a possessive NP is the head of the possessed NP. For this reason, *loki* is considered to belong to the word class of nouns, rather than quantifiers.

To express the concept of 'many', the adjectival verb *mábu* is used. This adjectival verb was introduced in §3.3.1 above; as an adjectival verb, *mábu* can be used either predicatively, as in (75), or attributively within the NP, as in (76).

(75) *tapi* [kapúk i ne]$_{NP:S}$ [simábu]$_{V}$
tapi kapúk i ne si-mábu
but line.of.descent NSG ART 3NSG.INAN-many

'But there are many lines of descent [lit: 'the lines of descent are many'].'
AM135_19.38

(76) ... [*jalan* mábu]$_{NP}$ pórin
road many NEG.CONT

'...There weren't yet many roads' **AM125_11.00**

3.8.2.1 On *bey* 'all, together'

The word *bey* 'all, together' behaves idiosyncratically, and is thus hard to classify. In this description, it is categorised on semantic grounds with the other quantifiers discussed above; syntactically, it is categorised as a floating quantifier.

The floating quantifier *bey* 'all, together' is typically attested towards the right-hand edge of a clause, preceding the clause-final modifiers (see Chapter 10 on clausal modifiers). It occurs in this position either when it has scope over the object of a clause, or over the subject of an intransitive clause. The scope of *bey* 'all, together' over the subject of an intransitive clause is shown in (77); in this example, *bey* 'all, together' has scope over the NP headed by *lamlám* 'Lamlam'.

(77) [lamlám ne]$_S$ anán **bey**
lamlám ne aN=nán bey
Lamlam ART 3SG.INAN=burn all

'All of Lamlam burnt.' **AM033_06.04**

Example (77) illustrates that, as well as universally quantifying individual countable entities, *bey* 'all, together' can also be used to refer to the whole of a single entity.

The scope of *bey* 'all, together' over the object of a clause is shown in (78). In this example, *bey* 'all, together' has scope over the NP headed by *pú* 'paddle'.

(78) [wán pa]$_S$ ana*lengkap* tu [pú i pa]$_O$ **bey** to
wán pa aN=na-lengkap tu pú i pa bey to
canoe ART INAN=3SG-complete COM paddle NSG ART all IAM

'The canoe was already complete with all the paddles.' **AM112_13.29**

When *bey* 'all, together' has scope over the subject of a clause with two or more arguments, the subject is typically topicalised, using the fronting strategy described in §8.3.1.1. In this construction, the NP occurs in the preclausal frame, and is optionally marked with the frame-marker *ido* 'FRA'. An example is given in (79).

(79) [isne **bey** ido]$_{FRAME}$ túl i **bey** to
isne bey ido t-úl i bey to
1PL.I all FRA 1PL.I-call 3SG.AN.O all IAM

'As for all of us, we call him together.' **AM124_el.**

Example (79) shows that, in constructions such as these, *bey* 'all, together' can appear twice: once at the right edge of the preclausal frame (the NP headed by *isne* '1PL.I'), and once at the right edge of the clause. The use of *bey* 'all, together' simultaneously in both positions is not yet understood, and requires further investigation.

Core arguments, particularly subject arguments, are frequently omitted, when the speaker thinks that the argument is easily inferrable from the extra-linguistic or preceding linguistic context (see §8.3.3). Therefore, *bey* 'all, together' is occasionally attested when the argument over which it has scope is omitted. An

example of this is given in (80). In this example, *bey* 'all, together' has scope over the subject, which has been omitted; from the subject marking on the verb, the subject can be seen to be 3PL.AN.

(80) [Ø]$_S$ lasá bey to
la-sá bey to
3PL.AN-ascend all IAM

'They all ascended.' **AM074_02.06**

3.9 Conjunctions

Conjunctions have the following properties in Ambel:

1. The function of conjunctions is to conjoin two constituents of the same grammatical type.
2. Conjunctions may be semantically subordinating, or semantically coordinating. A morphosyntactic distinction between subordinated and coordinated conjunctions cannot be made in Ambel. However, the semantic function of Ambel conjunctions correlates to some extent with phonological features, for example intonation contours. These topics will be discussed in §14.3.2.

An example containing two conjunctions is given in (81). In this example, the conjunctions are highlighted in bold.

(81) "rómbyon i pa simábu barári **rani** ia, yabá
rómbyon i pa si-mábu barári rani ia ya-bá
pandanus.leaf NSG ART 3SG.INAN-many too so 3SG.AN 1SG-leave.behind
i alia **be** nakáin asi"...
i a-li-a be na-káin asi
3SG.AN.O DEM.NCNT-LAND-AND PURP 3SG-clean.leaves 3NSG.INAN.O

[An evil spirit lying about the location of her daughter-in-law:] '"The pandanus leaves were too many, so I have left her inland to clean them"...' **AM076_01.53**

A full list of attested conjunctions in Ambel is given in Table 3.16. Following Kluge (2014: 288-290), these conjunctions are organised according to their function.

Table 3.16: Conjunctions

Conjunction	Gloss	Joins
Marking addition or alternatives		
be	'and'	VP+VP; Cl+Cl
tu	'and'	NP+NP; VP+VP
ma	'and'	Cl+Cl
ke	'or'	NP+NP; VP+VP; Cl+Cl
Marking time and/or condition		
mansope	'then'	Cl+Cl
yo	'then'	Cl+Cl
aya, ay(a)sága(i)do	'until'	Cl+Cl
aylén	'like.this.until'	Cl+Cl
beposa	'after'	Cl+Cl
arekane	'if.not'	Cl+Cl
Marking consequence		
be	'PURP'	Cl+Cl
bisa(ra)	'so.that'	Cl+Cl
(ku)kura	'because'	Cl+Cl
rani	'so'	Cl+Cl
	'since'	Cl+Cl
pina	'therefore'	Cl+Cl
Marking contrast or similarity		
(p)ape	'but'	Cl+Cl
letem	'like, for example'	Cl+Cl

As well as the conjunctions given in Table 3.16, borrowed conjunctions from either Papuan Malay, or a more standard variety of Indonesian, are very frequently attested. A non-exhaustive list of the Malay conjunctions attested in the corpus is given in Table 3.17.

Table 3.17: Examples of Malay conjunctions in the corpus

Conjunction	Gloss	Conjunction	Gloss
dan	'and'	karna	'because'
ato	'or'	padahal	'but in fact'
tapi	'but'	trus	'next'
sama sama	'together with'	jadi	'so'
sblum	'before'	sedangkan	'whereas, while'
kalo	'if, when'	sebab	'because'
supaya	'so that'	untuk	'in order to'

Conjunctions are discussed in more detail in §14.3.2.

3.10 Marker of emotional involvement *ki=*

The clitic *ki=* functions as a marker of diminution, a marker of respect, and a marker of endearment. To capture all of these functions, this clitic is referred to as the 'marker of emotional involvement' of a speaker with an entity; it is glossed 'EMO'. In this section, I will describe the distribution of *ki=* 'EMO'. Following this, the function and meaning of *ki=* 'EMO' will be discussed. Finally, this section will close by considering some more grammaticalised instances of *ki=* 'EMO', where the form is more tightly integrated with the element to which it attaches.

The clitic *ki=* 'EMO' attaches to pronouns (except 3SG.INAN and 3NSG.INAN.O pronouns; see below), verbal predicates, locative predicates, and within the noun phrase. In (82) there are three instances of *ki=* 'EMO'. It attaches within the noun phrase, to the article *pa* 'ART'; to the inflected adjectival verb *lál* 'big'; and to the pronoun *ua* '3DU'.[23]

(82)

ini	kak	**ki**pa	**ki**nalál		pórin,	ini	kak	pa
i-ni	kak	ki=pa	ki=na-lál		pórin	i-ni	kak	pa
3SG-POSS.I	uncle	EMO=ART	EMO=3SG.AN-big		NEG.CONT	3SG-POSS.I	uncle	ART

nabá	tu	**ki**u	apa
na-bá	tu	ki=ua	a-pa
3SG.AN-stay.behind	COM	EMO=3DU	DEM.NCNT-MID

'His uncle was not yet big [i.e., full-grown], his uncle stayed behind with the two of them.' **AM105_06.40**

As shown in (82), *ki=* 'EMO' typically occurs at the left edge of a word. When *ki=* 'EMO' attaches to a verb which marks a 3SG.INAN subject, however, *ki=* 'EMO' attaches before the 3SG.INAN agreement marker *aN=*. This is shown in (83).

(83)

ang**ki**mtúm	ido	ang**ki**be	áysu
aN=ki=mtúm	ido	aN=ki=be	áy-su
3SG.INAN=EMO=grow	FRA	3SG.INAN=EMO=become	tree-flower

'When it grew, it became a flower.' **AM019_04.48**

23. Within the noun phrase, *ki=* 'EMO' attaches to the first present element to the right of the slot for numeral classifiers. A more detailed discussion of the distribution of *ki=* 'EMO' within the NP can be found in §6.2.4, once the structure of the NP has been established in §6.2.

The examples given above have shown how *ki*= 'EMO' attaches to pronouns, verbs, and within the noun phrase. Before moving on to a discussion of the semantics of *ki*= 'EMO', (84) provides an example of *ki*= 'EMO' in one other possible environment: on a locative predicate.

(84) nén, kalál wana **ki**yane
nén kalál wana ki=ya-ne
mother crab DEF EMO=3SG.AN.PRED-PROX

'Mother, here is the crab.' **AM019_03.49**

The semantics of *ki*= 'EMO' are somewhat variable, depending on the context in which it is used. In many attestations, it contributes a diminutive reading to one of the arguments of the clause. In example (85), *ki*= 'EMO' contributes a diminutive meaning to the head noun *áy* 'tree'.

(85) máni pa lápo be latétena áy **ki**pa
máni pa l-ápo be la-téten-a áy ki=pa
bird ART 3PL.AN-fly and 3PL.AN-perch-PAR tree EMO=ART

'Some birds flew and perched on a small tree.' **AM042-01_00.07**

Frequently, however, a diminutive reading is not possible. Consider (86), for example; when I asked my consultants, they told me that Yembesew, the bay to which the speaker is referring, is not particularly small, but that *ki*= 'EMO' is used in this construction as a term of respect (PM: *kata hormat*).

(86) Yembeséw ne kásul **ki**wa láyn bu wan pu?
Yembeséw ne kásul ki=wa láyn bu wana pu
Yembesew ART open.bay EMO=NMC.DEF sand white DEF ATT.INT

'Yembesew is the open bay which [has] white sand, you know?' **AM204_31.17**

Finally, there are many examples of *ki*= 'EMO' in the corpus where neither a diminutive nor a marker of respect reading are obvious. An example of is given in (87).

(87) *kamar* **ki**túl wane ido sarábi **ki**low
kamar ki=túl wa-ne ido sarábi ki=low
room EMO=three DEM.CNT-PROX FRA reception.room EMO=two

'As for these three rooms, there are two reception rooms.' **AM178_00.06**

This example comes from a short text in which the speaker is describing his house. Two noun phrases are marked with *ki*= 'EMO' in (87): one headed by *kamar* 'room', the other by *sarábi* 'reception room'. Subsequently in the same text, the speaker uses *ki*= 'EMO' to modify NPs headed by *meja* 'table', *lemari* 'cupboard', and *para para* 'smoking platform'. The speaker is the father of the house where I stayed for the majority of my fieldwork (see §1.4.2). I know that he is proud of the size of his house, which is one of the bigger houses in the village; a diminutive reading of *ki*= 'EMO' in this context is therefore not appropriate. Nor, however, is *ki*= 'EMO' obviously functioning as a marker of respect; it is not clear why the speaker would want to show respect with regards to his *meja* 'table', for example, or his *lemari* 'cupboard'.

When I asked **YK**, the speaker in (87), why he used *ki*= 'EMO' in connection with these different entities, he told me that it was because *ki*= 'EMO' is a term of endearment (PM: *kata sayang*). I received similar responses from other speakers with regards to other constructions using *ki*= 'EMO' in the naturalistic corpus, where a diminutive or respectful reading was not possible. Indeed, example (88), which is drawn from the elicited corpus, illustrates that, in some cases, a diminutive or respectful reading is ruled out by the context.

(88) ái lál **ki**pa nabí nanán
ái lál ki=pa n-abí n-anán
dog big EMO=ART 3SG.AN-want 3SG-eat

'The big dog [whom I love] wants to eat.' **AM092_el.**

In (88), the modification of the head noun *ái* 'dog' by *lál* 'big' rules out a diminutive reading. In addition, a respectful reading would be quite marked, as it would be unusual for a speaker to pay respect to any normal village dog. Thus, for examples like (87) and (88), the best reading of *ki*= 'EMO' is as a marker of endearment.

Before closing this section, two points about *ki*= 'EMO' should be noted. The first is the form of *ki*= 'EMO' when it attaches to an element beginning with the

labiovelar glide /w/; in this context, *ki*= 'EMO' is optionally realised as [ku]. This is shown in (89).

(89) gámsu **ki**wane [kuwane] ido mé low ini béle wapa
gámsu ki=wa-ne ido mé low i-ni béle wa-pa
folktale EMO=DEM.CNT-PROX FRA person two 3SG-POSS.I cross.cousin DEM.CNT-MID

'As for this folktale, there were these two cross-cousins.' **AM020_00.04**

Second, there are a handful of forms containing an element related to *ki*= 'EMO' that warrant discussion. For example, it was stated above that *ki*= 'EMO' attaches to pronouns, except the 3SG.INAN pronoun *ana*, and the 3NSG.INAN object pronoun *asi*. The respectful forms of these pronouns are *ankia* and *akisi*, respectively (rather than the expected **ki=ana* 'EMO=3SG.INAN' or **ki=asi* 'EMO=3NSG.INAN'). These forms are analysed as being inflected by an infix <*ki*> 'EMO', which is related to *ki*= 'EMO' (i.e., <*ki*>*ana* '<EMO>3SG.INAN' and <*ki*>*asi* '<EMO>3NSG.INAN.O', respectively).

Another set of forms that may contain an element related to *ki*= 'EMO' is the deictic nouns (discussed in §12.2.4). Deictic nouns can take inflection for emotional involvement; the form of this inflection, however, is slightly different. Consider the forms in Table 3.18. In this table, a sample of deictic nouns are given, alongside the forms of these deictic nouns when inflected for emotional involvement.

Table 3.18: A selection of deictic nouns inflected to show emotional involvement

Deictic noun	Gloss	Meaning	Emotional involvement
lo-ne	DEIC.N-PROX	'this place'	lo-ko-ne
lo-pa	DEIC.N-MID	'that place'	lo-ko-pa
lo-mana	DEIC.N-DIST	'that place (far)'	lo-ko-mana
lo-te	DEIC.N-CNST.INT	'what place'	lo-ko-te

As will be described in §12.2.4, the prefix that derives deictic nouns, *lo-* 'DEIC.N', has grammaticalised from the noun *lo* 'place'. It appears that, when this form grammaticalised, the clitic *ki*= 'EMO' also become more closely integrated, both phonologically (the /i/ of *ki*= 'EMO' assimilating to the /o/ of *lo*), and in terms of morphological status (becoming an affix rather than a clitic). As the meaning of element *ko-* found in deictic nouns is the same as *ki*= 'EMO', *ko-* will also be glossed as 'EMO'.

3.11 On the underlying specification of roots

There are many roots in Ambel which can be used either nominally or verbally, without any overt derivational morphology. For these roots, it is unclear whether they are underlyingly nominal, underlyingly verbal, or do not have an underlying specification for word class, but assume one once they are 'plugged in' to a specific functional position. Some examples of these ambiguous roots are given in Table 3.19. In this table, the verbs are inflected to index a 3SG.AN subject.[24]

Table 3.19: Roots ambiguous between noun and verb
(verbs inflected to mark a 3SG.AN subject)

Nominal use		**Verbal use**	
abáy	'game'	n-abáy	'play; play with s.t.'
anán	'food'	n-anán	'eat'
ánum	'drink (n.)'	n-ánum	'drink (v.); drink s.t.'
asúy	'story'	n-asúy	'speak, talk; say, tell (story)'
gáin	'name'	na-gáin	'name s.o. or s.t.'
gáliw	'k.o. utensil for making sago porridge'	na-gáliw	'use a *gáliw* utensil'
jakó	'k.o. dance'	na-jakó	'dance the *jakó* dance'
kápi	'saliva'	na-kápi	'spit; spit s.t. out'
kárin	'stitch'	na-kárin	'sew; sew s.t.'
káta	'ladle (n.)'	na-káta	'ladle s.t.'
kawá	'border'	na-kawá	'divide land'
kátut	'mortar and pestle'	na-kátut	'grind s.t. with mortar and pestle'
mabót	'sweat (n.)'	na-mabót	'be sweaty'
márarat	'crisis'	na-márarat	'be having a crisis'
mú	'low tide'	na-mú	'beachcomb; beachcomb for s.t.'
sánow	'guest'	na-sánow	'visit s.o.'
sárita	'historical story'	na-sárita	'tell historical story; tell historical story about'
támey	'urine'	na-támey	'urinate'

24. For expository purposes, only those noun-verb pairs where the verbal use is felicitous with an animate subject are given in Table 3.19. There are also noun-verb pairs where the verbal use can only take an inanimate subject (e.g. noun *dáraw* 'smoke (of fire)', verb *aN=dáraw* '3SG.INAN=be.smoking'; noun *tájiw* 'small hole', verb *aN=tájiw* '3SG.INAN=be.pierced'; noun *tamára* 'tear (n.)', verb *aN=tamára* '3SG.INAN=be.torn'.

The roots in Table 3.19 are ambiguous in that the display all of the behaviours of nouns given in §3.2, most notably the ability to head an NP; but they also have all of the characteristics of verbs given in §3.3, including the ability to function as the predicate of a verbal clause, taking subject-marking morphology. Consider example (90), in which the root *kawá*, highlighted in bold, is used twice: first as a verb, then as a noun.

(90)

"**lakawá**	an	to,	**kawá**	pa	anna	Búpop"
la-kawá	ana	to	kawá	pa	anna	Búpop
3PL.AN-divide.land	3SG.INAN	IAM	border	ART	3SG.INAN.PRED	Bupop

'[He said:] "They have already divided it [the land], the boundary is at Bupop".'

AM135_08.42

In the first use, *kawá* is verbal, meaning 'divide land'. In this instance, *kawá* is the predicate of a verbal clause, taking two arguments (the object *ana* '3SG.INAN', and an omitted 3PL.AN subject, which is marked on the verb with the prefix *la-*). The second use of *kawá* in (90) is as a noun, to mean 'border'. In this nominal use, *kawá* 'border' heads an NP modified by *pa* 'ART', and functions as the subject argument of a locative clause, headed by the locative predicate *anna* '3SG.INAN.PRED' (see §8.2.2).

As well as the roots like those given in Table 3.19, which are ambiguous between nouns and verbs, there are six roots that are ambiguous between preposition and verb. These roots are given in Table 3.20. Like the forms given in Table 3.19 above, the verbal uses are inflected to mark a 3SG.AN subject.

Table 3.20: Roots ambiguous between preposition and verb (verbs inflected to index a 3SG.AN subject)

Prepositional use		**Verbal use**	
FORM	MEANING	FORM	MEANING
be	Allative ('to'), Benefactive ('for'), Instrumental ('with'), Locative ('at')	na-be	'travel to'
po	Ablative ('from'), Locative ('at')	na-po	'travel from'
aya, ay(a)sága(i)do	Terminative ('until')	nat-aya, nat-ay(a)sága(i)do[a]	'travel as far as'
tu	Comitative ('with')	na-tu	'be with'
la	Orientative ('towards')	na-la	'travel towards'
ma	Venitive ('towards speaker')	na-ma	'travel towards speaker'

[a] Note the allomorph of *na-* '3SG', *nat-*, used when the prefix attaches to *aya, ay(a)sága(i)do* 'TERM'. Similar allomorphs exist for the other /a/-final subject prefixes (e.g. *yat-* '1SG' has an allomorph *yat-*, *nya-* '2SG' has an allomorph *nyat-*, and so-forth). This is presumably a strategy to resolve the vowel hiatus arising from the adjacent /a/ segments. These /t/-final allomorphs are only attested when the root is *aya* or *ay(a)sága(i)do* 'TERM'.

The roots given in Table 3.20 behave like prepositions, in that, uninflected, they can introduce prepositional phrases; however, they also behave like verbs, in that they can function as the predicate of a verbal clause, and take verbal subject-marking morphology. An example of the ablative root *po* used prepositionally is given in (91), and an example of the verbal use is given in (92).

(91) ndók **po** áy pa ibay pa
N-dók po áy pa i-báy pa
3SG.AN-leave ABL tree ART 3INAN-trunk ART

'He came out of [a hole] in the trunk of the tree' **AM042-04_01.10**

(92) **napo** bát waranda
na-po bát waranda
3SG-ABL earth Holland

'He was from Holland.' **AM125_01.46**

Whereas prepositional *po* 'ABL' in (91) introduces a prepositional phrase (an NP headed by *báy* 'trunk'), verbal *po* 'ABL' in (92) is the predicate of a verbal clause. In (92), verbal *po* 'ABL' takes two arguments: an object (the NP headed by *bát* 'earth'), and an omitted 3SG.AN subject (marked on the verb with *na-* '3SG').[25]

Languages which have a less-than-clear distinction between word classes may be analysed as 'monocategorial' – either omnipredicative, in which any element from any major word class in a language may function as a predicate with no derivation or change in meaning (e.g. Predicate Calculus); or precategorial, in which there is no underlying specification for word class, but word class is assumed by roots depending on whether they are used as predicates or as arguments (e.g. Swadesh 1938 on Nutka; Gil 2005 on Riau Indonesian; Hengeveld et al. 2004 on Samoan and Tagalog; cf. Chung 2012 and commentaries). However, Ambel is not monocategorial, in that it does not adhere to two of the three criteria outlined by Evans and Osada (2005) for a monocategorial analysis. Specifically, while the morphological and syntactic properties of the ambiguous roots are identical (Evans and Osada's first criterion), the semantics of a root used in context are not compositional, i.e. predictable from the underlying semantics of the root

25. As will be described in §4.1.1, the animacy of the omitted subject can be inferred because the verb is not also marked with *aN=* 'INAN'.

and the function of the syntactic position (Evans and Osada's second criterion). This is shown, for example, in the difference between the roots *asúy* and *sárita*. The meaning of the nominally-used roots is similar: 'story' and 'historical story', respectively. When used verbally, however, the meaning not predictable from a combination of the semantics of the nominally-used root and the predicative function of the verb: whereas *sárita* means 'tell a historical story; tell a historical story about', the meaning of *asúy* is more general: 'speak, talk; say, tell (story)'.[26]

Finally, the behaviour of the roots in Tables 3.19 and 3.20 is neither bidirectional, nor is it exhaustive across the lexicon (Evans and Osada's third criterion). For example, there are many examples of verbal roots that must undergo overt derivation before they can be used as nouns: either through reduplication, such as the verbal roots *mát* 'die', *sák* 'bite', or *du* 'obey' (see §5.1.1); or through prefixation with the nominalising prefix *a-* 'NMLZ', such as *gága* 'shout', *sól* 'order, or *sow* 'fart' (see §5.1.2). Furthermore, there are many verbs that cannot be used as nouns, either with or without derivation (such as *bóronpo* 'guess' or *áp* 'paddle'); similarly, there are many nouns that cannot be used as verbs (such as *mán* 'man' or *áy* 'tree'). This is also true of the preposition-verb pairs in Table 3.20: not all prepositional roots can be used verbally (e.g. the perlative preposition *del* 'PERL' cannot be used as a verb), and not all verbal roots that can be used prepositionally (e.g. the verbal root *tán* 'go, walk' cannot be used as a preposition).

For these reasons, Ambel is not analysed as a monocategorial language. Another potential analysis is that Ambel has rampant zero-conversion. In this analysis, all roots have an underlying specification for category, but a large proportion of them are available for conversion from one word class to another without any overt marking (e.g. English *flower*, *shovel*, or *talk*). For this analysis, we require evidence that the roots in Tables 3.19 and 3.20 are underlyingly specified for one word class or the other.

For the roots in Table 3.20, the wider semantic ranges of the prepositionally-used roots suggest these roots are underlyingly prepositions. For example, while prepositional *be* can have an allative, benefactive, instrumental, or locative meaning, verbal *be* can only mean 'go to' (derived from the allative meaning of prepositional *be*). This analysis is supported by the fact that, in the naturalistic corpus, these

26. Both *asúy* and *sárita* are S=A ambitransitive verbs, i.e. they can be used with either a single argument, or two arguments; this accounts for the different meanings given for each verb. See §4.1.2.4 for more on S=A ambitransitive verbs.

roots are far more frequently used as prepositions than as verbs. These roots are thus analysed as prepositions, which undergo zero-conversion for use as verbs.

With regards to the roots in Table 3.19, however, it is unclear whether these roots are underlyingly nominal or verbal. Diagnostics such as relative frequency and morphological markedness are unhelpful: many of the nouns and verbs in Table 3.19 are only attested once or twice in the corpus, and the fact that verbs happen to be more morphologically complex than nouns in Ambel is due to the head-marking character of the language. Evans and Osada (2005: 382) suggest that semantic inclusion may be a helpful diagnostic, in that if one of the roots includes the semantics of the other root, then it should be seen as less basic. For example, the verb *káta* 'ladle' could be paraphrased as 'use a ladle'; the verb *kawá* 'divide land' could be paraphrased as 'draw borders'; and the meaning of the verb *jakó* is 'dance the *jakó* dance'. With these paraphrases, we could analyse the nominal roots as more basic, in that the verbal meaning includes the nominal meaning in its definition. However, I do not use this criterion, as it is potenitally a consequence of Eurocentric translation: the noun *káta* 'ladle' could equally well be paraphrased as 'thing one uses to ladle', and the noun *kawá* 'border' could be paraphrased as 'thing that arises from dividing land'. Viewed in this way, the verbal roots are more basic, in that the nominal meanings include the verbal meanings.

As there is no reliable diagnostic to determine whether the roots in Table 3.19 and others like them are underlyingly nominal or verbal, the most neutral approach is to analyse them as underspecified for word class in Ambel. Once they are 'plugged in' to the clause, these roots then assume a particular word class, displaying all the behaviours typical of that class.

Chapter 4

The verb

The category of verb was introduced in §3.3 above, in which the definitional features of the word class were presented. In this chapter, the verb will be explored in more detail. In §4.1, I discuss the ways in which the verbal inventory of Ambel can be subclassified. Derivational verbal morphology will be described in §4.2.

4.1 Verb classes

In this section, two ways of subclassifiying the verbal inventory are examined. The first subclassification is morphological. When used predicatively, verbs are obligatorily inflected to mark the person, number, and animacy of the subject of the clause. Every verb belongs to one of four lexical classes, depending on the form this inflection takes. The four subject-marking paradigms are presented and discussed in §4.1.1. The second way to classify the verbal inventory is syntactic, based on the transitivity of a verb, i.e. the number and type of core arguments a verb can take. The syntactic subclasses of verb are described in §4.1.2.

4.1.1 Morphological classes: subject-marking morphology

Morphologically, verbs belong to one of four classes, depending on the morphological paradigm used with the verb. The four paradigms are given in Table 4.1.[1]

1. In this table, only the realisation of lexical /H/ is transcribed on the inflected forms (rather than all of the underlying /H/ specifications). Recall from §2.3.2.2 that if two or more /H/ specifications occur in a single phonological word, only the first is realised; all other /H/ syllables behave as if they were toneless.

Table 4.1: The verbal subject-marking paradigms

	Class I	Class II V-initial	Class III /t/, /d/, /h/, /b/-initial	Class III /l/, /m/, /w/-initial	Class III /s/-initial	Class IV C-initial
	-gón 'promise'	*-un* 'know'	*-tum* 'follow'	*-mát* 'die'	*-sun* 'enter'	*-mdól* 'fall'
1SG	**ya**-gón	**y**-un	t<**y**>um	m<**y**>át	**Ø**-sun	**ya**-mdól
2SG	**nya**-gón	**ny**-un	**N**-t<**y**>um	**N**-m<**y**>át	**N**-sun	**nya**-mdól
3SG.AN	**na**-gón	**n**-un	**N**-tum	**N**-mát	**N**-sun	**na**-mdól
3SG.INAN	**aN=na**-gón	**aN=n**-un	**aN**=tum	**aN**=mát	**aN**=sun	**aN**=mdól
1DU.I	**tuta**-gón	**tut**-un	**tut**-tum	**tut**-mát	**tu**-sun	**tuta**-mdól
1DU.E	**uma**-gón	**um**-un	**um**-tum	**um**-mát	**um**-sun	**uma**-mdól
2DU	**muma**-gón	**mum**-un	**mum**-tum	**mum**-mát	**mum**-sun	**muma**-mdól
3DU	**ula**-gón	**ul**-un	**u**-tum	**u**-mát	**u**-sun	**ula**-mdól
1PC.I	**(a)túta**-gon	**(a)tút**-un	**(a)tút**-tum	**(a)tút**-mat	**tú**-sun	**(a)túta**-mdol
1PC.E	**atúma**-gon	**atúm**-ul	**atúm**-tum	**atúm**-mat	**atúm**-sun	**atúma**-mdol
2PC	**matúma**-gon	**matúm**-un	**matúm**-tum	**matúm**-mát	**matúm**-sun	**matúma**-mdol
3PC	**atúla**-gon	**atúl**-un	**atú**-tum	**atú**-mat	**atú**-sun	**atúla**-mdol
1PL.I	**ta**-gón	**t**-un	**Ø**-tum	**t**-mát	**Ø**-sun	**ta**-mdól
1PL.E	**áma**-gon	**ám**-un	**ám**-tum	**ám**-mat	**ám**-sun	**áma**-mdol
2PL	**ma**-gón	**m**-un	**mim**-tum	**mim**-mát	**mim**-sun	**ma**-mdól
3PL.AN	**la**-gón	**l**-un	**la**-tum	**la**-mát	**la**-sun	**la**-mdól
3NSG.INAN	**sina**-gón	**sin**-un	**si**-tum	**si**-mát	**si**-sun	**si**-mdól

In all of the inflectional paradigms, there is an inclusive-exclusive distinction in the first person; an animate-inanimate distinction in the third person; a four-way number distinction (singular, dual, paucal, and plural) for animate subjects; and a two-way number distinction (singular, non-singular) for inanimate subjects. The person, number, and animacy distinctions are the same as those found in the object paradigm of the personal pronouns (but not the subject paradigm, which does not distinguish 3PL.AN from 3NSG.INAN; §3.2.3). The majority of subject affixes are prefixes. There is also infixation to mark a 1SG or 2SG subject on Class III verbs; and the proclitic *aN*= marks a 3SG.INAN subject in all four of the paradigms.[2]

The four classes of verb defined on morphological grounds will be referred to as Class I, Class II, Class III, and Class IV. Class I is an open class; the other three classes are closed classes. This will be returned to below. For Class III verbs, there is variation in the realisation of some of the affixes, depending the first consonant of the root. For example, the 1DU.I prefix is *tut-* for most Class III verbs; for /s/-initial Class III verbs, however, the 1DU.I prefix is *tu-*. These realisations are fully predictable, based on the phonology of the root. A full description of the variation within Class III verbal morphology will be returned to below.

There are strong links between the phonology of the root and the class of a verb: all Class II verbs are V-initial, all Class III verbs are /t/, /d/, /b/, /h/, /l/, /m/, /w/, or /s/-initial, and all Class IV roots are C-initial, in that they can begin with any consonant. Most Class I verbs are C-initial; however, as will be discussed below, there are also some V-initial Class I roots (specifically, V-initial borrowings from PM). Despite these links, verb class is lexically specified, in that the phonological shape of the root does not wholly predict the morphological class of a verb. This is shown, for example, by the minimal pairs in Table 4.2. Issues relating to verb class and the phonological shape of the root are returned to in §4.1.1.1.

For several of the person/number/animacy combinations, the form of the inflection is similar across all four paradigms. Consider, for example, the marking of 1DU.E, 2DU, 1PC.E, 2PC, and 1PL.E subjects. The prefixes used to mark these subjects are almost identical across the four verb classes; the only difference is that the Class I and Class IV prefixes have a final /a/ (e.g. *uma-* '1DU.E'), whereas the Class II and Class III prefixes do not (e.g. *um-* '1DU.E'). In fact, the forms of the prefixes are

2. See §3.1.3 for evidence demonstrating the status of *aN*= '3SG.INAN' as a clitic.

Table 4.2: Morphological verb classes: Phonological minimal pairs

Class I		**Class II**		**Class III**		**Class IV**	
bút	'reach as far as'			bút	'emerge from water'		
e.g.	ya-bút				b<y>út		
	1SG-reach.as.far.as				<1SG>emerge.from.water		
ukur	'measure' (< PM)	ut	'carry, bring'				
e.g.	ya-ukur		y-ut				
	1SG-measure		1SG-carry				
				bá	'lift'	bá	'stay behind'
					b<y>á		ya-bá
					<1SG>lift		1SG-stay.behind

identical for the Class I and Class II paradigms, with the exception that the Class I prefixes are /a/-final, whereas the Class II prefixes are not.

Class IV prefixes are identical with Class I prefixes, with two exceptions: (1) While a 3SG.INAN subject is marked on a Class IV verb with the proclitic *aN*= '3SG.INAN', a 3SG.INAN subject is marked on a Class I verb with a combination of the proclitic *aN*= '3INAN' and the prefix *na-* '3SG';[3] (2) A 3NSG.INAN subject is marked on a Class IV verb with *si-*, whereas a 3NSG.INAN subject is marked on a Class I verb with *sina-*. Interestingly, Class IV verbs can only take non-Agentive subjects; issues relating to the thematic role of the subject and verb class are returned to in §4.1.1.2 below.

While the Class I, II, and IV paradigms are all somewhat similar, the Class III paradigm differs from the other paradigms in a number of ways. First, Class III verbs mark a 1SG or 2SG subject with the infix <*y*> (although this infix is not overt if the Class III verb is /s/-initial); infixation is not found in any of the other paradigms. Class III verbs mark a 3SG.AN subject with the prefix *N-*, whereas Class I, II, and IV verbs mark a 3SG.AN subject with *n(a)-*. A 2SG subject is marked on a Class III verb with a combination of <*y*> (again, except for /s/-initial Class III verbs) and the prefix *N-*; this is in contrast with Class I, II, and IV verbs, which

3. For Class III and Class IV verbs, *aN*= is the only marker of person, number, and animacy on the verb; thus, when attaching to a Class III or Class IV verb, *aN*= will be glossed '3SG.INAN'. When attaching to a Class I or Class II verb, the prefix *n(a)-* is used to mark both 3SG.AN and 3SG.INAN subjects. For this reason, when attaching to a Class I or Class II verb, *n(a)-* will be glossed '3SG'. 3SG.INAN subjects of Class I and II verbs are distinguished from 3SG.AN subjects by attaching *aN*= after *n(a)-* '3SG'; as the only additional information that *aN*= bears about the person, number, and animacy of the subject in this context is that the subject is inanimate (the 3SG nature of the subject already being communicated by the prefix *n(a)-* '3SG'), *aN*= will be glossed as 'INAN' when it attaches to a Class I or II verb.

mark a 2SG subject with *ny(a)-*. If the subject is 3SG.INAN, this is marked on a Class III verb in the same way as a Class IV verb, i.e. with the proclitic *aN=*. For dual and paucal subjects, Class III inflection is very similar to Class II verbs. There are two exceptions: (1) A 3DU subject is marked with *u-* in the Class III paradigm, but *ul-* in the Class II paradigm; (2) A 3PC subject is marked with *atú-* in the Class III paradigm, but *atúl-* in the Class II paradigm.

When the subject is animate and grammatically plural (i.e. non-singular, but neither dual nor paucal), there are a number of differences between Class III inflection and the other morphological classes. First, a 1PL.I subject is marked with a prefix *t-*; this is only realised if the Class III verb is /l/, /m/, or /w/-initial (i.e., if the Class III verb is sonorant-initial; see below). In the Class I, II, and IV paradigms, a 2PL subject is marked with *m(a)-*, whereas in the Class III paradigm, it is marked with *mim-*.[4] In the Class III paradigm, a 3PL.AN subject is marked with *la-*, which is the same as the Class I and II paradigms; a 3NSG.INAN subject is marked in the Class III paradigm with *si-*, which is also used in the Class IV paradigm.

As was mentioned above, there is some variation in the realisation of Class III inflection, depending on the first consonant of the verb root. So, for example, the /t/-final Class III prefixes *tut-* '1DU.I' and *(a)tút-* '1PC.I' have non-/t/-final allomorphs when the verb is /s/-initial, i.e. *tu-* and *tú-*, respectively.[5] Other predictable variation within Class III verbs are that the prefix *t-* '1PL.I' is only overt if the root is sonorant-initial (i.e. /l/, /m/, or /w/-initial); otherwise, a zero-allomorph *Ø-* marks a 1PL.I subject. Finally, <*y*> infixation, used to mark a 1SG or 2SG subject on Class III verbs, is not overt if the verb is /s/-initial. As the variation just described is fully predictable from the phonological shape of the root, verbs inflecting according to these patterns are analysed as a single lexical class.

The rest of this section is structured as follows. In §4.1.1.1, issues relating to the relationship between the phonological shape of a verb root and its morphological class are examined in more detail. This includes a discussion of verbal roots which

4. As described in §2.6.2, *mim-* '2PL' is also used in the Class II paradigm in Metsam Ambel.

5. For most verbs, the 1PC.I prefix is optionally realised with an initial [a], i.e. [àtútā-] or [tútā-] (Class I and Class IV) and [àtút-] or [tút-] (Class II and Class III). For /s/-initial Class III verbs, however, the initial /a/ is not present underlyingly, and this prefix can only be realised as [tú-]. This maintains the distinction between a 1PC.I and 3PC subject for /s/-initial Class III verbs: as the final /t/ of the 1PC.I prefix is not realised when the verb is /s/-initial, if the 1PC.I prefix were realised with an initial /a/, then the prefixes would be homophonous (i.e., *atú-*).

are ambiguous between Class I and Class II. In §4.1.1.2, there is an exploration of the relationship between the class of Class I and IV verbs, and the thematic role of the subject. In this section, verbs that are ambiguous between Class I and Class IV will be discussed.

4.1.1.1 Morphological class and the phonological shape of the root

In the previous section I noted the following patterns between the morphological class of a verb and the phonology of the root: Class I verbs are mainly (but not wholly) C-initial, Class II verbs are V-initial, Class III verbs are /t/, /d/, /b/, /h/, /l/, /m/, /w/, or /s/-initial, and Class IV roots are C-initial. To a limited extent, one can make predictions about the class of a verb, depending on the phonology of the root: for example, a /w/-initial root cannot be Class II, a /g/-initial root cannot be Class II or Class III, and a V-initial root cannot be Class III or IV. However, as shown by the minimal pairs given in Table 4.2 above, the morphological class of a root is not wholly predictable from the shape of the root; thus, for example, a /w/-initial root could be Class I, Class III, Class IV, a /g/-initial root could be Class I or Class IV, and a V-initial root could be Class I or Class II.

As introduced above, all (recent) loanwords are Class I, regardless of the phonological shape of the root. This is shown in Table 4.3, where the expected and attested verbal inflections for three verbs borrowed from PM is shown for each of the four verb classes. The markers of 1SG and 3SG.INAN subjects are the principle parts of the verb paradigms, in that one can determine the class of a verb if one knows how these two subjects are marked; for this reason, the verbs in Table 4.3 are inflected to mark 1SG and 3SG.INAN subjects.

Table 4.3: Expected and attested subject inflection for three borrowed verbs

		Class I	**Class II**	**Class III**	**Class IV**
mulay	1SG	ya-mulay	–	*m<y>ulay	*ya-mulay
‘start’	3SG.INAN	aN=na-mulay	–	*aN=mulay	*aN=mulay
gabung	1SG	ya-gabung	–	–	*ya-gabung
‘join; be joined’	3SG.INAN	aN=na-gabung	–	–	*aN=gabung
ukur	1SG	ya-ukur	*y-ukur	–	–
‘measure’	3SG.INAN	aN=na-ukur	*aN=n-ukur	–	–

Table 4.3 shows that /m/-initial loanwords, such as *mulay* ‘start’, are Class I, rather than Class III or Class IV; /g/-initial loanwords, such as *gabung* ‘join; be

joined', are Class I, rather than Class IV (recall there are no /g/-initial Class III verbs); and V-initial loanwords, such as *ukur* 'measure', are also Class I, rather than Class II. In other words, borrowed verbal roots are assigned to Class I and inflect accordingly, regardless of the phonological shape of the root.

4.1.1.1.1 On roots ambiguous between Class I and Class II

The distinction between Class I and Class II roots is not always clear: there are 69 verbs in the corpus whose membership between Class I and Class II is ambiguous. Take, for example, an inflected verb like *yahán* 'feed.1SG'. Without further information, there are two possible analyses: segmentation as in (1a), as a C-initial Class I verb; or as in (1b), as a V-initial Class II verb.

(1) a. Class I: ya-hán '1SG-feed'

b. Class II: y-ahán '1SG-feed'

There are three diagnostics that can be used to identify what material belongs to the root, and what material belongs to the subject prefix. The first diagnostic is prosodic. When an ambiguous verb is inflected to mark a 1SG, 2SG, 3SG.AN, 1PL.I, 2PL, or 3PL.AN subject (i.e., if the verb is inflected with a prefix which, in the Class I paradigm, is monosyllabic), and the initial syllable of the inflected verb bears [H] pitch, this indicates that the verb is Class II. Consider the two possible ways of segmenting the inflected verb *yábin* 'wake.up.1SG' given in (2).

(2) a. Class I: * yá-bin

b. Class II: y-ábin '1SG-wake.up'

The Class I prefixes marking a 1SG, 2SG, 3SG.AN, 1PL.I, 2PL, or 3PL.AN subject do not have a /H/ specification, nor is [H] assigned to these prefixes through any phonological process in the language. Thus, a [H] realisation must be due to a /H/ specification on the initial syllable of a V-initial Class II verb root. Inflected verb roots marking a 1SG, 2SG, 3SG.AN, 1PL.I, 2PL, or 3PL.AN subject and with [H] on the initial syllable are thus analysed as V-initial Class II roots.

The second diagnostic for identifying the root of a verb ambiguous between Class I and Class II is if the verb appears as the second element in a noun-verb compound, as in (3) and (4) (see §5.1.3.1 for more on noun-verb compounds).

(3) met-akáy
person-write
'secretary'

(4) met-kapów
person-open
'guard'

When used predicatively, the second elements in both of these compounds (*akáy* 'write') and (*kapów* 'open') are ambiguous between Class I and Class II (i.e., Class I *ya-káy* vs. Class II *y-akáy* '1SG-write'; Class I *ya-kapów* vs. Class II *y-akapów* '1SG-open'). The use of the roots in these compounds, however, disambiguates the class membership of these two roots: the compound in (3) shows that *akáy* 'write' is V-initial Class II, whereas the compound in (4) shows that *kapów* 'open' is C-initial Class I. However, as will be discussed in §5.1.3.1, noun-verb compounds are not productive in Ambel, meaning that they are not a good testing ground for identifying the class of ambiguous verbs.

The final diagnostic is if the verb appears as the second, uninflected verb in a serial verb construction (SVC; see §13.1 for more on SVCs in Ambel). There are three types of SVC in Ambel in which the second verb (henceforth: V2) is uninflected: Direction of Transfer SVCs, Change of State SVCs, and Manner SVCs. Examples of Direction of Transfer, Change of State, and Manner SVCs are given in (5), (6), and (7), respectively.

(5) **nutále** *injil* ne be lopane beposa...
n-ut-ále injil ne be lo-pa-ne beposa
3SG-carry-descend gospel ART ALL DEIC.N-SIDE-PROX after

'After he had brought the Gospel down to the place at the side here, [then we moved to Paput.]' **AM125_07.39**

(6) **ulakútkamtua** dow ikatara low wana ido...
ula-kút-kámtu-a dow i-katara low wana ido
3DU-cut-break.off-PAR rattan 3INAN-end two DEF FRA

'When the two of them broke the two ends of the rattan [ladder] by cutting it, then [straightaway all of the people on the ladder fell down].' **AM074_02.42**

(7) **y-alén abáy** ana
1SG-do play 3SG.INAN

'I'm messing around with it [a canoe].' **AM027_01.29**

When used predicatively, the V2s in each of the three SVCs in (5)–(7) are ambiguous between Class I and Class II (i.e., Class I *yá-le* vs. Class II *y-ále* '1SG-descend'; Class I *ya-kámtu* vs. Class II *y-akámtu* '1SG-break.off'; Class I *ya-báy* vs. Class II *y-abáy* '1SG-play'). The use of these verbs as the uninflected V2 in these SVCs, however, allows us to identify the roots. Thus, the V2 in (5) is the V-initial Class II *ále* 'descend' (shown also by the /H/ on the initial syllable); the V2 in (6) is the C-initial Class I *kámtu* 'break off'; and the V2 in (7) is the V-initial Class II *abáy* 'play'. However, none of these SVCs are productive. As will be described in §13.1.1, the V2 in Direction of Transfer SVCs can only be one of four verbs of movement (*ále* 'descend', *sá* 'ascend', *súy* 'go home', or *dók* 'leave'). Similarly, only verbs of affect can be used as V2 in Change of State SVCs; and only certain verbs can be used as the V2 in Manner SVCs. If an ambiguous verb cannot be used as V2 in at least one of these three kinds of SVC, this diagnostic cannot be used to determine whether the verb is Class I or Class II.

The 69 ambiguous verbs are those for which none of the three diagnostics discussed above apply. In this description, if an ambiguous verb is used in a glossed example, it will be segmented as if it were Class I. This decision was taken because Class I is the only open class. However, where it is necessary to exemplify a point with an ambiguous verb, and the verb class is relevant to the discussion, a note is made about the ambiguity of the verb class. In the wordlist in Appendix E, all ambiguous verbs are clearly noted.

4.1.1.2 Morphological class and theta roles

As well as the relationship between the phonological shape and morphological class, there is also a relationship between the theta role of the subject of a verb, and the morphological class to which that verb belongs. This relationship is to do with whether or not the subject of the verb is an Agent. In this section, I follow Reinhart (2002) in defining a thematic 'Agent' as a participant that causes a change of state communicated by the predicate, ([+c]) and additionally has 'some sort of mental state' ([+m]; p.231). For the purposes of this section, if a participant is not

an Agent, it will be referred to as a 'non-Agent' (regardless of whether it is an Instrument, Theme, etc).

Both Class II and Class III verbs can occur with either Agent or non-Agent subjects.[6] However, almost all Class I verbs take only an Agent, or either an Agent or a non-Agent, as their subject (depending on whether the verb is felicitous with an inanimate subject); and Class IV verbs can only take a non-Agent subject. Examples of Class I and Class IV verbs, along with the theta role of their subjects, are given in Table 4.4. In this table, the transitivities of the verbs are provided (see §4.1.2); for ambitransitive verbs (described in §§4.1.2.4 and 4.1.2.5), the theta roles for both the monovalent (single argument) and bivalent (two arguments) uses of the verb are given, separated by a semicolon.

Table 4.4: The theta roles of the subjects of a selection of Class I and Class IV verbs

Class I			
root	meaning	Trans	θ role of subject
kábu	'dance'	intr.	Agent
mú	'beachcomb'	intr.	Agent
kápi	'spit; spit s.t. out'	S=A	Agent; Agent
taním	'plant'	S=A	Agent; Agent
bón	'go first; go ahead of'	S=A	Agent/non-Agent; Agent/non-Agent
katarán	'land; land s.t.'	S=O	Agent/non-Agent; Agent
kaváy	'turn around; turn s.o. or s.t. around'	S=O	Agent/non-Agent; Agent
malák	'lie down; lie s.o. or s.t. down'	S=O	Agent/non-Agent; Agent
tabón	'wait for'	tr.	Agent/non-Agent
katu	'fold'	tr.	Agent
Class IV			
mabót	'be sweaty'	intr.	non-Agent
kábi	'be flooded'	intr.	non-Agent
lálik	'be tall'	intr.	non-Agent
tárun	'fall down a slope'	intr.	non-Agent
mtólon	'be upright'	intr.	non-Agent
támtu	'be broken off'	intr.	non-Agent
másut	'be wet; be wet on'	S=A	non-Agent; non-Agent
gagét	'be tight; be tight on'	S=A	non-Agent; non-Agent
mnyát	'be quiet; quieten'	S=O	non-Agent; non-Agent
bá	'stay behind; leave behind'	S=O	non-Agent; non-Agent

6. Examples of Class II verbs that take Agent subjects include *águl* 'shave' and *íy* 'eat'; examples of Class II verbs that take non-Agent subjects include *áut* 'shed skin' and *ól* 'be pregnant'. Examples of Class III verbs that take Agent subjects include *du* 'obey' and *wop* 'sell'; examples of Class III verbs that take non-Agent subjects include *mát* 'die' and *báybor* 'be crazy'.

Table 4.4 shows that Class I verbs often only take Agent subjects; if the verb is felicitous with an inanimate subject (such as *bón* 'go first; go ahead of' and *katarán* 'land'), they may also take non-Agent subjects. Class IV verbs, however, always take non-Agent subjects.[7] This pattern is nearly strong enough to predict the morphological class of a verb: if one knows that a verb is neither Class II nor Class III (e.g., if it is not V-initial, or /t/, /d/, /b/, /h/, /l/, /m/, /w/, or /s/-initial), then the membership of that root in either Class I or Class IV is nearly always predictable from whether the subject is an Agent or a non-Agent.

However, while all Class IV verbs only take non-Agent subjects, not all Class I verbs have Agent subjects. First, there are those Class I verbs, like the ones given in Table 4.4, that can take either an Agent or a non-Agent subject, depending on whether the subject is animate (Agent), or inanimate (non-Agent). In addition, there are a handful of Class I verbs that can only take non-Agent subjects. These non-Agent-taking Class I verbs lead to semantic minimal pairs, such as the ones given in Table 4.5.

Table 4.5: Morphological verb classes: Semantic minimal pairs

Class I		**Class IV**
yéle 'float in air'		kábyal 'float in water'
e.g.	aN=na-yéle	aN=kábyal
	INAN=3SG-float.in.air	3SG.INAN=float.in.water
swak 'be weak' (< PM)		mákat 'be weak'
e.g.	aN=na-swak	aN=mákat
	INAN=3SG-be.weak	3SG.INAN=be.weak

Minimal pairs like those given in Table 4.5 demonstrate that, while there is a strong relationship between the theta role of the subject and the morphological class of a verb, the distinction between Class I and Class IV verbs is ultimately lexical, rather than semantic. Note that one of the members of one of the minimal pair set given in Table 4.5 is a loan from Papuan Malay: the Class I *swak* 'be weak'.

7. Some Class IV verbs in Table 4.4 are ambitransitive, i.e. can be used with either one or two core arguments. When used bivalently, i.e. with two core arguments, the subjects of some of these Class IV verbs meet the [+c] criterion used by Reinhart (2002) to identify an Agent, i.e. the subjects bring about the change of state expressed by the verb (e.g. *másut* 'be wet on', *bá* 'leave behind'). However, these subjects are unspecified for whether or not they have 'some kind of mental state'; for example, these verbs can take either an animate or an inanimate subject. According to Reinhart's definitions, the theta roles of the subjects of the bivalent uses of these verbs are therefore not Agents, but Causes.

As discussed in §4.1.1.1 above, of the four verb classes, Class I is the only open class; thus *swak* 'be weak', and other non-Agent-taking loans (such as *kwat* 'be strong'), are assigned to Class I, rather than Class IV. There is no obvious explanation as to why *yéle* 'float in air' is Class I, rather than the expected Class IV; perhaps it was borrowed in to Ambel from an unidentified source after Class IV ceased to be an open class; or perhaps it is simply exceptional.

4.1.1.2.1 On roots ambiguous between Class I and Class IV

The distinction between Class I and Class IV verbs can only be seen when the subject is inanimate: a 3SG.INAN subject is marked on a Class I verb with *aN=na-*, and a Class IV verb with *aN=*; and a 3NSG.INAN subject is marked on a Class I verb with *sina-*, and a Class IV verb with *si-*. For animate subjects, the Class I and Class IV paradigms are identical. Some verbs in Ambel that have a non-Agent subject cannot take an inanimate subject. This means that the inflectional class of these verbs is ambiguous between Class I and Class IV. Some examples of verbs ambiguous between Class I and IV are given in Table 4.6.

Table 4.6: Examples of verbs ambiguous between Class I and Class IV

Verb	**Meaning**	**Trans**	**θ role of subject**
báhon	'be infertile'	intr.	non-Agent
kamanín	'be busy'	intr.	non-Agent
manáw	'cough'	intr.	non-Agent
msúy	'feel cold'	intr.	non-Agent
taplów	'be stupid'	intr.	non-Agent
tayúru	'be startled'	intr.	non-Agent
wók	'be greedy; be greedy for'	S=A	non-Agent; non-Agent
wokasúy	'yawn'	intr.	non-Agent

For the purposes of this description, verbs which take a non-Agent subject, but which cannot take an inanimate subject, are treated as if they were Class I. As with the verbs ambiguous between Class I and Class II, discussed above, this decision was taken because Class I is the only open verb class. Where a verb ambiguous between Class I and Class IV is used to exemplify a point, and verb class is relevant to the discussion, this ambiguity will be noted. The ambiguity is also marked in the wordlist in Appendix E.

4.1.2 Syntactic classes

The previous section describes how verbs can be classified morphologically. Verbs can also be classified based on syntactic criteria, i.e. the number and kinds of core arguments a verb can take.[8] As will be described in more detail in §8.1 below, in the chapter on the clause, 'core arguments' are those arguments which are selected by the transitivity of the verb, and are not optional (although may undergo context-dependent omission; see §8.3.3). Core arguments are in opposition to adjuncts, which are optional arguments which provide additional information about the clause (e.g. location, the instrument used, the beneficiary; see Chapter 11). There are three types of core argument in Ambel: the subject, the object, and the oblique. The core arguments themselves are examined in more detail in §8.2.1.1.

When an **intransitive** verb heads a clause, it has a maximum of one core argument (i.e., intransitive verbs are monovalent).[9] **Transitive** verbs have two core arguments, a subject and an object; **extended intransitive** verbs also have two core arguments, a subject and an oblique. Both **S=A ambitransitive** and **S=O ambitransitive** verbs vary in their valency; they can both be used either monovalently (with one core argument, subject), or bivalently (with two core arguments, subject and object). Whereas the subject of the monovalent use of an S=A ambitransitive verb is semantically equivalent to the subject of the bivalent use of the verb, the subject of the monovalent use of an S=O ambitransitive verb is semantically equivalent to the object of the bivalent use. This difference will be exemplified below. Finally, there is a small class of **ditransitive** verbs, which take three core arguments: a subject, an object, and an oblique argument.

As mentioned above, Ambel permits omission of arguments, when the omitted argument is considered by the speaker to be obvious from the context. Thus, it is not necessarily the case that a verb that is never attested in the naturalistic corpus

8. This means of classifying the verbal lexicon is almost entirely independent from the morphological classification discussed in the previous section – although there are no transitive Class IV verbs (see §4.1.2.3).

9. Following Dixon and Aikhenvald (2000: 3), I distinguish between the transitivity and the valency of a verb. While valency only refers to the number of core arguments a verb takes, transitivity refers to the number and type of arguments a verb takes. Thus, for example, both transitive and extended intransitive verbs, described below, are bivalent, in that they take two arguments; where they differ, however, is that transitive verbs take a subject and an unmarked object argument, whereas extended intransitive verbs take a subject and an oblique argument, the latter marked with *be* 'OBL'.

with an object is an intransitive verb; it may be transitive, but with omission of the object in all attestations.

In order to determine the transitivity of a verb, the following diagnostic was used. As omission is context-dependent, in an out-of-the-blue context, all (non-subject) arguments must be fully specified.[10] An appropriate out-of-the-blue context might be, for example, in answer to the question *nyin a?* 'What are you doing?' If, in this context, a verb is not grammatical with an object or an oblique argument, this verb is classified as intransitive; if it is only grammatical with a fully-stated object (or oblique) argument, it is identified as transitive (or extended transitive); if it is only grammatical with both a fully-stated object and a fully-stated oblique argument, it is identified as ditransitive. If, in this context, a verb is grammatical both with and without an object argument, then this verb is identified as ambitransitive (with the semantic relationship between the subject of the monovalent use of the verb and the subject and object arguments of the bivalent use of the verb determining whether the ambitransitive verb is S=A or S=O ambitransitive).

Some examples of the use of this diagnostic are given in (8) and (9). In (8), the use of the verb *káraw* 'reach inside a window; reach inside a window and touch' in an out-of-the-blue context is exemplified. This example shows that, in this context, *káraw* 'reach inside a window; reach inside a window and touch' can either occur with a single subject argument, as in (8a); or with both a subject and an object argument, as in (8b).

(8) a. Monovalent use:
[ine]$_S$ ya-káraw
1SG 1SG-reach.inside.window

'I'm reaching inside a window.'

b. Bivalent use:
[ine]$_S$ ya-káraw [i]$_O$
1SG 1SG-reach.inside.window.and.touch 3SG.AN.O

'I'm reaching inside a window and touching him/her.'

10. As the subject is often a familiar topic, it is highly likely to be omitted, even in out-of-the-blue contexts.

Based on the data in (8), *karáw* 'reach inside a window; reach inside a window and touch' can be identified as an ambitransitive verb – in this case, an S=A ambitransitive verb, as the subject of the monovalent use of the verb in (8a) is the same as the subject of the bivalent use of the verb in (8b).

In the same, out-of-the-blue context, the verb *íy* 'eat' must occur with two arguments, a subject and an object. This is shown in (9).

(9) a. Monovalent use:
*[ine]$_S$ y-íy
1SG 1SG-eat

[Intended reading:] 'I'm eating.'

b. Bivalent use:
[ine]$_S$ y-íy [dún]$_O$
1SG 1SG-eat fish

'I'm eating fish.'

As *íy* 'eat' cannot occur in this context without an object, as shown in (9a), but must occur with both a subject and an object, as in (9b), this verb is classified as a transitive verb.[11]

The remainder of this section is structured as follows. In §§4.1.2.1–4.1.2.6, each of the syntactic classes intransitive, extended intransitive, transitive, S=A ambitransitive, S=O ambitransitive, and ditransitive are discussed and briefly exemplified. In §4.1.2.7, verbs that take clausal complements are introduced.

4.1.2.1 Intransitive verbs

Intransitive verbs are verbs that only have one core argument, the subject, which precedes the verb. Two examples of intransitive verbs, *tán* 'go, walk' and *mín* 'be lit', are given in (10) and (11) respectively.

11. There is an intransitive counterpart to *íy* 'eat': *anán* 'eat', which is only grammatical in intransitive clauses. Other intransitive-transitive pairs exist, for example *ábin* 'wake up (intr.)' vs. *kanól* 'wake (someone) up'.

(10) **[bísar kipa]$_S$ [ntán]$_V$** be nál katíli...
bísar ki=pa N-tán be n-ál katíli
respected.woman EMO=ART 3SG.AN-go PURP 3SG-take tuber
'The woman went to fetch tubers...' **AM181_10.12**

(11) **[láp pa]$_S$ [amín]$_V$** to...
láp pa aN=mín to
fire ART 3SG.INAN=be.lit IAM
'The fire is lit...' **AM069_03.50**

As seen in (11), intransitive verbs may express properties that are often expressed by the class of adjectives in other languages. Many intransitive verbs in Ambel perform this function. As described in §3.3.1, Ambel also has a small, closed class of adjectival verbs. Nearly all adjectival verbs are intransitive. However, as there is one S=O ambitransitive adjectival verb (*mábu* 'be many; multiply s.t.'), adjectival verbs cannot be considered to be a subset of intransitive verbs.

Other examples of intransitive verbs, along with their morphological class, are given in Table 4.7.

Table 4.7: Examples of intransitive verbs

Verb	Class	Meaning	Verb	Class	Meaning
a	II	'depart'	dók	III	'leave, arrive'
ábin	II	'wake up'	héy	III	'be alive, live'
ámsi	II	'be sick'	kábi	IV	'flood'
anán	II	'eat'	mánun	I	'groan while sick'
áti	II	'run'	mát	III	'die'
báybor	III	'be crazy'	ól	II	'stand'
belémay	III	'be quick'	súy	III	'go home'
búk	IV	'be blunt'	tán	III	'go, walk'

4.1.2.2 Extended intransitive verbs

Extended intransitive verbs take two core arguments: a subject, which precedes the verb, and an oblique argument, which follows the verb and is marked with *be* 'OBL'.[12]

The class of extended intransitive verbs is very small: only three are attested. All are performative verbs: *hakúr* 'admonish', *hatanáw* 'advise' (both Class III), and *cán* 'urge'. An elicited example of *hakúr* 'admonish' is given in (12).

(12) [ine]$_S$ [<y>hakúr]$_V$ [be awa]$_{OBL}$
1SG <1SG>admonish OBL 2SG

'I admonish you.' **AM169_el.**

4.1.2.3 Transitive verbs

Transitive verbs are verbs which have two core argument slots: a subject, which precedes the verb, and an object, which follows the verb. Unlike the oblique argument of extended intransitive verbs, the object of a transitive verb is not marked with *be* 'OBL'. Two examples of transitive verbs are given below: *íy* 'eat' in (13), and *bun* 'hit, kill' in (14).

(13) katóp bísar wane, **[ámne]$_S$** **[ámiy]$_V$** **[i]$_O$** po
katóp bísar wa-ne ámne ám-íy i po
giant.clam respected.woman DEM.CNT-PROX 1PL.E 1PL.E-eat 3SG.AN.O NEG

'As for this [kind of] giant clam, we don't eat it.' **AM267_02.21**

(14) *jadi* **[ia]$_S$** **[mbun]$_V$** **[kayáw]$_O$** pape...
jadi ia N-bun kayáw pape
so 3SG.AN 3SG.AN-kill pig but

'So he was killing pigs but [he wasn't bringing them home].' **AM188_07.51**

12. The form *be* is also used to head prepositional phrases communicating a goal, a location, a beneficiary, or an instrument (see §11.1); unlike these prepositional phrases, however, which are optional, the oblique argument is a core argument, in that it is obligatory in an out-of-the-blue context. Oblique arguments also occur as one of the three core arguments of a ditransitive verb; see §4.1.2.6 below.

Other examples of transitive verbs, along with their morphological class, are given in Table 4.8. Note that no transitive Class IV verbs are attested. This is because, as discussed in §4.1.1.2, Class IV verbs can only take non-Agent subjects, and in Ambel all transitive verbs can take an Agent subject.

semantically, there are no transitive verbs in Ambel that can only take a non-Agent subject; as discussed in §4.1.1.2 above, Class IV verbs can only take non-Agent subjects.

Table 4.8: Examples of transitive verbs

Verb	Class	Meaning	Verb	Class	Meaning
áhi	II	'choose'	hán	III	'shoot with bow'
ál	II	'take'	hatáput	III	'quieten'
apén	II	'get'	in	II	'do, build, make'
aráru	II	'gather'	íy	II	'eat'
bá	III	'lift'	kalám	I	'weed'
cát	I	'frighten'	kánol	I	'wake up'
du	III	'obey'	mát	I	'turn off'
gali	I	'help'	sóro	III	'smoke (tobacco)'

4.1.2.4 S=A ambitransitive verbs

S=A ambitransitive verbs have two uses: (1) A monovalent use, with a single core argument, a subject; (2) A bivalent use, with two core arguments, a subject and an object.

When used monovalently, the subject of an S=A ambitransitive verb occurs before the verb. This is illustrated in (15) with *mcát* 'be afraid'.

(15) **[meKéyn ne]$_S$ [namcát]$_V$** barári rani...
mé-Kéyn ne na-mcát barári rani
person-Kein ART 3SG-be.afraid too.much so
'The Kein clan were too afraid, so...' **AM135_22.02**

When used bivalently, the subject occurs before the verb, and the object occurs after the verb. The subject of the bivalent use of an S=A ambitransitive verb is equivalent to the subject of the monovalent use of the verb. This is shown in (16),

in which *mcát* 'be afraid' is used as a bivalent verb. In both (15) and (16), the frightened entity is the referent of the subject.

(16) ... **[mé** **i** **pa]$_S$** **[lamcát]$_V$** **[i]$_O$**
mé i pa la-mcát i
person NSG ART 3PL.AN-be.afraid 3SG.AN.O

'...The people were afraid of him.' **AM181_01.10**

Other examples of S=A ambitransitive verbs, along with their morphological class, are given in Table 4.9.

Table 4.9: Examples of S=A ambitransitive verbs

Verb	Class	Meaning	Verb	Class	Meaning
abáy	II	'play; play with'	kákal	IV	'be itchy; be itchy because of'
agáli	II	'dive; dive for'	kápi	I	'spit'
ánum	II	'drink'	kátut	I	'grind'
atúk	II	'lie; trick, lie to'	mágin	I	'be polite; be polite to'
bón	I	'go first; go ahead of'	márin	I	'be happy; like'
din	III	'sew'	síri	III	'go to buy goods; buy'
ém	II	'look; see'	sow	III	'fart; fart on'
gagét	IV	'be tight; be tight on'	sun	III	'enter; enter into'

4.1.2.5 S=O ambitransitive verbs

S=O ambitransitive verbs are similar to S=A ambitransitive verbs, in that they have two uses: a monovalent use with one core argument, a subject; and a bivalent use, with two core arguments, a subject and an object. Unlike S=A ambitransitive verbs, however, the subject of the monovalent use of an S=O ambitransitive verb is equivalent to the object of the bivalent use of the verb. An example of the monovalent use of the S=O ambitransitive verb *kábun* 'hide' is given in (17), and an example of the bivalent use of the same verb is given in (18).

(17) ido [ia]$_S$ [nakábun]$_V$
ido ia na-kábun
so.then 3SG.AN 3SG-hide

'So then he hid [himself].' **AM204_01.18.14**

(18)

ido	[Aliáp	a]$_S$	[nakábun]$_V$	[an]$_O$	to
ido	Aliáp	a	na-kábun	ana	to
so.then	Aliap	PERS	3SG-hide	3SG.INAN	IAM

'So then Aliap had hidden it.' **AM204_02.03**

As can be seen in (17) and (18), the thing being hidden depends on whether the verb *kábun* 'hide' is used monovalently or bivalently. If it is used monovalently, as in (17), the entity being hidden is the referent of the subject (in this case, the pronoun *ia* '3SG.AN'). If it is used bivalently, however, as in (18), the entity being hidden is the referent of the object (in this case, the pronoun *ana* '3SG.INAN').

Other examples of S=O ambitransitive verbs, along with their morphological class, are given in Table 4.10.

Table 4.10: Examples of S=O ambitransitive verbs

Verb	Class	Meaning	Verb	Class	Meaning
bá	IV	'stay behind; leave behind'	malák	I	'lie down; lie something down'
balóko	IV	'be naked; take someone's clothes off'	mán	IV	'be dry (food); dry food'
hálat	III	'be stuck; stick something'	manów	IV	'move in one spot; move something in one spot'
hón	IV	'be full; fill'	másin	IV	'be salty; salt'
kábyal	IV	'be floating; make something float'	máy	I	'be embarrassed; embarrass someone'
katarán	I	'land; land something'	mnyát	IV	'be quiet; quieten'
káwawi	I	'be hanging; hang'	teyn	III	'be soaking; soak'
kawáy	I	'turn around; turn something around'	wól	I	'be anchored; anchor'

4.1.2.6 Ditransitive verbs

Ditransitive verbs are verbs that have three core arguments: a subject, an object, and an oblique. As with other syntactic classes of verb discussed in the preceding sections, the subject precedes the verb, and the object immediately follows the verb; the oblique argument follows the object, and is introduced by *be* 'OBL'.

Examples of ditransitive verbs are given in (19) with the verb *bí* 'give', and (20) with the verb *gáin* 'name'. In both examples, the subject is omitted; the person, number, and animacy of the subject is inferrable from the inflection on the verb.

(19) antanane [Ø]$_S$ [jí]$_V$ [*kuasa*]$_O$ [be aw]$_{Obl}$ rín
antanane <y>bí kuasa be awa rín
later <1SG>give power OBL 2SG CONT
'Later I will give you power.' **AM112_05.59**

(20) *jadi* [Ø]$_S$ [nagáin]$_V$ [i]$_O$ [be Bálum a]$_{Obl}$
jadi na-gáin i be Bálum a
so 3SG-name 3SG.AN OBL Balum PERS
'So he called him Balum.' **AM157_03.09**

Only five ditransitive verbs are attested: three are verbs of transfer, and two are verbs of naming. All five verbs are given in Table 4.11.

Table 4.11: Ditransitive verbs

Verb	Meaning	Class
bí	'give to, put on'	III
gón	'promise'	I
nát	'send'	I/II[a]
gáin	'name'	I
hakámuk[b]	'name someone after someone else'	I

[a] Ambiguous between Class I and Class II (see §4.1.1.1.1)
[b] This verb is morphologically complex, derived from the noun *kámuk* 'reciprocal namesake' with the causativiser *ha-* 'CAUS' (see §4.2.1).

As mentioned several times in the preceding sections, omission is very common in Ambel. The object or oblique arguments are sometimes omitted, making it difficult to tell, without elicitation in the 'out-of-the-blue' context described above, whether a verb is transitive, extended intransitive, or ditransitive.

4.1.2.7 Verbs taking clausal complements

The final subtype of verb that can be distinguished on syntactic grounds is the group of verbs which can take a clause as an arguments. Complement clause-taking verbs will be discussed in more detail in §14.2. Preliminary examples of verbs taking clausal complements are given in (21) and (22). In (21), the verb *sasóp* 'be desperate' takes an unmarked complement clause as an argument

(headed by *tán* 'go'), whereas in (22), the verb *sól* 'order' takes as an argument a complement clause marked with the complementiser *be* 'COMPL' (headed by *ém-sap* 'look-seek').

(21) ... [ia]$_S$ [nsasóp]$_V$ [ntán]$_{CoCL}$ to
ia N-sasóp N-tán to
3SG.AN 3SG.AN-be.desperate 3SG.AN-go IAM

'[When these two spoke], he was desperate to go.' **AM135_23.05**

(22) ... [Heléna a inya wana]$_S$ [nsól]$_V$ [ine]$_O$ [be yémsap
Heléna a i-nyá wana N-sól ine be y-ém-sap
Helena PERS 3SG-mother DEF 3SG.AN-order 1SG COMPL 1SG-look-seek
kalál]$_{CoCL}$
kalál
crab

'...Helena's mother has ordered me to look for crabs.' **AM019_03.15**

4.2 Derivational verbal morphology

In Ambel, there is only one derivational prefix that attaches to verbs: the causativising prefix *ha-* 'CAUS', described in §4.2.1. However, there is evidence that an ancestor to Ambel had a larger inventory of verbal valency-changing morphology; this evidence is presented and discussed in §4.2.2.

4.2.1 *ha-* 'CAUS'

The causativiser *ha-* 'CAUS' is a valency-changing prefix. Generally, this prefix attaches to intransitive or S=A ambitransitive verbs (including one adjectival verb) to derive transitive verbs. It can also attach to nouns, to derive verbs.[13]

13. The prefix *ha-* 'CAUS' is cognate with the Ma'ya prefix *f(a)-*, which derives causative verbs (van der Leeden n.d.e: 16); the Taba valency-increasing prefix *ha-*, which derives transitive verbs from intransitive verbs, and intransitive verbs with Agent subjects from those with Undergoer subjects (Bowden 2001: 197-203); the unproductive Biak prefix *f(a)-*, which once derived verbs with 'some kind of "causative" meaning' (van den Heuvel 2006: 177-178); and, further afield, the Makassarese causative prefix *pa-* (Jukes 2006: 275-292).

This prefix is not productive. An exhaustive list of verbs derived with *ha-* 'CAUS', including the transitivity of the derived verbs, is given in Table 4.12. The word class and, where relevant, transitivity of the base is also provided.

Table 4.12: Verbs derived with *ha-* 'CAUS'

Base	**Meaning**	**Word class**	**Trans**	**Verb class**	**Derived form**	**Meaning**	**Trans**	**Verb class**
balóko	'be naked'	V	intr.	IV	ha-balóko	'take s.o.'s clothes off'	tr.	III
balúk	'be bare-chested'	V	intr.	IV	ha-balúk	'take s.o.'s shirt off'	tr.	III
kámuk	'namesake'	N	*n/a*	*n/a*	ha-kámuk	'name s.o. after s.o else'	ditr.	I
mábayn	'be empty'	V	intr.	IV	ha-mábayn	'empty'	tr.	III
málin	'be drifting'	V	intr.	IV	ha-málin	'make s.o. or s.t. drift'	tr.	III
ma~máy[a]	'embarassment'	N	*n/a*	*n/a*	ha-ma~máy	'embarrass s.o.'	tr.	III
márapo	'be wide'	V	intr.	IV	ha-márapo	'widen'	tr.	III
mári	'be hot (on)'	Adj.V	S=A	IV	ha-mári	'reheat'	tr.	III
táli	'be surprised'	V	intr.	IV	ha-táli	'surprise s.o.'	tr.	III
tálo	'egg'	N	*n/a*	*n/a*	ha-taló[b]	'lay eggs'	S=A	III
tapít	'reveal s.t.'	V	tr.	I	ha-tapít	'reveal s.t.'	tr.	III
tapyáy	'be uncovered (plate)'	V	intr.	IV	ha-tapyáy	'uncover (plate)'	tr.	I
tayúru	'be startled'	V	S=A	I/IV[c]	ha-tayúru	'startle s.o.'	tr.	III

[a] Reduplication of the S=O ambitransitive root *máy* 'be embarrassed, embarrass somone'.
[b] Note the difference in tonal specification between the root form and the derived form.
[c] Ambiguous between Class I and Class IV (see §4.1.1.2.1).

There are two points to note about the derived verbs in Table 4.12. First, the semantics of some of the forms derived from a verbal root are predictable from the semantics of the root, such that the meaning of a prefixed form *ha-X* 'CAUS-X' is 'cause someone or something to X'. For example, adding the prefix *ha-* 'CAUS' to the root *tapyáy* 'be uncovered (plate)' gives the derived form *ha-tapyáy*, the meaning of which is 'uncover a plate, i.e. cause a plate to be uncovered'. However, in some cases, the meaning of the derived form is lexicalised; for example, when *mári* 'be hot (on)' takes *ha-* 'CAUS', the meaning of the derived form *ha-mári* is 'reheat', rather than the expected 'make something hot'. Another form to note is the root *tapít* 'reveal something'. The prefixed form has the same transitivity and meaning as the unprefixed form; I could not elicit any distinction between the prefixed and the unprefixed forms.

The second point to note is that, while most of the derived verbs are Class III, there are two derived forms – *ha-kámuk* 'name someone for someone else' and *ha-tapyáy* 'uncover a plate' – which are Class I. As was shown in §4.1.1.1, Class I morphology is the only open verb class; the variation in the class suggests that verbs derived with *ha-* 'CAUS' may have originally been Class III, but are now being reanalysed as Class I verbs.

There are many /ha/-initial verbal roots in Ambel which are not included in Table 4.12. This is because the non-/ha/ material is not attested independently; it is thus not possible to tell whether these verbs include the prefix *ha-* 'CAUS', or whether the /ha/ element is a coincidence. As most of the derived verbs in Table 4.12 are transitive, some transitive /ha/-initial verbs may well have been derived using the *ha-* 'CAUS' prefix. All attested /ha/-initial verbs are given in Table 4.13, organised by transitivity.

Table 4.13: All other /ha/-initial verb roots, organised by transitivity

Intransitive			**Transitive**		
habru	III	'be half full'	haraway	III	'mix'
halapyát	III	'be horizontal'	hagonóm	III	'add'
háwa	IV	'be vengeful'	hakáyt	III	'coax'
Extended intransitive			hakóp	III	'turn plate over'
hakúr	III	'admonish'	hatanún[c]	III	'be siblings with'
hatanáw	III	'advise'	halásu	III	'make s.t. slant'
S=A ambitransitive			hamánkor	III	'decorate'
hahúlu	I	'be confused (because of)'	hán	I/II[a]	'feed'
hankárin	III	'give birth (to)'	hanandér	I	'forget'
hanát	I/II[a]	'go looking for war'	haním	III	'watch'
haranáw	III	'make a noise (at)'	hantán	I	'describe'
harárur	III	'work, repair'	hatáput	III	'make quiet'
hárit	IV	'be near'	hawi	III	'be used to'
hasál[b]	IV	'be different'	háwisi	III	'take leave of s.o.'
S=O ambitransitive			háwre	III	'replace'
háryan	III	'move'			
hálat	III	'be stuck; stick'			
háta	I/II[a]	'be located; place'			

[a] Ambiguous between Class I and Class II (see §4.1.1.1.1).
[b] Possibly contains the element *sál* 'be wrong'.
[c] Probably contains the element *nú* 'same-sex sibling'.

4.2.2 Fossilised prefixes

One striking thing about the verbal lexicon of Ambel is the number of roots beginning with /ma/ (or /mC/), /ta/, or /ka/.[14] In the following sections, the syntax and semantics of these verbs will be examined. I will argue that these elements are relics of earlier valency-changing prefixes. In §4.2.2.1, I discuss /m(a)/-initial verbs, which appear to contain the relics of a fossilised valency-reducing prefix; in §4.2.2.2 I discuss /ta/- and /ka/-initial verbs, which appear to contain the relics of fossilised prefixes marking inchoative/stative verbs, and causative verbs, respectively.

4.2.2.1 /m(a)/-initial verbs

There are many verb roots in Ambel that are /ma/ or /mC/-initial (henceforth: /m(a)/-initial). Most of these verbs are intransitive or S=A ambitransitive, and the vast majority of them refer to properties, states, or human perceptions. In this section, I will argue that the /m(a)/ element in these verbs is a now-fossilised reflex of the proto-Malayo-Polynesian prefix **ma-*, which had a valency-decreasing function (Evans and Ross 2001).

Let us begin with an examination of /m(a)/-initial verbs which have non-/m(a)/-initial counterparts. Only two such verbs are attested: these are given in Table 4.14.

Table 4.14: /m(a)-initial roots with non-/m(a)/-initial counterparts

/m(a)-/initial			**non-/m(a)/-initial**		
Root	Trans	Meaning	Root	Trans	Meaning
mcát	S=A	'be frightened, be afraid of'	cát	tr.	'frighten'
mabót	intr.	'be sweaty, be covered in condensation'	bót	tr.	'boil'

For both of the pairs in Table 4.14, the /m(a)/-initial verb has lower transitivity than the non-prefixed root: while *cát* 'frighten' and *bót* 'boil' are both transitive

14. By /mC/, I mean /m/ followed by any consonant. Verbs that begin with /mV/, where /V/ is any vowel except /a/, are not relevant to this discussion. As the development of tone in Ambel is not at present understood, the presence or absence of lexical /H/ tone on the /m(a)/, /ta/, and /ka/ elements will not be taken into consideration in these sections.

verbs, *mcát* 'be frightened, be afraid of' is S=A ambitransitive, and *-mabót* 'be sweaty' is intransitive. This suggests that the /m(a)/ element once had a valency-decreasing function. In addition, there is a clear semantic link between *mcát* 'be frightened, be afraid of' and *cát* 'frighten': *mcát* 'be frightened, be afraid of' is the state arising from the action *cát* 'frighten'. This provides further evidence that *mcát* was derived from *cát*. The semantic relationship between *mabót* 'be sweaty, be covered in condensation' and *bót* 'boil' is less clear; the common link may be the relationship between *bót* 'boil' and the 'be covered in condensation' meaning of *mabót*, both of which involve water in a gaseous state. Alternatively, it is possible that these verbs are not historically related, and are similar by chance.

No other /m(a)/-initial verbs in Ambel have a non-/m(a)/-initial counterpart. The remaining /m(a)/-initial verbs generally belong to one of three main semantic domains: (1) Verbs denoting states and properties; (2) Verbs denoting human feelings and perceptions; (3) Verbs referring to a change in state. There are also a handful of /m(a)/-initial verbs that refer to the semantic field of destruction, and three /m(a)/-initial transitive verbs with disparate meanings.

Table 4.15 gives some examples of /m(a)/-initial verbal roots which refer to states or properties. As can be seen from this table, the majority of these verbs are intransitive; there are also some S=O ambitransitive verbs (e.g. *mnyát* 'be quiet; quieten'), and some S=A ambitransitive verbs (e.g. *mági* 'glow; shine glowing light on'). Those verbs which belong to the subclass of adjectival verbs are also indicated in Table 4.15 (e.g. *mahá* 'grey'; *máre* 'ripe'). Out of the 21 adjectival verbs in Ambel, ten are /m(a)/-initial.

Examples of /m(a)/-initial verbs referring to human experience and perception are given in Table 4.16. Once again, the /m(a)/-initial verbs in Table 4.16 are mainly intransitive, or S=A ambitransitive. There is one exception: the verb *maroków* 'scold' is transitive.

The verbs in Table 4.16 can all take an animate subject. There are also /m(a)/-initial verbs that refer to human experience and perception, but which can only occur in verbal clauses expressing sense and emotion, which take a human body part (most often *nyái* 'belly') as their subject (see §8.2.1.4). These roots are given in Table 4.17. In this table, only *malaí* 'be bored, be bored of' is transitive. The remaining verbs are intransitive.[15]

15. The roots *malá* 'be blind', *másil* 'be hungry', and *matón* 'be full (not hungry)' are only attested in sense and emotion clauses. The roots *malaí* 'be bored of', *mári* 'be angry', and *mtow* 'be brave',

Table 4.15: Examples of /m(a)/-initial verbs referring to states or properties

Root	Word class	Trans	Meaning	Root	Word class	Trans	Meaning
mábu	Adj.V	S=O	'be many; make many'	mági	V	S=A	'glow; glow on'
mahá	Adj.V	intr.	'grey'	maláw	Adj.V	intr.	'green'
mále	Adj.V	intr.	'sweet '	malélen	Adj.V	intr.	'be multicoloured'
mamón	V	intr.	'be deep'	mán	V	S=O	'be dry (food); dry (food)'
máne	V	intr.	'be tall'	máni	Adj.V	intr.	'yellow'
márapo	V	intr.	'be wide'	marasé	V	intr.	'be slippery'
marási	V	intr.	'be thin (not thick)'	máre	Adj.V	intr.	'ripe'
marúr	Adj.V	intr.	'brown'	masén	V	S=A	'be itchy; be itchy on'
matáli	V	intr.	'be fatty (meat)'	matálo	V	intr.	'be thick'
matém	Adj.V	intr.	'black'	máy	Adj.V	intr.	'cooked'
mnát	V	intr.	'be strong (of objects)'	mnyát	V	S=O	'be quiet; quieten'
mnyó	V	intr.	'be soft'	mtow	V	intr.	'be tough, hard'

Table 4.16: Examples of /m(a)/-initial verb roots referring to human experience and perception

Root	Trans	Meaning	Root	Trans	Meaning
mabyála	intr.	'be paralysed'	magín	S=A	'be polite to'
mánun	intr.	'groan while feverish'	márin	S=A	'be happy; like'
maroków	tr.	'scold'	mcát	S=A	'be afraid (of)'
mnyál	S=A	'dream; dream about'	mnyáran	S=A	'be diligent; be enthusiastic about'
msúy	intr.	'be cold'	mtólon	intr.	'have integrity'

Table 4.17: /m(a)/-initial verb roots referring to human experience and perception, attested in body part predicates

Root	Trans	Meaning	Root	Trans	Meaning
malá	intr.	'be blind'	malaí	tr.	'be bored of'
másil	intr.	'be hungry'	matón	intr.	'be full (not hungry)'
mári	intr.	'be angry'	mtow	intr.	'be brave'

The third main group of /m(a)/-initial verbs refer to changes of state. An exhaustive list of these verbs is given in Table 4.18. All of the roots in Table 4.18 are intransitive, with the exception of *manów* 'move in one spot; make something move in one spot', which is S=O ambitransitive.

Table 4.18: /m(a)/-initial verb roots referring to changes of state

Root	Trans	Meaning	Root	Trans	Meaning
magaláy	intr.	'be withered, wither'	majúrun	intr.	'be sinking, drowning'
mámbayn	intr.	'be empty'	manów	S=O	'move in one spot; make s.t. move in one spot'

Finally, there are a handful of /m(a)/-initial transitive verbs. These verbs have no obvious semantic link, either with any of the other /m(a)/-initial verbs discussed above, or with each other. It is probably a coincidence that these verbs contain the element /m(a)/; i.e., the element /m(a)/ may not reflect a historical prefix. Nevertheless, for the sake of completeness, these verbs are given in Table 4.19. These roots are not discussed further in this section.[16]

Table 4.19: Other attested /m(a)/-initial verbs

Root	Trans	Meaning	Root	Trans	Meaning
manjá	tr.	'spoil (e.g. a child)'	mágasa	tr.	'salt (e.g. fish)'
malák	tr.	'lie something down'			

In summary, most of the /m(a)/-initial verbs that belong to three semantic categories discussed above are intransitive; S=A ambitransitive verbs are the next most frequently attested, followed by S=O ambitransitive verbs. Only two /m(a)/-initial verbs in these semantic categories are transitive (*maroków* 'scold', and *malaí* 'be bored of'). The element /m(a)/ is thus typically associated with verbs

however, are attested elsewhere. In all three cases, the verb denotes a property: *malaí* 'be bland', *mári* 'be hot, be spicy', *mtow* 'be tough'. It is likely that these three verbs are used in sense and emotion clauses through metaphorical extension.

16. There are some verbs that are listed as /m(a)/-initial in the wordlist in Appendix E, such as *másí* 'be tickled; tickle', which are not included in Table 4.19. This is because these roots are ambiguous between Class I and Class II (§4.1.1.1.1), and thus may be V-initial, rather than /m(a)/-initial.

with low transitivity, and is likely a relic of a formerly productive valency-reducing prefix **ma-*.

A verbal prefix *m(a)-* has been described in other SHWNG languages. In Biak, for example, many verbs referring to changes of state, sentience, and properties are *m(a)-*initial (van den Heuvel 2006: 172–175). In Taba, a large number of Undergoer intransitive verbs begin with *m(a)-* (Bowden 2001: 224–226). Finally, in Sawai, there is a fossilised prefix *m-*, which occurs on stative verbs with adjectival qualities (Whisler 1996: 22). Both Bowden and van den Heuvel conclude that there was, at some stage in the histories of these languages, a productive prefix **ma-*, but that it is no longer productive in the present-day languages.

Further afield, Evans (2003: 268–279) reconstructs a prefix **ma-* to proto-Oceanic, the sister of proto-SHWNG. Based on data from many Oceanic languages, Evans reconstructs two main functions of **ma-*: (1) a 'semi-productive valency-reducing prefix', which derived intransitive verbs from transitive verbs; (2) a prefix found on some Undergoer subject verbs referring to properties, 'but with no clear derivational meaning' (p. 279). Evans links proto-Oceanic **ma-* to proto-Malayo-Polynesian (PMP) **ma-*, which also had two functions: (1) deriving verbs with an accomplishment meaning from roots which denoted processes; (2) a prefix on Undergoer subject verbs referring to properties (Evans and Ross 2001).

The parallels between the semantics of many /m(a)/-initial verbs in Ambel and the second reconstructed function of PMP **ma-* in particular is clear. PMP **ma-* was used to derive verbs with an Undergoer subject that refer to properties, and many /m(a)/-initial verbs in Ambel (particularly those in Tables 4.14, 4.15, 4.16, and 4.17) take an Undergoer subject. The element /m(a)/ in most /m(a)/-initial verbs in Ambel is probably a relic of the PMP **ma-*.

4.2.2.2 /ta/- and /ka/-initial verbs

In this section, /ta/- and /ka/-initial verbs are discussed. Like the /m(a)/-initial verbs discussed in the previous section, many /ta/-initial verbs are intransitive. These /ta/-initial verbs are often inchoative verbs, or verbs denoting states. Verbs which are /ka/-initial, on the other hand, tend to be transitive, denoting a causative action or process. The data suggest that the element /ta/ is a relic of a prefix that once marked inchoative and stative verbs, and that /ka/ is the relic

of a prefix that once marked causative verbs (see Haspelmath 1993 for more on inchoative/causative expression).

There are several pairs of verbs that are attested in the corpus, where one verb is /ta/-initial and the other is /ka/-initial. These verb pairs are given in Table 4.20. For these pairs, there is a clear semantic relationship between each member: whereas the /ta/-initial verbs are inchoative, in that they refer to a situation or a state without reference to an entity that brought about this state or situation, the /ka/-initial counterparts are causative, in that they refer to an Agent who has caused a state or situation. In terms of transitivity, whereas all of the /ta/-initial verbs are intransitive, the /ka/-initial verbs are all transitive.[17]

Table 4.20: Inchoative /ta/-initial verbs with causative /ka/-initial counterparts

/ta-/initial			**/ka/-initial**		
Root	Trans	Meaning	Root	Trans	Meaning
táho	intr.	'be squeezed (fruit)'	káho	tr.	'squeeze (fruit)'
tájiw	intr.	'be pierced'	kájiw	tr.	'pierce'
tamára	intr.	'be torn, tear'	kamára	tr.	'tear'
támje	intr.	'be broken, break'	kámje	tr.	'break'
támtu	intr.	'be broken off, break off'	kámtu	tr.	'break off'
tamyúgum	intr.	'be smashed up'	kamúgum	tr.	'smash up'
tapáw	intr.	'be smashed, smash'	kapáw	tr.	'chop, smash'
tasárak	intr.	'be torn, tear'	kasárak	tr.	'tear'
taéloy	intr.	'be rolling, roll'	kaéloy	tr.	'roll'
tapyów	intr.	'be open, open'	kapów	tr.	'open'
taséke	intr.	'be flat'	kaséke	tr.	'flatten'
tari	intr.	'be spilt, spill'	kari	tr.	'pour, spill'

There is no attestation of a non-/ta/- or /ka/-initial counterpart for any of the verbs in Table 4.20. As non-/ta/- or /ka/-initial counterparts are not attested, it is hard to tell what the meaning of the root would be without /ta/ or /ka/; it is thus impossible to identify what the precise functions of the elements /ta/ and /ka/ were. However, the syntax and semantics of these causative/inchoative pairs strongly suggest that, historically, /ta/ marked inchoative verbs, and /ka/ marked causative verbs.

17. The presence of *y* in the roots *tam**y**úgum* 'be smashed up' and *tap**y**ów* 'be open', and its absence in the equivalent /ka/-initial roots *kamúgum* 'smash up' and *kapów* 'open' is unexplained.

There are also some /ta/- and /ka/-initial verbs which have non-/ta/- or /ka/-initial counterparts. There is only one /ta/-initial verb which (possibly) has a non-/ta/-initial counterpart: *tabón* 'wait (for someone or something to arrive)', and *bón* 'go first, go ahead of'.[18]

There are three, possibly four, attestations of /ka/-initial verbs that have non-/ka/-initial counterparts. These verbs are given in Table 4.21.

Table 4.21: /ka/-initial verbs with non-/ka/-initial counterparts

/ka/-initial			**non-/ka/-initial**		
Root	Trans	Meaning	Root	Trans	Meaning
kabúluy	tr.	'twist, spin'	búluy[a]	tr.	'roll in flat of palm'
kadókow	S=A	'pierce'	dókow	intr.	'be holey'
? kárin	S=A	'sew'	din	S=A	'sew'
kátut	S=A	'grind'	tut	S=A	'grind'

[a] Probably cognate with Matbat *sapu*^{41}*lu*^{12}*y* 'round' (Remijsen 2015: 39).

The /ka/-initial verbs and their non-/ka/-initial counterparts in Table 4.21 provide a mixed picture. Regarding the pair *tut*/*kátut* 'grind', for example, there is apparently no difference in terms of meaning or transitivity between the /ka/-initial and non-/ka/-initial forms. It is unclear whether *din* and *kárin* 'sew' are related to one another through historical prefixation (note that this would also involve the sporadic sound change **d* > *r* for *kárin* 'sew'); if they are, both are S=A ambitransitive verbs. The only semantic or syntactic difference that I was able to elicit between the two is that *din* is more archaic than *kárin*. Both *búluy* 'roll in flat of palm' and *kabúluy* 'twist, spin' are transitive verbs. The semantic difference between these two verbs is lexicalised, such that the semantic contribution from a

18. The semantic connection between the verbs *tabón* 'wait (for someone or something to arrive)' and *bón* 'go first' is tenuous, but can be made. For example, when travelling together, one party may leave first, and then wait for the other party to arrive at the destination. However, the contribution of /ta/ here is less clear than in the causative/inchoative pairs given in Table 4.20 above. While *tabón* 'wait' is a transitive verb, *bón* 'go first, go ahead of' is an S=A ambitransitive verb; the former has a higher transitivity than the latter. In comparison with the /ta/-initial verbs in Table 4.20, this is unusual: all of the /ta/-initial verbs in Table 4.20 are intransitive. In addition, unlike the /ta/-initial verbs in Table 4.20, *tabón* 'wait' is not inchoative. One explanation for these semantic and syntactic differences between *tabón* 'wait' and the /ta/-initial verbs given in Table 4.20 is that the verb *tabón* 'wait', if at one stage it was morphologically complex, has subsequently undergone a semantic shift and a change in transitivity; or that *tabón* 'wait' and *bón* 'go first, go ahead of' are not related through historical prefixation, and are similar only by chance.

historical prefix **ka-* is not clear. However, the contribution **ka-* to the pair *dókow* 'be holey' and *kadókow* 'make holes in' is clear: whereas the root *dókow* 'be holey' refers to a state, *kadókow* 'make holes in' denotes the action that would lead to this state.

There are many more examples of /ta/- and /ka/-initial verbs, which have neither a /ta/- or /ka/-initial counterpart, nor a non-/ta/- or /ka/-initial counterpart. For these verbs, it is not possible to see whether the element /ta/ or /ka/ is a relic of a former valency-changing prefix, or whether it is just coincidence that these verbs contain these elements. Nevertheless, the transitivity and meanings of some of these verbs suggest that at least some of them may have once been morphologically complex. Some /ta/-initial incoative and stative verbs are given in Table 4.22, and some examples of /ka/-initial verbs referring to actions or processes causing a state are given in Table 4.23.

Table 4.22: /ta/-initial verbs referring to outcomes of changes of state with no /ka/-initial or non-/ta/-initial counterpart

Root	**Trans**	**Meaning**	**Root**	**Trans**	**Meaning**
tágalulun	S=O	'be rolled, curl; roll, curl s.t.'	táju	S=A	'be sore, be sore because of'
tamtém	intr.	'be closed'	tapyá	intr.	'be uprooted (plant)'
tapyáy	intr.	'be uncovered (plate)'	tápi	intr.	'come off'
tapyól	intr.	'come unstuck'	tasíw	intr.	'fall down, be fallen down'

Once again, Table 4.22 shows that /ta/-initial verbs referring to outcomes of changes of state are generally intransitive (with one attestation of an S=O ambitransitive /ta/-initial root, *tágalulun* 'be rolled, curl; roll or curl something', and one attestation of an S=A ambitransitive /ta/-initial root, *táju* 'be sore, be sore because of'). Similarly, the /ka/-initial verbs referring to actions or processes that result in a change of state given in Table 4.23 are generally transitive (with one attestation of an S=A ambitransitive /ka/-initial root, *kahótol* 'squeeze, strangle').

In summary, the data presented in this section suggest that /ta/-initial verbs contain a relic of a formerly productive prefix **ta-*, used to mark inchoative and stative verbs, and that /ka/-initial verbs contain a relic of a formerly productive prefix **ka-*, used to mark causative verbs. This observation

Table 4.23: /ka/-initial verbs referring to actions or process that lead to changes of state, with no /ta/-initial or non-/ka/-initial counterpart

Root	Trans	Meaning	Root	Trans	Meaning
kabénet	tr.	'close'	káho	tr.	'squeeze fruit'
kahótol	S=A	'squeeze, strangle'	kalám	tr.	'clear garden'
kálet	tr.	'open shellfish'	kálu	tr.	'fold mat'
kapák	tr.	'open bag'	kápaw	tr.	'cover food'
kápe	tr.	'split open sago grub'	kapé	tr.	'split firewood'
kapíl	tr.	'roast, chargrill'	kápla	tr.	'fry'
kapón[a]	tr.	'close lid'	kásu	tr.	'peel with knife'

[a] Perhaps historically derived from the nominal root *pón* 'top (of something)'.

is supported by data from other SHWNG languages, and reconstructions of proto-Oceanic morphology. Beginning with the proto-Oceanic reconstructions, Evans reconstructs a proto-Oceanic prefix **ta-* (2003: 279–299). The function Evans reconstructs for the prefix **ta-* is similar to that of **ma-*, discussed in the previous section, in that both **ta-* and **ma-* derive intransitive verbs with an Undergoer subject. However, whereas **ma-* derives intransitive verbs with an Undergoer subject from transitive verbs (as well as intransitive Undergoer verbs denoting stativity), **ta-* derives intransitive Undergoer verbs from other intransitive verbs, with the added function of indicating '...that the event or state denoted by the verb was spontaneous or non-controlled' (2003: 300).

Similar forms with similar functions are described in Biak and Taba. In Taba, there is a productive detransitivising prefix *ta-*, which derives agentless intransitive Undergoer verbs from either transitive verbs or intransitive Actor verbs (Bowden 2001: 218–222). In Sawai, there a prefix *te-*, which forms what Whisler refers to as a "type of agentless passive"' (1996: 24). In Biak, the prefix *k(a)-* corresponds to the proto-Oceanic form **ta-* (van den Heuvel 2006: 175–177). This prefix is not productive in Biak. While the former function of Biak *k(a)-* is not always clear, van den Heuvel suggests that the primary function of *k(a)-* was '...to form "Undergoer verbs" whose sole argument undergoes a change of state' (2006:177). Owing to the similarity in terms of form and function, the valency-reducing prefix **ta-*, reconstructed on the basis of the Ambel data, is

probably related to the proto-Oceanic **ta-*, the Taba prefix *ta-*, the Sawai prefix *te-*, and the Biak prefix *k(a)-*.

Relating the reconstructed valency-increasing **ka-* prefix to similar prefixes in other languages, however, is a little more tricky. In proto-Oceanic, Evans reconstructs two causativising prefixes, *pa-* and *paka-*. Evans suggest that the difference between the two may have once been that **pa-* was used with verbs that take an Actor subject, whereas **paka-* was used with Undergoer verbs, but that this distinction was lost at some point before proto-Oceanic (2003: 266). It may be that /ka/-initial verbs in Ambel contain an element that is historically related to the second syllable of the proto-Oceanic valency-increasing prefix **paka-*.

Chapter 5

The noun

The criteria for defining a noun were given in §3.2. In this chapter, the noun will be looked at in more detail. In §5.1, the morphological structure of nouns, and strategies for deriving nouns, will be discussed. As introduced above, Ambel has three different systems for classifying the nominal inventory: in a noun class (gender) system; in the possessive system; and in a system of numeral classification. Possessive classification will be discussed in Chapter 7, in the chapter on possession, and numeral classification was discussed in §3.8.1.1. The noun class system, which is based on animacy, is discussed in this chapter, in §5.2. Finally, in §5.3, evidence for some now-fossilised noun classifiers is presented.

5.1 Noun derivation

Most noun stems in Ambel are morphologically simplex. Some examples of simplex nouns are given in Table 5.1.

The rest of this section will be dedicated to discussing morphologically complex nouns. There are three morphological processes that derive nouns: reduplication, discussed in §5.1.1; the nominalising prefix *a-* 'NMLZ', discussed in §5.1.2; and nominal compounding, discussed in §5.1.3.

5.1.1 Reduplication

The morphophonemics of reduplication were discussed in §2.5.3. In that section, the nominalising function of the two types of partial reduplication

Table 5.1: Morphologically simplex nouns

Noun	Meaning	Noun	Meaning
baw	'great-great-grandchild; great-great grandparent'	bin	'woman'
bít	'side (of something)'	dá	'smoking platform'
kabóm	'bone'	kái	'head'
kamú	'different generation in-law'	mú	'low tide'
now	'house'	sáklit	'rainbow lorikeet'
tábyu	'grandchild; grandparent'	támaka	'watermelon'
tánu	'arrow'	wálut	'sea'
waméres	'south-west wind'	yám	'needle'

(C(a)-reduplication and CaC-(<y>-)reduplication) was introduced.[1] In this section, this function will be looked at in more detail.

An exhaustive list of nouns derived using C(a)-reduplication, organised by function, is given in Table 5.2. This table shows that the meaning of nouns derived (or historically derived) through C(a)-reduplication is connected with the verbal root in one of four ways: (1) A state, action, or property linked to the root; (2) The Undergoer of the predicatively-used root; (3) The Agent of the predicatively-used root; (4) The Instrument of the predicatively-used root. For some of the reduplicated forms in Table 5.2, the meaning is somewhat lexicalised; for example, the reduplicated noun derived from the verb root *báp* 'carry s.t. over shoulders', *ba~báp*, refers specifically to a child who enjoys being carried over the shoulders (rather than to any entity that is carried over the shoulders). The reduplicated form *ba~béw* 'poison (n.)' is the only example in the corpus of C(a)-reduplication referring to the Instrument of the original root.[2]

The other type of reduplication that derives nouns is CaC-(<y>-) reduplication. CaC-(<y>-)reduplication is even less frequently attested than C(a)-reduplication. Only four nouns derived with this kind of reduplication are attested. These nouns, along with information about the verbs from which they are derived, are given in Table 5.3.

As was discussed in §2.5.3, it is unclear whether CaC-(<y>)- reduplication was ever a productive process in Ambel, and that the forms in Table 5.3 are relics

1. In §2.5.3, CaC-(<y>-)reduplication was referred to as 'CaC-(<j>-)reduplication'.
2. Instrument nouns derived through reduplication are also rare in Biak (van den Heuvel 2006: 273); in Taba, however, this function of reduplication is very productive (Bowden 2001: 174–177).

Table 5.2: Nouns derived from verbs through C(a)-reduplication, organised by function

Root				Derived noun	
Verb	**Class**	**Trans**	**Meaning**	**Noun**	**Meaning**
State, action, property					
bun	III	tr.	'punch (v.), kill'	bá~bun	'punch (n.); murder; war'
hán	III	tr.	'shoot with bow'	ha~hán	'bow shot'
hey	III	intr.	'be alive'	há~hey	'life'
hey	III	intr.	'be good'	há~hey	'goodness'
kút	I	tr.	'cut'	ka~kút	'piece; decision'
mát	III	intr.	'die'	ma~mát	'death'
máy	I	S=O	'be embarrassed; embarrass'	ma~máy	'embarrassment'
sák	III	S=A	'bite (v.)'	sa~sák	'bite (n.)'
tubúl	III	tr.	'reply (v.)'	ta~tabúl	'reply (n.)'
Undergoer of predicatively-used root					
akáy	II	S=A	'write'	k~akáy	'writing'
báp	III	tr.	'carry over shoulders'	ba~báp	'child who enjoys being carried over shoulders'
sáw	III	tr.	'hold'	sa~sáw	'thing that is held'
sél	III	tr.	'tie'	sa~sél	'knot'
síri	III	S=A	'buy'	sa~síri	'thing that is bought'
Agent of predicatively-used root					
du	III	tr.	'obey'	dá~du	'person who obeys'
sin	III	S=A	'receive'	sá~sin	'recipient'
sów	III	tr.	'wash'	sa~sów	'person who washes'
Instrument of predicatively-used root					
béw	I	S=O	'poison; be poisoned by'	ba~béw	'poison (n.)'

Table 5.3: Nouns derived from verbs through CaC-(<y>-)-reduplication

Root				Derived noun	
Verb	**Class**	**Trans**	**Meaning**	**Noun**	**Meaning**
tán	III	intr.	'go, walk'	tan~t<y>án	'journey'
tén	III	tr.	'share (v.)'	tan~t<y>én	'share (n.)'
sun	III	S=A	'enter'	sán~sun	'clothes'
sóm	III	tr.	'respect (n.)'	sam~sóm	'respect (n.)'

of this process; or whether the apparently reduplicated forms in Table 5.3 are in fact more recent borrowings, for example from Ma'ya or Biak.[3] Nevertheless, it is worth noting that three of these nominalised forms, *tan~t<y>án* 'journey', *tan~t<y>én* 'share (n.)', and *sam~sóm* 'respect' are examples of a noun reflecting a state, action, or property linked to the semantics of the verbal root. The form *sán~sun* 'clothes', on the other hand, is an example of Undergoer nominalisation, with some lexicalisation of meaning, in the sense that one 'enters' one's clothes (the verb *sun* 'enter' can be used transitively to mean 'put on clothes').[4]

5.1.2 *a-* 'NMLZ'

There is a nominalising prefix *a-* 'NMLZ', which attaches to Class I, III, and IV verb roots, to derive nouns.[5] This prefix is not productive. An exhaustive list of nouns derived with *a-* 'NMLZ', along with information about the class and the transitivity of the verbal root, is given in Table 5.4.

The number of nouns derived through *a-* 'NMLZ' prefixation is too small to make any firm generalisations about the semantic relationship between the derived noun and its root. However, as can be seen from Table 5.4, nearly all of the derived nouns refer to some state or action associated with the verbal root. The exception to this tendency is the noun *a-cát* 'person who is in the habit of frightening others', where the derived noun refers to the Agent of the verbal root. For two of the derived nouns, the nominalising prefix is specified with /H/ tone, viz. *á-gon* 'promise' and *á-sow* 'fart'. The reason for this is unclear.

3. In a recent online discussion between Antoinette Schapper, Emily Gasser, David Gil, David Kamholz, and myself, we speculated that the presence of *sánsun*-lookalikes meaning 'clothes' or 'trousers' in many SHWNG languages and some Papuan languages spoken on the Bird's Head may have been borrowings from Biak (pers. comm. August 2017).

4. This polysemy is also attested in Biak; see van den Heuvel (2006: 273).

5. It is possible that some Class II roots are also nominalised with *a-* 'NMLZ'. However, most Class II verbs are /a/-initial. Thus, if *a-* 'NMLZ' attached to an /a/-initial Class II root, vowel hiatus resolution, described in §2.4.5.1, would mean that the prefix would not be realised. The prefix *a-* 'NMLZ' does not attach to any non-/a/-initial Class II verb (such as *ém* 'see', *íy* 'eat', or *ól* 'stand').

Table 5.4: Nouns derived from verbs with prefixation of *a-* 'NMLZ'

Root				Derived noun	
Verb	**Class**	**Trans**	**Meaning**	**Noun**	**Meaning**
cát	I	tr.	'frighten'	a-cát	'person who habitually frightens others'
cúbun	I	tr.	'send for s.o. or s.t.'	a-cúbun	'message sending for s.o. or s.t.'
gága	I	S=A	'shout; shout to s.o.'	a-gága	'shout (n.)'
gali	I	tr.	'help (v.)'	a-gali	'help (n.)'
gón	I	tr.	'promise (v.)'	á-gon	'promise (n.)'
mdól	IV	intr.	'fall (v.)'	a-mdól	'fall (n.)'
mnów	IV	S=A	'be clear'	a-mnów	'clarity'
mnyé	IV	S=A	'be bright; brighten'	a-mnyé	'dawn'
rúku	I	tr.	'chase (v.)'	a-rúku	'chase (n.)'
rúkun	I	tr.	'oppose, fight'	a-rúkun	'fight (n.)'
rún	I	tr.	'attack (v.)'	a-rún	'attack (n.)'
sól	III	tr.	'order (v.)'	a-sól	'order (n.)'
sow	III	S=A	'fart; fart on'	á-sow	'fart (n.)'

5.1.3 Nominal compounding

A final strategy to derive nouns is through compounding. Nominal compounds are single phonological words that are derived through the combination of two lexical roots. Nominal compounds function as heads of NPs.[6]

Nominal compounds can be left-headed, right-headed, or exocentric, depending on the syntactic and semantic head of the compound. For left-headed compounds, the left-hand element is the head of the compound, in that it determines the word class, as well as the overall meaning, of the compound. Right-headed compounds, on the other hand, are compounds in which the right-hand element determines the word class and overall semantics of the compound. Exocentric compounds are those for which neither of the elements can be said to be either the syntactic or semantic head. Examples of left-headed, right-headed, and exocentric compounds are given in (1)–(4).

6. This function distinguishes nominal compounds from complex verbs, described in Chapter 13, many of which are also single phonological words derived through the combination of two lexical roots. Verbal compounds, however, function as verbal predicates.

(1) Left-headed $[\text{N-N}]_{\text{N}}$ compound:

e.g. *labut-tási* 'algae'
moss-salt.water

(2) Left-headed $[\text{N-V}]_{\text{N}}$ compound:

e.g. *met-harárur* 'sorceror'
person-work

(3) Right-headed $[\text{N-N}]_{\text{N}}$ compound:

e.g. *kapéket-lo* 'marsh'
puddle-place

(4) Exocentric $[\text{N-N}]_{\text{N}}$ compound:

e.g. *now-kabóm* 'kind of gecko that lives indoors'
house-bone

Examples (1) and (2) show that, if the compound is left-headed, the right-hand root may be either a noun, as in (1), or a verb, as in (2). For right-headed and exocentric compounds, exemplified in (3) and (4) respectively, only noun-noun compounds are attested.

In the following sections, I discuss the different kinds of compound, organised by headedness. Left-headed $[\text{N-N}]_{\text{N}}$ and $[\text{N-V}]_{\text{N}}$ compounds are discussed in §5.1.3.1, right-headed $[\text{N-N}]_{\text{N}}$ compounds are discussed in §5.1.3.2, and exocentric $[\text{N-N}]_{\text{N}}$ compounds are discussed in §5.1.3.3.

5.1.3.1 Left-headed compounds

The syntactic and semantic headedness of left-headed compounds is illustrated by the compound *met-kapów* [person-open] 'guard'. In this compound, the left-hand element *mét* 'person' is both the semantic head, in that it presents the general meaning of the compound (a *met-kapów* 'guard' is a kind of *mét* 'person'), and the syntactic head, in that both *mét* 'person' and the compound *met-kapów* 'guard' are nouns, whereas the right-hand element *kapów* 'open' is a verb. For many of the left-headed compounds in the corpus, the meaning of the compound is transparent, e.g. *mo-mú* 'low tide' (*mo* 'current, tide' + *mú* 'low tide'); for some, however, the meaning of the compound is not decomposable from the meaning

of the constituent elements, e.g. *ay-li* 'frame of house' (*áy* 'wood' + *li* 'outside'). In the following sections, I discuss in turn left-headed $[\text{N-N}]_{\text{N}}$ and $[\text{N-V}]_{\text{N}}$ nominal compounds.

5.1.3.1.1 Left-headed $[\text{N-N}]_{\text{N}}$ compounds

Some examples of left-headed $[\text{N-N}]_{\text{N}}$ compounds are given in Table 5.5. With regards to the suprasegmental phonology, this table shows that, while these compounds are syntactically and semantically left-headed, prosodically, they are right-headed, in that the tonal specification is taken from the root on the right. In other words, any tonal specification on the left-hand root is not reflected in the compound. Thus, in a compound such as *katili-áy* 'cassava', formed of the roots *katíli* 'tuber' and *áy* 'wood', only the /H/ of the second root *áy* 'wood' is realised on the compound (rather than **katíli-ay*, if only the /H/ of the first root were realised, or **katíli-áy*, if the /H/s of both roots were realised). Similarly, in a compound such as *ay-li* 'frame of house', formed of the /H/-toned root *áy* 'wood' and the toneless root *li* 'outside', the compound is also toneless.[7]

All of the roots used to derive the compounds given in Table 5.5 are independently attested, i.e. can occur as independent nouns. There are some $[\text{N-N}]_{\text{N}}$ compounds, however, for which the right-hand root is not independently attested. Some examples are given in Table 5.6.

There are two attestations of left-headed $[\text{N-N}]_{\text{N}}$ compounds where the second element is synchronically derived: *tun-amnyé* 'full moon', which is comprised of the elements *tún* 'moon' and *a-mnyé* 'NOM-be.bright', and *tun-amnów* 'bright moon', which is comprised of the elements *tún* 'moon' and *a-mnów* 'NOM-be.clear'. In both cases, the right-hand element is a noun derived from a verb root with the nominalising prefix *a-* 'NMLZ' (§5.1.2).

7. This prosodic right-headedness is distinct from the progressive deletion of /H/ in words with more than one underlying /H/, described in §2.3.2.2. In progressive /H/ deletion, if a word has more than one underlying /H/, only the first /H/ is realised, and all subsequent /H/ syllables behave as if they were toneless. This difference is show, for example, in the output of a compound such as the one just given, *áy* 'wood' + *li* 'outside' → *ay-li* 'frame of house'. Were this the same process as that described in §2.3.2.2, we would expect the output to be **áy-li*, with realisation of the left-most /H/. Similarly, in a compound such as *bém* 'plate' + *wán* 'canoe' → *bem-wán* 'type of hanging plate', /H/ realisation is on the second syllable, rather than the first syllable, were this progressive /H/ deletion (i.e., **bém-wan*).

Table 5.5: Left-headed [N-N]$_N$ compounds

Components				**Compound**
áy	+	li	→	ay-li
'wood'		'outside'		'frame of house'
bém	+	wán	→	bem-wán
'plate'		'canoe'		'type of hanging plate, shaped like a canoe'
cun	+	haw	→	cun-haw
'prepared sago'		'sago funnel'		'sago that has been packed in leaves, smoked, and is eaten with fat'[a]
lábut	+	tási	→	labut-tási
'moss'		'salt water'		'algae'
lemát	+	tási	→	lemat-tási
'snake'		'salt water'		'sea snake'
kálo	+	tási	→	kalo-tási[b]
'star'		'salt water'		'starfish'
katíli	+	áy	→	katili-áy
'tuber'		'wood'		'cassava'
kátin	+	tási	→	katin-tási
'stone'		'salt.water'		'stony coral'
maméy	+	kabóm	→	mamey-kabóm
'marrow'		'bone'		'bone marrow'
mét	+	li	→	met-li
'person'		'outside'		'caucasian person'
mét	+	kái	→	met-kái
'person'		'head'		'leader, chief'
mo	+	mú	→	mo-mú
'current'		'low tide'		'low tide'
now	+	arí	→	now-arí
'house'		'week'		'church'

[a] So-called because it is made with the leftover sago that remains in the *haw* sago funnel.
[b] Possibly a calque from PM *bintang laut* star sea 'starfish'

Table 5.6: Left-headed [N-N]$_N$ compounds for which the righthand root is not attested

Components				Compound
áy	+	lun	→	ay-lun
'wood'		'??'		'pillow'
áy	+	tátut[a]	→	ay-tátut
'wood'		'??'		'mortar and pestle'
ái	+	rám	→	ai-rám
'dog'		'??'		'wild dog'
bát	+	marú	→	bat-marú
'earth'		'??'		'nickel-rich earth (PM *tana mera*)'
kalúbu	+	rám	→	kalubu-rám
'rat'		'??'		'kind of bandicoot'

[a] Probably a relic of a form derived through C(a)-reduplication from the Class III verb *tut* 'grind'.

5.1.3.1.2 Left-headed [N-V]$_N$ compounds

I turn now to left-headed nominal compounds which are comprised of a nominal plus a verbal root. Some examples of [N-V]$_V$ compounds are given in Table 5.7. As with the [N-N]$_N$ compounds given in Table 5.5, Table 5.7 shows that left-headed [N-V]$_N$ compounds are prosodically right-headed. For example, in a compound comprised of two /H/-specified monosyllables, *lé* 'thing' and *lót* 'be noisy', only the /H/ of the second element is realised in the compound *le-lót* 'gun'. There are also some [N-V]$_N$ compounds in which the verb root belongs to the subclass of adjectival verbs, e.g. *mani-lál* 'cassowary', formed of the noun *máni* 'bird' and the adjectival verb *lál* 'big'.

5.1.3.2 Right-headed compounds: [N-N]$_N$

Right-headed nominal compounds are compounds in which the semantic head is the right-hand root, i.e. the meaning of the right-hand root determines the meaning of the compound as a whole. For example, in the right-headed compound *tápi* 'bee' + *pup* 'nest' → *tápi-pup* 'beehive, wasp nest', the right-hand element provides the meaning of the compound overall: *tápi-pup* 'beehive, wasp nest' is a kind of *pup* 'nest'. All right-headed nominal compounds in Ambel are comprised of two nominal roots, i.e. [N-N]$_N$. The determination of the syntactic head of

Table 5.7: Left-headed [N-V]$_N$ compounds

Components				Compound
anán	+	taním	→	anan-taním
'food'		'plant'		'edible food'
go	+	kápo	→	go-kápo
'bamboo'		'whistle'		'flute'
kái	+	lál	→	kai-lál
'head'		'big'		'kind of shrimp, PM *udang setan*'[a]
kamtát	+	narów	→	kamtat-narów
'letter'		'be clean'		'Bible'
lé	+	lót	→	le-lót
'thing'		'be noisy'		'gun'
lé	+	tálim	→	le-tálim
'thing'		'be sharp'		'weapon'
lé	+	kamún	→	le-kamún
'thing'		'be dirty from debris'		'rubbish'
máni	+	lál	→	mani-lál
'bird'		'big'		'cassowary'
másí	+	sámsen	→	masi-sámsen
'illness'		'be difficult'		'plague'
mét	+	harárur	→	met-harárur
'person'		'work'		'sorceror'
mét	+	kapów	→	met-kapów
'person'		'open'		'guard'
now	+	narów	→	now-narów
'house'		'be clean'		'church'
pánye	+	lál	→	panye-lál
'morning'		'big'		'very early in the morning'
su	+	maó	→	su-maó
'nose'		'long'		'bandicoot'[b]
tási	+	kábun	→	tasi-kábun
'salt water'		'hide'		'pool of salt water'[c]

[a] Syntactically, this compound is left-headed, in that it is the left-hand element *kái* 'head' which determines the word class. Semantically, this compound is exocentric, in that the syntactic head *kái* 'head' does not define the semantics of the compound as a whole, i.e. *kai-lál* 'kind of shrimp' is not a kind of *kái* 'head'.

[b] Again, this compound is syntactically left-headed, but semantically exocentric. As with *kai-lál* 'kind of shrimp' above, the compound *su-maó* 'kind of bandicoot' is not a kind of *su* 'nose'.

[c] An inland pool of water that has salt water fish and coral living in it. Apparently found around Mount Nok, and between Kalitoko and Kabare.

right-headed nominal compounds is thus moot: as both roots are nominal, it is not clear which root determines the nominal word class of the compound as a whole.

There are two main semantic groupings of right-headed compounds: those that refer to body parts and bodily excretions; and those that are formed with the noun *lo* 'place', which refer to geographical locations. Examples of right-headed compounds referring to body parts and bodily excretions are given in Table 5.8. The left-hand elements of all of these body part compounds are specified for possession in Direct I possessive constructions; when referring to a body part, they are inflected to cross-reference the person, number, and animacy of the possessor (see §7.2.1). In the examples given in Table 5.8, these nouns are inflected to agree with a 1SG possessor (i.e. with the suffix *-k* '1SG').[8] The constructions given in Table 5.8 are, like the other compounds discussed in these sections, single phonological words; for this reason, they are best treated as compounds, rather than possessive NPs (which comprise more than one phonological word).[9] Possessed body part compounds will be discussed in more detail in §7.2.1.1.

Table 5.8: Right-headed [N-N]$_N$ compounds referring to body parts and bodily excretions

Components				**Compound**
gá-k	+	kaní	→	gák-kani
'mouth-1SG'		'skin'		'my lip'
gá-k	+	kabóm	→	gák-kabom
'mouth-1SG'		'bone'		'my chin'
kái-k	+	maméy	→	káik-mamey
'head-1SG'		'marrow'		'my brain'
kóka-k	+	nyái	→	kókak-nyai
'appendage-1SG'		'stomach'		'my sole of hand/palm of foot'
sú-k	+	gu	→	súk-gu
'nose-1SG'		'hole'		'my nostril'
táji-k	+	káli	→	tájik-kali
'eye-1SG'		'shit'		'my rheum'
táji-k	+	lu	→	tájik-lu
'eye-1SG'		'shadow'		'my tear'

8. The *\H* suprafix, which, as will be described in §7.2.1, marks a 1SG or 2SG possessor, is not represented in this table.

9. While it is unusual, cross-linguistically, for inflection to occur before a derivational process such as compounding, there are attestations in other languages: see, for example, Bochner (1984) on Georgian, Yiddish, and Tagalog; Rainer (1995) on Spanish and Portuguese; and Sherwood (1983) on Maliseet, an Algonquian language.

Unlike the left-headed compounds discussed in §5.1.3.1, Table 5.8 shows that syntactically and semantically right-headed compounds are prosodically left-headed, in that the tonal specification of the left root determines the tonal specification of the compound. Thus, for example, in the compound comprised of the inflected stem *gá-k* 'mouth-1SG' and the root *kabóm* 'bone', only the /H/ tone on the left-hand element is realised in the compound *gák-kabom* 'my chin'; similarly with *táji-k* 'eye-1SG' and *káli* 'shit', which come together to form *tájik-kali* 'my rheum', where the /H/ is on the left-hand element.

Examples of right-headed compounds referring to geographical locations, formed with the noun *lo* 'place', are given in Table 5.9. As with the right-headed body-part compounds given in Table 5.8, the compounds in Table 5.9 are prosodically left-headed.

Table 5.9: Right-headed $[\text{N-N}]_{\text{N}}$ compounds referring to geographical locations

Components				**Compound**
áy	+	lo	→	áy-lo
'tree'		'place'		'forest'
bát	+	lo	→	bát-lo
'earth'		'place'		'garden'
kapéket	+	lo	→	kapéket-lo
'puddle'		'place'		'marsh'
tási	+	lo	→	tási-lo
'salt.water'		'place'		'sea'
we	+	lo	→	we-lo
'water'		'place'		'river'

A handful of other right-headed $[\text{N-N}]_{\text{N}}$ compounds are attested in the corpus. As with the other right-headed compounds discussed in this section, these compounds are prosodically left-headed. These right-headed compounds are given in Table 5.10.

5.1.3.3 Exocentric compounds: $[\text{N-N}]_{\text{N}}$

There are a few exocentric compounds attested in Ambel, i.e. compounds for which neither of the elements can be identified as the semantic or syntactic head. An exhaustive list of these exocentric compounds is given in Table 5.11. As with the

Table 5.10: Other right-headed [N-N]$_N$ compounds

Components				Compound
áy	+	su	→	áy-su
'tree'		'flower'		'flower of a tree'
áy	+	kanú	→	áy-kanu
'tree'		'leaf'		'leaf of a tree'
gíy	+	lámat	→	gíy-lamat
'areca nut'		'sauce'		'red spit from chewing areca nut'
láyn	+	pón	→	láyn-pon
'sand'		'top'		'tightly packed sand'
láyn	+	bít	→	láyn-bit
'sand'		'side'		'beach'
tápi	+	pup	→	tápi-pup
'bee, wasp'		'nest'		'beehive, wasp nest'
tási	+	bít	→	tási-bit
'salt water'		'side'		'shore'

left-headed compounds discussed in §5.1.3.1, these compounds are prosodically right-headed.

Table 5.11: Exocentric [N-N]$_N$ compounds

Components				Compound
séme	+	tási	→	seme-tási
'kind of itchy leaf'		'salt water'		'jellyfish'
yéke	+	tási	→	yeke-tási
'sago porridge'		'salt water'		'jellyfish'[a]
now	+	kabóm	→	now-kabóm
'house'		'bone'		'kind of gecko that lives in houses'
now	+	gélet	→	now-gelét
'house'		'clan'		'neighbour'
kápi	+	lómo	→	kapi-lómo
'spit (n.)'		'blood'		'tuberculosis'
now	+	gu	→	now-gu
'house'		'hole'		'room'

[a] Possibly a calque from PM *papeda laut* [sago.porridge sea] 'jellyfish'.

5.2 Noun class: animacy

All nouns in Ambel are classified according to whether they are animate or inanimate. This distinction is, by and large, drawn along semantic lines: humans and animals (including insects and fish) are considered animate (even when no longer alive), and almost everything else is considered inanimate. (Exceptions to this generalisation will be addressed below.) Some typical examples of animate and inanimate nouns are given in Table 5.12.

Table 5.12: Animate and inanimate nouns

Animate nouns		**Inanimate nouns**	
mét	'person'	áy	'tree, wood'
ái	'dog'	saráka	'bracelet'
hájum	'shellfish'	wán	'canoe'
tamcám	'cuscus'	bey	'sago'
malíli	'ant'	now	'house'

The animacy distinction in Ambel is marked at several loci, both within and outwith the noun phrase. First, animacy is coded in the subject-marking systems in verbal and locative clauses.[10] Within possessive noun phrases, the animacy of the possessor is marked in the paradigms used in Indirect II and Direct I possessive constructions (see §7.1.2 and §7.2.1, respectively). Finally, the pronominal system, described in §3.2.3, also encodes the animacy distinction. The difference between animate and inanimate nouns in some of these contexts is exemplified in (5)–(8).

(5) Verbal subject marking:

a. *Animate*

Salómo a **na-**kábyal
Salomo PERS 3SG.AN-float.in.water

'Salomo floats in water.'

b. *Inanimate*

wán ne **aN=**kábyal
canoe ART 3SG.INAN=float.in.water

'The canoe floats in water.'

10. For the purposes of exemplification, only animacy marking in verbal clauses will be described in this section. For more on animacy marking in locative clauses, see §8.2.2.

(6) Possessive marking in Direct I possession:

a. *Animate*

kai pa
head.3SG.AN ART

'his/her head.'

b. *Inanimate*

i-kai pa
3INAN-head ART

'its head.'

(7) Possessive marking in Indirect II possession:

a. *Animate*

ni sárita pa
POSS.II.3SG.AN story ART

'his/her story'

b. *Inanimate*

i-ni sárita pa
3SG.INAN-POSS.II story ART

'its story'

(8) Pronouns:

a. *Animate*

ia na-kábyal
3SG.AN 3SG.AN-float.in.water

'He/she floats in water.'

b. *Inanimate*

ana aN=kábyal
3SG.INAN 3SG.INAN=float.in.water

'It floats in water.'

At all of the loci of coding, the animacy distinction interacts with the grammatical category of person. The distinction only manifests when the noun is third person – owing to the nature of the distinction, this is to be expected (first and second person nouns are highly unlikely to be inanimate). The animacy distinction also interacts with the category of number. This is shown in Table 5.13. This table provides the forms encoding animacy for all numbers of the third person, for the subject morphology, Direct I possession, and the subject and object pronoun paradigms.

Table 5.13 shows that in the subject morphology, there is a four-way number distinction for animate nouns (singular, dual, paucal, plural), and a two-way number distinction for inanimate nouns (singular, non-singular; see further §4.1.1). Only Direct I possessive morphology is represented in Table 5.13; however, in both the Direct I and Indirect II possessive paradigms, a four-way number distinction is made for animate nouns (singular, dual, paucal, plural),

Table 5.13: The interaction between animacy and number in the subject-marking morphology, Direct I possessive constructions, and subject and object pronouns

	Verbal subject marking morphology *kábyal* 'float in water'		**Direct I possession** *kái-* 'head'	
	ANIMATE	INANIMATE	ANIMATE	INANIMATE
3SG	na-kábyal	aN=kábyal	kai	i-kai
3DU	ula-kábyal	si-kábyal	u-kai-n	
3PC	atúla-kábyal		atú-kai-n	
3PL	la-kábyal		kai-n	
	Subject pronouns		**Object pronouns**	
	ANIMATE	INANIMATE	ANIMATE	INANIMATE
3SG	ia	ana	i	ana
3DU	ua	sia	ua	asi
3PC	atúa		atúa	
3PL			si(a)	

but no number distinction is made for inanimate nouns. Finally, the subject and object pronouns in Table 5.13 show that, for the third person, the animacy distinction interacts with both number, and grammatical function. For the object pronouns, there is a four-way number distinction for animate pronouns (singular, dual, paucal, plural), and, like the subject morphology, a two-way distinction for inanimate pronouns (singular, non-singular). For the subject pronouns, the animacy distinction is maintained in the singular (*ia* '3SG.AN' vs. *ana* '3SG.INAN'); but the distinction between plural animate and non-singular inanimate entities is collapsed, i.e. the pronoun for all of these cells is *sia*.

As mentioned above, there are lexical exceptions to the semantic animacy distinction. The nouns *tún* 'moon', *láynta* 'sun', and *kálo* 'star' are all treated as animate.[11] In addition, nouns referring to bivalves straddle the boundary between

11. There is no obvious reason why the words for 'sun', 'moon', and 'star' should be considered animate. However, it is interesting to note that in Taba, celestial bodies also constitute exceptions to a classification system drawn along semantic lines. Unlike Ambel, there is no noun class system in Taba. There is, however, an extensive and productive numeral classifer system. Bowden states: "...the time words *ngan* 'day' and *pait* 'month' are quantified using the animal classifier. The reasons for this are not fully understood, but the fact that these nouns also refer to 'the sun' and 'the moon' respectively suggests that the sun and moon may once have had some kind of mythological significance as animals" (2001:257). The presence of similar exceptions in Taba, another RASH

animate and inanimate: while they are treated as animate by the subject-marking morphology and pronominal paradigms, as shown in (9), they are treated as inanimate by the possessive morphology, as shown in (10).

(9) hájum wa-ne **na-**lál / *aN=lál
bivalve DEM.CNT-PROX 3SG.AN-big 3SG.INAN=big
'This bivalve is large.' **AM283_el.**

(10) hájum wa-ne **i-**kani / *kani aN=bu
bivalve DEM.CNT-PROX 3INAN-shell shell.3SG.AN 3SG.INAN=white
'The shell of this bivalve is white.' **AM283_el.**

As mentioned above, the system treats dead humans and animals as animate. This shows that the animacy distinction is largely lexically specified. In (11), the noun *dún* 'fish' is marked in the subject morphology as animate, despite the context making it clear the fish are dead.

(11) dún ipon wa-lu-pa **la-**mát bey to
fish animal.group DEM.CNT-SEA-MID 3PL.AN-die all IAM
'Those fish at sea are all dead.' **AM206_el.**

However, if animal meat has been prepared as food, or has been caught to be prepared as food, then the animacy of the noun depends on the number of the noun phrase. If the NP is singular, as in (12), then the noun is treated as animate. If the NP is non-singular, however, then the noun is treated as inanimate, as in (13).

(12) kayáw ne **na-**bálu / *aN=bálu rín
pig ART 3SG.AN-raw 3SG.INAN=raw CONT
'The pig is still raw.' **AM206_el.**

language, but one with which Ambel has not been in direct contact, points towards a possible common origin.

(13) ... *kalo* tapén dún be **simábu** ido súy to
kalo t-apén dún be si-mábu ido Ø-súy to
if 1PL.I-get fish PURP 3PL.INAN-many FRA 1PL.I-go.home IAM

[Talking about methods for catching fish:] 'If we get a lot of fish, then we go home.'
AM172_00.48

The noun *kábyo* 'ghost, malevolent spirit' is treated as animate, as shown in (14). Tribes, clans, and countries are also treated as animate, as shown in (15).

(14) kábyo i ne **la-**bun aro bin i pa
ghost NSG ART 3PL.AN-kill completely woman NSG ART

'The ghosts killed all of the women...' **AM135_21.20**

(15) ayságado *jepan* pa **N-**súy, ido mé póto
TERM Japan ART 3SG.AN-go.home FRA person NEG.IAM

'Until when Japan [i.e. the soldiers from the Japanese army that were occupying north Waigeo] went home, then there weren't any people anymore.' **AM125_05.43**

5.3 Fossilised nominal classifiers

There are some nouns in Ambel that can be loosely sorted into several groups, based on both semantic and formal similarity – formal in that the nouns begin with the same syllable with a greater-than-chance frequency. A summary of these nouns is given in Table 5.14.

These nouns are synchronically monomorphemic. It is possible that the patterns reported in Table 5.14 are simply coincidences. However, it is also possible that (some of) these syllables are remnants of an archaic classification device, for example a system of nominal classification (see Aikhenvald 2000: Chap. 3).[12] Remijsen (2010: 294) reports similar potential archaic classifiers in Matbat; notably, he states that many words for ant varieties are *ka*-initial (compare the *ka-* initial 'sea

12. A third possibility is that these words were borrowed from (an)other language(s). This third possibility is particularly plausible for *maN*-initial nouns referring to creatures, and *iN*-initial nouns referring to fish. For example, in Biak, there are several compounds with a left-hand element *man* 'male', 'bird', or *in* 'bird(-like)', 'female' (van den Heuvel 2006: 91-93) – it is therefore a likely source for the *maN-* and *iN*-initial nouns in Table 5.14.

Table 5.14: Possible fossilised classifiers

Syllable	Semantics	Examples
iN-	Some fish	*ímalap* 'k.o.fish', *imborónot* 'k.o. tuna', *impékem* 'k.o.fish', *ínamer* 'k.o. puffafish', *ínkambow* 'archerfish', *inkmáy* 'k.o. tuna', *inkár* 'k.o. fish', *inkór* 'k.o. fish', *insáman* 'emperor fish'
ka-	Some sea creatures, bats, and creepy-crawlies	*kabábat* 'butterfly', *kaháni* 'bat' [Metsam], *kalábya* 'crocodile fish', *kámbowa* 'nudibranch', *kamíti* 'cockroach' [Metsam], *kankólom* 'scorpion', *kapólot* 'house spider', *kápyay* 'shrimp, prawn', *karandáy* 'k.o. manta ray', *kasabábat* 'tarantula', *kaséke* 'grasshopper', *kasiawá* 'k.o. manta ray', *káteyn* 'k.o. sea urchin'
ka-	Some body parts	*kabóm* 'bone', *kabrá* 'forehead', *kacú* 'neck', *kagalán* 'skull', *kaholó* 'thigh', *kái* 'head', *kajú* 'Adam's apple', *kakó* 'throat', *kalá* 'testicle', *kaní* 'skin, shell, peel', *kapá* 'lung', *kapyá* 'arm', *kayté* 'back of body'
maN-[a]	Some animals, birds, and sea creatures	*mambráp* 'k.o. sea turtle', *mambuárak* 'k.o. shrimp', *mámin* 'k.o. fish', *mámpi* 'k.o. fish', *mamprék* 'wild duck', *manápa* 'manta ray', *mandawám* 'Blyth's hornbill', *mandemúr* 'k.o. shark', *mangín* 'freshwater turtle', *mankankán* 'k.o. bird of prey', *mankensús* 'k.o. kingfisher', *mankirió* 'Waigeo brushturkey', *mankombón* 'k.o. small bird', *mankwáy* 'fruit bat', *mankyáw* 'k.o. small frog', *mansawándum* 'starfish'
ta-	Some parts of the face	*tají* 'eye', *talatú* 'ear', *tatá* 'face'

[a] See Blevins (2007) for a proposal in which SHWNG *man-* is cognate with Proto-Oceanic **mana* 'potent, effectual; supernatural power' (cf. the term borrowed in to western anthropology); and Blust (2007) for a rebuttal of this proposal.

creatures, bats, and creepy crawlies' in Ambel). Alternatively, these forms may be sound symbolic in some way.

Chapter 6

The noun phrase

In the previous chapter, issues regarding the derivation and classification of nouns were explored. In this chapter, we turn our attention to larger units: the noun phrase (NP), which, as the name suggests, are phrases headed by nouns. The function of NPs is underspecified: they can function as arguments, adjuncts, and as predicates of nominal and ambient/existential clauses, without any morphosyntactic marking. For the purposes of exemplification, I restrict the examples in this section to NPs functioning as arguments and adjunct complements. For more on predicative NPs, see §8.2.5.1.

This chapter is structured as follows. First, in §6.1, some issues relating to the grammatical number of the NP are addressed. In §6.2, the structure of the NP will be outlined, and the different nominal modifiers within the NP will be described in detail. I then proceed to a description of strategies for coordinating nouns and noun phrases, in §6.3.

6.1 Grammatical number in the noun phrase

The number of an NP is marked in the subject-marking, possessive, and pronominal paradigms. As introduced at several points above, these paradigms distinguish four numbers for animate nouns: singular, dual, paucal, and plural. Singular and dual number requires little explanation; an NP is singular when there is one and no more than one referent (although see below on nouns referring to groups of people, such as clans, tribes, and countries), and an NP is dual when there are at least and no more than two referents.

A paucal NP has a minimum of three referents; the upper limit, however, depends on the context. The paucal functions to contrast a smaller group of animate referents with a larger group of animate referents (see Dixon 1988: 52 and Schütz 1985: 251 on a similar system in Fijian dialects). An example of the paucal referring to a large group is given in (1). In this example, the possessor NP is omitted (see §8.3.3); the paucal number of the NP is marked on the possessive particle *ni* 'POSS.II'. In this example, the speaker is explaining the different words for 'anchor' in Malay and in Ambel. The paucal is used to mark the possessor of *galí* 'language', i.e. the entire Ambel community – some 1600 people. Paucal marking is possible in this context as the speaker is contrasting Ambel speakers with the much larger group of Malay speakers.[1]

(1) *indonesia* labíne "*jangkar*", **atútanin** galí ido labíne
indonesia la-bíne jangkar atúta-ni-n galí ido la-bíne
Indonesia 3PL.AN-say anchor 1PC.I-POSS.I-NSG.POSS language FRA 3PL.AN-say
"yét"
yét
anchor

'[In] Malay they say "jangkar", in our language they say "yét".' **AM066_11.05**

If a group of animate entities is not contrasted with a larger group, plural marking is used. The smallest group which receives plural marking in the corpus is a group of five people.[2] This example is given in (2). The speaker is talking with the researcher about a trip the two of them took with three other people earlier that day. The use of the plural to mark these five people is licensed here because the speaker is not contrasting the group with a larger group of people.

1. There were only two participants in this conversation – the speaker and his interlocutor. This therefore rules out an interpretation in which the speaker is using the paucal to refer only to the participants of the conversation: if this were his intention, the possessor would be marked as dual.
2. This does not include plural marking in imperatives and hortatives – as will be described in §9.1, in this context the four-way number distinction is optionally collapsed to a two-way singular vs. plural distinction.

(2) rani umsásuy, be **táti** be Yésbe Lál
rani um-sá-súy be t-áti be Yésbe Lál
so 1DU.E-ascend-go.home and 1PL.I-run ALL Yesbe Lal

'So the two of us got back in [to the canoe], and we all went by motorised canoe [lit: 'ran'] to Yesbe Lal [an island in Fofak Bay].' **AM167_02.19**

Nouns referring to groups of people, clans, or countries are treated as singular. This is shown in (3), in which the NP headed by *jepan* 'Japan' is marked on the verb *tó* 'live' with *N-* '3SG.AN'.

(3) *jepan* pa **ntó** lone rín
jepan pa N-tó lo-ne rín
Japan ART 3SG.AN-live DEIC.N-PROX CONT

'The Japanese were still living here.' **AM125_06.16**

6.2 Noun phrase modification

In this section, the structure of the NP will be discussed. The structure of the Ambel NP is given in Figure 6.1. In this figure, PossR NP should be read as 'possessor NP', N(P) should be read as 'noun or noun phrase', ADJ.V should be read as 'adjectival verb', NUM.CLASS should be read as 'numeral classifier', QUANT should be read as 'quantifier', NMC should be read as 'noun-modifying construction', DEM should be read as 'demonstrative', ART should be read as 'article', PRO should be read as 'pronoun', and PP should be read as 'prepositional phrase'.

$$\left[\left(\begin{matrix}\text{PossR}\\ \text{NP}\end{matrix}\right)\text{- }\mathbf{HEAD}\text{ -}\left(\text{N(P)}\right)\text{-}\left(\text{ADJ.V}\right)\text{-}\left(\begin{matrix}\text{NUM.}\\ \text{CLASS}\end{matrix}\right)\text{-}\left(\begin{matrix}ki\text{=}\\ \text{`EMO'}\end{matrix}\right)\text{-}\left(\text{QUANT}\right)\text{-}\left(\begin{matrix}i\\ \text{`NSG'}\end{matrix}\right)\text{-}\left(\begin{matrix}a\\ \text{`PERS'}\end{matrix}\right)\text{-}\left(\text{NMC}\right)\text{-}\left(\text{DEM}\right)\text{-}\left(\text{ART}\right)\text{-}\left(\text{PRO}\right)\text{-}\left(\text{PP}\right)\right]_{\text{NP}}$$

Figure 6.1: Structure of the Ambel noun phrase

The minimal NP in Ambel consists of a head noun. This is shown in (4), in which the object of the verb *ém* 'see' is the NP *ut* 'louse'.

(4) Heléna a, nyala mánin be tém **[ut]**$_{NP}$ ...
Heléna a nya-la mánin be t-ém ut
Helena PERS 2SG-ORI to.here and 1PL.I-see louse

'Helena, come here and let's look for lice...' **AM019_06.49**

A slightly more complex NP, in which the head noun *mán* 'man' is modified by a numeral *low* 'two' and the article *pa* 'ART', is given in (5).

(5) **[mán low pa]**$_{NP}$ ubíne: "mumcát are"
mán low pa u-bíne mu-mcát are
man two ART 3DU-say 2DU-be.afraid PROHIB

'The two men said: "Don't you two be afraid.' **AM066_30.30**

An even more complex NP is given in (6). In this example, drawn from the elicited corpus, the head noun *now* 'house' is modified by the adjectival verb *lál* 'big'; the numeral quantifier *low* 'two' and the classifier *way* 'CL.HOUSE'; the clitic *ki*= 'EMO'; the non-singular particle *i* 'NSG'; a noun-modifying construction, introduced by *wa* 'NMC.DEF'; and the article *a-lu-pa* 'ART.NMC-SEA-MID'. The noun is also possessed by a 1SG possessor, indicated by the prenominal relational classifier *ni-k* 'POSS.II-1SG'; the possessor NP, however, is omitted.

(6) yém **[nika now lál way kilow i wa yin**
yém ni-k-a now lál way ki=low i wa y-in
1SG-see POSS.II-1SG-PAR house big CL.HOUSE EMO=two NSG NMC.DEF 1SG-make
akisi alupa]$_{NP}$
a<ki>si a-lu-pa
<EMO>3NSG.INAN.O ART.NMC-SEA-MID

'I see my two big houses that I build [that are] in a seawards location.' **AM196_el.**

In the following sections, the syntax and function of the following NP modifiers are discussed in turn: nouns and NPs (§6.2.1); adjectival verbs (§6.2.2); quantifiers, including, where relevant, numeral classifiers (§6.2.3); the marker of emotional involvement *ki*= 'EMO' (§6.2.4); the non-singular particle *i* 'NSG' (§6.2.5); the marker of personal names *a* 'PERS', (§6.2.6); noun-modifying constructions (§6.2.7); demonstratives (§6.2.8); articles (§6.2.9); pronouns (§6.2.10); and prepositional

phrases (§6.2.11). Pre-head modification by a possessor NP is described in Chapter 7, on possessive constructions.

6.2.1 Modification by nouns and noun phrases

The first available post-head slot in the NP is modification of the head noun by another noun, or by a noun phrase (henceforth: 'N(P) modification'). A preliminary example of N(P) modification is given in (7). In this example, the head noun *sárita* 'story' is modified by the NP headed by *mánsar* 'old man'.

(7)

ine	yasárita	ane	*sesuai*	dela	**[sárita**	**[mánsar**	**i**
ine	ya-sárita	a-ne	sesuai	del-a	sárita	mánsar	i
1SG	1SG-tell.story	DEM.NCNT-PROX	in.accordance	PERL-PAR	story	old.man	NSG

ahana]$_{NP}$]$_{NP}$
a-hana
DEM.NCNT-AND

'I am telling this in accordance with **the story that is associated with the old men of the past** [i.e., the speaker's ancestors].' **AM066_02.52**

If the modifying element in an N(P) modification construction is a noun, N(P) modification can appear superficially similar to nominal compounding (§5.1.3). However, whereas nominal compounds constitute a single phonological word, N(P) modification constructions are comprised of two or more phonological words. In additon, while the second element of [N-N]$_N$ compounds can only be a noun, the second element in N(P) modification can be either a noun, or an NP.

N(P) modification is not particularly common in the corpus. In terms of semantics, there are three broad categories of N(P) modification. When the modifier is a noun (rather than an NP), modification can function either to further specify the type of entity the type of entity the head noun is (**subtype modification**), or to identify a salient property of the noun (**property modification**). Both noun and NP modifiers can function to indicate an associative relationship between the head and the modifier (**association modification**).[3] In the remainder of this section, each of these subtypes of N(P) modification is exemplified. In the following sections, I discuss these constructions by modifying

3. These descriptors are adapted from Kluge (2014: 378–382).

element: subtype and property modification, for which only nominal modifiers are attested, are discussed in §6.2.1.1; and association modification, in which the modifier may be either nominal or phrasal, is discussed in §6.2.1.2.

6.2.1.1 Modification by N: Subtype and property modification

The first type of modification by a nominal element is subtype modification. Subtype modification is exemplified in (8) and (9). In (8), the general noun *mé* 'person' is modified with the reduplicated form *sa~sól* 'ordered person', to indicate that the subtype of person the speaker is referring to is a person who take orders.

(8)

jadi	galí	wahana	ido	labíne	'kuli'	ido	mácu,	mácu	kilow
jadi	galí	wa-hana	ido	la-bíne	kuli	ido	mácu	mácu	ki=low
so	language	DEM.CNT-AND	FRA	3PL.AN-say	coolie	FRA	servant	servant	EMO=two

wapa,	**[ni**	**mé**	**[sasól]$_{NP}$**	**kilow**	**wapa]$_{NP}$**
wa-pa	ni-Ø	mé	sa~sól	ki=low	wa-pa
DEM.CNT-MID	POSS.II-3SG.AN	person	REDUP~order	EMO=two	DEM.CNT-DEM

[Explaining the meaning of the word *mácu* 'servant':] 'So in that language of the olden days, when they said 'coolie', [that meant] servant, those two servants, those two people of his [whom he] ordered.' **AM066_15.20**

Similarly, in (9), the speaker is talking about a specific subtype of *máni* 'bird', a *takék* 'chicken'.

(9)

[máni	**[takék]$_{N}$**	**pa]$_{NP}$**	ndál	be	mokoné:	"kukuruuu!"
máni	takék	pa	N-dál	be	mokoné	kukuruuu
bird	chicken	ART	3SG.AN-crow	and	say.3SG.AN	cockadoodledoo

'The chicken crowed and said: "cockadoodledoo!".' **AM076_03.49**

Nouns referring to flora and fauna are very frequently attested in constructions of the type in (9), in which a generic noun functions as the head of the NP, and a more specific noun identifies the subtype. Subtype modification of a head noun referring to flora and fauna provides interesting insights into the Ambel taxonomic system. For this reason, examples of this kind of subtype modification are given in Table 6.1.[4]

4. For some of the nouns in Table 6.1, the taxonomic structure is hierarchical: thus the noun *ínamer* 'k.o. puffafish' may modify the noun *kasót* 'puffafish', which itself may modify *dún* 'fish', to give an

Table 6.1: Nominal subtype modification: Taxonomy of flora and fauna

Head noun	**Refers to**	**Examples of nominal modifiers**
áy	Trees	*báli* 'k.o. palm tree', *bu* '*Intsia* sp.', *gawín* 'k.o. breadfruit tree', *kor* 'mangrove'
bey	Sago palms	*álu* 'k.o. sago palm', *ámyum* 'k.o. sago palm', *gíy* 'k.o. sago palm'
dow	Rattan	*ayse* 'k.o. rattan'
dún	Fish and other swimming sea creatures	*báylik* 'bigeye trevally', *insáman* 'emperor fish', *káin* 'rabbitfish', *kasót* 'puffafish', *nyu* 'river eel', *rúmun* 'shark', *saróy* 'whale', *umbón* 'dolphin'
go	Bamboo	*ambóbor* 'k.o. bamboo'
hájum	Bivalves	*katóp* 'giant clam', *papyú* 'oyster'
hín	Sea turtles	*cú* 'k.o. sea turtle', *mambráp* 'k.o. sea turtle', *okmóm* 'leatherback sea turtle'
kanyó	Mosquitoes and sand flies	*kámu* 'mosquito', *maré* 'sand fly'
kapyáy	Crustaceans	*mambuárak* 'k.o. crustacean', *marása* 'k.o. small crustacean'
kasót	Puffafish	*ínamer* 'k.o. puffafish', *kía* 'k.o. puffafish'
katíli	Tubers	*áy* 'cassava', *wáli* 'sweet potato'
káwia	Taro	*kapár* 'k.o. taro', *káwia* 'k.o. taro'
kor	Mangrove trees	*bin* 'k.o. mangrove tree', *mán* 'k.o. mangrove tree'
lemát	Snakes	*ayú* 'k.o. snake', *bátnya* 'k.o. snake'
manápa	Manta rays	*hey* 'k.o. manta ray', *kásyawa* 'k.o. manta ray', *malélen* 'k.o. manta ray'
máni	Birds, bats, flying insects	*aléle* 'cricket', *ambyán* 'k.o. brushturkey', *ampén* 'k.o. seagull', *bonko* 'spangled drongo', *kabábat* 'butterfly', *mandawám* 'Blyth's hornbill', *mankwáy* 'fruit bat', *takék* 'chicken'
pimám	Sea cucumbers	*gám* 'k.o. sea cucumber', *kalabét* 'k.o. sea cucumber'
ránu	Squid	*paráy* 'k.o. squid'
rómbyon	Pandanus	*lálay* 'k.o. pandanus'
rúmun	Sharks	*gamsélep* 'k.o. shark', *kaybílik* 'k.o. shark'
sétew	Grubs	*áy* 'k.o. grub', *bey* 'k.o. grub'
su	Leafy vegetables	*ankó* 'water spinach', *kmáp* 'amaranth', *me* 'aibika'
tamcám	Cuscuses	*hu* 'k.o. cuscus', *malélen* 'k.o. cuscus'
tápi	Wasps	*bát* 'k.o. wasp', *sawáy* 'k.o. wasp'
umbón	Dolphins	*robisór* 'k.o. dolphin'
wáli	Vines	*kálut* 'k.o. vine', *magáyol* 'k.o. vine'

The second kind of modification for which only nominal modifiers are attested is property modification. An example of property modification is given in (10). In this example, the property of having wounds (*labét* 'wound') is associated with the child's legs (*koka* 'leg.3SG.AN'); the property of having wounded legs is in turn associated with the child (*mákay* 'child'). This example also shows how noun modification can be nested: the head noun *mákay* 'child' is modified by *koka* 'leg.3SG.AN', which in turn is modified by *labét* 'wound'.

(10) ... ladaki akúk **[mákay [koka [labét]$_N$]$_N$ kiwana]$_{NP}$**
la-daki akúk mákay koká labét ki=wana
3PL.AN-fill.with randomly child leg.3SG.AN wound EMO=DEF

'[He filled [the bag] with the children,] they were stuffed in randomly [with] the child with wounded legs.' **AM073_01.24**

6.2.1.2 Modification by N or NP: Association modification

A noun can be modified by either another noun, or an NP, to communicate what the head noun is associated with. The head noun of these constructions is typically *sárita* 'historical story'. An example of association modification is given in (11). In this example, the head noun *sárita* 'historical story' is modified by an NP headed by the reduplicated noun *bá~bun* 'war', to communicate that the story to which the speaker is referring is associated with a particular war between the people of an Ambel village, and the *kábyo* evil spirits.

(11) ... we lómo dela **[sárita [lanin bábun**
we lómo del-a sárita [la-ni-n bá~bun
water blood PERL-PAR historical.story 3PL.AN-POSS.II-NSG.POSS REDUP~kill

wa macúbey labun kábyo i pa]$_{NP}$]$_{NP}$...
wa macúbey la-bun kábyo i pa...
NMC.DEF human.being 3PL.AN-kill evil.spirit NSG ART

'[They call it "Blood Water",] Blood Water in accordance with the historical story of their war in which human beings killed evil spirits...' **AM066_25.58**

NP *[dún [kasót [ínamer]$_N$]$_N$]$_N$* 'kind of puffafish'. For more information on the flora and fauna in this table – e.g. size, appearance, habitat – the reader is encouraged to consult the lexicon in Appendix E.

6.2.2 Modification by adjectival verbs

In §3.3.1, adjectival verbs were introduced. In that section, I showed that adjectival verbs are distinguished from other verbs by the ability to modify a nominal head without subordination. Examples of modification by adjectival verbs are given in (12) and (13).

(12) ... "kayí sana tua ***kameja*** **bu** **pa**"...
kayí sana tu-a kameja bu pa
k.o.bivalve one COM-PAR dress.shirt white ART

'[He said:] "There is a *kayí* shell and **a white dress shirt**..."'. **AM105_11.41**

(13) mansope áma*bangun* ***gereja*** **bábo** **wane** wéy apa
mansope áma-bangun gereja bábo wa-ne wéy a-pa
then 1PL.E-build church new DEM.CNT-PROX again DEM.NCNT-MID

'Then we built this new church again.' **AM125_08.52**

There are no attestations in the naturalistic corpus of more than one adjectival verb modifying a single noun. In the elicited corpus, however, nouns modified by up to three adjectival verbs are attested. When there is more than one adjectival verb modifiying the noun, these adjectival verbs are not overtly conjoined. An example of a noun modified by three adjectival verbs is given in (14). In this example, the ordering of the adjectival verbs is AGE-COLOUR-DIMENSION.

(14) ine yabí có nik now **bábo** **byáw** **lál** wana
ine y-abí <y>tó ni-k now bábo byáw lál wana
1SG 1SG-want <1SG>live POSS.II-1SG house new green big DEF

'I am going to live in my big new green house.' **AM268_el.**

For adnominal modification by a non-adjectival verb, the verb must first be subordinated in a noun-modifying construction. Noun-modifying constructions are introduced in §6.2.7 below.

6.2.3 Modification by quantifiers and numeral classifiers

Quantifiers (i.e., numerals and non-numeral quantifiers; see §3.8) always follow the head noun. Examples of modification by quantifiers are given in (15) and (16).

(15) **gélet low wane** ula*terlepas* tábola metÁka ne cam
gélet low wa-ne ula-terlepas tábol-a mét-Áka ne cam
clan two DEM.CNT-PROX 3DU-detach leave.behind-PAR person-Wakaf ART CIR.can
po
po
NEG

'**These two clans** cannot separate from the Wakaf [clan].' **AM135_24.43**

(16) ... ladók, aa, *lewat*a **lanyán low** ke **túl** ke
la-dók aa lewat-a lanyán low ke túl ke
3PL.AN-leave HES pass.by-PAR day two EPI.may three EPI.may

'...They left, umm; maybe **two days**, maybe **three** [days] passed.' **AM074_01.34**

The numeral classification system of Ambel was described in §3.8.1.1. In that section, I showed that, when modified by quantifiers, two nouns optionally occur with numeral classifers: *now* 'house', which can occur with the classifier *way* 'CL.HOUSE'; and *wán* 'canoe', which can occur with the classifier *sa* 'CL.CANOE'. When a classifier occurs with those nouns, it is ordered between the head noun and the quantifier. This is shown in (17), in which the classifier *way* 'CL.HOUSE' occurs between the head noun *now* 'house' and the numeral quantifier *hát* 'four'.

(17) ... yo metHyáy ne **now way kihát**
yo mét-Hyáy ne now way ki=hát
then person-Fiay ART house CL.HOUSE EMO=four

'...Then the Fiay clan were [i.e., had] **four households**.' **AM031_05.55**

When an NP is modified by a numeral quantifier, the head of the NP may be omitted. An example is shown in (18).

(18) *jadi* **[Ø low wapa]$_{NP}$** udók taból, be...
jadi low wa-pa u-dók taból be
so two DEM.CNT-MID 3DU-leave leaving.behind and

'So those two departed, leaving behind [the other two], and...' **AM058_05.08**

In (18), superficially it appears the numeral quantifier is used as a nominal head. However, if an NP is modified by both a numeral quantifier and an adjectival verb, as in (19), the occurrence of the adjectival verb before the numeral shows that the numeral does not occur in the head slot. This justifies the analysis given in §3.8, in which it was stated that quantifiers cannot head NPs.

(19) sóro **[Ø támi túl wane]$_{NP}$**
Ø-sóro támi túl wa-ne
1SG-smoke red three DEM.CNT-PROX
'I will smoke these three red [cigarettes].' **AM263_el.**

6.2.4 Modification by *ki*= 'EMO'

The clitic *ki*= 'EMO' was introduced in §3.10. In that section, I described how *ki*= 'EMO' marks the emotional involvement of the speaker with an entity, either in terms of diminution, respect, or close personal attachment. It can attach to pronouns, verbs, and within NPs. When *ki*= 'EMO' attaches within an NP, it attaches to the first available element to the right of the numeral classifier slot, as given in Figure 6.1 above.

Thus, *ki*= 'EMO' attaches to a numeral, if present. This is shown in (20).

(20) kalíw pa, mé pa, mé now way **ki**láhe bi
kalíw pa mé pa mé now way ki=láhe bi
village ART person ART person house CL.HOUSE EMO=ten just
'The village, the people, there were only ten households.' **AM105_00.13**

If a numeral is not present, *ki*= 'EMO' attaches to the non-singular marker *i*, as shown in (21).

(21) aléna, nyásin ine la li ido níy ine ido ny-áraru
aléna ny-ásin ine la li ido n-íy ine ido ny-áraru
PLH 2SG-lift.from.fire 1SG ORI outside FRA 3SG-eat 1SG FRA 2SG-gather
ikani **ki** ne
i-kaní ki=i ne
3INAN-shell EMO=NSG ART

'Y'know, when you lift me from the fire to the outside, when she eats me, then gather the pieces of its shell.' **AM019_04.14**

If the non-singular marker *i* 'NSG' is not present, *ki*= 'EMO' attaches to the marker of personal names *a* 'PERS', as shown in (22).

(22) "tutémsap tamáy **kia** ho!"
tut-émsap tamáy ki=a ho
1DU.I-look.for sibling.in.law EMO=PERS IMM.FUT

'[He said:] "Let's us two look for Sister-in-law now!" **AM020_07.18**

If the marker of personal names *a* 'PERS' is not present, *ki*= 'EMO' attaches to a noun-modifying construction marker *ta* 'NMC.INDEF' or *wa* 'NMC.DEF', as shown in (23).

(23) ido mákay **kiwa** labíne labá i be wán
ido mákay ki=wa la-bíne la-bá i be wán
so.then child EMO=NMC.DEF 3PL.AN-say 3PL.AN-lift 3SG.AN.O INSTR canoe
apa, ido kisia lasúp
a-pa ido ki=sia la-súp
ART.NMC-MID FRA EMO=3PL 3PL.AN-bathe

'So as for the children who said that they [the ghosts] lifted him using a canoe, they bathed.' **AM066_17.39**

If a noun-modifying construction marker is not present, then *ki*= 'EMO' attaches to a demonstrative, as in (24).

(24) ikop **kiwapa** amínki
i-kóp ki=wa-pa aN=mínki
3INAN-branch EMO=DEM.CNT-MID 3SG.INAN=small

'That branch was small.' **AM042-04_00.12**

Finally, if a demonstrative is not present, then *ki*= 'EMO' attaches to an article, as in (25).

(25)

ido	ini	we	**kine**	nala	mul	nakánum	tu	ini
ido	i-ni	we	ki=ne	na-la	mul	na-kánum	tu	i-ni
so.then	3SG-POSS.I	child	EMO=ART	3SG-ORI	inwards	3SG-glimpse	COM	3SG-POSS.I

now	**kipa**
now	ki=pa
opposite.sex.sibling	EMO=ART

'So then his child went inside and spied [on his mother] with her [his mother's] brother.' **AM112_10.33**

There are no attestations of *ki*= 'EMO' attaching to any elements further right in the NP, viz. adnominally-used pronouns or prepositional phrases; nor is *ki*= 'EMO' attested in an NP which is not modified by a numeral, *i* 'NSG', *a* 'PERS', a noun-modifying construction, a demonstrative, or an article.

6.2.5 Modification by *i* 'NSG'

If an NP is semantically specific (i.e., is referential; see §6.2.9.1), and is also non-singular in number, the non-singular number is optionally marked within the NP using the particle *i* 'NSG'. Examples are given in (26) and (27).

(26)

kamnyát	**i**	**pa**	lala	mul	latéten,	lamárin	**sánsun**
kamnyát	i	pa	la-la	mul	la-téten,	la-márin	sánsun
animal	NSG	ART	3PL.AN-ORI	inside	3PL.AN-perch	3PL.AN-be.happy	clothes

i	**pa**	ido	latéten	asi
i	pa	ido	la-téten	asi
NSG	ART	FRA	3PL.AN-perch	3NSG.INAN.O

'**The animals** [butterflies and moths] went inside in order to perch, if they were happy with **the clothes** then they perched on them.' **AM155_02.50**

(27)

ulál	**go**	**i**	**wa**	**atúlakata**	**be**	**we**	**apa**...
ul-ál	go	i	wa	atúla-káta	be	we	a-pa
3DU-take	bamboo	NSG	NMC.DEF	3PC-ladle	INSTR	water	ART.NMC-MID

'The two of them took **the bamboo [flasks] that they had used to ladle water**...' **AM188_10.28**

In some contexts, *i* 'NSG' is optional: if the non-singular number of an NP is marked elsewhere in the clause, for example by the subject morphology (§4.1.1), a quantifier (§6.2.3), or the formulation of a non-singular contrastive demonstrative using the prefix *we-* 'DEM.CNT.NSG' (see §6.2.8); or if the non-singular number can be inferred from the extra-linguistic context. For example, in (28), the non-singular number of the subject (the NP headed by *dún* 'fish') is marked on the verb. The NP, however, is unmarked for number.

(28) *kalo* **dún pa** lamábu, yo súy
kalo dún pa la-mábu yo Ø-súy
if fish ART 3PL.AN-many then 1PL.I-go.home

'If **the fish** are many, then we go home.' **AM172_01.03**

Example (29) shows that *i* 'NSG' can be omitted if the noun is already modified by a quantifier.

(29) ... "be ine wa cumdela ***bule*** **low pa** apa
be ine wa <y>tum-del-a bule low pa a-pa
and 1SG FOC.SPEC <1SG>follow-follow-PAR white.person two ART DEM.NCNT-ART
be welo apa"
be we-lo a-pa
ALL water-place DEM.NCNT-MID

'[I said: "That's that, you stay behind,] and it will be I who goes with **the two white people** to the river there".' **AM167_03.56**

The interaction between the particle *i* 'NSG' and the non-singular contrastive demonstrative prefix *we-* 'DEM.CNT.NSG' will be discussed in §6.2.8.

I stated above that *i* 'NSG' only occurs in semantically specific NPs. This is shown in (30). In this example, the head noun *jam tangan* 'wristwatch' (< PM) is semantically non-specific, in that the speaker is not referring to a particular watch. In this context, modification by *i* 'NSG' is not possible, and the non-modified NP is interpreted as either singular or non-singular, depending on the context.

(30) [Context: At a watch shop, buying presents for a friend or friends:]

yabí	síri	*jam tangan*	(*i),	ape	yáhi	ho
y-abí	Ø-síri	jam tangan		ape	y-áhi	ho
1SG-want	1SG-buy	watch	(NSG)	but	1SG-choose	IMM.FUT

'I want to buy a watch/some watches, but I will choose [which ones] first.'

AM268_el.

6.2.6 Modification by *a* 'PERS'

The marker of personal names *a* 'PERS' is most frequently used to modify personal names of people or animals (see §3.2). Some examples of NPs modified by *a* 'PERS' are given in (31) and (32).

(31)

sebelum	la*pinda*,	*taun*	*lima*	*pulu*	*satu*,	***guru***	**Elía**	**Yápen**	**a**
sebelum	la-pinda	taun	lima	pulu	satu	guru	Elía	Yápen	a
before	3PL.AN-move	year	five	ten	one	teacher	Elia	Yapen	PERS

nále
n-ále
3SG-descend

'Before they moved, in '51, teacher Elia Yapen arrived [lit: 'descended'].'

AM021_14.01

(32)

nyatabón	**Yúsup**	**a**!
nya-tabón	Yúsup	a
2SG-wait.for	Yusup	PERS

'Wait for Yusup!' **AM064_13.42**

Modification by *a* 'PERS' is not necessary when listing the names of individuals. This is shown in (33), in which none of the names *Áhuy*, *Wantén*, *Rosalína (Gamán)*, or *Pasí* are marked with *a* 'PERS'.

(33) ini we pa gain sia **Áhuy**, **Wantén**, aa, **Rosalína**,
i-ni we pa gáin sia Áhuy Wantén aa Rosalína
3SG-POSS.I child ART name.3PL.AN 3PL.AN Ahuy Wanten HES Rosalina

Rosalína Gamán, le wepa, **Pasí**
Rosalína Gamán le we-pa Pasí
Rosalina Gaman thing DEM.CNT.NSG-MID Pasi

'Some of the names of his children were Ahuy, Wanten, umm, Rosalina, Rosalina Gaman, those people [lit: 'things'], Pasi.' **AM155_09.39**

Modification by *a* 'PERS' is also not necessary when echoing someone's name for confirmation. This is shown in (34). The first time Speaker A mentions the name *Kónor*, it is modified by *a* 'PERS'. Speaker A then repeats the name, and Speaker B echoes the name back to Speaker A. In neither of these repetitions is *Kónor* modified by *a* 'PERS'.

(34) **A:** ... gain wa **Kónor a**, **Kónor**
gáin wa Kónor a Kónor
name.3SG PRED Konor PERS Konor

'...His name was Konor, Konor.'

B: Kónor
Konor

'Konor.' **AM112_09.48**

While *a* 'PERS' usually modifies personal names, it can also be used to modify other nouns, which are then interpreted as someone's name. This is shown, for example, in (35), where the NP *hun bin* 'queen' is modified by *a* 'PERS'.

(35) "**hun bin a** ya lote?"
hun bin a ya lo-te
king woman PERS 3SG.AN.PRED DEIC.N-CNST.INT

'Where is the Queen?' **AM020_09.01**

An NP can be modified by both *a* 'PERS' and the definite article *wana* 'DEF' (described in §6.2.9.2.2). This is shown in (36), where both *a* 'PERS' and *wana* 'DEF' modify the head noun *béle* 'cross-cousin'.

(36) **béle a wana** ntándel ine
béle a wana N-tán-del ine
cross.cousin PERS DEF 3SG.AN-go-follow 1SG

'Cousin [with whom you are familiar] will come with me.' **AM266_el.**

6.2.7 Modification by noun-modifying constructions

Noun-modifying constructions (NMCs) are verbal clauses or NPs, which function to modify a head noun. If the NP modified by an NMC functions as an argument, NMCs are introduced with *wa* 'NMC.DEF' if the NP is definite, and *ta* 'NMC.INDEF' if the NP is indefinite. Relative clauses are a subtype of NMC: they are verbal clause NMCs in which one of the arguments of the subordinate clause is coreferent with the head noun. Noun-modifying constructions introduced briefly here, and are discussed in more detail in §14.1.

NMCs always follow the head noun. An example of an NMC is given in (37). In this example, the clause headed by *tó* 'live' is used to modify the head noun *káwasa* 'community'.

(37) aa, mansope *justru* bin low wane ul*ajar* láp be
aa mansope justru bin low wa-ne ul-ajar láp be
HES then precisely woman two DEM.CNT-PROX 3DU-teach fire ALL

káwasa wa ntó po Láyn Sorongá apa
káwasa wa N-tó po Láyn Sorongá a-pa
community NMC.DEF 3SG.AN-live LOC sand paradise ART.NMC-ART

'Umm, then precisely these two women taught fire to the community **who lived at Paradise Sands**.' **AM066_31.18**

As the subject of the subordinated verb *tó* 'live' is coreferent with the head noun *káwasa* 'community', the NMC in (37) is an example of a relative clause.

Example (38) shows that, for an indefinite argument NP, *ta* 'NMC.INDEF' is used to introduce the NMC.

(38) *kalo* anta atútmat, beposa ido antanane atúthey wéy, létema **kapyáy**
kalo anta atút-mát beposa ido antanane atút-hey wéy létem-a kapyáy
if later 1PC.I-die after.that FRA later 1PC.I-live again like-PAR shrimp

ta **náut** **i**
ta n-áut i
NMC.INDEF 3SG-shed.skin 3SG.AN.O

'If we die, then after that we will live again, like **a shrimp that sheds its skin**.'

AM112_02.13

The NMC in (38) is another example of a relative clause NMC, in that the head noun *kapyáy* 'shrimp' is coreferent with both the subject and the object arguments of the reflexively-used subordinated verb *áut* 'shed skin' (see §8.2.1.2 for more on reflexivity).

An example of a non-relative clause NMC is given in (39). In this example, the head noun *now* 'house' is modified by a verbal clause NMC, headed by *ajar* 'teach'. The subject marking on the subordinated verb shows that the person, number, and animacy of the omitted argument is 3PL.AN. This 3PL.AN argument is not coreferent with the head noun *now* 'house'.

(39) *jadi* **ni** **now** **[wa** **la*ajar*]$_{NMC}$** **apa** anta
jadi ni-Ø now wa la-ajar a-pa anta
so POSS.II-3SG.AN house NMC.DEF 3PL.AN-teach ART.NMC-MID later

ambe káliw apune to
aN=be káliw a-pu-ne to
3SG.INAN=become village DEM.NCNT-DOWN-PROX IAM

'So his house [in] which they [will] teach will be in this village at the bottom.'

AM064_12.26

If an NP modified by an NMC is also modified by a deictic article, or the articles *pa* 'ART' or *ne* 'ART' (but not the article *wana* 'DEF'), these articles are marked with the prefix *a-* 'ART.NMC'. This is shown in examples (37) and (39) in this section, and will be discussed in more detail in §14.1.1.2.

6.2.8 Modification by demonstratives

Demonstratives in Ambel are derived from deictic units. Both demonstratives and deictic units were introduced in §3.6. The deictic units, and forms derived from them, will be described in detail in §12.2 below.

As introduced in §3.6, there are two kinds of demonstrative in Ambel: contrastive demonstratives, which are marked with *wa-* 'DEM.CNT' (and its non-singular counterpart *we-*; see below); and non-contrastive demonstratives, which are marked with *a-* 'DEM.NCNT'. When used with spatial reference, contrastive demonstratives explicitly or implicitly single an entity out from other, similar entities. Non-contrastive demonstratives, on the other hand, point to the spatial location of a referent, without singling it out. Both types of demonstrative can be used adnominally, pronominally, and adclausally. In this section, the adnominal uses of the demonstratives will be briefly exemplified. A full discussion of the adnominal, pronominal, and adclausal uses of contrastive and non-contrastive demonstratives, as well as a fuller discussion of the differences between the two types of demonstrative, can be found in §12.2.2.

When used adnominally, demonstratives are ordered after the head noun. Examples of contrastive and non-contrastive demonstratives are given in (40) and (41), respectively. In (40), the head noun *pál* 'side' is modified by the contrastive demonstrative *wa-pa* 'DEM.CNT-MID', to 'point' towards the two sides of the sago oven the speaker is describing. In this example, the two sides of the sago oven that are blackened are implicitly contrasted with the other sides, which are not.

(40)

ipal	**low**	**wapa**	sisím	rani	cíw
i-pál	low	wa-pa	si-sím	rani	<y>tíw
3INAN-side	two	DEM.CNT-MID	3NSG.INAN-be.blackened	so	<1SG>use.sago.oven

asi	póto
asi	póto
3NSG.INAN.O	NEG.IAM

[Talking about a sago oven while demonstrating how to use it:] '**Those two sides** are blackened, so I don't use them anymore.' **AM069_19.40**

Example (41) shows the modification of the noun *welo* 'river' by the non-contrastive demonstrative *a-i-pa* 'DEM.NCNT-UP-MID'. Modification by this demonstrative provides the spatial information necessary for the speaker to be

able to identify the intended referent, without implicitly or explicitly contrasting that river with any other river.

(41) "... jók kórben pa, ia nteyn i be **welo**
<y>dók kórben pa ia N-teyn i be we-lo
<1SG>meet dragon ART 3SG.AN 3SG.AN-soak 3SG.AN.O LOC water-place
aipa"
a-i-pa
DEM.NCNT-UP-MID

'[He said:] "...I met the dragon, he was soaking himself in **the river at the top there**".' **AM031_03.59**

If the NP is non-singular, this is optionally marked with the prefix *we-* 'DEM.CNT.NSG'. This is shown in (42). This example also shows that the prefix *we-* 'DEM.CNT.NSG' can co-occur with the non-singular particle *i* 'NSG' within a single NP.

(42) *akhirnya*, *waktu* wapa, uma*bangun* **now** **i** **wene**...
akhirnya waktu wa-pa uma-bangun now i we-ne
finally time DEM.CNT-MID 1DU.E-build house NSG DEM.CNT.NSG-PROX

'Finally, at that time, the two of us built these houses...' **AM125_10.33**

In the naturalistic corpus, however, contrastive demonstratives derived with *we-* 'DEM.CNT.NSG' rarely cooccur with *i* 'NSG'. An example of a non-singular NP modified by a contrastive demonstrative formed with *we-* 'DEM.CNT.NSG', but without modification by *i* 'NSG', is given in (43).

(43) posa ido nabyáya **gámnyay** **wene**
posa ido na-byáy-a gámnyay we-ne
after.that FRA 3SG-burn-PAR dry.sago.leaf.litter DEM.CNT.NSG-PROX

'After that, then he burnt these dry sago leaves.' **AM188_10.56**

If the NP is non-singular, and modified by a non-contrastive demonstrative, the non-singular number is marked in the NP as described in §6.2.5, i.e. using the particle *i* 'NSG'. Unlike the contrastive demonstratives just described, there is no number marking on non-contrastive demonstratives. This is shown in (44).

(44) o, láp do **welo** **i** **amua**?
o l-áp do we-lo i a-mu-a
oh 3PL.AN-paddle PERL water-place NSG DEM.NCNT-IN-AND

'Oh, they paddle up the rivers inland there?' **AM064_07.46**

Demonstratives can co-occur with the definite article *wana* 'DEF' (and its non-singular counterpart *wena* 'DEF.NSG'), within the same NP.[5] This is shown in (45), in which the NP headed by *máni* 'bird' is modified by both the contrastive demonstrative *wa-hana* 'DEM.CNT-AND', and the singular definite article *wana* 'DEF'.[6] This example shows that demonstratives are ordered before articles in the NP.

(45) **máni** **wahan** **wan** ido nakáton po áy kóp wapa
máni wa-hana wana ido na-káton po áy kóp wa-pa
bird DEM.CNT-AND DEF FRA 3SG-sit LOC tree branch DEM.CNT-MID

'As for that bird from earlier [with which you are familiar], it was sitting on this branch.' **AM042-04_00.02**

6.2.9 Modification by articles

In this section, the form, function, and syntax of articles in Ambel will be discussed. The choice of article in Ambel is a complex picture, determined by the definiteness, accessibility, and semantic specificity of the NP, as well as whether the speaker wants to provide information about spatial deixis. Here, I give a brief overview of the different functions of Ambel articles. Definite NPs are marked by the definite article *wana* 'DEF' (or non-singular *wena* 'DEF.NSG'); the articles *pa* or *ne* 'ART'; or one of thirty-two deictic articles. Deictic articles are used if the speaker wishes to convey information about the spatial location of a referent. If the speaker does not wish to communicate this information, definite NPs can be marked with either *pa* or *ne* 'ART', or *wana*/*wena* 'DEF'/'DEF.NSG', depending on the accessibility of the NP. More accessible NPs – for example, those which are more salient, or more

5. I do not have any data showing whether demonstratives can cooccur with deictic articles, or the articles *pa* or *ne* 'ART'.

6. In this example, the andative root *hana* 'AND' contributes a past temporal meaning, signalling that the bird was the same as another bird that the addressee saw earlier. See §12.2.2.1.2 for more on the temporal function of contrastive demonstratives. The demonstrative *wa-pa* 'DEM.CNT-MID' in this example, which modifies the NP headed by *kóp* 'branch', is used cataphorically to modify an indefinite, pragmatically specific NP; see further §12.2.2.1.4.

recently-mentioned in the discourse – are marked with *pa* or *ne* 'ART', whereas less accessible NPs are marked with *wana*/*wena* 'DEF/DEF.NSG'. If the NP is indefinite, the article is determined by the semantic specificity of the NP, i.e. whether it is referential. Indefinite, semantically specific NPs are marked with either *pa* or *ne* 'ART', whereas indefinite, semantically non-specific NPs are unmarked. In addition, the indefinite noun *gana* 'one' can be used as an article, to modify both indefinite, semantically specific NPs and indefinite, semantically non-specific NPs.

These properties of articles are summarised in Table 6.2.

Table 6.2: Summary of articles

<table>
<tr><td colspan="3">+DEFINITE</td><td colspan="2">–DEFINITE</td></tr>
<tr><td colspan="2">–SPATIAL DEIXIS RELEVANT</td><td rowspan="2">+SPATIAL DEIXIS RELEVANT</td><td rowspan="2">+SEMANTICALLY SPECIFIC</td><td rowspan="2">–SEMANTICALLY SPECIFIC</td></tr>
<tr><td>+ACCESSIBLE</td><td>–ACCESSIBLE</td></tr>
<tr><td>pa, ne 'ART'</td><td></td><td rowspan="4"></td><td rowspan="3"></td><td rowspan="3"></td></tr>
<tr><td rowspan="3"></td><td>wana 'DEF',
wena 'DEF.NSG'</td></tr>
<tr><td rowspan="3"></td><td>Deictic articles</td></tr>
<tr><td rowspan="3"></td><td>pa, ne 'ART'</td><td rowspan="2"></td></tr>
<tr><td colspan="2">gana 'one'</td></tr>
<tr><td colspan="2"></td><td></td><td>No modification</td></tr>
</table>

The rest of this section is structured as follows. In §6.2.9.1, I outline the typology used as the starting point in this investigation, Dryer (2014), and provide some definitions for the terminology introduced above. Following this, the articles used to modify definite NPs are described in §6.2.9.2, and those used to modify indefinite NPs are described in §6.2.9.3.

6.2.9.1 Theoretical background

Dryer (2014) presents a typology of articles according to the definiteness of the NPs in which they can felicitously occur. How definite or indefinite an NP is can be determined by its position on what he terms the Reference Hierarchy. The Reference Hierarchy is given in (46).

(46) The Reference Hierarchy (Dryer 2014: e235):[7]
anaphoric definites > nonanaphoric definites > pragmatically specific indefinites > pragmatically nonspecific, semantically specific indefinites > semantically nonspecific indefinites

The order of the hierarchy given in (46) is based on two assumptions:

1. If an article in a language is used for more than one kind of NP on the hierarchy, the kinds of NPs with which the article can be used will be contiguous;

2. Semantically and pragmatically, those NPs that are further left on the hierarchy can be characterised as 'more definite', while those further right can be characterised as 'less definite'.

Several terms used in the hierarchy require definition. First, there is a distinction between **definite** NPs on the one hand (anaphoric and nonanaphoric definites), and **indefinite** NPs on the other (pragmatically specific, pragmatically nonspecific but semantically specific, and semantically nonspecific indefinites). The notion of definiteness is typically defined in terms of **uniqueness/maximality** and **familiarity** requirements (Abbott 2004; Lyons 1999). If a singular NP is definite, the entity to which it refers is unique, in that there is one and only one entity in that context (Abbott 2004; Davis et al. 2014). For example, in (47), the English singular definite NP *the balloon* is only felicitous in a context where at least one and at most one balloon popped. In a context where many balloons popped, as in (48), the use of the singular definite is not felicitous.

(47) [Context: One balloon pops]
The balloon popped.

(48) [Context: Many balloons pop]
a. # The balloon popped.
b. The balloons popped.

7. This hierarchy does not include pronouns, generics, or true predicate nominals.

Similarly, the maximality requirement means that the felicitous use of the plural definite NP *the cats* in (49) depends upon all of cats in this context being asleep. If there is a context in which five cats are sleeping, but five are not, as in (50), the use of the plural definite NPs is not felicitous.

(49) [Context: Ten cats are sleeping]

The cats are sleeping.

(50) [Context: Five cats are sleeping, five cats are not sleeping]

The cats are sleeping.

Familiarity is the second criterion by which definite NPs are defined (Abbott 2004; Lyons 1999). If the information is entirely novel to the addressee, a definite NPs is infelicitous, as shown in (51).

(51) [Context: A does not know that B has been coveting a particular coat]

A: What did you do today?
B: I bought a/#the new coat.

Dryer distinguishes two different kinds of definite NP – **anaphoric definites** and **nonanaphoric definites**. He defines anaphoric definites as those which are coreferent with an NP that has already been mentioned in the preceding discourse, i.e. those NPs which Prince (1992) describes as 'discourse-old'. Nonanaphoric definites, on the other hand, are NPs that have not been mentioned in the preceding discourse, but which refer to an entity that the speaker presumes the addressee to be familiar with – Prince's 'hearer-old'.

Aside from definiteness, the other main distinction made in the classification of NPs is between **specific** and **non-specific** NPs – or, more precisely, between semantically specific and non-specific NPs, and pragmatically specific and non-specific NPs. A semantically specific NP is an NP which refers to an entity that exists in the world. For example, in the sentence *I bought a new book*, the NP denoting the book is semantically specific, because the object itself exists and can be pointed to in the physical world. In the sentence *I'm shopping for a new book*, on the other hand, the same NP is semantically non-specific, because the speaker does not yet know which book she will buy (or even if she will buy a book at all).

The distinction between pragmatic specificity and non-specificity is harder to define; Dryer states that the use of a pragmatically specific NP "...strongly correlates with subsequent reference: a pragmatically specific indefinite noun phrase normally introduces a participant into the discourse that is referred to again in the subsequent discourse, while a pragmatically nonspecific indefinite noun phrase normally does not" (2014: e236; see also Ebert and Hinterwimmer 2013, Ionin 2013). He goes on to note that, in English, the use of *this* to modify an indefinite NP is an example of pragmatic specificity. For example, if a speaker were to say *This guy came up to me...*, the use of *this* in this context suggests that the speaker intends to elaborate further, either on the person who approached him, or on the ensuing events.

In the remainder of this section, the felicity of Ambel articles with NPs at different points on the Reference Hierarchy will be exemplified. The data presented in these sections is a combination of data from the naturalistic corpus and targeted elicitation sessions.[8]

6.2.9.2 Definite NPs

In this section, I describe how articles are used in definite NPs. As described above, if the NP is definite, and the speaker wishes to communicate additional information about the spatial location of a referent, the NP is marked with a deictic article. Modification by deictic articles is discussed in §6.2.9.2.1. If spatial information is not relevant, the choice of article is determined by the accessibility of the NP. Definite NPs for which spatial deixis is not relevant are discussed in §6.2.9.2.2.

6.2.9.2.1 Spatial deixis relevant: Deictic articles

Deictic articles are formed with deictic units, introduced in §3.6.[9] In that section, I described two types of deictic unit: demonstrative roots, in which a three-way distance contast is made, as well as the andative root *hana*

8. The methodology used in elicitation follows Davis et al. (2014): for each of the articles, hypotheses were formulated, and attempts were made to falsify the hypotheses. Where the use of an article in a particular context meant the hypothesis could be falsified, then the hypothesis with regards to the definiteness or specificity of that article was rejected.
9. See Lyons (1999: 55-57) for a discussion of languages with a deictic distinction in their definite articles.

'AND'; and directional stems, which are derived through the prefixation of one of seven directional prefixes to one of these four demonstrative roots. Unlike demonstratives, deictic units used as deictic articles do not take further morphology, but occur uninflected. As described in §3.7, articles, including deictic articles, cannot be used pronominally. This is another feature distinguishing deictic articles from demonstratives.

An example of an NP modified by a deictic article is given in (52). In this example, the noun *ember* 'bucket' is modified by the deictic article *li-ne* 'LAND-PROX'. This deictic article is a directional stem, comprising the proximal demonstrative root *ne* 'PROX', and the directional prefix *li-* 'LAND', which indicates the referent is in a landwards location. This deictic article indicates both that the NP is definite, and that the referent of the head noun *ember* 'bucket' is close to the speaker, in a landwards direction.

(52)

mokoné:	"potó,	***ember***	**line**	andi	to"
mokoné	potó	ember	li-ne	aN=di	to
say.3SG.AN	that's.that	bucket	LAND-PROX	3SG.INAN=be.full	IAM

'[She said:] "That's that, **the nearby bucket in a landwards direction** is full".'

AM078_00.36

Since NPs modified by deictic articles are definite, they are both familiar (i.e. the referent is known to both the speaker and the addressee), and meet the uniqueness and maximality requirements discussed in §6.2.9.1. The definiteness of NPs modified by deictic articles is shown by the infelicity of examples (53)–(55). In (53), the referent is unfamiliar to the addressee, so modification by the deictic article *lu-pa* 'SEA-MID' is infelicitous.

(53) [Context: No previous discussion of pigs; no pig is present in the extra-linguistic context.]

# gáhana	ya-mnyál	kayáw	lu-pa
last.night	1SG-dream	pig	SEA-MID

[Intended reading:] 'Last night, I dreamt about a pig (which was in a seawards direction).' **AM208_el.**

In (54), the uniqueness requirement is not met: in a context where more than one *tamcám* 'cuscus' is tame, the singular NP modified by the deictic article *lu-pa* 'SEA-MID' is infelicitous.

(54) [Context: There are ten tame cuscuses in a seawards direction.]
tamcám lu-pa n-ámu
cuscus SEA-MID 3SG-be.tame

'The cuscus (in a seawards direction) is tame.' **AM208_el.**

Finally, (55) shows that deictic articles are not felicitous when the maximality requirement is not met. In this example, the deictic article *lu-pa* 'SEA-MID' cannot be used to refer to all of the dogs if all of the dogs are not white.

(55) [Context: There are ten dogs in front of the house: five are black, five are white.]
ái lu-pa la-bu
dog SEA-MID 3PL.AN-white

'The dogs (in a seawards direction) are white.' **AM208_el.**

Deictic articles can modify both anaphoric and nonanaphoric NPs. An example of a nonanaphoric use of the deictic article *i-ma* 'UP-DIST' is given in (56). In this example, the speaker is talking to several other people about a trip that the researcher had taken the previous day. In this example, the NP headed by *mánsar* 'respected man' is modified by the deictic article *i-ma* 'UP-DIST'. None of the speakers have mentioned this particular *mánsar* 'respected man' in the preceding discourse. The context makes it clear, however, that the speaker expects the addressees to be able to infer the 'respected man' to whom he is referring, i.e., 'God'.

(56) ... "lone andadia loim to, **mánsar** **lál**
lo-ne aN=dadi-a lo-i-ma to mánsar lál
DEIC.N-PROX 3SG.INAN=be.same-PAR DEIC.N-UP-DIST IAM respected.man big
ima ni loim to"
i-ma ni-Ø lo-i-ma to
UP-DIST POSS.II-3SG.AN DEIC.N-UP-DIST IAM

'[When they were deep in the forest, she said:] "This place is the same as the place that is high up [i.e. heaven], [it's like] the place of **the gentleman who is high up** [i.e. God]".' **AM064_03.26**

Most deictic articles in the naturalistic corpus mark nonanaphoric NPs, like the one in (56). This is presumably because, once an entity has already been referred to

in the discourse and identified by the participants, reference to the spatial location of that entity is no longer necessary. However, there are some examples of deictic articles modifying anaphoric NPs. One such example is given in (57), which comes from a folk tale. At this point in the story, a man has just entered the village of his wife's kidnapper. The kidnapper is holding a big party, which the man joins. When he sits down, he spots his kidnapped wife, and she spots him; the two of them watch each other. Both of the NPs headed by *mákay* 'child' in this example are modified by *mana* 'DIST', a deictic article formed of the distal demonstrative root. Not only are these NPs anaphoric in that the woman is mentioned twice in this example, but she has also been a central character in the narrative, and has been mentioned dozens of times in the preceding discourse.

(57)

kinakáton	ido	ia	haním,	aléna,	**mákay**	**bin**	**mana**,	**mákay**
ki=na-káton	ido	ia	N-haním	aléna	mákay	bin	mana	mákay
EMO=3SG-sit	FRA	3SG.AN	3SG.AN-watch	PLH	child	woman	DIST	child

bin	**mana**	haním	i...
bin	mana	N-haním	i
woman	DIST	3SG.AN-watch	3SG.AN.O

'When he sat, then he watched, y'know, the far-away young woman, the far-away young woman watched him....' **AM020_07.44**

6.2.9.2.2 Spatial deixis not relevant: *pa* 'ART' and *ne* 'ART'; *wana/wena* 'DEF/DEF.NSG'

If spatial deixis is not relevant, then definite NPs are marked with either *wana/wena* 'DEF/DEF.NSG', or by the articles *pa* or *ne* 'ART'. The choice between *pa* or *ne* 'ART' and *wana/wena* 'DEF/DEF.NSG' is determined by how accessible the modified NP is. In this section, I first discuss the form and function of *wana/wena* 'DEF/DEF.NSG'. This is followed by an explanation of the role of accessibility in the choice between *wana/wena* 'DEF/DEF.NSG' and *pa* or *ne* 'ART'.

The definite articles *wana* 'DEF' and *wena* 'DEF.NSG'

This section describes the definite article *wana* 'DEF', and its non-singular counterpart *wena* 'DEF.NSG'. I begin by presenting evidence to show that these articles modify definite NPs. The singular article *wana* 'DEF' also modifies clauses; this function is discussed briefly. Following this, I discuss how the number

of the NP is marked with *wana* 'DEF' and *wena* 'DEF.NSG'. I also discuss the interaction between the non-singular article *wena* 'DEF.NSG', and other markers of non-singularity in the NP, such as quantifiers, or the particle *i* 'NSG'. Finally, the differences between NPs modified by *wana/wena* 'DEF/DEF.NSG', and those modified by the deictic articles described in the previous section, are exemplified.

The articles *wana/wena* 'DEF/DEF.NSG' indicate that the NP is definite, i.e. the referent both is known to the addressee, and meets the uniqueness/maximality requirement discussed above. If the referent is unfamiliar to the addressee, modification by *wana/wena* 'DEF/DEF.NSG' is infelicitous. This is shown in (58), in which modification of an unfamiliar NP by *wana* 'DEF' is not possible.

(58) [Context: No previous discussion of dolphins; no dolphins in the extra-linguistic context.]
gáhana ya-mnyál umbón wana
last.night 1SG-dream dolphin DEF

[Intended reading:] 'Last night, I dreamt about a dolphin.' **AM208_el.**

Similarly, if the context is such that uniqueness/maximality requirements are not met, then *wana/wena* 'DEF/DEF.NSG' is not felicitous. This is shown in (59) and (60). In (59), the speaker is feeding more than one cuscus; the cuscus he is referring to is therefore not unique. The uniqueness criterion is not met, and *wana* 'DEF' is not felicitous.

(59) [Context: The speaker is feeding ten cuscuses.]
ya-hán tamcám wana
1SG-feed cuscus DEF

'I feed the cuscus.' **AM268_el.**

In (60), the maximality criterion is not met, in that not all of the dogs are white. In this context, *wena* 'DEF.NSG', is not felicitous.

(60) [Context: There are ten dogs in front of the house: five are black, five are white.]
ái wena la-bu
dog DEF.NSG 3PL.AN-white

'The dogs are white.' **AM208_el.**

In (61a-c), the use of *wana* 'DEF' is exemplified using data from the naturalistic corpus. These examples show how *wana* 'DEF' can be used to mark anaphoric definite NPs. The examples come from a task in which one speaker watched a short cartoon, and was asked to tell another person what had happened in that cartoon (similar to the *Pear Story* task; Chafe 1980).[10] This cartoon features a bird and a fly. In the cartoon, the fly crawls all over the bird, but manages to evade the bird's attempts to kill it. When the fly is first introduced, in (61a), the speaker modifies the NP with the article *pa* 'ART' (see below for the use of *pa* 'ART' to mark indefinite NPs).

(61) a. **A:** nané ido **lán pa** nala hánin
n-ané ido lán pa na-la hánin
3SG-sleep FRA fly ART 3SG-ORI to.there

'When he slept, then **a fly** went there.' **AM042-06_00.07**

Two subsequent mentions of *lán* 'fly' in the text are modified by *wana* 'DEF'.[11] The first mention with *wana* 'DEF' is given in (61b). In this example, the relevant NP is Speaker A's response to Speaker B's question.

(61) b. **B:** máni pa nsák a?
máni pa N-sák a
bird ART 3SG.AN-bite what

[INTERRUPTING:] 'What did the bird bite?'

A: lán wana
fly DEF

'**The fly**.' **AM042-06_00.33**

The second use of *wana* 'DEF' to modify *lán* 'fly' is given in (61c). In this example, Speaker A is explaining how the fly managed to escape the bird's attempts to kill him.

10. *La Chouette*, created and directed by Alexandre So (episode 47, 'The Fly').
11. Not all subsequent mentions of the *lán* 'fly' in text **AM042-06** are modified with *wana* 'DEF'. As was introduced above, and will be described below, the articles *pa* and *ne* 'ART' can also be used to modify definite, accessible NPs.

(61) c. **A:** ... ido **lán wana** nápo wéy
ido lán wana n-ápo wéy
so.then fly DEF 3SG-fly again

'[The bird tried to kill the fly, but he couldn't kill it,] and then **the fly** flew [away] again.' **AM042-06_00.38**

The articles *wana*/*wena* 'DEF/DEF.NSG' can also be used to modify nonanaphoric definite NPs, i.e. NPs that have not previously been mentioned in the discourse, but which are expected to be familiar to the addressee. An example of the nonanaphoric use of *wana* 'DEF' is given in (62). This example comes from a story in which a queen is kidnapped by a king who has arrived from the sea. The queen has just persuaded the king to let her prepare some food for her husband before she is taken. Unbeknownst to her kidnapper, the queen takes this opportunity to tell the house cat about her situation, so that the cat can tell her husband when he comes home. This is the first mention of *boki* 'cat' in the narrative; however, because it is very common for a household to own at least one cat, the referent can be presumed to be familiar to the audience.

(62) nabá asi bepol ido mbín **boki** **kiwana**,
na-bá asi bepol ido N-bín boki ki=wana
3SG.AN-leave.behind 3NSG.INAN.O after.that FRA 3SG.AN-speak cat EMO=DEF
mokoné: "ine, aléna, lál ine to"
mokoné ine aléna l-ál ine to
say.3SG.AN 1SG PLH 3PL.AN-take 1SG IAM

'After she had left it [the food] behind, then she spoke to the cat, she said: "Me, y'know, they are about to take me".' **AM020_04.48**

The singular article *wana* 'DEF' can be used to modify the temporal nouns *pánye* 'morning', *layntatopón* 'mid-afternoon', and *lányun* 'late afternoon'. These constructions refer to the relevant time period earlier the same day (i.e., since the sun has risen). In (63), for example, the reading is 'this morning'.

(63) **pánye wana**, aa, abí yin le po, pape...
pánye wana aa abí y-in le po pape
morning DEF HES want 1SG-do thing NEG but

[Said at approximately 10.30am:] 'This morning (around 6am), um, I wasn't going to do anything, but...' **AM167_00.09**

As mentioned at the beginning of this section, the singular form of the definite article, *wana* 'DEF', can also be used to modify clauses. In this adclausal use, *wana* 'DEF' indicates that the action, event, or state communicated by the clause is familiar to the addressee. This is most clearly shown in (64a) and (64b). These two utterances are contiguous in the discourse. Whereas, at the first mention of the husband and wife dying, in (64a), the event is unknown to the addressee, at the second mention, in (64b), the event is now familiar to the addressee.

(64) a. ape atúto áylo aylén ido mé low iawa pa
ape atú-tó áy-lo aylén ido mé low i-awá pa
but 3PC-live tree-place like.this.until FRA person two 3SG-spouse ART
umát
u-mát
3DU-die

'But they lived in the forest like this, until the husband and his wife died.'
AM113_00.28

b. **umát wana** ido ini we kipa ntoróy tu
u-mát wana ido i-ni we ki=pa N-tó-róy tu
3DU-die DEF FRA 3SG-POSS.I child EMO=ART 3SG.AN-live-live.with COM
itabyu bísar kipa
i-tábyu bísar ki=pa
3SG-grandparent old.woman EMO=ART

'When the two of them died (an event which you, the addressee, are now familiar with), then his [i.e., the dead father's] child lived with his grandmother.' **AM113_00.33**

Turning now to focus on non-singular definite NPs. When an NP is non-singular, the definite article is optionally *wena* 'DEF.NSG'.[12] Examples of *wena* 'DEF.NSG' are given in (65) and (66).

(65) **mán wena** ladók to
mán wena la-dók to
man DEF.NSG 3PL.AN-leave IAM

'The men [of the village] had already left.' **AM074_01.33**

(66) ido núl **mákay wena**, láraru mánin
ido n-úl mákay wena l-áraru mánin
so.then 3SG-call child DEF.NSG 3PL.AN-gather to.here

'So he [the head of the village] called the people of the village [lit: 'children'], they gathered here.' **AM125_03.17**

In most cases, if the non-singular definite article *wena* 'DEF.NSG' is used to modify an NP, then the non-singular particle *i* 'NSG' is not used. There are a handful of instances, however, of *wena* 'DEF.NSG' and *i* 'NSG' co-occurring in the same NP. An example is given in (67).

(67) nala lúl be nasidón **mán i wena**
na-la lúl be na-sidón mán i wena
3SG.AN-ORI seawards PURP 3SG-inform man NSG DEF.NSG

'He went seawards in order to inform the men.' **AM193_02.24**

If an NP is modified by a quantifier, the non-singular form *wena* 'DEF.NSG' is also optional. This is shown in (68), in which either the singular *wana* 'DEF' or the non-singular *wena* 'DEF.NSG' can be used, without a change in meaning.

12. The non-singular definite article has developed from an earlier form *wena* 'DEF.NSG', in which the form *wana* was infixed by <*i*> 'NSG'. The infix <*i*> 'NSG' is related to the non-singular particle *i* 'NSG' (see §6.2.5). In careful speech, some older speakers still realise the non-singular form of this article as [waina]. The majority of the speech community, however, realise the form as [wena]; for this reason, the synchronic analysis of the non-singular form is *wena* 'DEF.NSG', rather than *wa<i>na* '<NSG>DEF'.

(68)

yala	lúl	be	yasidón	mákay	túl	**wena/wana**
ya-la	lúl	be	ya-sidón	mákay	túl	wena/wana
1SG-ORI	seawards	PURP	1SG-inform	child	three	DEF.NSG/DEF

'I go seawards to inform the three children.' **AM266_el.**

However, if both a quantifier and the non-singular form *wena* 'DEF.NSG' are present in the NP, additional modification by the non-singular particle *i* 'NSG' is ungrammatical, as shown in (69).

(69)

*								
yala	lúl	be	yasidón	mákay	túl	i	wena
ya-la	lúl	be	ya-sidón	mákay	túl	i	wena
1SG-ORI	seawards	PURP	1SG-inform	child	three	NSG	DEF.NSG

[Intended reading:] 'I go seawards to inform the three children.' **AM266_el.**

Before moving on to a discussion of how definite NPs marked with *wana* 'DEF' and *wena* 'DEF.NSG' differ from those marked by *pa* and *ne* 'ART', I will briefly describe the differences between definite NPs marked with *wana/wena* 'DEF/DEF.NSG', and those marked with the deictic articles discussed in the previous section. Above, I explained that deictic articles are used to modify definite NPs, if the speaker wants to provide additional information about the spatial location of the referent. If the speaker does not want to encode this information, the NP is marked with *wana* 'DEF' or *wena* 'DEF.NSG' (if the NP is less accessible; see the following section).

An example from the corpus demonstrating the difference between *wana/wena* 'DEF/DEF.NSG' and the deictic articles is given in (70). In this example, Speaker A has misheard the word *yét* 'anchor' as /at/, and is asking Speaker B what he meant by this. Speaker B responds by repeating the noun *yét* 'anchor' twice. The first time he says it, *yét* is modified by the definite article *wena* 'DEF.NSG'; the second time, it is modified by the deictic article *li-ma* 'LAND-DIST'. The use of *wena* 'DEF.NSG' on the first iteration shows that Speaker B assumes that Speaker A is familiar with the anchors to which he is referring.[13] When Speaker B suspects that Speaker A may still be confused, he repeats *yét* 'anchor' again, this time modified by the deictic

13. In fact, the extra-linguistic context makes it clear that Speaker A is indeed familiar with the anchors: Speaker A set up this recording session so that Speaker B could tell the story explaining why there are anchors deep in the jungle near the village of Warimak.

article *li-ma* 'LAND-DIST', to provide additional spatial information that will help Speaker A to identify the intended referent.

(70) **A:** 'at' ido lé ta anglapa?
'at' ido lé ta aN=lapa
'at' FRA thing FOC.NSPEC 3SG.AN=CNST.INT

'What is an "at"?'

B: **yét** **wen** pu? **yét** **lima**
yét wena pu yét li-ma
anchor DEF.NSG ATT.INT anchor LAND-DIST

'The anchors, you know? The anchors that are far inland.' **AM112_09.48**

NP accessibility and the choice of article

The articles *wana* 'DEF' and *wena* 'DEF.NSG' are not the only articles that are used to modify definite NPs where spatial information is not relevant. Depending on the cognitive accessibility of the NP, the articles *pa* and *ne* 'ART' can also be used.[14] Following e.g. Ariel (1990), Gundel et al. (1993), accessibility is to do with how focussed the addressee is on a particular entity or concept; Kahneman states that the determinants of accessibility include: "...stimulus salience, selective attention, specific training, associative activation, and priming" (2003: 699). One of the main ways to measure how accessible a concept is, for example, is the distance between the anaphoric expression and its antecedent: the less time that has passed between the anaphoric expression and its antecedent, the more accessible the concept is likely to be, and the more time that has passed, the less accessible it is (Piwek et al. 2008: 703).

14. The articles *pa* and *ne* 'ART' are recent grammaticalisations from demonstrative roots, viz. the medial demonstrative root *pa* 'MID' and the proximal demonstrative root *ne* 'PROX', respectively (see §12.2.1.1 for more on the demonstrative roots; and Epstein 1994 and Lyons 1999: 55-57 for the development of articles from demonstratives). As described in §6.2.9.2.1, demonstrative roots can be used, uninflected, as deictic articles. This includes the demonstrative roots *pa* 'MID' and *ne* 'PROX'. In any systematic study *ne* and *pa*, there is therefore potential confusion between the demonstrative roots *pa* 'MID' and *ne* 'PROX' and the articles *pa* and *ne* 'ART'. What's more, as will be described in §6.2.9.3.1, *pa* and *ne* 'ART' can also be used to modify indefinite, semantically specific NPs. Due to these potential confusions, I do not have any systematic data showing that *pa* and *ne* 'ART' modify definite NPs. However, the examples in this section will show that *pa* and *ne* 'ART' modify NPs that are very similar in terms of definiteness to those modified by the deictic articles, as well as those modified by *wana* 'DEF' and *wena* 'DEF.NSG', discussed in the previous sections.

The more accessible an entity or concept is to the addressee, the more likely the speaker is to use the articles *pa* or *ne* 'ART'; the less accessible the entity or concept is, the more likely the speaker is to use the definite article *wana*/*wena* 'DEF/DEF.NSG'. This is shown in (71a–f). These examples come from a children's story, in which a mysterious king comes to the village in search of a beautiful flower about which he has dreamt. When the *hun* 'king' is first introduced in (71a), the NP is modified by *gana* 'one' (see below for the use of *gana* 'one' with indefinite NPs).

(71) a. **hun kigana** po lo kalíw kigana nané ném ankia...
hun ki=gana po lo kalíw ki=gana n-ané n-ém an<ki>a
king EMO=one ABL place village EMO=one 3SG-sleep 3SG-see <EMO>3SG.INAN

'A king from a village slept and dreamt about it [the flower]...'

AM019_04.55

The two subsequent mentions of the king, in (71b) and (71c), come shortly after his introduction. The king is a very salient character in this scene: he has come to the village where the two main characters of the story, Magdalena and Helena, live, in order to find the flower. He finds it in the possession the two girls, and instructs them to uproot it, in order to determine which of the two of them owns the flower. The character of the king is highly accessible at this point in the story; this is marked by the article *pa* 'ART', which is used to modify the NPs headed by *hun* 'king' in both (71b) and (71c).

(71) b. ... **hun pa** mokoné: "lap ido Heléna a nyakapá ana"
hun pa mokoné la-pa ido Heléna a nya-kapá ana
king ART say.3SG.AN DEM.V-MID FRA Helena PERS 2SG-uproot 3SG.INAN

'...The king said: "If it's like that, then Helena, pull it [the flower] out".'

AM019_05.41

c. ido **hun kipa** monkoné: "kada aw wéy re"
ido hun ki=pa monkoné kada awa wéy re
so.then king EMO=ART say.3SG.AN EPI.should 2SG again IMM.FUT

'So then the king said: "You should try again".' **AM019_05.57**

The next mention of the king is later in the same scene. In this example, given in (71d), *hun* 'king' is modified by the definite article *wana* 'DEF'. This is because,

between (71c) and (71d), Magdalena has successfully uprooted the flower. The audience's attention is therefore focussed on her, rather than the king. The NP headed by *hun* 'king' is thus less accessible, and is marked with *wana* 'DEF'.

(71) d. ... **hun** **wana** monkoné: "lap ido potó, kiyál mow
hun wana monkoné la-pa ido potó ki=y-ál mowá
king DEF say.3SG.AN DEM.V-MID FRA that's.that EMO=1SG-take 2DU
bey to"
bey to
all IAM

'...The king said: "If it's like that then that's that, I will take both of you".'
AM019_06.20

In all subsequent mentions of the king in the story, *hun* 'king' is modified by *wana* 'DEF'. While the arrival of the king serves as the inciting incident for the action of the story, the character of the king becomes less important after Magdalena has pulled the flower out, and Magdalena and Helena take centre stage. As the story goes on, the character of the king becomes less accessible in the minds of the audience; hence the use of *wana* 'DEF' in (71e) and (71f).

(71) e. ido **hun** **wana** kinále...
ido hun wana ki=n-ále
so.then king DEF EMO=3SG-disembark

'So then the king disembarked...' **AM019_07.15**

f. ... után aya ulala mul ido **hun** **wana** nsun bón
u-tán aya ula-la mul ido hun wana N-sun bón
3DU-go TERM 3DU-ORI inside FRA king DEF 3SG.AN-enter go.first

'...When the two of them went inside [the house], then the king entered first.'
AM019_07.24

It was mentioned above that both *pa* and *ne* 'ART' can be used for highly accessible definites – but the examples have so far only shown *pa* 'ART'. The article *pa* 'ART' is the more frequent of the two. The use of *ne* 'ART' in to mark accessible definites communicates a closer physical or emotional connection of the

speaker with the referent.[15] This is shown in examples (72) and (73). Example (72) shows the use of *ne* 'ART' to refer to a highly accessible, definite NP, headed by *kamtat-narów* 'Bible'. While this is the first mention of the Bible in this particular recording, the speaker considers it to be highly accessible; as devout Christians, the Bible plays a very important role in the lives of the Ambel.

(72)

kamtatnarów	**ne**	andók	yé	wane	*pada*	*taun*	*ribu*
kamtat-narów	ne	aN=dók	yé	wa-ne	pada	taun	ribu
letter-clean	ART	3SG.INAN=arrive	island	DEM.CNT-PROX	in	year	thousand

isana	maya,	aa,	útun	lim	may	lim
i-sana	may-a	aa	útun	lim	may	lim
3INAN-one	NUM.LINK-PAR	HES	hundred	five	NUM.LINK	five

'The Bible arrived at this island in the year 1505.'[16] **AM188_20.22**

An example of *ne* 'ART' modifying a highly accessible, anaphoric definite NP is given in (73). In this example, *ne* 'ART' modifies *lamlám* 'Lamlam', the name of a former settlement on Fofak Bay, near present-day Kapadiri. The speaker is telling a story about two members of the Fiay clan; in this story, two members of the Wakaf clan accidentally set Lamlam on fire, and the two Fiay men help to extinguish it. This event was very important to both the Fiay and Wakaf clans, changing the political scene in north Waigeo. The emotional and political significance of this event explains why *Lamlám* 'Lamlam' is modified by *ne* 'ART'.

(73)

ido	ulabláp	ana	ido	ulúkua	**Lamlám**	**ne**	be
ido	ula-bláp	ana	ido	ul-úku-a	Lamlám	ne	be
so.then	3DU-cook	3SG.INAN	FRA	3DU-endanger-PAR	Lamlam	ART	COMPL

anán	bey
aN=nán	bey
3SG.INAN=burn	all

'So then when the two of them [Wakaf men] cooked it [a fish], then they made all of Lamlam burn.' **AM033_05.58**

15. For example, *ne* 'ART' often modifies modifies possessed NPs when the possessor is first person, and *pa* 'ART' often modifies possessed NPs when the possessor is second or third person. These are only trends, however: possessed NPs with first person possessors can be modified by *pa* 'ART', and possessed NPs with second or third person possessors can be modified by *ne* 'ART'.
16. A speech error: the speaker intended 1950.

Finally, *pa* 'ART' is used to refer to entites that can be considered "globally accessible" (Givón 2001: 461), i.e. those that are both unique and known to everyone, such as the sun and the moon. These entities not felicitous with *wana* 'DEF'; this is shown in (74).

(74) ... gám, mansope **tún** **pa**/#wana namnyé rani
gám mansope tún pa na-mnyé rani
night recently moon ART (DEF) 3SG.AN-be.bright so

'...It was night, [I know] since the moon had just become bright.'

AM042-02_00.16

6.2.9.3 Indefinite NPs

In these sections, articles modifying indefinite NPs will be discussed. Indefinite NPs in Ambel can be subdivided according to whether they are semantically specific, or semantically non-specific. Semantically specific indefinite NPs are modified by *pa* or *ne* 'ART', whereas semantically non-specific indefinite NPs are generally unmodified. The modification of semantically specific indefinite NPs is discussed in §6.2.9.3.1, and of semantically non-specific indefinite NPs is discussed in §6.2.9.3.2. Alternatively, the indefinite noun *gana* 'one' can be used as an article to modify indefinite NPs, regardless of specificity; this is discussed in §6.2.9.3.3.

6.2.9.3.1 Semantically specific NPs: *pa* and *ne* 'ART'

If an NP is indefinite (e.g., if the referent is not familiar to the addressee), but specific (i.e., the NP is referential), then the articles *pa* or *ne* 'ART' modify the NP. An example of the use of *pa* 'ART' in an indefinite NP was given in (61a) above; this example is repeated as (75). As described above, the speaker is telling the addressee about what has happened in a cartoon he has just watched. This is the first mention of *lán* 'fly', so there it is not familiar to the addressee.

(75) nané ido **lán** **pa** nala hánin
n-ané ido lán pa na-la hánin
3SG-sleep FRA fly ART 3SG-ORI to.there

'When he slept, then **a fly** went there.' **AM042-06_00.07**

Another example of the use of *pa* 'ART' to modify an indefinite NP is given in (76). This example comes from a children's story. At this point, the hero has travelled a long way, and has just met a queen (*hun bin*) for the first time. Once again, this queen character is indefinite, in that there is no reason to presume the audience is familiar with her.

(76) ... kinala hanín ido kindók aa, kindók **hun**
ki=na-la hanín ido ki=n-dók aa ki=n-dók hun
EMO=3SG.AN-ORI to.there FRA EMO=3SG.AN-meet HES EMO=3SG.AN-meet king
bin **pa**
bin pa
woman ART

'...When he went far over there, he met, umm, he met a queen.' **AM020_02.50**

The article *pa* 'ART' cannot be used to modify indefinite, semantically non-specific NPs. This is shown by the felicity of (77a), and the infelicity of (77b). In (77a), the NP headed by *bin* 'woman' is semantically specific, in that the speaker has a particular Biak woman in mind that he wishes to marry. In (77b), on the other hand, the NP headed by *bin* 'woman' is semantically non-specific: the speaker would like to marry an American woman, but cannot have a particular one in mind because he has never met an American woman. In this context, modification by *pa* 'ART' is infelicitous.

(77) a. [Context: addressee is not familiar with the speaker's intended bride]:
yabí yasáw **bin** ***Biak*** **pa**, kukura ya*kanal* i mina
y-abí y-asáw bin Biak pa kukura ya-kanal i min-a
1SG-want 1SG-marry woman Biak ART because 1SG-know 3SG.AN.O INSTR-PAR
taun wanóm
taun wanóm
year six

'I want to marry a Biak woman, because I have known her for six years.'
AM208_el.

b. # yabí yasáw **bin** ***Amérika*** **pa**, ape yunhatatán
y-abí y-asáw bin Amérika pa ape y-un-hatatán
1SG-want 1SG-marry woman America ART but 1SG-know-know.well
si pórin
si pórin
3PL.AN.O NEG.CONT

'I want to marry an American woman, but I don't know any of them [American women] yet.' **AM208_el.**

The examples thus far in this section have shown indefinite, semantically specific NPs modified by *pa* 'ART'. The article *ne* 'ART' can also be used to modify indefinite, semantically specific NPs, although less frequently than *pa* 'ART'. An example of an indefinite, semantically specific NP modified by *ne* 'PROX' is given in (78). This example comes from a folk tale, in which some women relocate to the top of a steep island for safety while the men of the village are out on a raiding mission. In this example, the leader of the women orders her companions to help her make a ladder. The indefinite NP headed by *lúnte* 'ladder' is modified by *ne* 'ART'.

(78) ido na*komando*: "bin mew! mabáy are! be magali ine be
ido na-komando bin mewá m-abáy are be ma-gali ine be
so.then 3SG-command woman 2PL 2PL-play PROHIB and 2PL-help 1SG COMPL
talén– tin **lúnte** **ne**"
t-alén t-in lúnte ne
1PL.I-do 1PL.I-make ladder ART

'Then she commanded: "You women! Don't mess around! Help me to do– [FALSE START] to make a ladder".'

The difference between indefinite, semantically specific NPs modified by *pa* 'ART' and those modified by *ne* 'ART' requires further investigation.

6.2.9.3.2 Semantically non-specific NPs: no modification

Indefinite, semantically non-specific NPs are unmarked. An example of two NPs which are not modified by an article are given in (79). In this example, the

speaker is talking about what his parents' life was like. Neither of the NPs *now* 'house' or *laló* 'sago garden' are referential.

(79)

lin	**now**	be	lató	mámpram	**laló**	
l-in	now	be	la-tó	mámpram	laló	
3PL.AN-make	house	PURP	3PL.AN-live	not.go.home	sago.garden	

'They built houses, so that they could live in the sago gardens without [having to] go back home [i.e., to the village].' **AM032_03.17**

6.2.9.3.3 Use of the indefinite noun *gana* 'one' as an article

The indefinite noun *gana* 'one' (and its fast-speech counterpart *sana*) was introduced in §3.2.5 above. It was shown there that *gana* 'one' is nominal, in that it can head NPs. However, *gana* 'one' can also be used adnominally, to modify specific or non-specific indefinite NPs.

An example of the modification of an indefinite specific NP by *gana* 'one' is given in (80). In this example, the speaker is informing his addressees about a dolphin which was accidentally killed the previous day. The speaker presumes that the addressees are not familiar with the dolphin, so he considers it indefinite. However, the NP is referential, referring to a specific dolphin that the speaker had seen; the NP is therefore specific.

(80)

...	láyntopana,	mákay,	aléna,	Jón	a	ni	*jaring*	pa
	láyntopana	mákay	aléna	Jón	a	ni-Ø	jaring	pa
	yesterday	child	PLH	Jon	PERS	POSS.II-3SG.AN	net	ART

amsáma	**umbón**	**gana**
aN=msám-a	umbón	gana
3SG.INAN=snag-PAR	dolphin	one

'...Yesterday, y'know, Jon's net snagged **a dolphin**.' **AM067_02.50**

An example of *gana* 'one' modifying an NP that is neither definite nor specific is given in (81). This example comes from a conversation about what can happen if a human goes into the forest without bringing offerings to propitiate the *mútum* spirits who live there. In this example, it is clear from the preceding context that the

speaker does not have a particular person in mind; the NP headed by *mét* 'person' is thus non-specific.

(81)

líy	**mét**	**gana**	la	pul
l-íy	mét	gana	la	pul
3PL.AN-eat	person	one	ORI	downwards

'They [can] eat **a person** [from the top] to the bottom.' **AM064_09.26**

Unlike other articles, *gana* does not undergo prosodic phrase-medial /a/-elision (described in §2.4.7). This is shown in (82). In this way, *gana* 'one' is unlike the other articles discussed in this section, which do undergo ProP-medial /a/-elision.

(82)

[tájin	gana/*gan	wéy]$_{ProP}$	ido	nsól	i	be	póto
tájin	gana	wéy	ido	N-sól	i	be	póto
time	one	again	FRA	2SG-order	3SG.AN.O	COMPL	NEG.IAM

'One more time, and then order her to stop!' **AM185_05.44**

However, like the other articles discussed in these sections, and unlike nouns, *ki*= 'EMO' can attach to *gana* 'one' when it is used adnominally. This is shown in (83).

(83)

... mbía	***baju kaus***	**kigana**	be	nsun	i...	
N-bí-a	baju kaus	ki=gana	be	N-sun	i	
3SG.AN-give-PAR	jersey	EMO=one	PURP	3SG.AN-enter	3SG.AN.O	

'...He gave [him] a jersey, so he could dress himself.' **AM113_04.10**

In this way, *gana* behaves more like an article. Thus, the constructions given in (80)–(83) are best analysed as [N-ART]$_{NP}$ constructions, with *gana* 'one' functioning as the article, rather than the [N-N]$_{NP}$ constructions described in §6.2.1 above, in which *gana* 'one' is the modifying noun.

The difference between adnominal modification by *gana* 'one' and modification by the article *pa* 'ART' for indefinite and specific NPs on the one hand, and zero-modification for indefinite, non-specific NPs on the other, is unclear, and requires further investigation.

6.2.10 Modification by pronouns

Some of the personal pronouns given in Table 3.5 in §3.2.3 can be used to modify nouns. Lyons (1999: 141) refers to the use of adnominally-used pronouns as 'personal determiners'. All of the pronouns, with the exception of *(y)ine* '1SG', *tutne* '1DU.I', *umne* '1DU.E', *ana* '3SG.INAN', and *asi* '3NSG.INAN.O' are attested as adnominal modifiers.[17]

The function of adnominal pronouns depends on the number of the pronoun. Modification by the singular pronouns *awa* '2SG' and *ia* '3SG.AN' emphasises the identifiability of a referent. This is described in §6.2.10.1. Modification by the non-singular pronouns, however, signals either an associative inclusory or additive reading, or set partitivity. Modification by the non-singular pronouns is discussed in §6.2.10.2.

6.2.10.1 Modification by singular pronouns

The modification of a noun by the singular pronouns *awa* '2SG' and *ia* '3SG.AN' emphasises the singularity of the referent of the NP; in other words, they signal that the referent is immediately identifiable to the addressee. An example of the pronoun *awa* '2SG' used adnominally is given in (84), and an example of the adnominal use of *ia* '3SG.AN' is given in (85).

(84) aa, háhey súy be **mám** **awa**
aa há~hey súy be mám awa
HES REDUP~good go.home ALL father 2SG

'Umm, thank you, father [lit: '[May] goodness return to you, father'].'[18]

AM066_38.16

In (85), the NP headed by *Heléna* is modified by the pronoun *ia* '3SG.AN'. This NP occurs in the preclausal frame, which, as will be described in §8.3.1, can have a topicalising function. The modified NP is coreferent with the object pronoun *i* '3SG.AN.O', which is the object of *in* 'make'.

17. As I have not systematically investigated pronominal modification, these may be accidental gaps.
18. The construction in (84) is a conventionalised way of giving thanks.

(85) ... **Heléna ia**, lin i be, aléna, kayáw *garam* ane...
Heléna ia l-in i be aléna kayáw garam a-ne
Helena 3SG.AN 3PL.AN-make 3SG.AN.O OBL PLH pig salt DEM.NCNT-PROX

'... Helena has been made into, y'know, this salted pig here...' **AM019_08.49**

6.2.10.2 Modification by non-singular pronouns

NPs modified by non-singular pronouns have three possible readings: (1) What Kluge (2014: 334) refers to as an "associative inclusory plural" reading; (2) An additive reading; (3) A partitive reading. Each of these readings are discussed in turn.

If the adnominal pronoun is dual or paucal, and the head of the NP is specific, the NP receives an associative inclusory reading. These constructions indicate that the referent of the NP is the referent signalled by the head noun, along with others who are closely associated with that individual (e.g. family or friends). An example is given in (86). In this example, the pronoun *atúa* '3PC' signals that the intended referents are Estepanus and his associates (in this case, his family).

(86) yo lone, ido Estepánus atúa
yo lo-ne ido Estepánus atúa
then DEIC.N-PROX FRA Estepanus 3PC

'Then here, there is Estepanus and his family.' **AM125_11.24**

Constructions such as the one given in (86) are associative in that they refer to "X and X's associate(s), where all members are individuals, X is the focal referent, and the associate(s) form a group centering around X" (Moravcsik 2003: 271); they are inclusory in that the pronoun used to refer to the group also includes within its scope the focal referent (Gil 2009). In (86), Estepanus is included within the group (i.e. 'Estapanus's family, including Estapanus'); this is in contrast to an additive reading, which would be 'Estepanus, plus his family'.

In (87), there are two further examples of adnominal pronouns with an associative plural reading: one modifying the head noun *tábyu* 'grandchild', the other modifying *Rísp*a.

(87) umataya lotapa ido umut ápila kácu
umat-aya lo-ta-pa ido um-ut ápil-a kácu
1DU.E-TERM DEIC.N-FRONT-MID FRA 1DU.E-carry change.canoe-PAR seaweed.jelly

wena be **tábyum** **kipa** **ua**, **Ríspa** **ua**
wena be tábyu-m ki=pa ua, Ríspa ua
DEF.NSG BEN grandchild-2SG EMO=ART 3DU Rispa 3DU

'So when we two go as far as the place at the front, then we will take the *kacú* jelly in the canoe for **your two grandchildren**, **Rispa and her sister**.'. **AM019_08.49**

In this example, the NP headed by *tábyu* 'grandchild' is modified by both the article *pa* 'ART' and the adnominal pronoun *ua* '3DU'; this example therefore shows the ordering of pronouns relative to articles within the NP. The NP headed by *Ríspa* is coreferent with the first NP. This example shows clearly the inclusory nature of these constructions: here, the reading is 'two associated individuals, one of whom is Rispa'. An additive reading of 'Rispa plus two others' is not possible.

The default relationships of association communicated by modification by dual or paucal pronouns are familial, as in (86) and (87). If the context allows, other relationships of association can also be communicated with these constructions. In (88), for example, the NP modified by *atúa* '3PC', which is headed by *hun* 'king', refers to the queen, along with some other women with whom she is being rescued.

(88) "aa, **hun** **bin** **atúa**, *sedangkan* ine wa yál atú apa
aa hun bin atúa sedangkan ine wa y-ál atúa a-pa
HES king woman 3PC whereas 1SG FOC.SPEC 1SG-take 3PC ART.NMC-MID

ido ilo nýal atú taból wéy"
ido i-lo ný-al atúa taból wéy"
FRA 3INAN-place 2SG-take 3PC leave.behind again

'[He said:] "Umm, the queen and her companions, while it was me who took them [i.e., kidnapped them], now you are taking them away again".' **AM020_09.30**

If a non-specific NP is modified by a paucal or plural pronoun (except *sia* '3PL'), it receives an additive reading, such that the number of referents is increased.[19] In example (89), the head noun is *mákay* 'child' is modified by *matúa* '2PC'. This indicates that the speaker is referring to a group of young people, including the

19. When the 2PL pronoun *mewá* is used to modify an NP, it is often realised as *mew*.

addressee. The use of pronouns as modifiers in this context thus signals the person and number of the subject.

(89)

mákay	**bábo**	**matúa**	matúma*usaha*,	matúma*usaha*	now	bábo	
mákay	bábo	matúa	matúma-usaha	matúma-usaha	now	bábo	
child	young	2PC	2PC-make.effort	2PC-make.effort	house	new	

'**You young people**, you [must] make an effort, you must attempt [to build] a new house [i.e., church].' **AM125_14.54**

Another example of a non-specific NP modified by an adnominal pronoun is given in (90). In this example, the NP headed by *mákay* 'child' is modified by *ámne* '1PL.E'. In this case, the speaker uses the pronoun to communicate that he is referring to a group of people, including himself (but excluding the addressee). As with (89), the use of the pronoun as a modifier signals the person, number, and animacy of the subject.

(90)

jadi	**mákay**	**bábo**	**ámne**	*masi*a	ámtil	an	rín
jadi	mákay	bábo	ámne	masi-a	ám-til	ana	rín
so	child	young	1PL.E	still-PAR	1PL.E-tell.history	3SG.INAN	CONT

'So **we young people** still tell the history.' **AM058_02.57**

Finally, NPs modified by the 3PL pronoun *sia* are always indefinite and non-specific; modification by this pronoun signals set partivity. This is seen, for example, in (91). In this example, the set of 'people' is established by the head noun *mé*. Modification of this noun by the pronoun *sia* '3PL' indicates that only an indefinite portion of this set lived inland, and that an indefinite portion lived on the coast of Mayalibit Bay.

(91)

mé	**sia**	lató	líl,	**mé**	**sia**	lató	doí
mé	sia	la-tó	líl	mé	sia	la-tó	doí
person	3PL	3PL.AN-live	landwards	person	3PL	3PL.AN-live	closed.bay

'Some people lived in a landwards direction, some people lived [on the coast of the] closed bay [i.e., Mayalibit Bay].' **AM058_01.31**

When used adnominally, the form of the pronoun is always *sia*, regardless of the animacy of the head noun, or the grammatical function of the NP. Thus, while

the 3PL.AN object pronoun is variably *si* or *sia*, shown in (92a), only *sia* is permitted when an object NP is modified by this pronoun, as shown in (92b).

(92) a. ia namárin **sia** / **si**
ia na-márin sia / si
3SG.AN 3SG-like 3PL

'She likes them.'

b. ia namárin mé **sia** / *si
ia na-márin mé sia
3SG.AN 3SG-like person 3PL

'She likes some of the people.' **AM263_el.**

Similarly, while the 3NSG.INAN object pronoun is *asi*, as shown in (93a), only *sia* can modify an inanimate object NP, as shown in (93b).

(93) a. ia nál **asi**
ia n-ál asi
3SG.AN 3SG-take 3NSG.INAN

'He takes them [some fruit].'

b. ia nál yáy **sia** / *asi
ia n-ál yáy sia
3SG.AN 3SG-take mango 3PL

'He takes some mangoes.' **AM263_el.**

6.2.11 Modification by prepositional phrases

Noun phrases can be modified by a prepositional phrases (PPs) headed by *po* 'ABL'. As shown in Figure 6.1, PP modifiers occur in the final slot of the NP. It is not very common for an NP to be modified by a PP without zero-conversion of the preposition to a verb, and subordination of the clause (see below); only a handful of examples are attested in the corpus. Two examples are given, in (94) and (95).

(94) ini béle pa nasáw **bin** **isana** **po** **lo** **kalíw**
i-ni béle pa n-asáw bin i-sana po lo kalíw
3SG-POSS.I cross.cousin ART 3SG-marry woman 3INAN-one ABL place village
ilo **pa**
i-lo pa
3INAN-place ART

'His cross-cousin married **one of the women from the middle of the village**.'
AM020_01.22

(95) **hun** **kigana** **po** **lo** **kalíw** **kigana** nané ném ankia...
hun ki=gana po lo kalíw ki=gana n-ané n-ém <ki>ana
king EMO=one ABL place village EMO=one 3SG-sleep 3SG-see <EMO>3SG.INAN

'A king from a village slept and dreamt about it [a flower]...' **AM019_04.55**

A more frequently-attested strategy for modifying an NP with the information encoded in a PP is to derive a verb from the preposition through zero-conversion (§3.11), and then subordinate the clause in a relative clause. This strategy is shown in (96).

(96) ... ***mester*** **wa** **napo** ***Dermark*** **apa** tua **mákay** **bin**
mester wa na-po Dermark a-pa tu-a mákay bin
white.man NMC.DEF 3SG-ABL Denmark ART.NMC-ART COM-PAR child woman
wa **napo** ***Amérika*** **apa** monkomoné[21] "máre ho!"
wa na-po Amérika a-pa monkomoné máre ho
NMC.DEF 3SG-ABL America ART.NMC-ART say.3SG.AN be.patient IMM.FUT

'[So then] **the white man who was from Denmark** and **the young woman who was from America** said: "Be patient!".' **AM167_02.51**

6.3 Noun and noun phrase coordination

Coordination of noun phrases can be either conjunctive ('and'-type coordination) or disjunctive ('or'-type coordination). There are four strategies for conjunctive co-

21. The reason for the use of *mokomoné* 'say.3SG.AN' here is unclear. As will be described in §14.2.1.2, it is normally only felicitous with a 3SG.AN subject, but the subject of this clause is clearly dual.

ordination in Ambel: these strategies are discussed in §6.3.1. There is one strategy for disjunctive coordination, which is discussed in §6.3.2.

6.3.1 Conjunctive coordination

There are two conjunctions that are used to coordinate NPs: *tu* 'and' and *ma* 'and'. The conjunction *tu* 'and' is discussed in §6.3.1.1, and the conjunction *ma* 'and' is discussed in §6.3.1.2. The 3DU pronoun *ua* can also be used to coordinate animate nouns, or NPs. This is described in §6.3.1.3. Finally, in §6.3.1.4, asyndetic coordination of NPs will be discussed.

6.3.1.1 Coordination of NPs: *tu* 'and'

The most frequently attested strategy for coordinating NPs is with the coordinative conjunction *tu* 'and'. The conjunction *tu* 'and' can be used to coordinate NPs with animate referents, as in (97), or inanimate referents, as in (98).

(97)

[ima	wana]$_{NP}$	**tu**	[inya	wana]$_{NP}$	usúy	ido	ubíne	"nén!"
i-má	wana	tu	i-nyá	wana	u-súy	ido	u-bíne	nén
3SG-father	DEF	and	3SG-mother	DEF	3DU-go.home	FRA	3DU-say	mother

'When his father and his mother came home, the two of them said: "Mother!"'

AM098_00.46

(98)

kiámina	láp	mia	[ásen	pa]$_{NP}$	**tu**	[báli	pa]$_{NP}$
ki=ám-in-a	láp	mi-a	ásen	pa	tu	báli	pa
EMO=1PL.E-make-PAR	fire	INSTR-PAR	kind.of.tree	ART	and	kind.of.tree	ART

'We make fire with *ásen* [wood] and *báli* [wood].' **AM057_02.44**

In examples (97) and (98), each of the coordinating constructions has only two coordinands (i.e. elements being combined). When there are more than two coordinands, there is optional coordinator omission, such that all but the final instance of *tu* 'and' is omitted (see Haspelmath 2007: 12). This is shown in (99).

(99) sana be atúma*taru* be *makanan*, sana atúma*taru* be **bém**, **sul,** **tu**
sana be atúma-taru be makanan sana atúma-taru be bém sul tu
one PURP 1PC.E-put INSTR food one 1PC.E-put INSTR plate spoon and
mok
mok
mug

'One [cupboard] we use to put food in, one we use to put plates, spoons, and mugs in.' **AM178_00.41**

However, coordinator omission is not obligatory. Example (100) shows a construction with multiple coordinands; for each coordinand, the coordinator *tu* 'and' is overtly realised.

(100) ... umagáli be umémsap **tápran,** **tu** **rawé rawé,** **tu**
uma-gáli be um-ém-sap tápran tu rawé rawé tu
1DU.E-dive PURP 1DU.E-see-look.for pineapple and k.o. sea cucumber and
pimám **wéy,** pape mámbayn to
pimám wey pape mámbayn to
sea.cucumber again but NEG.EXIST IAM

'...We two dived in order to look for pineapple [sea cucumbers] and *rawé rawé* [sea cucumbers] and other kinds of sea cucumber, but there were none left.'
AM167_03.01

The coordinator *tu* 'and' is prepositive, in that it precedes rather than follows the coordinand. Thus, in binary coordinations, where **A** and **B** are the coordinands, the structure of coordination is **[A] [*tu* B]**. Evidence for a **[A] [*tu* B]** structure (rather than a postpositive **[A *tu*] [B]** structure) is prosodic: in both (99) and (100), the coordinator *tu* 'and' forms an intonational unit with the following, rather than the preceding coordinand (marked in these examples with a comma). In addition, if there is a pause, as in (101), the pause more often precedes the coordinator than it does follow it. This again shows that the coordinator is more tightly integrated with the following NP than it is with the preceding NP.[22]

22. In (101), the NP *máni takék áylo* 'cassowary' (literally [bird chicken forest]) is a calque on the PM *ayam hutan* 'cassowary' (literally [chicken forest]).

(101) lál máni wa máni *cenderawasi* wana, **máni *cenderawasi*,**
l-ál máni wa máni cenderawasi wana máni cenderawasi
3PL.AN-take bird NMC.DEF bird bird.of.paradise DEF bird bird.of.paradise

tu máni takék áylo
tu máni takék áy-lo
and bird chicken tree-place

[Talking about the activities of the NGO Flora and Fauna International:] 'They take [pictures] of the birds that are birds of paradise, birds of paradise, and cassowaries.' **AM064_09.49**

6.3.1.2 Coordination of NPs: *ma* 'and'

The conjunction *ma* 'and' is very occasionally used to coordinate NPs. It is attested several times in the two recordings that are reenactments of church services (**AM191** and **AM198**), but is only rarely attested elsewhere. This conjunction is probably a borrowing from Biak *ma* 'and' (see van den Heuvel 2006: 406-407). An example of *ma* 'and' used to conjoin two NPs is given in (102).

(102) **núk ma nik now, mánsar ma**
nú-k ma ni-k now mánsar ma
same.sex.sibling-1SG and POSS.I-1SG opposite.sex.sibling respected.man and

bísar...
bísar
respected.woman

'My brothers and my sisters, ladies and gentlemen...' **AM191_14.21**

6.3.1.3 Coordination of animate nouns and NPs: *ua* '3DU'

The pronoun *ua* '3DU' is used to coordinate two nouns, or two NPs.[23] An example of the coordination of two nouns is given in (103). In this example, both coordinands share the prenominal possessive classifier *na* 'POSS.II' and the marker of personal names *a* 'PERS'. This demonstrates that it is noun coordination (rather than NP coordination).

23. Other nearby languages in which a non-singular pronoun is used in nominal coordination include the SHWNG language Waropen, spoken in Cenderawasih Bay (Held 1942: 90), and the Papuan language Bunaq, spoken in central Timor (Schapper 2009: 210–211).

(103) "**[nak [nén]$_{N}$ ua [mám]$_{N}$ a]$_{NP}$** umát to"
na-k nén ua mám a u-mát to
POSS.II-1SG mother 3DU father PERS 3DU-die IAM

'[She said:] "My mother and father are already dead".' **AM204_25.40**

An example of two NPs coordinated with *ua* '3DU' is given in (104). In this example, both of the names *Tóm* and *Láwra* are modified by *a* 'PERS', showing that they are distinct NPs.

(104) **[Tóm a]$_{NP}$ ua [Láwra a]$_{NP}$** ulapo *Inggris*
Tóm a ua Láwra a ula-po Inggris
Tom PERS 3DU Laura PERS 3DU-ABL UK

'Tom and Laura are from the UK.' **AM266_el.**

This coordination construction is only used to coordinate nouns or NPs with animate referents. This is shown, for example, in the grammaticality of (105), in which the referents are non-human but animate; and the ungrammaticality of (106), in which the referents are inanimate.

(105) **[naka [tamcám]$_{N}$ ua [wáka]$_{N}$ wana]$_{NP}$** kiula-lál
na-k-a tamcám ua wáka wana ki=ula-lál
POSS.II-1SG-PAR cuscus 3DU cockatoo DEF EMO=3DU-big

'My pet cuscus and cockatoo are large.'[24] **AM268_el.**

(106) * **[naka [bém]$_{N}$ ua [sul]$_{N}$ ne]$_{NP}$** siwum rín
na-k-a bém ua sul ne si-wum rín
POSS.II-1SG-PAR plate 3DU spoon ART 3NSG.INAN-be.dirty CONT

[Intended reading:] 'My plate and spoon are still dirty.' **AM268_el.**

6.3.1.4 Asyndetic coordination

The final strategy used in the conjunctive coordination of NPs is asyndetic coordination – that is, coordination without an overt coordinator. There are two

24. The idea that the cuscus and the cockatoo are the speaker's pets is communicated by the marker of emotional involvement, *ki*= 'EMO', which attaches to the verb (see §3.10).

types of asyndetic coordination: without an intonation break, and with 'comma intonation' (i.e. Continuation intonation on each element, and a pause after each coordinand).

Asyndetic coordination without an intonation break is used to express natural conjunction. Natural conjunction is defined by Wälchli thus: "the coordination of items which are expected to co-occur, which are closely related in meaning, and which form conceptual units, such as 'father and mother', 'husband and wife', 'hands and feet'... rather than 'the man and the snake', 'toe and belly', 'knife and hammer'..." (2005: 5). These latter types of conjunction are instances of accidental coordination (see also Haspelmath 2007: 23–24; Mithun 1988). Stassen (2000: 8) reports that, cross-linguistically, natural conjunction is a common function of asyndetic coordination.

Five asyndetic coordination constructions of this kind are attested in Ambel: *lálo laléw* 'thunder and lightning' (**AM204_21.10**), *gám lanyán* 'night and day' (**AM204_48.48**), *pánye lányun* 'morning and afternoon' (**AM078_01.30**), *dunyáy sorongá* 'heaven and earth' (**AM155_16.56**), and *gíy nyán áhar* 'areca nut, betel vine, and lime' (i.e. the accoutrements of areca nut chewing; **AM064_08.37**). The example *lálo laléw* 'thunder and lightning' is given in (107).

(107) "be mimtéten lanyán túl, gám túl wane, be **lálo** **laléw**
be mim-téten lanyán túl gám túl wa-ne be lálo laléw
and 2PL-count day three night three DEM.CNT-PROX and thunder lightning
po, ido mimwáy póto"
po ido mim-wáy póto
NEG FRA 2PL-return NEG.IAM

'[He said:] "And if you count three days, these three nights, and there is no thunder and lighting, then do not return anymore".' **AM204_21.10**

The other type of asyndetic coordination of NPs is asyndetic coordination with an intonation break. In this context, all of the non-final coordinated NPs bear Continuation intonation (§2.3.4.5). This is used in the list-like enumeration of entities; this is another cross-linguistically common function of asyndetic coordination (Stassen 2000: 8). An example of asyndetic coordination for enumeration is given in (108). This example comes from a narrative about the four

kings who gave Raja Ampat its name (see §1.1.2). In this example, some of the destinations of two of the kings are enumerated.

(108) ... udók la misól, batánta, lo matem wa anáti aybe
u-dók la misól batánta lo matem wa aN=n-áti aybe
3DU-leave ORI Misool Batanta place land NMC.DEF INAN=3SG-run TERM
waylébet, yenenás, lé ahana
waylébet yenenás, lé a-hana
Wailebet Yenenas thing DEM.NCNT-AND

'The two of them left towards Misool, Batanta, the land that reaches as far as [lit: 'runs as far as'] Wailebet, Yenenas, those places [lit: 'things'].' **AM058_04.06**

6.3.2 Disjunctive coordination

Disjunctive coordination of NPs is signalled by the prepositive marker *ke* 'or'. An example is given in (109).

(109) wán a? **wán íri** **ke wán** ***jonson***?
canoe what canoe outrigger.beam or canoe motorised.canoe

[Asking about a canoe someone has taken to Warimak village:] 'What [kind of] canoe? A canoe with outriggers, or a motorised canoe?' **AM067_00.39**

Some languages, such as Mandarin Chinese (Li and Thompson 1981: 654) and Basque (Saltarelli 1988: 84), distinguish interrogative disjunction from standard disjunction (see also Haspelmath 2007: 25–26). Example (109) shows *ke* 'or' used in interrogative disjunction; example (110), taken from the elicited corpus, shows that the same construction is used in standard disjunction.

(110) y-abí y-íy **dún ke kayáw**, y-un pórin
1SG-want 1SG-eat fish or pig 1SG-know NEG.CONT

'I want to eat fish or pork, I don't know yet.' **AM287_el.**

The use of *ke* 'or' to signal non-interrogative disjunctive coordination of NPs is not frequent; in fact, it is not attested at all in the naturalistic corpus. Instead, constructions using the marker of epistemic modality *ke* 'EPI.may' are used

to communicate the function of disjunctive non-interrogative coordination. An example of *ke* 'EPI.may' used in this way is given in (111); in this example, the three NPs headed by *now* 'house' are presented as possible candidates for thatching.

(111) nya*pake* asi be now ke, now po bátlo ke, po
nya-pake asi be now ke now po bát-lo ke po
2SG-use 3PL.INAN.O PURP house EPI.may house LOC earth-place EPI.may NEG

be now ta ncó ke
be now ta N-<y>tó ke
and house NMC.INDEF 2SG-<2SG>live EPI.may

[Explaining how to thatch a roof:] 'You [can] use them [the prepared thatching slabs] for maybe a house, maybe a house in a garden; if not, then maybe a house [for] you to live [in].' **AM174_01.40**

Constructions with *ke* 'EPI.may' frequently cooccur with the PM conjunction *ato* 'or', as shown in (112). This supports the analysis that these constructions perform a similar function to the disjunctive coordination of NPs.

(112) *kirakira* lé waine **kórben ke**, ***ato*** **ái**
kira~kira lé wa-i-ne kórben ke ato ái
REDUP~think thing DEM.CNT-UP-PROX dragon EPI.may or dog

'Maybe this thing at the top [of the river] here is a dragon, or a dog.'
AM031_02.32

While *ke* 'or' and *ke* 'EPI.may' are homophonous, they are syntactically distinct. Whereas *ke* 'or' is prepositive, occuring before the coordinand, *ke* 'EPI.may' occurs clause-finally. In addition, constructions with *ke* 'EPI.may' are obligatorily marked with a Doubtful intonation contour (§2.3.4.4). Coordinative constructions with *ke* 'or', on the other hand, do not combine with Doubtful intonation. Clauses modified by *ke* 'EPI.may' will be discussed in more detail in §10.1.6.

Chapter 7

Possession

Most South Halmahera-West New Guinea languages, as well as many of the other Austronesian languages and nearly all of the Papuan languages spoken in east Nusantara, have more than one morphosyntactic possessive construction (van den Berg 2009, Kamholz 2014: §6.4, Klamer et al. 2008). Ambel is no exception: there are five different constructions expressing possession in Ambel. The choice of possessive construction is primarily determined by a lexical specification on the possessed noun; for one group of nouns, those referring to plant and most animal and body parts, the possessive construction is secondarily determined by the semantics of the possessive relationship. In this chapter, the morphosyntax of each of these five possessive constructions, and the lexical and semantic criteria that determine the possessive construction, will be described and analysed.

The five types of possessive construction can be subdivided into two main morphosyntactic groups: **Direct** possessive constructions and **Indirect** possessive constructions. Nouns possessed in Direct possessive constructions include nouns referring to body, animal, and plant parts; undifferentiated parts of wholes; non-human attributes; and some kin terms. These are nouns that are identified by e.g. Heine (1997: 10) and Chappell and McGregor (1996: 4) as typically entering into 'inalienable' relationships with their possessors – relationships in which the possessed item is conceptually tightly integrated with the possessor, such that, under normal circumstances, it cannot be separated from its possessor. Indeed, it will be shown throughout this chapter that the morphosyntactic split between Direct and Indirect possessive constructions may have once transparently corresponded to a semantic alienability distinction. However, subsequent changes

in the language have, to some extent, obscured this correspondence. For example, while six kin terms are possessed in Direct possessive constructions, the majority of kin terms are possessed in Indirect possessive constructions. In addition, Direct possessive morphology is not productive; borrowed terms referring to body parts, kin, and other typically 'inalienable' concepts are therefore possessed in Indirect constructions. For this reason, I describe the five different possessive constructions by their morphosyntax, rather than the possessive relations they communicate.

In both Direct and Indirect possessive constructions, the possessor NP precedes the possessed NP, and the person, number, and animacy of the possessor is indexed within the possessed NP. In Direct possessive constructions, these features are marked directly onto the possessed noun, using prefixes, suffixes, infixes, and a suprafix. There are three subgroups of Direct possessive constructions, which differ slightly in the morphological paradigms: these will be referred to as Direct I, Direct II, and Direct III constructions. An example of a Direct II possessive construction is given in (1). In this example, the person, number, and animacy of the possessor NP (headed by *Heléna*) is marked directly onto the head of the possessed NP (*nyá* 'mother') with the prefix *i-* '3SG'. A process of /H/-deletion also applies to the possessed root (for which see below).

(1)	...	[**heléna**	**a**]$_{\text{PossR}}$	[**inya**	**pa**]$_{\text{PossD}}$	mát
		heléna	a	i-nyá	pa	N-mát
		Helena	PERS	3SG-mother	ART	3SG.AN-die

'...Helena's mother died.' **AM019_00.12**

In Indirect possessive constructions, the features of the possessor are marked on a prenominal host, using prefixes and suffixes. As will be described below, there are two types of Indirect possessive construction: those in which the host is *ni* 'POSS.I', which will be referred to as Indirect I constructions; and those in which the host is either *ni* or *na* 'POSS.II', which will be referred to as Indirect II constructions. An example of an Indirect I possessive construction is given in (2). In this example, the person, number, and animacy of the possessor NP (headed by *mákay* 'child') is marked on the prenominal host *ni* 'POSS.I' with the prefix *i-* '3SG'.

(2) **[mákay bin pa]**$_{\text{PossR}}$ **[ini now pa]**$_{\text{PossD}}$

mákay	bin	pa	i-ni	now	pa
child	woman	ART	3SG-POSS.I	opposite.sex.sibling	ART

nabá	tu	atúa
na-bá	tu	atúa
3SG.AN-stay.behind	COM	3PC

'The young woman's brother stayed behind with them.' **AM112_10.42**

Following Lichtenberk (1983), I will refer to this prenominal host as a 'relational classifier'.

Another example of an Indirect I construction is given in (3). In this example, the possessor NP is omitted. However, the person, number, and animacy of the omitted 3SG possessor is marked on the classifier *ni* 'POSS.I' in the same way as the construction in (2), i.e. with the prefix *i-* '3SG'.

(3) hankárin **[Ø]**$_{\textbf{PossR}}$ **[ini we mán pa]**$_{\textbf{PossD}}$

N-hankárin		i-ni	we	mán	pa
3SG.AN-give.birth		3SG-POSS.I	child	man	ART

'She gave birth to her son.' **AM112_07.17**

As will become clear as this chapter develops, the possessor NP is often omitted from both Indirect and Direct possessive constructions, if it can be inferred from the context. In addition, the head of a possessed NP is occasionally omitted from Indirect possessive constructions. Omission in possessive constructions is not discussed further in this chapter, but will be returned to in the discussion of omission more generally (§8.3.3).

Possessive constructions in Ambel are underspecified for whether they function as arguments or as predicates. In other words, possessive constructions can express either attributive possession, as in (1)–(3), or predicative possession, as in (4). This example is of a predicative Indirect I construction.

(4) ape bísar wapa mát to, **[[Ø]$_{PossR}$ [ini we**
ape bísar wa-pa N-mát to i-ni we
but respected.woman DEM.CNT-MID 3SG.AN-die IAM 3SG-POSS.I child
mán]$_{PossD}$ po]$_{Cl}$
mán po
man NEG

'But that woman is dead, she didn't have a son.' **AM135_18.38**

Compare (4) with (3). Both of these constructions are Indirect I constructions with omission of the possessor NP. We can see there is no difference between the two constructions in terms of, for example, word order or morphological marking. However, the possessive construction in (4) is used as the predicate of a clause – this is shown, for example, by the modification of this construction by the the clausal modifier *po* 'NEG'. For expository purposes, the description of possessive constructions in this chapter will be limited to attributive possessive constructions. The use of possessive constructions to express predicative possession will be returned to in §8.2.5.2, in the chapter on the clause.

This chapter is structured as follows. Indirect possessive constructions are described in §7.1, and Direct possessive constructions are described in §7.2. The role of the semantic relationship between the possessor and possessed noun in the choice of possessive construction for nouns referring to body, animal, and plant parts will be discussed in §7.3. Finally, in §7.4, evidence will be presented to show that the possessed noun is the syntactic head of possessive constructions.

7.1 Indirect possessive constructions

The two Indirect possessive constructions in Ambel are constructions in which the possessor NP (where overt) precedes the possessed NP, and the person, number, and animacy of the possessor is marked on a prenominal relational classifier. The two types of Indirect possessive construction are distinguished primarily by the choice of relational classifier: in Indirect I possessive constructions, the classifier is *ni* 'POSS.I', and in Indirect II possessive constructions, the classifier is *ni* or *na* 'POSS.II'. There is also slight variation in the morphological paradigms of the two constructions. These differences are as follows:

- **Indirect I possessive constructions:** 3SG possessors are marked with the prefix *i-*; inanimate possessors are not attested; 1PL.I possessors are marked with the prefix *t-*.

- **Indirect II possessive constructions:** 3SG.AN possessors are unmarked; 3INAN possessors are marked with the prefix *i-*; 1PL.I possessors are marked with the prefix *ta-*.

The differences between Indirect I and Indirect II possessive constructions are summarised in Table 7.1.

Table 7.1: Differences in the morphosyntax of Indirect possessive constructions

	Classifier	**Morphology**		
		3SG.AN	3INAN	1PL.I
Indirect I	*ni* 'POSS.I'	i-	(*n/a*)	t-
Indirect II	*ni/na* 'POSS.II'	-Ø	i-	ta-

The morphosyntax and semantics of Indirect I possessive constructions will be described in §7.1.1, and of Indirect II possessive constructions in §7.1.2.

7.1.1 Indirect I possessive constructions

Indirect I possessive constructions are used to communicate most kinship relationships, as well as two other non-kin human relationships. The morphosyntax of Indirect I possessive constructions is described in §7.1.1.1, and the semantics Indirect I nouns are discussed in §7.1.1.2.

7.1.1.1 Morphosyntax

In Indirect I possessive constructions, the person and number of the possessor is indexed on the classifier *ni* 'POSS.I', which follows the possessor noun and precedes the possessed noun. An example of an Indirect I possessive construction is given in (5).

(5)

ini	now	kiwa	nabá		tu	atú
i-ni	now	ki=wa	na-bá		tu	atúa
3SG-POSS.I	opposite.sex.sibling	EMO=FOC.SPEC	3SG.AN-stay.behind		COM	3PC

apa,	**[mákay**	**bin**	**pa]$_{\text{PossR}}$**	**[ini**	**now**		**pa]$_{\text{PossD}}$**
a-pa	mákay	bin	pa	i-ni	now		pa
DEM.NCNT-MID	child	woman	ART	3SG-POSS.I	opposite.sex.sibling		ART

'It was her brother who stayed behind with them, the young woman's brother.'

AM112_10.37

The full Indirect I paradigm is given in Table 7.2. The paradigm is illustrated with the possessed noun *now* 'opposite-sex sibling'. Inanimate entities are not felicitous as possessors in Indirect I possessive constructions.

Table 7.2: The Indirect I paradigm for the possessed noun *now* 'opposite-sex sibling'

	SG	DU	PC	PL
1.I	ni-**k** now	**tuta**-ni-**n** now	**(a)túta**-ni-**n** now	**t**-ni-**n** now
1.E		**uma**-ni-**n** now	**atúma**-ni-**n** now	**áma**-ni-**n** now
2	ni-**m** now	**muma**-ni-**n** now	**matúma**-ni-**n** now	**mim**-ni-**n** now
3AN	**i**-ni now	**ula**-ni-**n** now	**atúla**-ni-**n** now	**la**-ni-**n** now
3INAN	*unattested*			

The data in Table 7.6 show that the Indirect I possessive paradigm makes a four-way number distinction, and a clusivity distinction in the non-singular first person. In this way, the paradigm is similar to the subject-marking paradigms discussed in §4.1.1, and the pronominal paradigms discussed in §3.2.3. All non-singular possessors in the Indirect I paradigm are marked with the suffix *-n*. This suffix will be glossed as 'NSG.POSS', to capture this generalisation. When the possessor is non-singular, the form of the prefix marking the possessor is similar to those used in the Class III subject-marking paradigm: for example, compare the Indirect I non-singular second person prefixes *muma-* '2DU', *matúma-* '2PC', and *mim-* '2PL' to the equivalent Class III subject prefixes *mum-* '2DU', *matúm-* '2PC', and *mim-* '2PL'.

7.1.1.2 Indirect I nouns

The class of Indirect I nouns is small and closed. Most nouns referring to consanguineal and affinial kin relationship are specified for use in Indirect I constructions. In addition, two nouns referring to relationships of human association are Indirect I nouns: *mét* 'comrade; boy/girlfriend' and *so* 'friend'. An exhaustive list of the nouns attested as the possessed noun in Indirect I possessive constructions is given in Table 7.3; information about the type of kin or social relationship between the possessor and the possessed is also provided.

While two nouns expressing non-kin human relationships are Indirect I nouns (i.e., *mét* 'comrade, boy/girlfriend' and *so* 'friend'), not all are. For example, the nouns *át* 'enemy', *mácu* 'servant', *hun* 'king', and *káwasa* 'group of people, community' are all specified for use in Indirect II constructions. In addition, while all kinship nouns are Indirect I (or Direct II) nouns, both of these classes are closed classes; hence, borrowed nouns relating to the family (e.g. *kluarga* 'family') belong to the open class of Indirect II nouns (see below).

When the kin term *we* 'child' is possessed in an Indirect I possessive construction, the realisation is often very reduced, particularly when also modified by the nouns *bin* 'woman' or *mán* 'man'. An example is given in (6); in this example, *we* 'child' is realised as [i].

(6)	"tutanin	we [i]	bin	ne	pu?	nól	to"
	tuta-ni-n	we	bin	ne	pu	n-ól	to
	1DU.I-POSS.I-NSG.POSS	child	woman	ART	ATT.INT	3SG-be.pregnant	IAM

'[She said:] "Our daughter, you know? She's pregnant." **AM105_02.28**

7.1.2 Indirect II possessive constructions

The second kind of Indirect possessive construction is the Indirect II possessive construction. Of the five possessive noun classes discussed in this chapter, Indirect II is the only fully open class: all nouns not otherwise specified for use in Direct I, II, III, or Indirect I possessive constructions belong to the Indirect II class. The morphosyntax of Indirect II possessive constructions is described in §7.1.2.1, and the open class of Indirect II nouns is described in §7.1.2.2.

Table 7.3: Nouns specified for possession in Indirect I possessive constructions

Noun	**Meaning**	**Notes**	**Type of relationship**
ábu	'grandparent'		Consanguineal kin
baw	'great-great-grandchild, great-great-grandparent'		Consanguineal kin
béle	'cross-cousin'	Male ego's father's sister's child [EmFZC]; Male ego's mother's sibling's child [EmMSC]; Female ego's mother's brother's child [EfMBC]; Female ego's father's sibling's child [EfFSC]	Consanguineal kin
bísar	'wife'		Affinial kin
daré	'sibling-in-law'	Male ego's wife's sister's husband [EmWZH]; Female ego's husband's brother's sister [EfHBW]	Affinial kin
háne	'nephew, niece'	Male ego's sister's child [EmZC]; Male ego's wife's brother's child [EmWBC]; Female ego's brother's child [EfBC]; Female ego's husband's sister's child [EfHZC]; Spouse's parent's sibling's child's child [SpPSCC]	Consanguineal kin, affinial kin
kak	'cross-uncle'	Mother's brother [MB]	Consanguineal kin
mánsar	'husband'		Affinial kin
mét	'comrade; boy/girlfriend'		Association
now	'opposite-sex sibling'	Male ego's sister [EmZ]; Female ego's brother [EfB]; Male ego's father's brother's daughter [EmFBD]; Female ego's mother's sister's son [EfMZSo]	Consanguineal kin
píyn	'child's spouse's parent'		Affinial kin
pop	'cross-aunt, cross-uncle'	Father's sister [FZ]; Father's sister's husband [FZH]	Consanguineal kin, affinial kin
so	'friend'		Association
tamáy	'same-generation in-law'		Affinial kin
ú	'great-grandchild, great-grandparent'		Consanguineal kin
wáte	'cross-aunt'	Mother's brother's wife [MBW]	Affinial kin
we	'child'	Child [C]; Male ego's brother's child [EmBC]; Female ego's sister's child [EfZC]; Male ego's wife's sister's child [EmWZC]; Female ego's husband's brother's child [EfHBC]	Consanguineal kin

7.1.2.1 Morphosyntax

Like the Indirect I constructions described above, in Indirect II constructions the possessor (where overt) precedes the possessed NP, and the person, number, and animacy of the possessor is marked on the prenominal classifier *ni* or *na* 'POSS.II'. An example of an Indirect II possessive construction is given in (7).

(7) *jadi* **[atúmne]**$_{\text{PossR}}$ **[atúmanina** **ípon** **pa]**$_{\textbf{PossD}}$ annapa
jadi atúmne atúma-ni-n-a ípon pa anna-pa
so 1PC.E 1PC.E-POSS.II-NSG.POSS-PAR mountain ART 3SG.INAN.PRED-MID

[On the origin of the Kein clan:] 'So our mountain [i.e., the mountain from which we originate] is there.' **AM157_01.45**

The full paradigm for Indirect II possessive constructions is given in Table 7.4. The paradigm is illustrated with the possessed noun *now* 'house'. This table shows that the Indirect II possessive classifier can take the form *na* or *ni* throughout the paradigm (except if the possessor is inanimate, in which case only *ni* is possible).

Table 7.4: The Indirect II paradigm for the possessed noun *now* 'house'

	SG	DU	PC	PL
1.I	ni-**k**/ na-**k** now	**tuta**-ni-**n**/ **tuta**-na-**n** now	**(a)túta**-ni-**n**/ **(a)túta**-na-**n** now	**ta**-ni-**n**/ **ta**-na-**n** now
1.E		**uma**-ni-**n**/ **uma**-na-**n** now	**atúma**-ni-**n**/ **atúma**-na-**n** now	**áma**-ni-**n**/ **áma**-na-**n** now
2	ni-**m**/ na-**m** now	**muma**-ni-**n**/ **muma**-na-**n** now	**matúma**-ni-**n**/ **matúma**-na-**n** now	**ma**-ni-**n**/ **ma**-na-**n** now
3AN	ni-**Ø**/ na-**Ø** now	**ula**-ni-**n**/ **ula**-na-**n** now	**atúla**-ni-**n**/ **atúla**-na-**n** now	**la**-ni-**n**/ **la**-na-**n** now
3INAN	**i-ni** now			

The paradigm for Indirect II possession is very similar to the paradigm for Indirect I possession, given in Table 7.2. Aside from the difference in the classifier, there are three differences between the two paradigms: (1) A 3SG.AN possessor is marked with *i-* in the Indirect I possessive paradigm, but is unmarked in the Indirect II possessive paradigm; (2) A 1PL.I possessor is marked with the prefix *t-* in the Indirect I possessive paradigm, and *ta-* in the Indirect II possessive paradigm; (3) There is an animacy distinction in the Indirect II possessive

paradigm, whereas the animacy distinction is moot in the Indirect I possessive paradigm, as inanimate possessors are not felicitous. The number distinction is collapsed in the Indirect I paradigm if the possessor is inanimate; both 3SG.INAN and 3NSG.INAN possessors are marked with the prefix *i-*. This prefix is thus glossed '3INAN'.

The difference between the Indirect II classifiers *ni* and *na* in present-day Ambel is not clear. Some speakers have indicated that *ni* is more polite than *na*, which they describe as 'impolite' (PM: *kata kasar*). However, there are three attested possessive relationships in which only one classifier, not the other, can be used, suggesting the difference may be lexical or semantic, rather than pragmatic. The nouns *now* 'house' and *we* 'water' can only be possessed with the *na* classifier (unless the possessor is 3SG.AN, in which case either *ni* or *na* can be used; or 3INAN, in which case only *ni* is possible). This is presumably to avoid confusion with the two homophonous nouns *now* 'opposite-sex sibling' and *we* 'child', which are specified for use in Indirect I possessive constructions (§7.1.1), and thus are obligatorily marked with the relational classifier *ni* 'POSS.I'.

The third case is again a pair of homophonous nouns, *su* 'breast' and *su* 'close friend'. In this case, both nouns are Indirect II, and are distinguished only by the form of the classifier: *su* 'breast' is marked with *na*, and *su* 'close friend' is marked with *ni*.[1] Van den Berg (2009) reconstructs an edibility distinction to proto-SHWNG, in which the classifier **ri* was used to mark general possession, and **na* was used to mark edible possession. This distinction is retained, for example, in the South Halmahera languages Buli (Maan 1951: 55) and Sawai (Whisler 1996: 50-1). Notably in Buli, the word *sus* 'breast' is treated as edible by the possessive system. This suggests that the distinction betewen *su* 'breast' and *su* 'close friend' in Ambel may be a remnant of an earlier edibility distinction: the reason that *su* 'breast' can only be possessed with the *na* form of the Indirect II classifier is that the two forms once encoded edibility, with *na* a reflex of the proto-SHWNG edible classifier **na*, and *ni* a reflex of the general classifier **ri*. Systematic work with both older and younger speakers has not turned up any evidence that this distinction is retained elsewhere in the possessive system – both edible and non-edible possessions can be marked with either *ni* or *na*, with no semantic difference.

1. This is only true for speakers who are middle-aged and older; younger speakers use either classifier for either noun.

7.1.2.2 Indirect II nouns

As mentioned above, of all the possessive noun classes, Indirect II is the only open class. Thus, all nouns not otherwise specified for use in the other possessive constructions discussed in this chapter are possessed in Indirect II posssessive constructions.

Indirect II constructions frequently express relationships of ownership between the possessor and possessed noun. Some examples of the use of Indirect II possessive constructions to express ownership are given in (8) and (9).

(8)

"**tanin**	**wán**	**pa**	anawól	tabón	atútne	to"
ta-ni-n	wán	pa	aN=na-wól	tabón	atútne	to
1PL.I-POSS.II-NSG.POSS	canoe	ART	INAN=3SG-be.anchored	wait	1PC.I	IAM

[He said:] 'Our canoe is already anchored, waiting for us.' **AM204_26.54**

(9)

ane,	*sementara*	wane	na*pake*a	**nak**	**now**
a-ne	sementara	wa-ne	na-pake-a	na-k	now
DEM.NCNT-PROX	meanwhile	DEM.CNT-PROX	3SG-use-PAR	POSS.II-1SG	house

pune	be	náne	ana
pu-ne	be	n-áne	ana
BOTTOM-PROX	PURP	3SG-sleep	3SG.INAN

'Hey, for the time being she is using my house at the bottom to sleep [in] (it).'
AM064_07.16

Example (10) shows that the Indirect II class is an open class. In this example, the possessed noun is the PM loan *trakir* 'end'. This noun is used to refer to an undifferentiated part of an inanimate whole. As will be described in §7.2.1.2.2, native words referring to undifferentiated parts of inanimate wholes are typically Direct I nouns – for example, *ara* 'end', the native Ambel counterpart to the PM loan *trakir* 'end', is a Direct I noun. As shown in (10), however, *trakir* 'end' is an Indirect II noun.

(10)

ya,	*jadi*	sárita	pa	apa,	**ini**	***trakir***	pa	apa
ya	jadi	sárita	pa	a-pa	i-ni	trakir	pa	a-pa
yes	so	story	ART	DEM.NCNT-MID	3INAN-POSS.II	end	ART	DEM.NCNT-MID

'Yes, so that was the story, that is its end.' **AM066_25.40**

One exception to the generalisation that loans are possessed in Indirect II possessive constructions is the PM loan *got* 'gutter', which is attested once in a Direct I possessive construction (§7.2.1). This suggests that the Direct I class may also be open, to a very limited extent. The attested example is given in (11). Note that, while Speaker A uses *got* 'gutter' in a Direct I possessive construction, when Speaker B repeats the noun to express agreement with Speaker A, he uses an Indirect II possessive construction. This supports the analysis that the Indirect II class is the only fully open class.

(11) **A:** lin an be létema **i*got***
l-in ana be létem-a i-got
3PL.AN-make 3SG.AN PURP SIM-PAR 3INAN-gutter

[On preparing wood for use in traditional fire-making:] 'They make it so that it is like a gutter [lit: 'its gutter'].'

B: i, **ini** ***got***
i i-ni got
yes 3INAN-POSS.II gutter

'Yes, a gutter.' **AM057_02.10**

7.2 Direct possessive constructions

We turn now to the three types of Direct possessive construction in Ambel. Like Indirect possessive constructions, in Direct possessive constructions the possessor NP precedes the possessed NP. However, the person, number, and animacy of the possessor is marked directly on the possessed noun, rather than on a prenominal classifier. Direct possessive constructions can be further subdivided into three morphosyntactic types, depending on the morphological paradigm marking the person, number, and animacy of the possessor. The differences in the paradigms for the three types of Direct possessive construction are as follows:

- **Direct I possessive constructions**: There is an animacy distinction in the 3SG; 3INAN possessors are marked with the prefix *i-*, while 3SG.AN possessors are unmarked. There is a *\H* suprafix marking 1SG and 2SG possessors.

- **Direct II possessive constructions**: 3SG.AN possessors are marked with the prefix *i-*; inanimate possessors are not attested as the possessor. There is no *\H* suprafix marking a 1SG or 2SG possessor.
- **Direct III possessive constructions**: There is no animacy distinction; both 3SG.AN and 3INAN possessors are optionally marked with the prefix *i-*. There is a *\H* suprafix marking 1SG and 2SG possessors.

The differences between the three types of possessive construction are summarised in Table 7.5.

Table 7.5: Differences in the morphology of Direct possessive constructions

	3SG.AN	3INAN	*\H* '1 | 2SG'?
Direct I	*unmarked*	i-	✓
Direct II	i-	(*n/a*)	✗
Direct III	(i-)		✓

In the following sections, the morphosyntax of each of these possessive constructions, and the semantics of the nouns that belong to each of the classes, will be discussed. Direct I constructions are discussed in §7.2.1; Direct II constructions are discussed in §7.2.2; and Direct III constructions are discussed in §7.2.3.

7.2.1 Direct I possessive constructions

Nouns specified for use in Direct I possessive constructions can be divided into three broad semantic categories: (1) Nouns referring to body, animal, and plant parts; (2) Nouns referring to undifferentiated parts of wholes; (3) Nouns denoting non-human attributes. The morphosyntax of Direct I possessive constructions will be presented in §7.2.1.1, and the class of nouns specified for use in Direct I possessive constructions will be discussed in §7.2.1.2.

7.2.1.1 Morphosyntax

There are two phonologically conditioned paradigms in Direct I possessive constructions: one is used when the possessed noun is sonorant-initial, the other is used when the possessed noun is non-sonorant-initial. The Direct I paradigm for

non-sonorant-initial possessed nouns is given in Table 7.6, for the body part noun *sú* 'nose'.[2]

Table 7.6: The Direct I paradigm for the possessed noun *sú* 'nose'

	SG	DU	PC	PL
1.I	sú-**k\H**	**tu**-su-**n**	**tú**-su-**n**	su-**n**
1.E		**um**-su-**n**	**atúm**-su-**n**	**ám**-su-**n**
2	sú-**m\H**	**mum**-su-**n**	**matúm**-su-**n**	**mim**-su-**n**
3AN	su	**u**-su-**n**	**atú**-su-**n**	su-**n**
3INAN	**i**-su			

While there are some similarities between the forms of the prefixes and suffixes marking the possessor in the Direct I paradigms, and those attaching to the prenominal classifier in the two types of Indirect possessive construction discussed in §7.1, there are also some differences. For example, whereas a 3PL.AN possessor is marked with a combination of the prefix *la-* '3PL' and the suffix *-n* 'NSG.POSS' in the two Indirect paradigms, it is only marked with the suffix *-n* in the Direct I paradigm. Similarly, 1PL.I possessors are not marked with a prefix in the Direct I paradigm; this leads to syncretism between 1PL.I and 3PL.AN possessors. Many of the prefixes marking a non-singular possessor in the Indirect paradigms are similar to those marking non-singular possessors in the Direct I paradigm; in the Indirect paradigms, however, these prefixes are generally /a/-final, whereas in the Direct I paradigm, they are C-final. Like the Indirect II paradigm, there is no number distinction in the Direct I paradigm if the possessor is inanimate; the *i-* prefix used to mark inanimate possessors will thus be glossed '3INAN'.

Another difference between the Direct I paradigm and the Indirect paradigms is that, in the Direct I paradigm, there are prosodic differences, depending on the possessor. If the possessor is 1SG or 2SG, there is a suprafix *\H*. This suprafix attaches to the first syllable of the root. This suprafix will be glossed '1|2SG.POSS'. For all other person, number, and animacy combinations, there is a process of /H/-deletion, in which any underlying /H/ is removed from the root. Therefore, unless the prefix itself is specified with /H/ (such as *atúm-* '1PC.E' or *ám-* '1PL.E'),

2. Body part nouns are used to illustrate the morphosyntax of Direct I possessive constructions throughout this section.

forms inflected to mark non-1SG or 2SG possessors are realised as toneless. Note that /H/-deletion is the only marker of a 3SG.AN possessor in the Direct I paradigm.

The behaviour of the *\H* suprafix and the process of /H/-deletion can be seen more clearly in Tables 7.7 and 7.8. These two tables give the paradigms for the body part nouns *tají* 'eye' and *yói* 'heart', respectively. These two roots bear /H/ specification on different syllables; the tonal realisations on the inflected forms, however, are identical throughout the paradigm. Thus, both *tají* 'eye' and *yói* 'heart' are realised with [H] on the first syllable when inflected to mark a 1SG or 2SG possessor, despite the different underlying specifications; and for all other possessors, the inflected form is toneless (unless the prefix has a /H/ specification).[3] The data in Table 7.8 additionally exemplify the paradigm for sonorant-initial nouns. The only difference between this paradigm, and the paradigm for non-sonorant-initial nouns, is that a 1PL.I possessor is marked with *t-*.

Table 7.7: The Direct I paradigm for the possessed noun *tají* 'eye'

	SG	DU	PC	PL
1.I	táji-**k\H**	**tu**-taji-**n**	**(a)tú**-taji-**n**	taji-**n**
1.E		**um**-taji-**n**	**atúm**-taji-**n**	**ám**-taji-**n**
2	táji-**m\H**	**mum**-taji-**n**	**matúm**-taji-**n**	**mim**-taji-**n**
3AN	taji	**u**-taji-**n**	**atú**-taji-**n**	taji-**n**
3INAN	**i**-taji			

All of the roots used to exemplify Direct I paradigms so far have been V-final. There are two attested C-final body part roots: *kabóm* 'bone' and *kagalán* 'skull'. For *kabóm* 'bone', if the possessor is 1SG, then the final C is removed before the suffix is attached. For all other person, number, and animacy combinations, however, the final C is not removed, and no suffix attaches. Note that this forms a tonal minimal pair between the forms inflected to index 2SG and 3SG.AN possessors. The full paradigm of *kabóm* is given in Table 7.9.

3. One issue arising from the *\H* suprafix and /H/-deletion in this paradigm, as well as in the Direct III paradigm described in §7.2.3, is that if the root is only attested possessed in a Direct possessive construction, it is not possible to determine the underlying tonal specification of the root. In the wordlist in Appendix E, all roots whose underlying tonal specification is ambiguous for this reason are marked.

Table 7.8: The Direct I paradigm for the possessed noun *yói* 'heart'

	SG	DU	PC	PL
1.I	yói-**k\H**	**tu**-yoi-**n**	**(a)tú**-yoi-**n**	**t**-yoi-**n**
1.E		**um**-yoi-**n**	**atúm**-yoi-**n**	**ám**-yoi-**n**
2	yói-**m\H**	**mum**-yoi-**n**	**matúm**-yoi-**n**	**mim**-yoi-**n**
3AN	yoi	**u**-yoi-**n**	**atú**-yoi-**n**	yoi-**n**
3INAN	**i**-yoi			

Table 7.9: The Direct I paradigm for the possessed noun *kabóm* 'bone'

	SG	DU	PC	PL
1.I	kábo-**k\H**	**tu**-kabom	**(a)tú**-kabom	kabom
1.E		**um**-kabom	**atúm**-kabom	**ám**-kabom
2	kábom\H	**mum**-kabom	**matúm**-kabom	**mim**-kabom
3AN	kabom	**u**-kabom	**atú**-kabom	kabom
3INAN	**i**-kabom			

For *kagalán* 'skull', the final C is removed before suffixation by the 1SG marker *-k* or the 2SG marker *-m*. When the possessor is 3SG.AN, the final C is optionally removed (i.e. when *kagalán* is possessed by a 3SG.AN possessor, the form is either *kagala* or *kagalan*). As the suffix for all other person and number combinations is *-n* 'NSG.POSS', it is moot whether the final C is removed before suffixation. This noun is part of a small group of nouns that take infixation; the inflection used with this noun will be returned to below.

There is one more noun that is slightly irregular when possessed in a Direct I possessive construction: the body part noun *nyái* 'belly'. The full Direct I paradigm for this noun is given in Table 7.10. As can be seen from this table, a 1PL.I possessor is marked with the prefix *t-*; as mentioned above, this is true for all sonorant-initial nouns, and is thus phonologically conditioned. There are two further differences in the paradigm for *nyái* 'belly', however, that are not phonologically conditioned: when the possessor is 1DU.I, the form of the prefix is *tut-* (rather than *tu-*); and when the possesor is 1PC.I, the form of the prefix is *(a)tút-* (rather than *tú-*).

The paradigms given in Tables 7.6–7.10 show how prefixes, suffixes, and suprafixes mark the person, number, and animacy of the possessor in Direct I

Table 7.10: The Direct I paradigm for the irregular body part noun *nyái* 'belly'

	SG	DU	PC	PL
1.I	nyái-**k\H**	**tut**-nyai-**n**	**(a)tút**-nyai-**n**	**t**-nyai-**n**
1.E		**um**-nyai-**n**	**atúm**-nyai-**n**	**ám**-nyai-**n**
2	nyái-**m\H**	**mum**-nyai-**n**	**matúm**-nyai-**n**	**mim**-nyai-**n**
3AN	nyai	**u**-nyai-**n**	**atú**-nyai-**n**	nyai-**n**
3INAN	**i**-nyai			

constructions. There is a subclass of six Direct I nouns that are additionally inflected with the infix <*n*> 'NSG.POSS', when the possessor is both animate and non-singular. This paradigm will be referred to as the Direct Ia paradigm, and the subclass of nouns that take infixation will be referred to as Direct Ia nouns. The Direct Ia paradigm is exemplified in Table 7.11, using the noun *talatú* 'ear'.

Table 7.11: The Direct Ia paradigm for the infixed noun *talatú* 'ear'

	SG	DU	PC	PL
1.I	tálatu-**k\H**	**tu**-tala**<n>**tu-**n**	**(a)tú**-tala**<n>**tu-**n**	tala**<n>**tu-**n**
1.E		**um**-tala**<n>**tu-**n**	**atúm**-tala**<n>**tu-**n**	**ám**-tala**<n>**tu-**n**
2	tálatu-**m\H**	**mum**-tala**<n>**tu-**n**	**matúm**-tala**<n>**tu-**n**	**mim**-tala**<n>**tu-**n**
3AN	talatu	**u**-tala**<n>**tu-**n**	**atú**-tala**<n>**tu-**n**	tala**<n>**tu-**n**
3INAN	**i**-talatu			

A full list of Direct Ia nouns is given in Table 7.12. The placement of the infix is generally, but not always, in the coda of the initial syllable of the root; to show where the infix occurs, the form of the noun inflected to agree with a 1PL.I possessor is provided.[4]

As introduced in §5.1.3.2, there are many right-headed compounds in which the first element is a body part noun. These compounds refer either to other

4. Similar patterns of infixation are described for the possessive paradigms of the SHWNG language Irarutu (van den Berg and Matsumura 2008). In their description, van den Berg and Matsumura suggest that these infixes in Irarutu are indicative of former compounds. In other words, at an earlier stage in the language, these body part terms were decomposable into two roots, both of which were inflected to index the possessor. In Irarutu, at least the first element of all of these frozen compounds are independently attested; in Ambel, however, none of the elements preceding or following the infixes in Table 7.12 are attested elsewhere.

Table 7.12: Body part nouns specified for possession in Direct Ia possessive constructions

Root	Meaning	1PL.I possessor
kagalán	'skull'	ka**<n>**gala**-n**
kakó	'throat'	ka**<n>**ko**-n**
kayté	'back (of body)'	kay**<n>**te**-n**
koká	'limb'	ko**<n>**ka**-n**
sabyái	'anus'	sa**<n>**byai**-n**[a]
talatú	'ear'	tala**<n>**tu**-n**
tatá	'face'	ta**<n>**ta**-n**

[a] The infixed form of *sabyái* 'anus' is archaic.

body parts, or to bodily fluids. Body-part and body-fluid compounds, as these compounds will be referred to, fall into two types: (1) compounds in which only the first element is inflected to mark the possessor; (2) compounds in which both elements are inflected to mark the possessor. Each type of compound will be dealt with in turn.

Table 7.13 lists the body part compounds which only take inflection on the first element of the compound. For illustrative purposes, these compounds are inflected to mark a 1PL.I possessor. Not all of the second elements of these compounds are independently attested; where possible, the meaning of the independently-attested element is provided. Two of these compounds refer to bodily fluids: *su-mánu* 'snot' and *taji-lu* 'tear'. As mentioned in footnote 9 in §5.1.3.2, while it is cross-linguistically unusual for an inflected form to be used as the input for a derivation process such as compounding, inflection inside derivation has been attested in Georgian, Yiddish, and Tagalog (Bochner 1984), Spanish and Portuguese (Rainer 1995), and the Algonquian language Maliseet (Sherwood 1983).

The second group of body-part compounds are those compounds where both elements of the compound are inflected to agree with the possessor. Only two such body part compounds are attested; they are given in Table 7.14. In this table, the compounds are inflected to mark a 1SG possessor (so as to demonstrate the inflection on *kabóm* 'bone'; see Table 7.9).

Table 7.13: Body-part and body-fluid compounds in which only the first element is inflected

Root	**Compound (1PL.I possessor)**	**Refers to**	**Meaning of second element**
bití 'body'	biti-n-rip	Skin	unattested
gá 'mouth'	ga-n-halap	Cheek	unattested
	ga-n-kani	Lip	*kaní* 'skin'
	ga-n-kaprun	Facial hair (beard and/or moustache)	*kaprún* 'body hair, feather(s)'
kapyá 'arm'	kapya-n-hahis	Wrist	*hahís* 'wrist'
	kapya-n-kapuk	Elbow	*kapúk* 'corner'
	kapya-n-ta	Elbow to wrist	*tá* 'front'
	kapya-n-maton	Bicep	? *matón* 'be full'
kayté 'back'	kay<n>te-n-kabom	Backbone	*kabóm* 'bone'
koká 'limb'	ko<n>ka-n-bat	Leg (hip to feet)	*bát* 'ground, earth'
	ko<n>ka-n-hey	Calf	*hey* 'good'
	ko<n>ka-n-kapuk	Knee	*kapúk* 'corner'
	ko<n>ka-n-nyai	Palm of hand/sole of foot	*nyái* 'belly'
	ko<n>ka-n-pon	Arm	*pón* 'top'
lai (*unattested*)	lai-n-hun	Waist	? *hun* 'king'
lú 'shadow'	lu-n-talay	Front of body	*talay* 'front'
nyái 'belly'	t-nyai-n-gawin	Chest	? *gawín* 'kind of breadfruit tree'
	t-nyai-n-kabyali	Intestines, stomach	*kabyáli* 'kind of vine'
sái 'bottom, bum'	sai-n-gu	Anus	*gu* 'hole'
	sai-n-kabom	Hips	*kabóm* 'bone'
	sai-n-kapeley	Buttocks	unattested
sí 'genitals'	si-n-are	Vagina	unattested
	si-n-put	Bladder	unattested
	si-n-tasol	Penis	unattested
su 'nose'	su-n-gu	Nostril	*gu* 'hole'
	su-n-kabom	Bridge of nose	*kabóm* 'bone'
	su-n-manu	Snot	unattested
tají 'eye'	taji-n-kali	Sleep, rheum	*káli* 'shit'
	taji-n-karaniw	Eyelash	unattested
	taji-n-katara	Outer corner of eye	unattested
	taji-n-lu	Tear	? *lu* 'shadow'
	taji-n-mur	Eyeball	*múr* 'seed'
	taji-n-pon	Eyebrow	*pón* 'top'
talatu 'ear'	tala<n>tu-n-kaliw	Earlobe	*kalíw* 'tip'
	tala<n>tu-n-kapuy	Temple, between the eye and the ear	*kapuy* 'base (of e.g. a tree)'
wáli 'tooth'	wali-n-kaba	Gums	? *kába* 'sago fibres'
	wali-n-kasot	Gap between teeth	unattested

Table 7.14: Body-part compounds in which both elements are inflected

Root 1	**Root 2**	**Compound (1SG possessor)**	**Refers to**
gá 'mouth'	kabóm 'bone'	gá-k-kabo-k	Chin
koká 'limb'	ti (*unattested*)	kóka-k-ti-k	Finger/toe

If the possessor in a Direct I possessive construction is non-specific, then the possessed noun is inflected as if the possessor were 3INAN, regardless of whether or not the possessor is semantically animate. This is shown in (12).

(12) líy macúbey **iwanat**
l-íy macúbey i-wanát
3PL.AN-eat human.being 3INAN-flesh

[On *kábyo* spirits:] 'They eat the flesh of humans.' **AM064_09.19**

7.2.1.2 Direct I nouns

In this section, the semantics of the class of nouns specified for possession in Direct I constructions is discussed. I refer to these nouns as 'Direct I' nouns. Direct I nouns are a closed class. However, in comparison with some of the other noun classes discussed in this chapter (particularly the Direct II and Direct III classes), it is a comparatively large class. Three different semantic categories of Direct I were introduced above: body, animal, and plant part terms; terms referring to undifferentiated parts of wholes; and nouns denoting non-human attributes. Each of these groups are discussed in turn.

7.2.1.2.1 Direct I nouns referring to body, animal, and plant parts

All nouns referring to plant parts, and nearly all nouns referring to human and animal body parts, have dual possessive class membership, in that they are specified for use in either Direct I or Indirect II possessive constructions. As will be described in §7.3 below, the possessive construction for these nouns is secondarily determined by the semantics of the possessive relationship between the possessor and possessed noun. If the noun is in an inalienable relationship with the possessor, i.e. if it is part of the whole of the possessor (for example, a

part of the body of the possessor), it appears in a Direct possessive construction. If, however, it is in an alienable relationship with the possessor – for example, if the relationship is one of ownership – then the noun is possessed in an Indirect construction. As these nouns are by far the most frequently attested in Direct I possessive constructions, this noun class is discussed in this section.

Thus far, several paradigms for body part nouns possessed in Direct I possessive constructions have been provided. Some naturalistic examples of body part terms possessed in Direct I constructions are given in (13) and (14).

(13) kiulamcát láp pa, ido utobán **utantan**
ki=ula-mcát láp pa ido u-tobán u-ta<n>tá-n
EMO=3DU-be.afraid fire ART so.then 3DU-cover.face 3DU-<NSG.POSS>face-NSG.POSS
i **pa** bi
i pa bi
NSG ART just

'The two of them were afraid of the fire, so then they covered their faces.'
AM066_30.26

(14) "... **ámsabyain** **i** **ne** wa amápu asi be
ám-sábyai-n i ne wa am-ápu asi be
1PL.E-anus-NSG.POSS NSG ART FOC.SPEC 1PL.E-wrap.sago 3NSG.INAN INSTR
cunhaw ne apa"
cun-haw ne a-pa
sago.biscuit-sago.funnel ART DEM.NCNT-ART

'[A boy said:] "...It was [flavour from] our anuses that we used to wrap up the smoked sago".' **AM188_16.05**

Not all possessed body part nouns are specified for possession in Direct I possessive constructions: the body part nouns *hahís* 'wrist', *báwin* 'womb', *su* 'breast', and *málkabyalat* 'kidney' are only possessed in Indirect II constructions. In addition, most terms for body fluids and waste products (unless a compound listed in Table 7.13 above), such as *lómo* 'blood', *kápi* 'saliva', *til* 'earwax', *támey* 'urine', *káli* 'faeces', and *mabót* 'sweat' are Indirect II nouns; the noun *gamú* 'smell;

soul, essence', however, is a Direct I noun, as is *galí* 'voice'. Finally, the nouns *pyá* 'hair' and *gópoy* 'umbilical cord' are Indirect II nouns.[5]

As well as human body parts, most animal and all plant part terms are Direct I nouns. An example of a possessed Direct I noun referring to an animal body part is given in (15), and an example of a possessed Direct I noun referring to a plant part is given in (16).

(15)

yéma	máni	low	wapa,	**ukahlen**	**i**	**pa**
y-ém-a	máni	low	wa-pa	u-kahlé-n	i	pa
1SG-see-PAR	bird	two	DEM.CNT-MID	3DU-wing-NSG.POSS	NSG	ART

sibyáw
si-byáw
3NSG.INAN-green

'I see those two birds; their wings are green.' **AM151_el.**

(16)

lán	ne	nápo,	nápo	la	il	ido	ntéten	áy	wana,	**ibay**
lán	ne	n-ápo	n-ápo	la	il	ido	N-téten	áy	wana	i-báy
fly	ART	3SG-fly	3SG-fly	ORI	upwards	FRA	3SG.AN-perch	tree	DEF	3INAN-trunk

wana
wana
DEF

'The fly flew, when it flew upwards then it perched on the tree, [on] its trunk.'
AM042-06_00.50

Three exceptions to this generalisation are the animal part nouns *adí* 'long tail of a Wilson's bird of paradise' and *sót* 'crown of a Wilson's bird of paradise', both of which are Indirect II nouns; and *(sá)gale* 'tail', which is a Direct III noun.

Before moving on to look at the semantics of other Direct I nouns, a brief word about how body parts that occur in pairs (such as legs, arms, eyes, ears, etc) are treated by the grammar is warranted. When the possessor is singular, paired body parts are treated as singular by the grammar, regardless of whether the speaker is referring to only one, or both of the body parts. Consider examples (17) and (18).

5. The noun *gópoy* can in fact be possessed in a Direct I possessive construction; in this case, it does not mean 'umbilical cord', but 'the top of the fruit, where the stalk is attached'.

(17) nalép sál koka wana, ido **koka** **ne** **anlómo**
na-lép sál koká wana ido koká ne aN=lómo
3SG-cut be.wrong limb.3SG.AN DEF and.then limb.3SG.AN ART 3SG.INAN=bleed
bi idooo...
bi ido:VVV
just and.then:CLIM

'She accidentally cut her leg, and then her leg just bled and bled...'

AM181_05.18

(18) bísar wa **taji** **pa** **amalá** apa monkoné:
bísar wa tají pa aN=malá a-pa monkoné
old.woman NMC.DEF eye.3SG.AN ART 3SG.INAN=be.blind ART.NMC-MID say.3SG.AN
"mansope anta yém late?"...
mansope anta y-ém la-te
then later 1SG-see DEM.V-CNST.INT

[A man has just asked two old women to go inland to bring back some villagers who are harvesting sago:] 'The old woman whose eyes were blind said: "[But] then how will I see?"' **AM105_10.49**

In example (17), the body part noun *koká* 'limb' refers to only one of the woman's legs. In example (18), on the other hand, the noun *tají* 'eye' unambiguously refers to both of the old woman's eyes; as she is blind, she is unable to see out of either eye. However, in both (17) and (18), the body parts are treated as singular: this is shown by the 3SG.INAN subject marking on the verbs *lómo* 'bleed' and *malá* 'be blind', respectively.[6]

6. A similar phenomenon is found in Biak: alienable body-part roots can take either singular or plural morphology to refer to either one or both of the paired body parts, and the intended number of referents for inalienable body-part roots is only clear if the noun is the subject of the clause, and the number is indexed on the verb (van den Heuvel 2006: 236–237).

7.2.1.2.2 Direct I nouns referring to undifferentiated parts of inanimate wholes

Some nouns that refer to undifferentiated parts of inanimate wholes are specified for use in Direct I possessive constructions.[7] Examples are given in (19) and (20).

(19)

lál	**nyígi**	**itare**	ke,	po	be	**kátin**	**itare**	ke
l-ál	nyígi	i-táre	ke	po	be	kátin	i-táre	ke
3PL.AN-take	bottle	3INAN-shard	EPI.may	NEG	and	stone	3INAN-shard	EPI.may

[On how to make a fire using traditional methods:] 'They take maybe a shard of a [glass] bottle, if not then maybe a piece of stone.' **AM068_01.54**

(20)

ido	umagáli	la	pul	ido	umál	si	po	**kátin**
ido	um-agáli	la	pul	ido	um-ál	si	po	kátin
so.then	1DU.E-dive	ORI	downwards	FRA	1DU.E-take	3PL.AN.O	ABL	stone

ibit	**pa**
i-bít	pa
3INAN-edge	ART

'So then when we two dived downwards, then we took them [some sea cucumbers] from the side of a stone.' **AM167_01.43**

However, nouns referring to objects that are a distinct unit of a larger inanimate whole (such as the door, window, or roof of a building, or the handle of a tool), i.e. differentiated parts of inanimate wholes, are not Direct I nouns, but are instead Indirect II nouns.

7.2.1.2.3 Direct I nouns denoting non-human attributes

All attested nouns denoting non-human attributes are Direct I nouns. Some examples are given in (21) and (22).

7. For both Direct I nouns referring to undifferentiated parts of wholes, and Direct I nouns denoting non-human attributes, discussed in the following section, only inanimate possessors are grammatical.

(21) ape ahana, bey ne ambe **ipil** pórin, bey ne
ape a-hana bey ne aN=be i-pil pórin bey ne
but DEM.NCNT-AND sago ART 3SG.INAN=become 3INAN-price NEG.CONT sago ART

ambe **ipil** po, *cuma* **ipil** pa anále
aN=be i-pil po cuma i-pil pa aN=n-ále
3SG.INAN=become 3INAN-price NEG only 3INAN-price ART INAN=3SG-descend

'But, in the old days, sago had not yet become expensive [lit: 'its price'], sago was not expensive, its price had gone down.' **AM032_02.45**

(22) **imale** **pa** anlá lúkum
i-mále pa aN=lá lúkum
3INAN-sweet ART 3SG.INAN=be.like langsat

'Its sweetness is like a langsat fruit.' **AM199_el.**

Human attributes are expressed using other strategies. For example, the human attribute *há~hey* 'kindness' is an Indirect II noun. Other attibutes, such as 'strength', 'height', and 'weight', which may be expressed with nouns in other languages, are only attested as verbal predicates in Ambel.

7.2.2 Direct II possessive constructions

The second of the three Direct possessive constructions is the Direct II possessive construction. Direct II constructions are used for the possession of six kin terms. The morphosyntax of Direct II possessive constructions is described in §7.2.2.1, and the six kin terms specified for use in Direct II possessive constructions are discussed in §7.2.2.2.

7.2.2.1 Morphosyntax

Like Direct I constructions, there are two phonologically conditioned paradigms marking the possessor in Direct II possessive constructions: one for sonorant-initial nouns, and one for non-sonorant-initial nouns. The paradigm for non-sonorant-initial nouns is illustrated in Table 7.15 with the possessed kinship noun *kamú* 'different-generation in-law'. As with Indirect I constructions, inanimate possessors are not attested in Direct II constructions.

Table 7.15: The Direct II paradigm for the possessed noun *kamú* 'different-generation in-law'

	SG	DU	PC	PL
1.I	kamú-**k**	**tu**-kamu-**n**	**(a)tú-**kamu-**n**	kamu-**n**
1.E		**um**-kamu-**n**	**atúm-**kamu-**n**	**ám-**kamu-**n**
2	kamú-**m**	**mum**-kamu-**n**	**matúm-**kamu-**n**	**mim-**kamu-**n**
3AN	**i-**kamu	**u**-kamu-**n**	**atú-**kamu-**n**	kamu-**n**
3INAN	*unattested*			

Table 7.15 shows that the morphology of Direct II possessive constructions for non-sonorant-initial nouns is nearly identical to the regular morphology of non-sonorant-initial Direct I nouns, given in Table 7.6 above. There are two differences between the Direct I and Direct II paradigms. First, when the possessor is 3SG.AN, this is marked with *i-* '3SG' in Direct II possessive constructions, but is unmarked in Direct I possessive constructions. The second difference is prosodic. For non-1SG or 2SG possessors, there is a process of /H/-deletion in the Direct II paradigm, which operates in the same way as the Direct I paradigm, i.e. it strips any underlying /H/ specification from the root. Thus when the root *kamú* 'different generation in-law', with /H/ on the second syllable, is inflected to mark a 3SG possessor, the inflected form is toneless: *i-kamu* '3SG-in.law'. However, unlike the Direct I paradigm, there is no *\H* suprafix in the Direct II paradigm to mark a 1SG or 2SG possessor. This can be seen in Table 7.15: for a 1SG or 2SG possessor, tone is realised on the same syllable as the /H/ on the root (in this case, the final syllable of the root).

The paradigm for sonorant-initial Direct II nouns is illustrated in Table 7.16 with the kin term *nú* 'same-sex sibling'. This table shows that the Direct II paradigm for sonorant-initial nouns is similar to the Direct I paradigm for the irregular noun *nyái* 'belly', presented in Table 7.10 above: 1PL.I possessors are marked with *t-*; 1DU.I possessors are marked with *tut-* (rather than *tu-*), and 1PC.I possessors are marked with *(a)tút-* (rather than *(a)tú-*). Like the Direct II paradigm given in Table 7.15, however, the Direct II paradigm for sonorant-initial nouns differs from the Direct I paradigm for *nyái* 'belly' in that a 3SG.AN possessor is marked with *i-* '3SG', and there is no *\H* suprafix for 1SG or 2SG possessors.

Table 7.16: The Direct II paradigm for the possessed noun *nú* 'same-sex sibling'

	SG	DU	PC	PL
1.I	nú-**k**	**tut**-nu-**n**	**(a)tút**-nu-**n**	**t**-nu-**n**
1.E		**um**-nu-**n**	**atúm**-nu-**n**	**ám**-nu-**n**
2	nú-**m**	**mum**-nu-**n**	**matúm**-nu-**n**	**mim**-nu-**n**
3AN	**i**-nu	**u**-nu-**n**	**atú**-nu-**n**	nu-**n**
3INAN	*unattested*			

As with all other possessive construction in Ambel, in Direct II constructions, the possessor (where overt) precedes the possessed noun. A naturalistic example of a Direct II possessive construction is given in (23).

(23) *kebetulan*, *waktu* wapa, *munkin* **[mánsar** **ne]**$_{\text{PossR}}$ **[inya]**$_{\text{PossD}}$
kebetulan waktu wa-pa munkin mánsar ne i-nyá
incidentally time DEM.CNT-MID maybe respected.man ART 3SG-mother
po lone
po lo-ne
ABL DEIC.N-PROX

'Incidentally, at that time, maybe the man's mother was from this place.'

AM135_06.03

7.2.2.2 Direct II nouns

Nouns specified for use in Direct II possessive constructions – 'Direct II nouns' – all refer to kinship relationships. The class of Direct II nouns constitutes a very small, closed class: all six nouns are listed in Table 7.17. As can be seen from this table, nouns referring to both consanguineal kin (e.g. *má* 'father', *nú* 'same sex sibling') and affinial kin (e.g. *awá* 'spouse', *kamú* 'different generation in-law') are part of the Direct II noun class.[8]

Two of the nouns in Table 7.17, *má* 'father' and *nyá* 'mother', have suppletive forms if the possessor is 1SG or 2SG. The suppletive forms are specified for use in Indirect II constructions. The full paradigms for 'father' and 'mother' are given in

8. If one separates from one's spouse, then one can no longer refer to one's in-laws with *kamú*; in other words, the in-law relationship is not permanent.

Table 7.17: Nouns specified for possession in Direct II possessive constructions

Kinship term	**Meaning**	**Notes**	**Type of relationship**
awá	'spouse'	Archaic for all possessors other than 3SG	Affinial kin
kamú	'different generation in-law'		Affinial kin
má	'father'	Father [F]; Father's brother [FB]; Mother's sister's husband [MZH]	Consanguineal kin, affinial kin
nyá	'mother'	Mother [M]; Mother's sister [MZ]; Father's brother's wife [FBW]	Consanguineal kin, affinial kin
nú	'same-sex sibling'	Male ego's brother [EmB]; Female ego's sister [EfZ]; Male ego's father's brother's son [EmFBSo]; Female ego's mother's sister's daughter [EfMZD]	Consanguineal kin
tábyu	'grandchild, grandparent'[a]		Consanguineal kin

[a] The difference between *tábyu* 'grandparent' and the Indirect I noun *ábu* 'grandparent' is unknown.

Tables 7.18 and 7.19, respectively. Table 7.18 shows that, if the possessor is 1SG or 2SG, only the suppletive Indirect II noun *mám* 'father' is possible. Table 7.19 shows that this is also true for a 1SG possessor of 'mother', for which there is a suppletive Indirect II noun *nén*; but that, if the possessor is 2SG, then the speaker has the choice between using the root *nyá* 'mother' in a Direct II possessive construction, or the suppletive root *nén* 'mother', in an Indirect II possessive construction.[9]

Finally, the kinship noun *awá* 'spouse' is marked in Table 7.17 as archaic, if the possessor is non-3SG. Nowadays, if the possessor is non-3SG, the possessed noun *awá* 'spouse' is not used; instead, the kinship terms *bísar* 'wife' and *mánsar* 'husband' are used. Both *bísar* 'wife' and *mánsar* 'husband' are Indirect I nouns; in the Indirect I paradigm, both can be possessed by a 3SG possessor.[10]

9. It is unclear what factors condition this choice. The suppletion of kin terms when the possessor is 1SG or 2SG is common in languages spoken across New Guinea; see Baerman (2014) for a survey.
10. Both *bísar* and *mánsar* are polysemous: depending on the context, they can also mean 'old and/or respected woman' and 'old and/or respected man', respectively. The tendency for replacement of terms referring to kin relations along horizontal generations, such as spouses, by

Table 7.18: The Direct II paradigm and 1SG and 2SG suppletion for *má* 'father'

	SG	DU	PC	PL
1.I	**ni-k / na-k** mám	**tut**-ma-**n**	**(a)tút-**ma-**n**	**t-**ma-**n**
1.E		**um-**ma-**n**	**atúm-**ma-**n**	**ám-**ma-**n**
2	**ni-m / na-m** mám	**mum-**ma-**n**	**matúm-**ma-**n**	**mim-**ma-**n**
3AN	**i-**ma	**u-**ma-**n**	**atú-**ma-**n**	ma-**n**
3INAN	*unattested*			

Table 7.19: The Direct II paradigm and 1SG and 2SG suppletion for *nyá* 'mother'

	SG	DU	PC	PL
1.I	**ni-k / na-k** nén	**tut**-nya-**n**	**(a)tút-**nya-**n**	**t-**nya-**n**
1.E		**um-**nya-**n**	**atúm-**nya-**n**	**ám-**nya-**n**
2	**ni-k / na-k** nén OR nyá-**m**	**mum-**nya-**n**	**matúm-**nya-**n**	**mim-**nya-**n**
3AN	**i-**nya	**u-**nya-**n**	**atú-**nya-**n**	nya-**n**
3INAN	*unattested*			

7.2.3 Direct III possessive constructions

The final type of Direct possessive construction is the Direct III possessive construction. Six nouns of association are specified for possession in Direct III constructions. The morphosyntax of Direct III possessive constructions is discussed in §7.2.3.1, and the nouns specified for use in Direct III possessive constructions are discussed in §7.2.3.2.

7.2.3.1 Morphosyntax

As with the other two Direct paradigms, there are two phonologically-conditioned paradigms for Direct III possessive constructions: one for the sonorant-initial noun *lú* 'shadow', and the other for non-sonorant-initial Direct III nouns. The paradigm for non-sonorant-initial nouns is illustrated in Table 7.20 using the noun

more general, non-kin terms such as the word for 'woman' or 'man', has been noted by Dahl and Koptjevskaja-Tamm (2001: 202).

kóya 'footprint', and the paradigm for the sonorant-initial *lú* 'shadow' is given in Table 7.21.

Table 7.20: The Direct III paradigm for the possessed noun *kóya* 'footprint'

	SG	DU	PC	PL
1.I	kóya-**k\H**	**tu**-koya-**n**	**(a)tú**-koya-**n**	koya-**n**
1.E		**um**-koya-**n**	**atúm**-koya-**n**	**ám**-koya-**n**
2	kóya-**m\H**	**mum**-koya-**n**	**matúm**-koya-**n**	**mim**-koya-**n**
3AN	**(i-)**koya	**u**-koya-**n**	**atú**-koya-**n**	koya-**n**
3INAN	**(i-)**koya			

Table 7.21: The Direct III paradigm for the possessed noun *lu* 'shadow'

	SG	DU	PC	PL
1.I	lú-**k\H**	**tut**-lu-**n**	**(a)tút**-lu-**n**	**t**-lu-**n**
1.E		**um**-lu-**n**	**atúm**-lu-**n**	**ám**-lu-**n**
2	lú-**m\H**	**mum**-lu-**n**	**matúm**-lu-**n**	**mim**-lu-**n**
3AN	**(i-)**lu	**u**-lu-**n**	**atú**-lu-**n**	lu-**n**
3INAN	**(i-)**lu			

As with the Direct II paradigms illustrated in Tables 7.15 and 7.16, the paradigm for non-sonorant-initial nouns in Table 7.20 is nearly identical with the Direct I paradigm given in Table 7.6; and the paradigm for the sonorant-initial *lú* 'shadow', given in Table 7.21, is nearly identical with the irregular Direct I paradigm for *nyái* 'belly', given in Table 7.10. The morphological difference between the Direct III possessive paradigms and Direct I morphology is that, whereas in Direct I morphology a 3SG.AN possessor is unmarked, and a 3INAN possessor is marked with the prefix *i-*, in the paradigms for Direct III possessive constructions there is a collapse in the animacy distinction for 3SG possessors: both 3SG.AN and 3INAN possessors are optionally marked on the possessed noun with the prefix *i-*. Unlike the Direct II paradigm, the suprafix *\H* and the process of /H/-deletion operate in the Direct III paradigm in the same way as the Direct I paradigm (i.e., the suprafix *\H* attaches to the first syllable of the root if the possessor is 1SG or 2SG; for all other combinations of person, number, and animacy, any underlying tonal specification is stripped from the root).

Example (24), from the elicited corpus, shows that the 3SG prefix *i-* is optional.

(24) a. mákay wa-pa **i-gain** wa Salómo a
child DEM.CNT-MID 3SG-name PRED Salomo PERS

b. mákay wa-pa **gain** wa Salómo a
child DEM.CNT-MID name.3SG PRED Salomo PERS

'The name of that child is Salomo.' **AM268_el.**

As can be seen from (24), the possessor noun precedes the possessed noun in Direct III possessive constructions. An additional example of a Direct III construction, this time from the naturalistic corpus, is given in (25).

(25) ... mánsar ne, [ia]$_{PossR}$ [**gain**]$_{PossD}$ wa Áhuy a
mánsar ne ia gáin wa Áhuy a
respected.man ART 3SG.AN name.3SG PRED Ahuy PERS

'As for the man, his name was Ahuy.' **AM204_55.48**

7.2.3.2 Direct III nouns

Direct III nouns form a small, closed class of noun: only six are attested. All six of these nouns are listed in Table 7.22. When possessed, these nouns can be thought of as having a tight association with their possessor – two of the nouns in this table, *gáin* 'name' and *pup* 'nest, spider web', are identified by Dixon (2010b: 285) as terms that are frequently coded in possessive constructions expressing relationships of association. One Direct III noun, *(sá)gale* 'tail', is an animal body part noun.

Table 7.22: Nouns specified for possession in Direct III possessive costructions

Noun	Meaning
gáin	'name'
kóya	'footprint'
lu	'shadow'
pup	'nest, spider web'
(sá)gale	'tail'
tálo	'egg'

7.3 The role of semantics in the determination of possessive construction

As has been shown in preceding sections, the possessive constructions used to communicate a possessive relationship is primarily determined by the lexical specification on the noun. For example, the nouns in Table 7.3 can only be possessed in Indirect I possessive constructions, and the nouns in Table 7.17 can only be possessed in Direct II possessive constructions. Some Direct I nouns, however, are also specified for use in Indirect II constructions; for these nouns, the choice between a Direct I and an Indirect II possessive construction is determined by the semantic relationship between the possessor and possessed noun.

The nouns that have dual possessive class membership are those Direct I nouns that refer to body, plant, and animal parts, discussed in §7.2.1.2.1. If these nouns occur in a possessive construction where they are a part of the possessor, i.e. if the possessive relationship between the possessor and possessed is an inalienable relationship, then a Direct I possessive construction is used. If, however, the relationship between the possessor and possessed is one of ownership, i.e. if the relationship is alienable, then these nouns are possessed in an Indirect II possessive construction.

This difference is exemplified in (26), with the body part noun *kabóm* 'bone'. In (26a), the possessed bone is part of the body of the possessor; thus, it is possessed in a Direct I possessive construction. In (26b), however, the speaker is referring to a bone that they own, which has come from another animal, for example a pig. In this context, *kabóm* 'bone' is possessed in an Indirect II possessive construction.

(26) a. kábok ne antámje
kabóm-k\H ne aN=támje
bone-1SG\1|2SG.POSS ART 3SG.INAN=be.broken

'My bone [that is part of my body] is broken.'

b. naka kabóm wane anlál
na-k-a kabóm wa-ne aN=lál
POSS.II-1SG-PAR bone DEM.CNT-PROX 3SG.INAN=big

'This bone of mine [that I own, e.g. the bone of a pig] is big.' **AM222_el.**

In some cases, the choice of possessive construction leads to a slightly different sematic interpretation of the possessed noun. This is shown in examples (27) and (28). In example (27), the noun *galí* 'voice, language' is possessed in a Direct I possessive construction, and has the reading 'voice'. In example (28), however, the same noun is possessed in an Indirect II construction. This indicates that the relationship between the possessor and the possessed in (28) is one of ownership, rather than a part/whole relationship; thus, the most appropriate translation of *galí* in this context is 'story'.

(27)

nláw	ido	**gali**	**pa**	bóronpo	ái	
N-láw	ido	galí	pa	Ø-bóronpo	ái	
3SG.AN-howl	FRA	voice.3SG	ART	1PL.I-guess	dog	

'When he howled, we guessed his voice was [the voice of a] dog.'

AM031_00.33

(28)

... *jadi*	la*tolak*	*mentamenta*	*pendeta*	ne	**ni**		**galí**
jadi	la-tolak	menta~menta	pendeta	ne	ni-Ø		galí
so	3PL.AN-reject	truly	pastor	ART	POSS.II-3SG.AN		voice

'So they truly rejected the pastor's story.' **AM125_03.33**

7.4 The head of possessive constructions

In possessive constructions, the noun heading the possessed NP is the head of the possessive construction as a whole. This is shown by verbal subject marking when the possessive construction functions as the subject of a clause. For example, in (29), the inflection on the verb *mtúm* 'grow' shows that the verb agrees with the inanimate plural NP headed by *anán* 'food', i.e. the possessed NP, rather than the 1PL.I pronoun *isne*, i.e. the possessor NP.

(29) ... **[isne]**$_{\text{PossR}}$ **[tanin** **anán** **i** **ne]**$_{\text{PossD}}$ simtúm
isne ta-ni-n anán i ne si-mtúm
1PL.I 1PL-POSS.II-NSG.POSS food NSG ART 3NSG.INAN-grow
díri
díri
as.well

[Talking about bringing in non-local flora to grow in the gardens:] '...Our food [must] grow as well.' **AM064_10.51**

Another example is given in (30). In this example, the subject marking on the deictic verb *la-ne* 'DEM.V-PROX' shows that the verb agrees with the 3NSG.INAN possessed NP, headed by *wán* 'canoe', rather than the 1PL.E possessor NP, headed by *mé* 'person'.

(30) **[mé** **pápua** **ámne]**$_{\text{PossR}}$ **ámanin** **[wán** **kipa]**$_{\text{PossD}}$
mé pápua ámne áma-ni-n wán ki=pa
person Papua 1PL.E 1PL.E-POSS.II-NSG.POSS canoe EMO=ART
kisilane to
ki=si-la-ne to
EMO=3NSG.INAN-DEM.V-PROX IAM

'The canoes of we Papuan people [i.e., the Ambel] are like this.' **AM027_01.55**

Chapter 8

The clause

This chapter considers various aspects of the syntax of basic clauses in Ambel. Clausal modification by mode, aspect, and negation particles is discussed in Chapter 10, and multiclausal constructions are discussed in Chapter 14.

This chapter is structured as follows. I begin in §8.1 with a theoretical and terminological overview of the issues to be addressed in this chapter. In §8.2, I describe the six types of basic clause in Ambel. Then, in §8.3, I look at pragmatic variation in the clause.

8.1 Introduction and overview

The clause is defined as a morphosyntactic unit consisting minimally of one predicate. Syntactically, the following features diagnose clauses in Ambel:

- The ability to occur as the complement of *abí* 'want, FUT'. This is shown for a verbal clause in (1), and a possessive clause in (2).[1]

(1)

ine	yabí	[yíy	kalál]$_{CL}$
ine	y-abí	y-íy	kalál
1SG	1SG-want	1SG-eat	crab

'I want to eat crab.' **AM019_03.04**

1. As will be described in §14.2.1.1, *abí* 'want, FUT' can only take a clausal complement.

(2) ine yabí [nik we]$_{CL}$
ine y-abí ni-k we
1SG 1SG-want POSS.I-1SG child

'I want to have children.' **AM257_el.**

- The ability to be modified by the clausal modifiers described in Chapter 10, such as aspect, mode, and polarity markers. This is shown for a verbal clause in (3), and a possessive clause in (4), both of which are modified by the negative particle *po* 'NEG'.

(3) [anlál po]$_{CL}$
aN=lál po
3SG.INAN=big NEG

'It's not big.' **AM027_02.21**

(4) *jadi* [ia ni *hak* mi lone po]$_{CL}$
jadi ia ni hak mi lo-ne po
SO 3SG.AN POSS.II-3SG.AN rights LOC DEIC.N-PROX NEG

'[The Gaman clan stayed behind,] so they do not have rights in this place.'
AM135_04.45

- Clauses can be conjoined with the strategies discussed in §14.3. An example of two clauses, conjoined with the conjunction *rani* 'so', is given in (5). In this example, the first clause is headed by the verb *mcát* 'be afraid', and the second clause is headed by the verb *dók* 'leave'.

(5)

ntí	do	lopua,	*trus*	**[lamcát]$_{CL}$**	**rani**
N-tí	do	lo-pu-a	trus	la-mcát	rani
3SG.AN-pass.by	PERL	DEIC.N-DOWN-AND	then	3PL.AN-be.afraid	so

[ladók]$_{CL}$
la-dók
3PL.AN-leave

'It [the sun] went down, then they were afraid, so they left.'

AM135_21.56

The number and types of argument found in a clause are determined by the predicate. For all clause types, except ambient/existential and possessive clauses, the predicate has at least one underlying NP argument, i.e. an NP which is either obligatory for the grammaticality of the clause, or undergoes context-dependent omission (see §8.3.3). As well as arguments, a clause may include one or more adjuncts, e.g. PPs, NPs, or clauses, that provide additional information about the spatial or temporal setting of the situation described in the clause.

As an example of the concepts of clause, predicate, arguments, and adjuncts, consider (6). In this example, the speaker is explaining that members of the Wakaf clan cannot eat a certain kind of giant clam, because a Wakaf ancestor married a giant clam at sea and never returned to land.

(6)

[mánsar	wane	namin	po	tásilo	ane]$_{CL}$
mánsar	wa-ne	na-min	po	tási-lo	a-ne
respected.man	DEM.CNT-PROX	3SG.AN-be.lost	LOC	salt.water-place	DEM.NCNT-PROX

ido	[labór	i	bi]$_{CL}$
ido	la-bór	i	bi
FRA	3PL.AN-lose.trace.of	3SG.AN.O	just

'When this gentleman was lost at sea, they [his family and friends] completely lost trace of him.' **AM267_02.26**

There are two clauses in example (6). Both of the clauses in this example are verbal clauses: the first is headed by the intransitive verb *min* 'be lost', and the second is headed by the transitive verb *bór* 'lose trace of'. Within the first clause, there are two arguments: an NP headed by *mánsar* 'respected man', and an NP, introduced by the preposition *po* 'LOC', which is headed by *tási-lo* 'salt.water-place'. The NP

headed by *mánsar* 'respected man' is a core argument: if this sentence were to be uttered out of the blue, *a propos* of nothing, an NP in this position is obligatory for the grammaticality of the sentence. The NP introduced with *po* 'LOC', on the other hand, is an adjunct: in an out-of-the-blue context, this constituent would not be necessary for the sentence to be grammatical.[2]

If we look again at (6), there is a second clause, headed by the transitive verb *bór* 'lose trace of'. This clause has two underlying arguments. However, only one of these arguments is overt: the 3SG.AN object pronoun *i*. The subject argument is omitted. However, from the marking on the verb (*la-* '3PL.AN'), we can see that the person, number, and animacy of the omitted subject is 3PL.AN. Omission will be discussed in §8.3.3.

Verbal clauses, like the two in (6), are the most frequently attested type of clause in Ambel. Depending on the transitivity of the verbal predicate, verbal clauses can take up to three arguments. Besides verbal clauses, there are five other clause types. The following is a summary of non-verbal clauses in Ambel:

- **Locative clauses**, which are headed by locative predicates. Locative clauses take two arguments: a subject NP (the referent of which is the entity being located in space), and an NP indicating the location of the subject.
- **Nominal clauses**, which typically consist of two juxtaposed NPs. The first NP is analysed as the subject of the clause, and the second NP is analysed as the predicate.
- **Quantifier clauses**, which are headed by a quantifier predicate, and take a single NP subject.
- **Ambient/existential clauses**, in which the predicate is an NP. The predicate does not take any arguments.
- **Possessive clauses**, in which the predicate is a possessive NP. The predicate also does not take any arguments.

Verbal and non-verbal clause types are discussed in more detail in §8.2.

A definition of the clause, and features diagnosing a clause, was given at the beginning of this section. Before moving on to look in more detail at the six

2. See §4.1.2 for more on the use of this 'out-of-the-blue' context for determining which arguments of a verb are underlying, and which are not.

types of basic clause in Ambel in more detail, we should also distinguish clauses, utterances, and sentences. As van Staden explains: "In descriptions of spoken language, it is often somewhat problematic to determine what the basic unit of description should be: the clause, the 'sentence' or the utterance" (2000: 207). She points out that it is quite possible in spoken language for strings of speech to be intonationally 'complete' – i.e. to be bounded by an intonational boundary tone – but which lack any of the structural, semantic, or pragmatic features of a clause.

An utterance is defined as a string of speech preceded and followed by a pause. The unit 'utterance' corresponds to a large extent to the phonological unit of the intonation phrase, defined in §2.3.1. An utterance may consist of material that is clausal, as in (7).

(7) [kátin wapa ambu]$_{\text{UTT}}$
kátin wa-pa aN=bu
stone DEM.CNT-MID 3SG.INAN=white

'That [kind of] stone is white.' **AM066_34.14**

An utterance may also consist of material that is non-clausal, as in (8). In this example, there are three separate utterances. The first two utterances, by Speaker A, are polar interrogatives (described in §9.2.1). The first of these utterances is non-clausal: the marker of a positively-biased polar interrogative *ni* 'POS.INT' is used as an interjection. The second utterance is clausal, headed by the verb *dók* 'meet'. The third utterance, by Speaker B, is a truncated response to Speaker A's question; this utterance is also non-clausal.

(8) **A:** [ni?]$_{\text{UTT}}$ [njók po lote?]$_{\text{UTT}}$
ni N-<y>dók po lo-te
POS.INT 2SG-<2SG>meet LOC DEIC.N-CNST.INT

[Speaker B has just revealed that he has recently encountered a crocodile:] 'Oh yes? Where did you encounter [it]?'

B: [Kaflakút amana]$_{\text{UTT}}$
Kaflakút a-mana
Kaflakut DEM.NCNT-DIST

'[I encountered it at] Kaflakut there.' **AM067_01.09**

For the purposes of this description, a sentence is defined as a unit which minimally consists of one clause, but may be comprised of two or more coordinated or subordinated clauses. An example of a sentence, in this case consisting of two clauses linked with the conjunction *rani* 'so', is given in (9).

(9) [[ua utó po wán ipap ne]$_{CL}$ rani [ulun i
ua u-tó po wán i-páp ne rani ul-un i
3DU 3DU-stay LOC canoe 3INAN-underneath ART so 3DU-know 3SG.AN.O
po]$_{CL}$]$_{SENTENCE}$
po
NEG

[On two evil spirits carrying a canoe that, unbeknownst to them, has a sleeping child inside:] 'The two of them were underneath the canoe, so they didn't know he was there [lit: 'didn't know him'].' **AM066_19.00**

8.2 Clause types

In this section, the different clause types in Ambel are described and analysed. I begin in §8.2.1 with verbal clauses. Locative clauses are described in §8.2.2, followed by nominal clauses in §8.2.3, and quantifier clauses in §8.2.4. The two clauses that consist of NP predicates without any arguments – ambient/existential clauses, and possessive clauses – are discussed in §8.2.5.

8.2.1 Verbal clauses

Clauses with verbal predicates are the most frequently attested clause type in Ambel. The prototypical clause – henceforth referred to as the 'core clause' – consists of the verbal predicate, plus the number and type of arguments specified by the transitivity of the verb. In this section, the arguments of verbal clauses will be discussed with reference to the following semantic functions, defined on syntactic and semantic grounds (following e.g. Comrie 1989, Haspelmath 2011):[3]

3. Similar – and shorter – definitions of S, A, and P are given by, for example, Payne (1997: 75): S is the 'only argument of an intransitive clause', A is the 'most agent-like argument of a transitive clause', and P is the 'least agent-like argument of a transitive clause'. As discussed by Haspelmath (2011: 545ff.), however, definitions such as Payne's are not ideal, in that: (1) they define A and P

S: The sole argument of a one-argument verbal construction (e.g. *mát* 'die');

A: The argument of a typical two-argument verbal construction (e.g. *bun* 'kill', *kámje* 'break') or a typical three-argument verbal construction (e.g. *bi* 'give') which is most Agent-like when the predicate expresses an action;

P: The argument of a typical two-argument verbal construction (e.g. *bun* 'kill', *kámje* 'break') which is most Patient-like when the predicate expresses an action;

R: The argument of a typical three-argument verbal construction (e.g. *bí* 'give') which is most Recipient-like;

T: The argument of a typical three-argument verbal construction (e.g. *bí* 'give') which is most Theme-like.

The Ambel core clause is represented diagrammatically in Figure 8.1.

Constituent	NP	V	(NP)	(*be* NP)
	|	|	|	|
Semantic function	S/A	Pred	P/T	R
	|	|	|	|
Grammatical function	Subject	Pred	Object	Oblique

Figure 8.1: The core verbal clause in Ambel
(Brackets indicate a constituent is underlyingly optional, depending on the transitivity of the verb)

As can be seen in Figure 8.1, Ambel has accusative alignment, in that S and A pattern together as the grammatical subject, to the exclusion of P. Ambel also has indirective alignment, in that P and T pattern together as grammatical object, to the exclusion of R (rather than a system of secundative alignment, in which P and T pattern together to the exclusion of R; see Haspelmath 2011). The evidence showing that S and A pattern together, and that P and T pattern together, is presented in §8.2.1.1 below.

in terms of transitivity, rather than transitivity in terms of A and P (thus often leaving transitivity undefined); and (2) they do not account for two-argument clauses which do not have an Agent-like argument, such as *This room sleeps four persons*.

Examples of core clauses are given in (10)–(12). Example (10) shows a core clause headed by a intransitive verb; (11) shows a core clause headed by a transitive verb; and (12) shows a core clause headed by a ditransitive verb.

(10) [bey ne]$_S$ [aN=másut]$_V$
sago ART 3SG.INAN=be.wet

'The sago is wet.' **AM069_05.03**

(11) [saróy pa]$_S$ [N-sin]$_V$ [i]$_O$
whale ART 3SG.AN-catch 3SG.AN.O

'A whale caught her.' **AM019_06.58**

(12) [hun~hún a]$_S$ [N-bi]$_V$ [an]$_O$ [be atútne]$_{OBL}$ ...
REDUP~king PERS 3SG.AN-give 3SG.INAN OBL 1PC.I

'God gives it [his blessing] to us...' **AM191_15.57**

In addition to the core arguments and verbal predicate that make up the core clause, there are additional, optional positions that can occur at the peripheries of verbal clauses. To the left of the subject is a preclausal frame. The material within this frame is very often marked with Continuation intonation (described in §2.3.4.5), and may be an NP, as in (13) and (14), or clausal, as in (15). These examples show that the preclausal frame is optionally marked with *ido* 'FRA'.

(13) [**kálut wana,**]$_{FRAME}$ lasun an la mul be sabyai wana
kálut wana la-sun ana la mul be sabyái wana
k.o.vine DEF 3PL.AN-enter 3SG.INAN ORI inwards ALL anus.3SG.AN DEF

'**As for the *kálut* vine**, [the children] pushed it inwards into his anus.'
AM188_17.08

(14) [**gám pa ido**]$_{FRAME}$ nala lúl na*gambar* wán pa
gám pa ido na-la lúl na-gambar wán pa
night ART FRA 3SG-ORI seawards 3SG-draw canoe ART

'**That night,** he went seawards in order to draw a canoe [in the sand].'
AM112_12.25

(15) **[angkimtum ido]**$_{\text{FRAME}}$ angkibe áysu
aN=ki=mtum ido aN=ki=be áy-su
3SG.INAN=EMO=grow FRA 3SG.INAN=EMO=become tree-flower
'**When it grew,** it became a flower.' **AM019_04.48**

When an NP occurs in the preclausal frame and is coreferential with an argument in the clause, the construction often functions to topicalise the NP. This is shown in (13), where the NP headed by *kálut* 'kind of vine' is coreferent with the object of the verb *sun* 'enter'. In (14), on the other hand, the NP in the preclausal frame (headed by *gám* 'night') is not coreferent with any of the arguments of the clause. Non-coreferential NP frames are typically headed by temporal nouns, or nouns referring to a location, and provide adverbial information about the clause, by describing the temporal or spatial setting of the state or event communicated by the clause. Some temporal adverbs are also attested in the preclausal frame with this function. Finally, if the material in the preclausal frame is clausal, as in (15), this clause receives a temporal or conditional reading. The preclausal frame is discussed further in §8.3.1.

At the right-most periphery of a verbal clause, one or more prepositional phrases may occur. These prepositional adjuncts provide information about, for example, the spatial or temporal location, destination, or origin of the event, state, or situation expressed by the verbal predicate. An example of a verbal clause with a prepositional adjunct is given in (16).

(16) mánsar i ne la-dók **be tási**
respected.man NSG ART 3PL.AN-leave ALL salt.water
'The men left in the direction of the sea [lit: 'salt water'].' **AM193_00.20**

Prepositional adjuncts are not discussed further in this chapter, but are described in Chapter 11.

Finally, adverbial units may occur at several positions within the clause. There was a description of the possible positions of adverbial units in §3.4; this discussion will not be repeated here.

The rest of this section is structured as follows. In §8.2.1.1, grammatical relations will be discussed. In that section, I will provide evidence for the analysis presented above, in which Ambel is a language with accusative and indirective

alignment. In the subsequent sections, I discuss some subtypes of verbal clause: reflexive and reciprocal constructions in §8.2.1.2, comparative and superlative constructions in §8.2.1.3, and verbal clauses referring to states of human sense and emotion in §8.2.1.4.

8.2.1.1 Grammatical relations

Grammatical relations in verbal clauses in Ambel will be described with reference to the behaviour of the S, A, P, T, and R arguments, introduced above. These arguments will be discussed with regards to the following properties (adapted in part from Arka 2017 and Schapper 2009: 122):

- Word order;
- Marking on verb;
- Whether the NP is marked with *be* 'OBL';
- The form of the 3SG.AN pronoun.[4]

It should be noted that, while the transitivity of a verb and the transitivity of the clause in which it is used may match up, they do not necessarily: verb transitivity refers to the number of arguments a verb can take, whereas clause transitivity refers to the number of arguments that are actually realised. As mentioned several times above, and as will be discussed in §8.3.3, omission of one or more arguments in verbal clauses is very common in Ambel, when they are understood from the context. Therefore, a intransitive verb is specified for but does not necessitate one argument; a transitive verb is specified for but does necessitate two arguments; and so forth. Owing to the discrepancy between a verb's transitivity and the transitivity of the clause in which it is used, this section is organised according to the transitivity of the verbal head. This organisation follows Kluge (2014: 439), who describes a mismatch between clause transitivity and verb transitivity

4. The 3NSG.INAN and 3PL.AN pronouns also vary in form according to the function of the argument (see §3.2.3). However, the 3SG.AN pronoun is more frequently attested in the naturalistic corpus, meaning more appropriate examples were readily available. For this reason, the discussion in these sections will be limited to the form of the 3SG.AN pronoun.

Grammatical relations are additionally expressed through marking in relative clauses: while relativised subjects (i.e., S and A) are marked with gapping and subject marking, relativised object (i.e., P and T) and oblique (i.e., R) arguments are marked with resumptive pronouns. However, the discussion of these data is postponed until §14.1.2, in the section on relative clauses.

(her 'valency') in Papuan Malay; similar mismatches are described for both Biak (van den Heuvel 2006: 163–167) and Taba (Bowden 2001: 146–147). Thus, in the following sections, clauses headed by intransitive (§8.2.1.1.1), transitive (§8.2.1.1.2) and ditransitive (§8.2.1.1.3) verbs will be discussed.[5]

8.2.1.1.1 Verbal clauses headed by intransitive verbs

Clauses headed by intransitive verbs take a single argument, S. This argument precedes the verb. The person, number, and animacy of the argument is marked on the verb. This is shown in (17) and (18). In (17), the NP headed by *kak* 'cross-uncle' is marked on the verb with the prefix *n-* '3SG', and in (18), the 3PL.AN argument *sia* is marked on the verb with the prefix *la-* '3PL.AN'. These examples also show that, unlike some arguments that will be discussed below, S arguments are unmarked, in that the NP is not introduced by the marker *be* 'OBL'.

(17) [i-ni kak wana]$_S$ [n-ádo]$_V$ po lo-i-ma
3SG-POSS.I cross.uncle DEF 3SG-jump ABL DEIC.N-UP-DIST

'His cross-uncle jumped from the place at the top.' **AM181_02.50**

(18) [sia]$_S$ [la-súy]$_V$
3PL 3PL.AN-go.home

'They went home.' **AM056_03.19**

When the S argument is a pronoun, the 3SG.AN pronoun takes the form *ia*, as in (19).

(19) [ia]$_S$ [N-mát]$_V$
3SG.AN 3SG.AN-die

'He is dead.' **AM188_19.25**

5. As S=A ambitransitive and S=O ambitransitive verbs are used either monovalently, in the same way as an intransitive verb, or bivalently, in the same way as a transitive verb, they will not be discussed further here. For verbal clauses headed by extended intransitive verbs, see the discussion in §8.2.1.1.4.

8.2.1.1.2 Verbal clauses headed by transitive verbs

Clauses headed by transitive verbs take two arguments, A and P. The A argument precedes the verb, and the P argument follows the verb. The person, number, and animacy of the A argument is marked on the verb; the person, number, and animacy of the P argument, in contrast, is unmarked. This is shown, for example, in (20), where the person, number, and animacy of the 1SG A argument *ine* is marked on the verb with the prefix *y-* '1SG', but the 2SG P argument is not marked on the verb; and in (21), where the person, number, and animacy of the A argument (headed by *mákay* 'child') is marked on the verb with the prefix *la-* '3PL.AN', but the 3SG.INAN P argument (headed by *kagalán* 'skull') is not marked on the verb. These examples also show that neither the A nor the P argument are marked with *be* 'OBL'.

(20) *jadi* [ine]$_A$ [y-átun]$_V$ [awa]$_P$
so 1SG 1SG-ask 2SG

'So I ask you.' **AM066_00.38**

(21) [makay ki=i pa]$_A$ [la-kút]$_V$ [i kagalán pa]$_P$
child EMO=NSG ART 3PL.AN-cut 3SG.AN.O skull3SG.AN ART

'The children cut his head [off].' **AM188_17.39**

When the A argument is a 3SG.AN pronoun, it takes the form *ia*, as shown in (22).

(22) [ia]$_A$ [N-sáw]$_V$ [ana]$_P$
3SG.AN 3SG.AN-hold 3SG.INAN

'He holds it.' **AM204_1.22.26**

When the P argument is a 3SG.AN pronoun, however, it takes the form *i*, as in (23).[6]

6. There are a handful of examples in the corpus of *ia* marking a 3SG.AN pronominal P argument. All of these examples are from speakers who are aged 65 years or older, suggesting this may be an archaic form. The 3SG.AN pronoun never takes the form *i* when used as a S or A argument.

(23) [*guru* pa]$_A$ [n-úl]$_V$ [i]$_P$
teacher ART 3SG-call 3SG.AN.O

'The teacher called him.' **AM113_03.19**

8.2.1.1.3 Verbal clauses headed by ditransitive verbs

Clauses headed by ditransitive verbs take three arguments: A, R, and T.[7] In these clauses, the A argument precedes the verb, and both the R and the T arguments follow the verb. The person, number, and animacy of the A argument is marked on the verb with a prefix, infix, or proclitic; the person, number and animacy of neither the R nor the T arguments are marked on the verb. These properties of the A, R, and T arguments are exemplified in (24).

(24) [ámne]$_A$ [ám-bi]$_V$ [cun-haw]$_T$ [be awa]$_R$ po
1PL.E 1PL.E-give sago-sago.funnel OBL 2SG NEG

'We did not give smoked sago to you.' **AM181_00.46**

Example (24) also shows that, while the A and T arguments are unmarked in the NP, the R argument is marked with *be* 'OBL'.

When the A argument is a pronoun, the pronoun marking a 3SG.AN argument takes the form *ia*, as shown in (25).[8]

(25) [ia]$_A$ hana [N-bi]$_V$ [jow]$_T$ [be isne]$_R$ wana pu
3SG.AN AND 3SG.AN-give song OBL 1PL.I DEF ATT.INT

'[The people in the boat said:] "Earlier, he sang [lit: 'gave'] a song to us, you know?"'
AM188_04.28

When either the T or R arguments are pronouns, the 3SG.AN pronoun takes the form *i*. This is shown in (26) for the T argument, and (27) for the R argument. In both of these examples, the A argument is omitted; this is marked with the symbol Ø.

7. In naturalistic speech, it is rare for all three of these arguments to be overt. In most attestations of ditransitive verbs in the corpus, at least one of the arguments is omitted (see §8.3.3). For this reason, there are omitted arguments in several of the examples in this section.
8. In this example, *hana* 'AND' and *wana* 'DEF' occur adclausally; see §12.2.3 and §6.2.9.2, respectively.

(26) [Ø]$_A$ [la-bi]$_V$ [i]$_T$ [be lo-pa]$_R$
3PL.AN-give 3SG.AN.O OBL DEIC.N-MID

'They buried him there [lit: 'They gave him to that place'].' **AM204_1.33.58**

(27) [Ø]$_A$ [la-bi]$_V$ [sánsun]$_T$ [be i]$_R$
3PL.AN-give clothes OBL 3SG.AN.O

'They gave clothes to him.' **AM113_05.26**

8.2.1.1.4 Summary and discussion

Table 8.1 provides a summary of the properties of the arguments discussed in this section.

Table 8.1: Summary: Properties of arguments of verbal clauses

	Pre-V	Marked on V	Marked in NP	Form of 3SG.AN
S	✓	✓	✗	*ia*
A	✓	✓	✗	*ia*
P	✗	✗	✗	*i*
T	✗	✗	✗	*i*
R	✗	✗	✓	*i*

Table 8.1 shows that S and A pattern together to the exclusion of P, T, and R, in three ways: (1) they occur pre-verbally; (2) they are marked on the verb; and (3) the form of the 3SG.AN pronoun is *ia*. The S and A arguments are thus grouped together as 'subject', in a system of accusative alignment.

The P, T, and R arguments pattern together to the exclusion of S and A, in that: (1) they are not pre-verbal; (2) they are not marked on the verb; and (3) the form of the 3SG.AN pronoun is *i*. The R argument, however, patterns differently from the P and T arguments, in that the R argument is marked in the NP with *be* 'OBL', while the P and T arguments are unmarked. P and T are thus grouped together as 'object'; the R argument will be referred to as 'oblique', in a system of indirective alignment.

Verbal clauses headed by extended intransitive verbs, introduced in §4.1.2.2, have not yet been discussed in this section. This is because, following the SAPRT definitions given above, the discussion has focussed on 'typical' two- and three-argument verbal constructions. As only three are attested, verbal clauses headed by extended intransitive verbs are not considered 'typical'. An example of a verbal clause headed by an extended intransitive verb, repeated from (12) in §4.1.2.2, is given in (28).

(28) [ine]$_{\text{ARG1}}$ <y>hakúr [be awa]$_{\text{ARG2}}$
1SG <1SG>admonish OBL 2SG

'I admonish you.' **AM169_el.**

In this example, the first argument of the verb (labelled 'ARG1') behaves like S or A, in that it precedes the verb, is marked on the verb, and is unmarked in the NP. The second argument (labelled 'ARG2') behaves like R, in that it follows the verb, is unmarked on the verb, and is marked in the NP with *be* 'OBL'. Example (29) confirms this analysis. This example shows that the form of the 3SG.AN pronoun for ARG1 is *ia* (like S and A) and for ARG2 is *i* (like P, T, and R).

(29) [ia]$_{\text{ARG1}}$ N-hakúr [be i]$_{\text{ARG2}}$
3SG.AN 3SG.AN-admonish OBL 3SG.AN.O

'She admonishes him.' **AM287_el.**

Examples (28) and (29) therefore show that ARG1 of an extended intransitive verb patterns with S and A, and that ARG2 patterns with R.

Throughout this grammar, the term 'subject' is used to refer to the S and A arguments of verbal clauses; 'object' to refer to the P and T arguments of verbal clauses; and 'oblique' to refer to the R arguments of verbal clauses.

8.2.1.2 Reflexive and reciprocal constructions

Reflexive and reciprocal constructions are verbal clauses headed by a transitive (or, less commonly, ditransitive) verb, in which two of the arguments (most often subject and object) have the same reference. Reflexive constructions are those in which the referents of the two arguments are identical, in which the action or activity expressed by the verb is carried out by the subject on itself (e.g. *The woman*

sees herself). Reciprocal constructions mark that the action expressed by the verbal predicate applies reciprocally to the referents of the two arguments (for example, in the reciprocal construction *The brother and the sister hit each other*, this entails that both *The sister hits the brother* and *The brother hits the sister*). The controlling NP of both reciprocal and reflexive constructions in Ambel must be the subject argument.[9]

There are several means of expressing reflexivity and reciprocity in Ambel. The most basic way of forming reflexive and reciprocal constructions is without any special marking, with a pronominal object argument coreferent with the subject argument. Examples of unmarked constructions with a reflexive and reciprocal reading are given in (30) and (31), respectively. In example (30), the 3SG.AN.O pronoun *i* is coreferent with the subject NP, headed by *kórben* 'dragon'.

(30) [kórben pa]$_S$ nteyn [i]$_O$
kórben pa N-teyn i
dragon ART 3SG.AN-SOAK 3SG.AN.O

'The dragon soaked himself.' **AM031_04.22**

In (31), which receives a reciprocal reading, the object pronoun *ua* '3DU' is coreferent with the omitted subject NP. From the subject marking on the verb, the omitted NP can be seen to be 3DU.

(31) [Ø]$_S$ udú u bi
u-dú ua bi
3DU-pull 3DU just

'The two of them just pulled each other.' **AM042-02_01.17**

As will be discussed in §8.3.3, the object of a non-reflexive or non-reciprocal clause headed by a transitive (or ditransitive) verb may be omitted, if it is clear from context. However, in reflexive and reciprocal constructions such as (30) and (31), the object pronoun cannot be omitted; or rather, if the pronoun is omitted, a reflexive or reciprocal reading is not possible.

9. Reflexive and reciprocal constructions are not very common in the naturalistic corpus. As omission of subject NPs is very common when the subject is predictable from context (see §8.3.3), the subject NP is omitted in most attestations. For this reason, in some of the examples in this section, the subject is omitted. These examples are supplemented, where possible, with examples from the elicited corpus.

Out of context, constructions of the type exemplified in (31) are ambiguous between a reflexive and a reciprocal reading. Thus, a possible out-of-context free translation of (31) could be 'The two of them pulled themselves'. In addition, when the referent of constructions of the type (30) and (31) is third person, the reading is ambiguous between a reflexive and a non-reflexive construction, or a reciprocal and a non-reciprocal construction. Thus, out of context, a possible free translation of (30) could be 'The dragon soaked him/her', in which the dragon is soaking another animate entity; similarly, a possible out-of-context free translation of (31) could be 'The two of them pulled the two of them,' where there are two animate entities pulling another two animate entities.

Both reflexive and reciprocal constructions may also be marked with a dedicated marker: reflexive constructions may be marked with *mánkun* 'REFL', and reciprocal constructions may be marked with *wóryay* 'RECIP'. Both *mánkun* 'REFL' and *wóryay* 'RECIP' occur between the verb and the object.[10] An example of a reflexive construction marked with *mánkun* 'REFL' is given in (32), and an example of a reciprocal construction marked with *wóryay* 'RECIP' is given in (33). In (32), the object argument *ine* '1SG' is coreferent with the omitted subject argument, which from the marking on the verb can be seen to be 1SG; in (33), the subject and object arguments *isne* '1PL.I' are coreferent.

(32) Ø$_S$ yakábun **mánkun** [ine]$_O$
ya-kábun mánkun ine
1SG-hide REFL 1SG

'I hide myself.' **AM092_el.**

10. The particle *mánkun* 'REFL' is very similar in form to the Biak emphatic pronominal *mankun(d)*, which takes enclitics marking person, number, and animacy (van den Heuvel 2006: 79-82). Biak *mánkun(d)* can be used in both reflexive and non-reflexive constructions. In non-reflexive constructions, the pronoun 'emphasizes the identity of the referent' (p.81; see below for more on Ambel *mánkun* 'REFL' in non-reflexive contexts). The Biak emphatic pronominal is morphologically complex, consisting of *man* 'male person' and the element *kun*, which is not attested elsewhere. A pronominal *vinkun* (containing *vin* 'female person') was also attested in van den Heuvel's elicitation. However, no equivalent female form exists in Ambel. As the form is more transparent in Biak, it is likely that Ambel has borrowed this form from Biak. Alternatively, both languages may have inherited the form from a common source.

Reciprocity in Biak is expressed using a verbal suffix *-yáe*; again, this is somewhat similar in form to the Ambel *woryáy* 'RECIP', and may be either a borrowing, or a common genetic inheritance.

(33) *karna* [isne wane]$_S$ takábu **wóryay** [isne]$_O$
karna isne wa-ne ta-kábu wóryay isne
because 1PL.I DEM.CNT-PROX 1PL.I-hug RECIP 1PL.I

'Because we [members of the Gaman clan] hug [i.e., support] each other.'
AM204_1.11.10

Grammatical forms denoting reflexivity often have other functions in the grammar of a language, particularly as a marker emphasising the referent of an argument (see e.g. Heine 2000, Heine and Kuteva 2002: 182, König and Siemund 2000). The form *mánkun* 'REFL' in Ambel can be used with an emphatic meaning, as shown in (34). In this example, the subject and object are not coreferent – the subject is the 1SG pronoun *ine*, whereas the object is an omitted argument, which from the context can be inferred to be *dún* 'fish' – thus a reflexive reading is not possible. Example (34) shows that emphatic *mánkun* 'REFL' occurs immediately to the right of the argument it is modifying (in this case, the subject).

(34) ine **mánkun** yém rani yasárita, ine jíne yamséw yíy
ine mánkun y-ém rani ya-sárita ine <y>bíne ya-mséw y-íy
1SG REFL 1SG-see SO 1SG-tell.story 1SG <1SG>say 1SG-not.want 1SG-eat
dún wepa
dún we-pa
fish DEM.CNT.NSG-MID

'I myself saw [the fish] so I'm telling the story, I'm saying I didn't want to eat those fish!' **AM064_15.15**

Thus far, two ways of expressing reflexivity and reciprocity have been described. There are two further ways of expressing reflexivity: with a serial verb construction, or with the possessed noun *bití* 'body'. Both of these strategies are only attested in the elicited corpus. The use of serial verb constructions to express reflexivity will be described in §13.1.3.2, in the section on serial verb constructions. An example of a construction in which the possessed noun *bití* 'body' expresses reflexivity is given in (35). In this example, the 1SG subject argument, clear from the subject marking on the verb and the possessive marking on the possessed NP, is omitted.[11]

11. Whereas synchronically, constructions of the type given in (35) are plain transitive constructions, words for 'body' are often a grammaticalisation source for reflexive markers; see, for example, Heine and Kuteva (2002: 57).

(35) [Ø]$_{A}$ yahán [bítik ne]$_{O}$
ya-hán bití-k\H ne
1SG-feed body-1SG\1|2SG.POSS ART

'I feed myself [lit: 'I feed my body'].' **AM092_el.**

Now that the strategies for expressing reflexivity and reciprocity have been elucidated, a brief word on semantic and syntactic possibilities for the controlling NP (the 'antecedent') can be made. The controlling NP can be animate, as in the previous examples given in this section, or it can be inanimate. Examples (36) and (37) are reflexive and reciprocal constructions, respectively, in which the controlling NP is inanimate.

(36) *mesin* pa antíy ana
mesin pa aN=tíy ana
machine ART 3SG.INAN=rest 3SG.INAN

'The machine rests itself [e.g. if it has been running all day, and comes to a stop].'
AM229_el.

(37) wán low walupa sinasabát asi
wán low wa-lu-pa sina-sabát asi
canoe two DEM.CNT-SEA-MID 3NSG.INAN-collide 3NSG.INAN

'Those two canoes at sea collide with each other.' **AM229_el.**

As mentioned in the introduction to this section, the controlling NP of reflexive and reciprocal constructions must be the subject of the clause. The second, non-controlling NP may be an object argument, as seen in all of the examples thus far. It may also be an oblique argument, as shown in the reciprocal construction in (38). (In this example, *wóryay* 'RECIP' is optional.)

(38) [Láwra ua Apelína a]$_{S}$ u-bí (wóryay) [*oleole*]$_{O}$ [be ua]$_{Obl}$
Laura 3DU Apelina PERS 3DU-give (RECIP) souvenir OBL 3DU

'Laura and Apelina give souvenirs to each other.' **AM229_el.**

Example (39), a reflexive construction, shows that the subject may also have scope over an adjunct. In this example, the omitted 3SG.AN subject is coreferent

with the beneficiary *ia* '3SG.AN' (see §11.1.2 for more on adjuncts marking beneficiaries).

(39) ... $Ø_S$ n-ál [bin]$_O$ be [ia]$_{Ben}$
3SG-take woman BEN 3SG.AN

'[Then when he grew up, he tried very hard until] he took a woman for himself.'
AM157_02.58

An object, however, cannot be the controlling NP. This is shown by the ungrammaticality of the reciprocal construction in (40), where the object and adjunct are coreferent.

(40) * [ine]$_S$ ya-tín [mám Martínus a tu-a ni-k mánsar pa]$_O$ be
1SG 1SG-point father Martinus PERS COM-PAR POSS.I-1SG husband ART BEN
[ua]$_{Ben}$
3DU

[Intended reading:] 'I point out Mr Martinus and my husband for each other [i.e., to show each of them who the other is].' **AM229_el.**

8.2.1.3 Comparative and superlative constructions

Comparative and superlative notions are expressed similarly, in constructions using the particle *kál* 'more than'. Structurally, comparative constructions are verbal clauses, which take an adjunct marked with *kál* 'more than'. The subject of the clause functions as the comparee, i.e. the thing being compared to something else, and the referent of the NP expressed in the adjunct as the standard, i.e. the thing that the comparee is being compared to. The inflected verb provides the parameter of comparison, and the particle *kál* 'more than' functions as the index of comparison. The structure of comparatives is given in (41), along with an illustrative example from the corpus.

(41) Comparative constructions:

COMPAREE		PARAMETER	INDEX	STANDARD		
Subject		**Inflected verb**	***kál***	**Adjunct**		
kursi	wehana	sihey	kál	nama	kursi	ne
kursi	we-hana	si-hey	kál	na-m-a	kursi	ne
chair	DEM.CNT.NSG-AND	3NSG.INAN-good	more.than	POSS.II-2SG-PAR	chair	ART

'The chairs over there are better than your chair.' **AM204_43.27**

The structure of superlatives, and an example of a superlative construction from the corpus, is given in (42). This example shows that there are two structural differences between comparative and superlative constructions. First, there is no standard in superlative constructions. Second, the parameter and index are subordinated in a relative clause construction.

(42) Superlative constructions:

Comparee		Parameter	Index	
Subject		**Inflected verb**	***kál***	
makanan	wa	anhey	kál	apa
makanan	wa	aN=hey	kál	a-pa
food	NMC.DEF	3SG.INAN=good	more.than	ART.NMC-ART

'[There will only be] the food that is the best.' **AM028_00.32**

In both (41) and (42), the parameter of comparison is the gradeable stative adjectival verb *hey* 'good'. Both non-adjectival stative verbs and dynamic verbs can also function as parameters of comparison. An example of a comparative construction headed by the dynamic verb *áti* 'run' is given in (43). Note that the interpretation of this construction is not that the comparee runs for a longer period of time, or more frequently, than the standard, but that he runs faster than the standard, overtaking him.

(43) ni-k we mán ne n-áti kál ni-m we mán pa
POSS.I-1SG child man ART 3SG-run more.than POSS.I-2SG child man ART

'My son runs such that he overtakes your son.' **AM126_el.**

8.2.1.4 Verbal clauses expressing sense and emotion

There are some verbal clauses, referring to emotions, senses, and some other human states, which are not felicitous with an animate subject. Instead, the subject is obligatorily a body part of the human (or animal) who is experiencing the emotion or state. I will refer to these clauses as 'sense and emotion clauses'.[12] An example of one of these clauses is given in (44). In this example, the subject of *másil* 'be hungry' is the possessed body part *nyái* 'belly'.

12. Similar constructions are reported throughout east and south-east Asia – see e.g. Matisoff (1986).

(44) "... anta kinsúy ido **nyai** **pa** **amásil**"
anta ki=N-súy ido nyái pa aN=másil
later EMO=3SG.AN-go.home FRA belly.3SG.AN ART 3SG.INAN=be.empty

'[She said:] "...Later, when he comes home, he will be hungry [lit: 'his stomach will be hungry']".' **AM020_04.28**

A full list of the sense and emotion clauses attested in Ambel is given in Table 8.2. Some of the verbs used as sense and emotion predicates (such as *nut* 'be clever', *mtín* 'wheeze') are only attested with this function. Others (such as *mári* 'be angry', *tálim* 'be talkative') are attested elsewhere (for example, when taking a non-body part subject, *mári* means 'hot', and *tálim* means 'be sharp'). Where relevant, the meaning of the verb in non-sense and emotion clauses is provided.

Table 8.2: Verbal clauses expressing sense and emotion

Subject		**Predicate**				**Meaning of verb in non-emotion clauses**
NOUN	MEANING	VERB	MEANING	CLASS	TRANS	
gá	'mouth'	malaí	'be bored of'	IV	S=A	*Not attested*
		tálim	'be talkative'	IV	intr.	'sharp'
kabrá	'forehead'	nut	'be clever'	IV	intr.	*Not attested*
nyái	'belly'	mári	'be angry'	IV	intr.	'hot'
		mári hey	'be rude'	IV	intr.	'very hot'
		másil	'be hungry'	IV	intr.	*Not attested*
		matón	'be full, satiated'	IV	intr.	*Not attested*
		mtín	'wheeze'	IV	intr.	*Not attested*
		mtow	'be brave'	IV	intr.	'be tough (of objects)'
		táli	'be startled'	IV	intr.	*Not attested*
tají	'eye'	malá	'be blind'[a]	IV	intr.	*Not attested*
		mó	'be dizzy, faint'	IV	intr.	*Not attested*
		waráy	'have insomnia'	I/II[b]	intr.	'be left behind'
talatú	'ear'	táput	'be deaf'[a]	IV	intr.	*Not attested*

[a] Can also take an animate subject.
[b] Ambiguous between Class I and Class II (see §4.1.1.1.1).

Not all emotions and senses are expressed in sense and emotion clauses in Ambel. Some emotions (such as *márin* 'be happy', *mcát* 'be afraid') and states (such as *mnyáran* 'be diligent', *ól* 'be pregnant') are expressed with verbs that take a human subject.

8.2.2 Locative clauses

Locative clauses are clauses that express the location of an entity. They are headed by locative predicates, and take two arguments: an NP subject (S), the referent of which is the entity being located in space; and an NP indicating the location of the entity (Loc). Some examples of locative clauses are given in (45) and (46). In these examples, the locative predicate is highlighted in bold.

(45)

[koka	pa]$_S$	**[anna]$_{PRED}$**	[Ámu	kásul]$_{LOC}$
koká	pa	anna	Ámu	kásul
foot.3SG.AN	ART	3SG.INAN.PRED	Amu	open.bay

'His feet [i.e. his footprints] are at Amu Bay.' **AM188_19.53**

(46)

ido	[meGáman	ne]$_S$	**[ya]$_{PRED}$**	[lopap]$_{LOC}$	to
ido	mé-Gáman	ne	ya	lo-pa-pa	to
so.then	person-Gaman	ART	3SG.AN.PRED	DEIC.N-SIDE-MID	IAM

'So the Gaman clan are already at the place at the side [i.e., in Mayalibit Bay].'
AM204_01.15.36

The form of the locative predicate varies, depending on the person, number, and animacy of the subject. The paradigm of locative predicates is given in Table 8.3.

Table 8.3: Locative predicates

	SG	DU	PC	PL
1INC 1EX	wa			
2	awa	mowa[a]	matúa	mewa[a]
3AN	ya	ua	atúa	
3INAN	Ø / anna	sina(i)		

[a] It is unclear whether the final syllables of the 2DU and 2PL locative predicates are /H/, like the pronouns *mowá* '2DU' and *mewá* '2PL', or not. For this reason, I have left them unmarked.

Table 8.3 shows that some of the non-first person locative predicates are identical with the equivalent free pronoun (see Table 3.5 in §3.2.3), viz. all of the

locative predicates marking second person subjects, as well as those marking 3DU and 3PC subjects. However, there are three non-first person locative predicates that are not identical with the equivalent free pronoun: 3PL *sina(i)* (cf. the subject pronoun *sia* '3PL'), 3SG.AN *ya* (cf. the subject pronoun *ia* '3SG.AN'), and 3SG.INAN *anna* '3SG.INAN.PRED' (cf. the subject pronoun *ana* '3SG.INAN').[13] Locative clauses with a 3SG.INAN subject may also optionally be marked by a non-overt predicate, as shown in (47).

(47) [kawá pa]$_{S}$ **Ø$_{\text{PRED}}$** [lopa]$_{\text{LOC}}$
border ART DEIC.N-MID

'The border is at that place.' **AM135_08.50**

All of the forms in Table 8.3 can be used as prefixes, which attach to deictic units to derive deictic locative predicates. A preliminary example of a deictic locative predicate, highlighted in bold, is given in (48).

(48) moko: '*adu*! Mansahúr a **yane**!'
moko adu Mansahúr a ya-ne
say.3SG.AN oh.no Mansahur PERS 3SG.AN.PRED-PROX

'She said: "Oh no! Mansahur is here!"' **AM188_12.32**

Owing to how rich the paradigms of the deictic units are, a full discussion of deictic locative predicates is postponed until §12.2.5, in the chapter on spatial deixis.

While location is typically expressed with a locative clause, verbal clauses are sometimes also used to express location. When the subject is animate, the verb *tó* 'stay, live' is used; when the subject is inanimate, the Class IV verb *mi(n)* 'be

13. Evidence that the locative predicate marking a 3SG.INAN subject is *anna* (realised as [ana]) rather than *ana* comes from the position of <*ki*> 'EMO', when present. This is shown in (1).

(i) wán pa **an<ki>na** Kabáre
canoe ART <EMO>3SG.INAN.PRED Kabare

'The canoe is in Kabare.' **AM283_el.**

Compare the position of <*ki*> 'EMO' within the 3SG.INAN pronoun *ana*, shown in (i).

(ii) ido Magdaléna a nakapá **an<ki>a**...
so.then Magdalena PERS 3SG-uproot <EMO>3SG.INAN

'So then Magdalena uprooted it [a flower]...' **AM019_06.09**

located' or the Class III verb *be* 'become' are used. Examples of verbal clauses expressing the location of an entity are given in (49) and (50).

(49)

nusúy	la	tál	ido	heléna	a	inya	wana	monkoné:
n-ut-súy	la	tál	ido	heléna	a	i-nyá	wana	monkoné
3SG-carry-go.home	ORI	front	FRA	Helena	PERS	3SG-mother	DEF	say.3SG.AN

"hana **ncó** **lote**?"
hana N-<y>tó lo-te
AND 2SG-<2SG>stay DEIC.N-CNST.INT

'When she brought [the firewood] home to the front [of the village], Helena's mother said: "Earlier, where were you?"' **AM019_02.21**

(50)

báynte	low	wapa,	**gana**	**ami**	**lo**	**apuma**,	
báynte	low	wa-pa	gana	aN=mi	lo	a-pu-ma	
door	two	DEM.CNT-MID	one	3SG.INAN=be.located	place	DEM.NCNT-DOWN-DIST	

aa,	Kalitóko	apuma,	**gana**	**ami**	**Kabáre**
aa	Kalitóko	a-pu-ma	gana	aN=mi	Kabáre
HES	Kalitoko	DEM.NCNT-DOWN-DIST	one	3SG.INAN=be.located	Kabare

[Talking about the two ways in and out of the historical Ambel settlements in the forest:] 'As for those two ways in [lit: 'doors'], one was at the downwards place, umm, Kalitoko in the downwards location; one was at Kabare.' **AM157_00.43**

8.2.3 Nominal clauses

Nominal clauses in Ambel typically consist of two juxtaposed NPs, with no intervening copula verb. In these constructions, I analyse the first NP as the subject (S) of the clause, and the second NP as the predicate. Examples of nominal clauses are given in (51)–(54).

(51)

... *karna*	**[ine]$_S$**	**[macúbey,]$_{PRED}$**	ido	myát...
karna	ine	macúbey	ido	<y>mát
because	1SG	human.being	so.then	<1SG>die

'[The day after tomorrow, I will be dead,] because **I am a human being**, so then I [will] die...' **AM155_14.29**

(52) **[mé wa lina lé ne ane]$_S$ [mé po**
mé wa l-in-a lé ne a-ne mé po
person NMC.DEF 3PL.AN-make-PAR thing ART ART.NMC-ART person ABL
Jayapura]$_{Pred}$
Jayapura
Jayapura

'The people who made this thing [the hydroelectric reservoir at Go] were people from Jayapura.' **AM056_01.32**

(53) *karna* **[ilo pa]$_S$ [kalíw wapa,]$_{Pred}$** kalíw lál wapa
karna i-lo pa kalíw wa-pa kalíw lál wa-pa
because 3INAN-place ART village DEM.CNT-MID village big DEM.CNT-MID

'[So at that time in the past, why did they call it "Paradise Sands"?] Because **the place** [lit: 'its place'] **was this village**, this big village.' **AM066_16.59**

(54) *jadi*, aa, **[lé wa ambe majáli apa]$_S$ [kapyáy**
jadi aa lé wa aN=be majáli a-pa kapyáy
so HES thing NMC.DEF 3SG.INAN=become evidence ART.NMC-ART prawn
wapa]$_{Pred}$
wa-pa
DEM.CNT-MID

'So, umm, **the thing that became the evidence** [for the origin myth of the Fiay clan] **was that prawn**.' **AM033_04.20**

Dryer (2007: 233-236) distinguishes two types of nominal predicate: a nonreferential nominal predicate, which does not have a unique referent; and a referential nominal predicate, in which the referent of the predicate is unique.[14] Examples (51) and (52) are examples of nonreferential predicates. In (51), the subject is identified as part of the kind *macúbey* 'human being', rather than as a specific human being with a unique referent; and in (52), the subject is identified as part of the kind *mé po Jayapura* 'people from Jayapura', rather than any specific

14. Cf. Dixon's 'Specific referent' and 'Specific description', both equivalent to Dryer's referential nominal predicate; and 'General description', equivalent to Dryer's nonreferential predicate (2010b: 170-177).

set of people from Jayapura. Examples (53) and (54), on the other hand, are equational, in that the referents of the subjects are identical with the referents of the predicates, and vice versa. As can be seen from (51)–(54), there is no syntactic distinction between nominal clauses headed by nonreferential nominal predicates, and those headed by referential nominal predicates: structurally, both types of nominal clause are identical.

Either type of nominal clause, referential or non-referential, can be reversed, apparently without a difference in meaning. For example, the elements of the referential nominal clause given in (54) can be reversed as in (55); and the non-referential nominal clause given above in (51) can also be reversed, as in (56).

(55)

[kapyáy	**wapa]$_{S}$**	**[lé**	**wa**	**ambe**	**majáli**	**apa]$_{Pred}$**
kapyáy	wa-pa	lé	wa	aN=be	majáli	a-pa
prawn	DEM.CNT-MID	thing	NMC.DEF	3SG.INAN=become	evidence	ART.NMC-MID

'That prawn was the thing that became evidence [for the origin myth of the Fiay clan].' **AM283_el.**

(56)

... *karna*	**[macúbey]$_{S}$**	**[ine,]$_{Pred}$**	ido	myát...
karna	macúbey	ine	ido	<y>mát
because	human.being	1SG	so.then	<1SG>die

'[The day after tomorrow, I will be dead,] because I am a human being, so I [will] die...' **AM283_el.**

In nominal clauses in which the subject NP is headed by the noun *gáin* 'name', there may be an overt predicating element *wa* 'PRED'. An example is given in (57).

(57)

lé	wane	igain	**wa**	síki
lé	wa-ne	i-gáin	wa	síki
thing	DEM.CNT-PROX	3SG-name	PRED	sago.scaper

'The name of this thing is *síki* ['sago scraper'].' **AM069_10.55**

Finally, there are a handful of examples in the corpus of verbal clauses expressing similar notions to those usually expressed with nominal clauses. If the subject is inanimate, the verbal clause is headed by *tó* 'stay, live', as in (58). If the subject is animate, the verbal clause is headed by *be* 'become, be', as in (59).

(58) *Kali Raja* ne antó galí maláy to
Kali Raja ne aN=tó galí maláy to
river king ART 3SG.INAN=stay language Indonesian IAM

'[The name] "Kali Raja" is Indonesian.' **AM204_49.25**

(59) ia mbe mákay bábo rín
ia N-be mákay bábo rín
3SG.AN 3SG.AN-be child young CONT

'He is still a youngster.' **AM125_09.26**

These examples suggest that the verbs *tó* 'live, stay' and *be* 'become, be' may be grammaticalising as copulas. Only nonreferential identification has been attested with these kinds of verbal clauses.

8.2.4 Quantifier clauses

Quantifier clauses are clauses in which the quantity of an entity is stated. Quantifier clauses in Ambel consist of a quantifier predicate, which takes a single NP subject (S). S occurs before the quantifier predicate.[15]

Examples of quantifier clauses are given in (60) and (61).

(60) [máni tálo pa]$_{S}$ [hit]$_{PRED}$
bird egg ART seven

'There were seven bird eggs.' **AM204_04.46**

(61) ... rani atúmsiri be **[há *kilo*]$_{S}$** **[kilowa]$_{PRED}$** tua **[*gula kilo*]$_{S}$**
rani atúm-síri be há kilo kilow-a tu-a gula kilo
so 1PC.E-buy PURP rice kilo few-PART COM-PAR sugar kilo

[kilowa]$_{PRED}$
kilow-a
few-PART

'[The children really want to eat rice, but there is no rice,] so we will go shopping **so that there are a few kilos of rice and a few kilos of sugar.**' **AM176_00.19**

15. As quantifiers cannot head an NP (see §3.8), the clauses described in this section cannot be analysed as a subtype of nominal clause.

8.2.5 Clauses with NP predicates and no arguments

As introduced above, NPs are underspecified in Ambel, in that the same construction can be used as either an argument, or as the predicate of a clause with no arguments. Non-possessive NPs can function as the predicate of ambient/existential clauses; these constructions are described in §8.2.5.1. Possessive NPs can function as the predicate of possessive clauses: these constructions are described in §8.2.5.2.

8.2.5.1 Ambient/existential clauses

Constructions communicating the existence of an entity or entities and constructions that make statements about ambient or meterological conditions are formally identical. To capture the semantic range of these constructions, they are referred to as ambient/existential clauses.

The predicate of both ambient and existential clauses is an NP; there is no marker of predication.[16] Predicative NPs are nearly identical with argument NPs, which were described in Chapter §6. As will be discussed in §14.1.1.1, there is one feature distinguishing noun phrases used as arguments from those used as predicates of ambient/existential clauses: whereas in argument NPs, the markers of noun-modifying constructions encode a definiteness distintion (*wa* 'NMC.DEF' vs. *ta* 'NMC.INDEF'), in ambient/existential predicate NPs, the markers encode a specificity distinction (*wa* 'NMC.SPEC' vs. *ta* 'NMC.NSPEC'). For the purposes of this exemplification, however, in this section I consider argument and predicate NPs to be formally identical.

Some examples of ambient/existential clauses referring to meteorological conditions are given in (62)–(63).

(62) míy
rain
'It's raining / there is rain.'

(63) móro
wind
'It's windy / there is wind.'

16. Dixon (2010b: 161) notes that it is highly unusual, cross-linguistically, for an existential construction to be an NP without an overt existential marker. Some other examples of languages which use a similar strategy to express existential notions include Taba (Bowden 2001: 117) and Tolai, an Oceanic language spoken in New Britain (Mosel 1984).

Some examples of ambient/existential clauses referring to the existence of an entity or entities are given in (64)–(67). In (64), the speaker is explaining that several decades ago, the people living in Fofak Bay ate some bad turtle meat, and that subsequently there was a great sickness from which the majority of the population died. The NP that functions as an ambient/existential clause in this example is headed by *ma~mát* 'death', a reduplicated noun derived from the verb root *mát* 'die' (see §5.1.1).[17]

(64) ... wánu wapa, líy i beposa, labéw
wánu wa-pa l-íy i beposa labéw
k.o.sea.turtle DEM.CNT-MID 3PL.AN-eat 3SG.AN.O after.that 3PL.AN-be.poisoned
wana ido **[mamát wapa]$_{\text{AM/Ex}}$** ...
wana ido ma~mát wa-pa
DEF FRA REDUP~die DEM.CNT-MID

'[They died [because of] a *wánu* sea turtle,] as for this *wánu* sea turtle, after they had eaten it, when they were poisoned, then **there was this death** [i.e., a lot of people died].' **AM021_13.36**

In example (64), the ambient/existential clause is used to establish the existence of a semantically specific entity, i.e. the NP is referential. In (65), an ambient/existential clause is used to establish the existence of semantically non-specific entities.

(65) **[kawé puma, mé,]$_{\text{AM/Ex}}$** ape mé wepuma, sia lapo
kawé pu-ma mé ape mé we-pu-ma sia la-po
Kawe DOWN-DIST person but person DEM.CNT.NSG-BOTTOM-DIST 3PL 3PL.AN-ABL
Dimalów
Dimalów
Dimalow

'**At Kawe westwards** [lit: 'at the bottom'], **there were people**, but as for those people westwards [lit: 'at the bottom', i.e. from Kawe], they are from [the] Dimalow [clan].' **AM204_1.06.38**

17. In this example, the head noun *ma~mát* 'death' is modified by the contrastive demonstrative *wa-pa* 'DEM.CNT-MID'. As will be described in §12.2.2.1, this demonstrative can be used with cataphoric reference, to modifiy indefinite, pragmatically specific NPs (similar to the demonstrative *this* in the English *So then this bloke came up to me and gave me a cauliflower ear.*)

Example (66) is an example of a negated ambient/existential clause.

(66) nyáik amásil, **[lé ta yíy po]**$_{\textbf{Am/Ex}}$
nyái-k\H aN=másil lé ta y-íy po
belly-1sg\1|2sg.poss 3sg.inan-empty thing nmc.nspec 1sg-eat neg
'My belly is empty, **there is nothing for me to eat**.' **AM019_01.52**

Example (67) is an example of an ambient/existential clause functioning as a Polar Interrogative (described in §9.2.1).

(67) lo *inggris* ahana, **[ái?]**$_{\textbf{Am/Ex}}$
lo inggris a-hana ái
place U.K. dem.ncnt-and dog
'In the U.K. there, **are there dogs?**' **AM151_el.**

While ambient/existential clauses can be negated with *po* 'neg', as shown in (66), there is also a separate negative existential root: *mámbayn* 'neg.exist'. This root can function as a verbal predicate, as in (68); or it can be used by itself, as a distinct negative existential construction, to comment on the non-existence of an entity, as shown in (69).

(68) "nsúy ido nala hanín ném **kayáw** **wene**
N-súy ido na-la hanín n-ém kayáw we-ne
3sg.an-go.home fra 3sg-ori to.there 3sg-see pig dem.cnt.NSg-prox
lamámbayn"
la-mámbayn
3pl.an-neg.exist
'[She said:] "When he comes home, he will go there and see that this pig meat is gone".' **AM188_09.08**

(69) *korek* po, **mámbayn**
lighter neg neg.exist
'There were no lighters, [lighters] did not exist.' **AM066_31.38**

8.2.5.2 Possessive clauses

Adnominal possession expresses the possessive relationship between two NPs within a single NP argument, while predicative possession expresses the possessive relationship between two NP arguments within a single clause. An example of an adnominal possessive construction in English is the noun phrase *the dog's bone* in the clause *That is the dog's bone* (where *the dog* is the possessor NP and *bone* is the possessed NP); an example of a possessive clause is the clause *The dog has a bone*.

Like other kinds of NP, possessive NPs in Ambel are underspecified for whether they function as arguments, or as predicates.[18] The same construction is used for both adnominal and predicative possession.[19] Thus, out of context, the sentence in (70) is ambiguous as to whether the possessive construction is an argument or a predicate. This ambiguity is reflected in the two possible translations.

(70) y-ém i-ni we to
1SG-see 3SG-POSS.I child IAM

a) 'I have seen her children.'
b) 'I see she already has children.'

Some examples of possessive clauses are given in (71)–(73). In (71), the possessive construction occurs as the complement of *abí* 'want, FUT'. As was introduced in §8.1, *abí* 'want, FUT' only takes a clausal argument.

18. Predicative possessive constructions that are identical with their adnominal counterparts are extremely unusual cross-linguistically (see e.g. Heine 1997: 25-26). However, possessive clauses that are identical with or derived from adnominal possessive constructions have been described for several other languages in the area, including the RASH languages Ma'ya (van der Leeden n.d.b: 14) and Taba (Bowden 2001: 237-239), as well as the Papuan languages Bunaq (Schapper 2009: 134-135), Meyah (Gravelle 2004: 215-218), Moskana (Gravelle 2010: 189), and Tidore (van Staden 2000: 251-259).
19. As will be discussed in §14.1.1.1, I do not have data to show whether the NMC markers *wa* and *ta* encode a specificity distinction in predicative possessive NPs, as they do in ambient/existential NPs, or whether they encode a definiteness distinction, as in argument NPs.

(71) ane wa **yabí** **nika** **wán** be yabí yagáin
a-ne wa y-abí ni-k-a wán be y-abí ya-gáin
DEM.NCNT-PROX NMC.DEF 1SG-want POSS.II-1SG-PAR canoe and 1SG-want 1SG-name

an be *Kali* *Raja* puma, We Funu
ana be Kali Raja pu-ma We Funu
3SG.INAN OBL river king BOTTOM-DIST water Funu

'This [story is the reason] that I want to own a canoe and name it [after] King River at the bottom there, [I would call it] *We Funu*.' **AM204_49.36**

Example (72) shows that, when used predicatively, possessive constructions can be modified by the negative marker *po* 'NEG'.

(72) ia ni *hak* be Kábilo po
ia ni-Ø hak be Kábilo po
3SG.AN POSS.II-3SG.AN land.rights LOC Kabilo NEG

'[That clan] does not have land rights in Kabilo.' **AM135_14.16**

Example (73) shows that possessive clauses can also be modified by some of the other clausal modifiers described in Chapter 10. In this example, the possessive clause is modified by the modal marker *cam* 'CIR.can'.

(73) *kalo* mé abí na*kwat* po, **ni** **lo** **cam** **po**
kalo mé abí na-kwat po ni-Ø lo cam po
if person want 3SG-be.strong NEG POSS.II-3SG.AN place CIR.can NEG

'If a clan was not strong, then **they were not able to have a territory**.'
AM157_00.26

The examples of possessive clauses given in this section thus far have all been Indirect possessive constructions. Direct possessive constructions can also function as predicates of possessive clauses. An example of a predicative Direct possessive construction, taken from a retelling of Genesis, is given in (74).

(74) aw wéy yo anta nyagél bi, **kókam** **po**
awa wéy yo anta nya-gél bi koká-m\H po
2SG again then later 2SG-crawl just leg-2SG\1|2SG.POSS NEG

'[God said:] "You as well, then later you will only crawl, **you will not have legs**".'
AM198_05.03

Occasionally, verbal clauses headed by *be* 'become' are used to communicate predicative possession. When the predicate is *be* 'become', both animate and inanimate subjects are attested, as shown in (75) and (76). Example (75) is one of only two examples in the corpus in which the subject is animate. In this example, the possessed entity takes possessive marking to mark the person, number, and animacy of the possessor.[20] When the subject is inanimate, however, as in (76), the possessed entity is communicated with a non-possessive NP.

(75)

gana	mbe	ini	we,	gana	mbe	ini	we	po	
gana	N-be	i-ni	we	gana	N-be	i-ni	we	po	
one	3SG.AN-become	3SG-POSS.I	child	one	3SG.AN-become	3SG-POSS.I	child	NEG	

'One [of the women] had a child, the other did not have a child.' **AM066_21.49**

(76)

kep	po,	ni?	*maksudnya*	***kapal***	**pa**	**ambe**	***kep***	**ke**
kep	po	ni	maksudnya	kapal	pa	aN=be	kep	ke
captain	NEG	POS.INT	meaning	ship	ART	3SG.INAN=become	captain	EPI.doubt

'There was no captain, right? I mean, maybe the ship had a captain?' **AM066_14.45**

8.3 Variation in the clause

In this section, variation in the clause will be described. This discussion begins in §8.3.1, with a closer look at the preclausal frame. In §8.3.2, focus constructions will be described. Finally, in §8.3.3, argument and head omission is described and exemplified.

8.3.1 Preclausal frame and the frame-marker *ido* 'FRA'

As introduced in §8.1, nominal, adverbial, or clausal material may occur at the left periphery of the clause. Material appearing in this position functions to provide a framework for the addressee to interpret the following clause. As such, this position is referred to as the 'preclausal frame'. Similar frames have been described

20. It may be that the kinship term *we* 'child' is obligatorily possessed; it is not attested in a non-possessive construction. This may explain why it takes possessive marking in this example.

for Biak (van den Heuvel 2006: 293-296), Taba (Bowden 2001: 148-155), and Tidore (van Staden 2000: 208-209).

In Ambel, material occurring within the preclausal frame is typically realised with Continuation intonation (described in §2.3.4.5). This is shown in Figure 8.2. In this figure, the pitch contour of a sentence with a preclausal frame is given. In this figure, the two IPs are marked. One IP corresponds to the clause headed by *bélen* 'fish', which occurs in the preclausal frame. The LH% final boundary tone characteristic of Continuation intonation can be seen at the end of this first IP. The second IP, corresponding to the clause headed by *mós* 'be prepared', is realised with Declarative/imperative intonation, and thus bears a HL% boundary tone. As will be described in §8.3.1.3 below, clausal material occurring in the preclausal frame can receive either a temporal or a conditional reading; in this example, the reading is conditional.

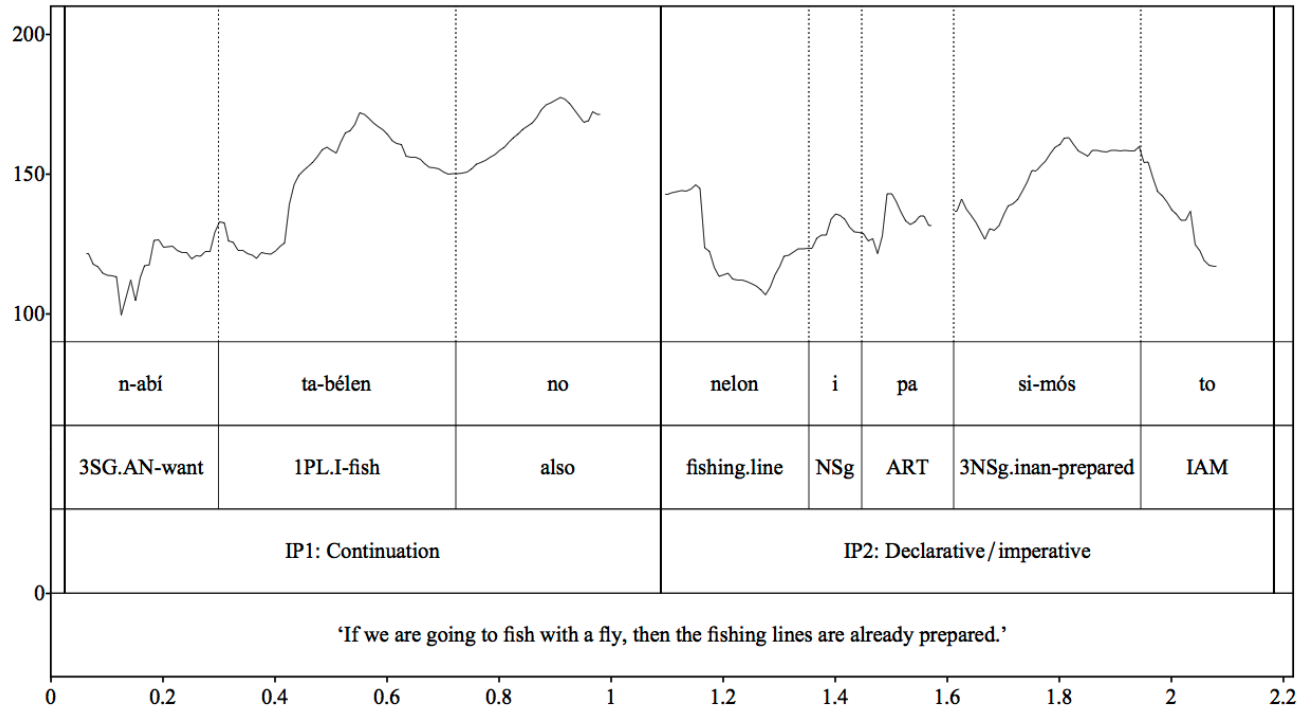


Figure 8.2: The realisation of Continuation intonation on the preclausal frame (Speaker: **MeK**)

Material in the preclausal frame is optionally marked with *ido* 'FRA'. Intonationally, *ido* 'FRA' is realised after the final LH% Continuation intonation boundary tone. It is often realised with its own, separate Continuation intonation contour. However, *ido* 'FRA' forms a prosodic unit with the preclausal frame, in that it optionally creates the conditions for prosodic phrase-medial /a/-elision (described in §2.4.7). If a speaker pauses, he or she is equally likely to pause before or after *ido* 'FRA'.

Some of this behaviour is shown in Figure 8.3. In this figure, the pitch contour for a preclausal frame marked with *ido* 'FRA' is given. In this sentence, there are three IPs. The first two IPs bear Continuation intonation: one corresponds to the preclausal frame, and the other corresponds to *ido* 'FRA'. The LH% of the first IP is realised on *beposa* 'after', and the LH% of the second is realised on *ido* 'FRA'. The speaker pauses after *ido* 'FRA' for approximately 51ms, before continung with the sentence. The third IP, bearing Declarative/imperative intonation, corresponds to the clause headed by *ha* 'dry'. In this example, the clausal material in the preclausal frame receives a temporal reading.

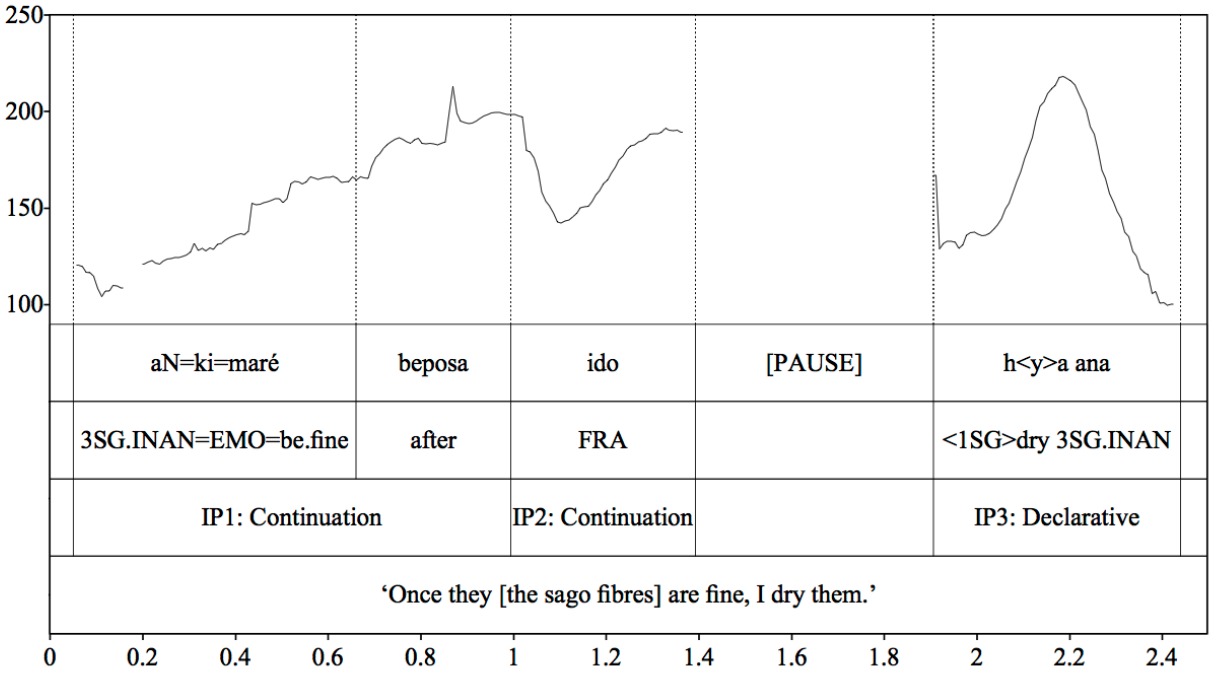


Figure 8.3: Prosodic properties of *ido* 'FRA' (Speaker: **YK**)

An example of how material in the preclausal frame enters into the same ProP as the pre-predicate material of the following clause is given in (77). In this example, the pronoun *awa* '2SG' undergoes /a/-elision.[21]

(77) ... "[níy **aw**]$_{\text{FRAME}}$ mansope yanán po lote?"
n-íy awa mansope y-anán po lo-te
3SG-eat 2SG then 1SG-eat ABL DEIC.N-CNST.INT

'[She said:] "If she eats you, then what will I eat [lit: 'where will I eat from']?'

NPs occurring within the preclausal frame are often, but not necessarily, coreferent with an argument in the following clause. When the NP is coreferential, the construction frequently functions to topicalise the NP. There is no syntactic passive in Ambel; however, in certain contexts, a coreferential NP frame is used to de-emphasise a semantic agent, in a quasi-passive construction. Coreferential NP frames will be discussed in §8.3.1.1. When the NP is not coreferential, it functions to provide spatial or temporal orientation for the addressee. Temporal adverbs may occur within the preclausal frame; like non-coreferential NP frames, adverbial frames provide temporal orientation. This use of the preclausal frame will be described in §8.3.1.2. Finally, as mentioned above, clausal frames receive either a temporal or a conditional reading. Some instances of clausal material in the preclausal frame can be characterised as tail-head linkage, i.e. a means of maintaining discourse coherence by repeating material from the previous clause in the preclausal frame. Clausal preclausal frames will be addressed in §8.3.1.3.

8.3.1.1 Coreferential NP frames

Coreferential NP frames often (but do not always) mark the topic of the sentence, which is "often defined intuitively as the thing which the sentence is 'about'" (Kroeger 2004: 136; see also Givón 1983, Reinhart 1981). Topics are typically known to the addressee, or can be inferred from the context. Several different types of topic have been described, by e.g. Frascarelli (2007) and Frascarelli and Hinterhölzl (2007): familiar topics, which is the continuation of a topic from the immediately preceding discourse; shifting topics, which are topics that are

21. As will be described in §14.3.2, some conjunctions trigger /a/-elision on preceding elements. The conjunction *mansope* 'then', however, is not one of them. /a/ is elided from *awa* '2SG' because it is in the preclausal frame, not because it is followed by *mansope* 'then'.

either newly introduced or newly returned to (see e.g. Givón 1983, Reinhart 1981, Lambrecht 1994); and contrastive topics, or "an element that induces alternatives which have no impact on the focus value and creates oppositional pairs with respect to other topics" (Frascarelli and Hinterhölzl 2007: 88; see also Kuno 1976, Büring 1999). When a coreferential NP frame marks the topic of a sentence in Ambel, this topic is usually a shifting topic, or a contrastive topic. As will be described in §8.3.3, familiar topics are marked with argument omission.

Examples of NP frames marking topics are given in (78) and (79). Example (78) contains two examples of a topic marked with NP fronting. Immediately prior to this utterance, Speaker B has been explaining that, before they knew how to use fire, the Nok clan prepared their food by drying it. Speaker A asks whether they prepared shrimp in this way. In his response, Speaker B expresses the topic (the NP headed by *kapyáy* 'shrimp') in the preclausal frame. This NP is coreferent with the object of the first of the two clauses headed by *ha* 'dry' (i.e., the pronoun *ana* '3SG.INAN').

(78) A: kapyáy [LAUGHS] wana
shrimp DEF

'[What about] [LAUGHS] shrimp...'

B: **[kapyáy wana,]$_{\text{FRAME}}$ nha ana,** aa, **[lábut wana,]$_{\text{FRAME}}$ nha**
kapyáy wana N-ha ana aa lábut wana N-ha
shrimp DEF 3SG.AN-dry 3SG.INAN HES lichen DEF 3SG.AN-dry

an be ame, *trus* níy an be kapyáy pa
ana be aN=me trus n-íy ana be kapyáy pa
3SG.INAN PURP 3SG.INAN=be.dry then 3SG-eat 3SG.INAN INSTR shrimp ART

'As for shrimp, they [the Nok clan] dried it; umm, lichen, they dried it, then they ate it using the shrimp.' **AM066_28.20**

The second NP preclausal frame in (78) is the NP headed by *lábut* 'lichen', which occurs as the preclausal frame to the second clause headed by *ha* 'dry'. This second NP frame is less easily characterisable as a topicalisation in the strictest sense, as it does not make reference to a known or predicted entity. The function of the NP in this context is to turn the addressee's attention to another type of food the Nok clan ate by drying it. Like the NP headed by *kapyáy* 'shrimp', the NP headed by *lábut* 'lichen' is coreferent with the object of the following clause.

Example (79) comes from a recording in which the speaker explains where the different clans have land rights around Fofak Bay. As a member of the Wakaf clan, he has already spent some time earlier in the recording explaining where the boundaries of Wakaf land are. After having talked briefly about some of the other clans' boundaries, the speaker then returns to discuss the Wakaf boundaries again; he marks the shift in topic back to the boundaries of Wakaf land with a fronted NP. In this example, the preclausal NP (headed by *mét-Áka* 'person-Wakaf') is coreferent with the possessor in a possessive NP (which functions as the predicate of a possessive clause), i.e. the pronoun *ia* '3SG.AN'.

(79)	***jadi***	**[metÁka**	**ne,]$_{\text{FRAME}}$**	**ia**	**ni**	***hak***	**pa**	**mi**
	jadi	met-Áka	ne	ia	ni-Ø	hak	pa	mi
	so	person-Wakaf	ART	3SG.AN	POSS.II-3SG.AN	land.rights	ART	INSTR

kásul	**wane**,	anáti	ayságado	anlamua...
kásul	wa-ne	aN=n-áti	ayságado	aN=la-mu-a
open.bay	DEM.CNT-PROX	INAN=3SG-run	TERM	3SG.INAN-DEIC.PREP-IN-AND

'**So as for the Wakaf clan, they have rights around this bay**, it [the boundaries] run towards the inside [i.e., Kabare]...' **AM135_14.38**

So far in this section, the examples have been of unmarked NP frames, i.e. NP frames without the frame marker *ido* 'FRA'. An example of a coreferential NP frame marked with *ido* 'FRA' is given in (80).

(80)	[gélet	low	wane,	ido]$_{\text{FRAME}}$	usin	gáin	*wakil*	kipa	bi
	gélet	low	wa-ne	ido	u-sin	gáin	wakil	ki=pa	bi
	clan	two	DEM.CNT-PROX	FRA	3DU-receive	name	deputy	EMO=ART	just

[Describing how titles used to be inherited:] 'So as for these two clans, they only received the name 'deputy' [i.e., leaders were not chosen from these two clans].' **AM135_25.37**

8.3.1.1.1 The lack of a syntactic passive in Ambel

Ambel has no voice system: there is no dedicated construction that distinguishes active and passive (or antipassive) voice.[22] However, NP frames can be

22. Ambel is not the only language of the area without a dedicated passive construction: other languages include the Papuan languages Abun (Berry and Berry 1999: 61), Bunaq (Schapper 2009:

used by speakers of Ambel when they wish to downplay or de-emphasise a semantic agent. In such contexts, the fully-stated object of a transitive verb occurs in the preclausal frame; the subject of the clause is either a generic noun such as *mé(t)* 'person', or omitted entirely (§8.3.3); and the verb takes 3PL.AN subject marking. There are no examples of this construction with *ido* 'FRA' in the corpus.

Examples of this quasi-passive construction are provided in (81) and (82). Example (81) comes from a children's tale, in which a man explains to his cousin, with whom he has just been reunited after a long time apart, that his wife has been kidnapped. Two possible free translations are provided: one using an English active construction, and one using an English passive.

(81) ... "béle, yasáw to, ape **nik** **bísar** **pa,** **mé** **lál**
béle y-asáw to ape ni-k bísar pa mé lál
cross.cousin 1SG-marry IAM but POSS.I-1SG wife ART person 3PL.AN-take
ki **to**"
ki=i to"
EMO=3SG.AN.O IAM

'...[He said:] "Cousin, I'm married, but
(a) as for my wife, people have taken her".'
(b) my wife has been taken".' **AM020_06.57**

The construction in (81) is not a syntactic passive: structurally, the clause is identical to other transitive clauses with NP frames. Thus, the free translation given in (a), using the active voice, is a syntactically accurate translation. However, as the man does not know who took his wife, he emphasises the Patient (the NP headed by *bísar* 'wife'), by placing the NP in the preclausal frame, and deemphasises the Agent, by using a generic noun *mé* 'person' as the subject. The translation given in (b), using an English passive, is thus more pragmatically accurate.

Another example of the quasi-passive is given in (82). In this example, the NP in the preclausal frame (headed by *yé* 'island') is coreferent with the object of the clause, i.e. the pronoun *ana* '3SG.INAN'. A 3PL.AN subject is marked on the verb. However, there is no overt subject; nor, in this case, is it even clear from the

156-159), Teiwa (Klamer 2010: 30), and Tidore (van Staden 2000: 29); the Austronesian languages Alorese (Klamer 2011: 70), Irarutu (Jackson 2014: vi), Kambera (Klamer 1996), Matbat (Remijsen 2010: 213), Ma'ya (van der Leeden n.d.b: 31), and Windesi Wamena (Gasser 2014: 213); and the lingua franca of the area, Papuan Malay (Kluge 2014: 30).

preceding discourse context who the subject might be. Again, two translations are provided, one with an active construction, and one with a passive construction.

(82) *sehingga* yé waluma, lúl an be Maúrom
sehingga yé wa-lu-ma l-úl ana be Maúrom
so island DEM.CNT-SEA-DIST 3PL.AN-call 3SG.INAN OBL Maurom
apa
a-pa
DEM.NCNT-MID

(a) 'So as for that island at sea there, they call it Maurom.'
(b) 'So that island at sea there is called Maurom.' **AM135_22.48**

8.3.1.2 Adverbial and non-coreferential NP frames

Non-coreferential NPs occurring in the preclausal frame provide information about the spatial or temporal setting of the following clause. An example of an NP frame which provides temporal orientation is given in (83), and an example of an NP frame which provides spatial orientation is given in (84).

(83) [*waktu* wapa,]$_{\text{FRAME}}$ la*pake* báli
waktu wa-pa la-pake báli
time DEM.CNT-MID 3PL.AN-use k.o.wood

'At that time, they used *báli* wood [to light fires].' **AM066_31.32**

(84) [lohana,]$_{\text{FRAME}}$ líya mánkyaw, líy, ane
lo-hana l-íy-a mánkyaw l-íy a-ne
DEIC.N-AND 3PL.AN-eat-PAR frog 3PL.AN-eat DEM.NCNT-PROX

'In that place [Jakarta], they eat frogs, they eat, thingummybobs...' **AM064_16.12**

Non-coreferential NP frames can also be used as a textual frame, for example at the beginning of a story. An example of this is given in (85). In this example, the NP frame (headed by *sárita* 'story') functions to provide the orientation for the following story.

(85) [sárita wapa, ido]$_{\text{FRAME}}$ meHyáy kilow pa...
sárita wa-pa ido me-Hyáy ki=low pa
historical.story DEM.CNT-MID FRA person-Fiay EMO=two ART

'As for that historical story, there were two [people from the] Fiay clan...'

AM033_05.45

Temporal adverbs (described in §3.4.1) may also occur in the preclausal frame, providing temporal orientation for the sentence. An example of an adverbial frame is given in (86).

(86) [antanane,]$_{\text{FRAME}}$ atútale igana wéy?
antanane atút-ále i-gana wéy
later 1PC.I-descend 3INAN-one again

[Voicing the Biak hero Manarmakeri's thoughts about reincarnation:] 'Later [after we die], will we descend [i.e., from heaven] one more [time]?' **AM112_01.02**

8.3.1.3 Clausal frames: temporal or conditional framework

When a clause appears in the preclausal frame, it provides either a conditional or a temporal framework within which to interpret the rest of the sentence. Only the context disambiguates between the conditional and temporal readings.[23] Clausal frames are used in tail-head linkage; tail-head linkage is discussed below.

When a clausal frame has a temporal reading, it signals that the event happened or will happen subsequent to or at the same time as the event expressed in the rest of the sentence. Examples of clausal frames with a temporal reading are given in (87) and (88). Example (87) comes from a historical tale, in which a child has been kidnapped by some evil *kábyo* spirits. The child escapes and runs home; when he gets home, the villagers whisk him away, to shave his head so that the spirits will not recognise him when they return. In this example, the preclausal clause is headed by *áti* 'run'.

23. The use of identical strategies to mark both temporal and conditional adjuncts is very common in the languages spoken throughout the Indonesian archipelago and New Guinea (see e.g. Thompson et al. 2007: 257). Similar constructions are attested on and around the Bird's Head, for example in Biak (van den Heuvel 2006: 396-398), Taba (Bowden 2001: 384-385), and Papuan Malay (Kluge 2014: 515-516). See also Haiman (1978) for the relationship between conditionals and topicalised NPs (described above).

(87) [kináti súy la lúl, ido]$_{\text{FRAME}}$ lál ki...
ki=n-áti súy la lúl ido l-ál ki=i
EMO=3SG-run go.home ORI seawards FRA 3PL.AN-take EMO=3SG.AN.O

'When he ran home towards the sea, then they [the villagers] took him...'
AM066_19.55

In example (88), the speaker is describing a trip to Kabare that he was planning to take the next day. In this example, the temporal context provided by the unmarked clause refers to an event in the future.

(88) *munkin*a [láynta pa ntó pón kia ke, ido]$_{\text{FRAME}}$
munkin-a láynta pa N-tó pón kia ke ido
maybe-PAR sun ART 3SG.AN-stay top little.bit EPI.may FRA
atúmsuy to...
atúm-súy to
1PC.E-go.home IAM

'Maybe when the sun is directly overhead [i.e., in the afternoon], then we will come home...' **AM176_01.10**

When the clausal frame has a conditional reading, the first clause expresses a condition that should be fulfilled before the event expressed by the rest of the sentence comes to pass. Specifically, a clausal preclausal frame is used to mark indicative conditionals, i.e. conditionals in which the condition expressed by the unmarked clause could possibly be met. This construction is not used to mark subjunctive conditionals, i.e. conditionals in which the expressed condition has already not been met and that the event expressed by the conjoined clause could have come to pass if it had have been (see Kaufmann 2006: 6 for more on the distinction between indicative and subjunctive conditionals, and §14.3.2.2 for how *arekane* 'if not' is used to mark negative subjunctive conditionals in Ambel). Examples of clausal frames with an indicative conditional reading are given in (89) and (90).

(89) "[mumamárin ido]$_{\text{FRAME}}$ mumsúydel umne"
muma-márin ido mum-súy-del umne
2DU-happy FRA 2DU-go.come-follow 1DU.E

'[He said:] "If you two are happy, then follow us two home".' **AM066_30.09**

(90) “[njelémay po ido]$_{\text{FRAME}}$ cí taból aw to”
N-<y>belémay po ido <y>tí taból awa to
2SG-<2SG>be.quick NEG FRA <1SG>pass.by leaving.behind 2SG IAM

‘[He said:] “If you’re not quick, then I will leave you behind”.’ **AM020_06.22**

Clausal frames are most often marked with *ido* ‘FRA’. Infrequently, clausal material appears in the preclausal frame without *ido* ‘FRA’, i.e. the preclausal frame is marked only by Continuation intonation. Examples of clausal frames without *ido* ‘FRA’ are given in (91) and (92). In (91), repeated from Figure 8.2, the clausal frame receives a conditional reading. In (92), the clausal frame receives a temporal reading.

(91) [nabí tabélen no,]$_{\text{FRAME}}$ nelon i pa
n-abí ta-bélen no nelon i pa
3SG-want 1PL.I-fish.with.fly also fishing.line NSG ART
simós to
si-mós to
3NSG.INAN-be.prepared IAM

‘If we want to fish with a fly, the fishing lines are already prepared.’ **AM172_00.33**

(92) [nátun si,]$_{\text{FRAME}}$ mákay i ne lamséw
n-átun si mákay i ne la-mséw
3SG-ask 3PL.AN.O child NSG ART 3PL.AN-not.want

‘When he [the head of the village] asked them, the people of the village [lit: ‘children’] did not want [to be converted to Christianity].’ **AM021_12.52**

As mentioned above, clausal frames are ambiguous between a temporal and a conditional reading. An example of an ambiguous clausal frame is given in (93).

(93) “antanane lém aw ido lamcát aw pu”
antanane l-ém awa ido la-mcát awa pu
later 3PL.AN-see 2SG FRA 3PL.AN-be.afraid 2SG ATT.INT

‘[She said:] a) “Later, when they see you, they will be scared”.’
b) “Later, if they see you, they will be scared”.’ **AM020_06.22**

8.3.1.3.1 Tail-head linkage

De Vries (2005: 363) describes tail-head linkage as: "...a way to connect clause chains in which the last clause of a chain is partially or completely repeated in the first clause of the next chain". In procedural and narrative texts, Ambel displays tail-head linkage to a limited extent. The repeated material occurs in the preclausal frame; for this reason, tail-head linkage is discussed here. In all attestations of tail-head linkage in the corpus, the preclausal frame is marked with *ido* 'FRA'. Functions of tail-head linkage in Ambel include discourse coherence, and maintaining thematic continuity.

Some examples of tail-head linkage are given in (94) and (95). Example (94) is of two contiguous sentences from the end of a folk story. In this example, the verb *mát*, which heads the first clause in (94a), is repeated in the preclausal frame of the second sentence, in (94b).

(94) a. ... ido **kimát**
ido ki=N-mát
so.then EMO=3SG.AN-die

'So then she died.'

b. **kimát** ido ulakále i
ki=N-mát ido ula-kále i
EMO=3SG.AN-die FRA 3DU-carve.meat 3SG.AN.O

'When she died, the two of them carved her up.' **AM019_07.34**

Example (95) is a sequence of four clauses connected by tail-head linkage. These clauses come from the end of a procedural text about how to dive for sea cucumbers.

(95) a. *kalo* pimám, ido antanane **labót** **si**
kalo pimám ido antanane la-bót si
if sea.cucumber FRA later 3PL.AN-boil 3PL.AN.O

'If there are sea cucumbers, then later [when we get back to the village], they boil them.'

b. **labót** **si** beposa, ido **lasuy** **si**
la-bót si beposa, ido la-suy si
3PL.AN-boil 3PL.AN.O after FRA 3PL.AN-smoke 3PL.AN.O

'After they boil them, then they smoke them.'

c. **lasuy** **si** **be** **lamán** beposa, ido gányul ido
la-suy si be la-mán beposa ido gányul ido
3PL.AN-smoke 3PL.AN.O PURP 3PL.AN-dry after FRA sunshine FRA
laha **si**
la-ha si
3PL.AN-dry 3PL.AN.O

'After they boil them so that they are dry, then if there is sunshine, they dry them.'

d. **laha** **si** beposa, ido popomá
la-ha si beposa, ido po-pomá
3PL.AN-dry 3PL.AN.O after FRA NEG-IAM.EMPH

'After they have dried them, then that's that.' **AM173_01.13**

Example (95) shows that the repeated material may include the object of a transitive verb – in each repetition, the object *si* '3PL.AN.O' is repeated in the preclausal frame. It also shows that, when a clause is repeated in tail-head linkage, other material may be added: the repeated clause headed by *suy* 'smoke' in (95c) includes a second clause, headed by *mán* 'dry' and joined with the purposive marker *be* 'PURP', which the first iteration of the clause in (95b) does not have.

8.3.2 Focus

The pragmatic fuction of focus marks "the essential piece of new information that is carried by a sentence" (Comrie 1989: 63). Focussed elements are distinguished from topicalised elements in that elements bearing focus provide "new or unpredictable information at the point in which it appears"; topicalised elements, however, are normally "known, predictable, or inferable" (Kroeger 2004: 136). One consequence of this distinction is that, while topicalised elements are typically definite, focussed elements need not be.

Focus in Ambel is marked by a construction similar to a noun-modifying construction (NMC), which was introduced in §6.2.7, and will be described

in §14.1. Both focus constructions and NMCs are introduced with either *wa* or *ta*. However, whereas NMCs are NP-internal, focus constructions occur outside of the NP.

An example of a focus construction is given in (96). In this example, the NP headed by *mét-Lapón* 'person-Lapon' is in focus. As such, it occurs at the beginning of the clause. The focus construction is introduced with *wa*.

(96)

jadi	[metLapón	ne]$_{NP}$	**wa**	**na*ajar*a**	**metNók**	**ne**	**be**
jadi	met-Lapón	ne	wa	na-ajar-a	mét-Nók	ne	be
so	person-Lapon	ART	FOC.SPEC	3SG-teach-PAR	person-Nok	ART	PURP

nunhatatan	**láp**
n-un-hatatan	láp
3SG-know-know.well	fire

'So it was the Lapon clan who taught the Nok clan so that they knew [how to use] fire properly.' **AM066_31.42**

In this example, the focus construction occurs after article *ne* 'ART'; were this construction an NP-internal NMC, it would occur between the head noun and the article (see further §6.2). Focus constructions are therefore syntactically distinct from NMCs. For this reason, the focus particles *wa* and *ta* will be glossed 'FOC.SPEC' and 'FOC.NSPEC', respectively.

As can be seen from these glosses, the focus particles *wa* 'FOC.SPEC' and *ta* 'FOC.NSPEC' encode a specificity distinction. This specificity distinction is shown in the question and answer pair in (97). As will be described in §9.2.3, on strategy for forming consitutent interrogatives is with a focus construction. In Speaker A's question, the focussed element – the NP *lé* 'thing' – is semantically non-specific, in that the speaker is not referring to a particular, identifiable object. This focus construction is marked with *ta* 'FOC.NSPEC'. In Speaker B's response, the focussed NP – headed by *helikopter* 'helicopter' – is indefinite, in that it is unfamiliar to the addressee, but semantically specific, in that it is referential. This focus construction is therefore marked with *wa* 'FOC.SPEC'.

(97) A: lé **ta** njí an be Salómo a apa?
lé ta N-<y>bí ana be Salómo a a-pa
thing FOC.NSPEC 2SG-<2SG>give 3SG.INAN OBL Salomo PERS DEM.NCNT-MID

'What was the thing that you gave to Salomo?'

B: *helikopter* **wa** jí an be Salómo a
helikopter wa <y>bí ana be Salómo a
helicopter FOC.SPEC <1SG>give 3SG.INAN OBL Salomo PERS

'It was a [toy] helicopter that I gave to Salomo.' **AM278_el.**

8.3.3 Omission

The majority of verbal clauses in Ambel have at least one omitted argument, i.e. an argument that is selected by the transitivity of the verbal predicate, but which is not overtly realised. Omitted arguments have generally already been referred to, or are easily inferable, from the preceding discourse.[24]

Omission is attested for arguments in all functions: subjects, objects, and obliques. Subject arguments are omitted the most frequently. Omitted subjects are often what Frascarelli (2007) and Frascarelli and Hinterhölzl (2007; following e.g. Pesetsky 1987, Givón 1983) refer to as a 'familiar topic': a constituent that is highly given and linked to the preceding discourse.

Examples of omitted subjects are given in (98)–(100). These examples show that subjects can be omitted from verbal clauses headed by intransitive, transitive, and ditransitive verbs, respectively. In all of these examples, the omitted subject is a familiar topic, in that they have been the topic in the immediately preceding discourse. This is shown most clearly in (99), where the subject NP, headed by *nyá* 'mother', is overt in the first mention, but is omitted in the two subsequent clauses.

(98) $Ø_S$ namárin
na-márin
3SG-be.happy

'She was happy.' **AM095_00.37**

24. A notable exception to this generalisation is the omitted subjects in quasi-passive constructions, which were described in §8.3.1.1.

(99) Heléna a inya wana namséw Magdaléna a, **Ø$_S$ namséw**
Heléna a i-nyá wana na-msέw Magdaléna a na-msέw
Helena PERS 3SG-mother DEF 3SG-not.want Magdalena PERS 3SG-not.want
[Magdaléna a]$_O$ be **Ø$_S$ namaroków [ki]$_O$ bi**
Magdaléna a be na-maroków ki=i bi
Magdalena PERS and 3SG-scold EMO=3SG.AN.O just

'Helena's mother did not want Magdalena, she did not want Magdalena, and she scolded her all the time.' **AM019_01.04**

(100) Ø$_S$ ubí [asi]$_O$ [be now kapúk pa]$_{OBL}$ rani
u-bí asi be now kapúk pa rani
3DU-give 3NSG.INAN.O OBL house corner ART so

'The two of them put them in [lit: 'gave them to'] the corner of the house, so...' **AM204_05.06**

Object NPs are less frequently omitted than subject NPs. There are two reasons for this. First, as a subject NP is often itself a familiar topic, it is likely to be known to the addressee from the preceding discourse. This is less often the case for object NPs. Second, the person, number, and animacy of the subject NP can be retrieved from the form of the subject marking on the verb, even if the subject is omitted. This is not the case with object NPs, which are not marked elsewhere in the clause.

However, it is not unusual for an object NP to be omitted. Two examples are given in (101) and (102). These examples show the omission of objects from clauses headed by transitive and ditransitive verbs, respectively. Example (101) comes from a historical narrative explaining how two women from the Nok clan taught the rest of the clan how to use fire. In this example, the object of the transitive verb *íy* 'eat' is omitted. (The subject of *íy* 'eat' is also omitted.) A couple of utterances earlier, the speaker had explained the kinds of things that the two women had cooked on the fire; in this example, the speaker considers his addressee to be familiar with the things that they ate, so he does not repeat them.[25]

25. The transitive verb *íy* 'eat' has a intransitive counterpart, *anán* 'eat', which is only grammatical with one argument (subject). As discussed in §4.1.2, *íy* 'eat' is underlyingly transitive in that, in an out-of-the-blue context, it is only grammatical with two arguments (subject and object).

(101)

lamcát	an	po,	*karna*	ulabláp	be	**Øs**	**líy**	**Øo**	to
la-mcát	ana	po	karna	ula-bláp	be		l-íy		to
3pl.an-be.afraid	3sg.inan	neg	because	3du-cook	and		3pl.an-eat		iam

'They [the rest of the Nok clan] were not afraid of it [the fire], because the two [women] had cooked [with it] and **they [the Nok clan] had already eaten [the aforementioned food, e.g. fish, pig, river eel]**.' **AM066_32.23**

Example (102) comes from a text in which the speaker is describing fishing procedures. In (102), he is explaining that, if one has caught a lot of fish, it is customary to share them out among family and friends. He has spent the entire recording up until this point explaining how to catch the fish; it is thus clear from the context what it is that is being given to one's family and friends. This licenses omission of the object arguments.

(102)

kalo	simábu	wéy	ido	bí	be	mé–	**Øs**	**bí**	**Øo**	**[be**		
kalo	si-mábu	wéy	ido	Ø-bí	be	mé		Ø-bí		be		
if	3pl.inan-many	again	fra	1pl.i-give	obl	person		1pl.i-give		obl		
sia]obl,	tawásan	**Øs**	**bí**	**Øo**	**[be**	**si]obl**	wéy,	**Øs**	**bí**			
sia	ta-wásan		Ø-bí		be	si	wéy		Ø-bí			
3pl.an	1pl.i-remember		1pl.i-give		obl	3pl.an.o	again		1pl.i-give			
Øo	**[be**	**tanin**		**mét]obl**								
	be	ta-ni-n		mét								
	obl	1pl.i-poss.i-NSg.poss		person								

'If there are many more [fish], then we give [them] to people [false start]– We give [fish] to them, we remember to give [fish] to them again, we give [fish] to our people [i.e., family and friends].' **AM172_01.16**

Finally, in verbal clauses headed by ditransitive verbs, oblique arguments can also be omitted. An example is given in (103). This example comes from the beginning of a children's tale, in which a young boy eats some smoked sago that has been pushed through the gaps in the floorboards of his house. At this point in the tale, it has already been established that the boy has been given smoked sago to eat, but it is not clear yet who has given it to him.

(103) mbóronpo **[mé i pa]$_S$ labí [lé wapa]$_O$** $Ø_{OBL}$
N-bóronpo mé i pa la-bí lé wa-pa
3SG.AN-guess person NSG ART 3PL.AN-give thing DEM.CNT-MID

'He guessed that **people had given [him] that thing [the smoked sago]**.'

AM078_01.03

There are some attestations in the corpus of ditransitive verbs with omission of all three arguments. Example (104) comes from a little later in the same text as (102) above. In (102), the speaker was explaining what one does with an excess of fish (give them to family and friends); in (104), he is summarising what he has just said. It is already clear from context who is giving (a generic 1PL.I subject, shown by the zero-marking on the verb), what is being given (fish), and to whom it is being given (family and friends).

(104) *kalo* simábu yo **$Ø_S$ bí $Ø_O$ $Ø_{OBL}$** *kalo* simábu
kalo si-mábu yo Ø-bí kalo si-mábu
if 3NSG.INAN-many then 1PL.I-give if 3NSG.INAN-many
po ido potó
po ido potó
NEG FRA that's.that

'If [the fish] are many, then [we] give [them to our family and friends]; if they are not many, then that's that[, we keep them for ourselves].'

AM172_01.41

The omitted arguments given in (98)–(104) are all NPs. Example (105) shows that it is also possible for clausal arguments to be omitted In this example, the clausal complement of *mséw* 'not want' is omitted. (See §14.2 for more on complement clause-taking verbs.)

(105) A: we, Yúsup e, nyabí nyíy dún wa lén, dún wa
we Yúsup e ny-abí ny-íy dún wa lén dún wa
hey! Yusup VOC 2SG-want 2SG-eat fish NMC.DEF PLH fish NMC.SPEC
ladaki si be *WC* ilo wana?
la-daki si be WC i-lo wana
3PL.AN-fill 3PL.AN.O INSTR toilet 3INAN-place DEF

'Hey, Yusup, do you want to eat the fish that, y'know, the fish that they use to fill the inside of the toilet?'

B: áy! *adu*, **Ø$_{S}$** **yamséw** **Ø$_{CoC}$**
áy adu ya-mséw
oh.no oh.no 1SG-not.want

'Oh no! Oh no, I don't want [to eat those fish]!' **AM064_14.40**

While the focus of this section is on argument omission, NP-internal omission is also briefly addressed. (Omission of NP heads was described in §6.2.3, and will not be returned to here.) In possessive NPs, the possessor is very frequently omitted. As the person, number, and animacy of the possessor is marked elsewhere in the possessive construction (either on the prenominal classifier, or on the possessed noun itself; see Chapter 7), the possessor is normally easily inferable, especially if it has been the topic in the preceding discourse. Examples of possessor omission in possessive constructions are given in (106) and (107). These examples show that the possessor may be omitted from both argument and predicative possessive NPs, respectively.

(106) *jadi* potó, Báren a kimát to, **Ø$_{PossR}$** **[ini** **bísar**
jadi potó Báren a ki=N-mát to i-ni bísar
so that's.that Baren PERS EMO=3SG.AN-die IAM 3SG-POSS.I wife
pa]$_{PossD}$ bey umát bey to, **Ø$_{PossR}$** **[ini** **we** **i** **pa]$_{PossD}$** ido
pa bey u-mát bey to i-ni we i pa ido
ART all 3DU-die all IAM 3SG-POSS.I child NSG ART FRA
lamát bey to
la-mát bey to
3PL.AN-die all IAM

'So that's that, Baren is dead, **[his] wife** [and he] died together; as for **[his] children**, they are all dead.' **AM155_08.23**

(107)

mbúsuy	an	be	metHyáy	pa	be	**Ø$_{PossR}$**	**[na**	
N-bí-suy	ana	be	mét-Hyáy	pa	be		na-Ø	
3SG.AN-give-go.home	3SG.INAN	OBL	person-Fiay	ART	PURP		POSS.II-3SG.AN	

ana]$_{PossD}$
ana
3SG.INAN

'They [the Wakaf clan] gave it [the land] to the Fiay clan, so that [they] owned it.'
AM033_07.22

Far less frequently, the head of a possessed NP may be omitted from a possessive construction. The omission of the head of the possessed NP is only attested in adnominal possessive constructions. An example is given in (108); note that only the head of the possessed NP is omitted, and that the possessive particle, NSG marker *i*, and article *ne* 'ART' are still overt.

(108)

"... anta	ámapu		asi	be	cunhaw	ido	anta
anta	ám-ápu		asi	be	cun-haw	ido	anta
later	1PL.E-wrap.smoked.sago		3NSG.INAN	into	sago-sago.funnel	FRA	later
anhey	kála	**[ámne]$_{PossR}$**	**[ámanin**			**Ø**	**i**
aN=hey	kál-a	ámne	áma-ni-n				i
3SG.INAN=good	more.than-PAR	1PL.E	1PL.E-POSS.II-NSG.POSS				NSG

ne]$_{PossD}$"
ne
ART

'[The children said:] "...Later, once we have wrapped it up so that it becomes smoked sago, later it will be tastier than **our [smoked sago]**.' **AM188_16.33**

Chapter 9

Non-declarative speech acts

This description of Ambel has, thus far, focussed on speech acts with declarative mood. In this chapter, ways of forming non-declarative speech acts will be described. In §9.1, imperatives and hortative speech acts will be considered, and in §9.2, interrogative mood is discussed.

9.1 Imperatives and hortatives

Imperatives and hortatives communicate "a wish of the speaker about a future state of affairs", with both types of speech act conveying "an appeal to the addressee(s) to help make the future state of affairs true" (van der Auwera et al. 2013). Imperatives are used when the addressee is in control of whether the desired state of affairs comes to pass, whereas hortatives are used when anyone other than the addressee is responsible. Thus, the subject of an imperative is always second person, and the subject of a hortative is always first or third person.

König and Siemund state: "most, if not all, languages have at least one strategy for identifying imperatives" (2007: 303). In Ambel, there is no dedicated formal or intonational marking for positive imperatives or hortatives. As was shown in §2.3.4.1, imperatives are intonationally identical with their declarative counterparts. This is also true of hortatives. The only syntactic difference between imperatives/hortatives and declaratives is that the distinction between dual, paucal, and plural number may be (but is not necessarily) collapsed for imperatives and hortatives – this will be discussed below. An imperative or hortative reading therefore often comes from the extra-linguistic context. Without this context, there

is frequently ambiguity as to whether a speech act is imperative/hortative or declarative.

Some examples of imperatives are given in (1)–(3). The imperative force behind all of them is demonstrated by the context. For example, (1) comes from a folk tale in which a cruel step-mother orders her step-daughter to search for things for the family to eat. The clause following the imperative describes the step-daughter carrying out the order she has been given.

(1) "**ncán be nyém lé!**", ido kintán
n-<y>tán be ny-ém le ido ki=N-tán
2SG-<2SG>go PURP 2SG-look thing so.then EMO=3SG.AN-go

'[The step-mother ordered:] "**Go and look for things [i.e. food]**!", so then she went.'
AM019_01.35

Example (2) is from a retelling of the Biak hero myth Manarmakeri. In this example, the imperative nature of the highlighted sentence is made explicit by the preceding clause, in which Manarmakeri states that he is ordering the two addressees.

(2) ido monkoné: "sól mowá, **mumtán be mumál mé i pa**,
ido monkoné Ø-sól mowá mum-tán be mum-ál mé i pa
so.then say.3SG.AN 1SG-order 2DU 2DU-go PURP 2DU-take person NSG ART
be ladók be ine ho!"
be la-dók be ine ho
PURP 3PL.AN-arrive ALL 1SG IMM.FUT

'So then he [Manamakeri] said: "I order the two of you, **go and fetch the people**, so that presently they will come to me!"'
AM105_10.41

Example (3) is from another folk tale. In this tale, a child has eaten smoked sago given to him by some evil *kábyo* spirits. He has become possessed by the *kábyo*, and has started eating human flesh. His mother and his uncle devise a plan to exorcise him. In this example, his uncle is explaining the plan to his mother. There are two imperatives in this example: one headed by *bá* 'stay behind', in which the addressee is 2SG, and one headed by *áp* 'paddle', in which the addressee is 2PL. This example shows that, while subject pronouns are frequently omitted in imperatives, as in (1) and (2), they are not suppressed, i.e. it is not ungrammatical

for an imperative to include a subject pronoun (cf. König and Siemund 2007: 304, who state that the suppression of the subject pronoun in imperatives is cross-linguistically "extremely common, if not universal").

(3)

posa	ido	ini	kák	wana	mokoné:	"**awa**	**nyabá!**	
posa	ido	i-ni	kák	wana	mokoné	awa	nya-bá	
after.that	FRA	3SG-POSS.I	cross.uncle	DEF	say.3SG.AN	2SG	2SG-stay.behind	
nyabá	**tu**	**i!**",	mokoné:	"potó,	**mewá**	**máp**	be	
nya-bá	tu	i	mokoné	potó	mewá	m-áp	be	
2SG-stay.behind	COM	3SG.AN.O	say.3SG.AN	that's.that	2PL	2PL-paddle	and	
ine	yabá	tu	i	rín"				
ine	ya-bá	tu	i	rín				
1SG	1SG-stay.behind	COM	3SG.AN.O	CONT				

'After that, his uncle said [to his mother]: "**Stay behind! Stay behind with him!**" [and his mother] said: "That's that, you all paddle [i.e. leave by boat], and I will stay behind with him".' **AM181_01.32**

Some examples of hortatives are given in (4)–(5). As hortatives are also intonationally identical, and morphosyntactically nearly identical, to their declarative counterparts, they are frequently ambiguous between a hortative and declarative reading, particularly a declarative reading in which the speaker is predicting or describing future events. Nevertheless, the context in (4) and (5) make it clear that a hortative reading is most appropriate. In (4), the old man appeals to his companion that, since they are hungry, they should kill the children they have with them for food.

(4)

... "tutnyain		i	ne	simásil		rani	**tubun**	**mákay**
tut-nyái-n		i	ne	si-másil		rani	tu-bun	mákay
1DU.I-stomach-NSG.POSS		NSG	ART	3NSG.INAN-be.hungry		so	1DU.I-kill	child
kiwena	**be**	**tutíy**	**si!**"					
ki=wena	be	tut-íy	si					
EMO=DEF.NSG	PURP	1DU.I-eat	3PL.AN.O					

'[The old man said:] "We two are hungry [lit: 'our stomachs are hungry'] so **let's kill the children in order to eat them!**"' **AM073_01.54**

Example (5) comes from a prayer, given during a reenactment of a sermon. In this example, the speaker is conveying his wish that God will continue to bless the congregation after sermon has ended.

(5)

dan	**Hunhún**	**a**	**ntoróy**	**tu**	**atútne**	**po**	**lányun**
dan	hun~hun	a	N-tó-róy	tu	atútne	po	lányun
and	REDUP~king	PERS	3SG.AN-live-live.with	COM	1PC.I	ABL	late.afternoon

wane	**ayságado**	**láw**	**láw**,	*amin*
wa-ne	ayságado	láw	láw	amin
DEM.CNT-PROX	TERM	far	far	amen

'And **may God live with us from this afternoon for ever and ever**, amen.'
AM191_18.02

As mentioned above, the number distinction may be collapsed in imperatives and hortatives, such that there is no distinction between dual, paucal, and plural subjects; all non-singular animate subjects are marked on the verb as plural.[1] This collapse is exemplified in (6) and (7).

Example (6) is a hortative construction. In this example, two women are waiting for their husband, the trickster Mansahur, to return from a mysterious visit to the forest. Despite the fact that there are only two women – shown by the use of the 3DU marking on the verb *bíne* 'say' – when they use a hortative, the verbs agree with a 1PL.I subject.

(6)

...	*trus*	ubíne:	"potó,	**tán**	**be**	**tatóp**	**i**"
	trus	u-bíne	potó	Ø-tán	be	ta-tóp	i
	then	3DU-say	that's.that	1PL.I-go	PURP	1PL.I-observe	3SG.AN.O

'[They waited for the sun to rise,] then the two of them said: "That's enough, **let's go to observe him** [i.e., find out what he's doing]".' **AM188_07.22**

Example (7) comes from a conversation between three young men; one of them encourages the other two to speak using an imperative. When addressing two

1. I will only discuss the collapse of the number distinction with regards to subject marking on the verb. In all of the examples in the corpus where the number distinction is reduced to singular/plural in imperative/hortatives, the subject is omitted. It remains to be investigated whether an overt subject pronoun can also occur in this context, and, if so, whether the the four-way number distinction is maintained.

people, dual marking would normally be used; in this case, however, the verb is marked with a 2PL prefix.[2]

(7) masúy!
m-asúy
2PL-talk

[To his two friends:] 'Talk!' **AM029_01.30**

However, as shown in examples (2) and (4) above, the collapse of dual, paucal, and plural number is not obligatory in imperative and hortative constructions; dual and paucal subjects are optionally marked as such. To reiterate, the option to collapse the number distinctions in imperatives and hortatives to a singular/plural opposition is the sole feature that distinguishes them from their declarative counterparts.

Both imperatives and hortatives can be softened by the use of the clause-final marker of the immediate future *ho* 'IMM.FUT' (described in §10.2.3). An example of *ho* 'IMM.FUT' to soften an imperative is given in (8), and to soften a hortative is given in (9).[3]

(8)

guru	wana	nsóla	ini	bísar	wana,	monkoné:	"**nyabláp**
guru	wana	N-sól-a	i-ni	bísar	wana	monkoné	nya-bláp
teacher	DEF	3SG.AN-order-PAR	3SG-POSS.I	wife	DEF	say.3SG.AN	2SG-cook

ho!"
ho
IMM.FUT

'The teacher ordered his wife, he said: "Cook now!"' **AM113_03.54**

2. The speakers in this recording were quite young (all in their late teens). As noted in §2.6.1, there is some language attrition in younger speakers of Ambel; it is therefore a reasonable question whether this use of plural marking for a dual subject is a result of attrition. However, while this is the only (unambiguous) attestation in the corpus of plural marking being used for a dual or paucal subject in an imperative, it is typical of quotidian speech I have heard from speakers of all ages.
3. In (9), there are two hortatives. In the first, there is no collapse of the number distinction, and the dual subject is marked on the verb with *tut-* '1DU.I'. In the second, there is a collapse of the number distinction, and the dual subject is marked with the plural *t-* '1PL.I'.

(9) “tutémsap tamáy kia ho! tále be témsap
tut-ém-sap tamáy ki=a ho t-ále be t-ém-sap
1DU.I-look-seek sibling.in.law EMO=PERS IMM.FUT 1PL.I-descend PURP 1PL.I-look-seek
tamáy kia ho!”
tamáy ki=a ho
sibling.in.law EMO=PERS IMM.FUT

‘[He said:] “Let’s us two look for Sister-in-law now! Let’s descend in order to look for Sister-in-law now!”’ **AM020_07.18**

Imperatives and hortatives can also be made more urgent by using the aspect marker *to* ‘IAM’, or the clausal modifer *bi* ‘just’. Strengthening *to* ‘IAM’ occurs clause-finally. An imperative strengthened by *to* ‘IAM’ is given in (10), and a hortative strengthened by *to* ‘IAM’ is given in (11). In (10), a kidnapped woman is imploring her husband to rescue her; the urgency of the imperative is communicated with the additional strengthening by *to* ‘IAM’.

(10) uládo aya aylén ido mokoné: “**nyál ine to!**”
ul-ádo aya aylén ido mokoné ny-ál ine to
3DU-dance TERM like.this.until so.then say.3SG.AN 2SG-take 1SG IAM

‘The two of them danced like this, until she said: “**Take me [home] already!**”’ **AM020_08.00**

Example (11) comes from a recording in which the speaker and the researcher are talking about some recent events. Earlier that day, a group of people, including the speaker and the researcher, had been to some of the gardens outside of the village. When the researcher cut her foot, the speaker had suggested they return to the village. In his reiteration of this suggestion in the recording, the speaker strengthens the hortative by using *to* ‘IAM’.[4]

4. There are similar strategies for strengthening or softening imperatives and hortatives in PM. Post-predicate *suda* ‘already’ (similar in function to Ambel *to* ‘IAM’) is used to strengthen imperatives and hortatives, while post-predicate *dulu* ‘be prior’ (similar in function to Ambel *ho* ‘IMM.FUT’) is used to soften imperatives and hortatives (Kluge 2014: 500–501). Imperatives and hortatives marked with *ho* ‘IMM.FUT’ and *to* ‘IAM’ in Ambel may be calques on the PM constructions; or the PM constructions may reflect a wider areal tendency.

(11) “lanyán wane, nyakamát rani **súy** **be** **kalíw** **to!**”
lanyán wa-ne nya-kamát rani Ø-súy be kalíw to
day DEM.CNT-PROX 2SG-tired so 1PL.I-return.home ALL village IAM

‘[Earlier I said to you:] “Today you are tired, so **let’s go home already!**”’

AM167_04.10

Strengthening *bi* ‘just’ also occurs clause-finally, as in the imperative in (12) and the hortative in (13). Example (12) comes from a recording in which a woman is demonstrating how to make sago biscuits. Part-way through this recording, a man passes by, and the two begin bickering. The imperative in this example is the man’s tetchy command.

(12) nyatét bi!
nya-tét bi
2SG-sieve just

[Addressing the woman, who is making sago biscuits:] ‘Just sieve [it]!’

AM069_04.18

In (13), the speaker has been telling the story of the time she and a group of girls came across a crocodile while on their way to go beachcombing. This utterance comes from the climax of the story, when the speaker realises that the motor on her boat isn’t going to work, and they will have to paddle themselves to safety.

(13) anlót po, yacán be mákay bin: “mew mew mew,
aN=lót po ya-cán be mákay bin mewá mewá mewá
3SG.INAN=be.noisy NEG 1SG-urge OBL child woman 2PL 2PL 2PL

táp **bi!** **táp** **bi!**”...
t-áp bi t-áp bi
1PL.I-paddle just 1PL.I-paddle just

‘It [the outboard motor] didn’t make a noise, [so] I urged the girls: “You you you, **let’s just paddle! Let’s just paddle!**”... ’ **AM067_04.06**

Negation of imperative and hortative clauses is discussed in §10.3.2, in the section on negation.

9.2 Interrogatives

The primary function of an interrogative is to request and obtain information. Three types of interrogative are distinguished: polar interrogatives, which elicit yes-no answers, discussed in §9.2.1; alternative interrogatives, in which alternative answers are provided for the addressee to choose from, discussed in §9.2.2; and constituent interrogatives, which elicit specific pieces of information, discussed in §9.2.3. This section closes in §9.2.4 with a brief look at some of the conventionalised questions heard in daily Ambel life.

9.2.1 Polar interrogatives

Polar interrogatives are "typically used to inquire about the truth or the falsity of the proposition they express" (König and Siemund 2007: 291).[5] Polar interrogatives in Ambel can be subdivided into neutral polar interrogatives, where there is no bias towards a particular answer (§9.2.1.1); and non-neutral polar interrogatives, which express "the belief that a particular answer is likely to be correct and to request assurance that this belief is true" (Sadock and Zwicky 1985: 180). Non-neutral positively-biased polar interrogatives marked with *ni* 'POS.INT' are discussed in §9.2.1.2, and non-neutral attention-monitoring polar interrogatives marked with *pu* 'ATT.INT' are discussed in §9.2.1.3.

9.2.1.1 Neutral polar interrogatives: Unmarked

Neutral, unbiased polar interrogatives do not receive any special syntactic or morphological marking. They are distinguished from their declarative and imperative counterparts intonationally, in that they are realised with Polar Interrogative intonation, described in §2.3.4.2.

Examples of neutral polar interrogatives are given in (14) and (15). For context, these examples also include the answers given to the interrogatives.

5. Polar interrogatives are often referred to as 'yes-no questions'; however, as König and Siemund note, plausible answers to polar questions can be at any point along a scale running from true to false (e.g. 'maybe', 'perhaps', etc).

(14) A: we, Yúsup e, **nyabí** **nyíy** **dún** **wa** **lén**, **dún** **wa**
we Yúsup e ny-abí ny-íy dún wa lén dún wa
hey! Yusup VOC 2SG-want 2SG-eat fish NMC.DEF PLH fish NMC.DEF

ladaki **si** **be** ***WC*** **ilo** **wana?**
la-daki si be WC i-lo wana
3PL.AN-fill 3PL.AN.O INSTR toilet 3INAN-place DEF

'Hey, Yusup, **do you want to eat the fish that, y'know, the fish that they use to fill the inside of the toilet?**'

B: áy! *adu*, yamséw!
áy adu ya-msέw
oh.no oh.no 1SG-not.want

'Oh no! Oh no, I don't want to!' **AM064_14.40**

(15) A: **gana** **wapa** **ya** **Waisai** **aia?**
gana wa-pa ya Waisai a-i-a
one DEM.CNT-MID 3SG.AN.PRED Waisai DEM.NCNT-UP-AND

'Is that one in Waisai?'

B: i
yes

'Yes.' **AM064_01.11**

9.2.1.2 Positively-biased polar interrogatives: *ni* 'POS.INT'

The sentence-final tag *ni* 'POS.INT' marks polar interrogatives which are positively biased, i.e. where the speaker expects an answer that confirms the proposition expressed in the sentence.[6] Examples of positive polar interrogative using *ni* 'POS.INT' are given in (16) and (17); as above, the addressees' answers are also given.

6. This marker is similar in form and function to Biak *(n)e*, which "indicates that the speaker expects a positive answer from the side of the addressee" (van den Heuvel 2006: 148).

(16) A: aa, **ane** **wál** **ni?** *turunan* ne wál
aa, a-ne wál ni turunan ne wál
HES DEM.NCNT-PROX eight POS.INT descent ART eight

'**Umm, this is eight, right?** There are eight generations.'

B: i, wál
yes eight

'Yes, eight.' **AM157_05.40**

(17) A: Nimrod, **awa** **nyáp** **ido** **njók** **lenkaway** **ni?**
Nimrod awa ny-áp ido n-<y>dók lenkaway ni
Nimrod 2SG 2SG-paddle FRA 2SG-<2sg>meet crocodile POS.INT

'Nimrod, **when you were travelling by sea you met a crocodile, right?**'

B: ine jók bíti yo
ine <y>dók bíti yo
1SG <1SG>meet of.course EMPH

'I have of course met [one].'

A: **ni?** njók po lote?
ni N-<y>dók po lo-te
POS.INT 2SG-<2SG>meet LOC DEIC.N-CNST.INT

'Oh yes? Where did you encounter [it]?' **AM067_01.06**

In (17), there is also an example of the use of *ni* 'POS.INT' as an interjection, in A's response to B's affirmation. By using *ni* 'POS.INT' as an interjection, the speaker is requesting confirmation that what the previous speaker has said is true.

While polar interrogatives formed with *ni* 'POS.INT' are generally realised with Polar Interrogative intonation (§2.3.4.2), if the speaker is confident that the proposition is true, then the interrogative is marked with Declarative/imperative intonation (§2.3.4.1). In these cases, the speaker is not so much looking for confirmation of the truth of the expressed proposition from his or her interlocutors, but is seeking further comment on the proposition. An example of a polar interrogative formed with *ni* 'POS.INT' and marked with Declarative/imperative intonation is given in (18).

(18) lolupa, lamámbayn to, ni
lo-lu-pa la-mámbayn to ni
DEIC.N-SEA-MID 3PL.AN-NEG.EXIST IAM POS.INT

'At the seawards place, they [the crabs] have run out, haven't they? [I know this to be the case; what are we going to do about it?]' **AM067_08.31**

9.2.1.3 Attention-monitoring polar interrogatives: *pu* 'ATT.INT'

The sentence-final tag *pu* 'ATT.INT' serves to check whether the addressee is attending to the speaker, and that they have understood what has been said. Some examples of polar interrogatives marked with *pu* 'ATT.INT' are given in (19)–(21). All polar interrogatives formed with *pu* 'ATT.INT' are marked with Polar Interrogative intonation (§2.3.4.2).

(19) A: Mokmér ne ido anna lo Biak ne, **ilo** **lúl**
Mokmér ne ido anna lo Biak ne i-lo l-úl
Mokmer ART FRA 3SG.INAN.PRED place Biak ART 3INAN-place 3PL.AN-call
an **be** ***lapangan*** **Mokmér** **pu?**
ana be lapangan Mokmér pu
3SG.INAN OBL field Mokmer ATT.INT

'As for Mokmer, it is on Biak [island], **the place called Mokmer field, you know?**'

B: oo *ya*
oh yes

'Oh, yes.' **AM112_04.06**

(20) A: **Únya** **pa** ***artinya*** **hun** **inya** **pu?**
Únya pa artinya hun i-nyá pu
Unya ART means king 3SG-mother ATT.INT

'**The [name] Unya means "king's mother", you know?**'

B: oo
oh

'Oh, right.' **AM157_05.06**

Example (21) comes from a narrative, in which a grandmother is warning her grandson not to go to the school in the village, because the children will be frightened of him. The use of *pu* 'ATT.INT' in this example serves to underscore the importance that the boy understands what his grandmother is trying to tell him. The boy, however, disagrees that the children will be frightened by him, as is shown in his response.

(21) "**antanane lém aw ido lamcát aw pu?**", monkoné: "po,
antanane l-ém awa ido la-mcát awa pu monkoné po
later 3PL.AN-see 2SG FRA 3PL.AN-afraid 2SG ATT.INT say.3SG.AN NEG
lamcát ine po"
la-mcát ine po
3PL.AN-afraid 1SG NEG

'[She said:] "**If they see you later, they'll be afraid of you, get it?**" He said: "No, they won't be afraid of me."' **AM113_02.10**

9.2.2 Alternative interrogatives

Alternative interrogatives are interrogatives which "are used to ask the addressee to decide which of two or more alternatives holds, i.e. is true or not" (König and Siemund 2007: 291). Alternative interrogatives are therefore not a subtype of polar interrogative, as the kind of answer solicited from the addressee is not a statement on the truth value of the proposition expressed in the interrogative.

There are three types of alternative interrogative in Ambel: those in which all of the alternatives are fully stated, formed with the disjunctive conjunction *ke* 'or' (§9.2.2.1); unmarked alternative interrogatives, in which only the proposition and its negation are presented as alternatives (§9.2.2.2); and alternative interrogatives in which only one of the alternatives is stated, formed with the tag *ro* 'ALT.INT' (§9.2.2.3).

9.2.2.1 Alternative interrogatives with *ke* 'or'

In alternative interrogatives formed with the disjunctive conjunction *ke* 'or', there are at least two explicit alternatives for the addressee to choose from. The list of alternatives presented in the alternative interrogatives may be logically exclusive

answers, as in (22), or they may "consist only of a proposition and its negation" (Sadock and Zwicky 1985: 179), as in (23). Alternative interrogatives are realised with Polar Interrogative intonation (§2.3.4.2).

(22) A: wán a? **wán iri ke wán *jonson*?**
canoe what canoe outrigger or canoe motorised.canoe

'What kind of canoe [is he taking]? **A canoe with outriggers, or a motorised canoe?**'

B: wán inewki
wán i-newki
canoe 3INAN-smallness

'A small canoe.' **AM067_00.39**

(23) A: ... **ulasáw ke ulasáw po? ulanin mánsar ke po?**
ul-asáw ke ul-asáw po ula-ni-n mánsar ke po
3DU-marry or 3DU-marry NEG 3DU-POSS.I-POSS.NSG husband or NEG

'[Were these two princesses married?] **Were the two of them married or were they not married? Did they have husbands or not?**'

B: ulanin mánsar ke
ula-ni-n mánsar ke
3DU-POSS.I-NSG.POSS husband EPI.may

'They might have had husbands.' **AM066_07.05**

Disjunctive conjunction of NPs using *ke* 'or' was discussed in §6.3.2, and disjunctive conjunction of clauses with *ke* 'or' will be discussed in §14.3.2.1.

9.2.2.2 Unmarked alternative interrogatives

Unmarked alternative interrogatives are similar to the alternative interrogatives formed with *ke* 'or', in that all of the alternatives are fully stated. However, while alternative interrogatives formed with *ke* 'or' may consist of two or more logically exclusive options, or a proposition and its negation, unmarked alternative interrogatives are only attested for a proposition and its negation.

Examples of unmarked alternative interrogatives are given in (24) and (25). In both examples, the IP-final extra-high Polar Interrogative boundary tone (E%) is weakly realised on the final syllable of the proposition, viz. *a* 'PERS' in (24), and *to* 'IAM' in (25). A stronger E% tone is realised on the negation of the proposition, viz. *po* 'NEG' in (24), and *pórin* 'NEG.CONT' in (25).

(24)

yo	gaynkiáne	ncumdel		Nádap	a,	po?
yo	gaynkiáne	N-<y>tum-del		Nádap	a,	po
then	recently	2SG-<2SG>follow-follow		Nadap	PERS	NEG

'Recently, did you follow Nadap, [or] not?' **AM064_14.16**

(25)

lopa,	nyapén	yi	to,	pórin?	
lo-pa	ny-apén	yi	to	pórin	
DEIC.N-MID	2SG-get	sago.sander	IAM	NEG.CONT	

'Have you already got the sago sander in that place, [or] not yet?' **AM069_17.45**

9.2.2.3 Alternative interrogatives with *ro* 'ALT.INT'

Alternative interrogatives in Ambel need not have all the alternatives fully stated. If only one alternative is stated, the interrogative is marked with the sentence-final tag *ro* 'ALT.INT'. Unlike the other alternative interrogatives discussed above, which bear Polar Interrogative intonation, alternative interrogatives formed with *ro* 'ALT.INT' are marked with Constituent Interrogative intonation (§2.3.4.3). Alternative interrogatives formed with *ro* 'ALT.INT' can be rhetorical in nature, i.e. the speaker does not necessarily expect a response from the addressee. Examples of alternative interrogatives with *ro* 'ALT.INT' are given in (26) and (27).

Example (26) comes from a recording in which a family is making a traditional offering to the local guardian spirits on the football field in Kapadiri (see Appendix A for more on traditional offerings). According to tradition, the offerings must be dispersed in a particular way – four must be taken and thrown landwards, and four seawards. In this example, the matriarch of the household is instructing the younger family members where they should take the offerings; she chastises them for not following her instructions properly, suggesting that they

are distracted by thoughts of playing football (presumably because they are on the football field). This use of *ro* 'ALT.INT' is rhetorical.

(26)

lane,	lane,	lane,	ikapuk	wa	líl
la-ne	la-ne	la-ne	i-kapuk	wa	líl
DEM.V-PROX	DEM.V-PROX	DEM.V-PROX	3INAN-corner	NMC.DEF	landwards

ane,	**mawásan**	**mabáy**	**bi**	**ap**	**ro?**
a-ne	ma-wásan	m-abáy	bi	a-pa	ro
DEM.NCNT-PROX	2PL-think	2PL-play	just	DEM.NCNT-MID	ALT.INT

'Like this, like this, like this, [take it to] the corner that is landwards; are you all just thinking about playing [football] or what?' **AM280_11.26**

Example (27) comes from a story about the trickster Mansahur. In this story, Mansahur has been secretly hunting pigs and eating the meat himself, without bringing any home to his two wives. His wives devise a plan in which they cover themselves with mud, so that they can startle him and steal some meat. However, one of the wives forgets to wash the mud off properly. When he returns home later and sees the mud on her temple, Mansahur believes he has identified the thieves. The use of *ro* 'ALT.INT' in this context, however, indicates that he is not positive that it was his wives who startled him. This use of *ro* 'ALT.INT' is not rhetorical, in that the speaker expects (and indeed receives) a response.

(27)

... "ax!	**mow**	**wa**	**hana**	**mumátuk**	**ine**	**wan**	**ro?**",	ido	ubíne:
ax	mowá	wa	hana	mum-átuk	ine	wana	ro	ido	u-bíne
hmph	2DU	NMC.DEF	AND	2DU-trick	1SG	DEF	ALT.INT	SO.then	3DU-say

"po yo,	umne	po!"
po yo	umne	po
NEG EMPH	1DU.E	NEG

'[He said:] "Hmph! Earlier, was it you two who tricked me or what?", then the two of them said: "Absolutely not, it wasn't us!"' **AM188_09.30**

9.2.3 Constituent interrogatives

Constituent interrogatives are interrogatives in which the speaker is seeking information about one of the constituents of the clause. Constituent interrogatives

"involve a request for a specific piece of new information... [they specify] the crucial piece of new information which is required" (Kroeger 2004: 139). They are also referred to as 'information questions' or 'wh-questions'. There are several ways of forming constituent interrogatives in Ambel, depending on the kind of information being requested:

- Using one of the following interrogative roots: *te* 'CNST.INT' for 'where', 'which', and 'how'-type questions; *a* for some kinds of 'what'-type questions; *dama* 'why'; and *hita* 'how much, how many'. Constituent interrogatives formed with interrogative roots are discussed in §9.2.3.1.

- 'Who', 'when', and some 'what'-type questions are formed with noun-modifying constructions (NMCs) or focus constructions. If the constitutent interrogative is formed with an NMC, the element *lapa* 'CNST.INT' is also required; this element is functions either as a verbal predicate, or as the object of the clause. Constituent interrogatives formed with NMCs and focus constructions are discussed in §9.2.3.2.

- 'Why', 'how many', 'who', and 'what'-type questions may also be formed with omission of the constituent about which information is being sought. This strategy for forming constituent interrogatives is discussed in §9.2.3.3.

All of the constituent interrogatives discussed in this section are marked with Constituent Interrogative intonation, described in §2.3.4.3.

9.2.3.1 Constituent interrogatives formed with interrogative roots

In this section, I will describe the use of interrogative roots to form constituent interrogatives. The interrogative roots discussed in this section all occur in situ, in that there is no movement of the questioned constituent (see e.g. König and Siemund 2007: 300), i.e. the questioned element remains in the same position as the corresponding declarative sentence.

The constituent interrogative root *te* 'CNST.INT' is used in the formation of 'where', 'which', and 'how'-type interrogatives. The root *te* is a bound root, in that it cannot occur without a prefix specifying the type of constituent interrogative it marks. The prefixes that attach to *te* 'CNST.INT' are normally used to derive words from deictic units (see §12.2). The prefix usually used to derive

contrastive demonstratives, *wa-* 'DEM.CNT' (§12.2.2), attaches to *te* 'CNST.INT' to form 'which'-type questions, as shown in (28); the prefix used to derive deictic nouns from deictic units, *lo-* 'DEIC.N' (§12.2.4) attaches to *te* 'CNST.INT' to form 'where'-type questions, as in (29); and the prefix used to derive demonstrative verbs, *la-* 'DEM.V' (§12.2.7) attaches to *te* 'CNST.INT' to form 'how'-type questions, as in (30).

(28) A: dún ido lasíri, bin ima nsíri
dún ido la-síri bin i-ma N-síri
fish FRA 3PL.AN-buy woman UP-DIST 3SG.AN-buy

'As for fish, they buy [them], the woman at the top [i.e., in Waisai] buys [them].'

B: **bin** **wate?**
bin wa-te
woman DEM.CNT-CNST.INT

'**Which woman?**'

A: ane pu? nál kasí ane
a-ne pu n-ál kasí a-ne
DEM.NCNT-PROX ATT.INT 3SG-take small.crab DEM.NCNT-PROX

'This [one], you know? [The one who] takes [i.e., buys] the small crabs.'

AM067_07.04

(29) A: **ntán** **be** **lote?** **ia** **ntán** **be** **lote?**
N-tán be lo-te ia N-tán be lo-te
3SG.AN-go ALL DEIC.N-CNST.INT 3SG.AN 3SG.AN-go ALL DEIC.N-CNST.INT

'**Where has she gone? Where has she gone?**'

B: ya lopap ke
ya lo-pa-pa ke
3SG.AN.PRED DEIC.N-SIDE-MID EPI.may

'Maybe she's at the side [of the house].' **AM067_07.04**

(30) bísar wa taji pa amalá apa mokoné:
bísar wa tají pa aN=malá a-pa mokoné
old.woman NMC.DEF eye3SG.AN ART 3SG.INAN=be.blind ART.NMC-ART say.3SG.AN
"**mansope anta yém late?**" mokoné: "lokia nyém"
mansope anta y-ém la-te mokoné loki-a ny-ém
then later 1SG-see DEM.V-CNST.INT say.3SG.AN little.bit-PART 2SG-see

'The old woman whose eyes were blind said: "**Then later, how will I see?**" He said: "In a little bit, you will see".' **AM105_10.48**

The root *te* 'CNST.INT' is also attested in deictic locative predicates, if the subject is 3SG.AN or 3PL. An example is given in (31); deictic locative predicates are described in full in §12.2.5 below.

(31) ... "nén! **tábyum wana yate?**" ido monkoné:
nén tábyu-m wana ya-te ido monkoné
mother grandchild-2SG DEF 3SG.AN.PRED-CNST.INT so.then say.3SG.AN
"yamupa"
ya-mu-pa
3SG.AN.PRED-IN-MID

'[The two of them said:] "Mother! **Where is your grandchild?**" So then she said: "He is inside [the house]".' **AM098_00.46**

The root *a* is used to form 'what'-type questions. This root may be used to question an entire constituent, as in (32).

(32) A: **nyut a?**
ny-ut a
2SG-bring what

'**What have you brought?**'

B: yut lé po
y-ut lé po
1SG-bring thing NEG

'I haven't brought anything.' **AM064_01.00**

This use of *a* 'what' is only attested for non-subject arguments. When forming a 'what'-type question to request information about a subject, the focus construction strategy described in §9.2.3.2 is used.

The root *a* 'what' can also be used within an NP, to question what kind of this an entity is. A second example of *a* 'what', repeated from (22) above, is given in (33). In this example, the speaker already knows that some kind of canoe is being taken elsewhere; *a* 'what' is used inside the NP to question what kind of boat the addressee has been talking about.

(33) A: **wán a?** wán iri ke wán *jonson*?
canoe what canoe outrigger or canoe motorised.canoe

'**What (kind of) canoe [is he taking]?** A canoe with outriggers, or a motorised canoe?'

B: wán inewki
wán i-newki
canoe 3INAN-smallness

'A small canoe.' **AM067_00.39**

The interrogative quantifier *hita* 'how much, how many' is used to question the quantity of an entity. Examples are given in (34) and (35).

(34) áy kop hita sibun *jendela* apa?
áy kop hita si-bun jendela a-pa
tree branch how.many 3NSG.INAN-hit window DEM.NCNT-MID

'How many branches hit the window?' **AM138_el.**

(35) ***jadi*** **la*bangun*** **an** **be** **tún** **hita?** tún tul
jadi la-bangun ana be tún hita tún tul
so 3PL.AN-build 3SG.INAN ALL month how.many month three

'**So it took how many months to build?** Three months.' **AM056_02.24**

Finally, *dama* is used in the formation of 'why'-type questions. An example of a constituent interrogative formed with *dama* 'why' is given in (36).

(36) yamabót bísay dama?
ya-mabót bísay dama
1SG-sweat really why

'Why am I sweating so much?' **AM069_27.19**

9.2.3.2 Constituent interrogatives formed with NMCs or focus constructions

'Who', 'when', and some 'what'-type questions are formed in the same way in Ambel: either with an NMC, headed by a generic noun (such as *mé(t)* 'person' or *lé(n)* 'thing'), and which includes an element *lapa* 'CNST.INT' (which functions as a verbal predicate if the questioned constituent is inanimate, or the object of the clause if it is animate); or with a focus construction, in which the focussed noun is a generic noun. As these strategies are similar, they are discussed together.

Some examples of constituent interrogatives formed with NMCs and *lapa* 'CNST.INT' are given in (37)–(39).[7] These examples show the different kinds of generic noun that can head a constituent interrogative formed with an NMC. Example (37) is a 'what'-type question. In this example, the head noun is *lé* 'thing'. As the head is inanimate, *lapa* 'CNST.INT' is used as the verbal predicate in the NMC, and takes subject marking accordingly.

(37) A: tasúy barán, **tasúy** **lé** **ta** **anlapa?**
t-asúy barán t-asúy lé ta aN=lapa
1PL.I-tell anything 1PL.I-tell thing NMC.INDEF 3SG.INAN=CNST.INT

[Wondering what to talk about for the recording:] 'We [can] talk about anything, **what thing shall we talk about?**' [lit: 'We talk about a thing that is what?']

Example (38) is an example of a 'who'-type question formed with an NMC and *lapa* 'CNST.INT'. For 'who'-type questions like the one in (38), the referent of the head noun is human (e.g. *mé(t)* 'person', *mán* 'man', *bin* 'woman', or *mákay* 'child'). As the head in this example is animate, *lapa* 'CNST.INT' cannot occur as the verbal predicate; instead, it functions as the object of the verb *be* 'be, become'.

7. The element *lapa* 'CNST.INT' seems to be related to the prefix the derives demonstrative verbs from deictic units, *la-* 'DEM.V' (§12.2.7), and the demonstrative root *pa* 'MID'.

(38) aa, *bak* wane ido *pa* Jími a, *trus*, aa, Kárlos a, tua
aa bak wa-ne ido pa Jími a trus aa Kárlos a tu-a
HES reservoir DEM.CNT-PROX FRA Mr. Jimi PERS then HES Karlos PERS COM-PAR

mé ta mbe lap rín ane?
mé ta N-be lapa rín a-ne
person NMC.INDEF 3SG.AN-become CNST.INT CONT DEM.NCNT-PROX

'Umm, as for [the people who built] this reservoir, [their names were] Mr. Jimi, then, umm, Karlos, **and who else?**'

AM056_02.02

Finally, (39) is an example of a 'when'-type question formed with an NMC and *lapa* 'CNST.INT'. For 'when'-type questions formed with this strategy, the head noun is a temporal noun (e.g. *lanyán* 'day', *tún* 'month'). As the questioned constituent is inanimate, *lapa* 'CNST.INT' functions as a verbal prediate, and takes subject marking accordingly.

(39) A: aa, **ta*pake*** **ana** ***mulay taun*** **ta** **anlapa?** *mulay taun*
aa ta-pake ana mulay taun ta aN=lapa mulay taun
HES 1PL.I-use 3SG.INAN start year NMC.INDEF 3SG.INAN=CNST.INT start year

a? *dua ribu dua belas*?
a dua ribu dua belas
what two thousand two teen

'Umm, **we used it [the reservoir] starting in what year?** [lit: 'in a year that is like what?] Starting in what year? 2012?'

B: *taun* low máy
year two leftovers

'More than two years [ago].' **AM056_05.37**

The second strategy to form 'who', 'when', and 'what'-type constituent interrogatives is with a focus construction. Constituent interrogatives formed with focus constructions do not use the element *lapa* 'CNST.INT'. The focussed noun, like the head noun in constituent interrogatives formed with NMCs, is a generic noun referring to humans, a temporal noun, or the generic noun *lé(n)*, depending on the kind of information being asked. An example of a constituent interrogative

formed with a focus construction is given in (40). As this is a 'who'-type question, the focussed noun is the generic noun *mé* 'person'.

(40) A: **mé** **ta** **utumdel** **aw** **apa?**
mé ta u-tum-del awa a-pa
person FOC.NSPEC 3DU-follow-follow 2SG DEM.NCNT-MID

'Who were the two people who came with you?'

B: Álo ini mánsar wana...
Álo i-ni mánsar wana
Alo 3SG-POSS.I husband DEF

'Alo's husband...' **AM064_13.26**

In (40), the questioned constituent is the subject of the clause. In example (41), from a retelling of the biblical story of Genesis, the focussed constituent, i.e. the constituent about which information is sought, is coreferent with the object of a complement clause (headed by *bá* 'leave behind'). As this is a 'what'-type question, the focussed noun is *lé* 'thing'.

(41) hana **lé** **ta** **yasidón** **yabá** **an** **be** **mow** **wana?**
hana lé ta ya-sidón ya-bá an be mowá wana
AND thing NMC.INDEF 1SG-inform 1SG-leave.behind 3SG.INAN BEN 2DU DEF
jíne áy wene bey, *bisa* mumíy
<y>bíne áy we-ne bey bisa mum-íy'
<1SG>say tree DEM.CNT.NSG-PROX all be.capable 2DU-eat

'[God said:] "Earlier, **what was the thing that I informed [you] that I would leave behind for the two of you?** I said all of these trees, the two of you can eat [them]".'
AM198_03.51

9.2.3.3 Constituent interrogatives formed with omission and intonation

The final way to form constituent interrogatives is with a combination of omission of the questioned constituent, and the Constituent Interrogative intonation contour described in §2.3.4.3. Examples of this strategy are given in (42)–(44). In (42), the clause introduced by the purposive conjunction *be* 'PURP' is omitted, and the remaining construction is realised with Constituent Interrogative intonation.

(42) nyém ine be?
ny-ém ine be
2SG-see 1SG PURP

[Said to a man who is off-camera:] 'Why are you watching me?' [lit: 'You are watching me for...?'] **AM069_30.07**

In (43), Speaker A tells Speaker B the name of a character in the story he is narrating. However, Speaker B does not hear the name properly. Speaker B requests a repetition of the information by omitting the questioned constituent.

(43) A: aa, ini we wéy ido nagáin i be Málup a
aa i-ni we wéy ido na-gáin i be Málup a
HES 3SG-POSS.I child again FRA 3SG-name 3SG.AN.O OBL Malup PERS

'Umm, when he had another child, he called him Malup.'

B: **nagáin i be?**
na-gáin i be
3SG-name 3SG.AN.O OBL

'**What did he call him?**' [lit: 'He called him...?']

A: Málup a
Malup PERS

'Malup.' **AM157_03.12**

Example (44) shows how, in a full answer to a constituent interrogative formed with omission, the structure of the interrogative is echoed, with the answer to the question expressed by the information supplied by the speaker.

(44) A: **pál Káku ne ido?**
line.of.descent Kaku ART FRA

'**As for the Kaku line of descent[, who are they]?**'

B: pál Káku ne ido atúmne
line.of.descent Kaku ART FRA 1PC.E

'As for the Kaku line of descent, [it is] us [i.e., me and my family].'

AM135_02.37

9.2.4 Conventionalised questions

In day-to-day life, the Ambel often greet each other with one of the conventionalised questions given in (45).

(45) a. ncán be lote?
N-<y>tán be lo-te
2SG-<2SG>go ALL DEIC.N-CNST.INT

'Where are you going?'

b. ncán po lote?
N-<y>tán po lo-te
2SG-<2SG>go ABL DEIC.N-CNST.INT

'Where are you coming from?'

c. ncán be?
N-<y>tán be
2SG-<2SG>go PURP

'Why are you going? / What are you going to do?'

If two Ambel speakers have not seen in other in some time, they may greet each other as in (46a). The conventional answer is given in (46b).

(46) a. nje late?
N-<y>be la-te
2SG-<2SG>become DEM.V-CNST.INT

'How are you?' [lit: 'What have you become like?']

b. je lap to
<y>be la-pa to
<1SG>become DEM.V-MID IAM

'I am well.' [lit: 'I have become like that.']

Chapter 10

Clausal modification

In this chapter, clausal modifiers – mode, aspect, and negation particles – will be discussed. In §10.1, the form, syntax, and function of mode markers in Ambel will be described. This is followed by a similar discussion of aspect markers in §10.2. In §10.3, I look at how clauses are negated in Ambel.

Most of the markers described in this section occur in a clause-final complex of clausal modifiers. An example of the clause-final complex is given in (1). In this example, there are two clauses, each of which has its own clause-final particle complex. The modifiers occurring in this clause-final complex are highlighted in bold. In the first clause, headed by *hey* 'alive', the marker of continuative aspect *rín* 'CONT' and the marker of weak epistemic modality *ke* 'EPI.may' both occur in the clause-final complex. In the second clause, headed by *mát* 'die', the clause-final complex contains the negative marker *po* 'NEG' and the marker of weak epistemic modality *ke* 'EPI.may'.

(1)	...	ia	[nhey	**rín**	**ke**,]$_{CL}$	be	[mát	**po**	**ke**] $_{CL}$...
		ia	N-hey	rín	ke	be	N-mát	po	ke
		3SG.AN	3SG.AN-alive	CONT	EPI.may	and	3SG.AN-die	NEG	EPI.may

'...Maybe he is still alive, and maybe he has not died...' **AM066_19.55**

The syntax of this clause-final complex is described in §10.4.

10.1 Mode

The mode markers in Ambel were explored in elicitation sessions, using methods based on the modal questionnaire developed by Vander Klok (2012) to investigate the modal system of Paciran Javanese.[1] Vander Klok (following e.g. von Fintel and Iatridou 2008, Kratzer 1977) distinguishes two dimensions of modality: modal force, which ranges from necessity (e.g. English *must* in *He must be at home now*) to possibility (e.g. *may* in *He may be at home now*); and modal flavour, which is to do with the type of modality. Some of the types of modal flavour that Vander Klok discusses for Paciran Javanese include deontic modality, which she defines as a modality which is "compatible with a body of rules or regulations" (e.g. *I must call her back*, in which one is or feels obliged to return a call, due to social expectations); epistemic modality, which she defines as "compatible with the evidence available" (e.g. *The boat must have left already*, when one looks at one's watch and sees it is 1.17pm, and one knows that the boat was scheduled to depart at 1pm); or circumstantial modality, which she defines as "compatible with some facts about the world" (e.g. *I can drive*, when one has the skillset necessary to drive; Vander Klok 2012: 211).

The rest of this section is structured as follows. In §§10.1.1-10.1.3, the three markers communicating deontic mode will be discussed: *áre* 'DEON.must', which bears a strong modal force, and *kada* 'DEON.should' and *kane* 'DEON.should.have', which both communicate a weaker modal force. Following this, the circumstantial markers *nun* 'CIR.know' and *cam* 'CIR.can' are described, in §10.1.4 and §10.1.5 respectively. In §10.1.6, the marker of weak epistemic modality, *ke* 'EPI.may', is discussed. Finally, in §10.1.7, two modal markers that have been borrowed from Malay (*harus* 'have to' and *bisa* 'be capable') are briefly considered. With the exception of the Malay modal markers and the marker of circumstantial knowledge *nun* 'CIR.know', all of the particles described in the following sections occur in the clause-final complex of clausal modifiers described in §10.4.

1. Unfortunately, I only had time to elicit these felicity judgements with a single speaker (**MW**); future research would certainly benefit from the collection of judgements from a wider range of speakers.

In the elicited examples given in the following sections, the accompanying context, where relevant, will be provided. For the full questionnaire (in Papuan Malay), please refer to the field notes archived in bundles **AM225** and **AM270**.

10.1.1 *áre* 'DEON.must'

The marker *áre* 'DEON.must' expresses necessity, with a deontic modal flavour (i.e., necessity with regards to a body of rules or regulations). An elicted example of *áre* 'DEON.must' is given in (2).

(2)

aturan	*kota*	wane,	***kalo***	**tum**	***ojek,***	**ta*pake***	***helem***
aturan	kota	wa-ne	kalo	Ø-tum	ojek	ta-pake	helem
rules	town	DEM.CNT-PROX	if	1PL.I-follow	motorcycle.taxi	1PL.I-use	helmet

áre
áre
DEON.must

'As for the rules of this town [Waisai], **if you take a motorcycle taxi, you must wear a helmet**.' **AM270_el.**

An example of *áre* 'DEON.must' from the naturalistic corpus is given in (3). This example comes from a retelling of the Biak myth Manarmakeri. Some villagers have gathered at the house belonging to the family of a pregnant woman. The villagers are complaining that the woman as not left the house during her pregnancy, as is culturally normal, but has instead hidden herself away.

(3)

"aléna,	**ntán**	**akuk**	**áre**,	ape	awa	mákay	bin	wane
aléna	N-tán	akuk	áre	ape	awa	mákay	bin	wa-ne
PLH	3SG.AN-GO	randomly	DEON.must	but	2SG	child	woman	DEM.CNT-PROX

ntán	po"
N-tán	po
3SG.AN-GO	NEG

'[The villagers said:] "Y'know, she must get out and about, but this girl child of yours is not leaving the house [lit: 'not going']".' **AM105_04.11**

10.1.2 *kada* 'DEON.should'; 'CIR.can'

The modal marker *kada* can modify either verbal clauses, or NPs. When modifying a clause, *kada* 'DEON.should' expresses a deontic modal flavour, like *áre* 'DEON.must'; however, the deontic force is weaker than that of *áre* 'DEON.must', primarily

communicating weak necessity (roughly equivalent to English *should*). An elicted example of *kada* 'DEON.should' communicating weak necessity is given in (4).

(4) [Context: My child is an adolescent, at senior high school. I want him to go to university, but he only wants to play football. I say to him:[2]]

nya*selesaikan*	**nima**	***PR***	**ne**	**kada**,	mansope	*bisa*
nya-selesaikan	ni-m-a	PR	ne	kada	mansope	bisa
2SG-finish	POSS.II-2SG-PAR	homework	ART	DEON.should	then	be.capable

nyabáy	ból
ny-abáy	ból
2SG-play	ball

'You should finish your homework, then you can play football.' **AM225_el.**

Some examples of *kada* 'DEON.should' drawn from the naturalistic corpus are given in (5) and (6).

(5)

"... lane	ido	**tin**,	aa,	**cunhaw**	**sétew**	**kada**"
la-ne	ido	t-in	aa	cun-haw	sétew	kada
DEM.V-PROX	FRA	1PL.I-make	HES	sago-sago.funnel	sago.grub	DEON.should

'[They said: "Oh! The sago grubs are good,] if it's like this then **we should make, umm, smoked sago with sago grubs**".' **AM188_14.45**

(6)

i,	**lakakés**	**si**	**kada**,	anta	lakakés	si
i	la-kakés	si	kada	anta	la-kakés	si
yes	3PL.AN-make.offering	3PL.AN	DEON.should	later	3PL.AN-make.offering	3PL.AN

ido	potó,	lamarków	póto
ido	potó	la-marków	póto
FRA	that's.that	3PL.AN-be.angry	NEG.IAM

'Yes, **they [people who travel in the forest] should make offerings to them [the guardian spirits]**; later, if they make offerings to them, then that's that, they won't be angry anymore.' **AM064_08.13**

2. Original text: *Saya punya anak suda remaja, suda di SMA. Saya mau dia lanjut kulia, tapi dia cuma mau main sepak bola. Saya bilang dia:*

In the preceding examples, *kada* 'DEON.should' occurs clause-finally. The marker is also attested clause-initially; in this case, the reading is one in which the speaker is urging the referent of the subject of the clause to try to do something. This reading is exemplified in (7).

(7) ... "ee, tutnyain i ne simásil aw, **kada**
ee tut-nyái-n i ne si-másil aw kada
hey 1DU.I-stomach-NSG.POSS NSG ART 3PL.INAN-be.empty grr! DEON.should
tután be tutém, aa, **mánsar kiwapumeee**"
tu-tán be tu-tém aa mánsar ki=wa-pu-ma:eee"
1DU.I-go PURP 1DU.I-see HES old.man EMO=DEM.CNT-DOWN-DIST.EXCESS

'[His uncle said:] "Hey, our two's stomachs are empty, grr! **We two should try to go to see the old man who lives far at the bottom there**.' **AM105_06.52**

The marker *kada* can also modify NPs, which occur independently of a clause. In these constructions, the modal flavour communicated is circumstantial, communicating that the referent of the NP is able to perform the action expressed (or implied) in the immediately following clause, if present (i.e., roughly equivalent to English *can*). This use of *kada* is glossed as 'CIR.can'. When modifying a bare NP in this way, the construction constitutes an utterance (as defined in §8.1), as the construction is preceded and followed by a pause. An example of *kada* 'CIR.can' modifying a bare NP is given in (8).

(8) nyelál píow mana ido letem si wane ladók
nyelál píow mana ido letem sia wa-ne la-dók
tomorrow day.after.tomorrow DIST FRA like 3PL.AN DEM.CNT-PROX 3PL.AN-arrive
manín be latún lé wane, **isne wane kada**, anta
manín be la-tún lé wa-ne isne wane kada anta
to.here PURP 3PL.AN-ask thing DEM.CNT-PROX 1PL.I DEM.CNT-PROX CIR.can later
tun an rín
t-un ana rín
1PL.I-know 3SG.INAN CONT

'In the future, when for example these [people, i.e. westerners] come here to ask about this thing [the traditional way to make a fire], **we will be able to**, we will still remember it [but, in the future, the children will not know how to make it].'

AM068_02.43

10.1.3 *kane* 'DEON.should.have'

The modal marker *kane* 'DEON.should.have' is very similar in both modal flavour and modal force to the adclausal use of *kada* 'DEON.should', discussed above: both express a deontic flavour with a weak force, similar to English *should*. The difference appears to be one of tense: whereas *kada* 'DEON.should' is used to refer to events in the present or future, *kane* 'DEON.should.have' is used to refer to events in the past. With *kane* 'DEON.should.have', the speaker expresses his or her opinion on how something should have been done, or should have been.

The difference between *kada* 'DEON.should' and *kane* 'DEON.should.have' is shown in (9). This example is drawn from the elicited corpus; the context provided for this example is one in which an event will happen in the future – the addressee wants to learn to ride a motorcycle. While the speaker can use *kada* 'DEON.should' to encourage the addressee to go slowly while they are still learning, *kane* 'DEON.should.have' is infelicitous.

(9) [Context: In Waisai, I want to learn how to ride a motorcycle. My friend reminds me:][3]

a. ncán abában kada
N-<y>tán abában kada
2SG-<2SG>go carefully DEON.should

'You should go slowly.'

b. # ncán abában kane
N-<y>tán abában kane
2SG-<2SG>go carefully DEON.should.have

Speaker comment: 'It means you have already fallen so he's telling you off [LAUGHS], it's [as if] he is angry, he's saying: "Earlier I told you [to go slowly], right?"'[4] **AM225_el.**

The speaker comment provided in (9b) shows that *kane* 'DEON.should.have' is infelicitous because of the temporal location of the event; had something already happened that would prompt the speaker to remind the addressee to go slowly

3. Original text: *Di Waisai, saya mau belajar pake motor. Saya punya teman kasi ingat saya:*
4. Original comment: *Brarti itu ko su jatu jadi dia mara ko* ((LAUGHS)), *itu dia mara itu, dia bilang: 'Tadi sa su bilang to?'*

(for example, if the addressee had already fallen off their motorcycle), then *kane* 'DEON.should.have' would be felicitous.

An example of *kane* 'DEON.should.have' from the naturalistic corpus is given in (10). In this example, the character Mansahur has just come across a beautiful woman whom he believes to be dead – but who is in fact only pretending to be dead, in order to avoid an encounter with Mansahur.

(10)

...	"*adu*!	**hana**	**jelémay**	**kane**,	namári	rín..."
	adu	hana	<y>belémay	kane	na-mári	rín
	oh.no	AND	<1SG>be.quick	DEON.should.have	3SG.AN-hot	CONT

'[Mansahur said:] "Oh no! **Earlier I should have been quick**, she is still warm..."'

AM188_12.42

10.1.4 *nun* 'CIR.know'

The modal marker *nun* 'CIR.know' communicates a circumstantial modal flavour. Specifically, it expresses that the referent of the subject of the clause is able to do something because they know how to do it (similar to the French *savoir* 'know how to do something'). This meaning is shown by the felicity of *nun* 'CIR.know' in the context given in (11). In this example, the speaker knows how to do something (bake sago biscuits), but is physically unable to because she does not have access to sago.

(11) [Context: In Kapadiri, I learn how to make sago biscuits. I go home to Scotland, and I want to cook sago biscuits for my mother. But there is no sago there! I tell my mother:[5]]

yabláp	cun	nun,	ape	isne	lone	bey	po
ya-bláp	cun	nun	ape	isne	lo-ne	bey	po
1SG-cook	sago.biscuit	CIR.know	but	1PL.I	DEIC.N-PROX	sago	NEG

'I know how to bake sago biscuits, but we here [have] no sago.' **AM225_el.**

The utterance in (12) exemplifies the infelicity of *nun* 'CIR.know' when the modal flavour is circumstantial, but communicates physical ability, rather than a

5. Original text: *Di Kapadiri sini, saya belajar cara masak sagu. Saya pulang ke Skotlandia, dan saya mau masak sagu untuk saya punya mama. Tapi di sana sagu tida ada! Saya kas tau saya punya mama:*

particular skillset. In this example, the speaker is able to walk on his injured leg, not because he knows how to, but because he is physically able to do so. The speaker comments given in (12) further support this interpretation of *nun* 'CIR.know'.

(12) [Context: Two weeks ago, I tried to climb a coconut tree, but I fell and my leg hurts. I went to the nurse – she said I should not walk on that leg for two months. But the leg doesn't hurt anymore, and I can already walk on it.[6]]

# cán	nun,	kókak	ne	antáju	póto
<y>tán	nun	koká-k\H	ne	aN=táju	póto
<1SG>walk	CIR.know	leg-1SG\1|2SG.POSS	ART	3SG.INAN=be.sore	NEG.IAM

Speaker comment: '[LAUGHS] If you're just walking for the first time, then you can [use it] [LAUGHS] ...Strange, it's strange... it's possible [to use it when referring to] small children.'[7] **AM225_el.**

As mentioned above, unlike the other native mode markers discussed in this section, *nun* 'CIR.know' does not occur in the clause-final complex of modifiers. Instead, it occurs after the predicate, either between the predicate and the object of the clause, or after the object of the clause. Both positions are illustrated in (13). This example comes from a conversation, in which the speaker is describing a time she and a group of girls came across a crocodile. The speaker is explaining that, because she was frozen with fear, she didn't know how to start the motor.

(13)

ido	abía	atúmdu	ido	**jú**	**nun**	**an**	**póto**	[LAUGHS]
ido	abí-a	atúm-dú	ido	<y>dú	nun	ana	póto	
so.then	want-PAR	1PC.E-pull	FRA	<1sg>pull	KNOW	3SG.INAN	NEG.IAM	

jú	**an**	**nun**	**po**,	ido	atúmáp	bi
<y>dú	ana	nun	po	ido	atúm-áp	bi
<1sg>pull	3SG.INAN	KNOW	NEG	so.then	1PC.E-paddle	just

'So when we were going to pull it [the rope on the motor], I didn't know how to pull it anymore [LAUGHS] I didn't know how to pull it, so we just paddled.'

AM067_02.56

6. Original text: *Dua minggu yang lalu, saya coba naik kelapa, tapi saya jatu dan saya punya kaki sakit. Saya ke soester – dia bilang saya tida bole pake kaki itu selama dua bulan. Tapi kaki ini su tida sakit lagi, dan saya su bisa pake akan.*
7. Original comment: ((LAUGHS)) *Macam baru bajalan, bole* ((LAUGHS)) *...Ane, itu ane... itu anak kecil, bole.*

It is likely that the modal marker *nun* 'CIR.know' has grammaticalised from the verbal root *un* 'know', inflected to agree with a 3SG subject.

10.1.5 *cam* 'CIR.can'

The marker *cam* 'CIR.can' is only grammatical in negated clauses.[8] It primarily expresses a circumstantial modal flavour (equivalent to the circumstantial use of English *can*), but can also express a deontic flavour (equivalent to English *may*). Combined with the negation of the clause, *cam* 'CIR.can' expresses that an entity is not able to or may not do something.

Examples of *cam* 'CIR.can' are given in (14) and (15). Example (14) comes from a retelling of the Biak myth Manarmakeri; in this example, Manarmakeri has ordered a crippled old woman to go to the sago gardens to inform some villagers of his arrival. With the utterance in (14), the narrator communicates that the woman was physically unable to carry out Manarmakeri's order.

(14)

sana	wa	koka	pa	anlabét	apa	ntán
sana	wa	koká	pa	aN=labét	a-pa	N-tán
one	NMC.DEF	leg.3SG.AN	ART	3SG.INAN=be.wounded	ART.NMC-ART	3SG.AN-walk

cam	po	...
cam	po	
CIR.can	NEG	

'The one whose legs were wounded could not walk...' **AM105_10.53**

In example (15), the modal flavour of *cam* 'CIR.can' is less circumstantial, and more deontic. In this example, the speaker is telling the addressees that, when his friend went into the forest, she wanted to bathe in the river, but could not because she had not brought an offering for the local spirits. In this example, the subject could not bathe, not because she was physically unable to do so (circumstantial), but because local tradition prevented it (deontic).

8. Specifically, *cam* 'CIR.can' is only grammatical in negated declarative and interrogative clauses (§10.3.1), i.e. clauses which are negated with *po* 'NEG' or one of the three negative compound particles discussed in §10.3.3. It cannot occur in negated imperatives or hortatives, which are marked with *are* 'PROHIB' (§10.3.2).

(15) pape monkoné nsúp ma létema lén kane, mokoné
pape monkoné N-súp ma létem-a lén kane mokoné
but say.3SG.AN 3SG.AN-bathe but like-PAR thing DEON.should.have say.3SG.AN

cam po, **nsúp** **cam** **po**, *harus*a nina lén bón,
cam po N-súp cam po harus-a n-in-a lén bón
CIR.can NEG 3SG.AN-bathe CIR.can NEG have.to-PAR 3SG-make-PAR thing first

mansope *bisa* nsúp
mansope bisa N-súp
then be.capable 3SG.AN-bathe

'But she said she [would have] bathed, but there should have been like a thing [i.e., an offering], she said she could not, she could not bathe, she has to do a thing [i.e., make an offering] first, then she can bathe.' **AM064_04.28**

The modal marker *cam* 'CIR.can' is often used as an interjection. Again, in this context, *cam* 'CIR.can' is always negated. An example of the use of negated *cam* 'CIR.can' as an interjection is given in (16).

(16) la*pili* ine be ya*ganti* aa mám a be labíne
la-pili ine be ya-ganti aa mám a be labíne
3PL.AN-choose 1SG PURP 1SG-replace HES father PERS and 3PL.AN-say

je *kepala kampung*, labíne: "**cam** **po**, ia mbe
<y>be kepala kampung la-bíne cam po ia N-be
<1SG>become head.of.village 3PL.AN-say CIR.can NEG 3SG.AN 3SG.AN-be

mákay bábo rín"
mákay bábo rín
child young CONT

'They chose me to replace, umm, Father, and they said I [should] become head of the village, [but other people] said: "**It's not possible**, he is still a youngster".' **AM125_09.21**

It is possible that *cam* 'CIR.can' is a grammaticalisation of the verb *tán* 'go, walk', inflected to index a 1SG subject.

10.1.6 *ke* 'EPI.may'

The marker *ke* 'EPI.may' communicates an epistemic modal flavour, i.e. it communicates the speaker's assessment of the possibility that a state or event

has or will come to pass, based on the available evidence. The modal force of *ke* 'EPI.may' is weak necessity or possibility, roughly equivalent to English *might* or *may*. All clauses modified by *ke* 'EPI.may' are also marked with Doubtful intonation, with a distinct IP-final HM% boundary tone (described in §2.3.4.4).

Some examples of *ke* 'EPI.may' are given in (17)–(19). In example (17), the speaker is describing the size of a crocodile she has recently seen.

(17)

nalál,	**namánkwan**	**po**	**lone**	**be**	**loman**	**ke**
na-lál	na-mánkwan	po	lo-ne	be	lo-mana	ke
3SG.AN-big	3SG.AN-be.long	ABL	DEIC.N-PROX	ALL	DEIC.N-DIST	EPI.may

'It was big, **it might have been as long from this place to that place over there** [POINTS].' **AM067_02.06**

Example (18) comes from an explanation of how to make a *kahéne* bag. In this example, the speaker is explaining what she and her sister might do with the bags once they're finished. In this example, the first *ke* 'EPI.may' has scope over the clause headed by *wop* 'sell'. The second *ke* 'EPI.can' has scope over the NP *Ráuk* 'Rauki' (a Biak village on the north coast of Waigeo).

(18)

ido	**umwop**	**asi**	**ke**,	umwop	asi	do
ido	um-wop	a=si	ke	um-wop	asi	do
so.then	1DU.E-sell	3NSG.INAN	EPI.may	1DU.E-sell	3NONSG.INAN=3PL	PERL

loite?	**Ráuk**	**ke**
lo-i-te	Ráuk	ke
place-NSG-CNST.INT	Rauki	EPI.may

'So then **we two might sell them**, in what places do we sell them? **Maybe Rauki**.' **AM107_02.13**

Pragmatically, clauses marked with *ke* 'EPI.can' often serve as polite requests. An example of a clause modified by *ke* 'EPI.can' used in this way is given in (19). This example comes from a traditional *sadaká* spirit offering; the speaker is asking one of the spirits to help the trees bear fruit. In this example, *ke* 'EPI.may' has scope over the main clause (headed by *bí* 'give'), rather than the clause introduced with *be* 'PURP' (headed by *íy* 'eat').

(19) bea njí, aa, áy ikapyu be ámiy ke
be-a N-<y>bí aa áy i-kapyu be ám-íy ke
and-PAR 2SG-<2SG>give HES tree 3INAN-fruit PURP 1PL.E-eat EPI.may

'And perhaps you could provide, umm, some fruit for us to eat.' **AM280_04.40**

10.1.7 Modal markers from Malay

Two modal markers borrowed from Malay are attested in the naturalistic corpus: *harus* 'have to' and *bisa* 'be capable'.[9] As a full analysis of the function of these markers is beyond the scope of this description, these markers are glossed as in Kluge (2014). While the native markers of modality discussed in §§10.1.1–10.1.6 are all post-predicate, the borrowed modal markers can occur either before or after the predicate. In addition, while the modal markers are auxiliary verbs in Papuan Malay (e.g. Kluge 2014: 502), they are not in Ambel (for example, they are not inflected to mark the person, number, and animacy of the subject).

Examples of the two Malay modal markers are given in (20) and (21).

(20) "... mokomoné awa nyatúk, ***harus*** **umíy** **ana**, umíy an
mokomoné awa ny-atúk harus um-íy ana um-íy ana
say.3SG.AN 2SG 2SG-lie have.to 1DU.E-eat 3SG.INAN 1DU.E-eat 3SG.INAN

áre, anta umbe létem awa"
áre anta um-be létem awa
DEON.must later 1DU.E-become SIM 2SG

[From the story of Genesis:] '[Eve said to God: "But the snake, the snake informed us,] he said that you were lying, **[he said that] we two had to eat it**, we two must eat it, then later we would become [powerful] like you".' **AM280_04.40**

9. The Malay modal marker *mesti* 'have to' is also attested in the elicited corpus.

(21)

kapten	lupa	mokoné	**ni**	**wán**	**lupa**	***bisa***
kapten	lu-pa	mokoné	ni-Ø	wán	lu-pa	bisa
captain	SEA-MID	say.3SG.AN	POSS.II-3SG.AN	canoe	SEA-MID	be.capable

ansá		**be**	**líl**...
aN=sá		be	líl
3SG.INAN=ascend		ALL	landwards

'The captain said that his canoe could come up on land [but it must have a slipway].'
AM072_03.57

10.2 Aspect

There are several aspect markers in Ambel. All of these aspect markers are optional, in that they can be omitted if the aspect is clear from context.

This discussion begins in §10.2.1, with a description of the marker of the iamitive perfect *to* 'IAM', and the closely-related emphatic marker of the iamitive perfect *pomá* 'IAM.EMPH'. Following this, the marker of continuative aspect, *rín* 'CONT', is described in §10.2.2; the marker of the immediate future, *ho* 'IMM.FUT', is described in §10.2.3; and the marker of inceptive aspect, *ilo* 'INCEP', is described in §10.2.4.

10.2.1 Markers of the iamitive perfect: *to* 'IAM' and *pomá* 'IAM.EMPH'

There are two markers in Ambel that combine features of the grammatical category 'perfect' and of the English phasal adverbial *already*: *to* and *pomá*. Both of these markers occur in the clause-final complex of clausal modifiers. Markers which combine features of the perfect and *already* have been reported across Southeast Asia and into New Guinea. This category has been labelled the 'iamitive perfect' by Dahl and Wälchli (2013, cited in Gil 2015: 290). Using this terminology, *to* and *pomá* are both markers of the iamitive perfect in Ambel. While *to* 'IAM' is the default marker of the iamitive perfect, *pomá* 'IAM.EMPH' is used to emphasise the iamitive status of an event. This distinction will be returned to below.

First, a closer look at the category 'iamitive perfect'. As stated above, the iamitive perfect combines features of the perfect and *already*. The perfect is a

category that "indicates the continuing present relevance of a past situation" (Comrie 1976: 52). The basic semantic property of *already*, on the other hand, is that "it applies to... a positive phase, and presupposes the corresponding negative phase, from which the positive phase is separated by a transition (a 'change of state')" (Olsson 2013: 10). In this way, *already* is incompatible with permanent states (e.g. ?*The sky is already blue*), and with states which have not originated in the negative of the present state (e.g. ?*The baby is already small*). The iamitive perfect is similar to *already* in that it communicates "the notion of a 'new situation' that holds after a transition"; it is also similar to the perfect, in that it communicates "the consequences that this situation has at reference time for the participants in the speech event" (Olsson 2013: 43).

Olsson (2013) provides an in-depth analysis of the various functions and features of the iamitive perfect in several South-East Asian languages. He identifies the defining feature of iamitive perfects as their ability to "apply to the situation following an aspectual boundary" (2013: 43). He identifies several other features that are characteristic of the iamitive perfect:

1. When used with stative predicates, the iamitive perfect indicates that a present state has originated in some previous state;
2. When used with dynamic predicates, the reading of the iamitive perfect interacts with the telicity of the clause:
   (a) If the clause is telic, the iamitive perfect refers to a new situation that follows the final boundary of the event;
   (b) If the clause is atelic, there is ambiguity as to whether the iamitive perfect refers to a new situation that has followed on from the initial or final boundary of the event;
3. The iamitive perfect can have an 'imminent future' reading;
4. There is a semantic component to the iamitive perfect, which references the speaker's expectations that the event would come to pass;
5. The iamitive perfect can be used with *at last*-type adverbials.

These features will be used to discuss the function of *to* 'IAM' and *pomá* 'IAM.EMPH' in Ambel. Several of the examples in this discussion come from the elicited corpus;

these elicited examples were based on the iamitive questionnaire in Olsson (2013). Where possible, supplementary examples from the naturalistic corpus are also provided.[10]

The difference between *to* 'IAM' and *pomá* 'IAM.EMPH' is very subtle; for this reason, the two markers will be discussed together. The iamitive perfect is usually marked with *to* 'IAM': this marker is neutral with regards to emphasis. The marker *pomá* 'IAM.EMPH', however, has an additional emphatic component.[11]

10.2.1.1 With stative predicates

When modifying a stative predicate, a marker of the iamitive perfect indicates "not only that the state holds at reference time, but also that the current state is the outcome of a change in state" (Olsson 2013: 9). Furthermore, the state in which the present state originated must be the negative of the present state. Thus, the iamitive perfect is felicitous in contexts in which a particular state is at the mid- or end-point of a natural developmental course (e.g. 'ripe', 'rotten'; 'old'), but not if the state is at the beginning of a developmental course (e.g. 'unripe'; 'young'). In addition, the iamitive perfect is not felicitous with states that are unchanging or permanent.

Example (22) shows that *to* 'IAM' is felicitous with states which are at the mid- or end-point of a natural developmental course – 'ripe' and 'rotten' in (22a) and (22b) respectively – but cannot be used to describe a state at the beginning of a developmental course – 'unripe' in (22c).

(22) a.

nyíy	yáy	pa	kada,	**amáre**	**to**	
ny-íy	yáy	pa	kada	aN=máre	to	
2SG-eat	mango	ART	DEON.should	3SG.INAN=be.ripe	IAM	

'You should eat the maggo, **it's ripe**.'

10. Papuan Malay, the lingua franca used in elicitation, also has an iamitive marker, *su(da)*. For this reason, I avoided using *su(da)* in context-setting in these elicitation sessions, and if I asked for translations.

11. The marker *pomá* 'IAM.EMPH' is very infrequent in the naturalistic corpus (13 attestations), and I only had time to carry out a little systematic work on this marker. Thus, in some of the following sections, data are only available to describe *to* 'IAM'. The precise behaviour of *pomá* 'IAM.NCNT' with regards to the features outlined above is a topic for future research.

b. nyíy yáy pa are! **ambi** **to**
ny-íy yáy pa are aN=bi to
2SG-eat mango ART PROHIB 3SG.INAN=be.rotten IAM

'Don't eat the mango! **It's rotten**.'

c. # nyíy yáy pa are! **amúk** **to**
ny-íy yáy pa are aN=múk to
2SG-eat mango ART PROHIB 3SG.INAN=unripe IAM

[Intended reading:] 'Don't eat the mango! **It's unripe**.' **AM209_el.**

Example (23) shows that, if *to* 'IAM' is used to modify a clause that could otherwise refer to an unchanging or permanent state, then a reading in which this state is the outcome of a change of state is forced. In (23b), the only possible reading is that the blueness of the sky is a reference to the weather, rather than the unchanging colour of the sky.

(23) a. nalón ima ambyáw
nalón i-ma aN=byáw
sky UP-DIST 3SG.INAN=blue

'The sky is blue.'

b. nalón ima ambyáw to
nalón i-ma aN=byáw to
sky UP-DIST 3SG.INAN=blue IAM

'The sky is clear, the sky is not cloudy.' / *'The sky is blue.' **AM209_el.**

Turning now to *pomá* 'IAM.EMPH'. When *pomá* 'IAM.EMPH' modifies a stative predicate, it behaves very simimlarly to *to* 'IAM'. The infelicity of *pomá* 'IAM.EMPH' in (24) shows that, like *to* 'IAM', *pomá* 'IAM.EMPH' cannot be used with a stative predicate referring the the beginning point of a developmental course.

(24) # nyíy yáy pa are! **amúk** **pomá**
ny-íy yáy pa are aN=múk pomá
2SG-eat mango ART PROHIB 3SG.INAN=be.unripe IAM.EMPH

[Intended reading:] 'Don't eat the mango! **It's unripe**.' **AM284_el.**

Similarly, (25) shows that, like *to* 'IAM', *pomá* 'IAM.EMPH' is felicitous when modifying a predicate referring to the end point of a developmental course.

(25)

nyíy	yáy	pa	are!	**ambi**	**pomá**
ny-íy	yáy	pa	are	aN=bi	pomá
2SG-eat	mango	ART	PROHIB	3SG.INAN=be.rotten	IAM.EMPH

'Don't eat the mango! **It's rotten**.' **AM284_el.**

The emphatic component of *pomá* 'IAM.EMPH' can be seen when it is used in the description of a state at the mid-point of a developmental course – for example, a ripe fruit. In this context, modification by *pomá* is felicitous only if the addressee has previously expressed some doubt as to whether the mid-point of the developmental course has been reached. Thus, the use of *pomá* 'IAM.EMPH' to modify an out-of-the-blue description of the mid-point in a developmental process (the ripeness of the mango) is infelicitous. This is shown in (26a). However, in (26b), the addressee has expressed concern that the mango they are about to eat may not yet be ripe. In this context, *pomá* 'IAM.EMPH' is felicitous.

(26) a. [Context: out of the blue]

# nyíy	yáy	pa	kada,	**amáre**	**pomá**	
ny-íy	yáy	pa	kada	aN=máre	pomá	
2SG-eat	mango	ART	DEON.should	3SG.INAN=be.ripe	IAM.EMPH	

'[Intended reading:] You should eat the mango, **it's ripe**.'

b. [Context: Addressee says "Don't let it be the case that you trick me; is it [still] unripe or what?"[12]]

po,	**amáre**	**pomá**
po	aN=máre	pomá
no	3SG.INAN=be.ripe	IAM.EMPH

'No, **it *is* ripe**.' **AM284_el.**

In (26b), there is an overt expression of the addressee's doubt that the mango is ripe. In (25), there was no such expression, and yet the use of *pomá* 'IAM.EMPH' was felicitous. This is because the context provided in (25) ('Don't eat the mango!')

12. Original speaker context: *Namanya, dia bilang "aa, jangan sampe ko tipu saya, muda kapa?"*

suggests that the addressee is just about to take a bite from the rotten mango, i.e. the addressee expects the mango to be ripe. Hence, emphatic *pomá* 'IAM.EMPH' is licensed in this context.

10.2.1.2 With dynamic predicates

When modifying a dynamic predicate, the iamitive markers *to* 'IAM' and *pomá* 'IAM.EMPH' interact with the telicity of the clause. If the clause is telic, the iamitive refers to the situation that holds after the final boundary has been crossed (or only boundary, if the predicate is an achievement; Olsson 2013: 19). Some examples from the naturalistic corpus demonstrating how *to* 'IAM' modifies telic dynamic predicates are given in (27) and (28); note that this function of *to* 'IAM' comes close to the grammatical function of perfect as defined by Comrie (1976).[13]

(27)

mokoné:	"ape	mákay	kiwena,	**kisia**	**ladók**	**to**"
mokoné	ape	mákay	ki=wena	ki=sia	la-dók	to
say.3SG.AN	but	child	EMO=DEF.NSG	EMO=3PL	3PL.AN-leave	IAM

'He said: "But the little children, **they have left**".' **AM073_02.01**

(28)

isor	wana	póto,	**nasabyáy**	**an**	**to**	...
i-sór	wana	póto	na-sabyáy	ana	to	
3INAN-cover	DEF	NEG.IAM	3SG-burn	3SG.INAN	IAM	

'Its covering does not exist anymore, **he has burnt it**...' **AM112_11.23**

If a clause is atelic, i.e. if there is no inherent end point to the activity, the iamitive can refer to the crossing of either the initial or the final boundary. Thus, out of context, when an atelic clause is modified by *to* 'IAM' or *pomá* 'IAM.EMPH', there is ambiguity as to whether the iamitive refers to the beginning or the end point of the activity (cf. Olsson 2013: 42). This is shown in (29) and (30), again from the naturalistic corpus. Example (29) illustrates the use of *to* 'IAM' to refer to the crossing of an initial aspectual boundary: the context makes clear that the woman has begun crying, but has not yet finished crying.

13. There are no data in the elicited or naturalistic corpus with regards to the behaviour of *pomá* 'IAM.EMPH' with telic dynamic predicates.

(29) nala hanín ido ua utó *kamar*, **natáni po *kamar* mup to**
na-la hanín ido ua u-tó kamar na-táni po kamar mu-pa to
3SG-ORI to.there FRA 3DU 3DU-stay room 3SG-cry LOC room IN-MID IAM

'When he went there, the two of them were in [the] room, **she was crying inside the room**.' **AM105_05.42**

Example (30) shows how *to* 'IAM' can be used to refer to the crossing of a final aspectual boundary. In this example, the woman has finished picking chillies, and so informs her husband.

(30) ido bísar pa mokoné: "potó, nsúy manín to,
ido bísar pa mokoné potó N-súy manín to
so.then respected.woman ART say.3SG.AN that's.that 2SG-go.home to.here IAM
ine yákayn marisán to" ...
ine y-ákayn marisán to
1SG 1SG-pick.vegetable chilli IAM

'So then the woman said: "That's that, come back here, **I have picked some chillies**"...' **AM078_02.11**

Examples (31) and (32) show *pomá* 'IAM.EMPH' modifying atelic dynamic predicates. In (31), *pomá* 'IAM.EMPH' modifies an atelic dynamic predicate, in which the initial aspectual boundary has been crossed. Modification by *pomá* 'IAM.EMPH' is not felicitous in the out-of-the-blue context given in (31a); in this context, the neutral iamitive *to* 'IAM' must be used. However, when the speaker is responding to a question about whether the child is asleep, i.e. when the addressee has expressed doubt as to whether or not the child is asleep, the speaker can use emphatic *pomá* 'IAM.EMPH'. This is shown in (31b).

(31) a. [Context: out of the blue]

nik we ne kinané pomá
ni-k we ne ki=n-ané pomá
POSS.I-1SG child ART EMO=3SG-sleep IAM.EMPH

'My child *is* sleeping.'

b. **A:** nim we pa nané to?
ni-m we pa n-ané to
POSS.I-2SG child ART 3SG-sleep IAM

'Is your child sleeping?'

B: i, nik we ne kinané pomá
i ni-k we ne ki=n-ané pomá
yes POSS.I-1SG child ART EMO=3SG-sleep IAM.EMPH

'Yes, my child *is* sleeping.' **AM284_el.**

Example (32) is an example of the modification of an atelic dynamic predicate by *pomá* 'IAM.EMPH', where the modification indicates that the final aspectual boundary has been crossed. In this example, the same pattern is seem as in the previous example: *pomá* 'IAM.EMPH' cannot be used in an out-of-the-blue context, such as the one given in (32a). In (32b), however, when the addressee has explicitly asked whether the speaker has already picked vegetables, *pomá* 'IAM.EMPH' is felicitous.

(32) a. [Context: out of the blue]

yákayn su pomá
y-ákayn su pomá
1SG-pick vegetable IAM.EMPH

'I *have* picked vegetables.'

b. **A:** nyákayn su to?
ny-ákayn su to
2SG-pick vegetable IAM

'Have you picked vegetables?'

B: i, yákayn su pomá
i y-ákayn su pomá
yes 1SG-pick vegetable IAM.EMPH

'Yes, I *have* picked vegetables.' **AM284_el.**

10.2.1.3 'Imminent future' reading

Another common feature of iamitives is the possibility of an 'imminent future' reading, marking "a new situation that is predicted to lead to some future event" (Olsson 2013: 23). This particular function of the iamitive perfect is incompatible with a perfect reading, as the perfect makes a connection between a previous event and a present state. This function of iamitive perfects is more in line with what Comrie (1976: 64) refers to as 'prospective aspect', i.e. relating a present state to a future event.

The naturalistic examples in (33) and (34) show that one of the functions of *to* 'IAM' in Ambel is to mark the relationship between a new situation, and an imminent future event.[14] Example (33) is from a folk tale. In this example, the man is about to set off to pursue his cousin, whom he believes to be in danger. First, however, he informs his wife and child. The use of *to* 'IAM' in this example is incompatible with anything other than an imminent future reading, as the context makes it clear that he has not yet set out on his journey.

(33)

ankimagaláy	ido	nala	tál	be	háwisi		iawa
aN=ki=magaláy	ido	na-la	tál	be	N-háwisi		i-awá
3SG.INAN=EMO=be.withered	FRA	3SG-ORI	front	PURP	3SG.AN-take.leave		3SG-spouse

pa	u	be	mokoné:	"**ine**	**kicán**	**to**"
pa	ua	be	mokoné	ine	ki=<y>tán	to
ART	3DU	PURP	say.3SG.AN	1SG	EMO=<1SG>go	IAM

'When [he saw that] it [the tree] was withered, then he went to the front to take leave from his wife and child, he said: "**I'm about to go**".' **AM020_05.54**

Example (34) comes from earlier in the same folk tale. At this stage, a woman is about to be kidnapped by a king and his associates. Before they take her, she quickly cooks some food to leave behind for her husband. After she has done this, she takes the opportunity to inform her cat that she has been kidnapped. As with (33) above, the only possible reading of *to* 'IAM' in this context is an imminent future reading, as she has not yet been taken by the kidnappers.

14. There are no data in the corpus showing whether *pomá* 'IAM.EMPH' can have an imminent future reading.

(34) nabá asi bepol ido mbin boki kiwana,
na-bá asi bepol ido N-bin boki ki=wana
3SG.AN-leave.behind 3NSG.INAN after.that FRA 3SG.AN-say cat EMO=DEF
mokoné: "aléna, **lál** **ine to**"
mokoné aléna l-ál ine to
say.3SG.AN PLH 3PL.AN-take 1SG IAM

'After she had left it [the food], she spoke to the cat, she said: "Y'know, **they** [the kidnappers] **are about to take me**".' **AM020_04.42**

10.2.1.4 Speaker expectations

In some languages, for example Indonesian or Thai, the iamitive perfect is typically only felicitous when the speaker was expecting or had desired a particular situation to come to pass (Olsson 2013: 24-27). In Ambel, the marker *to* 'IAM' displays this behaviour to some extent, but not as strongly as in Indonesian or Thai.

Consider examples (35) and (36). In (35), the speaker is communicating the unexpected and undesirable news that his uncle has fallen sick; in this example, modification by *to* 'IAM' is not possible. In (36), however, the speaker is communicating the desirable (although not necessarily expected) news that his uncle is well again; in this context, modification by *to* 'IAM' is obligatory.[15]

(35) # yasidón awa, yatáno kák a námsi to
ya-sidón awa ya-táno kák a n-ámsi to
1SG-inform 2SG 1SG-hear cross.uncle PERS 3SG-sick IAM

[Intended reading:] 'I am infoming you, I have heard that Uncle is sick.'

AM284_el.

(36) yasidón awa, kák a biti pa anghey to
ya-sidón awa kák a bití pa aN=hey to
1SG-inform 2SG cross.uncle PERS body.3SG.AN ART 3SG.INAN=good IAM

'I am infoming you, Uncle is better [i.e., not sick anymore].' **AM284_el.**

15. Without modification by *to* 'IAM', the utterance given in (36) would mean that the speaker was stating that his uncle is attractive.

While in Indonesian and Thai the markers of the iamitive perfect are generally not felicitous if the situation was unexpected or not desired by the speaker, Ambel *to* 'IAM' can be used in certain contexts. An elicited example of an unexpected and undesirable situation, the loss of one's camera, is given in (37).[16]

(37) mám, **naka** ***kamera*** **wana** **amin** **to**, nyémsap gali ine!
mám na-k-a kamera wana aN=min to ny-émsap gali ine
father POSS.II-1SG-PAR camera DEF 3SG.INAN=be.lost IAM 2SG-look.for help 1SG

[Context: addressee is not aware speaker's camera is lost:] 'Father, **my camera is lost**. Help me find it!' **AM209_el.**

A naturalistic example of the use of *to* 'IAM' where the situation was both unexpected and undesired by the speaker is given in (38). In this example, from the same children's tale as examples (33) and (34), the two cousins have been reunited after a long period of time apart. The speaker tells his cousin that his wife has been kidnapped; although this event was both unexpected and undesirable, the speaker uses the marker *to* 'IAM'.[17]

(38) ... "béle, yasáw tó, ape nik bísar pa, **mé** **lál**
béle y-asáw tó ape ni-k bísar pa mé l-ál
cross.cousin 1SG-marry IAM but POSS.I-1SG wife ART person 3PL.AN-take
ki **to**"
ki=i to
EMO=3SG.AN.O IAM

'[Then he said to his cousin:] "Cousin, I am married, but my wife, **she has been taken**".' **AM020_06.57**

Like *to* 'IAM', *pomá* 'IAM.EMPH' can be used in some contexts where the situation is undesirable to or unexpected by the speaker. This is shown in (39), in which the speaker is telling the addressee that her camera is lost.

16. Example (37) was elicited. In the first response given by the speaker, he did not use *to* 'IAM'; when asked whether the same sentence with *to* 'IAM' was possible, he said that it was.
17. It is unclear why modification by *to* 'IAM' is felicitous in (37) and (38), but not in (35). One possibility may be that the undesirability or unexpectedness of the event of losing one's camera as in (37) or having one's wife kidnapped as in (38) is not great enough to rule out modification by *to* 'IAM'; in other words, one's uncle falling sick is more undesirable or unexpected than losing one's camera, or one's wife being kidnapped. However, I cannot think of any further evidence (for example, cultural evidence) to support this analysis.

(39) **naka** ***kamera*** **wana** **amín** **pomá**, nyémsap gali ine!
na-k-a kamera wana aN=mín pomá ny-émsap gali ine
POSS.II-1SG-PAR camera DEF 3SG.INAN=be.lost IAM.EMPH 2SG-look.for help 1SG

[Addressee is not aware speaker's camera is lost:] '**My camera is lost**. Help me look for it!' **AM284_el.**

However, again like *to* 'IAM', *pomá* 'IAM.EMPH' cannot be used, out-of-the-blue, in other contexts where the situation is undesirable or unexpected, such as when one has heard that a family member is sick. This is shown in (40).

(40) [Context: Out of the blue]

kak a n-ámsi pomá
cross.uncle PERS 3SG-sick IAM.EMPH

'Uncle *is* sick.' **AM284_el.**

However, modification by *pomá* 'IAM.EMPH' is possible if the speaker has previously predicted that the uncle was going to fall sick. This is shown in (41), for which the consultant spontaneously provided a context in which he had told his uncle not to take his boat out in the rain.

(41) [Context offered by speaker: 'Yesterday I said [to you] that they [my uncle and his entourage] shouldn't depart, the rain will make it so that [they are sick]'[18]]

ahirnya kak a n-ámsi pomá
finally cross.uncle PERS 3SG-sick IAM.EMPH

'Uncle *is* sick [after all].' **AM284_el.**

Finally, (42) shows that *pomá* 'IAM.EMPH' is felicitous if it refers to a situation that is either expected by or desirable to the speaker, such as the news that a sick family member has recovered. However, once again, *pomá* 'IAM.EMPH' is not felicitous in an out-of-the-blue context, such as the one in (42a); for *pomá* 'IAM.EMPH' to be felicitous, the addressee must have already expressed some doubt as to whether the family member has recovered.

18. Original comment: *Kemarin sa su bilang, jang dong brangkat dulu, itu hujan itu yang bikin sampeee*.

(42) a. [Context: Out of the blue]

#	yasidón	awa,	kák	a	biti	pa	anghey
	ya-sidón	awa	kák	a	bití	pa	aN=hey
	1SG-inform	2SG	cross.uncle	PERS	body.3SG.AN	ART	3SG.INAN=good

pomá
pomá
IAM.EMPH

'I am informing you, Uncle *is* better.'

b. [Context: Addressee says: "Oh no, is your uncle still sick or what?"[19]]

po,	yasidón	awa,	kák	a	biti	pa	anghey
po	ya-sidón	awa	kák	a	bití	pa	aN=hey
NEG	1SG-inform	2SG	cross.uncle	PERS	body.3SG.AN	ART	3SG.INAN=good

pomá
pomá
IAM.EMPH

'No, I am informing you, Uncle *is* better [i.e., not sick anymore].' **AM284_el.**

10.2.1.5 Co-occurence with *at last*-adverbials

In English, the semantics of 'already' are generally not compatible with adverbials of the type *at last* or *finally* (e.g. *?He has finally already learnt to play the penny whistle*). However, iamitive perfects typically are compatible with these *at last*-type adverbials. An example of *pomá* 'IAM.EMPH' cooccurring with an *at last*-type adverbial was given in (41); an example of *to* 'IAM' cooccurring with an *at last*-type adverbial is given in (43).[20]

19. Original context: *Adu, ko pu om masi sakit kapa?*
20. There is no native *at last*-type adverbial in Ambel – the PM loan *akirnya* 'finally' in both (41) and (43) should be noted.

(43) *akirnya*, *skarang* wane ido pál Káku ne anyéw
akirnya skarang wane ido pál Káku ne aN=nyéw
finally now DEM.CNT-PROX FRA line.of.descent Kaku ART 3SG.INAN=be.extinct
to
to
IAM

'Finally, nowadays, the Kaku line of descent is extinct.' **AM135_03.04**

10.2.1.6 Summary

A summary of the properties of *to* 'IAM' and *pomá* 'IAM.EMPH', adapted from Olsson (2013: 42), is given in Table 10.1. The interaction of *to* 'IAM' and *pomá* 'IAM.EMPH' with negation, also discussed in Olsson (2013), will be returned to in §10.3.3.1, in the section on negation.

Table 10.1: Summary of the properties of *to* 'IAM' and *pomá* 'IAM.EMPH'

Property	*to* 'IAM'	*pomá* 'IAM.EMPH'
'State holds' interpretation	✓	✓
On-going/completed ambiguity	✓	✓
Prospective reading	✓	?
Strong/weak expectations	weak	weak
Co-occurence with *at last*-adverbials	✓	✓

10.2.2 *rín* 'CONT'

The particle *rín*, glossed 'CONT', marks what van der Auwera refers to as the 'continuative', i.e. "the continuation... of a positive state" (1998: 35). This particle occurs in the clause-final complex of clausal modifiers. As will be shown below, the primary function of *rín* 'CONT' is to mark that a final aspectual boundary has not been crossed.

Some examples of *rín* 'CONT' are given in (44)–(47). Examples (44) and (45) exemplify *rín* 'CONT' modifying verbal clauses. Example (44) additionally illustrates that *rín* 'CONT' can modify polar interrogatives.

(44) ntán do lo líl alipa, mokoné: "**nyém ine**
N-tán do lo líl a-li-pa mokoné ny-ém ine
3SG.AN-go PERL place landwards DEM.NCNT-LAND-MID say.3SG.AN 2SG-see 1SG

rín?" moko: "**yém aw rín**"
rín moko y-ém awa rín
CONT say.3SG.AN 1SG-see 2SG CONT

'He went inland, he said: "**Do you still see me?**", he said: "**I still see you**".'
AM181_03.14

(45) *kalo* **mé** **sia** **nyain** **simásil** **rín** ido [LAUGHS]
kalo mé sia nyái-n si-másil rín ido
if person 3PL belly-POSS.NSG 3NSG.INAN-be.empty CONT FRA

lamarków **rín**
la-marków rín
3PL.AN-angry CONT

[Talking about spirits in the forest:] '**If some of them are still hungry** [lit: 'if the stomachs of some of them are still empty'], then [LAUGHS] **they are still angry**.'
AM064_09.15

Example (46) shows *rín* 'CONT' modifying an ambient/existential clause, and (47) shows *rín* 'CONT' modifying a locative clause. In example (47), there is also an example of the related negative compound particle *pórin* 'NEG.CONT'; this negative compound particle will be returned to below in §10.3.3.3.

(46) wapa, **init** **atám** **bi** **rín**
wa-pa i-nit atám bi rín
DEM.CNT-MID 3INAN-sheet k.o.leaf just CONT

'At that time, **there was still only *atám*-leaf paper**.' **AM057_03.14**

(47) **yamup** **rín**, mát pórin, yamupa...
ya-mu-pa rín N-mát pórin ya-mu-pa
3SG.AN.PRED-IN-MID CONT 3SG.AN-die NEG.CONT 3SG.AN.PRED-IN-MID

[Talking about a member of his family:] '**He is still inside** [i.e., he still lives in Waifoi], he isn't dead yet, he is inside...' **AM155_10.43**

When modifying a verbal clause, the precise function of *rín* 'CONT' depends on whether the state or event being happened in the past, is happening in the present, or will happen in the future. When referring to past states or events, the use of the continuative is only attested with verbal clauses describing non-punctual events. In these clauses, *rín* 'CONT' indicates that, at the point in time the utterance refers to, the initial aspectual boundary of the state or event has been crossed, but the final aspectual boundary has not been crossed. This is shown, for example, in (48).

(48) *waktu* wa-pa ido la-bun rín
time DEM.CNT-MID FRA 3PL.AN-kill CONT

'At that time [in the past], they were still killing [i.e., going to war with one another].'
AM033_02.24

When referring to a state or event in the present, *rín* 'CONT' is again only attested with verbal clauses describing non-punctual events. As with clauses referring to past states and events, in these contexts *rín* 'CONT' indicates that, at the moment of utterance, the initial aspectual boundary of the state or event has been crossed, but the final boundary has not been crossed. This is shown in (49).

(49) ine ya-ném rín
1SG 1SG-weave CONT

'I am still weaving.' **AM107_00.45**

When referring to future states or events, however, *rín* 'CONT' is attested modifying verbal clauses referring to both punctual and non-punctual events. Examples of *rín* 'CONT' modifying a clause referring to future non-punctual events are given in (50) and (51).[21]

(50) ido bísar pa mokoné: "i, ncán, nya, aa, **ine**
ido bísar pa mokoné i N-<y>tán ny-a aa ine
so.then respected.woman ART say.3SG.AN yes 2SG-<2SG>go 2SG-depart HES 1SG
yabá tu mé i ne rín"
ya-bá tu mé i ne rín
1SG-stay.behind COM person NSG ART CONT

'So then the woman said: "Yes, go, depart, umm, **I will stay behind with these people**".' **AM074_00.38**

21. In (51), *kapyu* 'fruit' is used as a pseudo-classifier; see §3.8.1.1.

(51) “tabót ikapyu lowa ke be **tíy** **rín**”
ta-bót i-kapyu low-a ke be t-íy rín
1PL.I-boil 3INAN-fruit two-PART EPI.may PURP 1PL.I-eat CONT

‘[He said:] “Let’s maybe boil two of [the eggs] so that **we [can] eat** [them]”.’

AM204_05.34

Examples of *rín* ‘CONT’ modifying clauses which refer to future punctual events are given in (52) and (53). Example (52) is from a story in which a husband is rescuing his kidnapped wife; he tells her to wait for him, and he will come and take her. The clause headed by *ál* ‘take’, referring to a future punctual event, is modified by *rín* ‘CONT’. A straightforward continuative reading of this clause would presume that the event of ‘taking’ will occur repeatedly, i.e. that the husband will take his wife back again and again. Given the context of the story, however, this is an unlikely reading. This is indicated with the question mark in the free translation.

(52) ido mokoné: “lap ido nyatabón, mansope **yál** **aw** **rín**”
ido mokoné la-pa ido nya-tabón mansope y-ál awa rín
so.then say.3SG.AN DEM.V-MID FRA 2SG-wait then 1SG-take 2SG CONT

‘So then he said [to his wife]:
a) “If it’s like that then wait, then **I will take you**”.
b) ?? “If it’s like that then wait, then **I will still be taking you**”.’

AM020_08.27

Example (53) comes from a tale in which a man has trapped the morning star, who has been stealing his water. Again, a purely continuative reading of the clause modified by *rín* ‘CONT’ would be highly marked, given the context.

(53) “antanane **jí**, aa, ***kuasa*** **be** **aw** **rín** be nyapúsal ine”
antanane <y>bí aa kuasa be awa rín be nya-púsal ine
later <1SG>give HES power OBL 2SG CONT PURP 2SG-release 1SG

‘[The morning star said:]
a) “Later **I will give power to you,**
b) ?? “Later **I will still be giving power to you,**
so that you release me [now]”.’

AM112_05.59

What unites the examples given in (49)–(52) – i.e., the use of *rín* ‘CONT’ to modify a clause that refers to a state or event that is happening or will happen in the

future – is that there is an aspectual boundary that has not been crossed at the point of utterance. For the non-punctual verbs given in (49), (50), and (51), the final aspectual boundary has not been crossed; for the punctual verbs given in (52) and (53), the single boundary associated with the event has not been crossed. It thus appears that the primary function of *rín* 'CONT' when modifying clauses which refer to present and future states and events is to mark that a final aspectual boundary has not been crossed at the point of utterance. Thus, this use of *rín* 'CONT' does not take into account whether an initial aspectual boundary has been crossed, as in the present and non-punctual event of 'weaving', in (49); or not, as in the future and non-punctual events of 'staying behind', in (50), and 'eating', in (51).

10.2.3 *ho* 'IMM.FUT'

The marker *ho* 'IMM.FUT' indicates that the speaker anticipates that the event or state expressed by clause will come to pass in the immediate future (or immediately following another event).[22] It occurs in the clause-final complex of clausal modifiers. The marker *ho* 'IMM.FUT' is only attested modifying verbal clauses. It modifies declaratives and interrogatives; as discussed in §9.1 above, *ho* 'IMM.FUT' can also be used to soften imperatives.

Some examples of *ho* 'IMM.FUT' are given in (54)–(56) below.

(54) ... "béle, **kicań** **ho**, cán be yémsap nak
béle ki=<y>tań ho, <y>tań be y-ém-sap na-k
cross.cousin EMO=<1SG>go IMM.FUT <1SG>go PURP 1SG-look-seek POSS.II-1SG
hó kiwan wéy"
hó ki=wana wéy
arrow EMO=DEF again

'[He said:] "Cousin, **presently I will go**, I will go to look for my arrow again".'
AM020_01.58

22. The marker *re*, also glossed 'IMM.FUT', seems to have a very similar function to *ho* 'IMM.FUT'. However, *re* 'IMM.FUT' is only attested four times in the corpus. In addition, I have not done any systematic work on the difference between *ho* and *re* 'IMM.FUT'. For these reasons, *re* 'IMM.FUT' is not discussed further.

(55) “**yabláp-so** **kinia** **anán** **ho**, anta
ya-bláp-so ki=ni-Ø-a anán ho anta
1SG-cook-prepare EMO=POSS.II-3SG.AN-PAR food IMM.FUT later

kinsúy ido nyai pa amásil”
ki=N-súy ido nyái pa aN=másil
EMO=3SG.AN-go.home FRA belly.3SG.AN ART 3SG.INAN=hungry

‘[She said:] “**Presently, I will cook his food in preparation**, [because] later when he returns he will be hungry”.’ **AM020_04.29**

In example (56), there are two instances of *ho* ‘IMM.FUT’, both referring to events that have already happened. In the first instance, it modifies a hortative clause, which has been negated with the prohibitive marker *are* ‘PROHIB’. In the second instance, *ho* ‘IMM.FUT’ indicates that the event communicated by the clause happened immediately after the event communicated by the preceding clause.

(56) ubíne **umusá** **asi** **are** **ho**, be **ulál** ***gambar***
u-bíne um-ut-sá asi are ho be u-lál gambar
3DU-say 1DU.E-carry-ascend 3NSG.INAN.O PROHIB IMM.FUT PURP 3DU-take picture

ho
ho
IMM.FUT

‘The two of them said that **we two [shouldn’t] bring them [some sea cucumbers] up [into the canoe] immediately**, so that **the two of them [could] take pictures (straightaway)**.’ **AM167_01.59**

In the corpus, the imperative interjection *má(ri)* ‘be patient’ is always modified by *ho* ‘IMM.FUT’. An example of this use of *ho* ‘IMM.FUT’ is given in (57). This example also provides a further illustration of the use of *ho* ‘IMM.FUT’ to modify a clause.

(57) “míy wana amdól rani jíne **mári** **ho**, be **tutalalóy** **míy**
míy wana aN=mdól rani <y>bíne mári ho be tut-alalóy míy
rain DEF 3SG.INAN=fall so <1SG>say be.patient IMM.FUT and 1DU.I-wait rain

man **ho**”
mana ho
DIST IMM.FUT

‘[He said:] “The rain is falling so I say **be patient for the time being**, and **we two will wait for the rain there [to pass]**”.’ **AM078_02.44**

The difference between the marker of the immediate future *ho* 'IMM.FUT' and the 'imminent future' reading of *to* 'IAM' discussed in §10.2.1.3 is unclear, and requires further investigation.

10.2.4 *ilo* 'INCEP'

The particle *ilo* 'INCEP' marks inceptive aspect; it makes reference to the beginning point of an event. Unlike the other modifiers discussed in this section, *ilo* 'INCEP' occurs clause-initially. Examples of *ilo* 'INCEP' are given in (58) and (59).

(58)

ido	**ilo**	**mánsar**	**wana**	**mbá**	**gali**	**pa**	be	**ilo**
ido	ilo	mánsar	wana	N-bá	galí	pa	be	ilo
so.then	INCEP	old.man	DEF	3SG.AN-lift	voice.3SG.AN	ART	and	INCEP

ntóp	**álip**	**pa**	be	**ilo**	**nabra**	**jow**	ido...
N-tóp	álip	pa	be	ilo	na-bra	jow	ido...
3SG.AN-beat.drum	hand.drum	ART	and	INCEP	3SG-sing	song	so.then

'Then **the old man began to lift his voice**, and **began to beat the hand drum**, and **began to sing a song**, and then...' **AM105_05.48**

(59)

hun	pa	nánum	ana,	**ilo**	**nánum**	**ana**	ido	biti	wana
hun	pa	n-ánum	ana	ilo	n-ánum	ana	ido	bití	wana
king	ART	3SG-drink	3SG.INAN	INCEP	3SG-drink	3SG.INAN	FRA	body.3SG.AN	DEF

anhey
aN=hey
3SG.INAN=good

'The king drank it [a potion], when **he began to drink it** then his body was good [i.e., healthy].' **AM113_11.25**

The marker *ilo* 'INCEP' is a grammaticalisation of the possessed noun *i-lo* '3INAN-place'. When used as the head of a noun phrase occurring in the preclausal frame (§8.3.1), *i-lo* '3INAN-place' can be translated as 'at that point', or 'from that point'. An example of this use of *i-lo* '3INAN-place' is given in (60).

(60) ... be **ilo** **pa** **ido** lasúy la líl
be i-lo pa ido la-súy la líl
and 3INAN-place ART FRA 3PL.AN-go.home ORI landwards

'And **at that point**, they [the men] went home towards the land.' **AM193_02.38**

The difference between the inceptive *ilo* 'INCEP' and the inceptive use of *to* 'IAM' with atelic dynamic predicates (discussed in §10.2.1.2) requires further investigation.

10.3 Negation

In this section, strategies for negating clauses in Ambel will be described. In §10.3.1, the negation of clauses with declarative and imperative mood with *po* 'NEG' is described. This is followed by a discussion of the negation of clauses with imperative and hortative mood, using the particle *are* 'PROHIB'. The marker *po* 'NEG' combines (or, in some cases, historically combined) with some of the aspect markers discussed in §10.2, to form what are referred to as negative compound particles; these are discussed in §10.3.3. Finally, the inherently negative verb *amséw* 'not want' is described in §10.3.4. All of the markers described in these sections occur in the clause-final complex of clausal modifiers, described in §10.4 below.

10.3.1 Negation of declarative and interrogative clauses: *po* 'NEG'

The particle *po* 'NEG' negates clauses with declarative or interrogative mood. It can also be used independently, as a negative response to polar interrogatives.

The particle *po* 'NEG' negates all of the clauses discussed in §8.2, viz. verbal, locative, nominal, quantifier, ambient/existential, and possessive clauses. Some examples of *po* 'NEG' negating clauses of different types are given in (61)–(63). Example (61) is an example of *po* 'NEG' negating a verbal clause; in (62), it negates a possessive clause; and in (63), it negates an ambient/existential clause.

(61) *jadi* ine yamínki ahana ido **[yíya** **há** **po]**$_{VCL}$
jadi ine ya-mínki a-hana ido y-íy-a há po
so 1SG 1SG-small DEM.NCNT-AND FRA 1SG-eat-PAR rice NEG

'So when I was little in the past, I didn't eat rice.' **AM032_05.28**

(62) **[ini** **now** **ta** **labedel** **i** **po]**$_{\text{PossCl}}$
i-ni now ta la-be-del i po
3SG-POSS.I opp.sex.sibling NMC.INDEF 3PL.AN-be-follow 3SG.AN.O NEG

[On the last member of a now-extinct line of descent:] 'She did not have any brothers to follow her.' **AM135_18.40**

(63) lopa **[mán** **po**,]$_{\text{Am/ExCl}}$ rani labun bin i pa...
lo-pa mán po rani la-bun bin i pa
DEIC.N-MID man NEG so 3PL.AN-kill woman NSG ART

'In that place, there weren't any men, so they [the evil spirits] killed the women...' **AM193_01.55**

Example (64) is an example of *po* 'NEG' negating a polar interrogative.

(64) ... "**nén** **a** **ntumdel** **mow** **po?**" ido ubíne:
nén a N-tum-del mowá po ido u-bíne
mother PERS 3SG.AN-follow-follow 2DU NEG so.then 3DU-say
"yane to"
ya-ne to
3SG.AN.PRED-PROX IAM

'[He said:] "Did Mother not come with the two of you?", and then the two of them said: "She is here".' **AM105_08.09**

The examples given in (61)–(64) are all examples of *po* 'NEG' negating main clauses. The same particle is also used to negate subordinate clauses, as well as clauses in the preclausal frame. In this case, *po* 'NEG' occurs at the end of the clause over which it has scope (but before the frame-marker *ido* 'FRA', if present; see §8.3.1). Example (65) shows *po* 'NEG' negating a clause which occurs in the preclausal frame (§8.3.1).

(65) mokoné "[**nim** **sánsun** **po** ido]$_{\text{FRAME}}$ potó, anta labí sánsun
mokoné ni-m sánsun po ido potó anta la-bí sánsun
say.3SG.AN POSS.II-2SG clothes NEG FRA that's.that later 3PL.AN-give clothes
be aw rín"
be awa rín
OBL 2SG CONT

'He said: "If you don't have any clothes, then that's that, later they will give clothes to you".' **AM113_05.18**

Example (66) shows the negation of a relative clause. In this example, the NP modified by the relative clause (headed by *sana* 'one') occurs as a preclausal frame.

(66) yo **sana** **wa** **nalabét** **po** **ane**, ia nlá
yo sana wa na-labét po a-ne ia N-lá
then one NMC.DEF 3SG.AN-wounded NEG ART.NMC-PROX 3SG.AN 3SG.AN-swim
lapua
la-pu-a
DEIC.PREP-DOWN-AND

[About sea turtles:] 'Then as for the one who was not wounded, it swam towards the west [lit: 'downwards'].' **AM204_15.39**

In cases where a subordinate clause occurs after the predicate of the main clause, the clause-final position of *po* 'NEG' leads to ambiguity, in that it is unclear whether *po* 'NEG' has scope over the main clause, or the subordinate clause. While this ambiguity is normally resolved by contextual information, out of context the scope of negation is ambiguous. Thus, the elicited example in (67) has two potential readings: one in which *po* 'NEG' has scope over the main verb *ém* 'see' (as in translation a), and one in which *po* 'NEG' has scope over the subordinated verb *íy* 'eat' (as in translation b).

(67) yém lenkaváy wa níy naka kayáw pa po
y-ém lenkaváy wa n-íy na-k-a kayáw pa po
1SG-see crocodile NMC.DEF 3SG-eat POSS.II-1SG-PAR pig ART NEG

(a) 'I don't see the crocodile that ate my pig'
(b) 'I see the crocodile that didn't eat my pig.' **AM110_el.**

The particle *po* 'NEG' can be converted to a verb, and used predicatively. When used predicatively, *po* 'NEG' takes subject marking. Predicative *po* 'NEG' is only attested with an inanimate subject. Examples of predicative *po* 'NEG' are given in (68) and (69). These examples show that the meaning of predicative *po* 'NEG' is underspecified, and depends on the context: in (68), predicative *po* 'NEG' indicates that the house that was being built has been finished, whereas in (69), it means that the fish had all disappeared.

(68)

nin	galia	now	pa	be	**ampo**,	posa	ido	kiatúto
n-in	gali-a	now	pa	be	aN=po	posa	ido	ki=atú-tó
3SG-make	help-PAR	house	ART	PURP	3SG.INAN=NEG	after.that	FRA	EMO=3PC-live
bi								
bi								
just								

'He helped [them] build a house so that it was finished, after that the three of them lived [there].' **AM020_01.43**

(69)

sipo,	dún	i	pa	**sipo**
si-po	dún	i	pa	si-po
3NSG.INAN-NEG	fish	NSG	ART	3NSG.INAN-NEG

[Commenting on food stolen by the trickster Mansahur:] 'They are gone, the fish have gone.'[23] **AM188_04.00**

10.3.2 Negation of imperative and hortative sentences: *are* 'PROHIB'

Imperative and hortative clauses are negated with with the clause-final modifier *are* 'PROHIB'. Negative imperative and hortative clauses serve to "prohibit the addressee from doing something" (Bussman 1996: 385). Examples of negative imperative clauses are given in (70) and (71); examples of negative hortative clauses are given in (72) and (73).

23. Recall from §5.2 that animals that have been prepared as food are considered inanimate by the grammar.

(70) *masyarakat* pa namséw, "**nya*terima* si are! nya*terima* i**
masyarakat pa na-msέw nya-terima si are nya-terima i
community ART 3SG-not.want 2SG-receive 3PL.AN.O PROHIB 2SG-receive 3SG.AN.O
are!"
are
PROHIB

[On the first attempt to convert the people of Lamlam to Christianity:] 'The community did not want [to be converted], [they said to the head of the village:] "Don't receive them! Don't receive him!"' **AM021_12.55**

(71) mán low pa ubíne: "**mumcát are**!"
mán low pa u-bíne mum-mcát are
male two ART 3DU-say 2DU-afraid PROHIB

'The two men said: "Don't you two be scared!" **AM066_30.31**

(72) **yanów barári are!**
y-anów barári are
1SG-sift too PROHIB

[Talking to herself while preparing sago:] 'Let me not sift it too much!'
AM069_14.51

(73) táto wane, ntó ayságado nsúy, nyelál
táto wa-ne N-tó ayságado N-súy nyelál
settlement DEM.CNT-PROX 3SG.AN-live TERM 3SG.AN-go.home tomorrow
píow be kinsúy ido **loki námsi are!**
píow be ki=N-súy ido loki n-ámsi are
day.after.tomorrow and EMO=3SG.AN-go.home FRA little.bit 3SG-be.sick PROHIB

[Making a request to the *mútum* spirits during a *sadaká* offering:] 'In this settlement, she will stay until she goes home; in the coming days, when she goes home, then **let her not fall sick!**' **AM280_02.31**

10.3.3 Negative compound particles and related forms

Negative compound particles are particles which are derived, or were historically derived, by combining the negative particle *po* 'NEG' with one of the following aspect markers: the marker of iamitive aspect *to* 'IAM', described in §10.2.1; the marker of counter-expectational iamitive aspect *pomá* 'CNT.EX.IAM', also described in §10.2.1; or the marker of continuative aspect *rín* 'CONT', described in §10.2.2. In present-day Ambel, the negative compound particles *póto* 'NEG.IAM' and *pórin* 'NEG.CONT' are not synchronically derived – evidence for this will be presented below. The negative compound particle *póto* 'NEG.IAM', and the related interjection *potó* 'that's that', are discussed in §10.3.3.1; the compound *po-pomá* 'NEG-IAM.EMPH' is discussed in §10.3.3.2; and the compound *pórin* 'NEG.CONT' is discussed in §10.3.3.3.

10.3.3.1 *póto* 'NEG.IAM'

The negative compound particle *póto* 'NEG.IAM' was originally a compound *po-to* 'NEG-IAM'. The form *póto* 'NEG.IAM' is not synchronically derived, as it has acquired a /H/ tone on the initial syllable that cannot be ascribed to either of the input elements, both of which are toneless. It functions to mark what van der Auwera (1998) refers to as a 'discontinuative': i.e., to communicate that a particular situation no longer holds, equivalent to English 'no longer' or 'not anymore'. This compound particle can modify all of the clause types that *po* 'NEG' can, viz. verbal, locative, nominal, quantifier, ambient/existential, and possessive clauses. It can be used to negate clauses with declarative, interrogative, and imperative/hortative mood.

Some examples of *póto* 'NEG.IAM' modifying clauses are given in (74)–(79). Examples (74) and (75) illustrate *póto* 'NEG.IAM' modifying verbal clauses. In (75), *póto* 'NEG.IAM' modifies the clausal complement in a causative construction (see §14.2.2.3).

(74) *kalo* tasíri ayságado dún lanán po ido potó, **tasíri** **póto**,
kalo t-asíri ayságado dún l-anán po ido potó t-asíri póto
if 1PL.I-fish TERM fish 3PL.AN-eat NEG FRA that's.that 1PL.I-fish NEG.IAM

súy bi
Ø-súy bi
1PL.I-go.home just

[Explaining fishing methods:] 'If we fish until the fish are not eating [i.e., are not taking the bait], then that's that, **we don't fish anymore**, we just come home.'

AM172_00.58

(75) "yalén i be **níy** **macúbey** **póto**"
y-alén i be n-íy macúbey póto
1SG-do 3SG.AN.O COMPL 3SG-eat human.being NEG.IAM

'[He said:] "I have made him **not eat human beings anymore**".'

AM181_03.49

Examples (76) and (77) show *póto* 'NEG.IAM' modifying non-verbal clauses. In (76), *póto* 'NEG.IAM' modifies a possessive clause, and in (77), *póto* 'NEG.IAM' modifies an ambient/existential clause.

(76) bareken **matén** **wane** **ini** **hun** **póto**
bareken matén wa-ne i-ni hun póto
as.if world DEM.CNT-PROX 3INAN-POSS.II king NEG.IAM

'[It's] as if **this world does not have any kings anymore**.' **AM155_13.48**

(77) ido kinsúy la hanín ido kiném ido bin po,
ido ki=N-súy la hanín ido ki=n-ém ido bin po
so.then EMO=3SG.AN-go.home ORI to.there FRA EMO=3SG-see FRA woman NEG

mé **póto**
mé póto
person NEG.IAM

'So then when he went home to there, when he looked then there were no women, **there weren't any people anymore**.' **AM020_04.59**

Examples (74)–(77) illustrate *póto* 'NEG.IAM' modifying clauses with declarative mood. In (78) and (79), *póto* 'NEG.IAM' modifies clauses with imperative and interrogative mood, respectively.

(78)

moko:	"potó,	nyamátwop	an	to	rani	**nsúy**
moko	potó	nya-mát-wop	ana	to	rani	N-súy
say.3SG.AN	that's.that	2SG-extinguish-help	3SG.INAN	IAM	so	2SG-go.home

póto,	ncoróy	ine	be	lone	to"
póto	N-<y>tó-róy	ine	be	lo-ne	to
NEG.IAM	2SG-<2SG>live-live.with	1SG	LOC	DEIC.N-PROX	IAM

[The Wakafs invite the Fiays to live with them in Fofak Bay:] 'He said: "That's that, you helped us put it [a fire] out, so **don't go home anymore**, live with me in this place".' **AM135_08.03**

(79)

mákay	bin	wapa	yate?	**mbelémay**	**póto**?
mákay	bin	wa-pa	ya-te	N-belémay	póto
child	woman	DEM.CNT-MID	3SG.AN.PRED-CNST.INT	3SG.AN-be.quick	NEG.IAM

[Asking about the location of the researcher:] 'Where is that girl? **Is she not [coming] quickly anymore?**' **AM064_05.08**

The negative compound particle *póto* 'NEG.IAM' is closely related to the interjection *potó* 'that's that', in that *potó* 'that's that' is also transparently a combination of *po* 'NEG' and *to* 'IAM'. Unlike the clausal modifier *póto* 'NEG.IAM', however, the interjection *potó* 'that's that' has acquired a /H/ specification on the second syllable. This interjection can be marked with either Declarative/Imperative intonation (§2.3.4.1) or Polar Interrogative intonation (§2.3.4.2). When marked with Declarative/Imperative intonation, *potó* 'that's that' indicates that the speaker has finished a task, or that he considers something to have ended, or a matter to have been settled. Examples of *potó* 'that's that' can be seen in (74) and (78) above; further examples are given in (80) and (81). In particular, example (81), which is taken from the closing seconds of a retelling of the Biak myth Manarmakeri, shows how *potó* 'that's that' can be used to close off a narrative.

(80) ... wane ido **potó**, amáy to, *bisa* tíy to
wa-ne ido potó aN=máy to bisa t-íy to
DEM.CNT-PROX FRA that's.that 3SG.INAN=cooked IAM be.capable 1PL.I-eat IAM

'As for this, **it's done**, it's cooked, we can eat [it].' **AM069_40.52**

(81) ido kayí pa ambe *bisa* kúru be
ido kayí pa aN=be bisa kúru be
so.then k.o.shellfish ART 3SG.INAN-become be.capable sago.bucket PURP
láw apa, **potó**
l-áw a-pa potó
3PL.AN-harvest.sago DEM.NCNT-MID that's.that

'So then the [shell of the] *kayí* shellfish could become a sago bucket with which they [could] harvest sago, **the end**.' **AM105_12.24**

An example of *potó* 'that's that' with Polar Interrogative intonation is given in (82). When *potó* 'that's that' bears Polar Interrogative intonation, it functions to question whether a particular event has finished.

(82) A: posa ido po-pomá [LAUGHS]
after.that FRA NEG-IAM.EMPH

'After that, then that's that [LAUGHS].'

B: **potó**?
potó
that's.that

'**Is that it?**'

A: potó
potó
that's.that

'That's it.' **AM106_00.46**

10.3.3.2 *po-pomá* 'NEG-IAM.EMPH'

The negative particle *po* 'NEG' combines with the aspect marker *pomá* 'IAM.EMPH', to form the negative compound particle *po-pomá* 'NEG-IAM.EMPH'. Unlike the negative compound particles discussed in the previous section (i.e. *póto* 'NEG.IAM' and *potó* 'that's that'), *po-pomá* 'NEG-IAM.EMPH' is synchronically derived, shown by the /H/ on the final syllable of the compound particle, which is predictable from the input elements. Unlike *póto* 'NEG.IAM', *po-pomá* 'NEG-IAM.EMPH' is only attested as an interjection, and is not attested modifying clauses. As an interjection, *po-pomá* 'NEG-IAM.EMPH' is similar in function to the interjection *potó* 'that's that', in that it communicates that an event or state has come to an end, a matter has been settled, or the speaker has finished a task. However, as with the difference between *pomá* 'IAM.EMPH' and *to* 'IAM', discussed in §10.2.1, while *potó* 'that's that' is neutral with regards to emphasis, *po-pomá* 'NEG-IAM.EMPH' is used emphatically.

An example of *po-pomá* 'NEG-IAM.EMPH' can be seen in (82) above. Another example is given in (83). This example comes from the very end of a historical narrative, in which the main character dies unexpectedly while combing her hair. The full text can be found in Appendix D.1.

(83) ... ái wana namér an be taji sórom wana
ái wana na-mér ana be tají sórom wana
bamboo.comb DEF 3SG-strike 3SG.INAN ALL eye.3SG.AN middle DEF
ido ia mát ahana, mát beposa ido **popomá**,
ido ia N-mát a-hana N-mát beposa ido po-pomá
so.then 3SG.AN 3SG.AN-die DEM.NCNT-AND 3SG.AN-die after FRA NEG-IAM.EMPH
iara pa be lokopa
i-ara pa be lo-ko-pa
3INAN-end ART LOC DEIC.N-EMO-MID

'[The woman was happily combing her hair,] as for the bamboo comb, she struck the middle of her eye with it, so then she died; after she died, then **that, absolutely, was that**, that is the end [of the story; lit: 'it has its end in that place'].'

AM074_04.36

10.3.3.3 *pórin* 'NEG.CONT'

The final negative compound particle in Ambel, *pórin* 'NEG.CONT', is historically derived from a compound *po-rín* 'NEG-CONT'. As with *póto* 'NEG.IAM', discussed above, *pórin* 'NEG.CONT' is no longer synchronically derived, as it has a /H/ specification on the first syllable that cannot be accounted for by either of the input elements. The compound particle *pórin* 'NEG.CONT' can be used to modify clauses, or as an interjection.

When modifying a clause, *pórin* 'NEG.CONT' indicates that a negative state is continuing; in other words, it functions as what van der Auwera (1998) refers to as a 'continuative negative', equivalent to English 'not...yet'. Like *po* 'NEG' and *póto* 'NEG.IAM', *pórin* 'NEG.CONT' can modify all of the clause types discussed in §8.2, viz. verbal, locative, nominal, quantifier, ambient/existential, and possessive clauses. It can also be used to negate clauses with declarative or interrogative mood. It is not, however, attested modifying clauses with imperative or hortative mood.

Some examples of clauses modified by *pórin* 'NEG.CONT' are given in (84) and (85). In (84), *pórin* 'NEG.CONT' modifies a verbal clause, and in (85), it modifies an ambient/existential clause.

(84) ... labínte ladók be lál lanin *sen* i
la-bínte la-dók be l-ál la-ni-n sen i
3PL.AN-say 3PL.AN-leave PURP 3PL.AN-take 3PL.AN-POSS.II-NSG.POSS money NSG
pa, ape **sidók** **pórin**
pa ape si-dók pórin
ART but 3NSG.INAN-arrive NEG.CONT

[On a group of people who have travelled from Waifoi to Waisai:] '...They're saying that they have left to get their money, but **it [the money] hasn't arrived yet**.'
AM064_01.13

(85) wapa, **káwasa** **pórin**
wa-pa káwasa pórin
DEM.CNT-MID community NEG.CONT

'At that time, **there was not yet a community** [where present-day Kalitoko is located].' **AM204_1.28.38**

If *pórin* 'NEG.CONT' is used to modify clausal material in the preclausal frame (§8.3.1), this indicates that the state or event communicated by the main clause takes place before the state or event communciated by the material in the preclausal frame. This is illustrated in (86).

(86) **ladóka** ***kota*** **pa** **pórin** ido lasúp
la-dók-a kota pa pórin ido la-súp
3PL.AN-arrive-PAR town ART NEG.CONT FRA 3PL.AN-bathe
'**Before they arrived [in] town**, they bathed.' **AM113_08.29**

The negative compound particle *pórin* 'NEG.CONT' is also used as an interjection to mean 'not yet'. It can be used as the answer to a question, as in (87); in this case, the particle bears Declarative/Imperative intonation (§2.3.4.1).

(87) A: ... now sia sití do tásibit, po?
now sia si-tí do tási-bít po
house 3PL 3NSG.INAN-be.alongside PERL salt.water-edge NEG
'...[At that time,] were there some houses alongside the shore, [or] not?'

B: **pórin**
pórin
NEG.CONT
'**Not yet.**' **AM125_11.01**

The interjection *pórin* 'NEG.CONT' can also be used with Polar Interrogative intonation (§2.3.4.2). In this case, the function of *pórin* 'NEG.CONT' is to ask whether a particular event has not finished yet. This use is illustrated in (88). This example comes from a procedural text in which Speaker A has been explaining how to make *kahéne* bags. She considers her explanation to be over; however, Speaker B (her nephew) tries to get her to talk more about the bags. The full text can be found in Appendix D.2.

(88) A: mm, popomá, iara kipa pomá, nyasidón i
mm po-pomá i-ara ki=pa pomá nya-sidon i
hmm NEG-IAM.EMPH 3INAN-end EMO=ART IAM.EMPH 2SG-inform 3SG.AN.O

'Hmm, that's that, [that's] the end [of our explanation], let her [**LA**] know [so that she can turn the camera off].'

B: wéy
again

[Encouraging A to keep talking:] 'Again [i.e., talk some more].'

A: **pórin**?
pórin
NEG.CONT

'[Is the recording] not [finished] yet?' **AM107_01.10**

10.3.4 Negation of desire: *amséw* 'not want'

The negative existential *mámbayn* 'NEG.EXIST' was discussed briefly in §8.2.5.1. There is one other verbal root in Ambel which is inherently negative: *amséw* 'not want'. This verb can take a nominal or pronominal object, as in (89), or a clausal complement, as in (90).[24]

(89) *akirnya pendeta* ne ndók, **lamséw** **i**
akirnya pendeta ne N-dók l-amséw i
finally pastor ART 3SG.AN-arrive 3PL.AN-not.want 3SG.AN.O

[On the arrival of the Dutch missionary Kamma in Fofak Bay:] 'Finally a pastor arrived, [but] **they [the people of the village] didn't want him**.' **AM021_13.10**

(90) "**yamséw** **yákain** **su**"
y-amséw y-ákain su
1SG-not.want 1SG-pick.vegetables vegetable

'[She said:] "**I don't want to pick vegetables**".' **AM078_01.03**

24. In this way, *amséw* 'not want' is different from the verb *abí* 'want', which, as introduced in §8.1 and described in more detail in §14.2.1.1, can only take a clausal complement.

10.4 Syntax of clausal modifiers

Most of the modifiers discussed in this section occur clause-finally, in a clause-final complex. The order of the particles discussed in this section in this clause-final complex is given in Figure 10.1. As this figure shows, the four mode markers that occur in the clause-final complex cannot cooccur with any of the four clause-final aspect markers; all occur in the first slot of the clause-final complex. Figure 10.1 shows that, generally, the clause-final modifiers occur in the order Mode/Aspect - Negation. The exception to this is the marker of epistemic mode *ke* 'epi.may', which occurs clause-finally.

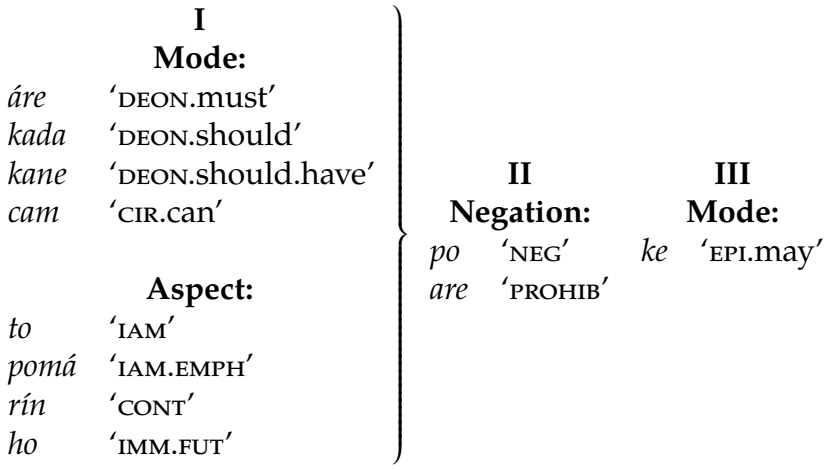


Figure 10.1: Ordering of clausal modifiers in the clause-final complex

Evidence for the order given in Figure 10.1 is provided in (91)–(92). In (91), the aspect marker *rín* 'cont' occurs before the negative marker *po* 'neg'.

(91) n-ané **rín** **po**, n-ábin to
3sg-sleep cont neg 3sg-wake.up iam
'He is not still sleeping, he has woken up.' **AM284_el.**

In (92), the negative marker *po* 'neg' occurs before *ke* 'epi.may'.

(92) *jadi* wane takátown, tatabón bi, *kirakira* anlap
jadi wa-ne ta-kátown ta-tabón bi kira~kira aN=la-pa
SO DEM.CNT-PROX 1PL.I-sit 1PL.I-wait just REDUP~think 3SG.INAN=DEM.V-MID
ke, anlap **po ke**
ke aN=la-pa po ke
EPI.may 3SG.INAN=DEM.V-MID NEG EPI.may

'So these days we sit, we just wait, maybe it is like that, maybe it isn't like that.'

AM112_17.39

As will be described in §12.2.2.2, non-contrastive demonstratives can be used adclausally.[25] When used adclausally, these demonstratives also occur within the clause-final complex. Adclausal non-contrastive demonstratives occur early in the clause-final complex, towards the left. While there are no data to show their position relative to the mode particles, example (93) shows that the adclausal non-contrastive demonstrative *a-ne* 'DEM.NCNT-PROX' occurs before the aspect particle *to* 'IAM'.

(93) ... "*adu*! nik bísar low ne ua, yasabyáy u be umát
adu ni-k bísar low ne ua ya-sabyáy ua be u-mát
oh.no POSS.I-1SG wife two ART 3DU 1SG-burn 3DU and 3DU-die
ane **to**"
a-ne to
DEM.NCNT-PROX IAM

'[He said:] "Oh no! My two wives, I have burnt them and they are dead here".'

AM188_11.32

25. In §12.2.2.1, I will describe how contrastive demonstratives also occur adclausally. The adclausal use of contrastive demonstratives is very infrequent, however. Due to the lack of data, adclausal contrastive demonstratives are not discussed here.

Chapter 11

Prepositional phrases

Prepositional phrases (PPs) are phrases headed by prepositions. In Ambel, prepositions heading PPs take noun phrase complements. The criteria for defining a preposition were given in §3.5, where ten prepositions were identified. In Ambel, PPs have the following characteristics:

1. All PPs function as clausal adjuncts. This is the predominant function of PPs.
2. PPs headed by *po* 'ABL' can function as nominal adjuncts (see §6.2.11).
3. PPs cannot function as core arguments, nor can a preposition function as a predicate, without first undergoing zero-conversion to derive a verb (see §3.11).

In the following sections, the function of PPs headed by each of the prepositions identified in §3.5 will be discussed in turn.[1]

11.1 Headed by *be* 'ALL, BEN, INSTR, LOC'

The preposition *be* has several functions in Ambel. It introduces PPs with the following functions: (1) An allative function, in which the NP complement is the goal of a movement (§11.1.1); (2) A benefactive function, in which the referent of

1. Most of the terminology used in this chapter comes from Haspelmath (2012b). While this is a terminology of case, Haspelmath notes: "Not uncommonly, the descriptive labels that were created for cases are also used to label adpositions... This is perfectly reasonable, because adpositions function in much the same way as cases in languages, the main difference being that they are analytic means of expression" (2012b: 6).

the NP is the beneficiary of the action or event expressed in the clause (§11.1.2); (3) An instrumental function, in which the referent of the NP is the instrument used to carry out the action expressed in the clause (§11.1.3); (4) A locative function, in which the NP expresses the location of an action or event (§11.1.4). PPs headed by *be* can only occur as clausal adjuncts; they cannot be used as nominal adjuncts.

There are five elements which are formally similar to the preposition *be*, but which are syntactically and/or morphologically distinct. These elements are the Class III verb *be* 'become'; the marker of oblique arguments *be* 'OBL'; the complementiser *be* 'COMPL'; the coodinating conjunction *be* 'and'; and the subordinating conjunction *be* 'PURP'. The differences between prepositional *be* and these other *be* elements are given in Table 11.1.

Table 11.1: Features distinguishing prepositional *be* from similar elements

	Function	**Distinguished from prepositional *be* by:**	**See further:**
be 'become'	Class III Verb	*be* 'become' heads verbal clauses, and therefore takes subject marking morphology	Appendix E
be 'OBL'	Marks oblique arguments	*be* 'OBL' introduces the oblique argument of a ditransitive verb, and is thus obligatory in an out-of-the-blue context	§8.2.1.1.3
be 'COMPL'	Complementiser	*be* 'COMPL' introduces complements in some complement clause constructions	§14.2.2
be 'and'	Conjunction	*be* 'and' conjoins clauses	§14.3.2.1
be 'PURP'	Conjunction	*be* 'PURP' conjoins clauses	§14.3.2.3

11.1.1 Allative function

The primary function of PPs headed by *be* is to express movement towards the referent of the NP complement. These PPs modify verbal clauses headed by verbs of motion such as *lá* 'swim', *tán* 'go, walk', *súy* 'return home', *dókoy* 'throw'. The referent of the NP complement is the goal of the motion expressed by the verb.

Examples of PPs headed by *be* 'ALL' are given in (1)–(3). Examples (1) and (2) show that the NP complement of *be* 'ALL' can be animate, while (3) shows it can also be inanimate. In addition, (2) shows that the NP complement can be a pronoun.

(1) "... umtán **be** **mám** **a** ido umíy lé wepa,
um-tán be mám a ido um-íy le we-pa
1DU.E-go ALL father PERS FRA 1DU.E-eat thing DEM.CNT.NSG-MID
sihey"
si-hey
3NSG.INAN-good

'[He said:] "...When we two went to Father, we ate these things, they were tasty".'
AM105_07.39

Example (2) comes from a historical narrative about the Wakaf clan. Two members of the Fiay clan have just helped the Wakafs to extinguish a big fire that was destroying their village. In return for their help, the Wakafs give a river to the Fiays.

(2) "jí welo wane be awa, welo wane
<y>bí we-lo wa-ne be awa we-lo wa-ne
<1SG>give water-place DEM.CNT-PROX OBL 2SG water-place DEM.CNT-PROX
ansúy **be** **awa**"
aN=súy be awa
3SG.INAN=go.home ALL 2SG

'[He said:] "I give this river to you, this river belongs to you [lit: 'goes home to you']".'
AM135_08.04

Example (3) comes from a conversation in which the speaker is talking with the researcher about a trip they had taken earlier that day.

(3) rani umsasúy, be táti **be** **Yesbe** **lál**
rani um-sá-súy be t-áti be Yesbe lál
then 1DU.E-ascend-go.home and 1PL.I-run ALL Yesbe big

'Then the two of us got back in [to the canoe], and we all went to Big Yesbe [an island in Fofak Bay].'
AM167_02.20

The allative function of the preposition *be* is analysed as the primary function for two reasons. First, it is the most frequently attested function of prepositional *be*. Second, when prepositional *be* undergoes zero-conversion and is used as a verb, the meaning of the verb ('travel to') is derived from the preposition's allative function (see §3.11).

11.1.2 Benefactive function

The second function of PPs headed by *be* is to communicate that the referent of the NP complement is a beneficiary of the action or event communicated in the clause.

Examples of PPs headed by *be* with a benefactive reading are given in (4) and (5). In example (4), the speaker is describing the arrival of the Dutch missionary Freerk Kamma in Lamlam.

(4)

monkoné	mbe	*guru*	**be**	**sia**	
monkoné	N-be	guru	be	sia	
say.3SG.AN	3SG.AN-become	teacher	BEN	3PL.AN	

'He [Kamma] said he [would] become a teacher for them [the people of Lamlam].'
AM125_01.38

Example (5) comes from a retelling of the Biak hero myth Manarmakeri. It this example, the speaker is musing about why it is that Manarmakeri has the powers he has.

(5)

artinya	nsól	i	be	mbe	*wakil*	**be**	**i**
artinya	N-sól	i	be	N-be	wakil	be	i
means	3SG.AN-order	3SG.AN	OBL	3SG.AN-become	representative	BEN	3SG.AN.O
ke							
ke							
EPI.may							

[On the Biak hero Manarmakeri:] 'That means maybe he [God] ordered him to become a representative for him.' **AM112_18.04**

Examples (4) and (5) show that the complement of *be* 'BEN' can be animate, and pronominal. Example (6) shows that the complement can be inanimate.

(6)

ine	síri	*mesin*	lúl	**be**	**nik**	**wán**	**ne**
ine	Ø-síri	mesin	lúl	be	ni-k	wán	ne
1SG	1SG-buy	motor	seawards	BEN	POSS.I-1SG	canoe	ART

'I buy a motor for my boat.' **AM287_el.**

11.1.3 Instrumental function

The third function of PPs headed by *be* is instrumental, to communicate that the action or event expressed by the clause was carried out using the referent of the NP complement.

Some examples of PPs headed by *be* 'INSTR' are given in (7)–(10). Examples (7)–(9) show that the complement can be inanimate; (10) shows that the complement can be animate. In addition, (9) shows that the complement can be pronominal.

(7)

natápe	i	**be**	**túlu**,	ido	kimát...
na-tápe	i	be	túlu	ido	ki=N-mát
3SG-stab	3SG.AN.O	INSTR	knife	so.then	EMO=3SG.AN-die

'She stabbed her with a knife, and then she died...' **AM019_07.39**

(8)

ane	ana*pake*	*yonson*	po,	yáp	**be**	**pú**	bi,
a-ne	aN=na-pake	yonson	po	y-áp	be	pú	bi
DEM.NCNT-PROX	INAN=3SG-use	outboard.motor	NEG	1SG-travel	INSTR	paddle	just

yáp	an	**be**	**pú**	bi
y-áp	ana	be	pú	bi
1SG-paddle	3SG.INAN	INSTR	paddle	just

[Describing a canoe he is making:] 'This [canoe] does not use an outboard motor, I just paddle with a paddle, I just paddle it with a paddle.' **AM027_01.25**

(9)

ya-tápe	i	**be**	**ana**
1SG-stab	3SG.AN.O	INSTR	3SG.INAN

'I stab him using it.' **AM287_el.**

(10)

yémsap	kayáw	**be**	**ái**
y-ém-sap	kayáw	be	ái
1SG-look-seek	pig	INSTR	dog

'I look for [i.e., hunt] pigs using dogs.' **AM287_el.**

As well as *be* 'INSTR', there is another preposition that can head instrumental PPs: *mi(n)* 'INSTR'. As will be shown in §11.4.1, there is no difference between PPs headed by *be* 'INSTR' and those headed by *mi(n)* 'INSTR'. The use of both *be* 'INSTR' and *mi(n)* 'INSTR' in instrumental applicative constructions will be described in §11.4.1.1.

11.1.4 Locative function

In the corpus, PPs with a locative function are most frequently headed by *po* 'LOC' (see §11.2.2). However, there are some examples in the corpus of PPs headed by *be* that have a locative reading.

Examples of PPs headed by *be* 'LOC' are given in (11)–(13). Examples (11) and (12) show that the complement can be inanimate; (13) additionally shows that the complement can be both animate, and pronominal.

(11)

ido	itabyu	kipa	nabáy	tu	mákay	ki	pa	**be**
ido	i-tábyu	ki=pa	n-abáy	tu	mákay	ki=i	pa	be
so.then	3SG-grandchild	EMO=ART	3SG-play	COM	child	EMO=NSG	ART	LOC

bát	**pa**
bát	pa
ground	ART

'Then her grandchild played with the children on the ground.' **AM066_21.03**

(12)

hana	cán	wana,	jók	i,	jók	kórben	pa,	ia
hana	<y>tán	wana	<y>dók	i	<y>dók	kórben	pa	ia
AND	<1SG>go	DEF	<1SG>meet	3SG.AN.O	<1SG>meet	dragon	ART	3SG.AN

nteyn	i	**be**	**welo**	**aipa**
N-teyn	i	be	we-lo	a-i-pa
3SG.AN-soak	3SG.AN.O	LOC	water-place	DEM.NCNT-UP-MID

'Earlier when I was walking, I met him, I met the dragon, he was soaking himself **in the river at the top there**.' **AM031_03.59**

(13) nik we bin ne nakátown **be** **ine**
ni-k we bin ne na-kátown be ine
POSS.I-1SG child woman ART 3SG-sit LOC 1SG

'My daughter sits on me.' **AM287_el.**

The difference between locative PPs headed by *be* 'LOC' and those headed by *po* 'LOC' will be discussed in §11.2.2 below.

11.2 Headed by *po* 'ABL, LOC'

The preposition *po* introduces PPs with two functions: (1) An ablative function, in which the the NP expresses the source of movement (§11.2.1); (2) A locative function, in which the NP expresses the location of an action or event (§11.2.2).

11.2.1 Ablative function

The primary function of PPs headed by *po* is ablative, i.e. to indicate movement away from or out of a source. The ablative function of *po* is analysed as the primary function because, when this preposition undergoes zero-conversion for use as a verb, the meaning of the verb ('travel from') is derived from the preposition's ablative meaning (see §3.11). The source location is typically spatial, but can also be temporal. PPs headed by *po* 'ABL' typically occur as clausal adjuncts; as discussed in §6.2.11 above, they also (rarely) occur within an NP, as nominal adjuncts. The use of *po* 'ABL' to introduce a nominal adjunct was described in §6.2.11, and will not be discussed further here.

Examples (14)–(16) illustrate clausal adjuncts headed by *po* 'ABL' referring to spatial source locations. Examples (14) and (16) show that the complement of *po* 'ABL' can be a full NP; (15) is an example of a pronominal complement. In addition, while (14) and (15) show that the complement NP can be inanimate, (16) shows that the complement may also be animate.

(14) *jadi* latán **po** **doí**, ladók dela kabáre
jadi la-tán po doí la-dók del-a kabáre
so 3PL.AN-go ABL closed.bay 3PL.AN-leave PERL-PAR Kabare

'So they went from [Mayalibit] Bay, they left via Kabare.' **AM058_01.59**

(15) cán **po** **ana**
<y>tán po ana
<1SG>go ABL 3SG.INAN
'I walk away from it.' **AM287_el.**

(16) bey wane, yál an **po** **ábu** **bísar** **a**
bey wa-ne y-ál ana po ábu bísar a
sago DEM.CNT-PROX 1SG-take 3SG.INAN ABL grandparent respected.woman PERS
'As for this sago, I got it from Grandmother.' **AM069_02.01**

Example (17) illustrates a PP headed by *po* 'ABL' which refers to a temporal source.[2]

(17) ma nya*berkati* atúmne **po** **lányun** **wane** ayságado láw láw,
ma nya-berkati atúmne po lányun wa-ne ayságado láw láw
but 2SG-bless 1PC.E ABL later.afternoon DEM.CNT-PROX TERM far far
amin
amin
amen
'But bless us from this afternoon, forever and ever, amen.' **AM191_22.59**

11.2.2 Locative function

The second function of PPs headed by *po* is locative, i.e. to indicate static spatial location. Unlike the ablative function, PPs headed by *po* 'LOC' are only attested as clausal adjuncts, and cannot function as nominal adjuncts.

Three examples of PPs headed by *po* 'LOC' are given in (18)–(20). These examples show that the complement can be an NP, as in (18), or a pronoun, as in (19) and (20). In (18) and (19), the complements are inanimate, whereas the complement in (20) is animate.

2. Most attestations of temporal *po* 'ABL' are in **AM191** and **AM198**. Both of these recordings are reenactments of church services, and as such are heavily influenced by Standard Indonesian. It may be the case that the temporal use of *po* 'ABL' is not native, but is a calque on the Indonesian construction (see e.g. Kluge 2014: 419-421).

(18) mát **po** **lolua**
N-mát po lo-lu-a
3SG.AN-die LOC DEIC.N-SEA-AND

'He died at sea.' **AM204_1.27.01**

(19) ambyán wana nto **po** **áylo** bíti
ambyán wana N-to po áy-lo bíti
brushturkey DEF 3SG.AN-live LOC tree-place of.course

'Of course brushturkeys live in the forest.' **AM064_10.04**

(20) nik we bin ne nakátown **po** **ine**
ni-k we bin ne na-kátown po ine
POSS.I-1SG child woman ART 3SG-sit LOC 1SG

'My daughter sits on me.' **AM287_el.**

As discussed above in §11.1.4, both *be* 'LOC' and *po* 'LOC' have a locative function. For both of the locative uses of *be* 'LOC' given in §11.1.4, i.e. examples (11) and (12), speakers accept substitution by *po* 'LOC'. This is shown in (21), based on (11) above.

(21) itabyu kipa nabáy tu mákay ki pa **po / be**
i-tábyu ki=pa n-abáy tu mákay ki=i pa po be
3SG.AN-grandchild EMO=ART 3SG-play COM child EMO=NSG ART LOC LOC
bát **pa**
bát pa
ground ART

'Her grandchild played with the children on the ground.' **AM219_el.**

However, speakers did not accept the substitution of *po* 'LOC' by *be* 'LOC' for any of the examples in (18)–(20) above. Speakers could not articulate a difference between PPs headed by *be* 'LOC' and those headed by *po* 'LOC'. The inability to substitute *be* 'LOC' for *po* 'LOC' in examples (18)–(20) suggests that *po* 'LOC' is the default locative preposition.

From the attestations in the corpus, it seems that locative PPs headed by *be* 'LOC' may retain some of the semantics of movement expressed by the primary

allative function of that preposition; in other words, *be* 'LOC' retains allative overtones. Thus, *be* 'LOC' is acceptable in examples like (11) and (12) because, respectively, the grandchild has moved towards the ground in order to play with the other children, and the dragon has moved towards the river in order to bathe. In examples (18)–(20), however, there is no allative component to the locative meaning. Alternatively, it may be that *po* 'LOC' is felicitous when the clause expresses either a state or event, whereas *be* 'LOC' can only be used when the clause expresses an event. More data are required to investigate these hypotheses further.

11.3 Headed by *del, do* 'PERL, TEMP, TEXT'

The preposition *del* has three functions: (1) A perlative function, in which the NP complement expresses a path along which movement occurs (§11.3.1); (2) A temporal function, in which the NP complement expresses the time at which an event occurred (§11.3.2); (3) A textual function, in which the NP complement expresses something which the state or event expressed by the clause was done in accordance with (§11.3.3). When used with a perlative function, *del* 'PERL' has a fast-speech equivalent *do*; *do* cannot be used, however, with a temporal or textual function. PPs headed by *del, do* 'PERL' only occur as clausal adjuncts; they do not occur as nominal adjuncts.[3]

11.3.1 Perlative function

The primary function of PPs headed by *del/do* is perlative, i.e. to refer to a path along which a movement takes place. This function is analysed as the primary function because it is the most frequently attested.

Some examples of PPs headed by *del, do* 'PERL' with a perlative reading are given in (22)–(25). In (22), the speaker is explaining how the missionaries Carl Ottow, Johann Geissler, and Freerk Kamma spread Christianity around Indonesian Papua. The preposition *del* 'PERL' in this example is used to describe the paths along which the missionaries spread the Gospel.

3. The preposition *del* is related to the verbal suffix *-del* 'follow'. The reasons for considering *-del* 'follow' to be a suffix, rather than an instance of prepositional *del* 'PERL, TEMP', are outlined in §13.3.1.

(22) usól i be nut, aléna, *injil* ne be na*sebarkan* an
u-sól i be n-ut aléna injil ne be na-sebarkan ana
3DU-order 3SG.AN COMPL 3SG-carry PLH gospel ART PURP 3SG-spread 3SG.INAN

dela, aa, **Manokwar**, aa, **Serui**, **Biak**, anáti ayságado
del-a aa Manokwar aa Serui Biak aN=n-áti ayságado
PERL-PAR HES Manokwari HES Serui Biak 3SG.INAN=3SG-run TERM
Jayapura
Jayapura
Jayapura

'The two of them [Ottow and Geissler] ordered him [Kamma] to take, y'know, this Gospel, in order to spread it via, um, Manokwari, um, Serui, Biak; it went as far as Jayapura.'[4] **AM125_01.57**

Example (23) is from a conversation about the activities of the conservation NGO Flora and Fauna International, in the Ambel village Warimak. In this example, the speaker is asking about the routes the FFI employees take to reach their field sites.

(23) o, láp **do** **welo** **i** **amua**?
o l-áp do we-lo i a-mu-a
oh 3PL.AN-paddle PERL water-place NSG DEM.NCNT-IN-AND

'Oh, do they paddle along the rivers inside [the forest]?' **AM064_07.46**

In (24), the combination of the preposition *del* 'PERL' with the semantics of the verb *sun* 'enter' mean an illative, 'into' reading is the most appropriate.

(24) atúsun **dela** **áy** **pa** **igu** **pa**
atú-sun del-a áy pa i-gu pa
3PC-enter PERL-PAR tree ART 3INAN-hole ART

'They entered into the hole of the tree.' **AM042-03_00.27**

In examples (22)–(24), the complements are inanimate. Example (25) shows that the complement of *del* 'PERL' can be both animate, and a pronoun.

4. It is unlikely that it was Ottow and Geissler who ordered Kamma to spread Christianity through Indonesian Papua: Kamma was active in Raja Ampat and the Bird's Head between 1931–1962 (Aritonang and Steenbrink 2008: 348), several decades after the deaths of Ottow and Geissler (1862 and 1870, respectively).

(25) *pendeta* pa na*sabarkan* *injil* ne **dela** **sia**
pendeta pa na-sabarkan injil ne del-a sia
pastor ART 3SG-spread gospel ART PERL-PAR 3PL.AN

'The pastor spread the gospel amongst them.' **AM287_el.**

11.3.2 Temporal function

PPs headed by temporal *del* 'TEMP' refer to a particular period or point in time. This temporal reading is exemplified in (26)–(28). PPs headed by *del* 'TEMP' can take an animate NP complement, as in (26) and (27), or an inanimate complement, as in (28). Example (27) additionally shows that complement can be pronominal.

(26) ámanina mánsar i ahana, sia lól
áma-ni-n-a mánsar i a-hana sia l-ól
1PL.E-POSS.II-NSG.POSS-PAR old.man NSG DEM.NCNT-AND 3PL.AN 3PL.AN-stand
dela **hun** **hát** **apa**
del-a hun hát a-pa
TEMP-PAR king four DEM.NCNT-MID

'As for our ancestors, they stood [i.e., were alive] at the same time as those four kings.' **AM058_03.51**

(27) sia lól **dela** sia
sia l-ól del-a sia
3PL 3PL.AN-stand TEMP-PAR 3PL.AN

'They stood [i.e., were alive] at the same time as them.' **AM287_el.**

(28) aa, *Amerika* ne na*bom*a *Nagasaki* **dela** ***taun empat pulu empat***
aa Amerika ne na-bom-a Nagasaki del-a taun empat pulu empat
HES America ART 3SG-bomb-PAR Nagasaki TEMP-PAR year four tens four
itu
itu
DIST

'Umm, America bombed Nagasaki in the year of '44.' **AM125_06.00**

11.3.3 Textual function

Occasionally, prepositional *del* is used with a textual function, with a meaning 'in accordance with'. This function is shown in (29)–(31). Examples (29) and (30) show that the complement can be inanimate, whereas (31) shows that the complement can be animate. In addition, (30) shows that the complement can be pronominal.

(29)

lagáin	an	be	we	lómo,	we	lómo	**dela**	**sárita**
la-gáin	ana	be	we	lómo	we	lómo	del-a	sárita
3PL.AN-name	3SG.INAN	OBL	water	blood	water	blood	TEXT-PAR	story

lanin	**bábun**	**wa**	**macúbey**	**labun**	**kábyo**
la-ni-n	bá~bun	wa	macúbey	la-bun	kábyo
3PL.AN-POSS.II-NSG.POSS	REDUP~kill	NMC.DEF	human.being	3PL.AN-kill	evil.spirit

i	**pa**...
i	pa...
NSG	ART

'They call it "Blood Water", "Blood Water" in accordance with the story of their war [in] which human beings killed evil spirits...' **AM066_25.58**

(30)

lagáin	an	be	we	lómo	**dela**	**ana**
la-gáin	ana	be	we	lómo	del-a	ana
3PL.AN-name	3SG.INAN	OBL	water	blood	TEXT-PAR	3SG.INAN

'They call it "Blood Water" in accordance with it [e.g., the story].' **AM287_el.**

(31)

lagáin	an	be	we	lómo	**dela**	**mánsar**	**i**	**ahana**
la-gáin	ana	be	we	lómo	del-a	mánsar	i	a-hana
3PL.AN-name	3SG.INAN	OBL	water	blood	TEXT-PAR	old.man	NSG	DEM.NCNT-AND

'They call it "Blood Water" in accordance with the ancestors.' **AM287_el.**

11.4 Headed by *mi(n)* 'INSTR, LOC'

The preposition *min*, and its fast-speech counterpart *mi*, has two functions: (1) An instrumental function, in which the complement NP expresses an instrument

used to carry out the action communicated by the clause (§11.4.1); (2) A locative function, in which the complement NP expresses the location of the situation communicated by the clause (§11.4.2). PPs headed by *mi(n)* can only be used as clausal adjuncts; they do not occur as nominal adjuncts.

11.4.1 Instrumental function

The primary function of *mi(n)* is to head PPs that have an instrumental reading, i.e. PPs that communicate that the action of the clause was carried out using the referent of the NP complement. It is unknown whether *mi(n)* 'INSTR' can take an animate complement.

Examples of PPs headed by *mi(n)* 'INSTR' are given in (32)–(34). Example (34) shows that the complement can be pronominal.

(32)

ido	nál	i	ido	nál	i	**mia**	**wanmáni**	**wapa**	
ido	n-ál	i	ido	n-ál	i	mi-a	wan-máni	wa-pa	
so.then	3SG-take	3SG.AN.O	FRA	3SG-take	3SG.AN.O	INSTR	canoe-bird	DEM.CNT-MID	

'So then when he took her, he took her with a flying canoe.' **AM020_08.32**

(33)

... lahey	**mina**	**bey**,	bey	bi...	
la-hey	min-a	bey	bey	bi	
3PL.AN-live	INSTR-PAR	sago	sago	just	

[On his parent's generation:] 'They lived by sago, there was only sago...'
AM032_04.47

(34)

yatápe	kayáw	**min**	**ana**
ya-tápe	kayáw	min	ana
1SG-stab	pig	INSTR	3SG.INAN

'I stab the pig with it [a knife].' **AM287_el.**

There does not appear to be any difference between PPs headed by *mi(n)* 'INSTR', and those headed by *be* 'INSTR' described in §11.1.3. This is shown in (35). In this

example, based on (7) above, speakers accept either *be* 'INSTR' or *mi(n)* 'INSTR', with no difference in meaning.[5]

(35) natápe i **be** / **min** **túlu**
na-tápe i be min túlu
3SG-stab 3SG.AN.O INSTR INSTR knife

'She stabbed her with a knife.' **AM219_el.**

11.4.1.1 Instrumental applicative constructions

Both *be* 'INSTR' and *mi(n)* 'INSTR' can be used in what I will refer to as 'instrumental applicative constructions'. These constructions apply to verbal clauses headed by transitive verbs (or ambitransitive verbs used bivalently; see §4.1.2). In these constructions, the underlying object becomes an adjunct, and an instrumental adjunct argument becomes the object.

Consider example (36), from the elicited corpus. In this example, (36a) is a clause with an instrumental adjunct; (36b) is the instrumental applicative derived from this clause.

(36) a. [ine]$_S$ ce [dún]$_O$ [mi tátul pa]$_{ADJUNCT}$
ine <y>te dún mi tátul pa
1SG <1SG>spear fish INSTR k.o.spear ART

'I spear fish with a *tátul* spear.'

b. [ine]$_S$ ce [tátul pa]$_O$ [mi dún]$_{ADJUNCT}$
ine <y>te tátul pa mi dún
1SG <1SG>spear k.o.spear ART INSTR fish

'I use a *tátul* spear to spear fish.' **AM219_el.**

In both (36a) and (36b), the subject is the same: the 1SG pronoun *ine*. However, while the entity being speared in (36a) is the object, *dún* 'fish', this argument is relegated to an adjunct in (36b), in a PP headed by *mi* 'INSTR'. Likewise, while in (36a) the instrument used to spear the fish (*tátul* 'kind of spear') is the referent

5. One of the transcription assistants, **AEG**, would regularly transcribe [mi(n)] as <be>, supporting the analysis that the functions of the two prepositions are identical. One speaker, **MW**, suggested that *be* 'INSTR' is used in more 'everyday language' (PM: *kata harian*).

the complement of the preposition *mi* 'INSTR', in (36b), it is the object of the verb *te* 'spear'. As can be seen in these examples, and the translations given for them, instrumental applicative constructions serve to foreground the instrumental adjunct, while backgrounding the information expressed by the underlying object.

Dixon and Aikhenvald (2000: 13-14) discuss three prototypical characteristics of applicative constructions as they apply to transitive clauses: (1) the subject (their A) remains where it is, and an adjunct becomes a core argument; (2) the underlying object (their O) becomes a adjunct (which it may be possible to omit); and (3) there is an overt marker of the applicative process (e.g., some morphological process). Constructions of the type given in (36b) meet all of these prototypical characteristics, with one exception: aside from the change in word order, there is no formal marking signalling the applicative in Ambel.

Examples of instrumental applicative constructions from the naturalistic corpus are given in (37) and (38). Example (37) is the instrumental applicative formed with *be* 'INSTR', and (38) is an example formed with *mi(n)* 'INSTR'. In these examples, the instrumental objects and the adjuncts of the applicative constructions are marked.

(37) ... i ne wa **tin** **[an]$_{O}$** **[be** **cun** **ibit**
i ne wa t-in ana be cun i-bít
sago.sander ART FOC.SPEC 1PL.I-make 3SG.INAN INSTR sago.biscuit 3INAN-side
ne]$_{Adjunct}$ be simajúlu hey apa
ne be si-majúlu hey a-pa
ART PURP 3NSG.INAN-be.smooth good ART.NMC-MID

[Demonstrating how to make sago biscuits:] '...It is the *i* sago sander that we use on the sides of the sago so that they are nice and smooth.' **AM069_32.46**

(38) ... ámsabyain i ne wa **ámapu** **[asi]$_{O}$**
ám-sabyái-n i ne wa ám-ápu asi
1PL.E-anus-NSG.POSS NSG ART FOC.SPEC 1PL.E-wrap.smoked.sago 3NSG.INAN
[mi **cunhaw** **ne]$_{Adjunct}$** apa
mi cun-haw ne a-pa
INSTR baked.sago-sago.funnel ART ART.NMC-MID

'[The children said:] "It was [flavour from] our anuses that we used to wrap up the smoked sago".' **AM188_16.05**

In examples (37) and (38), both the object and the adjunct arguments are fully realised. In (37), the instrumental object is the pronoun *ana* '3SG.INAN' (coreferent with the focussed head noun *i* 'sago sander'), and the adjunct NP is headed by *bít* 'side'. In (38), the instrumental object is *asi* '3NSG.INAN' (coreferent with the focussed head noun *sabyái* 'anus'), and the adjunct NP is headed by *cun-haw* 'baked.sago-sago.funnel'.

In all of the other naturalistic examples of the applicative construction in the corpus, however, the instrumental object argument is omitted (see §8.3.3). Examples of applicative constructions in which the instrumental object is omitted are given in (39) and (40).

(39)

"ape	lé	wane,	tabláp	**[Ø]$_O$**	[be	anán,]$_{ADJUNCT}$	tabláp	**[Ø]$_O$**	
ape	lé	wa-ne	ta-bláp		be	anán	ta-bláp		
but	thing	DEM.CNT-PROX	1PL.I-cook		INSTR	food	1PL.I-cook		

[be	dún,]$_{ADJUNCT}$	tabláp	**[Ø]$_O$**	[be	kayáw,]$_{ADJUNCT}$	tabláp	**[Ø]$_O$**	[be
be	dún	ta-bláp		be	kayáw	ta-bláp		be
INSTR	fish	1PL.I-cook		INSTR	pig	1PL.I-cook		INSTR

nyu]$_{ADJUNCT}$"
nyu
river.eel

'[The two women who taught the Nok clan how to use fire said:] "[We two used to be afraid as well,] but this thing [fire], we use [it] to cook food, we use [it] to cook fish, we use [it] to cook pig meat, we use [it] to cook river eel".' **AM066_32.16**

(40)

pol	ido	nhamári	ankia,	nhamári	anki	
pol	ido	N-ha-mári	<ki>ana	N-ha-mári	<ki>ana	
after	FRA	3SG.AN-CAUS-hot	<EMO>3SG.INAN	3SG.AN-CAUS-hot	<EMO>3SG.INAN	

beposa,	ido	nakahótol	**[Ø]$_O$**	**[mi**	**ki]$_{ADJUNCT}$**
beposa	ido	na-kahótol		mi	ki=i
after.that	FRA	3SG-squeezed		INSTR	EMO=3SG.AN.O

'After that, he reheated it [the water], after he had reheated it then he used [it] to massage him.' **AM020_06.42**

11.4.2 Locative function

A minor function of *mi(n)* is to head PPs which receive a locative reading. This use of *mi(n)* 'LOC' in the corpus is rare; only a handful of examples are attested. It is unknown whether *mi(n)* 'LOC' can take either animate or pronominal complements. The preposition *mi(n)* 'LOC' is historically related to the verb *mi(n)* 'be located'.[6]

Examples of *mi(n)* 'LOC' with a locative reading are given in (41) and (42).

(41)

ntoróy	i	**mina**	**lopane**
N-tó-róy	i	min-a	lo-pa-ne
3SG.AN-live-live.with	3SG.AN.O	LOC-PAR	DEIC.N-SIDE-PROX

[On a member of the Fiay clan who had been exiled:] 'He stayed with him [his cross-cousin] at the place at the side here.' **AM135_06.44**

(42)

meKabét	ne	*sebenarnya*	ni	*hak*	**mina**	**Andéy**
mé-Kabét	ne	sebenarnya	ni-Ø	hak	min-a	Andéy
person-Kabet	ART	actually	POSS.II-3SG.AN	rights	LOC-PAR	Andey

'In actual fact, the Kabet clan has land rights at Andey.' **AM135_11.19**

11.5 Headed by *aya, ay(a)sága(i)do* 'TERM'

The prepositions *aya*, *ay(a)sága(i)do* 'TERM' head PPs with a terminative reading, i.e. a PP that indicates arrival at the endpoint expressed by the NP complement. This endpoint can be either spatial, or temporal; in either case, appropriate English translations include 'until' or 'as far as'. PPs headed by *aya*, *ay(a)sága(i)do* 'TERM' are only attested as clausal adjuncts.

6. While the verbal use of most of the other prepositions discussed in this chapter are analysed as instances of zero-conversion from the preposition to derive a verb, the relationship between *mi(n)* 'LOC' and *mi(n)* 'be located' is analysed as a historical, rather than a synchronic, connection. Whereas verbs derived from prepositions take Class I verbal inflection, suggesting a synchronic derivational process, the verb *mi(n)* 'be located' takes Class IV inflection. As Class IV inflection is not productive (§4.1.1.1), this suggests *mi(n)* 'be similar to' is not synchronically derived from the preposition *mi(n)* 'LOC'.

Note also that, while the instrumental use of *mi(n)* is synchronically far more frequent, the meaning of the verb *mi(n)* 'be located' is related to the semantics of the locative use of *mi(n)*. This suggests that historically, the primary function of prepositional *mi(n)* was locative.

There appears to be no difference in meaning between the prepositions *aya* and *ay(a)sága(i)do*. Both can be used with either a spatial or a temporal reading.[7] Both *aya* and *ay(a)sága(i)do* are formally identical to, but syntactically distinct from, the clausal conjunctions *aya*, *ay(a)sága(i)do* 'until' (§14.3.2.2). In addition, *aya* 'TERM' (but not *ay(a)sága(i)do*) is formally identical with the clausal modifier *aya* 'EMPH' (§3.4.2).

The examples given in (43) and (44) demonstrate the spatial reading of PPs headed by *aya*, *ay(a)sága(i)do* 'TERM'. In example (43), the speaker is telling the researcher about how far the land belonging to the Fiay clan stretches.

(43)

anáti	**aya**	**Jalo**,	anáti	**aya**	**Bupóp**
an=n-áti	aya	Jalo	an=n-áti	aya	Bupóp
INAN=3SG-run	TERM	Jalo	INAN=3SG-run	TERM	Bupop

'It [Fiay land] runs as far as Jalo, it runs as far as Bupop.' **AM033_08.22**

Example (44) comes from a folk tale. At this point in the story, a young boy who has been raised by his grandmother in the forest decides that he is going to try to meet some other people.

(44)

kintán,	ntán	**ayságado**	**kalíw**	**pa**
ki=N-tán	N-tán	ayságado	kalíw	pa
EMO=3SG.AN-go	3SG.AN-go	TERM	village	ART

'He walked, he walked as far as the village.' **AM113_01.17**

Examples (45) and (46) show the temporal reading of PPs headed by *aya*, *ay(a)sága(i)do* 'TERM'. Example (46) shows that the complement can be both pronominal, and animate.

(45)

jadi	láw	**aya**	**lanyán**	**ilim**	**wapa**...
jadi	l-áw	aya	lanyán	i-lim	wa-pa
so	3PL.AN-harvest.sago	TERM	day	ORD-five	DEM.CNT-MID

'So they harvest sago until the fifth day...' **AM032_03.54**

7. The preposition *ay(a)sága(i)do* may have once been morphologically complex, comprised of the preposition *aya* 'TERM', the frame marker *ido* 'FRA', and an unindentified element *saga*. There is some similarity in form between Ambel *ay(a)sága(i)do* and the Tidore preposition *sado* 'until', with a similar meaning (van Staden 2000: 180); therefore another possibility is that it is a borrowing from Tidore.

(46) ... mánsar wa ni *turunan* **ayságado** **atúmne**
mánsar wa ni-Ø turunan ayságado atúmne
respected.man FOC.SPEC POSS.II-3SG.AN descent TERM 1PC.E
wane
wa-ne
DEM.CNT-PROX

[In answer to the question 'Who are the Paku line of descent?':] '...it was the man who is our ancestor [lit: 'who had descendents until us'].' **AM135_02.37**

11.6 Headed by *tu* 'COM'

PPs headed by the comitative preposition *tu* 'COM' communicate that the action or event of the clause was carried out in the company of the referent of the NP complement. PPs headed by *tu* 'COM' are only attested as clausal adjuncts. The preposition *tu* 'COM' is homophonous with but distinct from the NP and VP coordinator *tu* 'and' (see §6.3.1 and §14.3.2.1).

Some examples of PPs headed by *tu* 'COM' are given in (47)–(49). Example (47) shows that the complement of *tu* 'COM' can be pronominal, while (48) and (49) exemplify the preposition with a full NP complement. Additionally, while (47) and (48) show that the NP complement can be animate, (49) is an example of *tu* 'COM' taking an inanimate complement.

(47) ... "i, nabá **tu** **ine** rín"
i n-abá tu ine rín
yes 3SG-stay.behind COM 1SG CONT

'[The old woman said:] "Yes, he will stay behind with me."' **AM098_00.15**

(48) ... náraru, aa, mákay i pa, nasúy **tu** **mánsar** ***kepala*** **ne**
n-áraru aa mákay i pa n-asúy tu mánsar kepala ne
3SG-gather HES child NSG ART 3SG-speak COM respected.man head ART

'...He gathered, umm, the people [of the village]; he spoke with the head [of the village].' **AM125_02.41**

(49) awa nyawól **tu** ***kapal*** **luma** ido mé wa latán
awa nya-wól tu kapal lu-ma ido mé wa la-tán
2SG 2SG-anchor COM ship SEA-DIST FRA person NMC.DEF 3PL.AN-go
alima, nyém si po
a-li-ma ny-ém si po
ART.NMC-LAND-DIST 2SG-see 3PL.AN.O NEG

[On the great distance between the safe anchoring spot and the shore at Dorekar in the Ayau Islands:] 'If you are anchored with the ship at sea, then as for the people walking on land, you can't see them.' **AM204_1.30.53**

In the examples given in (47)–(49) above, the PPs are adjuncts to intransitive clauses. Example (50) shows that these PPs can also be adjuncts to transitive clauses, in this case the clause headed by *ciptakan* 'create'.

(50) Hunhún a na*ciptakan* si **tua** **lé** **wap** to
hun~hun a na-ciptakan si tu-a lé wa-pa to
REDUP~king NAME 3SG-create 3PL.AN.O COM-PAR thing DEM.CNT-MID IAM

'God has created them along with that thing [that they could use to make fire].'
AM057_01.34

The preposition *tu* 'COM' can be used with the preposition *mi(n)* 'INSTR' (§11.4.1) to give a reading 'together with'. This is shown in (51), in which the speaker is explaining the procedure for making fire before matches or lighters were widely available.

(51) lál **tu** **mina** **pa** **ikanu** **pa** to
l-ál tu min-a pa i-kánu pa to
3PL.AN-take COM INSTR-PAR k.o.tree 3INAN-leaf ART IAM

'They took [the *báli* wood] together with the leaf of a *pa* tree.' **AM057_00.34**

11.7 Headed by *la* 'ORI'

The preposition *la* 'ORI' has an orientative function. The orientative is similar to the allative, described in §11.1.1, in that it expresses movement towards a goal; however, while the allative implies that the goal was reached, the orientative

does not (cf. the difference between English 'to' and 'towards').[8] PPs headed by *la* 'ORI' only occur as clausal adjuncts. These PPs are most frequently attested with NP complements headed by directional nouns, as in (52), or nouns referring to geographical locations (including placenames), as in (53).

(52) ném **la líl** ido lolima láp pa andáraw
n-ém la líl ido lo-li-ma láp pa aN=dáraw
3SG-look ORI landwards FRA DEIC.N-LAND-DIST fire ART 3SG.INAN=be.smoking

'When he looked towards the land, a fire was smoking inland.' **AM135_06.26**

(53) yo Go, anáti **la Puán**, *trus* anáti aya Koknakalép
yo Go aN=n-áti la Puán trus aN=n-áti aya Koknakalép
then Go INAN=3SG-run ORI Puan next INAN=3SG-run TERM Koknakalep[9]

[Describing the boundaries of Fiay land:] 'Then [from] Go, it runs towards Puan, and then it runs as far as Koknakalep.' **AM058_05.57**

As shown in (54), however, *la* 'ORI' can also introduce a PP that takes an animate NP complement. This example also shows that the NP complement can be a pronoun.

(54) *bisa* ido mumtán **la ine** ataya
bisa ido mum-tán la ine a-tay-a
be.capable FRA 2DU-go ORI 1SG DEM.NCNT-FRONT-AND

[Three young men making plans to hang out the following day:] 'If [you] can, then you two [should] come towards me at the front [of the village].' **AM029_00.50**

The preposition *la* 'ORI' is related to the prefix *la-* 'DEIC.PREP', which derives deictic prepositions from deictic units. Deictic prepositions are described in §12.2.6.

8. Haspelmath (2012a: 515) cites Watters' grammar of the Tibeto-Burman language Kham (2002: 62-63) as the source of the term 'orientative'.
9. The place name *Koknakalép* comes from *kok*, an archaic word for 'snake' (*kok* is still the regular word for 'snake' in Metsam; §2.6.2), and *na-kalép* '3SG-lick'. I do not know what the story is behind this name.

11.8 Headed by *ma* 'VEN'

The preposition *ma* 'VEN' has a venitive function: it expresses movement of an entity towards the location of the speaker.[10] PPs headed by *ma* 'VEN' only occur as clausal adjuncts. In addition, the preposition *ma* 'VEN' can only take as its complement one of the seven directional nouns discussed in §3.2.4.

Figure 11.1 shows the results of systematic work used to explore the semantics of *ma* 'VEN' (**AM282**). In this session, the speaker stood at various points on a football field, represented in the figure by crosses. A child was asked to walk a path from the landwards side of the field, towards the sea. The starting point of the child is represented by the letter F (for 'figure'; see §12.1), and the child's path is represented with an arrow. Each time the child walked along the path, the speaker was asked, from his different vantage points, whether he could describe the event using the sentence given in (55).

(55) N-tán ma lúl
3SG.AN-go VEN seawards

'He is walking towards the sea.'

As Figure 11.1 shows, the preposition *ma* 'VEN' was only possible when the speaker was standing in position 1, i.e. when the child was walking directly towards the speaker. In all other positions, sentence (55) was not possible.[11]

A naturalistic example of *ma* 'VEN' is given in (56). In this example, the speaker, who is sitting on one of the walls of the reservoir in Go, is encouraging his brother to climb up to sit with him, so that he will also be in shot of the video camera.

10. The term 'venitive' refers to movement towards a deictic centre, as used by, for example, Hooper (2002) and Williams (2008: 24).
11. For positions 2–8, the speaker spontaneously substitued *ma* 'VEN' for *la* 'ORI' in sentence (55); see previous section.

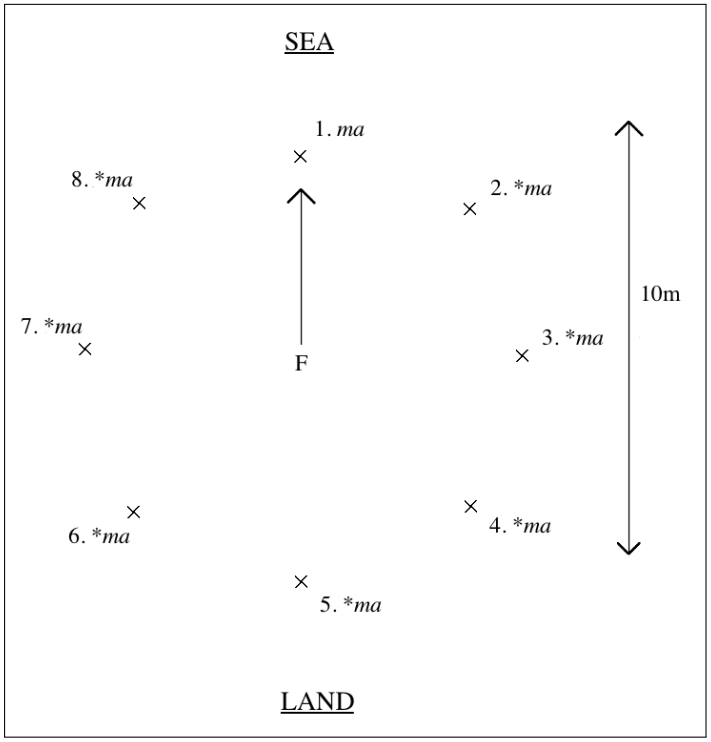


Figure 11.1: The semantics of the venitive preposition *ma* 'VEN'

(56)

awa	nsá	**ma**	**il**!	awa	nyabí	nyakáton	po	lopup
awa	N-sá	ma	il	awa	ny-abí	nya-káton	po	lo-pu-pa
2SG	2SG-ascend	VEN	upwards	2SG	2SG-want	2SG-sit	LOC	DEIC.N-DOWN-MID

be?
be
PURP

'Come up here (towards me)! Why do you want to sit at the bottom there?'

AM056_00.28

11.9 Headed by *dadi* 'SIM'

The preposition *dadi* has a similative meaning; that is, it communicates that one entity is similar to another entity. The preposition *dadi* 'SIM' is related to the verb *dadi* 'be similar to'.[12]

12. Like the relationship between the preposition *mi(n)* 'LOC' and the verb *mi(n)* 'be located' discussed in footnote 6 above, the verb *dadi* 'be similar to' is not analysed as synchronically derived

Examples of the use of *dadi* 'SIM' are given in (57) and (58). Example (57) comes from a conversation in which one speaker is explaining the documentary objectives of the researcher to several other speakers.

(57) ... nagisáp lé **dadi** **ane**...
na-gisáp lé dadi a-ne
3SG-search.for thing SIM DEM.NCNT-PROX

'...She is looking for things like this [i.e., recordings of conversations]...'
AM064_16.11

Example (58) comes from the series of tales about the trickster Mansahur. In this story, Mansahur has laid down in a river to hide himself. As he lies in the river, the moss grows over him, and he uses this as a disguise.

(58) salámur simtúm atép i be nin ni *diri*
salámur si-mtúm atép i be n-in ni-Ø diri
k.o.moss 3NSG.INAN-grow touching 3SG.AN.O and 3SG-make POSS.II-3SG.AN self
pa **dadi** **salámur** **i** **ne**
pa dadi salámur i ne
ART SIM k.o.moss NSG ART

'The *salámur* moss grew on him and he made himself [so he was] like the *salámur* moss.' **AM188_02.29**

11.10 Headed by *letem* 'SIM'

The preposition *letem* 'SIM', like *dadi* 'SIM', expresses similarity. This preposition is related to the clausal conjunction *letem* 'like, for example' (§14.3.2.4).

Examples of PPs headed by *letem* 'SIM' are given in (59) and (60). Example (59), from the story of Genesis, shows that the complement can be animate, and pronominal. Example (60) shows that the complement can be inanimate.

from the preposition *dadi* 'SIM'. Like the verb *mi(n)* 'be located', *dadi* 'be similar to' takes Class IV inflection; as described above and in §4.1.1.1, Class IV inflection is not productive.

(59) “umíy an áre, ido anta umbe **letem awa**”
um-íy ana áre ido anta um-be letem awa
1DU.E-eat 3SG.INAN DEON.must so.then later 1DU.E-become SIM 2SG

‘[Eve said to God:] “[The snake said] we two had to eat it, so then later we [could] become like you”.’ **AM198_03.44**

(60) mánsar lál pa ni matén pa anhey **letem mandép**
mánsar lál pa ni-Ø matén pa aN=hey letem mandép
respected.man big ART POSS.II-3SG.AN home ART 3SG.INAN=good SIM cloud
ane ni?
a-ne ni
DEM.NCNT-PROX POS.INT

‘Heaven [lit: ‘the big man’s home’] is beautiful like this cloud, right?’ **AM064_03.43**

The difference between PPs headed by *dadi* ‘SIM’ and those headed by *letem* ‘SIM’ is unknown.

11.11 Summary

A summary of the characteristics of the prepositions and prepositional phrases discussed in this chapter is given in Table 11.2.

Table 11.2: A summary of prepositions and prepositional phrases

PP HEADED BY		FUNCTION		COMPLEMENT				VERBAL USE		FORMALLY SIMILAR TO
		Clausal Adjunct	Nominal Adjunct	NP	Pronoun	Animate	Inanimate	Derived verb	Meaning of verb	
be	ALL	✓	✗	✓	✓	✓	✓	✓	'travel to'	Oblique marker (§8.2.1.1)
	BEN	✓	✗	✓	✓	✓	✓	✗	–	*be* 'become'
	INSTR	✓	✗	✓	✓	✓	✓	✗	–	Conjunction (§14.3.2)
	LOC	✓	✗	✓	✓	✓	✓	✗	–	Complementiser (§14.2.2)
po	ABL	✓	✓	✓	✓	✓	✓	✓	'travel from'	–
	LOC	✓	✗	✓	✓	✓	✓	✗	–	
del, do	PERL	✓	✗	✓	✓	✓	✓	✗	–	Verbal suffix (§13.3.1)
	TEMP	✓	✗	✓	✓	✓	✓	✗	–	
	TEXT	✓	✗	✓	✓	✓	✓	✗	–	
mi(n)	INSTR	✓	✗	✓	✓	?	✓	✗	–	*mi(n)* 'be located' (see f.n. 6)
	LOC	✓	✗	✓	?	?	✓	✗	–	
aya, ay(a)sága(i)do	TERM	✓	✗	✓	✓	✓	✓	✓	'travel as far as'	Conjunction (§14.3.2.2) / Clausal modifier (§3.4.2)
tu	COM	✓	✗	✓	✓	✓	✓	✓	'be with'	NP coordinator (§6.3.1.1)
la	ORI	✓	✗	✓	✓	✓	✓	✓	'travel in the direction of'	–
ma	VEN	✓	✗	✓[a]	✗	✗	✓	✓	'travel towards speaker'	–
dadi	SIM	✓	✗	✓	✓	✓	✓	✗	–	*dadi* 'be similar to' (see f.n. 12)
letem	SIM	✓	✗	✓	✓	✓	✓	✗	–	Conjunction (§14.3.2.4)

[a] Only directional nouns.

Chapter 12

Space

There are many different linguistic strategies that speakers of Ambel can use to locate an entity in physical space. These strategies are as follows:

A **Prepositions of space and movement**: For example, allative and locative *be*, locative and ablative *po*, and perlative *del, do*. Prepositional phrases were discussed in Chapter 11, and will not be discussed further here.

B **Verbs of motion**: For example, *tán* 'go, walk', *dók* 'leave; arrive', *sun* 'enter', and so on. As the dimension of space with regards to these verbs is lexical, rather than grammatical, they will not be discussed further here. Details on these and other verbs of motion can be found in the supplementary lexicon in Appendix E.

C **Locative clauses**: Locative clauses were discussed in §8.2.2. A special kind of locative predicate, deictic locative predicates, will be discussed below – see point E(4).

D **Directional nouns**: For example, *lúl* 'seawards direction', *líl* 'landwards direction', and so on. Directional nouns were discussed in §3.2.4, and will not be returned to here.

E The following **deictic units**, discussed in §12.2.1:

- **Demonstrative roots**: There are four demonstrative roots in Ambel: *ne* 'PROX' for entities close to the Speaker; *pa* 'MID' for entities further away from the Speaker, but still within the shared space of the Speaker

and Addressee; *mana* 'DIST' for entities outside of the shared space of the Speaker and Addressee, or for entities moving along some trajectories (generally towards the Speaker); and the andative *hana* 'AND' for entities moving along certain trajectories (not towards the Speaker). The semantics and pragmatics of demonstrative roots are described in detail in §12.2.1.1.

– **Directional stems**: These stems are formed of one of seven directional prefixes referring to the physical environment, which attach to one of the four demonstrative roots just described. (As will be described below, *mana* 'DIST' and *hana* 'AND' have the allomorphs *ma* 'DIST' and *a* 'AND' when a directional prefix attaches.) These directional prefixes are as follows: *ta-* 'FRONT', *mu-* 'BACK, IN', *i-* 'OUT, UP' *pu-* 'DOWN', *lu-* 'SEA', *li-* 'LAND', *pa-* 'SIDE'. The semantics and pragmatics of directional stems are described in detail in §12.2.1.2.

These deictic units – i.e., the demonstrative roots and the directional stems – are used as the base from which the following types of words are derived:

(1) **Demonstratives**: Ambel has two types of demonstrative: contrastive demonstratives, formed with the prefix *wa-* 'DEM.CNT', and non-contrastive demonstratives, formed with the prefix *a-* 'DEM.NCNT'. These prefixes attach to the deictic units. A full description of contrastive and non-contrastive demonstratives, including the differences between the two types of demonstrative and the full range of functions for each type of demonstrative, can be found in §12.2.2.

(2) **Deictic articles**: As introduced in §6.2.9.2 above, deictic articles consist of an uninflected deictic unit (either a demonstrative root, or a directional stem), and are used to modify definite, specific NPs, where the speaker wishes to give additional information about the location of the referent. Deictic articles are revisited briefly in §12.2.3.

(3) **Deictic nouns**: Deictic nouns are formed with the prefix *lo-* 'DEIC.N'. This prefix derives nouns that refer deictically to a specific location. The form, distribution, and function of deictic nouns is discussed in §12.2.4.

(4) **Deictic locative predicates**: Introduced in §8.2.2 above, locative clauses are used to state the location of an entity in space. The locative

predicates given in that section can also be used as prefixes, which attach to demonstrative roots or directional stems to derive deictic locative predicates. Deictic locative predicates are discussed in §12.2.5.

(5) **Deictic prepositions**: Deictic prepositions are formed with the prefix *la-* 'DEIC.PREP'. The derived preposition is used to indicate the direction in which an entity is travelling. Deictic prepositions are discussed in §12.2.6.

(6) **Demonstrative verbs**: Demonstrative verbs are formed through the prefixation of the prefix *la-* 'DEM.V' to one of two the demonstrative roots *ne* 'PROX' or *pa* 'MID'. The derived verb is used to express exophoric manner or similarity, or to refer anaphorically or cataphorically to the discourse. Demonstrative verbs are discussed in §12.2.7.

F **Left and right**: The words *papét* 'left' and *pacu* 'right' are discussed briefly in §12.3.

G **Aeolian and solar phenomena**: Reference to the directions of the wind and the locations of the rising and the setting of the sun can be used to locate an entity in space. This use of aeolian and solar phenomena is discussed in §12.4.

This chapter is structured as follows. §12.1 is a brief introduction to the theoretical framework used to interpret the ways of expressing spatial orientation in Ambel. In §12.2, the deictic units introduced above (demonstrative roots and directional stems) and the forms derived from these deictic units (viz. demonstratives, deictic articles, deictic nouns, deictic locative predicates, deictic prepositions, and demonstrative verbs) are discussed in detail. This is followed in §12.3 by a discussion of the ways in which 'left' and 'right' are expressed. This chapter concludes in §12.4, with a discussion of the ways in which the directions of the wind and the rising and setting of the sun are used in spatial reference.

12.1 Theoretical background

Before embarking on a description of the ways in which space is referred to in Ambel, a terminological outline is required. The framework described in this section is based in large part on Levinson (1996).

Levinson describes three frames of reference that can be used to locate an entity (henceforth referred to as the 'figure'), relative to something else (henceforth: the 'ground'). The first is an **intrinsic** frame of reference, in which the figure is located relative to the ground using features intrinsic to the ground (for example, the ground's front, back, or sides). In an intrinsic frame of reference, the 'volumetric centre' of the ground is the starting point from which the location of the figure is reckoned – this 'starting point' will henceforth be referred to as the 'origo'. An example of a sentence utilising an intrinsic frame of reference is *The squirrel is at the front of the car*, where the figure (the squirrel) is located relative to the ground (the car); the car is the origo, and an intrinsic part of the car (its front) is used to locate the squirrel.

The second frame of reference is a **relative** frame of reference. In a relative frame of reference, the ground is no longer the origo; the origo instead is some 'viewpoint'. The viewpoint is the point of view from which the situation is perceived – most often, but not necessarily, the Speaker. An example of the use of a relative frame of reference is *The squirrel is to the left of the car*. In this example, there are three points of reference: the figure (the squirrel), the ground (the car), and the viewpoint (in this case, the speaker). In a relative frame of reference, the viewpoint acts as the origo, providing the orientation which is used to locate the figure. If the position of the viewpoint changes, so too does the description of the location of the figure. Thus, while the squirrel is to the left of the car when the Speaker is standing on one side of the car, if the squirrel were to stay put and the Speaker move to the opposite side of the car, the squirrel would now be to the right of the car from the viewpoint of the Speaker. The description *The squirrel is to the left of the car* would thus no longer apply.

The third frame of reference described by Levinson is an **absolute** frame of reference. In this frame of reference, the figure is located relative to the ground using a set of coordinates derived from the wider environment. The cardinal directions are an example of an absolute frame of reference, for example: *The squirrel is to the north of the car*. In an absolute frame of reference, it is the ground as a whole that acts as the origo. Notably, the description *The squirrel is to the north of the car* remains true regardless of which way the car is facing (unlike in an intrinsic frame of reference), or the location of the viewpoint (e.g., where the Speaker is standing in relation to the car; unlike in a relative frame of reference).

We now proceed to a description of the ways in which entities are located in their physical environment in Ambel.

12.2 Forms based on deictic units

Like many other SHWNG languages, Ambel has a rich set of deictic units, which combine to give detailed information about the location and motion of an entity in its physical environment.[1] As introduced above, there are two types of deictic unit: demonstrative roots, and directional stems, the latter of which are formed through the prefixation of a directional prefix to a demonstrative root.

The structure of this section is as follows. In §12.2.1, the semantics and pragmatics of the demonstrative roots and directional stems will be described. Following this, each of the forms derived from the deictic units will be discussed: contrastive and non-contrastive demonstratives (§12.2.2), deictic articles (§12.2.3), deictic nouns (§12.2.4), deictic locative predicates (§12.2.5), deictic prepositions (§12.2.6), and demonstrative verbs (§12.2.7).[2]

12.2.1 The deictic units: Semantics and pragmatics

In this section, the deictic units are described in detail. Demonstrative roots are described in §12.2.1.1, and directional stems in §12.2.1.2.

12.2.1.1 Demonstrative roots

The demonstrative system of Ambel is a speaker/addressee-anchored system, in that the choice of demonstrative depends on the location of a Figure (F) relative to both the Speaker (S) and the Addressee (A; see Levinson 2004: 109). The four roots were briefly characterised above, in the introduction to this chapter. A more

1. While the term 'deixis' is used to refer to any context-dependent unit or property in a language (for example, pronouns as person deixis; tense marking or adverbials such as *now* or *yesterday* as time deixis; demonstratives as space deixis; honorifics as social deixis; etc – see Levinson 2004), in this section I use it solely to refer to spatial deixis.

2. While the primary function of all of the derived forms discussed in these sections is spatial, some of the derived forms – particularly the demonstratives – have secondary, non-spatial functions; for example, in discourse deixis. In the interests of streamlining the discussion, the non-spatial functions of the forms derived from deictic units will be discussed alongside the spatial functions.

All of the forms discussed in this section are candidates for the prosodic phrase-medial elision of word-final /a/, described in §2.4.7 above.

detailed characterisation of the oppositions between the four demonstrative roots is given in Table 12.1. The choice of demonstrative depends in part on whether F is static or moving. For this reason, the demonstrative roots used to refer to both static and moving Fs are provided in this table.

Table 12.1: Demonstrative roots

Root	Gloss	Used to refer to a figure (F) which is:	
ne	'PROX'	Static:	Within the shared space of S and A; near to S
		Moving:	Within the shared space of S and A; moving towards S
pa	'MID'	Static:	Within the shared space of S and A; not near to S
		Moving:	Within the shared space of S and A; moving towards A
mana	'DIST'	Static:	S and A are static, F is not in the shared space of S and A A is static; S is moving towards F, or towards A but not away from F
		Moving:	F moving towards S, or towards A but not away from S
hana	'AND'	Static:	A is static; S is moving towards A and away from F, or towards neither F nor A
		Moving:	F moving towards A and away from S, or towards neither S nor A

The data used to determine the deictic reference of these four demonstrative roots were collected in systematic work with three speakers of Ambel. The methods used in these sessions were adopted in part from Wilkins' demonstrative questionnaire (2001), and in part from van den Heuvel's work with speakers of Biak (2006: 333-341). These sessions took place on the football field in Kapadiri.

For each speaker, there were four different sessions. First, two sessions were carried out with the goal of determining the deictic reference of the demonstrative roots when the figure (F) is static. In these sessions, a bag was placed at different points on the football field. The participant (S) was asked to refer to the bag with one of the demonstrative roots in Table 12.1, by instructing an addressee (A) to look at the bag, using an adnominal contrastive demonstrative (i.e., a demonstrative prefixed with *wa-* 'DEM.CNT'; see §12.2.2.1). The frame that the speaker was asked to use is given in (1).

(1) ny-ém *tas* **wa-(ne/pa/mana/hana)**
2SG-see bag DEM.CNT-(PROX/MID/DIST/AND)

'Look at this/that/etc bag!'

In the first of these two sessions, S and his/her A were standing at opposite ends of the football field, facing one another; in the second, S and A were located closer to one another, at the same end of the football field, facing in the same direction (towards one end of the field). The results of the first of these two sessions are given in Figure 12.1, and the results from the second are given in Figure 12.2.

In Figures 12.1 and 12.2, we see similar patterns. First, the participants did not use the root *hana* 'AND' at all in these sessions; this is because the primary function of *hana* 'AND' is to identify the trajectory of moving figures, and F in these sessions was a static bag. If the bag was in the direct vicinity of S, the proximal demonstrative root *ne* 'PROX' was used. If the bag was not in the vicinity of S, but was still within the 'shared space' between S and A, then the medial root *pa* 'MID' was used.[3] Note that the boundary between *ne* 'PROX' and *pa* 'MID' is not equidistant between S and A – it is not the case that *ne* 'PROX' is used for entities that are closer to S than A, and *pa* 'MID' is used for entities that are closed to A than S. Instead, what we see is that if F is in the approximately one third of the 'shared space' area that is closest to S, it is referred to with *ne* 'PROX'; if is within the remaining shared space area, *pa* 'MID' is used. Finally, the distal root *mana* 'DIST' was used for entities that were outside of the shared space between S and A; this was true even if F was comparatively close to either S or A, for example if it was a few metres behind S. The root *mana* 'DIST' cannot be used if F is within the shared space of S and A.

As may be expected, the area considered to be the shared space between S and A – i.e., the space in which *mana* 'DIST' cannot be used – changes when S and A are oriented differently. In Figure 12.1, where S and A are at opposite ends of the football field, facing towards one another, this shared space encompasses the entire area between S and A, and extends to the side of and behind both S and A. In Figure 12.2, however, where S and A are not facing one another, but facing in the same direction, the shared space encompasses the area between S and A (and is thus smaller, because S and A are closer together), and also extends out a little way in the direction that S and A are both looking.

Following on from these two sessions, two more sessions were held with each of the three speakers, in order to determine the deictic reference of the

3. See van den Heuvel (2006: 333-335) for a discussion of a similar 'shared space' in Biak.

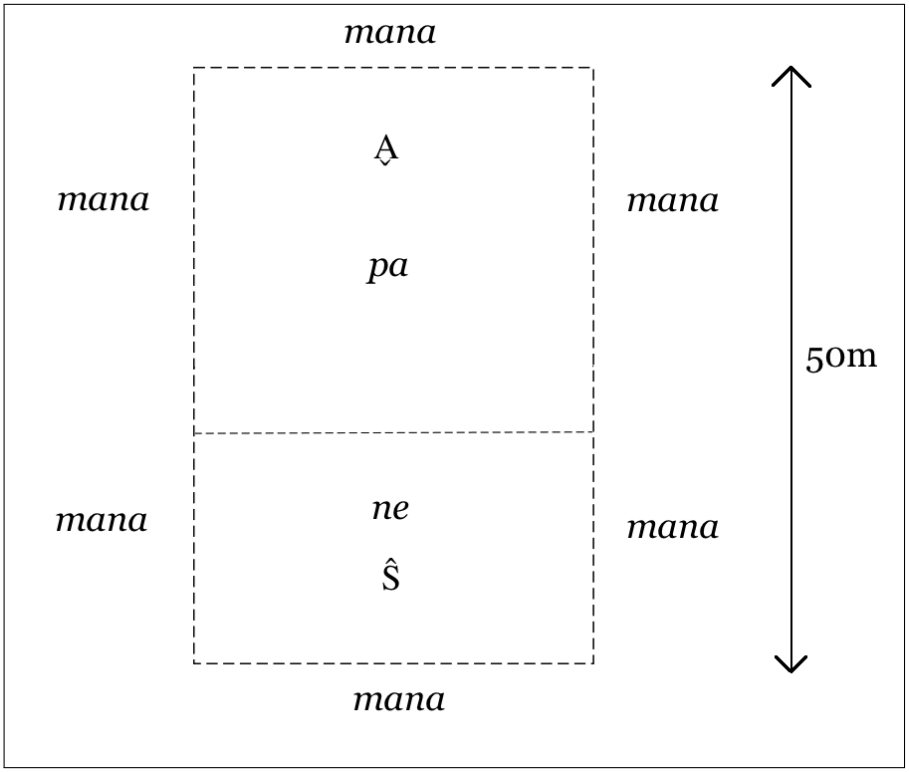


Figure 12.1: Demonstrative roots:
Static F; S and A at opposite ends of football field

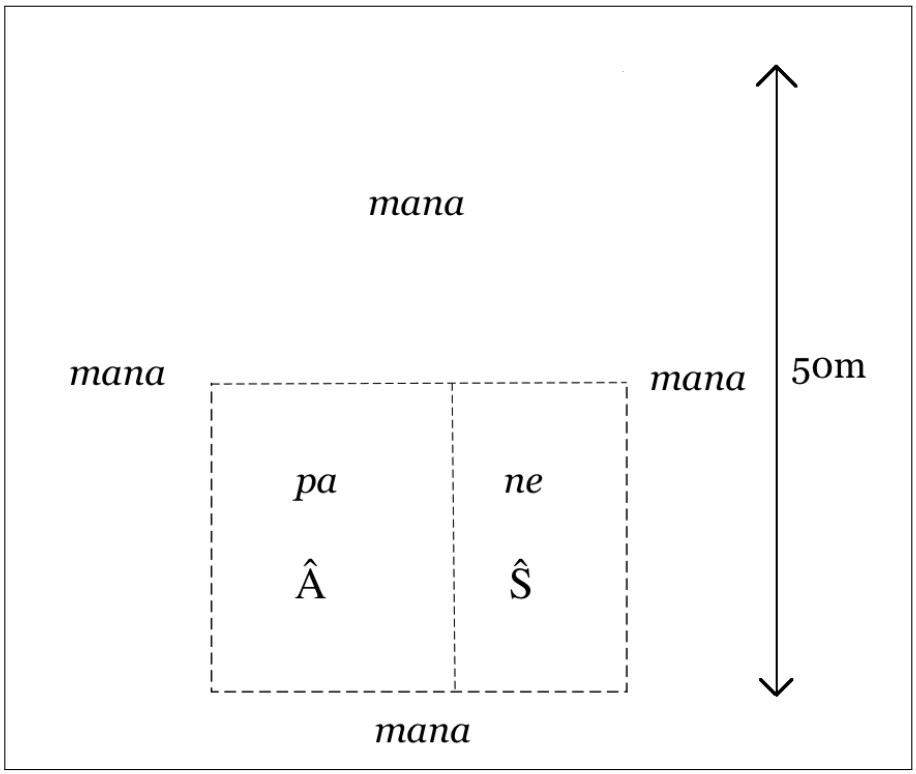


Figure 12.2: Demonstrative roots:
Static F; S and A at the same end of football field

demonstrative roots when either F or S is moving.[4] In both of these sessions, F was a child – S was asked to order A to look at that child, using a contrastive demonstrative (formed with *wa-* 'DEM.CNT') and one of the demonstrative roots in Table 12.1. The frame for these sessions is given in (2).

(2) ny-ém mákay **wa-(ne/pa/mana/hana)**
2SG-see child DEM.CNT-(PROX/MID/DIST/AND)

'Look at this/that/etc child!'

In the first of these two sessions, S and A stood at opposite ends of the football field. As the child moved along various trajectories, S was asked to give the frame sentence. The results of this session are given in Figure 12.3.

As can be seen in Figure 12.3, the deictic reference of the demonstrative roots *mana* 'DIST' and *hana* 'AND' is a complex picture. Movements (8) and (10) show that *mana* can be used for a figure moving towards S, but not towards A, and movements (2) and (4) show that *mana* can be used for a figure moving towards A, but not necessarily towards S. A tempting analysis might be that *mana* marks entities moving into the same area of 'shared space' described above (i.e., the space within which a static figure must be referred to with *ne* 'PROX' or *pa* 'MID'). However, only *hana*, not *mana*, is possible for movement (11), in which F is moving into the shared space between S and A, but towards neither one specifically. Movement (7) shows that, if F is moving towards A but away from S, *hana* must be used. Finally, movements (11) and (16) show that *hana* cannot simply be characterised as marking a figure moving away from S. In both of these movements, F is not moving *away* from S; rather, F is *not moving towards* S. Based on the data given in Figure 12.3, the most succinct characterisation of the difference between *mana* and *hana* when referring to a moving figure is that *mana* 'DIST' is used for entities moving towards S or A (or both), but cannot be used if the entity is moving away from S. For all other movements (i.e., movement towards A but away from S; and movements towards neither S nor A), *hana* 'AND' is used.[5]

4. There was not time to collect data to determine the deictic reference of the demonstrative roots if A is moving; if both S and A, S and F, or A and F are moving; or if S, A, and F are all moving. This would be an interesting avenue for future research.

5. For movements (8) and (13), *ne* 'PROX' was sporadically used by the participants; and for movements (2) and (4), *pa* 'MID' was also a possibility. This shows that *ne* 'PROX' can be used for a figure close to S, which is moving towards S; and *pa* 'MID' can be used for a figure close to A, and moving towards A. However, when asked, all participants agreed that *mana* 'DIST' can also be used.

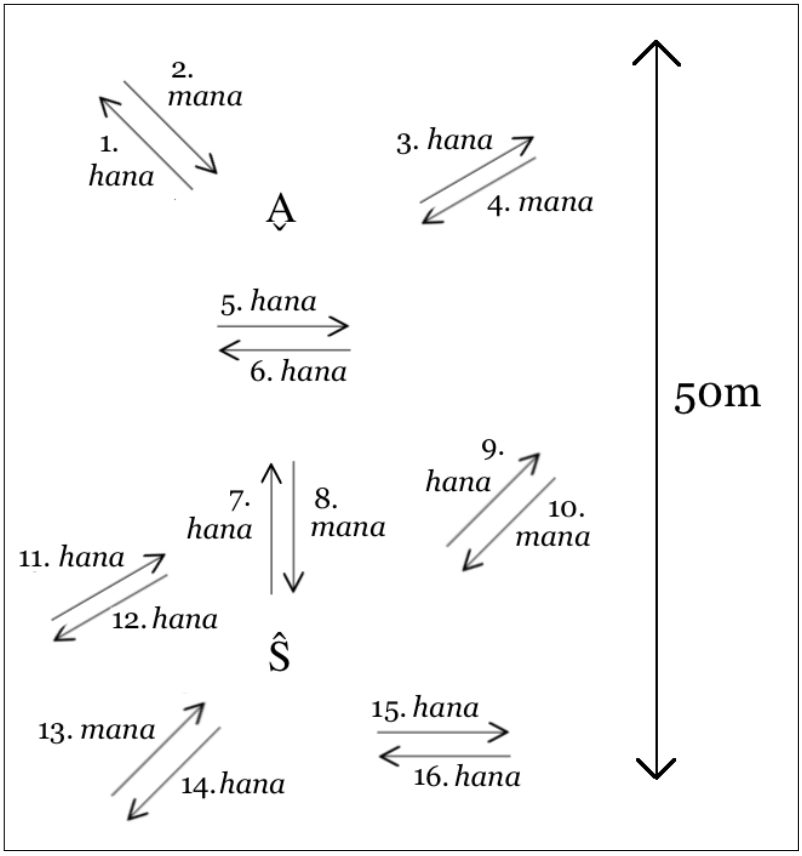


Figure 12.3: Demonstrative roots:
Moving F; S and A at opposite ends of football field

In the second of the two sessions looking at movement, A was asked to stand at one end of the football field, and F (a child) was asked to remain in one location at the other end of the football field. In this session, S was moving; as S was moving, s/he was asked to order A to look at the static child, using the same frame given in (2) above. The results of this session are given in Figure 12.4.

If S is moving and F is static, we see similar patterns to those reported in Figure 12.3. However, Figure 12.4 shows that rather than the trajectory of F determining the demonstrative root (as in Figure 12.3), it is the trajectory of S that determines whether *mana* or *hana* is used. Movements (2) and (3) in Figure 12.4 show that, if S is moving towards A at the time of speaking, *mana* is used; movements (6), (8), and (11) show that if S is moving towards F at the time of speaking, *mana* can also be used. Movement (3) also shows that the *hana/mana*

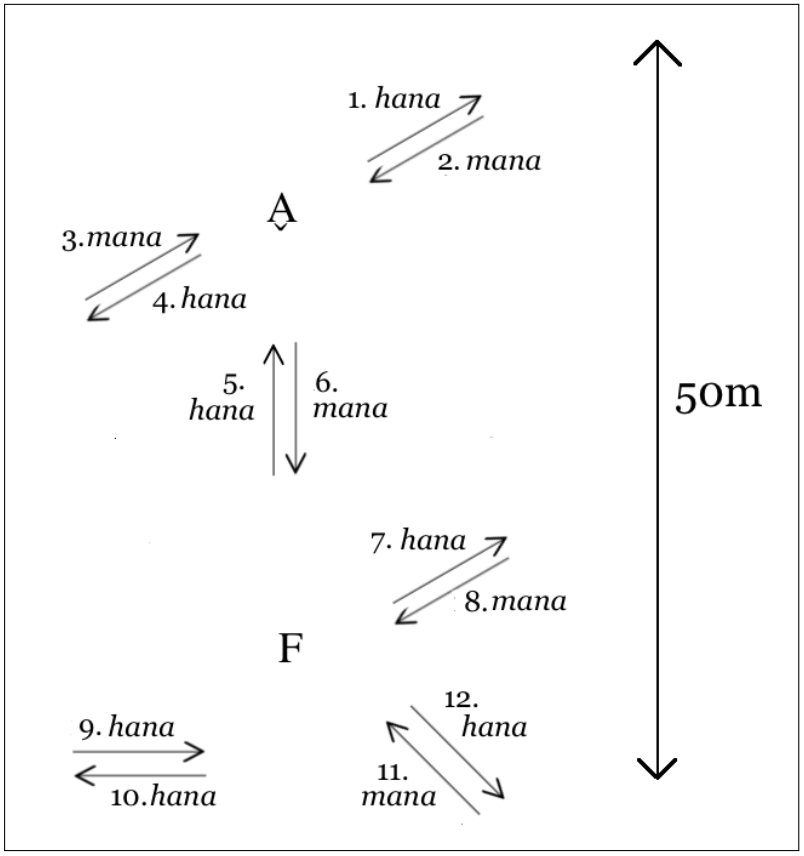


Figure 12.4: Demonstrative roots:
Moving S; A and F at opposite ends of football field

opposition cannot be easily characterised in terms of 'increasing distance between S and F' and 'decreasing distance between S and F'. (This was an earlier hypothesis – in most cases in Figures 12.3 and 12.4, *mana* is used when the distance between S and F is decreasing; otherwise, *hana* is used. However, in movement (3), the distance between S and F is increasing, but *mana* is used for this movement.) Movement (5) shows that, if S is moving towards A but away from F, *hana* must be used; in this case, the movement away from F overrides the use of *mana*, just as described above for a moving figure that has a trajectory towards A but away from S in Figure 12.3. Based on these data, the most succinct characterisation of the *mana*/*hana* opposition if S is moving and F is static is that *mana* 'DIST' is used if S is moving towards F, or towards A but not away from F; otherwise, *hana* 'AND' is used.

12.2.1.2 Directional stems

The directional stems, outlined in the introduction to this chapter, are comprised of demonstrative roots, to which one of seven directional prefixes are attached. While the demonstrative roots express the distance and/or movement of F relative to S and A, the directional prefixes provide more detailed information about the location of F relative to the wider environment.

The seven directional prefixes are given in Table 12.2. Most of these directional prefixes have grammaticalised from nouns, generally from the equivalent directional noun (see §3.2.4). For comparison, the source nouns are also included in Table 12.2.

Table 12.2: Directional prefixes

Prefix	Gloss	Meaning	Source noun	
lu-	'SEA'	seawards	lúl	'seawards direction'
li-	'LAND'	landwards	líl	'landwards direction'
ta(y)-	'FRONT'	at the front	tá	'front'
mu-	'IN'	inside	mul	'inwards direction'
	'BACK'	at the back		*((unknown))*
i-	'UP'	upwards, upriver	il	'upwards direction'
	'OUT'	outside	li	'outwards direction'
pu-	'DOWN'	downwards, downriver	pul	'downwards direction'
pa(y)-	'SIDE'	to the side	pál	'side; sideways direction'

Any of the directional prefixes in Table 12.2 can attach to any of the demonstrative roots in Table 12.1 in the previous section. This results in 28 different directional stems, given in Table 12.3 (repeated from §3.6). There are two points of allomorphy to note in the directional stems. First, when the demonstrative roots *mana* 'DIST' and *hana* 'AND' are prefixed with directional prefixes, they have the allomorphs *ma* 'DIST' and *a* 'AND'. Second, the two /a/-final prefixes *ta-* 'FRONT' and *pa-* 'SIDE' have the allomorphs *tay-* and *pay-*, respectively. These allomorphs are used when the prefix attaches to the root *a* 'AND', in order to resolve the vowel hiatus arising from two adjacent /a/ segments.

Table 12.3: Directional stems

Prefix \ Root		ne 'PROX'	pa 'MID'	mana 'DIST'	hana 'AND'
lu-	'SEA	lu-ne	lu-pa	lu-ma	lu-a
li-	'LAND'	li-ne	li-pa	li-ma	li-a
ta(y)-	'FRONT'	ta-ne	ta-pa	ta-ma	tay-a
i-	'UP, OUT'	i-ne	i-pa	i-ma	i-a
pu-	'DOWN'	pu-ne	pu-pa	pu-ma	pu-a
mu-	'IN, BACK'	mu-ne	mu-pa	mu-ma	mu-a
pa(y)-	'SIDE'	pa-ne	pa-pa	pa-ma	pay-a

Directional stems are used in either an intrinsic frame of reference, or in an absolute frame of reference, depending on the scale of the reference. When used on a small scale, an intrinsic frame of reference is used. In an intrinsic frame of reference, the ground can be an entity such as a house, a canoe, or a human. In this context, the directional prefix refers to an intrinsic part of the ground, and the demonstrative root expresses the position or movement of F relative to S and A.

Example (3) illustrates the use of a directional stem in an intrinsic frame of reference. This example comes from a children's tale, in which a man leaves his cousin behind, to go and find his lost arrow. When he leaves, he plants two flowering bushes in front of his cousin's house, telling him that if the bushes wither, that means he is in trouble. Example (3) is what the cousin tells his wife and child when he sees that the bush has withered. In this example, the cousin's house is taken as both the ground and origo; the location of the flowering bushes are located relative to one side of the house, the front side.

(3) "cándel béle a wana kura, léna, **aysu**
<y>tán-del béle a wana kura léna ay-su
<1SG>go-follow cross.cousin PERS DEF because PLH tree-flower

atama simagaláy rani"...
a-ta-ma si-magaláy rani
DEM.NCNT-FRONT-DIST 3NSG.INAN-be.withered since

'[He said:] "I will follow Cross-cousin [in order to find him], since, y'know, these flowers at the front [of the house] there are withered"...' **AM020_06.02**

If an intrinsic frame of reference is used with a house as the ground/origo, the side of the house that faces the street, through which guests enter, is considered to be the front (*ta-* 'FRONT') of the house, and the kitchen is located towards the back (*mu-* 'BACK') of the house. The remaining two sides of the house are both referred to with *pa-* 'SIDE'. If one is inside the house, the outside is referred to with *i-* 'OUT', and if one is outside, the inside is referred to with *mu-* 'IN'.

Directional stems are also used in an absolute frame of reference. There are at least three interrelated absolute frames of reference, depending on the scale of reference: whether the figure is being located within a village, elsewhere on Waigeo, or in the wider geographic area.[6]

Within a village, the immediate environment provides the coordinates for the frame of reference: the directional prefixes locate F relative to the ground (either the village itself, or some other ground; see below), and the demonstrative root locates the position or movement of F relative to S and A. The coordinates provided by the local geography are different, to some extent, for each village, depending on the location and layout of the village. As described in §1.1.1, all 11 Ambel villages are nowadays located on or near the coast. Every village has a horizontal seawards/landwards axis, in which roughly half of the village, the area closest to the coast, is referred to with *lu-* 'SEA', and the other half, the area closest to the forest behind the village, is referred to with *li-* 'LAND'. Each village also has a vertical upwards/downwards axis, with the area around the point of highest elevation in the village referred to with *i-* 'UP', and the area around the point of lowest elevation in the village referred to with *pu-* 'DOWN'. In addition, a village has a 'front' (*ta-*) area, which encompasses the area around the pier, where visitors to the village usually land (this may be an extension from the layout of the house discussed above, where the 'front' is the side through which visitors enter). A village may also have a side (*pa-*), at one or both ends of the village, or outside of the immediate bounds of the village. Figure 12.5 is a stylised map of Kapadiri, showing how these areas apply to this particular village.

6. An absolute frame of reference is sometimes referred to as a system in which there are 'fixed coordinates'. Note, however, that this does not necessitate that the coordinates are the same in any environment. The natural environment provides the coordinates for the absolute frame of reference in Ambel (the *li/lu* land/sea axis being the most obvious example of this). Thus, as one moves around the island, the cardinal direction which one would refer to as, for example, 'seawards' and 'landwards' changes accordingly.

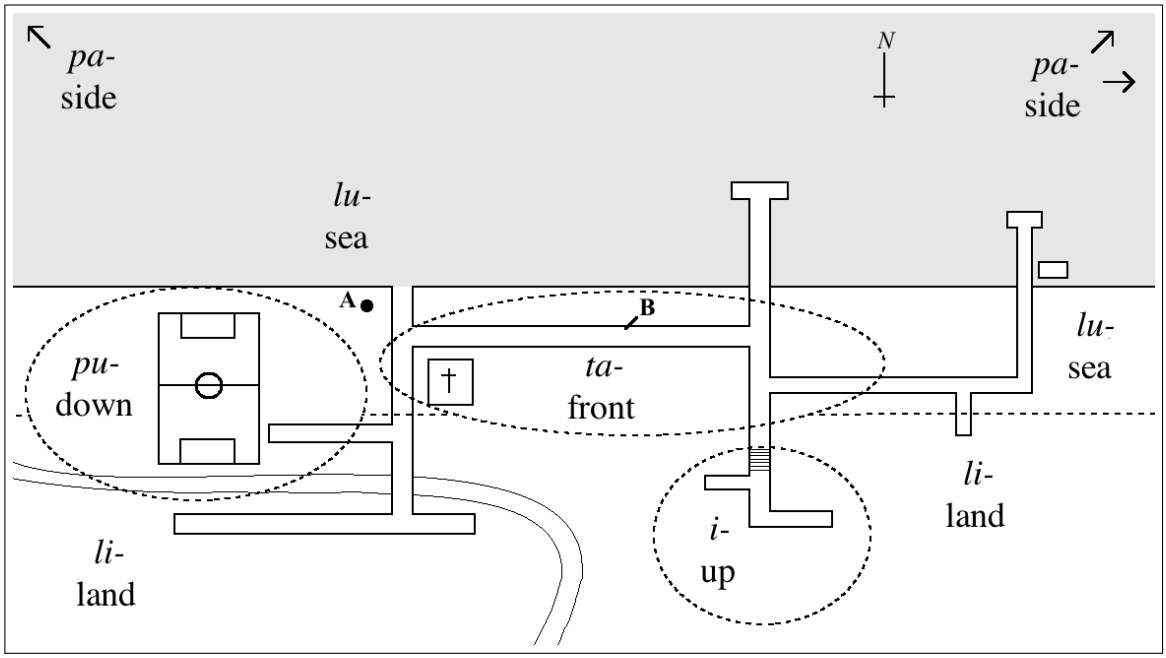


Figure 12.5: Directional prefixes in the area around Kapadiri

Figure 12.5 shows that the area referred to by *i-* 'UP' in Kapadiri is located towards the south-east of the village. This area is a sharp hill, on which there are several houses. The lowest area in the village, referred to with *pu-* 'DOWN', is the area around the football field. In Kapadiri, *pa-* 'SIDE' is used to refer to the shores on the other side of Fofak Bay, or to the gardens around the old village (*Kampung Tua*), to the east of the village. As with other villages, the area towards the shore is referred to with *lu-* 'SEA', the area inland is referred to with *li-* 'LAND', and the area around the pier is referred to with *ta-* 'FRONT'.[7]

Which directional prefix is used when the village provides the coordinates for the frame of reference depends on the ground that the speaker is using to locate the figure. In example (4), the speaker is using the whole village as the ground. In this example, the speaker is explaining how Kapadiri has expanded as the population has grown over the years. At the time of speaking, the speaker was

7. The map shows that there are two piers in Kapadiri, one in the centre of the village, and one in the west end of the village. The central pier is made of cement, and has been built comparatively recently. This pier is now the main pier of the village. The eastern pier is made of wood, and is not used very frequently; certainly not for disembarking visitors. During my most recent visit in 2017, the villagers had begun dismantling this eastern pier. It is interesting to note that, if *ta-* 'FRONT' ever was used to refer to the area around the eastern pier before the central pier was built, it is no longer.

sitting at location A in Figure 12.5, and was referring to the road marked with the letter B.[8]

(4)

ula*parenta*	mákay	sia	**lataya**,		ido	la*buka*	*jalan*
ula-parenta	mákay	sia	la-tay-a		ido	la-buka	jalan
3DU-command	child	3PL	DEIC.PREP-FRONT-AND		so.then	3PL.AN-open	road

wataya
wa-tay-a
DEM.CNT-FRONT-AND

'The two of them commanded some of the young people [of the village to move] towards the front, so then they built [lit: 'opened'] that road at the front.'

AM125_12.11

Because in (4) the speaker is using the village as the ground, the location of the speaker is not relevant to the choice of directional prefix; no matter where a speaker is in the village, that road will always be referred to with the prefix *ta-* 'FRONT'. However, if a speaker is using herself as the ground, then the choice of directional prefix will depend on where she is located. Consider Figure 12.6, which zooms in on the area around the football field and church given in Figure 12.5.

Using the village as a whole as the ground, the figure (F) in Figure 12.6 would be referred to with the prefix *pu-* 'DOWN', regardless of the location of the speaker. However, if the speaker were to use herself as the ground, then F would be referred to using *ta-* 'FRONT' if the speaker is in position 1, *li-* 'LAND' if the speaker is in position 2, and either *lu-* 'SEA' or *pu-* 'DOWN' if the speaker is in position 3. This is not because a relative frame of reference is being used; the coordinates themselves are still reckoned from the environment of the village, rather than a different viewpoint. Different directional prefixes can be used as the speaker moves because she is using herself as the ground – thus, one might paraphrase the use of *ta-* 'FRONT' when the speaker is in position 1 as 'F is to the front side of the village

8. The use of the andative root *a* 'AND' in this example suggests that the speaker conceptualises the road as running away from the point where he is sitting. This analysis is supported by the accompanying gesture that the speaker makes – with his arm outstretched and palm to the ground, he flicks his hand away from him.

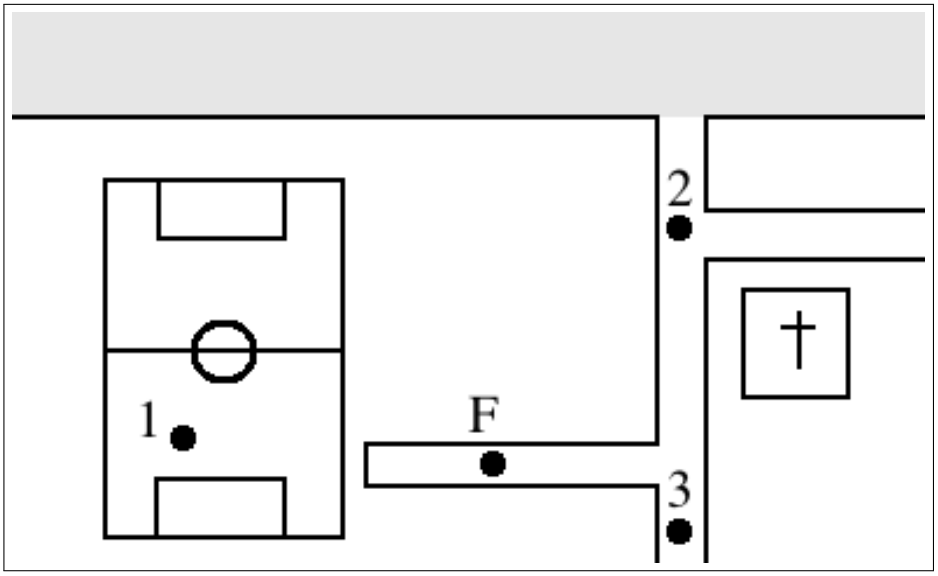


Figure 12.6: Directional prefixes in the area around Kapadiri: Detail

from me', and the use of *li-* 'LAND' when the speaker is in position 2 as 'F is to the landwards side of the village from me'.[9]

On the next largest scale up from the level of the village, the coordinates provided by the island of Waigeo can also be used to locate a figure. The directional prefixes used to refer to the different areas of the island are given in Figure 12.7.

The system of coordinates shown in Figure 12.7 utilises a combination of natural features of the island, and an east/west axis corresponding to the directionals *i-* 'UP' and *pu-* 'DOWN', respectively. With regards to the natural features, Figure 12.7 shows that, similar to the village-level coordinates discussed above, the island-level system has a landwards/seawards axis, whereby the interior of the island is referred to with *li-* 'LAND', and the coast and seawards regions are referred to with *lu-* 'SEA'. In addition, Mayalibit Bay provides an orientation point: the area around the north end of the Bay is referred to with *mu-* 'IN', while the area around the mouth of the Bay is referred to with *pu-* 'DOWN'. Similarly, the area around Kabare and its suburbs (the small area on the north-east

9. The cardinal directions, an absolute frame of reference familiar to speakers of English, can also be used in this way. A figure in a single location can be referred as *northwards*, *southwards*, *eastwards*, or *westwards* by the speaker, depending on the speaker's location.

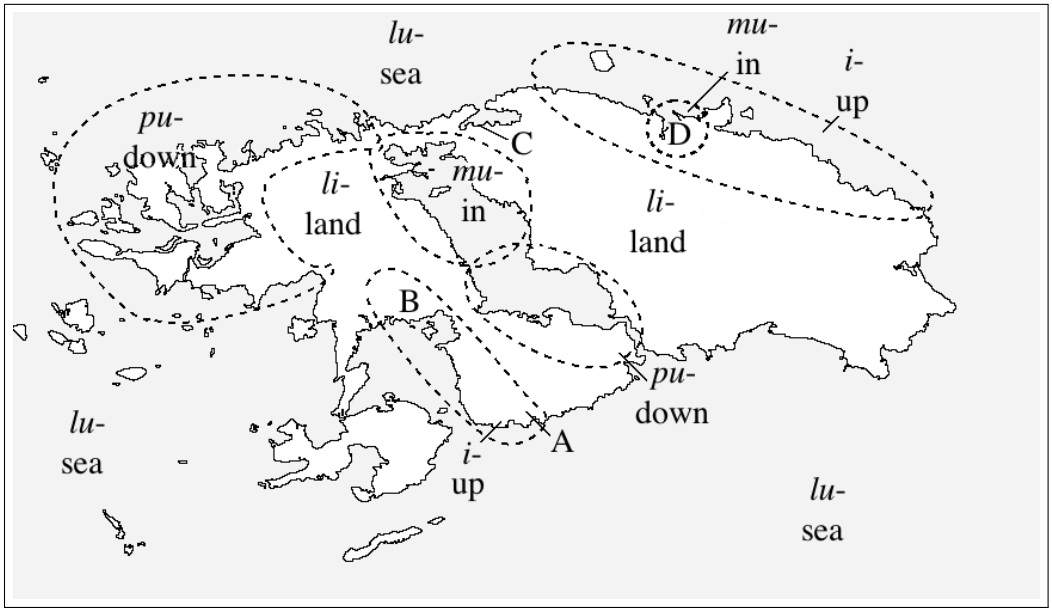


Figure 12.7: Directional prefixes on Waigeo

coast of Waigeo, marked with 'D'), is referred to with *mu-* 'IN'; presumably this is because one enters a small bay to reach these settlements.

The area around the north-west coast of Waigeo, encompassing the Ma'ya villages Salyo and Selpele, is referred to with *pu-* 'DOWN'; and the area around the north-east coast, where the Biak villages Boni, Warwanai, and Mnir are located, is referred to with *i-* 'UP'. This is based on the coordinates provided by the wider geographic area, in which (roughly) east is 'upwards' and west is 'downwards'. A description of the *i/pu* east/west axis on the worldwide scale will be returned to below.

As well as the north-east coast of Waigeo, the area around Waisai and Kabui Bay (marked in Figure 12.7 with 'A' and 'B', respectively) is also referred to with *i-* 'UP'. The reasons for this are unclear. One possibility may be that this area has (historically and in the present day) been an area of socio-political importance. The present-day administrative centre of the Raja Ampat regency is Waisai; as described in §1.1.1, before Waisai was founded, the administrative centre was in nearby Saonek. In addition, the village of Wauyai on Kabui Bay is a sacred site for the people of Raja Ampat: as described in §1.1.2, the seven eggs from which the eponymous four kings emerged hatched here, and one of these eggs remains there

to this day (see van der Leeden 1983b, 1989). The use of *i-* 'UP' to refer to this area may therefore have social origins (compare *to go up to London* in southern varieties of British English).[10]

An example of the use of island-level coordinates to locate an entity is given in (5). The speaker in this example is explaining how, the following day, he will embark on a trip from Kapadiri (where he is being recorded; marked in Figure 12.7 with 'C') to Kabare (marked in Figure 12.7 with 'D'). In this example, he modifies the placename with a non-contrastive demonstrative (see §12.2.2.2). The directional stem of this non-contrastive demonstrative is comprised of the directional prefix *mu-* 'IN', and the demonstrative root *a* 'AND', which is used to mark that in order to reach this destination, the speaker will move away from his present location.

(5) atúmamayal asi be lo **Kabáre amua**
atúma-mayál asi be lo Kabáre a-mu-a
1PC.E-sell 3NSG.INAN.O LOC place Kabare DEM.NCNT-IN-AND

'We will sell them [the sea cucumbers] in Kabare inside there.' **AM176_00.10**

Finally, Figure 12.8 shows how the directional markers work in an absolute frame of reference spread over a wider geographical area, encompassing the Raja Ampat archipelago, Halmahera, and the Bird's Head of New Guinea.

Figure 12.8 shows that the rest of the Raja Ampat archipelago is considered by speakers of Ambel to be to the 'side' (*pa-*). Heading out northwards into the Pacific Ocean, past the Ayau islands and towards Palau, is 'seawards' (*lu-*). The Bird's Head itself is considered to be 'landwards' (*li-*); this makes sense if one considers that New Guinea is the largest nearby landmass. Finally, as mentioned above, the area roughly west of Waigeo, towards Halmahera and beyond, is considered to be 'downwards' (*pu-*), whereas the area to the east of the island, towards Manokwari, Cenderawasih Bay, and beyond, is considered to be 'upwards' (*i-*).[11] The use of 'down' as one moves towards Halmahera and 'up' as one moves towards Cenderawasih Bay has been attested in several other languages across

10. A similar socio-political explanation is provided by van Staden (2000: 332) for the use of an 'up' directional in Tidore, which refers to movement towards the now-defunct sultan's palace.
11. I am not sure how far east one can use *i-* 'UP', but *pu-* 'DOWN' is attested referring to locations on a global scale, for example Java and Europe. Occasionally, *i-* 'OUT' is used for locations outside of the area in Figure 12.8, including Europe.

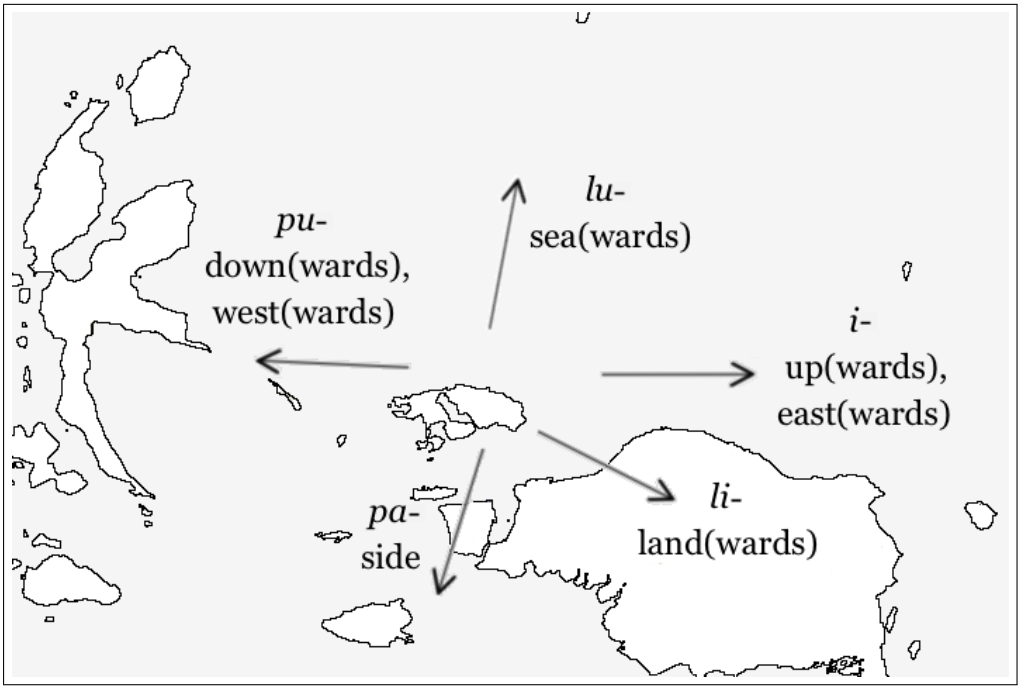


Figure 12.8: Directional prefixes in the wider area around the Raja Ampat archipelago and the Bird's Head

the area, for example Taba (Bowden 2001: 283-284), Waropen (Held 1957: 45-46, cited in Bowden 2001: 326), Tidore (upwards only; van Staden 2000: 333), and Biak ('downriver' vs. 'upriver', between Supiori and Jayapura only; van den Heuvel 2006: 350-351).[12]

An example of how directional stems apply to the wider area is given in (6). In this example, the speaker has just explained how the missionary Freerk Kamma travelled from Manokwari to Jayapura. According to the speaker, when

12. Some of the authors of these descriptions offer explanations for why eastwards might be considered 'up(river)' and westwards might be considered 'down(river)'. According to one of van den Heuvel's informants, the Biak ancestors believed that the sea flowed from east to west (2006: 350); van Staden offers a similar explanation for Tidore, stating: "New Guinea... is referred to as *ine kato* 'upwards', since one once had to travel upstream to get there" (2000: 333). Bowden provides a different suggestion: as, in Taba, one can only go 'downwards' as far as Ternate, and because Ternate has exerted a lot of social and political influence in the area, 'downwards' is associated with travel towards the political centre. This association has perhaps developed through metaphorical extension of 'going home' from the gardens at the end of the day; as the Taba gardens are uphill, going home entails downwards travel through the vertical axis. One of the speakers with whom I worked (**IK**) offered a third explanation: the sun rises (goes 'up') in the east, and sets (goes 'down') in the west, hence the connection.

he returned to Manokwari from Jayapura, he was then told to travel to Raja Ampat. Here, Jayapura is referred to with a deictic noun (marked with *lo-* 'DEIC.N'; see §12.2.4). This deictic noun is built on a directional stem, which is comprised of the root *ma* 'DIST', indicating that Kamma moved towards the location where the speaker is narrating the events, and the prefix *i-* 'UP', referring to the location of Jayapura, which is far away eastwards in New Guinea, near the border between Indonesia and Papua New Guinea.

(6)

ngwáy	po	**loima**,	mansope,	aa,	usól	i	la	matén
N-wáy	po	lo-i-ma	mansope	aa	u-sól	i	la	matén
3SG.AN-return	ABL	DEIC.N-UP-DIST	then	HES	3DU-order	3SG.AN.O	ORI	world

wane	wéy
wa-ne	wéy
DEM.CNT-PROX	again

'He returned [to Manokwari] from the place at the top [i.e., Jayapura], then the two of them ordered him again [to come] to this world [i.e., Raja Ampat].'

AM125_02.10

The semantic and pragmatic characterisation of the demonstrative roots and directional stems is now complete. In the following sections, we turn to a discussion of the form, distribution, and function of words derived from these deictic units.

12.2.2 Demonstratives

As described in §3.6, the primary function of demonstratives in Ambel is to communicate deictic information about an entity or event. Demonstratives are characterised by their ability to occur adnominally, pronominally, or adclausally.

There are two different subclasses of demonstratives in Ambel: contrastive demonstratives, formed with the prefix *wa-* 'DEM.CNT' (or its non-singular counterpart *we-* 'DEM.CNT.NSG'), and non-contrastive demonstratives, formed with the prefix *a-* 'DEM.NCNT'. Both prefixes attach to either a demonstrative root or a directional stem. Both kinds of demonstrative are primarily exophoric, in that they identify the location of an entity in the external world (Dryer 2014: e235). However, when used with a spatial function, demonstratives formed with *wa-* 'DEM.CNT' are contrastive, in that they are used to contrast one entity with another, or to single

one entity out from other, similar entities, whereas demonstratives formed with *a-* 'DEM.NCNT' are used to locate entities without contrasting them (see e.g. Wilkins 2001 and Meira and Terrill 2005 for more on this distinction).[13]

The difference between contrastive and non-contrastive demonstratives is illustrated in (7). In (7a), taken from the naturalistic corpus, deictic information is provided about the *ípon* 'mountain', without that mountain being contrasted with any other entity. Thus, *ípon* 'mountain' is modified with a non-contrastive demonstrative. Example (7b) is an elicited example based on (7a). In this example, there is contrastive focus: the speaker is correcting the false assumption that the people went towards a nearby mountain, instead stating that they went towards a mountain far inland. In this example, the nouns *ípon* 'mountain' can only be modified by contrastive demonstratives; non-contrastive demonstratives are not possible here.

(7) a.

után	la	**ípon**	**aine**
u-tán	la	ípon	a-i-ne
3DU-go	ORI	mountain	DEM.NCNT-UP-PROX

'The two of them went towards this mountain at the top here [POINTS].' **AM135_12.48**

b.

után	la	**ípon**	**waine / *aine**	po,	után	la	**ípon**
u-tán	la	ípon	wa-i-ne	po	u-tán	la	ípon
3DU-go	ORI	mountain	DEM.CNT-UP-PROX	NEG	3DU-go	ORI	mountain

walima / *alima
wa-li-ma
DEM.CNT-LAND-DIST

'The two of them didn't go towards *this* mountain at the top here, they went towards *that* mountain far inland there.' **AM287_el.**

Another example showing the difference between *a-* 'DEM.NCNT' and *wa-* 'DEM.CNT', this time from the naturalistic corpus, is given in (8). This example comes from a text in which the speaker is talking about sago. In this example, there are

13. As will become clear below, this distinction between *wa-* 'DEM.CNT' and *a-* 'DEM.NCNT' is only obvious when the demonstratives are used with spatial function. When used with other functions, for example a temporal or discourse deictic function, the distinction between the two kinds of demonstrative is less clear.

two pronominal demonstratives: one formed with *a-* 'DEM.NCNT', and one formed with *wa-* 'DEM.CNT'. Both are used to refer to sago at different stages of preparation.

(8)

ane	ambálu	rín,	ambálu	rín,	**wane**	ido
a-ne	aN=bálu	rín	aN=bálu	rín	wa-ne	ido
DEM.NCNT-PROX	3SG.INAN=RAW	CONT	3SG.INAN=RAW	CONT	DEM.CNT-PROX	FRA

potó,	amáy	to,	*bisa*	tíy	to
potó	aN=máy	to	bisa	t-íy	to
that's.that	3SG.INAN=COOKED	IAM	be.capable	1PL.I-eat	IAM

'[POINTING TO A BOWL OF RAW SAGO:] This is still raw, it is still raw; [HOLDS UP A PIECE OF SAGO BISCUIT:] As for *this*, that's that, it's cooked, we can eat it.' **AM069_12.48**

When the speaker points to the raw sago, he is simply providing information about it; he is not contrasting it with the cooked sago. For this reason, he uses a non-contrastive demonstrative to refer to the sago. When the speaker realises he can contrast the raw sago with the piece of cooked sago he has in his hand, he uses a contrastive demonstrative.

In §12.2.2.1, the functions of contrastive demonstratives will be explored. This is followed by a look at non-contrastive demonstratives in §12.2.2.2. The functional categories discussed in these sections are adapted in part from Dixon (2003), Himmelmann (1996), Kluge (2014: Chap. 7), and Levinson (2004).

12.2.2.1 Contrastive demonstratives

Contrastive demonstratives are formed with the prefix *wa-* 'DEM.CNT' (or, optionally for non-singular NPs, *we-* 'DEM.CNT.NSG'; see §6.2.8). This prefix attaches to either a demonstrative root or a directional stem base. Contrastive demonstratives are most frequently attested adnominally and pronominally; they are also occasionally attested adclausally.[14]

The section is structured as follows. In §12.2.2.1.1, the spatial function of contrastive demonstratives is discussed. Some contrastive demonstratives can be used to locate an entity in time, as well as space; this temporal function is discussed in §12.2.2.1.2. The contrastive demonstratives *wa-ne* 'DEM.CNT-PROX'

14. The prefix *wa-* 'DEM.CNT' has developed from the marker of noun-modifying constructions in definite NPs, *wa* 'NMC.DEF' (§14.1). Ambel speakers often translate contrastive demonstratives using the Malay relativiser *yang*, which is similar in function to *wa* 'NMC.DEF' (for example, *wa-pa* 'DEM.CNT-MID' is often translated as *yang itu*).

and *wa-pa* 'DEM.CNT-MID' have several other functions. They can be used refer anaphorically to participants in the preceding discourse (§12.2.2.1.3), cataphorically to newly-introduced participants in the discourse (§12.2.2.1.4), and to refer deictically to the discourse itself (§12.2.2.1.5). Finally, *wa-ne* 'DEM.CNT-PROX' and *wa-pa* 'DEM.CNT-MID' are attested adclausally, in order to increase the psychological impact of a clause; this function is discussed in §12.2.2.1.6.

12.2.2.1.1 Spatial function

As well as the contrastive function exemplified in (7) and (8) above, contrastive demonstratives provide information about spatial orientation, either within the shared space of S and A, or on a wider scale. Both pronominal and adnominal contrastive demonstratives are attested with this function. The base can be either a demonstrative root, or directional stem. An example of a pronominal contrastive demonstrative with spatial reference is given in (9), and an example of an adnominal contrastive demonstrative with spatial reference is given in (10).

(9)

yo	**wane**		ido	karákam
yo	wa-ne		ido	karákam
then	DEM.CNT-PROX		FRA	sago.oven.lid

[Showing **LA** around her kitchen:] 'Then as for this [USES A PAIR OF BAMBOO TONGS TO TAP THE TOP OF THE SAGO OVEN], [it is] a sago oven lid.' **AM069_29.18**

(10)

umne	ido	uma*buka*	***jalan***	**walima**,		**sana**	**wane**
umne	ido	uma-buka	jalan	wa-li-ma		sana	wa-ne
1DU.E	FRA	1DU.E-open	road	DEM.CNT-LAND-DIST		one	DEM.CNT-PROX

'As for us two, we opened that road inland, this one [POINTS TO THE ROAD].'
AM125_12.15

In both of these examples, the speaker uses an accompanying gesture, to unambiguously identify the intended referent. Contrastive demonstratives with a spatial function need not be accompanied by a gesture, however. This is shown in (11).

(11) kamtatnarów ne andók **yé** **wane** *pada* *taun* *ribu*
kamtát-narów ne aN=dók yé wa-ne pada taun ribu
letter-clean ART 3SG.INAN=arrive island DEM.CNT-PROX in year thousand

isana maya, aa, útun lim may lim
i-sana may-a aa útun lim may lim
3INAN-one NUM.LINK-PAR HES hundred five NUM.LINK five

'The Bible arrived on this island [i.e., Waigeo] in 1505[15].' **AM188_20.22**

12.2.2.1.2 Temporal function

Both adnominal and pronominal contrastive demonstratives can refer to the temporal setting of the situation or the event being described, particularly when there is an (implicit or explicit) contrast with some other time. Only contrastive demonstratives formed with demonstrative roots (i.e., *ne* 'PROX', *pa* 'MID', *mana* 'DIST', or *hana* 'AND') can be used with a temporal function – contrastive demonstratives formed with directional stems cannot be used in this way. An example of a pronominal contrastive demonstrative with temporal reference is given in (12), and an example of an adnominal contrastive demonstrative with temporal reference is given in (13).

(12) *jadi* **wahana** sia lató kalíw ne po
jadi wa-hana sia la-tó kalíw ne po
so DEM.CNT-AND 3PL 3PL.AN-live village PROX NEG

'So in the past, they did not live in the village.' **AM032_04.08**

(13) *jadi* **galí** **wahana** ido labíne 'kuli' ido mácu
jadi galí wa-hana ido la-bíne kuli ido mácu
so language DEM.CNT-AND FRA 3PL.AN-say coolie FRA servant

[Explaining the meaning of the Malay word *kuli* 'coolie':] 'So as for that language of the past, when they said "kuli" [it meant] "servant".' **AM066_15.13**

When used adnominally or pronominally, the contrastive demonstratives *wa-hana* 'DEM.CNT-AND', *wa-ne* 'DEM.CNT-PROX', and *wa-(i-)mana* 'DEM.CNT-(NSG-)DIST'

15. A speech error: The speaker had intended '1950'.

refer to the past, present, and future, respectively.[16] When used with a temporal function, the contrastive demonstrative *wa-pa* 'DEM.CNT-MID' can only occur adnominally; it is used to locate a specific time at which an event happened or will happen. An example of the temporal function of *wa-pa* 'DEM.CNT-MID' is given in (14). In this example, the speaker has been telling how one night the Kein clan were attacked by the malevolent *kábyo* spirits, and all the women and children were massacred. The men spent the next day burying their wives and children; later that same night, they left their settlement in the forest, because they were afraid the *kábyo* would return.

(14)	namcát	ayságado	**gám**	**wapa**	nó	lalua
	na-mcát	ayságado	gám	wa-pa	n-ó	la-lu-a
	3SG-be.afraid	until	night	DEM.CNT-MID	3SG.AN-run.away	DEIC.PREP-SEA-AND

'[After they had buried their families, then] they [the Kein clan] were afraid, such that that night, they ran away towards the sea.' **AM135_22.18**

12.2.2.1.3 Anaphoric function

Adnominal contrastive demonstratives can have an anaphoric function, i.e. to refer to a referent introduced in the preceding discourse. Only the contrastive demonstratives *wa-ne* 'DEM.CNT-PROX' and *wa-pa* 'DEM.CNT-MID' are attested with this function; the difference between these two demonstratives for participant tracking is not fully understood at this stage, and requires further research.

Examples of adnominal *wa-ne* 'DEM.CNT-PROX' and *wa-pa* 'DEM.CNT-MID' referring anaphorically to a discourse participant are given in (15) and (16), respectively. Example (15) comes from a story about the trickster Mansahur. His two wives are suspicious of him, because he keeps disappearing without telling them where he is going. The two of them plan to observe him, and are speaking with one another to confirm their plan; the NP headed by *mét* 'person' refers anaphorically to the

16. The philosophical implications of the use of *hana* 'AND' to refer to the past and *mana* 'DIST' to refer to the future are interesting, if not surprising. Recall that *mana* 'DIST' is used to mark entities moving towards S, or towards which S is moving. This suggests that the Ambel conceptualise either themselves as moving towards the future, or the future moving towards them. Conversely, *hana* 'AND' is used to refer to a past, either because the Ambel conceptualise themselves as moving away from the past, or the past as moving away from them.

pronoun *i* '3SG.AN.O' earlier in the example (highlighted in bold). This anaphoric NP is marked with the contrastive demonstrative *wa-ne* 'DEM.CNT-PROX'.

(15) "nyelál ho, mansope tuta*lacak* **i** wéy rín be tutakánum,
nyelál ho mansope tuta-lacak i wéy rín be tuta-kánum
tomorrow IMM.FUT then 1DU.I-track 3SG.AN.O again CONT PURP 1PL.I-spy

biasa **mét** **wane** ia ntán ido nsúy ido
biasa mét wa-ne ia N-tán ido N-súy ido
be.usual person DEM.CNT-PROX 3SG.AN 3SG.AN-go FRA 3SG.AN-go.home FRA

gám"
gám
night

'[The two wives said:] "Wait for tomorrow, then let's track him again, in order to spy [on him]; usually this person, if he goes [travelling], then when he comes home it is night".' **AM188_22.18**

Example (16) comes from a history of the Wakaf clan. The speaker has just explained that two passing members of the Fiay clan saw that there was a big fire in a Wakaf village, and so stopped to help them. The NP headed by *láp* 'fire' is coreferent with several other mentions of the fire in the preceding discourse, including the pronoun *ana* '3SG.INAN', highlighted in the example.

(16) mánsar metHyáy ne namát **an** mi kalámlu kipa
mánsar mét-Hyáy ne na-mát ana mi kalámlu ki=pa
respected.man person-Fiay ART 3SG-extinguish 3SG.INAN INSTR scoop EMO=ART

bi, *lansun* **láp** **lál** **wapa** amát
bi lansun láp lál wa-pa aN=mát
just immediately fire big DEM.CNT-MID 3SG.INAN=die

'The Fiay man extinguished it using just a small scoop, [and] that big fire immediately went out [lit: 'died'].' **AM135_07.40**

NPs marked with contrastive demonstratives with an anaphoric function differ from those marked with the definite articles *wana* 'DEF' and *wena* 'DEF.NSG' or the definite use of the articles *pa* and *ne* 'ART' (§6.2.9.2), in that those marked with contrastive demonstratives require an overt antecedent in the preceding discourse. Definite NPs marked with *wana*/*wena* 'DEF/DEF.NSG', *pa* 'ART', or *ne* 'ART', on the other hand, are attested without an overt antecedent.

12.2.2.1.4 Cataphoric function

Contrastive demonstratives may be used cataphorically, to introduce indefinite, semantically specific entities, which are highly salient to the following discourse (i.e., are pragmatically specific; see §6.2.9.1). Only adnominal contrastive demonstratives are attested with this function; only *wa-ne* 'DEM.CNT-PROX' and *wa-pa* 'DEM.CNT-MID' are unambiguously attested modifying these indefinite but pragmatically specific NPs.

Examples of this use of *wa-ne* 'DEM.CNT-PROX' and *wa-pa* 'DEM.CNT-MID' are given in (17) and (18). In (17), the speaker is describing a cartoon he has just seen.[17] He has just described the setting, and introduces one of the main characters of the cartoon (the *kankólom* 'scorpion') with an NP modified by *wa-pa* 'DEM.CNT-MID'. This is the first mention of the scorpion, and the addressee has not seen the cartoon, so cannot be expected to be familiar with the scorpion.

(17)

trus	**kankólom**	**wapa**	nále,	nále	po	áy	kóp
trus	kankólom	wa-pa	n-ále	n-ále	po	áy	kóp
next	scorpion	DEM.CNT-MID	3SG-descend	3SG-descend	ABL	tree	branch

wapa
wa-pa
DEM.CNT-MID

'[There was a bird sitting on a branch,] then this scorpion descended, it descended from that branch.' **AM042-04_00.21**

Example (18) comes from another story about Mansahur. The speaker has just begun a new story, in which a woman pretends to be dead so that Mansahur won't assault her. The sentence in (18) is the first mention of the woman, in an ambient/existential construction; like (17), *bísar* 'respected woman' is modified with a contrastive demonstrative.

17. *La Chouette*, created and directed by Alexandre So (episode 19, 'Spider Time').

(18) **bísar** **wane**, ia mokomoné ntán be nabí
bísar wa-ne ia mokomoné N-tán be n-abí
respected.woman DEM.CNT-PROX 3SG.AN say.3SG.AN 3SG.AN-go PURP 3SG.AN-want
nakata tási
na-kata tási
3SG-ladle salt.water

'There was this woman, she said she was going to ladle sea water.' **AM188_12.21**

12.2.2.1.5 Discourse deictic function

Adnominal and pronominal contrastive demonstratives can be used discourse-deictically, to anaphorically or cataphorically refer to the information communicated in a linguistic unit, for example a word, a clause, a sentence, or even a whole text (Dixon 2003: 63). Only *wa-ne* 'DEM.CNT-PROX' and *wa-pa* 'DEM.CNT-MID' are attested with this function.

Examples of discourse deictic *wa-ne* 'DEM.CNT-PROX' and *wa-pa* 'DEM.CNT-MID' are given in (19)–(21). Example (19) shows the adnominal use of *wa-ne* 'DEM.CNT-MID' to refer cataphorically to the coming discourse, in which the speakers are going to explain how to make a fire with traditional fire-lighting methods. As they are about to begin, there is a group of young men messing around nearby; one of the speakers suggests that the young men come and listen to the exposition.

(19) mákay mew mimun **sárita** **mánsar** **wane**
mákay mewá mim-un sárita mánsar wa-ne
child 2PL 2PL-know story old.man DEM.CNT-PROX

'You children [should] listen to [lit: 'know'] this story from previous generations [lit: 'story of the ancestors'].' **AM057_00.06**

Example (20) is an example of pronominal *wa-ne* 'DEM.CNT-PROX', which cataphorically refers to the coming discourse. The speaker has just finished telling one story; with the contrastive demonstrative here, she signals that she has begun a new story.

(20) ido, wane ido...
ido wa-ne ido
so.then DEM.CNT-PROX FRA

'So then, as for this [story, which I am about to tell]....' **AM188_12.21**

Finally, (21) is an example of *wa-pa* 'DEM.CNT-MID' used to refer anaphorically to the preceding discourse. In this example, the speaker has been describing the improvements he would like to see in Kapadiri village. However, he notes, they will have to wait to see whether the improvements he has described will be implemented by the new local government.

(21) *jadi* **wapa,** tém mina *bupati* bábo ne
jadi wapa t-ém min-a bupati bábo ne
so DEM.CNT-MID 1PL.I-see INSTR-PAR local.government new ART

'So as for that [the improvements I have just described], we will [have to] see [whether] the new local governemnt [will implement them].' **AM188_12.21**

In examples (19) and (20), *wa-ne* 'DEM.CNT-PROX' is used cataphorically, and in (21), *wa-pa* 'DEM.CNT-MID' is used anaphorically. This is the general tendency in the corpus for discourse deictically-used contrastive demonstratives. However, discourse deictic *wa-ne* 'DEM.CNT-PROX' is occasionally attested with anaphoric reference, and *wa-pa* 'DEM.CNT-MID' with cataphoric reference.

12.2.2.1.6 Psychological function

In the corpus, there are a handful of attestations of the adclausal use of the contrastive demonstratives *wa-ne* 'DEM.CNT-PROX' and *wa-pa* 'DEM.CNT-MID'. The numbers are too low to draw any firm conclusions about the adclausal use of these demonstratives. However, from the attestations available, it seems that *wa-ne* 'DEM.CNT-PROX' and *wa-pa* 'DEM.CNT-MID' can be used adclausally for psychological reasons, for example to increase the vividness of the event being described. An example is given in (22).

(22) na*samangat* ayságado **nái** **wane**, ái wana
na-samangat ayságado n-ái wa-ne ái wana
3SG-enthusiastic TERM 3SG-comb.roughly DEM.CNT-PROX bamboo.comb DEF

namér an be taji sórom wana ido ia mát
na-mér ana be tají sórom wana ido ia N-mát
3SG-strike 3SG.INAN ALL eye.3SG.AN middle DEF so.then 3SG.AN 3SG.AN-die

ahana
a-hana
DEM.NCNT-AND

'She was very happy such that she was combing [her hair], as for the bamboo comb she struck the middle of her eye with it, so then she died (over there).'

AM188_12.21

This example comes from the end of a historical narrative, in which a group of Ambel women are left alone in their village by the men (who leave in order to raid other villages). The women are attacked by a group of invaders; they successfully defend themselves, killing every last one of the invaders. This is an action-packed story, and the narrator has told it in an animated fashion. Malelen, the leader of the women, has just seen on the horizon that the Ambel men are returning, and so combs her hair to make herself presentable for husband. However, in her excitement, Malelen stabs herself in the eye with her comb and dies. This is an unexpected and humorous moment in the tale, and, in this recording, the audience are all laughing. The narrator lends extra liveliness and vividness to this scene with adclausal *wa-ne* 'DEM.CNT-PROX'.

A second example of the use of an adclausal contrastive demonstrative functioning to communicate heightened emotion is given in (23). This example comes from a recording in which a younger speaker (A) is describing a short cartoon he has just been shown to an older speaker (B).[18] In this cartoon, an owl is sitting on a branch at night, and a spider hangs from the branch above. The spider rocks back and forth on a strand of silk, making the full moon into a kind of clock. When the moon-clock strikes the hour, a mechanical bird emerges from the tree to the right of the owl, like a cuckoo clock. The mechanical bird hits the owl, and he falls off of his branch. Example (23) comes from the very end of Speaker A's rendition of the cartoon, as he recounts this climactic moment in the narrative.

18. *La Chouette*, created and directed by Alexandre So (episode 19, 'Spider Time').

(23) **A:** ... ntul i aya lén wana antámtu ido
N-tul i aya lén wana aN=támtu ido
3SG.AN-peck 3SG.AN.O TERM thing DEF 3SG.INAN=be.broken.off FRA
mát, ido namdól
N-mát ido na-mdól
3SG.AN-die so.then 3SG.AN-fall

'...It pecked him until when the thing [i.e., his eye] broke off, then he died, and then he fell.'

B: [LAUGHS] **ntulbún** **i** **wapa**! *adu*!
N-tul-bun i wa-pa adu
3SG.AN-peck-die 3SG.AN.O DEM.CNT-MID oh.no

' [LAUGHS] It killed him by pecking him! Oh no!' **AM042-04_01.14**

When Speaker A describes the climax of the cartoon, Speaker B repeats what he has just been told with surprise. In Speaker B's summary, he expresses the heightened emotion at the unexpectedness of the owl's death with adclausal *wa-pa* 'DEM.CNT-MID'. The extra emotion in Speaker B's response can also be seen from his laughter, as well as his use of the PM interjection *adu* 'oh no!'.

12.2.2.2 Non-contrastive demonstratives

Non-contrastive demonstratives are formed with the prefix *a-* 'DEM.NCNT', which attaches to either a demonstrative root or a directional stem base. Whereas the contrastive demonstratives discussed in the preceding section are only rarely attested adclausally, non-contrastive demonstratives are attested pronominally, adnominally, and adclausally with approximately equal frequency.

This section is structured as follows. In §12.2.2.2.1, the spatial function of non-contrastive demonstratives will be described and exemplified. Like the contrastive demonstratives discussed above, non-contrastive demonstratives can also have temporal reference; this function is discussed in §12.2.2.2.2. Two of the non-contrastive demonstratives, *a-ne* 'DEM.NCNT-PROX' and *a-pa* 'DEM.NCNT-MID' can be used to anaphorically refer to participants, events, or situations from the preceding discourse, or to an element of the preceding discourse itself; these two functions are discussed in §12.2.2.2.3 and §12.2.2.2.4, respectively. Both of these non-contrastive demonstratives can also be used as placeholders, discussed

in §12.2.2.2.5. Finally, the non-contrastive demonstrative *a-ne* 'DEM.NCNT-PROX' can be used to try to attract someone's attention; this function is described in §12.2.2.2.6.

12.2.2.2.1 Spatial function

The primary function of non-contrastive demonstratives is to provide information about the location of an entity in physical space, when that entity is not contrasted with another. The base of a non-contrastive demonstrative with spatial reference can be either a demonstrative root, or a directional stem. Non-contrastive demonstratives with spatial reference can occur pronominally, adnominally, or adclausally, either with or without an accompanying gesture. When occurring adnominally or adclausally, the function of the non-contrastive demonstratives with spatial reference is similar to the English adverbials *here* or *there*.

An example of a pronominal non-contrastive demonstrative with spatial reference is given in (24). In this example, the speaker is telling the researcher not to stop the recording yet, because the participants – to whom he refers with the non-contrastive demonstrative *a-ne* 'DEM.NCNT-PROX' – want to talk some more.

(24)

mári	ho,	pórin,	**ane**	abí	lasúy	wéy	rín	
mári	ho	pórin	a-ne	abí	l-asúy	wéy	rín	
be.patient	IMM.FUT	NEG.CONT	DEM.NCNT-PROX	want	3PL.AN-talk	again	CONT	

'Hang on, not yet, these [people] still want to talk some more.' **AM067_08.22**

As can be seen from (24), non-contrastive demonstratives do not take any marking when the referent is non-singular. This is true of pronominally, adnominally, and adclausally-used non-contrastive demonstratives; they always have the same form, regardless of whether the referent is singular or non-singular.

Example (25) shows an adnominal non-contrastive demonstrative with spatial reference. In this example, the speaker is describing what happened when the people of Fofak Bay were first Christianised in the 1950s. The speaker modifies the NP headed by *sana* 'one' with a non-contrastive demonstrative built on a directional stem, to indicate that the location to which he is referring is across the other side of Fofak Bay from where he is sitting. The speaker accompanies this description with a gesture, looking and pointing with two fingers towards the location of the former settlement of Paput.

(25) *gereja* *darurat* pa low, **sana** **Páput** **apama** ido now wa
gereja darurat pa low sana Páput a-pa-ma ido now wa
church emergency ART two one Paput DEM.NCNT-SIDE-DIST FRA house NMC.DEF
iamanta apa...
iamanta a-pa
first ART.NMC-MID

'There were two makeshift churches; as for the one [at] Paput at the side there, [it was] the first church [lit: 'house']...' **AM125_08.22**

The vast majority of adnominal non-contrastive demonstratives with spatial reference refer to locations, as in (25): either placenames, or geographical locations such as mountains or bays. There are some examples, however, of adnominal non-contrastive demonstratives modifying other types of noun. An example of an NP headed by *kapuy* 'base' modified by a non-contrastive demonstrative, referring to the roots of some mangrove trees, is given in (26). In this example, the speaker gestures to the area where the mangrove trees are, using an outstretched arm and a pointing finger.

(26) dadia *jaring* ne nyakalít an be **kor** **ikapuy**
dadi-a jaring ne nya-kalít ana be kor i-kapuy
SIM-PAR fishing.net ART 2SG-cast.net 3SG.INAN ALL mangrove 3INAN-base
alim wana
a-li-ma wana
DEM.NCNT-LAND-DIST DEF

'For example, the fishing net, you cast it at the base of those mangrove trees in a landwards direction there [POINTS].' **AM067_06.23**

Non-contrastive demonstratives are often used adclausally, to provide information about the spatial location or trajectory of the situation described by the clause. Examples are provided in (27) and (28). In example (27), the location in which the tree is uprooted – a nearby location on land (the people in the story are at sea) – is communicated by the adclausal *a-li-ne* 'DEM.NCNT-LAND-PROX'.

(27)

atúlala	líl		atúbine:	"ooo,	**áy**	**wana**	**antapyá**
atúla-la	líl		atú-bíne	ooo	áy	wana	aN=tapyá
3PC-ORI	landwards		3PC-say	ooh!	tree	DEF	3SG.INAN=be.uprooted
aline"							
a-li-ne							
DEM.NCNT-LAND-PROX							

'They went towards the land and they said: "Ooh! The tree is uprooted in a landwards location here".' **AM188_05.34**

In (28), both the location of the place where the speaker has left her daughter-in-law behind, and the trajectory along which the speaker has moved, are communicated with an adclausal non-contrastive demonstrative. The directional prefix *li-* 'LAND' indicates that she has left her daughter-in-law in an inland location, and the demonstrative root *a* 'AND' indicates that she is moving away from that location.

(28)

"... **yabá**	**i**	**alia**	be	nakáin	
ya-bá	i	a-li-a	be	na-káin	
1SG-leave.behind	3SG.AN.O	DEM.NCNT-LAND-AND	PURP	3SG-strip.leaf	
asi"					
asi					
3NSG.INAN.O					

'[She said:] "[There were too many *rómbyon* leaves, so] I left her behind inland there so that she [can] strip them".' **AM076_01.53**

12.2.2.2.2 Temporal function

Like the contrastive demonstratives, non-contrastive demonstratives can be used with a temporal function, to locate an entity or a situation in time. Pronominal, adnominal, and adclausal non-contrastive demonstratives are attested with this function. Only the demonstrative roots *hana* 'AND' (referring to the past), *ne* 'PROX' (referring to the present), and *mana* 'DIST' (referring to the future) can serve as the base for non-contrastive demonstratives with temporal reference. Examples of pronominal, adnominal, and adclausal non-contrastive

demonstratives with temporal reference are given in (29), (30), and (31), respectively.

(29) ape **ahana**, bey ne ambe ipil pórin
ape a-hana bey ne aN=be i-pil pórin
but DEM.NCNT-AND sago ART 3SG.INAN=become 3INAN-price NEG.CONT

'But, in the old days, sago had not yet become expensive [lit: 'its price'].'

AM032_02.45

(30) *akirnya* **atútanin** **mánsar** **i** **ahana** labe hey
akirnya atúta-ni-n mánsar i a-hana la-be hey
finally 1PC.I-POSS.II-NSG.POSS old.man NSG DEM.NCNT-AND 3PL.AN-become good
an po, la*tolak* ana
ana po la-tolak ana
3SG.INAN NEG 3PL.AN-reject 3SG.INAN

'Finally, our ancestors [lit: 'old men in the past'] did not look after it well [the message that the Biak hero Manarmakeri was trying to pass on], they rejected it.'

AM135_18.47

(31) *jadi* **ine** **yamínki** **ahana** ido yíya há po
jadi ine ya-mínki a-hana ido y-íy-a há po
so 1SG 1SG-small DEM.NCNT-AND FRA 1SG-eat-PAR rice NEG

'So when I was young in the past, I didn't eat rice.' **AM032_05.30**

The difference between contrastive and non-contrastive demonstratives with temporal reference is unclear from the present corpus. Both contrastive and non-contrastive demonstratives can be used to refer to a period of time that is being contrasted with another. This is shown in (32) and (33). In both of these examples, the present time is contrasted with an earlier time. In (32), the present is contrasted with the time at which the last member of one of the lines of descent of the Wakaf clan died. In this example, the contrastive demonstrative *wa-ne* 'DEM.CNT-PROX' is used.

(32) *ahirnya* **wane** ido labíne, aa, Jóhn atúa atúbe pál
ahirnya wa-ne ido la-bíne aa Jóhn atúa atú-be pál
finally DEM.CNT-PROX FRA 3PL.AN-say HES John 3PC 3PC-become line.of.descent
Hun apa
Hun a-pa
Hun DEM.NCNT-MID

'[So when he died, there was no one to replace him,] finally, these days they say, umm, John and his family are of the Hun line of descent.' **AM135_18.47**

In (33), the interlocutors are talking about a crab dealer in Waisai. In this example, the present is contrasted with a time in the past, when the dealer used to buy crabs from the Ambel. In this example, the non-contrastive demonstrative *a-ne* 'DEM.NCNT-PROX' is used.

(33) **A:** *kilo* igana ido abí itamtem hita?
kilo i-gana ido abí i-tamtém hita
kilogram 3INAN-one FRA want 3INAN-animal.classifier how.many

'As for one kilo [of *kasí* crabs], how many [crabs] would that be?'

B: ye, **ane** lawop bi rani
ye a-ne la-wop bi rani
dunno DEM.NCNT-PROX 3PL.AN-sell just since

'I dunno, since nowadays they only sell [them].' **AM067_01.50**

In both of these examples, the demonstratives refer to the present time generally (rather than the specific moment at which the speaker is speaking). Contrastive and non-contrastive demonstratives with temporal reference differ with regards to whether they can refer to a specific moment in time: whereas contrastive demonstratives can be used to single out a specific moment in time, non-contrastive demonstratives cannot. An example of a contrastive demonstrative used to refer to a specific moment is given in (34).

(34)

mungkin	sárita	pa	anáti	aya	**wane**,	ido	yakút
mungkin	sárita	pa	aN=n-áti	aya	wa-ne	ido	ya-kút
maybe	story	ART	INAN=3SG-run	TERM	DEM.CNT-PROX	so.then	1SG-cut

nika	galí	pa
ni-k-a	galí	pa
POSS.II-1SG-PAR	language	ART

'Perhaps the story runs until this point, so I will end it [lit: 'cut my language'].'
AM058_08.34

12.2.2.2.3 Anaphoric function

The non-contrastive demonstratives *a-ne* 'DEM.NCNT-PROX' and *a-pa* 'DEM.NCNT-MID' can be used pronominally, adnominally, or adclausally, to refer anaphorically to a participant, situation, or event in the preceding discourse.

An example of pronominal *a-pa* 'DEM.NCNT-MID' with an anaphoric function is given in (35). In this example, the speakers are discussing a holiday home that the researcher's family owns. They compare it to the holiday homes on Manswar Island, to the south of Waigeo. While Speaker A does not explicitly state that it is the holiday homes on Manswar that she is asking about, it is clear from the context that this is what she has in mind; pronominal *a-pa* 'DEM.NCNT-MID' refers to the houses on Manswar.

(35)

A:	oo,	Mánswar	alua?
	oo	Mánswar	a-lu-a
	oh	Manswar	DEM.NCNT-SEA-AND

'Oh, [is it like the holiday homes on] Manswar there?'

B:	mm,	now	dadi	**apa**,	nin	po	lohan	to
	mm	now	dadi	a-pa	n-in	po	lo-hana	to
	mmhm	house	SIM	DEM.NCNT-MID	3SG-make	LOC	DEIC.N-AND	IAM

'Mmhm, a house like those, he [the researcher's father-in-law] has built it in the UK [lit: 'the far away place'].' **AM067_01.50**

An example of an adnominal non-contrastive demonstrative with an anaphoric function is given in (36). In this example, the second NP headed by *ánut* 'cloth' is

modified by *a-pa* 'DEM.NCNT-MID'; this NP is coreferent with the preceding mention of *ánut* 'cloth' (highlighted in bold).

(36)

atútal	ikahaw	gana	be	atútapi	mi	**ánut**,	**ánut**	**apa**	
atút-ál	i-kahaw	gana	be	atúta-pi	mi	ánut	ánut	a-pa	
1PC.I-take	3INAN-sago.stem	one	and	1PC.I-nail	INSTR	cloth	cloth	DEM.NCNT-MID	
ohana,	ámne	mánsar	ohan		ido	ámala		ánut	
ohana	ámne	mánsar	ohana		ido	ám-ál-a		ánut	
long.time.ago	1PL.E	old.man	long.time.ago		FRA	1PL.E-take-PAR		cloth	
ta	kút								
ta	kút								
NMC.INDEF	coconut								

'We take a sago stem and we nail a cloth [to it], as for that cloth, in the old days, as for we men in the old days, we took a cloth that was [made of fibres from] coconut [trees].' **AM183_00.38**

When used adclausally with an anaphoric function, *a-ne* 'DEM.NCNT-PROX' and *a-pa* 'DEM.NCNT-MID' refer to a situation or event that has been described in the immediately preceding discourse, that had been spoken about earlier, or that, from the preceding context, can be easily inferred to have occured. Example (37) comes from conversation about the history of Fofak Bay. Earlier in the conversation, the speaker had been talking about an important event that happened in the 1940s, where approximately 90% of the population living in Fofak Bay fell sick and died. The speaker then spends a few minutes talking about the Japanese occupation of north Waigeo; when he returns to talk about the death of the majority of the population, he marks this with the non-contrastive demonstrative *a-pa* 'DEM.NCNT-MID'.

(37)

jadi	*waktu*	wapa	ido	ámne	lopane	ido	***manusia***	**pa**	
jadi	waktu	wa-pa	ido	ámne	lo-pa-ne	ido	manusia	pa	
so	time	DEM.CNT-MID	FRA	1PL.E	DEIC.N-SIDE-PROX	FRA	human.being	ART	

mát	**apa**	*berterut terut*,	ayságado...
N-mát	a-pa	berterut terut	ayságado
3SG.AN-die	DEM.NCNT-MID	consecutively	TERM

'So at that time, when we [were living] at the place at the side, then the humans were dying one after the other [as I was talking about earlier], until [by the time the Japanese soldiers departed, there were very few people left.]' **AM125_06.35**

Another example of an adclausal non-contrastive demonstrative with an anaphoric function, this time the proximal *a-ne* 'DEM.NCNT-PROX', is given in (38). This example comes from a text in which the speaker is explaining why there is a taboo on eating a certain type of giant clam for members of the Wakaf clan: an ancestor of the Wakafs married one of these giant clams, and never returned home. Prior to (38), the speaker has described how the man went out to sea and was taken by the giant clam; he then explains that this man is the reason the Wakafs cannot eat these giant clams. He then returns to a description of the event when he was lost at sea. The clause communicating this event is marked with anaphoric *a-ne* 'DEM.NCNT-PROX'.

(38)

mánsar	**wane**	**namin**	**po**	**tásilo**	**ane**
mánsar	wa-ne	na-min	po	tási-lo	a-ne
respected.man	DEM.CNT-PROX	3SG.AN-be.lost	LOC	salt.water-place	DEM.NCNT-PROX

ido	labór	i	bi	
ido	la-bór	i	bi	
FRA	3PL.AN-lose.trace	3SG.AN.O	just	

'When this gentleman was lost at sea [as I was explaining earlier], then they [his family and friends] completely lost trace of him.' **AM267_02.26**

The difference between the anaphoric non-contrastive demonstratives *a-ne* 'DEM.NCNT-PROX' and *a-pa* 'DEM.NCNT-MID' is not clear from the corpus. When used adclausally, *a-pa* 'DEM.NCNT-MID' is more frequently attested with an anaphoric function than *a-ne* 'DEM.NCNT-PROX'.

12.2.2.2.4 Discourse deictic function

The non-contrastive demonstratives *a-ne* 'DEM.NCNT-PROX' and *a-pa* 'DEM.NCNT-MID' can be used pronominally, to refer to a linguistic element of the preceding or ensuing discourse. An example of discourse deictic *a-pa* 'DEM.NCNT-MID' with anaphoric reference is given in (39), and an example of *a-ne* 'DEM.NCNT-PROX' with cataphoric reference is given in (40). In (39), the speaker is talking about a time he consulted with the head of the village about whether Kapadiri was now so large that they should split it into two villages. The non-contrastive demonstrative *a-pa* 'DEM.NCNT-MID' refers anaphorically to the decision that the head of the village has to make.

(39)

na*maw*a	mbe	*kepala kampung*	kitém	bi,	jíne:	*"yo*,		
na-maw-a	N-be	kepala kampung	kitém	bi	<y>bíne	yo		
3SG-want-PAR	3SG.AN-become	head.of.village	one	just	<1SG>say	well		
apa	po	aw	bi"					
a-pa	po	awa	bi					
DEM.NCNT-MID	ABL	2SG	just					

'He wanted to be just a single village head [i.e., he did not want to split Kapadiri up]; I said: "Well, that's your decision to make [lit: 'that's just from you']".' **AM125_13.08**

In (40), from the Biak myth Manarmakeri, the non-contrastive demonstrative *a-ne* 'DEM.NCNT-PROX' is used to refer cataphorically to the speech that Manarmakeri is about to give.

(40)

lakáton	ido	mbí	**ane**:	"aa,	kayí	wana,	kayí		
la-káton	ido	N-bí	a-ne	aa	kayí	wana	kayí		
3PL.AN-sit	FRA	3SG.AN-give	DEM.NCNT-PROX	HES	k.o.shellfish	DEF	k.o.shellfish		
sana	tua	*kameja*	bu	pa"...					
sana	tu-a	kameja	bu	pa					
one	and-PAR	dress.shirt	white	ART					

'When they sat, then he said [lit: 'gave'] this: "Umm, the *kayí* shellfish, there is a *kayí* shellfish and a white dress shirt"...' **AM105_11.40**

Both *a-ne* 'DEM.NCNT-PROX' and *a-pa* 'DEM.NCNT-MID' can be used either anaphorically or cataphorically in discourse deixis. From the attestations in the corpus,

there seems to be a slight preference for anaphoric discourse deictic reference to be marked with *a-pa* 'DEM.NCNT-MID', and cataphoric discourse deictic reference to be marked with *a-ne* 'DEM.NCNT-PROX'.

The difference between discourse deixis marked with non-contrastive demonstratives and that marked with contrastive demonstratives is unclear: there are some attestations of speakers using a contrastive demonstrative, followed later by a non-contrastive demonstrative (or vice versa), to refer to similar elements of discourse. For example, in the series of tales about the trickster Mansahur, the speaker ends each tale by stating which number in the sequence that tale was. Sometimes, the speaker uses anaphoric *wa-pa* 'DEM.CNT-MID' to refer anaphorically to the story, as in (41a), and sometimes he uses *a-pa* 'DEM.NCNT-MID', as in (41b).

(41) a. ... **wapa** sárita wa ilow...
wa-pa sárita wa i-low
DEM.CNT-MID story NMC.DEF ORD-two

'...That was the second story...' **AM188_04.36**

b. **apa** sárita wa ilim
a-pa sárita wa i-lim
DEM.NCNT-MID story NMC.DEF ORD-five

'That was the fifth story.' **AM188_14.00**

12.2.2.2.5 Placeholder

The non-contrastive demonstrative *a-ne* 'DEM.NCNT-PROX' (and, more rarely, *a-pa* 'DEM.NCNT-MID') can be used as a placeholder, as a way of maintaining one's turn while one is searching for a word that one has momentarily forgotten.[19] An example of *a-ne* 'DEM.NCNT-PROX' used as a placeholder is given in (42).

19. In PM, the interrogative root *apa* 'what' is used as a placeholder (Kluge 2014: 264). Several attestations of placeholder-*apa* in the corpus are code-switches into PM. However, the Ambel placeholder *a-pa* 'DEM.NCNT-MID' is intonationally distinct from the PM placeholder *apa*: while PM *apa* is realised with PM interrogative intonation (described in Kluge 2014: 494), Ambel *a-pa* 'DEM.NCNT-MID' is realised with Declarative/Imperative intonation (described in §2.3.4.1).

(42)

“yabí	yíya,	**ane**,	yabí	yíy	túp,	yabí
y-abí	y-íy-a	a-ne	y-abí	y-íy	túp	y-abí
1SG-want	1SG-eat-PAR	DEM.NCNT-PROX	1SG-want	1SG-eat	sugarcane	1SG-want

yíya,	**ane**,	yabí	yíy	tál	máre”
y-íy-a	a-ne	y-abí	y-íy	tál	máre
1SG-eat-PAR	DEM.NCNT-PROX	1SG-want	1SG-eat	banana	ripe

‘[The child said:] “I want to eat, thingummy, I want to eat sugarcane, I want to eat, thingummy, I want to eat ripe bananas”.’ **AM181_07.50**

12.2.2.2.6 Attracting attention

Finally, the non-contrastive demonstrative *a-ne* ‘DEM.NCNT-PROX’ can be used to attract the attention of a potential addressee, or to begin one’s turn in a conversation. An example of this use of *a-ne* ‘DEM.NCNT-PROX’ is given in (43). In the preceding conversation, the speaker has been explaining that, on a trip to Jakarta, she saw fish being kept in the toilet, and that she didn’t want to eat those fish. Some of the other participants in the conversation interrupt to discuss her story, and ask whether another man in the room went with her; she regains their attention with *a-ne* ‘DEM.NCNT-PROX’.

(43)

ncum	po,	**ane**,	alia,	mánsar
N-<y>tum	po	a-ne	a-li-a	mánsar
2SG-<2SG>follow	NEG	DEM.NCNT-PROX	DEM.NCNT-LAND-AND	respected.man

walia	ini	we	mán	Míchael	a	ido	namséw...
wa-li-a	i-ni	we	mán	Míchael	a	ido	na-msέw
DEM.CNT-LAND-AND	3SG-POSS.I	child	man	Michael	PERS	FRA	3SG-not.want

‘[ADDRESSING ONE MAN] You didn’t come [to Jakarta] – [ADDRESSING EVERYONE] Here, him inland, as for that man inland’s son Michael, he didn’t want [to eat the fish either]...’ **AM064_15.27**

When used in this way, *a-ne* ‘DEM.NCNT-PROX’ constitutes a single intonation phrase, marked with Declarative/Imperative intonation (§2.3.4.1). It is often accompanied by a gesture by the speaker in the direction of the person or people whose attention he is trying to attract. The speaker holds out his arm with his palm face down, and ‘beckons’ the addressee(s) towards him by sweeping the fingers or the hand downwards.

12.2.3 Deictic articles

The deictic units described in §12.2.1 can be used as deictic articles, without any further morphology. As described in §6.2.9.2, deictic articles are used to modify definite NPs, when the speaker wants to provide additional information about the location of the referent. This discussion will not be repeated here. An additional example of a deictic article is provided in (44), to exemplify the way in which deictic articles are used in the context of the other forms derived from deictic units discussed in this section.

(44) "**bin** **low** **luma** kiulabalóko"
bin low lu-ma ki=ula-balóko
woman two SEA-DIST EMO=3DU-be.naked

'[One man said to the other:] "The two women in a distant seawards location are naked".' **AM064_03.26**

Most deictic articles can only occur adnominally. The deictic article *hana* 'AND', however, can also occur adclausally. Adclausal *hana* 'AND' has temporal reference, meaning 'earlier that day'. When used with this function, *hana* 'AND' occurs before the predicate: either before the subject, as in (45), or between the subject and the predicate, as in (46).

(45) "yala lúl be **hana** *guru* pa núl ine to..."
ya-la lúl be hana guru pa n-úl ine to
1SG-ORI seawards PURP AND teacher ART 3SG-call 1SG IAM

'[The boy said:] "I went seawards, as earlier the teacher called me..."'

AM113_04.50

(46) "ia **hana** mbí jow be isne wan pu?"
ia hana N-bí jow be isne wana pu
3SG.AN AND 3SG.AN-give song OBL 1PL.I DEF ATT.INT

'[The people in the boat said:] "Earlier, he sang [lit: 'gave'] a song to us, you know?"'

AM188_04.28

12.2.4 Deictic nouns

Deictic nouns are derived using the prefix *lo-* 'DEIC.N'. This prefix has grammaticalised from the noun *lo* 'place'. It attaches to either demonstrative roots, or directional stems, to derive nouns that refer deictically to a specific location. Examples of deictic nouns are given in (47) and (48). In (47), the deictic prefix attaches to the demonstrative root *pa* 'MID'. The deictic noun in this example is coreferent with the island *pulo Úndi* 'Undi Island'.

(47)

ló	taból	i	apa	ido	yé	wa
l-ó	taból	i	a-pa	ido	yé	wa
3PL.AN-run.away	leaving.behind	3SG.AN.O	DEM.NCNT-MID	FRA	island	NMC.DEF

lúl	an	be,	aléna,	*pulo*	Úndi,	atúto	**lopa**
l-úl	ana	be	aléna	pulo	Úndi	atú-tó	lo-pa
3PL.AN-call	3SG.INAN	OBL	PLH	island	Undi	3PC-live	DEIC.N-MID

'When they ran away leaving her behind, then the island that is called, y'know, Undi Island, they [the woman and her family] lived in that place.' **AM112_08.53**

In (48), there are two deictic nouns. Both of these deictic nouns are formed from directional stem bases. This example comes from a conversation between three brothers about the construction of the hydroelectric reservoir in Go. Two of the brothers are sitting on a wall of the reservoir; in (48), they are encouraging the third borther to come up and join them, so that he can also be recorded.

(48)

ncán	mánin,	ncán	ma,	ncó	po	**lopup**
N-<y>tán	mánin	N-<y>tán	ma	N-<y>tó	po	lo-pu-pa
2SG-<2SG>go	to.here	2SG-<2SG>go	indeed	2SG-<2SG>stay	LOC	DEIC-DOWN-MID

are,	ncó	po	**loine**
are	N-<y>tó	po	lo-i-ne
PROHIB	2SG-<2SG>stay	LOC	DEIC.N-UP-PROX

'Come here, come indeed, don't stay in that place at the bottom, [come and] be at this place at the top!' **AM056_01.03**

Examples (47) and (48) show that deictic nouns can occur as the argument of a verb, as in (47), or as the complement of a preposition, as in (48). Deictic nouns can also function as the subject or the predicate of nominal clauses (§8.2.3). For

these reasons, they are analysed as nominal. However, deictic nouns do not exhibit any of the other nominal behaviours described in §3.2. For example, they cannot be modified by any of the elements described in §6.2, such as adjectival verbs, quantifiers, relative clauses, demonstratives, articles, and so forth; nor can they be used as either the possessor or possessed noun in adnominal or clausal possessive constructions.

12.2.5 Deictic locative predicates

Locative predicates were introduced above in §8.2.2. In that section, the full paradigm of locative predicates was given, in Table 8.3. All of the forms in that table can be used as prefixes, which attach to demonstrative roots or directional stems, in order to derive deictic locative predicates. These deictic locative predicates take a single argument, the subject; the deictic locative predicates express that the subject is in the location referred to by the deictic unit.

Some examples of deictic locative predicates are given in (49) and (50). Example (49) comes from the same text as (48) above, in which the two brothers are trying to persuade the third brother to come and sit on the reservoir wall with them. In this example, the speaker is gesturing towards the video camera (with a straight arm and a pointing finger), explaining that the camera is pointing towards where he is sitting.

(49)

sana	wa	anál	*gambar*	apa	**annamana**
sana	wa	aN=n-ál	gambar	a-pa	anna-mana
one	NMC.DEF	INAN=3SG-take	picture	ART.NMC-MID	3SG.INAN.PRED-DIST

'The thing [lit: 'one'] that is taking the pictures is there.' **AM056_01.13**

In (50), the speaker is talking about different members of the Gaman clan, and where they live. In this example, he is explaining that one of the younger members of the clan lives in the village of Waifoi (referred to with the directional prefix *mu-* 'IN').

(50) **yamup** rín, mát pórin, **yamupa**...
ya-mu-pa rín N-mát pórin ya-mu-pa
3SG.AN.PRED-IN-MID CONT 3SG.AN-die NEG.CONT 3SG.AN.PRED-IN-MID

'He is still inside [Mayalibit Bay, i.e., in Waifoi], he is not dead yet, he is inside...'
AM155_10.43

Clauses formed with deictic locative predicates are sometimes used without spatial reference, to present a particular entity. An example is given in (51). In this example, the speaker is not using the deictic locative predicate to locate the village in space; rather, the deictic locative predicate refers anaphorically to the description he has just been giving of the village. As shown in the free translation, a natural translation into English would use a nominal clause, in which the subject argument is a demonstrative.

(51) ido *kampung* wa itul apa **annapa**
ido kampung wa i-tul a-pa anna-pa
so.then village NMC.DEF ORD-three ART.NMC-ART 3SG.INAN.PRED-MID

'So that [the village I have just been talking about] was the third village [lit: 'the third village is there'].' **AM125_04.58**

12.2.6 Deictic prepositions

The orientative preposition *la* 'ORI' was described in §11.7 above; it is used to express movement in the direction of a goal. The deictic preposition *la-* 'DEIC.PREP' has developed from this preposition, and retains its orientative semantics. The prefix attaches to either a demonstrative root or a directional stem, to derive deictic prepositions that express movement towards the location referred to with the deictic unit. None of the other prepositions have grammaticalised into deictic prefixes in this way.

Examples of deictic prepositions formed with *la-* 'DEIC.PREP' are given in (52) and (53). In example (52), the speaker is describing how the Dutch missionary Freerk Kamma and his associate travelled through Raja Ampat. He expresses the fact that Kamma returned to the island of Waigeo using a deictic preposition, derived from a demonstrative root base.

(52)

ula*mulay*	po	batánta,	*trus*	salawáti,	ngway	**lane**	wéy
ula-mulay	po	batánta	trus	salawáti	N-way	la-ne	wéy
3DU-start	ABL	Batanta	next	Salawati	3SG.AN-return	DEIC.PREP-PROX	again

'The two of them started in Batanta, next [they went to] Salawati, [then] he [Kamma] returned here.' **AM125_02.26**

Example (53) comes from a conversation about the movements of the various Ambel clans in north Waigeo. In this example, the speaker is describing how members of the Fiay and Tolowat clans moved from Kapadiri, to Jalo (westwards along the coast).

(53)

jadi	lága	po	lone	**lapua**,	lató	Jálo
jadi	l-ága	po	lo-ne	la-pu-a	la-tó	Jálo
SO	3PL.AN-move	ABL	DEIC.N-PROX	DEIC.PREP-DOWN-AND	3PL.AN-live	Jalo

'So they moved from this place towards the bottom [i.e., westwards], they lived in Jalo.' **AM135_17.18**

12.2.7 Demonstrative verbs

The prefix *la-* 'DEM.V' attaches to one of the two demonstrative roots *ne* 'PROX' or *pa* 'MID', to derive demonstrative verbs (see Guérin 2015 for a recent cross-linguistic typology of demonstrative verbs). Demonstrative verbs in Ambel are used either predicatively or adverbially, to express manner or similarity. An example of a predicative demonstrative verb is given in (54).

(54)

anlane		mansope	*bisa*	tíy
aN=la-ne		mansope	bisa	t-íy
3SG.INAN=DEM.V-PROX		then	be.capable	1PL.I-eat

[Holding up a piece of baked sago:] 'If it is like this, then we can eat [it].' **AM069_40.43**

When demonstrative verbs are used predicatively, they are intransitive, taking a single argument, a subject. This subject can only be inanimate. When used predicatively, demonstrative verbs must be inflected to index the person, number, and animacy of the subject. Demonstrative verbs inflect as Class III or Class IV verbs, i.e. singular inanimate subjects are marked on the verb with the proclitic

aN= '3SG.INAN', and non-singular inanimate subjects are marked on the verb with the prefix *si-* '3NSG.INAN'.

In (54), the demonstrative verb has an exophoric function, i.e. it points to a situation in the external environment; this is shown by the accompanying gesture, in which the speaker holds up the piece of baked sago to which he is referring using the demonstrative verb. When used predicatively, demonstrative verbs far more frequently have an endophoric, discourse deictic function, in which they are used to point, usually anaphorically, to a discourse unit such as a clause or a proposition. An example of a predicative demonstrative verb with an endophoric function is given in (55). This example comes from near the end of the Biak hero myth Manarmakeri. At the end of this myth, Manarmakeri and his family sail away westwards; in some versions of the myth, it is said that, one day, he will return to Papua (see e.g. Mawene 2004, Rutherford 1999). In (55), the speaker uses a demonstrative verb to refer anaphorically to the proposition that Manarmakeri will return to Papua.

(55)

jadi	wane	takátown,	tatabón	bi,	*kirakira*	**anlap**
jadi	wa-ne	ta-kátown	ta-tabón	bi	kira~kira	aN=la-pa
SO	DEM.CNT-PROX	1PL.I-sit	1PL.I-wait	just	REDUP~think	3SG.INAN=DEM.V-MID

ke,	**anlap**	**po**	ke
ke	aN=la-pa	po	ke
EPI.may	3SG.INAN=DEM.V-MID	NEG	EPI.may

'So these days we sit, we just wait, maybe it is like that [i.e., maybe it is the case that he will return], maybe it isn't like that.' **AM112_17.39**

Predicative demonstrative verbs can be used to close a narrative or a topic, or to signal that a speaker's turn is finished. An example of this use of a predicative demonstrative verb is given in (56). This example comes from the very end of a children's story; the speaker uses the demonstrative verb to signal she has finished telling the story.

(56)

anlapa,	potó
aN=la-pa	potó
3SG.INAN=DEM.V-MID	that's.that

'It's like that, the end.' **AM076_04.00**

All attestations of predicative demonstrative verbs with anaphoric discourse deictic function in the corpus are derived from the root *pa* 'MID'. There is one attestation of a predicative demonstrative verb with cataphoric discourse deictic function; this demonstrative verb is derived from the root *ne* 'PROX'. This attestation is given in (57). In this example, the demonstrative verb is used to refer to what the speaker is about to say. It also functions as a turn-maintaining device, as the addressee was about to jump in with an explanation about what they had been previously talking about.

(57)

karna	**anlane**,	mám,	yamárin	kukura...	
karna	aN=la-ne	mám	ya-márin	kukura	
because	3SG.INAN=DEM.V-PROX	father	1SG-be.happy	because	

'Because it's like this, father, I am happy because...' **AM066_09.50**

As well as a predicative use, demonstrative verbs can also be used adverbially, to modify a clause. When used adverbially, demonstrative verbs are not inflected to mark the subject. Adverbial demonstrative verbs can have an exophoric reference, as in (58). This example comes straight after a demonstration of a traditional *sadaká* offering to the spirits; the speaker is explaining the purpose of these offerings to the researcher.

(58)

ámin	***upacara***	***adat***	**lane**	ido,	aa,	lúkum	sikápyu
ám-in	upacara	adat	la-ne	ido	aa	lúkum	si-kápyu
1PL.E-make	ceremony	custom	DEM.V-PROX	FRA	HES	langsat	3NSG.INAN-fruit

'If we do a traditional ceremony like this, then, umm, the langsat [trees] will bear fruit.' **AM280_14.42**

While demonstrative verbs can only be used predicatively when the subject of the clause is inanimate, example (58) shows that adverbial demonstrative verbs can be used with animate subjects. This is shown again in (59). While (58) has exophoric reference, the demonstrative verb in (59) has a discourse deictic function: it refers anaphorically to the invitations that the character has sent out for a party.

(59) kukura **nasidón** **lap** rani lamárin
kukura na-sidón la-pa rani la-márin
because 3SG-inform DEM.V-MID so 3PL.AN-be.happy

'Because he had informed [them] like that [i.e., that there was going to be a party], so they were happy.' **AM112_03.20**

There are no attestations in the corpus of an adverbial demonstrative verb with cataphoric reference. In addition, when demonstrative verbs are used adverbially with discourse deictic function, only verbs derived from the root *pa* 'MID' are attested.

Finally, demonstrative verbs are also attested independently, as neither the predicate of a clause, nor as an adverbial modifier to a clause. In most of these attestations, the demonstrative verb occurs in the preclausal frame (see §8.3.1). This is shown in (60). In this example, the speaker's kidnapped wife has just been explaining how badly her kidnapper treats her.

(60) ido mokoné: "**lap** ido nyatabón, mansope yál aw rín"
ido mokoné la-pa ido nya-tabón mansope y-ál awa rín
so.then say.3SG.AN DEM.V-MID FRA 2SG-wait then 1SG 2SG CONT

'So then he said: "If it's like that, then wait, then I will take you".' **AM020_08.26**

Non-predicate and non-adverbial demonstrative verbs can also be modified by *to* 'IAM'. As with the predicative demonstrative verbs described above, this use of the demonstrative verbs signals the closing of a narrative, or of one's turn, or signals a transition in a story. Only demonstrative verbs derived from *pa* 'MID' are attested with this function. An example is given in (61). This example comes from part-way through the myth of Manarmakeri. The use of the demonstrative verb in this example marks the transition from the set-up of the narrative, in which a woman falls mysteriously pregnant, to one of the main scenes in the narrative, in which the villagers gather, so that the woman's son can point out his father.

(61) “aléna, ntán akuk áre, ape awa mákay bin wane
aléna N-tán akuk áre ape awa mákay bin wa-ne
PLH 3SG.AN-go randomly DEON.must but 2SG child woman DEM.CNT-PROX
ntán po”, **lap** **to**, núl si la hánin ido...
N-tán po la-pa to n-úl si la hánin ido
3SG.AN-go NEG DEM.V-MID IAM 3SG-call 3PL.AN.O ORI to.there FRA

‘[The villagers said:] “Y’know, she must get out and about, but this girl child of yours is not leaving the house [lit: ‘not going’]”; [it was] like that, he [the girl’s father] called them [the villagers] towards that place, then....’ **AM105_04.11**

The difference between predicative and independent demonstrative verbs as a closer or as the signal of a transition requires further investigation.

12.3 Left and right

Occasionally, reference is made to left (*papét*) and right (*pacu*) sides, evoking an intrinsic frame of reference. These can be used to refer to the left and right sides of the human body, as in (62), or to the left and right sides of entities in the wider environment, as in (63). These examples also show that the words for ‘left’ and ‘right’ can either occur independently, as in (63), or in a left-headed N-N compound headed by *pál* ‘side’, as in (62) (see §5.1.3.1 on left-headed compounds).

(62) ndu po **palpacu**
N-du po pál-pacu
3SG.AN-pull ABL side-right

[From Genesis:] ‘He [God] pulled [a bone] from [Adam’s] right side.’

AM198_07.28

(63)

ikasan	wa	**papét**	apa	ido	káwasa	pa	
i-kasán	wa	papét	a-pa	ido	káwasa	pa	
3INAN-river.branch	NMC.DEF	left	ART.NMC-ART	FRA	group.of.people	ART	

ya	lopa
ya	lo-pa
3SG.AN.PRED	DEIC.N-MID

'As for the branch of the river that was on the left, the group of people were in that place.' **AM204_00.39**

12.4 Aeolian and solar phenomena

A final way to talk about space in Ambel is by reference to the directions of the wind, or the directions in which the sun rises and sets. An example of how the directions of the wind are used to locate an entity in space is given in (64). In this example, the speaker is wondering where the king of Mount Nok lived in the 1930s.

(64)

... ntó	pál	ta	anlapa?	**pál**	**wamúrum**	ke,	**pál**	
N-tó	pál	ta	aN=lapa	pál	wamúrum	ke	pál	
3SG.AN-live	side	NMC.INDEF	3SG.INAN=CNST.INT	side	east.wind	EPI.may	side	

waméres	ke
waméres	ke
south.west.wind	EPI.may

'[Where did he live?] On what side [of the mountain] did he live? Maybe the side where the east wind blows [lit: 'the east wind side'], maybe the side where the south-west wind blows [lit: 'the south-west wind side'] .' **AM198_07.28**

The full set of terms for the directions of the wind is given in Table 12.4. Many of these terms are borrowed from Biak, in which the element *wám* means 'wind' (van den Heuvel 2006: 363-364).

The locations of the rising and the setting of the sun are also occasionally used to locate entities in physical space. The word *láyntapisa* refers to the direction in which the sun rises, and *láyntapisun* refers to the direction in which the sun

Table 12.4: Directions of the wind

Word	**Blows from**	**Word**	**Blows from**
morúr	north	wambráw (< Biak), sáwi[a]	south
wambréy (< Biak)	north-east	waméres (< Biak)	south-west
wamúrum (< Biak)	east	pát	west
wamkádo (< Biak)	south-east	morur máce	north-west

[a] The Biak loan *wambráw* 'south wind' is more common in the Ambel settlements on the north coast of Waigeo, while *sáwi* is more common in the villages on the coast of Mayalibit Bay.

sets.[20] An example is given in (65). In this example, the speaker has explained that Kapadiri land runs from Fofak Bay to Kabare; from Kabare eastwards, the land is owned by other groups.

(65)

jadi	pál	wa	ansúy	be	**láyntapisa**	ane	ido
jadi	pál	wa	aN=súy	be	láyntapisa	a-ne	ido
so	side	NMC.DEF	3SG.INAN=go.home	ALL	direction.sunrise	ART.NMC-PROX	FRA

mét	Kabáre	lanin	pál	wapa
mét	Kabáre	la-ni-n	pál	wa-pa
person	Kabare	3PL.AN-POSS.II-NSG.POSS	side	DEM.CNT-MID

'So as for the side that returns in the direction in which the sun rises [i.e., eastwards from Kabare], people from Kabare own that side.' **AM135_15.05**

20. These two words are lexicalisations of the clauses *láynta pa N-sá* [sun ART 3SG.AN-ascend] 'The sun ascends' and *láynta pa N-sun* [sun ART 3SG.AN-enter] 'The sun enters', respectively. The origin of the /i/ element is unknown; it might be related to the 3SG.AN pronoun *i(a)*.

Chapter 13

Complex monoclausal constructions

Complex monoclausal constructions (CMCs) are headed by complex verbs. Complex verbs are comprised of two or more lexical elements, at least one of which is a verbal root, and function as predicates of verbal clauses, in the same way as a simplex verb in monoverbal constructions. Preliminary examples of CMCs are given in (1)–(4).

(1)

mánsar	kiwana	**nala**	líl	**nut**	aa	kúru	wana
mánsar	ki=wana	na-la	líl	n-ut	aa	kúru	wana
respected.man	EMO=DEF	3SG.AN-ORI	landwards	3SG-carry	HES	sago.bucket	DEF

'The man went seawards in order to fetch, umm, the sago bucket.' **AM073_01.17**

(2)

"... bísar	ne	natúk	aroa	bin	i	ne	la	líl
bísar	ne	n-atúk	aro-a	bin	i	ne	la	líl
old.woman	ART	3SG-trick	completely-PART	woman	NSG	ART	ORI	landwards

mansope	**nusúy**	si	po"
mansope	n-ut-súy	si	po
then	3SG-bring-go.home	3PL.AN.O	NEG

'[She said:] "The old woman tricked all of the women [to go] towards the land, then she did not bring them back home".' **AM076_02.34**

(3) **nsupwe** beposa, nsun be ni dókow pa wéy
N-súp-we beposa N-sun be ni-Ø dókow pa wéy
3SG.AN-bathe-water after 3SG.AN-enter ALL POSS.II-3SG.AN hole ART again

'After it [a dragon] had bathed in the river, it entered its cave [lit: 'hole'] again.'
AM031_01.38

(4) "béle, **nyakábunwop** atúmne ho"
béle nya-kábun-wop atúmne ho
cross.cousin 2SG-hide-help 1PC.E IMM.FUT

'[He said:] "Cousin, help [us] by hiding us!".' **AM135_12.20**

Examples (1)–(4) exemplify the two defining features of CMCs. First, these constructions are complex, in that the head of each of the constructions is made up of more than one element with lexical content. In (1), for example, the CMC is comprised of the verbal roots *la* 'ORI' (zero-derived from a prepositional root; see §3.11) and *ut* 'carry, bring'; in (2), the verbal roots *ut* 'carry, bring' and *súy* 'go home' come together to form a complex verb; in (3), the verbal root *súp* 'bathe' and the nominal root *we* 'water' form a complex verb; and in (4), the verbal root *kábun* 'hide' takes a verbal suffix *-wop*, which contributes the meaning 'help' to the construction.

Second, the constructions given in (1)–(4) are monoclausal; there is no coordination or subordination of either of the composite lexical elements in any of these examples. The monoclausality of these constructions is demonstrated in several ways. For example, in (2), the negative marker *po* 'NEG' has scope over the construction as a whole, rather than one of the elements of the construction. In addition, for all of the constructions in (1)–(4), there is either a single set of arguments for the construction as a whole; or, if the construction is comprised of two lexical verbs, these verbs share at least one underlying argument. Thus, in (1), the verbs *la* 'ORI' and *ut* 'carry' share the subject argument (the NP headed by *mánsar* 'respected man') – they do not, however, share an object argument (while the verb *la* 'ORI' takes the directional noun *líl* 'landwards' as its object, *ut* 'carry' takes the NP headed by *kúru* 'sago bucket' as its object). In (2), the CMC has a single subject (an omitted 3SG.AN argument coreferent with the NP headed by *bísar* 'old woman') and a single object (*si* '3PL.AN.O'); in this example, the underlying

subjects and objects of the verbs *ut* 'bring' and *súy* 'go home' are the same as the subject and object arguments of the construction as a whole. Finally, in (3) and (4), the constructions are comprised of a verb (*súp* 'bathe') plus a noun (*we* 'water'), and a verb (*kábun* 'hide') plus a verbal suffix (*-wop* 'help'), respectively. In these constructions, there is a single set of arguments: an omitted 3SG.AN subject argument in (3), and an omitted 2SG subject argument, and the pronominal object *atúmne* '1PC.E' in (4).

The final feature demonstrating the monoclausality of the constructions in (1)–(4) is the realisation of intonation contours. In natural, unbroken speech, the intonation contour realised on CMCs is identical with their monoverbal counterparts, i.e. there is no pause between the elements of these CMCs, as there may be in asyndetic coordination (§14.3.1); nor can Continuation intonation be realised on the first element of the construction (as it is on material occurring in the preclausal frame; see §8.3.1).

CMCs can be divided into three groups, depending on the composite elements. Constructions such as those in (1) and (2) are formed of two verbal roots, i.e. roots that can function independently as verbs, in simplex constructions. These CMCs are serial verb constructions, and will be discussed in §13.1. The construction exemplified in (3) is comprised of a verbal root and a nominal root. These CMCs will be referred to as 'verb-noun compounds', and will be discussed in §13.2. Finally, constructions of the type exemplified in (4) are formed of a verbal root and a verbal suffix, not attested elsewhere. These constructions will be referred to as 'verb-verbal suffix constructions', and will be discussed in §13.3.

13.1 Serial verb constructions

The concept of the 'serial verb construction' (SVC), and the necessary and sufficient characteristics to identify an SVC in an unfamiliar language, have been the subject of much discussion – but little consensus – for the past several decades. While most scholars agree that, in order for a construction to be described as an SVC, it must be both monoclausal, and be comprised of two or more independent verbal roots (e.g. Aikhenvald 2006: 1, Givón 1991: 140, Muysken and Veenstra 2006: 238), this is where the similarities end. Thus, while some scholars use the notion of 'eventhood' in their definition of an SVC, in that an SVC must refer to a single

'event' (e.g. Aikhenvald 2006: 10-12, Bisang 2009: 796), others have cast doubt on this criterion, pointing out that, among other issues, the notion of the 'event' is impractical and unfalsifiable in application (e.g. Cleary-Kemp 2015: 126, Comrie 1995: 36, Haspelmath 2016: 206). Similarly, while most would agree that, in order for a construction to be described as an SVC, there must be no linking element (e.g. Muysken and Veenstra 2006: 238), others describe constructions with linking elements as SVCs (e.g. Foley 2010: 80 on SVCs in Yimas; Aikhenvald 2006: 20 on Khwe and Mwotlap).

Haspelmath (2016) attributes this conceptual and terminological confusion to a conflation of the concepts of 'natural class' and 'comparative concept' when discussing language phenomena. He describes how linguists working on SVCs generally approach them as if they are natural class of language phenomena: a universal, naturally occurring category, which manifests in similar ways cross-linguistically (cf. Haspelmath 2010). He suggests that a more helpful approach from a typological angle is to view SVCs as an example of a 'comparative concept', i.e. a concept "specifically created by scientists who adopt a particular comparative perspective on nature" (2016: 312). Comparative concepts are not diagnosed in the same way as naturally occurring phenomena; rather, linguists observe a particular phenomenon, and then draw up definitional criteria that summarise the cross-linguistic properties of this phenomenon. Following this approach, Haspelmath defines the cross-lingusitic concept of the SVC as in (5).

(5) "A serial verb construction is a monoclausal construction consisting of multiple independent verbs with no element linking them and with no predicate-argument relation between the verbs." (Haspelmath 2016: 296)

Several generalisations can be made about the properties of constructions, cross-linguistically, that fall within this definition. For example, the monoclausal criterion has several implications: the constructions are realised with the same intonation contour as monoverbal constructions, for example, and the verbs share at least one common underlying argument. As the two verbs must be able to occur independently, this definition also excludes constructions comprised of an auxiliary and a main verb. These generalisations, and more issues arising from this definition, are discussed in Haspelmath (2016).

Haspelmath's definition of the cross-linguistic concept of SVCs, given in (5), and the generalisations arising from his defintion, were used as the starting

point to investigate SVCs in Ambel. The necessary language-internal criteria for identifying an SVC in Ambel are given in (6).

(6) Necessary properties of SVCs in Ambel:

- The construction contains at least two verbal roots, both of which can be used independently in monoverbal constructions;
- The construction is monoclausal – for example, there are only single negation, aspect, and mode slots in the clause: negative, aspect, and mode particles have scope over all of the verbal roots (cf. Haspelmath 2016: 299, building on Bohnemeyer et al. 2007: 501).

The constructions that are included in the definition given in (6) have several subsidiary properties, i.e. properties that are not definitional of SVCs in Ambel, but that arise because of the properties in (6). These subsidiary properties are given in (7).

(7) Subsidiary properties of SVCs in Ambel:

- None of the verbs are subordinated to any of the others;
- The verbs are not coordinated, either syndetically or asyndetically;
- SVCs are realised with a single intonation contour, i.e. there is no intonational break as there can be in asyndetically-coordinated clauses (§14.3.1);
- There is at least one underlying argument shared by both of the verbs – this is typically, but not always, the subject.

On the basis of the definition given in (6), four different constructions can be identified as serial verb constructions in Ambel, based on morphosyntactic and semantic criteria. These four types of SVC are as follows:

1. **Direction of transfer SVCs**, which express the manner and direction of transfer of an entity (the object of the SVC). In these SVCs, the first verb (V1) expresses the manner in which the object is transferred, and the second verb (V2) expresses the direction in which it is transferred. Direction of transfer SVCs are discussed in §13.1.1.

2. SVCs referring to the **change of state** of an entity (the object of the SVC), in which V1 expresses an action that leads to a change of state, and V2 expresses an action that causes the change of state. Change of state SVCs are discussed in §13.1.2.

3. **Manner serialisation**, in which V2 expresses the manner in which the action communicated by V1 was carried out. Manner SVCs are discussed in §13.1.3.

4. SVCs communicating **purposive motion**, in which V1 expresses movement in order to carry out the action communicated by V2. Purposive motion SVCs are discussed in §13.1.4.

These four kinds of SVC in Ambel will be described with reference to the formal properties laid out in Aikhenvald's (2006) cross-linguistic typological survey of SVCs, as well as van Staden and Reesink's (2008) local typology of SVCs in the linguistic area of East Nusantara (see §1.3.5). The formal properties adapted from Aikhenvald (2006) are given in A–C:

A **Grammatical marking**: An SVC may take **single** grammatical marking (e.g., the subject of the clause is only marked on one component of the SVC), or it may take **concordant** marking (e.g., every component of the SVC takes subject marking).

B **Contiguity**: An SVC is contiguous if no other constituent may intervene between the elements. If another constituent may intervene between the elements, the SVC is non-contiguous.

C **Wordhood**: An SVC may consist of a single grammatical or phonological word, or it may consist of multiple grammatical or phonological words (see §3.1.1 for a definition of the word in Ambel).

Based on these criteria, the four types of SVC given above can be placed on a cline, running from the mostly tightly-knit to the least tightly-knit SVCs: more tightly-knit SVCs take single grammatical marking, are strictly contiguous, and constitute a single grammatical and/or phonological word, whereas more loosely-bound SVCs may have concordant grammatical marking, are not necessarily contiguous, and do not necessarily constitute a single

grammatical or phonological word. This cline, and the position of the four SVCs in 1–4 above, is given in Figure 13.1.[1]

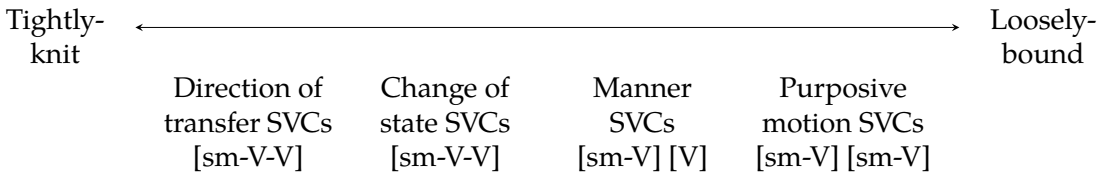


Figure 13.1: Ambel SVCs: from tightly knit to loosely bound
('sm-' should be read as 'subject-marking affix' (§4.1.1);
square brackets indicate the boundaries of phonological words)

As well as discussion with reference to properties A–C, each type of SVC will be positioned within the typology of SVCs in East Nusantara advanced by van Staden and Reesink (2008). In their typology, van Staden and Reesink distinguish four types of SVC attested in the languages of the area, based on morphosyntactic criteria and argument structure. These four types are:

i. **Independent serialisation**: The SVC has concordant marking, e.g. all of the elements take subject marking.

ii. **Dependent serialisation**: The SVC has single marking, i.e. there is only one instance of grammatical marking per SVC. In addition, the elements of the SVC are not necessarily contiguous.

iii. **Complex verb serialisation**: The SVC has single marking. In addition, the elements of the SVC are strictly contiguous, thus overruling any other constituent-ordering constraints in the language. (For example, in an SVO language, the object of a transitive V1 may be ordered after V2, even if V2 is intransitive.)

1. While both direction of transfer and change of state SVCs are similarly tightly bound, in that both types of SVC constitute a single word, are contiguous, and take single grammatical marking, it will be shown below that direction of transfer SVCs are even more tightly bound than change of state SVCs, both phonologically, and in terms of argument structure. Phonological reduction occurs in direction of transfer SVCs, but does not in change of state SVCs. In terms of their argument structure, V1 and V2 are codependent in direction of transfer SVCs: the object of V1 is equivalent to the subject of V2. In change of state SVCs, however, the subject of V1 is equivalent to the subject of V2, and the object of V1 (where present) is equivalent to the object of V2. Change of state SVCs are thus less tightly integrated.

iv. **Co-dependent serialisation**: The elements of the SVC are dependent on one another in such a way that the object of V1 is the subject of V2.[2]

In §§13.1.1–13.1.4, the parameters of variation given in A–C above, along with the four types of SVC outlined in i.–iv., will be used to describe the four SVCs in Ambel. The order in which these SVCs will be discussed will run from most tightly-bound to least tightly bound: direction of transfer SVCs in §13.1.1, change of state SVCs in §13.1.2, manner SVCs in §13.1.3, and purposive motion SVCs in §13.1.4. In §13.1.5, a summary of the function and form of Ambel SVCs will be given.

13.1.1 Direction of transfer serialisation

Direction of transfer SVCs are used to communicate the direction in which a particular entity – the object of the SVC – is transferred by the subject of the SVC. Direction of transfer SVCs are highly restricted: V1 can only be one of three transitive/ditransitive verbs of transfer (*ál* 'take', *bí* 'give' or *ut* 'carry, bring'), and V2 is one of the following four verbs of motion, which indicate the direction of the transfer: *sá* 'ascend', *ále* 'descend', *dók* 'leave, arrive', *súy* 'go home'.

Examples of direction of transfer SVCs are given in (8) and (9). Example (8) comes from a prayer. In this example, V1 in the SVC is *ut* 'carry, bring', indicating the mode of transfer; V2 is the verb *ále* 'descend', indicating that the path of transfer is in a downwards direction.

(8)

kiranya	nyále	be	**nyutále**	nim	*roh*	pa
kiranya	ny-ále	be	ny-ut-ále	ni-m	roh	pa
beseech	2SG-descend	PURP	2SG-carry-descend	POSS.II-2SG	holy.spirit	ART

[Addressing God:] '[I] beseech [you], descend in order to bring down your holy spirit.' **AM191_20.47**

Example (9) is from a story about a friendly dragon. In this example, V1 of the SVC is the verb of transfer *ál* 'take'; the V2, communicating the direction of transfer,

2. Note that independent, dependent, and complex SVCs are defined morphologically and with reference to word ordering constraints, whereas co-dependent SVCs are defined according to their argument structure. A co-dependent SVC can thus also be categorised as an independent, a dependent, or a complex SVC, depending on whether it has single or concordant marking, and whether or not it is contiguous.

is *súy* 'go home'. This example shows that, when used as the V2 in a direction of transfer SVC, the semantics of *súy* 'go home' is bleached. The meaning contributed by *súy* 'go home' in direction of transfer SVCs is 'back', as in 'take back', 'give back', or 'carry back', depending on V1.[3]

(9) "**yálsuy** gamun i pa wéy ido kisia lahey wéy"
y-ál-súy gamú-n i pa wéy ido ki=sia la-hey wéy
1SG-take-go.home smell-3PL.AN NSG ART again FRA EMO=3PL 3PL.AN-good again

'[The dragon said:] "If I take their [the children's] smells back [to them], then they will be healthy again".'[4] **AM031_05.25**

As can be seen in (8) and (9), there is single grammatical marking for direction of transfer SVCs: the person, number, and animacy of the subject of the clause is marked once in the construction, on V1. These examples also show that direction of transfer SVCs constitute a single phonological word. This is shown, for example, in (9). Recall from §2.3.2.2 that tone is culminative in Ambel: only one lexical /H/ is realised per word. In (9), there are two underlying /H/ specifications: one on the V1 *ál* 'take', and the other on the V2 *súy* 'go home'. Only one of these /H/ tones is realised, demonstrating that the SVC *ál-suy* 'take back' is a single word.

Direction of transfer SVCs are strictly contiguous: no other element can intervene between V1 and V2. This is shown, for example, in (10), which shows that neither a manner adverb *belémay* 'quick' (10a) nor an object pronoun (10b) can occur between V1 (*ut* 'carry, bring') and V2 (*ále* 'descend').

(10) a. * bísar pa **nut** belémay **ále** nia
bísar pa n-ut belémay ále ni-Ø-a
respected.woman ART 3SG-carry quick descend POSS.II-3SG.AN-PAR
kút i pa
kút i pa
coconut NSG ART

[Intended reading:] 'The woman quickly brought her coconuts down.'

AM220_el.

3. The element *súy* 'go home' can also be used in the functionally and formally distinct manner SVCs, also with a bleached meaning; see §13.1.3 below, and in particular footnote 12, which describes the differences between the two different constructions.
4. As will be described in Appendix A, one's *gamú* 'smell' is a vital part of one's well-being. One's *gamú* 'smell' can be taken away, for example by a dragon or a spirit. If one has lost one's *gamú* 'smell', one will waste away and eventually die.

b. * bísar pa **nut** asi **ále**
bísar pa n-ut asi ále
respected.woman ART 3SG-carry 3NSG.INAN.O descend

[Intended reading:] 'The woman brought them down.' **AM287_el.**

Based on the data in (8)–(10), and following van Staden and Reesink's (2008) areal typology of SVCs, direction of transfer SVCs in Ambel can be characterised as examples of complex verb serialisation. This is because there is single grammatical marking, and V1 and V2 are contiguous to the extent that the usual SVO constituent order is overridden. In other words, the underlying object of V1 – the NP headed by *roh* 'holy spirit' in (8), and the NP headed by *gamú* 'smell' in (9) – cannot directly follow V1, but must follow V2.

Direction of transfer SVCs can also be characterised as examples of co-dependent serialisation, in that the underlying object of V1 is the underlying subject of V2. For example, in (8), the underlying object of V1 *ut* 'carry, bring' is the NP headed by *roh* 'holy spirit'; the NP headed by *roh* 'holy spirit' is also the underlying subject of the V2 *ále* 'descend'. Similarly, in (9), the underlying object of V1 *ál* 'take' is the NP headed by *gamú* 'smell'; and the NP headed by *gamú* 'smell' is the underlying subject of V2 *súy* 'go home'.[5]

A final property of direction of transfer SVCs indicating how tightly-knit V1 and V2 are is phonological reduction. If V1 is /t/-final *ut* 'carry, bring', and the first consonant of V2 is /s/- or /d/-initial (i.e., *sá* 'ascend', *súy* 'go home', or *dók* 'leave, arrive'), the final /t/ of *ut* 'carry, bring' is often elided. In addition, if V1 is *bí* 'give' and V2 is *súy* 'go home', the /i/ of *bí* 'give' is often realised [ú]. These phonological properties of direction of transfer SVCs are shown in (11) and (12), respectively.

(11) ima kiwana mokoné: "**nyudók** i to"
i-má ki=wana mokoné ny-ut-dók i to
3SG-father EMO=DEF say.3SG.AN 2SG-carry-leave 3SG.AN.O IAM

'Her father said: "Carry him outside".' **AM105_04.37**

5. A similar pattern is reported in van Staden and Reesink (2008: 39) for the nearby Papuan languages Moi (Menick 1996: 51) and Hatam (Reesink 1999: 99), both of which use co-dependent SVCs to express the transfer of an entity, when V1 is transitive.

(12)	**mbúsuy**	asi	be	matú	to
	N-bí-súy	asi	be	matúa	to
	3SG.AN-give-go.home	3NSG.INAN.O	OBL	2PC	IAM

'They [the Wakaf clan] have already given them [some gardens] to you.'[6]

AM135_04.42

Phonological reduction in direction of transfer SVCs is represented in the first line of transcription in examples throughout this grammar.

13.1.2 Change of state serialisation

In change of state SVCs, the referent of the subject of the SVC causes some change of state to the referent of the object of the SVC. V2 expresses a punctual action that results in the change of state, and V1 expresses the activity that led to the change of state. An example of a change of state serialisation is given in (13).

(13)	**ulakútkamtua**	dow	ikatara	low	wana	ido...
	ula-kút-kámtu-a	dow	i-katara	low	wana	ido
	3DU-cut-break.off-PAR	rattan	3INAN-end	two	DEF	FRA

'When the two of them broke the two ends of the rattan [ladder] by cutting it, then [straightaway all of the people on the ladder fell down].' **AM074_02.42**

In (13), the referent of the NP headed by *katara* 'end' undergoes a change of state. The V2 (the transitive verb *kámtu* 'break off') expresses the outcome of the change of state, and the V1 (the transitive verb *kút* 'cut') explains how the change of state was achieved. The NP headed by *katara* 'end' is the object of the SVC; it is also the underlying object of both V1 and V2. In this example, the subject of the SVC is an omitted 3DU argument. This 3DU argument is also the underlying subject of V1 and V2.

Another example of a change of state SVC is given in (14). In this example, the referent of the object pronoun *i* '3SG.AN.O', Magdalena, undergoes a change of state: the subject of the SVC, Helena, kicks her (V1: transitive *tál* 'kick with sole of foot') so that Magdalena rolls off the boat where they are sitting (V2: transitive *kaéloy* 'roll')

6. The root *súy* 'go home' is often used when referring to the transfer of land and land rights, either in a direction of transfer SVC, or independently. This is true even if there is no connotation of the land having formerly belonged to and now being returned to the recipient.

(14) Magdaléna a kináne ido Heléna a **ntálkaeloy**
Magdaléna a ki=n-áne ido Heléna a N-tál-kaéloy
Magdalena PERS EMO=3SG-sleep FRA Helena PERS 3SG.AN-kick.with.sole.of.foot-roll
i...
i
3SG.AN.O

'When Magdalena was sleeping, Helena rolled her by kicking her with the sole of her foot...' **AM019_06.48**

As in (13) above, the subject of the SVC (*Heléna*) is the underlying subject of both V1 and V2, and the object of the SVC (*i* '3SG.AN.O') is the underlying object of both V1 and V2.

Examples (13) and (14) show that there is single grammatical marking in change of state SVCs: the subject of the SVC is marked once, on V1. These examples also show that change of state SVCs constitute single phonological words. Evidence for this comes again from the realisation of /H/ syllables. In both (13) and (14), both V1 and V2 have a /H/ specification. However, in both examples, only the first lexical /H/ is realised.

Change of state SVCs are contiguous, in that no element can intervene between V1 and V2. This is shown in (15), in which the 3SG.INAN pronoun *ana* cannot occur between V1 and V2.

(15) a. júkamtu ana
<y>dú-kámtu ana
<1SG>pull-break.off 3SG.INAN

'I break off some of it [e.g. a piece of rope] by pulling.'

b. * jú an kamtu
<y>dú ana kámtu
<1SG>pull 3SG.INAN break.off

[Intended reading:] 'I break off some of it by pulling.' **AM281_el.**

While the candidate verbs that can occur as V1 and V2 in change of state SVCs are not as restricted as the direction of transfer SVCs discussed in the previous section, there are still restrictions: both V1 and V2 must be verbs of affect (see e.g.

Dixon 2010b: 127). A list of the verbs attested in change of state SVCs is given in Table 13.1.[7]

Table 13.1: Verbs attested in change of state SVCs

Attested V1s			**Attested V2s**		
Verb	**Trans**	**Meaning**	**Verb**	**Trans**	**Meaning**
bun	tr.	'hit'	bun	S=A	'kill'
dú	tr.	'pull'	kaéloy	tr.	'roll s.t.'
gunting (< PM)	tr.	'cut with scissors'	káho	tr.	'squeeze'
kahótol	S=A	'squeeze'	kájiw	tr.	'pierce'
kasáp	tr.	'use tongs'	kamára	tr.	'tear'
kút	tr.	'cut'	kámje	tr.	'break'
mdól	intr.	'fall'	kámtu	tr.	'break'
sák	tr.	'bite'	kamúgum	tr.	'shatter'
táku	tr.	'chop'			
tál	tr.	'kick with sole of foot'			
tápe	tr.	'stab, skewer'			
táto	tr.	'chop with machete'			
te	tr.	'spear'			
tul	tr.	'peck'			
wul	tr.	'beat with stick'			

With the exception of *mdól* 'fall', all of the verbs in Table 13.1 are either transitive, or S=A ambitransitive. As was described above, V1 and V2 share both their subject and object arguments: the subject of the SVC is the underlying subject of both V1 and V2, and the object of the SVC is the underlying object of both V1 and V2 (unless V1 is *mdól* 'fall', in which case it is only the underlying object of V2).

Thus, following van Staden and Reesink's (2008) terminology, change of state SVCs are not examples of co-dependent serialisation, as the underlying object of V1 is not the underlying subject of V2. This is one way in which change of state SVCs differ from the direction of transfer SVCs discussed in the previous section. Using their typology, change of state SVCs in Ambel can be characterised as examples

7. The extent to which verbs in the first column in Table 13.1 can combine with the verbs from the second column is unknown – in other words, it is unknown whether any verb from the first column can be used as V1 with any verb from the second column as V2. Note that the PM loan *gunting* 'cut with scissors' is attested as V1 in a change of state SVC: this indicates that at least the V1 component of these SVCs is productive.

of complex verb serialisation, in that there is single grammatical marking, and V1 and V2 are strictly contiguous (i.e., no element can intervene in between V1 and V2).

An unusual phonological feature of change of state SVCs is that, if there is no underlying /H/ specification on the component elements, [H] is realised on the final syllable of the SVC. In other words, [H] is obligatory in change of state SVCs (see §2.3.2.2 for more on the general lack of obligatory [H] elsewhere in Ambel phonology). This is shown, for example, in (16). In this example, the final syllable of the SVC is realised with [H], even though the components of the SVC are both toneless (V1: *tul* 'peck', V2: *bun* 'kill').

(16)

ntulbún	i	wapa	
N-tul-bun	i	wa-pa	
3SG.AN-peck-kill	3SG.AN.O	DEM.CNT-MID	

'It killed him by pecking.' **AM042-04_01.19**

Similar behaviour was reported in §2.5.3 for some reduplication patterns.

13.1.3 Manner serialisation

Manner SVCs are comprised of two verbs. V1 communicates the event expressed by the clause as a whole, and V2 communicates the manner in which this event was carried out. Some examples of manner SVCs are given in (17) and (18).

(17)

napúsal	go	wan	beposa,	ido	**nané**	**kaláy**	la	pul
na-púsal	go	wana	beposa	ido	n-ané	kaláy	la	pul
3SG-release	bamboo	DEF	after	FRA	3SG-sleep	spread.legs	ORI	downwards

'After she let go of the bamboo [flasks], she laid [lit: 'slept'] spreadeagled on the floor.' **AM188_12.34**

(18)

lahán,	**lahán**	**sál**	si	bi
la-hán	la-hán	sál	si	bi
3PL.AN-shoot.with.bow	3PL.AN-shoot.with.bow	be.wrong	3PL.AN.O	just

'They were shooting with bows, they were just shooting with bows and missing them.' **AM042-01_00.18**

Examples (17) and (18) show that manner SVCs are comprised of two phonologically independent elements. This is shown by the realisation of all underlying /H/ syllables in the SVC. These examples also show that manner SVCs take single grammatical marking, in that the subject of the clause is marked once on the SVC, on V1. Manner SVCs are distinguished from constructions in which a verbal root is modified by one of the manner adverbs discussed in §3.4.4 because manner SVCs comprise two independent verbal roots; the manner adverbs, however, cannot function as verbs, for example they cannot head a verbal clause.

Manner SVCs can be subdivided into two further groups: manner SVCs that are contiguous, and manner SVCs that are non-contiguous. Each kind of manner SVC is discussed in turn.

13.1.3.1 Contiguous manner SVCs

The majority of the manner SVCs attested in the corpus are contiguous, meaning that no element can intervene between V1 and V2. This is shown in (19), in which the 3SG.INAN.O pronoun *asi* cannot occur between V1 and V2 of the SVC.

(19) a. **y-íy** **sáy** kút i ne bi
1SG-eat be.alone coconut NSG ART just

'I eat the coconuts by myself.' **AM281_el.**

b. * **y-íy** asi **sáy** bi
1SG-eat 3SG.INAN.O be.alone just

[Intended reading:] 'I eat them by myself.' **AM281_el.**

A near-exhaustive list of the contiguous manner SVCs attested in the corpus is given in Table 13.2.[8] V1 appears to be unrestricted in contiguous manner SVCs, but only certain verbs are attested as V2; these SVCs are therefore alphabetised by the V2.

The contiguous manner SVCs in Table 13.2 provide a mixed picture. First, there are no patterns with regards to the transitivities of either V1 or V2. Attested V1s include intransitive verbs (e.g. *ól* 'stand'), S=A ambitransitive verbs (e.g. *sun* 'enter, enter into'), and transitive verbs (e.g. *ut* 'carry, bring'). Similarly, attested

8. The contiguity of each of these SVCs was checked in elicitation sessions.

Table 13.2: Examples of contiguous manner SVCs

V1			V2			SVC		
Form	**Meaning**	**Trans**	**Form**	**Meaning**	**Trans**	**Form**	**Meaning**	**Trans**
alén	'do'	tr.	abáy	'play, play with'	S=A	alén abáy	'mess around with'	tr.
ut	'carry, bring'	tr.	ápil	'drop s.o. off'	tr.	ut ápil	'take by canoe and drop off'	tr.
katól	'oppose'	tr.	asúy	'speak, speak to'	S=A	katól asúy	'oppose with words'	intr.
ut	'carry, bring'	tr.	áti	'run; travel by motorised canoe'	intr.	ut áti	'carry by motorised canoe'	tr.
sidón	'inform'	tr.	kábun	'hide'	S=O	sidón kábun	'inform secretly'	tr.
ané	'sleep'	intr.	kaláy	'spread legs'	intr.	ané kaláy	'lie or sleep spreadeagled'	intr.
ól	'stand'	intr.				ól kaláy	'stand legs akimbo'	intr.
kátown	'sit'	intr.	kapów	'open'	tr.	kátown kapów	'squat'	intr.
ól	'stand'	intr.	katébel	'be rigid'	S=A	ól katébel	'stand rigidly'	intr.
ábay	'pay, pay for'	S=A	kút	'cut'	tr.	ábay kút	'pay less than normal'	S=A
áp	'paddle, paddle s.o.'	S=A				áp kut	'paddle and overtake'	S=A
asúy	'speak, speak to'	S=A				asúy kut	'tell abridged version of story'	S=A
lá	'swim'	intr.				lá kut	'take shortcut while swimming'	intr.
mát	'die'	intr.				mát kut	'die during a journey'	intr.
sun	'enter, enter into'	S=A				sun kút	'enter quickly'	intr.
tán	'walk, go'	intr.				tán kut	'take shortcut'	intr.
tó	'stay, live'	S=A	mámpram	'not want to go home'	intr.	tó mámpram	'stay for a long time without going home'	S=A
asúy	'speak, speak to'	S=A	sál	'be wrong'	intr.	asúy sál	'misspeak'	S=A
hán	'shoot with arrow'	tr.				hán sál	'shoot and miss'	tr.
hitun	'count' (< PM)	S=A				hitun sál	'count s.t. incorrectly'	tr.
íy	'eat'	tr.				íy sál	'mistakenly eat'	tr.
íy	'eat'	tr.	sáy	'be alone'	intr.	íy sáy	'eat s.t. by onesself'	tr.
tó	'live (at)'	S=A				tó sáy	'live alone (at)'	S=A
ól	'stand'	intr.	tabón	'wait for'	tr.	ól tabón	'wait while standing'	tr.
wól	'be anchored; anchor'	S=O				wól tabón	'wait while anchored'	tr.
tán	'go, walk'	intr.	tamtém	'be closed'	intr.	tán tamtém	'walk around quietly'	intr.

V2s include intransitive verbs (e.g. *sál* 'be wrong'), S=A ambitransitive verbs (e.g. *abáy* 'play, play with'), S=O ambitransitive verbs (e.g. *kábun* 'hide'), and transitive verbs (e.g. *kút* 'cut'). Generally speaking, and as would be expected from an SVC in which the V1 communicates the event, and the V2 communicates the manner in which the event was carried out, the transitivity of V1 determines the transitivity of the SVC. However, there are some exceptions, for example the SVC *katól asúy* 'oppose with words', which is an intransitive SVC with a transitive V1.

The semantics of the contiguous manner SVCs are generally predictable from the component verbs. Thus, for example, when the V2 is *sál* 'be wrong', an SVC of the form *X sál* means 'do X in an incorrect or poor manner'; when the V2 is *sáy* 'be alone', an SVC of the form *X sáy* means 'do X without anyone else'. However, not all of the SVCs in Table 13.2 have such decomposable semantics. For example, in the SVC *tán* 'walk' + *tamtém* 'be closed' = *tán tamtém* 'walk around quietly', the semantic contribution of *tamtém* (i.e., 'quietly'), is not predictable from the semantics of the root ('be closed'). Similarly, consider the following manner SVCs, all of which have V2 *kút* 'cut': *áp* 'paddle' + *kút* 'cut' = *áp kut* 'paddle and overtake'; *asúy* 'speak, speak to' + *kút* 'cut' = *asúy kut* 'tell abridged version of story'; *lá* 'swim' + *kút* 'cut' = *lá kut* 'take a shortcut while swimming'; *mát* 'die' + *kút* 'cut' = *mát kut* 'die during a journey'; and *sun* 'enter' + *kút* 'cut' = *sun kút* 'enter quickly'. For each of these SVCs, the contribution of V2 *kút* 'cut' can be broadly characterised as 'do V1 quicker than usual or sooner than expected', but the precise contribution of *kút* 'cut' is subtly different in each case.

Table 13.2 shows that manner SVCs in which V2 is *kút* 'cut' behave idiosyncratically with regards to phonology. For most of the manner SVCs in Table 13.2, all /H/ syllables are realised as [H] – for example, *ól katébel* 'stand rigidly', *sidón kábun* 'inform secretly', and *íy sál* 'mistakenly eat'. However, when the V2 is *kút* 'cut', all underlying /H/ syllables are realised, unless the final syllable of V1, i.e. the syllable immediately preceding *kút* 'cut', is realised with lexical /H/. In this case, *kút* 'cut' is realised [H ~ M], i.e. in the same way as a toneless syllable following a syllable realised with lexical /H/ (see §2.3.2.1). It is unclear why manner SVCs with V2 *kút* 'cut' behave in this way.

Finally, note that the PM loan *hitun* 'count' is attested as V1 in a contiguous manner SVC (*hitun* 'count' + *sál* 'be wrong' = *hitun sál* 'count s.t. incorrectly'; see (21) below). This shows that the V1 slot of contiguous manner SVCs is

productive. The V2 slot, however, is not productive; only the roots listed in Table 13.2 are attested as V2 in manner SVCs.

Contiguous manner SVCs are futher exemplified in (20) and (21).

(20)

anta	táp	ido	tém	ia	**nól**	**katébel**	aima
anta	t-áp	ido	t-ém	ia	n-ól	katébel	a-i-ma
later	1PL.I-paddle	FRA	1PL.I-see	3SG.AN	3SG-stand	be.rigid	DEM.NCNT-UP-DIST

'If one travels by boat, one can see that he stands rigidly on top [of the island].'

AM135_10.29

(21)

ido	**ya*hitun***	**sál**	tápo	pa	wéy	
ido	ya-hitun	sál	tápo	pa	wéy	
so.then	1SG-count	be.wrong	breaker	ART	again	

'So then I incorrectly counted the breakers again.'[9] **AM066_21.39**

Examples (20) and (21) both show that the shared argument in contiguous manner SVCs is the subject. Thus, in (20), the underlying subject of V1 (*ól* 'stand') is the same as the underlying subject of V2 (*katébel* 'be rigid'); in (21), the underlying subject of V1 (*hitun* 'count') is the same as the underlying subject of V2 (*sál* 'be wrong'). Thus, following van Staden and Reesink's (2008) typology, contiguous manner SVCs are not co-dependent SVCs, because the object of V1 is not the subject of V2. Contiguous manner SVCs are examples of complex verb serialisation, in that there is single marking, and, as shown in (19), the elements are contiguous to the extent that the usual SVO constituent order is overridden.

13.1.3.2 Non-contiguous manner SVCs

There are four manner SVCs that are non-contiguous, i.e. where V1 and V2 are not necessarily contiguous: manner SVCs in which V2 is *belémay* 'be quick', *gali* 'help', *hey* 'good', or *súy* 'go home'. Some examples of non-contiguous manner SVCs are given in (22) and (23).

9. 'Counting the breakers' refers to a tradition in which one counts the number of breakers before pushing a canoe off. After every four or seven breakers, there is thought to be a slight period of calm, making it easier to depart. See footnote 36 in Appendix D.4 for a more detailed explanation.

(22) **nin** **galia** now pa be ampo
n-in gali-a now pa be aN=po
3SG-make help-PAR house ART PURP 3SG.INAN=NEG
'He helped [his cousin] to build the house, so that it was finished.' **AM020_01.43**

(23) nsúp be **nsów** **hey** bát ikapyow wap po
N-súp be N-sów hey bát i-kapyów wa-pa po
3SG.AN-bathe and 3SG.AN-wash good earth 3INAN-batch DEM.CNT-MID NEG
'She bathed, and she did not wash that clod of earth [off] properly.' **AM188_09.24**

In examples (22) and (23), V1 and V2 are contiguous. This is generally the case for non-contiguous manner SVCs: in most attestations in the naturalistic corpus, V2 immediately follows V1. Examples (24) and (25), however, from the elicited corpus, show that other material can intervene between V1 and V2.

(24) **yin** now pa **gali**
y-in now pa gali
1SG-make house ART help
'I help [my cousin] to build a house.' **AM281_el.**

(25) **nyém** nik we ne **hey** po
ny-ém ni-k we ne hey po
2SG-look POSS.I-1SG child ART good NEG
'You have not looked after my child properly.' **AM281_el.**

According to the speakers I consulted, there is no semantic difference between the manner SVCs in which the object of V1 follows V2, as in (22) and (23), and those in which the object intervenes between V1 and V2, as in (24) and (25).

As the SVCs discussed in this section need not be contiguous, but take only single grammatical marking, following the typology of van Staden and Reesink (2008) they can be characterised as dependent SVCs. Examples (22)–(25) additionally show that, again like contiguous manner SVCs, the shared argument in non-contiguous manner SVCs is the subject. Thus, in (22) and (24), the subject of

V1 (*in* 'make') is the same as the subject of V2 (*gali* 'help'). Non-contiguous manner SVCs are therefore not examples of co-dependent SVCs.

Like contiguous manner SVCs, the semantics of non-contiguous manner SVCs is often predictable from the semantics of the two roots. Thus, an SVC in which V2 is *gali* 'help', i.e. of the form *X gali*, will mean 'help to X' (e.g. *dú* 'pull' + *gali* 'help' = *dú gali* 'help to pull'); and an SVC in which V2 is *belémay* 'be quick', i.e. of the form *X belémay*, will mean 'do X quickly' (e.g. *íy* 'eat' + *belémay* 'be quick' = *íy belémay* 'eat quickly').

However, the meaning of SVCs in which V2 is *hey* 'good' or *súy* 'go home' is not always predictable from the semantics of the composite roots. In some attestations, the V2s *hey* 'good' and *súy* 'go home' make a more grammatical contribution to the meaning of the construction. For example, when V1 is a stative verb, V2 *hey* 'good' functions as an intensifier (e.g. *mtów* 'be tough' + *hey* 'good' = *mtów hey* 'be very tough'; *me* 'be shallow, be dry' + *hey* 'good' = *me hey* 'be very shallow, be very dry'). In addition, *hey* 'good' can function as a marker of habitual aspect, as in (26) and (27).[10]

(26)

ini	bísar	wapa	**namarków**	**hey**
i-ni	bísar	wa-pa	na-marków	hey
3SG-POSS.I	wife	DEM.CNT-MID	3SG-scold	good

'That wife of his was a scold.' **AM181_04.21**

(27)

awa	**nyíy**	cun	**hey**?
awa	ny-íy	cun	hey
2SG	2SG-eat	sago.biscuit	good

[Asking the researcher:] 'Do you eat sago biscuit?' **AM069_33.39**

Similarly, while the semantic contribution of V2 *súy* 'go home' is transparent and predictable if V1 is a verb of motion, such as *áp* 'paddle' or *áti* 'run' (e.g. *áp* 'paddle' + *súy* 'go home' = *áp suy* 'paddle home'; *áti* 'run' + *súy* 'go home' = *áti súy* 'run home'), for other V1s, the meaning is less predictable. For example, in the SVC

10. Both Ma'ya and Matbat have habituative markers which have grammaticalised from the lexical item meaning 'good'. In Matbat, there is a modal marker *fi*^{3}, translated 'to feel like', 'to like', 'to tend to be' (cf. *fi*^{3} 'good'; Remijsen 2010: 305), and in Ma'ya, there is a habituative mode marker *'fi*^{3} (cf. *'fi*^{3} 'good'; van der Leeden n.d.c: 121).

taním ‘plant’ + *súy* ‘go home’ = *taním suy* ‘plant again’, *súy* ‘go home’ contributes a meaning ‘do again’; and in the SVC *káwawi* ‘hang’ + *súy* ‘go home’ = *káwawi súy* ‘hang back up’, *súy* ‘go home’ contributes a meaning ‘return to source or rightful place’.

Another function of manner SVCs with V2 *súy* ‘go home’ was mentioned in §8.2.1.2 above: these constructions can receive a reflexive reading. An example of this is given in (28).[11]

(28) kukura ia **nákyar** **súy** to
kukura ia n-ákyar súy to
because 3SG.AN 3SG-trust go.home IAM

‘Because he trusted himself.’ **AM204_1.37.38**

When *súy* ‘go home’ occurs as the V2 of a non-contiguous manner SVC, the phonological behaviour of the SVC is the same as manner SVCs in which the V2 is *kút* ‘cut’, described in the previous section. Like *kút* ‘cut’, if V2 *súy* ‘go home’ is immediately preceded by a syllable on which lexical /H/ is realised, it is realised like a toneless syllable, i.e. [H~M]; if it is not immediately preceded by lexical /H/, it is realised [H]. Thus, while the /H/ of *súy* ‘go home’ is realised in an SVC like *áti* ‘run’ + *súy* ‘go home’ = *áti súy* ‘run home’, it is not in an SVC like *áp* ‘paddle’ + *súy* ‘go home’ = *áp suy* ‘paddle home’. Like the SVCs discussed above with *kút* ‘cut’ as V2, it is unclear why these SVCs behave in this way.[12]

11. There is one attestation in the elicited corpus of reflexivity expressed with both a manner SVC with V2 *súy* ‘go home’, and the reflexive particle *mánkun* ‘REFL’. This example is given in (i).

(i) ia mbun súy mánkun i
ia N-bun súy mánkun i
3SG.AN 3SG.AN-hit go.home REFL 3SG.AN

‘He hits himself.’ **AM092_el.**

12. This phonological behaviour is one of the features that distinguishes manner SVCs with V2 *súy* ‘go home’ from direction of transfer SVCs with V2 *súy* (described in §13.1.1). Direction of transfer SVCs are single phonological words, and thus only one /H/ is realised; manner SVCs with V2 *súy* ‘go home’ are two separate phonological words, thus more than one lexical /H/ can be realised. Another feature distinguishing the two types of SVC is the difference in the semantic contribution of *súy* ‘go home’. In direction of transfer SVCs, *súy* ‘go home’ expresses that an entity is being transferred back to a source location. However, as just discussed, the contribution of *súy* ‘go home’ in manner SVCs is more idiosyncratic, ranging from a transparent and predictable meaning when V1 is a verb of motion, to a reflexive meaning.

Non-contiguous manner SVCs are attested with direction of transfer SVCs as their V1, as in (29). In the direction of transfer SVC in this example, V1 is *ut* 'carry, bring', and V2 is *súy* 'go home'. In the contiguous manner SVC, V1 is the direction of transfer SVC, and V2 is also *súy* 'go home'.

(29) mán low pa **[[ulu]$_{V1}$súy]$_{V2}$]$_{V1}$** **[súy]$_{V2}$** bin ne láyn sorongá wéy
mán low pa ul-ut-súy súy bin ne láyn sorongá wéy
man two ART 3DU-carry-go.home go.home woman ART sand paradise again

'The two men brought the women back home [to] Paradise Sands again.'
AM066_31.15

A final note on non-contiguous manner SVCs with V2 *gali* 'help'. In most of the manner SVCs discussed in this and the preceding section, the object of the SVC (where present) is the underlying object of V1. When V2 is *gali* 'help', however, the object of the SVC can be the underlying object of either V1, or of V2. Compare (30), adapted from (22) above, and (31).

(30) **nin** **galia** now pa
n-in gali-a now pa
3SG-make help-PAR house ART

'He helps [someone] to build a house.' **AM281_el.**

(31) **némsap** **gali** ine
n-émsap gali ine
3SG-search help 1SG

'He helps me to look for [something].' **AM281_el.**

In (30), the object of the SVC – the NP headed by *now* 'house' – is the underlying object of V1, i.e. *in* 'make'. In (31), however, the object of the SVC – the pronoun *ine* '1SG' – is the underlying object of V2, i.e. *gali* 'help'. When the object of an SVC with *gali* 'help' as V2 is the underlying object of V1, this object can intervene between V1 and V2. This was shown in (24) above. When the object of the SVC is the underlying object of V2, however, the object cannot intervene between V1 and V2. This is shown in (32).

(32) * **némsap** ine **gali**
n-émsap ine gali
3SG-search 1SG help

[Intended reading:] 'He helps me to look for [something].' **AM281_el.**

Manner SVCs with *gali* 'help' as V2 are the only SVCs that are attested with this variation in argument structure.

13.1.4 Purposive motion serialisation

Purposive motion SVCs are the most loosely-bound of the four types of SVC. These SVCs describe the movement of the subject in order to carry out an action. V1 expresses the movement of the subject: it can be either the orientative preposition *la* 'ORI', which undergoes zero-conversion to be used as a transitive verb (see §3.11), taking as its object one of the directional nouns in §3.2.4; or, much more rarely, the intransitive verb of motion *tán* 'go, walk'. No other verb is attested as V1 in purposive motion SVCs. V2, however, is much less restricted: it can apparently be any dynamic verb.

Some examples of purposive motion SVCs are given in (33)–(35).

(33) **lala** líl **lasun** abyáp pa
la-la líl la-sun abyáp pa
3PL.AN-ORI landwards 3PL.AN-enter cave ART

'They went landwards in order to enter the cave.' **AM066_23.57**

(34) **nala** lúl **nabáy** tu kisi
na-la lúl n-abáy tu ki=si
3SG.AN-ORI seawards 3SG-play COM EMO=3PL.AN.O

'He went seawards to play with them.' **AM113_01.34**

(35) **ntán** **nakút**, a, bey kánu máy
N-tán na-kút a bey kánu máy
3SG.AN-go 3SG-cut HES sago leaf cooked

'He went to cut, umm, dry sago leaves.' **AM188_10.05**

Examples (33)–(35) show that purposive motion SVCs consitute two phonological words. For example, in (35), both V1 (*tán* 'go') and V2 (*kút*) have underlying /H/ specifications. Both lexical /H/s are realised in this construction, demonstrating that the elements are phonologically independent. In addition, these examples show that purposive motion SVCs take concordant grammatical marking: the subject of the SVC is marked twice, once on V1, and once on V2. In addition, V1 and V2 are not necessarily contiguous: when V1 is transitive (i.e., when it is *la* 'ORI'), SVO constituent order is maintained, i.e. the object of *la* 'ORI' occurs after V1, but before V2. Thus, according to van Staden and Reesink's (2008) typology, purposive motion SVCs in Ambel are examples of independent SVCs. Both V1 and V2 of purposive motion SVCs share their subject arguments – for example, the omitted 3PL.AN subject in (33), and the omitted 3SG.AN subjects in (34) and (35), all of which can be seen from the subject marking on the verbs. For this reason, purposive motion SVCs cannot be classified as examples of co-dependent serialisation.

Finally, example (36) is an attestation of a purposive motion SVC with a contiguous manner SVC functioning as V2. In the contiguous manner SVC, V1 is *sidón* 'inform' and V2 is *kabún* 'hide'. In the purposive motion SVC, V1 is *la* 'ORI', and V2 is the contiguous manner SVC headed by *sidón* 'inform'.

(36)	...	mákay	kipa	**[nala]$_{V1}$**	il	**[[nasidón]$_{V1}$ [kábuna]$_{V2}$]$_{V2}$**		inya
		mákay	ki=pa	na-la	il	na-sidón	kábun-a	i-nyá
		child	EMO=ART	3SG-ORI	upwards	3SG-inform	hide-PAR	3SG-mother
		pa						
		pa						
		ART						

'...The small child went upwards in order to secretly inform his mother.'

AM066_21.39

13.1.5 Summary

A summary of the four kinds of SVC described in this section is given in Table 13.3. The SVCs are summarised by the properties of SVCs discussed in Aikhenvald (2006). The classification of each SVC according to the typology given in van Staden and Reesink (2008) is also provided in this table.

Table 13.3: Ambel SVCs: A summary

SVC	V1	V2	Marking	Single phon word?	Contiguous?	Argument structure	van Staden & Reesink (2008)
Direction of transfer	*ál* 'take' *bí* 'give' *ut* 'carry'	*ále* 'descend' *dók* 'arrive, leave' *sá* 'ascend' *súy* 'go home'	Single	✓	✓	O(V1)=S(V2)	Co-dependent; complex
Change of state	Verbs of affect	Verbs of affect	Single	✓	✓	S(V1)=S(V2); O(V1)=O(V2)	Complex
Manner	Any	See Table 13.2	Single	✗	✓	S(V1)=S(V2)	Complex
	Any	*belémay* 'be quick' *gali* 'help' *hey* 'good' *súy* 'go home'	Single	✗	✗	S(V1)=S(V2)	Dependent
Purposive motion	*la* 'ORI' *tán* 'go, walk'	Any dynamic	Concordant	✗	✗	S(V1)=S(V2)	Independent

13.2 Verb-noun compounds

There are a handful of forms that function as predicates of verbal clauses, but which are comprised of a verbal root plus a nominal root. These forms are single phonological words, and no element can intervene between the two roots; they are thus analysed as verb-noun compounds. These compounds are left-headed, in that the syntax and semantics of the compound is determined by the left-hand verbal root. Prosodically, however, they are right-headed, in that it is the tonal specification of the right-hand nominal root that determines the tone of the compound. An example of the verb-noun compound *sup-tási* 'bathe in the sea' is given in (37). This verb-noun compound is comprised of the roots *súp* 'bathe' and *tási* 'salt water'.

(37) **lasuptási** ido ntán la tál be ilo wa
la-sup-tási ido N-tán la tál be i-lo wa
3PL.AN-bathe-salt.water FRA 3SG.AN-go ORI front ALL 3INAN-place NMC.DEF

lasúp an apa...
la-súp ana a-pa
3PL.AN-bathe 3SG.AN ART.NMC-ART

'When they bathed in the sea, he went towards the front, to the place in which they were bathing...' **AM112_06.32**

A list of the verb-noun compounds attested in the corpus is given in Table 13.4.

Table 13.4: Verb-noun compounds

Components						**Compound**	
abáy	'play'	+	tají	'eye'	→	abay-tají	'make eyes at someone you fancy'
kátown	'sit'	+	bát	'ground, earth'	→	katown-bát	'sit on the floor'
kátown	'sit'	+	pón	'top'	→	katown-pón	'sit on a seat'
olkalíw	'fish with spear'	+	pánye	'morning'	→	olkaliw-pánye	'fish with a spear in the morning'
sun	'enter'	+	arí	'week'	→	sun-arí	'worship in church'
súp	'bathe'	+	gám	'night'	→	sup-gám	'bathe at night'
súp	'bathe'	+	míy	'rain'	→	sup-míy	'be caught in the rain'
súp	'bathe'	+	pánye	'morning'	→	sup-pánye	'bathe in the morning'
súp	'bathe'	+	tási	'salt water'	→	sup-tási	'bathe in the sea'
súp	'bathe'	+	we	'water'	→	sup-we	'bathe in a river'
tán	'go'	+	we	'water'	→	tan-we	'urinate (polite)'

13.3 Verb-verbal suffix constructions

Some complex verbs in Ambel are comprised of a verbal root, and another element that is not independently attested. An example of one such complex verb is given in (38).

(38) ... ido tasíri pórin ido **témso** bélen i
ido ta-síri pórin ido t-ém-so bélen i
so.then 1PL.I-fish.with.fly NEG.CONT FRA 1PL.I-look-prepare fishing.line NSG
pa
pa
ART

[Explaining how to go fishing:] 'So then before we go fishing, we look for the fishing lines in preparation.' **AM172_00.04**

In (38), the first element of the complex verb, *ém* 'look', is independently attested. The element *so* 'prepare', however, is not. These constructions therefore cannot be described as serial verb constructions, as one of the necessary properties of SVCs in Ambel is that both elements are indepedently attested – see (6) above.

In complex verbs like the one in (38), the two elements come together to form a single phonological and grammatical word. As the second element is thus phonologically and syntactically dependent on the first element, they behave like affixes. Henceforth, these elements will therefore be referred to as 'verbal suffixes', and the kinds of complex verb exemplified in (38) will be referred to as 'verb-verbal suffix constructions' (VVSCs). However, these verbal suffixes are less like affixes and more like lexical roots in that they contribute a lexical meaning, rather than a grammatical function, to the construction as a whole.[13]

Verbal suffixes in Ambel can be broadly divided into two groups, based on their productivity: productive verbal suffixes, which are attested attaching to several different verbs, and non-productive verbal suffixes, which are only attested attaching to one or two different verb roots. These will be discussed in turn.

13.3.1 Productive verbal suffixes

Seven productive verbal suffixes are attested in Ambel. These seven suffixes are given in Table 13.5.

Examples of some of the verbal suffixes given in Table 13.5 in context are given in (39) and (40).

13. Cf. van den Heuvel's discussion of similar constructions in Biak (2006: 190).

Table 13.5: Productive verbal suffixes

Suffix	Gloss	Expresses	Examples	
			Root	VVSC
-amat	'to'	That the action expressed by the V is carried out with O as a goal	*gága* 'shout'	*gága-amat* 'shout to'
			ó 'run away'	*ó-amat* 'run away to'
			súy 'go home'	*súy-amat* 'go home to'
-del[a]	'follow'	That S carries out the action of the V while following O	*be* 'be, become'	*be-del* 'follow'
			súy 'go home'	*súy-del* 'follow home'
			tán 'go, walk'	*tán-del* 'follow while walking'
-dódara	'love'	The action expressed by the V is carried out in a loving manner	*anán* 'eat'	*anán-dodara* 'eat food that one loves'
			be 'be, become'	*be-dódara* 'love s.o. or s.t.'
			in 'make, build'	*in-dódara* 'clean or care for s.t.'
-so[b]	'prepare'	That the action expressed by the V is in preparation for something or someone else	*bláp* 'cook'	*bláp-so* 'cook in preparation'
			ém 'look'	*ém-so* 'look for in preparation'
			sél 'tie'	*sél-so* 'tie in preparation'
-wop	'help'	That the S carries out the action expressed by the V in order to help someone else	*in* 'make, build'	*in-wop* 'help to make, help to build'
			kábun 'hide'	*kábun-wop* 'help to hide'
			kárari 'bury'	*kárari-wop* 'help to bury'

[a] Related to the preposition *del* 'PERL, TEMP'; see below.
[b] Possibly related to the independent verb *so* 'strike'.

(39)

"jíne	yatabón	aw	be	nyamánin	be	**nyamátwop**		ana"
<y>bíne	ya-tabón	awa	be	nya-mánin	be	nya-mát-wop		ana
<1SG>say	1SG-wait.for	2SG	PURP	2SG-to.here	PURP	2SG-extinguish-help		3SG.INAN

'[He said:] "I am saying I am waiting for you to come here to help extinguish it [a big fire]".' **AM135_06.55**

(40)

nakáta	an	beposa,	nala	líl	**nakariamat**	mi	láp	wana
na-káta	ana	beposa	na-la	líl	na-kari-amat	mi	láp	wana
3SG-ladle	3SG.INAN	after	3SG.AN-ORI	landwards	3SG-pour-to	INSTR	fire	DEF

'After he had ladleled it [the water], he went landwards to use [the water] to pour onto the fire.' **AM135_07.23**

Two of the verbal suffixes in Table 13.5, *-amat* 'to' and *-del* 'follow', are similar to prepositions, in function, meaning, and, in the case of *-del* 'follow', form (see §11.3 for a discussion of the perlative and temporal preposition *del* 'PERL, TEMP'). However, there is syntactic evidence showing that both of these suffixes are distinct from the class of prepositions. The evidence showing that *-amat* 'to' is best considered a verbal suffix, rather than a preposition, is given in (41).

(41) ... *kalo* la*perlu* máni wane *brarti* **latánamat** súy
kalo la-perlu máni wa-ne brarti la-tán-amat súy
if 3PL.AN-need bird DEM.CNT-PROX means 3PL.AN-walk-to go.home
lone
lo-ne
DEIC.N-PROX

[Talking about birdwatchers:] '...If they need [i.e., were looking for] this bird [that they have just seen in the forest], that means they come back home to this place.'
AM064_10.08

In example (41), the VVSC is formed of the root *tán* 'walk' and the verbal suffix *-amat* 'to'. This VVSC acts as V1 of a manner SVC (§13.1.3); the V2 of the SVC is *súy* 'go home'. The use of the VVSC as V1 in an SVC shows that the VVSC construction should be considered a single constituent. In addition, unlike a preposition heading a prepositional phrase, V2 of the SVC in (41), *súy* 'go home', intervenes between *-amat* 'to' and the goal of the motion (*lo-ne* 'DEIC.N-PROX'). This is not the behaviour of a preposition: when a preposition heads a prepositional phrase, it must be contiguous with its NP complement, i.e. there cannot be any material intervening. For these reasons, *amat* 'to' is analysed as a verbal suffix, rather than a preposition.

The evidence for analysing *-del* 'follow' as a verbal suffix, rather than an instance of prepositional *del* 'PERL, TEMP', is different. As was described in §8.3.3, when an argument is easily inferable, it can be omitted. Omission can apply to subject, object, and oblique arguments, as well as possessor and possessed NPs in possessive constructions. Omission of NP complements from PPs, however, is not attested. When *-del* 'follow' is used as a verbal suffix, the object of the VVSC can be omitted. This is shown in (42).

(42)

namói	ki	ido	na	áysu	kiwan	no
na-mói	ki=i	ido	na-Ø	áy-su	ki=wana	no
3SG-swallow	EMO=3SG.AN	FRA	POSS.II-3SG.AN	tree-flower	EMO=DEF	also

ankimdóldel	Ø,	**amdóldel**	Ø	díri
aN=ki=mdól-del		aN=mdól-del		díri
3SG.INAN=EMO=fall-follow		3SG.INAN=fall-follow		as.well

'[Magdalena fell off the boat and into the sea, and was swallowed by a whale.] When it swallowed her, then her flower also fell after [her], it fell after [her] as well.'

AM019_07.08

As there is no omission of NP complements of prepositions, this suggests that *-del* 'follow' should not be analysed as a preposition. Instead, this behaviour shows that *-del* 'follow' is part of the verbal complex, and is best analysed as a verbal suffix.

13.3.2 Non-productive verbal suffixes

There are five verbal suffixes that are non-productive, in that they are only attested attaching to one or two verbal roots. These five suffixes, and the roots they attach to, are given in Table 13.6.

Table 13.6: Non-productive verbal suffixes

Suffix	**Gloss**	**Attaches to**		**VVSC**	
-ha(n)tatan	'know well'	un	'know'	un-ha(n)tantan	'know very well, be very familiar with'
-kari	'laugh'	ámi	'smile'	ámi-kari	'laugh (at)'
-pén	'naughty'	ábay	'play'	abay-pén	'be naughty to'
-róy	'live with'	tó	'live'	to-róy	'live with'
-sap	'seek'	ém	'look, see'	ém-sap	'look for, seek'
		gi	<*not attested*>	gi-sáp	'look for, seek'[a]

[a] As the root *gi* is not attested independently, the VVSC *gi-sáp* 'look for, seek' is not segmented elsewhere in this grammar. Instead, it is presented monomorphemically, i.e. *gisáp* 'look for, seek'.

As can be seen from Table 13.6, some of the VVSCs formed with non-productive verbal suffixes behave idiosyncratically with regards to their tonal phonology. So, for example, when *-róy* 'live with' attaches to the root *tó* 'live', only the /H/ of *-róy* 'live with' is realised in the VVSC *to-róy* 'live with'. While, as discussed in §2.3.2.2, the realisation of /H/ is culminative such that only one lexical /H/ is permitted per word, this process is normally progressive, in that it is the left-most /H/ in the

word that is realised. In the case of this VVSC – as well as the VVSC *abay-pén* 'be naughty to', comprised of *ábay* 'play' and *pén* 'naughty' – it is the right-most /H/ that is realised as [H].

Some examples of VVSCs formed with non-productive suffixes are given in (43) and (44).

(43)

cuma	labíne	**lunhatatan**	sárita	hun	bin	low	wane
cuma	la-bíne	l-un-hatatan	sárita	hun	bin	low	wa-ne
just	3PL.AN-say	3PL.AN-know-know.well	history	king	woman	two	DEM.CNT-PROX
bi							
bi							
just							

'It is said that they [ancestral generations] only knew this historical story of the two princesses properly.' **AM066_07.23**

(44)

"tán	be	**témsap**	bísar	kiwan	ho"
Ø-tán	be	t-ém-sap	bísar	ki=wana	ho
1PL.I-go	PURP	1PL.I-look-seek	old.woman	EMO=DEF	IMM.FUT

'[She said:] "Let's go to look for the old woman!"' **AM181_07.56**

The VVSC *to-róy* 'live with' takes either an object argument, as in (45), or an adjunct headed by *tu* 'COM', as in (46). There does not appear to be a semantic difference between these two constructions.

(45)

ntoróy	i	mina	lopane	
N-to-róy	i	min-a	lo-pa-ne	
3SG.AN-live-live.with	3SG.AN.O	LOC-PAR	DEIC.N-SIDE-PROX	

'He lived with him at the place at the side here.' **AM135_06.44**

(46)

ido	**kiutoróy**	tu	i	aya	ulalál	
ido	ki=u-to-róy	tu	i	aya	ula-lál	
so.then	EMO=3DU-live-live.with	COM	3SG.AN.O	TERM	3DU-big	

'So then the two of them lived with her until they were grown up [lit: 'big'].' **AM181_10.24**

Chapter 14

Multi-clausal constructions

In this chapter, I describe the different ways in which clauses can be combined to form sentences. This description begins in §14.1, with a look at noun-modifying constructions. These constructions are generally clausal, and include relative clauses; noun phrases can also be used as a noun-modifying construction. Complement clause constructions are discussed in §14.2. Finally, in §14.3, different ways of combining clauses with conjunctions will be explored.

14.1 Noun-modifying constructions

Noun-modifying constructions (NMCs) are constructions that are introduced with *wa* or *ta*, and modify nominal heads.[1] The modifying construction is typically clausal, but can also be an NP. Some preliminary examples of NMCs are given in (1)–(3).

(1)	**mé**	**[wa**	**líy**	**wánu]$_{NMC}$**	**apa**	lamát
	mé	wa	l-íy	wánu	a-pa	la-mát
	person	NMC.DEF	3PL.AN-eat	k.o.sea.turtle	ART.NMC-ART	3PL.AN-die

'The people who ate the *wánu* sea turtle died.' **AM125_03.565**

1. The terms 'noun-modifying construction' or 'general noun-modifying clausal construction' have been used to describe, specifically, clausal constructions that modify nouns in languages such as Japanese, Korean, and Ainu (see Comrie 1998, 2010, Matsumoto 1997; but cf. Bugaeva and Whitman 2014). However, as will be described in this section, not all of the NMCs attested in Ambel are clausal.

(2) *jadi* **ni** **now** **[wa** **l*ajar*]$_{NMC}$** **apa** anta ambe
jadi ni-Ø now wa la-ajar a-pa anta aN=be
so POSS.II-3SG.AN house NMC.DEF 3PL.AN-teach ART.NMC-ART later 3SG.INAN=become

káliw apune to
káliw a-pu-ne to
village DEM.NCNT-DOWN-PROX IAM

'So his house [in] which they [will] teach will be in this village at the bottom.'

AM064_12.26

(3) ... ido **yáy** **[wa** **káliw]$_{NMC}$** **ane** bey ido sól be
ido yáy wa káliw a-ne bey ido Ø-sól be
so.then mango NMC.SPEC village ART.NMC-PROX all FRA 1SG-order OBL

lalép aro asi...
la-lép aro asi
3PL.AN-cut completely 3NSG.INAN

'...Then, as for all the mango [trees] that are [in this] village, I ordered [them] to cut them [down] completely...'

AM125_10.40

Examples (1) and (2) are examples of NMCs in which the modifying elements are verbal clauses. These kinds of NMC will be referred to as 'verbal clause NMCs'. Example (3) is an example of a non-verbal clause NMC, in that the modifying construction is not a verbal clause, but a noun phrase. Aside from this difference, these constructions are formally identical. In all of the examples (1)–(3), the modifying construction is introduced with *wa*; *ta* may also be used to introduce NMCs, depending on the definiteness or specificity of the NP (as well as the function of the modified NP in the matrix clause). These examples also show that verbal clause and non-verbal clause NMCs occur in the same position in the NP: after the head noun, and before the article. Finally, examples (1)–(3) show that if the NP is also modified by a deictic article, or the articles *pa* or *ne* 'ART', then the article is obligatorily prefixed with *a-* 'NMC.ART', rather than occurring unprefixed.

The two verbal clause NMCs, in (1) and (2), are distinguished based on their argument structure. Example (1) is an illustration of a **relative clause** (RC). RCs are constructions in which one of the arguments of the NMC is coreferent with the head noun. In (1), the head noun, *mé* 'person', is coreferent with the subject of

the RC. As was touched on in §8.2.1.1, and will be described below, coreference of a head noun with a relativised subject is marked with gapping and subject marking on the head verb in the modifying clause. In (2), the head noun *now* 'house' is not coreferent with any of the arguments of the head of the modifying clause, the verb *ajar* 'teach'; the construction in this example is therefore a non-RC NMC.

The rest of this section is structured as follows. In §14.1.1, the interaction between NMCs and the definiteness and specificity of the NP is explored in more detail. In §14.1.2, relative clauses, a subtype of NMC, are considered. In §14.1.3, other NMCs, of the type exemplified in (2) and (3), are described. Finally, in §14.1.4, the possible functions in the matrix clause of the NP modified by an NMC will be exemplified.

14.1.1 NMCs, definiteness, and specificity

When modified by an NMC, the form of both the marker of the NMC and of certain articles interact with the definiteness or specificity of the NP, depending on the function of the NP in the matrix clause. The role of definiteness and specificity in the choice of the marker of the NMC is discussed in §14.1.1.1, and the forms of articles modifying NPs which are also modified by NMCs are discussed in §14.1.1.2.

14.1.1.1 The marker of the noun modification construction

When a noun is modified by an NMC, the marker of the NMC is either *wa* or *ta*. The choice of marker depends first of all on the function in the matrix clause that the modified NP has. When the NP is used as the argument of a verbal clause, *wa* and *ta* encode a definiteness distinction: in definite NPs, the marker is *wa* 'NMC.DEF', and in indefinite NPs, the marker *ta* 'NMC.INDEF' is used. When the NP functions as the predicate of an ambient/existential construction, *wa* and *ta* encode a specificity distinction: in semantically specific NPs, the marker of subordination is *wa* 'NMC.SPEC', and in semantically non-specific NPs, the marker of subordination is *ta* 'NMC.NSPEC'. These distinctions are summarised in Table 14.1.

Table 14.1: Summary: Markers of noun-modifying constructions

Function of NP	+DEF	-DEF +SPEC	-SPEC
Argument of verbal clause	wa	ta	
Head of ambient/ existential clause	*n/a*	wa	ta

The markers of NMCs in NPs functioning as arguments of verbal clauses are described in §14.1.1.1.1, and in NPs functioning as predicates of ambient/existential constructions in §14.1.1.1.2.[2]

14.1.1.1.1 In NPs functioning as the argument of a verbal clause

When an NP functions as the argument of a verbal clause, and is modified by an NMC, the NMC marker encodes the definiteness of the NP, regardless of the specificity of that NP.

This behaviour is shown in (4)–(6). The sequence of clauses in (4) comes from a folk story. In this story, a young boy who has been brought up in the forest travels to the coast to try to meet some other humans. The NPs highlighted in bold in these examples are both headed by *mákay* 'child', and are coreferent. First, in (4a), the boy spots some school children. As this is the first mention of the children in the text, the NP headed by *mákay* 'child' is indefinite. The boy goes down to play with the children, while they are having a break from their lessons. Example (4b) explains that, once the children had to return to class, the boy went home. By this point, the school children are familiar to the audience; the NP headed by *mákay*

2. Unfortunately, I do not have any systematic data from NMCs modifying NPs which function as the subject or the predicate of a nominal clause (§8.2.3). I also do not have any data from NMCs modifying possessed or possessor NPs in possessive NPs which function as the predicate of a possessive clause (§8.2.5.2). For these reasons, I hesitate to say that the markers encode a definiteness distinction in NPs used as arguments, and a specificity distinction in NPs used as predicates. If the NP subject in nominal clauses behaves the same as NPs used as the argument of a verbal clause, and the NP predicate in nominal or possessive clauses behaves the same as NPs functioning as ambient/existential constructions, this would suggest that the encoding of definiteness in the markers of subordination is a property of NP arguments, and the encoding of specificity is a property of NP predicates. For convenience, however, throughout this discussion I refer to NPs functioning as the arguments of verbal clauses as 'argument NPs', and those functioning as the predicates of ambient/existential clauses as 'predicate NPs'.

'child' is thus definite. In this example, the definiteness of the NP is marked twice: once by the definite article *wana* 'DEF' (see §6.2.9.2), and once by the definite NMC marker *wa* 'NMC.DEF'.

(4) a. ... ido nala lúl ido mé i pa– **mákay i pa**
ido na-la lúl ido mé i pa mákay i pa
so.then 3SG-ORI seawards FRA person NSG ART child NSG ART
la*sakola* rín
la-sakola rín
3PL.AN-school CONT

'So then when he went seawards, some people– [FALSE START] some children were still at school.' **AM113_01.19**

b. **mákay [wa la*sakola*]$_{NMC}$ wana** lasun ido ia
mákay wa la-sakola wana la-sun ido ia
child NMC.DEF 3PL.AN-school DEF 3PL.AN-enter FRA 3SG.AN
kinsúy
ki=N-súy
EMO=3SG.AN-go.home

'When the children who were at school entered [the school], he went home.' **AM113_01.48**

Example (5) shows that, when an argument NP is indefinite, NMCs are marked with *ta* 'NMC.INDEF'. This example also comes from a folk tale. In this example, a man has just encountered a queen. The man explains that he is looking for an arrow that he had lost earlier. As this is the first mention of the arrow to the queen, the NP headed by *ho* 'kind of arrow' is indefinite. It is also semantically specific, in that it is referential: the man has a particular arrow in mind that he is looking for.

(5) "... cándel naka ho, **ho [ta**
<y>tán-del na-k-a ho ho ta
<1SG>go-follow POSS.II-1SG-PAR k.o.arrow k.o.arrow NMC.INDEF
hyán ana]$_{NMC}$"
<y>hán ana
<1SG>shoot.with.bow 3SG.INAN

'[He said:] "I am following my *ho* arrow, a *ho* arrow that I shot".' **AM020_03.31**

Finally, (6) shows that *ta* 'NMC.INDEF' can be used to introduce NMCs in argument NPs that are both indefinite and semantically non-specific. This example comes from a short text in which the speaker is describing his house. As he is describing the way in which the *parapara* 'platform' is generally used (rather than, for example, a specific event in which the platform was used), the NP headed by *bém* 'plate' is non-specific.

(6) *parapara* kiwaipa ido atúma*taru* be **bém** **[ta**
parapara ki=wa-i-pa ido atúma-taru be bém ta
platform EMO=DEM.CNT-OUT-MID FRA 1PC.E-put INSTR plate NMC.INDEF
si*kotor*]$_{NMC}$
si-kotor
3NSG.INAN-be.dirty

'As for that platform outside, we use [it] to put plates that are dirty [on].'

AM178_00.52

14.1.1.1.2 In NPs functioning as the predicate of an ambient/existential clause

Ambient/existential constructions, described in §8.2.5.1 above, are inherently indefinite: they are used to bring the attention of the addressee to the existence of an unfamiliar entity. However, when an NP which functions as the predicate of an ambient/existential construction is modified by an NMC, some NMCs are introduced with *wa*, and some are introduced with *ta*. Rather than encoding a definiteness distinction, *wa* and *ta* encode a specificity distinction in NPs functioning as predicates of ambient/existential clauses. While *wa* 'NMC.SPEC' is used for semantically specific NPs, *ta* 'NMC.NSPEC' is used for semantically non-specific NPs.

This distinction is shown in (7) and (8). Example (7) comes from a tale about two evil *kábyo* spirits, who are carrying a canoe back to their cave. At one point, one of the ghosts realises that there is a human child asleep inside the canoe. In (4), he informs the other ghost about the existence of the child. The NP headed by *kayáw we* 'piglet' is indefinite, in that is is unfamiliar to the addressee (the other ghost); it is, however, specific, in that it is referential.

(7) ... “aa, nyaharanáw are! aléna, **kayáw we [kiwa kinané]**$_{\text{NMC}}$
aa nya-haranáw are aléna kayáw we ki=wa ki=n-ané
HES 2SG-make.noise PROHIB PLH pig child EMO=NMC.SPEC EMO=3SG-sleep
apune”
a-pu-ne
ART.NMC-DOWN-PROX

‘[The ghost said:] “Umm, don’t make a noise! Y’know, there’s a piglet which is sleeping here in the bottom [of this canoe]”.’ **AM066_18.25**

Example (8) illustrates the modification of a semantically non-specific ambient/existential NP by an NMC. In this example, the speaker is explaining that, during a great plague in the village several decades ago, the *kábyo* spirits exacerbated the situation, by pretending to be the villagers and thus spreading the disease. As the NPs headed by *mét* ‘person’ in this example are not referential, they are non-specific.

(8) mayé ayságado **mét [ta lawík be labe**
mayé ayságado mét ta la-wík be la-be
disease TERM person NMC.NSPEC 3PL.AN-imitate PURP 3PL.AN-become
bisa bin$]_{\text{NMC}}$, **mét [ta lawík be labe**
bisa bin mét ta la-wík be la-be
be.capable woman person NMC.NSPEC 3PL.AN-imitate PURP 3PL.AN-become
bisa mán$]_{\text{NMC}}$
bisa mán
be.capable man

‘There were diseases, such that there were people [i.e., evil spirits] who imitated [the villagers] so that they could [appear to] be women, and there were people who imitated [them] so that they could [appear to] be men.’ **AM125_04.15**

Finally, as negated ambient/existential constructions are non-referential, they are also semantically non-specific. NMCs modifying NPs functioning as the predicate of a negated ambient/existential construction are thus also marked with *ta* ‘NMC.NSPEC’. This is shown in (9).

(9) *jadi waktu* ia mát ane, **mé** **[ta** **laháwre**
jadi waktu ia N-mát a-ne mé ta la-háwre
so time 3SG.AN 3SG.AN-die DEM.NCNT-PROX person NMC.NSPEC 3PL.AN-replace
i]NMC po
i po
3SG.AN.O NEG

'So at the time when she died, there were no people to replace her.'

AM135_18.47

14.1.1.2 Articles in NPs modified by noun-modifying constructions

When an NP is modified by an NMC, there is an interaction with the article system (described in §6.2.9 above). The interaction with NMCs with articles in definite NPs is described in §14.1.1.2.1, and the interaction with NMCs with articles in indefinite NPs is described in §14.1.1.2.2.[3]

14.1.1.2.1 Definite NPs

As described in §6.2.9.2, there are three types of article that modify definite NPs: deictic articles (if the speaker wishes to communicate additional deictic information); *pa* 'ART' and *ne* 'ART' (if deictic information is not relevant, and the NP is more accessible); and the definite article *wana*/*wena* 'DEF/DEF.NSG' (if deictic information is not relevant, and the NP is less accessible). The same range of articles is available for NPs modified by NMCs. This is exemplified in (10)–(12).

Examples (10) and (11) are definite NPs modified by NMCs that are also modified by the deictic article *pu-pa* 'DOWN-MID', and non-deictic *ne* 'ART', respectively. These examples show that, when a deictic article, or non-deictic *pa* or *ne* 'ART', is used to modify an NP that is also modified by an NMC, the article takes the prefix *a-* 'ART.NMC'.[4]

3. As the data on NMCs in ambient/existential constructions are sparse, both in the naturalistic and elicited corpora, this section only considers NMCs in NPs which function as the argument of verbal clauses.

4. The NMCs chosen to exemplify the combination of NMC and article in (10) and (11) are both negated clauses. This is because the prefixed articles *a-pu-pa* 'ART.NMC-DOWN-MID' and *a-pa* 'ART.NMC-MID' are homophonous with the non-contrastive demonstratives *a-pu-pa* 'DEM.NCNT-DOWN-MID' and *a-pa* 'DEM.NCNT-MID'. As described in §12.2.2.2, non-contrastive demonstratives can be used adclausally. As shown in §10.4, adclausal non-contrastive demonstra-

(10) “mám a nolkaliwpánye, **lé** wa wap– **[wa**
mám a n-olkalíw-pánye lé wa wa-pa wa
father PERS 3SG-fish.with.spear-morning thing NMC.DEF DEM.CNT-MID NMC.DEF

nalabét **aya** **nhey** **po]$_{NMC}$** **apupa**”
na-labét aya N-hey po apupa
3SG.AN-be.wounded until 3SG.AN-good NEG ART.NMC-DOWN-MID

‘[The child said:] “Father is fishing with a spear in the morning, [he is] the person [lit: ‘thing’] that– [FALSE START] at the bottom there who is wounded such that he is not attractive”.’ **AM105_09.08**

(11) **sana** **[wa** **nalabét** **po]$_{NMC}$** **ane**, ia nlá
sana wa na-labét po a-ne ia N-lá
one NMC.DEF 3SG.AN-be.wounded NEG ART.NMC-ART 3SG.AN 3SG.AN-swim

lapua
la-pu-a
DEIC.PREP-DOWN-AND

[On turtles swimming:] ‘As for the one who was not wounded, it swam towards the west [lit: ‘downwards’].’ **AM204_15.39**

An example of an NP modified by both an NMC and the definite article *wana* ‘DEF’ was given in (4b) above; another example is given in (12). This example shows that, unlike the deictic articles and non-deictic *pa* ‘ART’ and *ne* ‘ART’, *wana* ‘DEF’ is not prefixed with *a-* ‘NMC.ART’ in this context.

(12) sá **lé** **[wa** **anlót]$_{NMC}$** **wana**
Ø-sá lé wa aN=lót wana
1SG-embark thing NMC.DEF 3SG.INAN=be.noisy DEF

‘I took the thing that is noisy [to come here; i.e., a motorised canoe].’

AM064_00.54

tives precede the clause-final negative particle *po* ‘NEG’. The ordering of *po* ‘NEG’ before the *a-* ‘NMC.ART’-prefixed articles in (10) and (11) thus shows that these are not instances of non-contrastive demonstratives modifiying the subordinated clauses.

14.1.1.2.2 Indefinite NPs

In §6.2.9.3, a specificity distinction in the article system was described: if an NP is indefinite, specific NPs may be modified with *pa* or *ne* 'ART', whereas indefinite, non-specific NPs are unmarked. As was also described in §6.2.9.3, the indefinite noun *gana* 'one' can be used as an article to modify both specific and non-specific indefinite NPs.

If an indefinite NP is modified by an NMC, however, the specificity distinction in the article system is collapsed, such that indefinite NPs modified by an NMC introduced with *ta* 'NMC.INDEF' cannot also be modified by an article, regardless of specificity. This is shown in (13). The NP headed by *mákay* 'child' in this example is indefinite but specific; the NP cannot be modified by the indefinite article *pa* 'ART', either with or without the prefix *a-* 'NMC.ART'.

(13) láyntopana, jók **mákay** **[ta** **napo** ***jérman***]$_{NMC}$ / *pa /
láyntopana <y>dók mákay ta na-po jérman pa
yesterday <1SG>meet child NMC.INDEF 3SG-ABL Germany ART
*apa
a-pa
ART.NMC-ART

'Yesterday, I met a youth who is from Germany.' **AM226_el.**

14.1.2 Relative clauses

As introduced above, relative clauses are clausal NMCs in which one of the arguments of the subordinated clause is coreferent with the head noun. Keenan and Comrie (1977) present a typology of RCs formulated in terms of the Accessibility Hierarchy (AH). The points on the hierarchy are the different functions that the relativised NP (i.e., the NP coreferent with the head noun) can have in the subordinated clause (see also Payne 1997: 335-336). This scale is given in Figure 14.1; the terminology used by Keenan and Comrie has been adapted to conform to the terminology used in this description.[5]

5. Specifically, 'oblique' is used for their 'Indirect object'; 'adjunct' for their 'Oblique'; 'possessor' for their 'Genitive'; and 'standard (of comparison)' for their 'Object of comparison'.

SUBJECT > OBJECT > OBLIQUE > ADJUNCT > POSSESSOR > STANDARD (OF COMPARISON)

Figure 14.1: The Accessibility Hierarchy
(adapted from Keenan and Comrie 1977: 66)

The scale given in Figure 14.1 is implicational, in that if an NP further to the right of the scale can be relativised, all of the NPs further to the left of the scale can also be relativised. For example, if a language can relativise adjunct NPs, it should also be able to relativise oblique, object, and subject NPs, but is not necessarily able to relativise NPs that function as possessor or standard. Similarly, if only one type of NP can be relativised in a language, the hierarchy predicts that these NPs will be subject NPs.

There are no data showing whether a standard of comparison can be relativised in Ambel. Besides this, NPs at all other points on the hierarchy given in Figure 14.1 can be relativised. Most of the points on the hierarchy require a resumptive pronoun in the RC. Relativised subject and possessor arguments, however, have obligatory gaps. In the following sections, I first address the relativised subject and possessor arguments using a gap (§14.1.2.1), before describing the relativisation of the arguments at all other points on the hierarchy for which there are data (§14.1.2.2).

14.1.2.1 Relativisation with a gap: subject, possessor

When subjects and possessors are relativised, this is marked with a gap in the RC. A resumptive pronoun in this context is ungrammatical. An example of a relativised subject is given in (14). In this example, the head noun *mét* 'person' is coreferent with the subject of the subordinate clause headed by *mnyáran* 'hard working'. The gap is marked with <Ø>. However, the person, number, and animacy of the subject is marked on the head of the subordinate clause.

(14) mét i wa **[Ø/ *sia]$_S$** la-mnyáran a-pa l-anán
person NSG NMC.DEF 3PL.AN-hard.working ART.NMC-MID 3PL.AN-eat

'The people who are hard-working are eating.' **AM136_el.**

Another example of a relativised subject is given in (15). In this example, the head noun *sana* 'one' is coreferent with the subject of the subordinated clause

(headed by *lál* 'big'). Like (14), example (15) shows the gapped subject and subject marking in the RC.

(15) ido **sana** [wa **Ø** nalál]$_{RC}$ apa kagala pa
ido sana wa na-lál a-pa kagalán pa
so.then one NMC.DEF 3SG.AN-big ART.NMC-ART skull.3SG.AN ART
anakatórok...
aN=na-katórok
INAN=3SG-collide

'So then head of the one that was big collided [with a branch].'

AM042-03_00.54

Examples of relativised possessor NPs are given in (16) and (17). In (16), from later in the same text as (15), the head noun *sana* 'one' is coreferent with the 3SG.AN possessor of *kagalán* 'skull', and in (17), the head noun *mánsar* 'respected man' is coreferent with the 3SG.AN possessor of *gáin* 'name'.

(16) **sana** [wa **Ø** kagala pa anakatórok be áy pa]$_{RC}$ wana,
sana wa kagalán pa aN=na-katórok be áy pa wana
one NMC.DEF skull.3SG.AN ART INAN=3SG-collide ALL tree ART DEF
*mungkin*a mát to
mungkin-a N-mát to
maybe-PAR 3SG.AN-die IAM

'As for the one whose head collided with the tree, maybe it died.' **AM042-03_01.51**

(17) ... mánsar wa na*serakan* an apa yapa,
mánsar wa na-serakan ana a-pa ya-pa
respected.man NMC.DEF 3SG-scatter 3SG.INAN ART.NMC-ART 3SG.AN.PRED-MID
mánsar [wa yamtén **Ø** igain ne]$_{RC}$ ane
mánsar wa ya-mtén i-gáin ne a-ne
respected.man NMC.DEF 1SG-name 3SG-name ART ART.NMC-ART

'That was the gentleman who scattered it [lit: 'The gentleman who scattered it was there'], the gentleman whose name I named.' **AM193_06.16**

Examples (16) and (17) show that, like relativised subject NPs, relativised possessor NPs are marked with a gap in the RC. This is true regardless of the

function of the possessive NP in the RC. In (16), the possessive NP (headed by *kagalán* 'skull') is the subject of the RC, and in (17), the possessive NP (headed by *gáin* 'name') is the object of the RC. In addition, the person, number, and animacy of a relativised possessor is obligatorily marked in the possessive NP.

14.1.2.2 Relativisation with a resumptive pronoun: object, oblique, adjunct

In this section, I describe the relativisation of arguments at all other points on the hierarchy for which there are data: object, oblique, and adjunct. The relativisation of all of these arguments is similar, in that the person, number, and animacy of these arguments is not marked, and a resumptive pronoun is obligatory in the RC.

Relativised object NPs are shown in (18) and (19). In (18), the head noun *mé* 'person' is coreferent with the object of *tí* 'pass by', and in (19), the head noun *iyokó* 'deep pool' is coreferent with the object of *bín* 'say'.

(18) ... "yawára **mé** [wa atúti taból **si]$_{RC}$** wan
ya-wár-a mé wa atú-tí taból si wana
1SG-miss-PAR person NMC.DEF 1PC.I-pass.by leaving.behind 3PL.AN.O DEF
to"
to
IAM

'[She said:] "I miss the people whom we have left behind".' **AM112_13.16**

(19) lakábu hín be labí be **iyokó** [wa hana jín
la-kábu hín be la-bí be iyokó wa hana <y>bín
3PL.AN-catch sea.turtle and 3PL.AN-give OBL deep.pool NMC.DEF AND <1SG>say
an]$_{RC}$ wana
ana wana
3SG.INAN DEF

'They caught some sea turtles and they put them in [lit: 'gave them to'] the deep pool that earlier I spoke about.' **AM204_12.27**

Examples (18) and (19) show that, unlike relativised subject and possessor NPs, a relativised object NP is marked with a resumptive pronoun. In (18), the resumptive pronoun is *si* '3PL.AN.O', and in (19), the resumptive pronoun is *ana* '3SG.INAN'.

An example of a relativised oblique NP is given in (20). In this example, the head noun *lenkaváy* 'crocodile' is coreferent with the oblique argument of the clause headed by *bí* 'give', i.e. the pronoun *i* '3SG.AN.O'.

(20) **lenkaváy** [wa nik we bin ne mbí máni takék pa
lenkaváy wa ni-k we bin ne N-bí máni takék pa
crocodile NMC.DEF POSS.I-1SG child woman ART 3SG.AN-give bird chicken ART

be **i**]$_{RC}$ wana natagágaym
be i wana na-tagágaym
OBL 3SG.AN.O DEF 3SG-roar

'The crocodile to which my daughter gave a chicken roars.' **AM110_el.**

An example of a relativised adjunct NP is given in (21). In this example, the head noun *áy* 'wood' is coreferent with the nominal complement of the prepositional phrase introduced with *po* 'LOC'. Once again, there is a resumptive pronoun within the RC in this example (*ana* '3SG.INAN').

(21) ... **áy** [wa nakáton po **an**]$_{RC}$ ap ido anlál
áy wa na-káton po ana a-pa ido aN=lál
wood NMC.DEF 3SG-sit LOC 3SG.INAN ART.NMC-ART FRA 3SG.INAN=big

'...As for the branch [lit: 'wood'] on which it [a bird] was sitting, it was big.'
AM042-04_00.06

14.1.3 Other noun-modifying constructions

As described above, non-RC NMCs, i.e. NMCs in which there is no argument that is coreferent with the head noun, can be subdivided into two groups, depending on the status of the modifying unit: verbal clause or noun phrase. Non-RC verbal clause NMCs are described in §14.1.3.1, and NMCs formed from NPs are described in §14.1.3.2.

14.1.3.1 Other verbal clause noun-modifying constructions

Verbal clauses with no coreference between the head noun and the subordinated clause are rare in the corpus: only four are attested.[6] One example was given in (2)

6. All of the attested non-RC verbal clause NMCs modify definite NPs, and are thus marked with *wa* 'NMC.DEF'. In addition, the NPs modified by verbal clause NMCs all function as arguments in

above; the other three are given in (22)–(24). Example (22) comes from the series of tales about the trickster Mansahur. In this tale, Mansahur's two wives startle him by pretending to be ghosts, in order to steal some roasted pig meat from him. Mansahur takes his revenge by burning down their house. In this example, the head noun *syonkér* 'trotter' is not coreferent with any of the arguments in the NMC.

(22)

láp	igaw	wana	ido	ndóka	**kayáw**	**isyonker**	**hát**	
láp	i-gaw	wana	ido	N-dók-a	kayáw	i-syonkér	hát	
fire	3INAN-remains	DEF	FRA	3SG.AN-meet-PAR	pig	3INAN-trotter	four	

[wa	**ulusúy**	**ikaholo**	**i**	**pa]$_{NC}$**	**wana**
wa	ul-ut-súy	i-kaholó	i	pa	wana
NMC.DEF	3DU-carry-go.home	3INAN-thigh	NSG	ART	DEF

'When the fire had burnt out [lit: 'When there were the remains of the fire'], he found the four pig trotters that [resulted from the time that] the two of them brought home the [pig] thighs.' **AM188_11.21**

In (23), the speaker is explaining how a river near Warimak village got its name. Again, the modified noun *bá~bun* 'war' is not coreferent with any of the arguments of the head of the clausal NMC *bun* 'kill'.

(23)

... we	lómo	dela	sárita	lanin	**bábun**	**[wa**	
we	lómo	del-a	sárita	la-ni-n	bá~bun	wa	
water	blood	PERL-PAR	story	3PL.AN-POSS.II-NSG.POSS	REDUP~kill	NMC.DEF	

macúbey	**labun**	**kábyo**	**i**	**pa]$_{NC}$...**
macúbey	la-bun	kábyo	i	pa...
human.being	3PL.AN-kill	evil.spirit	NSG	ART

'[They call it "Blood Water",] "Blood Water" in accordance with the story of their war [in] which human beings killed evil spirits...' **AM066_25.59**

In (24), the head noun *jam* 'hour' is not coreferent with an argument of *abáy* 'play'.

verbal matrix clauses. It is unknown whether non-RC verbal clause NMCs can modify indefinite NPs, or whether NPs modified by non-RC verbal clause NMCs can occur in non-verbal clauses.

(24) ***jam*** **[wa** **labáy]$_{NMC}$** **apa,** *jam* *bersenam* pa ilo labáy
jam wa l-abáy a-pa jam bersenam pa ilo l-abáy
hour NMC.DEF 3PL.AN-play ART.NMC-ART hour exercises ART INCEP 3PL.AN-play
wéy ido...
wéy ido
again FRA

'When it was the time [at] which they played, when, at the time of exercises, they began to play again, then [when they saw the boy, he came to play again].'

AM113_02.59

The four verbal clause non-RC NMCs in (2) and (22)–(24) are too few to draw any firm conclusions about the semantics of these constructions. However, some comments can be made. In examples (22) and (23), for example, the semantic relationship between the NMC and the head noun is one of condition and consequence: the NMC describes a condition that leads to the consequence of the head noun (cf. Matsumoto 1997: 114-121). Thus, for example, in (22), the existence of the referent of the NP headed by *syonkér* 'trotter' is a consequence of the two wives having brought home the pig thighs, as expressed in the NMC. In (2) and (24), however, the relationship between the head noun and the NMC is different. In both cases, the head of the NMC is a dynamic verb, and in both cases, the relationship between the head noun and the activity expressed by the dynamic verb is one of association. Thus, for example, in (2), the activity expressed by the verb (*ajar* 'teach') is associated with the specific house that the speaker is describing, in that it will be used for teaching; and the activity expressed by the verb in (24) (*abáy* 'play') is associated with the hour that the speaker is talking about, in that he is referring to the hour's break that school children have for play and exercise.

14.1.3.2 Noun-modifying constructions formed from noun phrases

The final group of NMCs are formed from noun phrases (henceforth: 'NP NMCs'), which express a relationship between the head noun and the noun phrase. NP NMCs can be divided into several types, depending on the relationship expressed by the NMC.

The most common relationship expressed by NP NMCs is one of location: the NP in the NMC expresses the location of the referent of the head noun. This is

shown, for example, in (25). In this example, the NMC expresses that the referent of the head noun *áy* 'tree' is located in the *sórom* 'middle' of the garden of Eden.

(25) "*tetapi* **áy** **[wa** **sórom]**$_{\text{NMC}}$ **ane**, mumíy an are"
tetapi áy wa sórom a-ne mu-míy ana are
but tree NMC.DEF middle ART.NMC-PROX 2DU-eat 3SG.INAN PROHIB

'[God said to Adam and Eve:] "But as for the tree in the middle [of the garden] here, don't you two eat [fruit from] it!"' **AM198_03.55**

NP NMCs can also be used to express an attribute of the head noun. This is shown in (26). In this example, the NMC *láyn bu* 'white sand' is an attribute of the head noun *kásul* 'open bay'.

(26) Yembeséw ne **kásul** **[kiwa** **láyn** **bu]**$_{\text{NMC}}$ **wan** pu?
Yembeséw ne kásul ki=wa láyn bu wana pu
Yembesew ART open.bay EMO=NMC.DEF sand white DEF ATT.INT

'Yembesew is the open bay which [has] white sand, you know?' **AM204_31.17**

Finally, NP NMCs can be used to communicate a relationship of affiliation. This is shown in (27). In this example, the NMC expresses that the head noun *mé* 'person' are people who are associated with, i.e. live in, the village.

(27) lányun pa ido mánsar pa nala hánina na*undan*
lányun pa ido mánsar pa na-la hánin-a na-undan
late.afternoon ART FRA respected.man ART 3SG-ORI to.there-PAR 3SG-invite

mé **[wa** **káliw]**$_{\text{NMC}}$ **apa**
mé wa káliw a-pa
person NMC.DEF village ART.NMC-ART

'In the late afternoon, the man went there in order to invite the people of the village [to come to his house].' **AM105_04.03**

14.1.4 The matrix clause argument

The examples given in this section thus far show that when an NP is modified by an NMC, that NP can have a range of functions in the matrix clause. Rather than repeating these examples here, Table 14.2 summarises the different functions that

a modified NP can have in a verbal clause, and points to the relevant examples in this section.

Table 14.2: Functions of NPs modified by NMCs in a verbal matrix clauses

Function in matrix clause	**Refer to example(s)**
Subject	(1), (4b), (10), (20), (16)
Object	(3), (12), (13), (18)
Oblique	(19)
Adjunct	(6)
Possessive NPs[a]	
Possessor	(15)
Possessed	(2)

[a] Both of the Possessive NPs in (2) and (15) function as subjects.

NPs in non-verbal clauses can also be modified by NMCs. I showed above that ambient/existential NPs can be modified by NMCs (albeit with the choice of the marker of subordination – *wa* or *ta* – reflecting a specificity distinction, rather than a definiteness distinction). The first NMC in example (17) shows the matrix NP functioning as the subject of a locative clause (§8.2.2); the relevant part of this example is repeated here as (28).

(28) ... **mánsar** **[wa** **na*serakan*** **an]$_{NMC}$** **apa** yapa...
mánsar wa na-serakan ana a-pa ya-pa
respected.man NMC.DEF 3SG-scatter 3SG.INAN ART.NMC-ART 3SG.AN.PRED-MID

'That was the gentleman who scattered it [lit: 'The gentleman who scattered it was there']...' **AM193_06.16**

Examples (29) and (30) illustrate NPs modified by NMCs functioning as the possessor and possessor in predicative possessive constructions, respectively (§8.2.5.2).

(29) **mé [wa kalíw]$_{NMC}$ apa lanin imay**
mé wa kalíw a-pa la-ni-n i-máy
person NMC.DEF village ART.NMC-ART 3PL.AN-POSS.II-NSG.POSS 3INAN-embarrass
pu?
pu
ATT.INT

'The people of the village had shame, you know?' **AM204_13.14**

(30) ámne bón ahana ido ámanin **lé [wa ámdaki**
ámne bón a-hana ido áma-ni-n lé wa ám-daki
1PL.E first DEM.NCNT-AND FRA 1PL.E-POSS.II-NSG.POSS thing NMC.DEF 1PL.E-fill.with
be yél]$_{NMC}$, ámdaki be cun
be yél ám-daki be cun
INSTR sago.pulp 1PL.E-fill.with INSTR sago.biscuit

'As for us in the olden days, we had a thing [i.e., a bag] that we used to fill up with sago pulp, we used [it] to fill [it] up with sago biscuit.' **AM069_34.54**

Example (31) shows an NP modified by an NMC functioning as the subject of a quantifier clause (§8.2.4).

(31) **kahlé [wa pón]$_{NMC}$ ane** low...
kahlé wa pón a-ne low
wing NMC.DEF top ART.NMC-ART two

[Describing a sea turtle:] 'There are two flippers on top...' **AM101_01.13**

Finally, example (26) above showed an NP modified by an NMC fuctioning as the predicate in a nominal clause (§8.2.3); example (32) shows an NP modified by an NMC functioning as the subject of a nominal clause.

(32) **mét [wa na*buka* Kapadíri ne]$_{NMC}$ apa** *kepala distrik,* Máyor
mét wa na-buka Kapadíri ne a-pa kepala distrik Máyor
person NMC.DEF 3SG-open Kapadiri ART ART.NMC-MID head.of.district Mayor

'The person who opened Kapadiri was the head of the district, [someone from the] Mayor [clan].' **AM021_15.12**

In summary, there are no restrictions on the function of NPs modified by NMCs.

14.2 Complement clauses

Complement clauses (CCs) are subordinate clauses that function as one of the arguments in a matrix clause (MC). There are two main forms of complement clause in Ambel, depending on the function of the complement in the MC: unmarked CCs, which occur as object complements, and CCs marked with *be* 'COMPL'. Examples of unmarked and marked CCs are given in (33) and (34), respectively. In (33), the subordinate clause headed by *magaláy* 'be withered' functions as the object of the MC, headed by *ém* 'see'.

(33)

"*kalo*	**[nyém**	**[simagaláy]$_{CC}$]$_{MC}$**	ido	ncándel		i"
kalo	ny-ém	si-magaláy	ido	N-<y>tán-del		i
if	2SG-see	3NSG.INAN-be.withered	FRA	2SG-<2SG>go-follow		3SG.AN.O

'[He said:] "If you see that they [the leaves of a bush] are withered, then follow him".'

AM020_05.41

In (34), the CC headed by *ále* 'disembark' functions as a complement of the MC headed by *sól* 'order'.

(34)

[nsól	nia	mácu	kilow	pa	**[be**	**ulále]$_{CC}$]$_{MC}$**
N-sól	ni-Ø-a	mácu	ki=low	pa	be	ul-ále
3SG.AN-order	POSS.II-3SG.AN-PAR	servant	EMO=two	ART	COMPL	3DU-disembark

'He ordered his two servants to disembark.' **AM066_13.56**

Aside from the marking by *be* 'COMPL' in (34), CCs are identical with MCs (for example, the word order is the same in CCs and MCs, and there is no evidence for raising in CCs).

CCs are not attested as subjects. Therefore, CCs nearly always occur clause-finally. As described in §10.4, most of the aspect, mode, and negation particles also occur clause-finally, in a fixed order. When a CC is subordinated to a MC, one would expect there to be aspect, mode, and polarity slots for both the complement and the matrix clause. In other words, it should be possible

to unambiguously modify both the MC and the CC with aspect, mode, and polarity particles. For example, rather than the usual NEGATION-ASPECT ordering of clause-final particles in simplex clauses, one would expect surface-level attestations of ASPECT-NEGATION where there is a complement clause, if the CC is modified by an aspect particle, and the MC is negated.

There are no unambiguous attestations of separate modification of both the complement and the matrix clause in the naturalistic corpus. In elicitation, while speakers of Ambel accept some constructed examples in which the matrix and complement clauses are independently modified by aspect, mode, and polarity particles, such as the example in (35b), they reject most others, such as the examples in (36b) and (37b).[7]

(35) a. [jíne [yanán **to**]$_{CC}$]$_{MC}$
<y>bíne y-anán to
<1SG>say 1SG-eat IAM

'I said I have already eaten.'

b. [jíne [yanán **to**]$_{CC}$ **po**]$_{MC}$
<y>bíne y-anán to po
<1SG>say 1SG-eat IAM NEG

'I did not say I have already eaten.' **AM284_el.**

(36) a. [yatáno [ia ndók **to**]$_{CC}$]$_{MC}$
ya-táno ia N-dók to
1SG-hear 3SG.AN 3SG.AN-arrive IAM

'I hear he has already arrived.'

7. A note on methodology: by 'accept', I mean the speaker both agreed that the construction was grammatical, and could repeat it back without any modifications. Speakers would often state that examples such as those in (36b) and (37b) were grammatical, but when asked to repeat the construction back, would either omit one of the particles, or change the order of the particles to the order described in §10.4 above. After five or six such repetitions, I would mark the construction as ungrammatical. In addition, rather than asking for grammaticality judgements out of thin air, I took care to set up contexts that would give an appropriate reading to the constructions I was testing.

b. * [yatáno [ia ndók **to**]$_{CC}$ **po**]$_{MC}$
ya-táno ia N-dók to po
1SG-hear 3SG.AN 3SG.AN-arrive IAM NEG

[Intended reading:] 'I didn't hear he has already arrived.' **AM137_el.**

(37) a. [ine sól i [be nabáy **ho**]$_{CC}$]$_{MC}$
ine Ø-sól i be n-abáy ho
1SG 1SG-order 3SG.AN.O COMPL 3SG-play IMM.FUT

'I order him to play.'

b. * [ine sól i [be nabáy **ho**]$_{CC}$ **po**]$_{MC}$
ine Ø-sól i be n-abáy ho po
1SG 1SG-order 3SG.AN.O COMPL 3SG-play IMM.FUT NEG

[Intended reading:] 'I don't order him to play.' **AM221_el.**

It is not clear why the construction in (35b), in which the CC is modified by *to* 'IAM' and the MC is modified by *po* 'NEG', is acceptable to native speakers of Ambel, but the constructions in (36b) and (37b), in which the CCs are modified by *to* 'IAM' and *ho* 'IMM.FUT', respectively, and the MCs are modified by *po* 'NEG', are not. These results suggest that some CC constructions – those in (36a) and (37a), for example – may be monoclausal, in that there is only one set of slots for aspect, mode, and polarity particles for the construction as a whole, rather than one set of slots for the MC, and one set of slots for the CC, as in (35).

If constructions such as those in (36a) and (37a) were monoclausal, then they would meet the criteria for definition as a serial verb construction in Ambel, according to the definition of SVCs given in (6) in §13.1: they are monoclausal constructions comprised of more than one independent verbal root (see Aikhenvald 2006: §3.2.4 for a description of several lanugages that use SVCs as complementisation strategies). However, there are two reasons to analyse the constructions of the type (36a) and (37a) as multiclausal. First, as discussed above, if a construction is monoclausal, then at least one set of arguments is underlyingly shared by both verbs. However, (38) shows that the verbs in a CC construction do not necessarily share any arguments.

(38) [yém [dún i pa ládo]$_{CC}$]$_{MC}$
y-ém dún i pa l-ádo
1SG-see fish NSG ART 3PL.AN-jump
'I see the fish are jumping.' **AM251_el.**

Second, CC constructions of the type exemplified in (37b), in which the CC is introduced by the complementiser *be* 'COMPL', have an overt marker of subordination. These constructions in particular therefore cannot be analysed as monoclausal, as one of the elements of the construction (that introduced by *be* 'COMPL') is subordinated to the other.

For these two reasons, constructions of the type exemplified in (35a)–(37a) are analysed as complement clause constructions, which function as arguments of the predicate of the matrix clause, rather than monoclausal SVCs. In the remainder of this section, unmarked complement clauses (§14.2.1) and complement clauses marked with *be* 'COMPL' (§14.2.2) are looked at in turn.

14.2.1 Unmarked complement clauses

Verbs that can take unmarked CCs as arguments fall into two main semantic categories: verbs of perception and experience, and verbs introducing reported or direct speech. CC-taking verbs of perception and experience are discussed in §14.2.1.1, and verbs introducing reported and direct speech are discussed in §14.2.1.2.

14.2.1.1 Verbs of perception and experience

Some examples of verbs referring to perception and experience that take unmarked CCs are given in Table 14.3.

With the exception of *abí* 'want, FUT', which will be discussed in more detail below, the verbs in Table 14.3 can all also take a nominal object. When the object is clausal, the clause occupies the position in which the nominal object would otherwise occur. Examples of some of the verbs in Table 14.3 with clausal complements are given in (39) and (40). In (39), the verb *bóronpo* 'guess' takes a locative clause as a complement.

Table 14.3: Examples of verbs of perception and experience taking unmarked complement clauses

Verb	Meaning	Verb	Meaning
abí	'want, FUT'	mnyál	'dream'
ákyar	'trust'	msέw	'not want'
bóronpo	'guess'	sasóp	'really want'
ém	'see'	tabón	'wait (for s.o. or s.t. to arrive)'
hándun	'need'	tanó	'hear'
lalóy	'wait (for s.t. to happen)'	un	'know'
maw (< PM)	'want'	wásan	'remember, think about'[a]
mcát	'be afraid'		

[a] The antonym of *wásan* 'remember, think about', *han(an)dér* 'forget, forget about' cannot take a CC argument. In order to express that someone has forgotten about an event, one must juxtapose two independent clauses.

(39) "[mimbóronpo [manin bin wena sinalip
mim-bóronpo ma-ni-n bin wena sina-li-pa
2PL-guess 2PL-POSS.II-NSG.POSS woman DEF.NSG 3PL.PRED-LAND-MID
rín]$_{CC}$]$_{MC}$"
rín
CONT

'[He said:] "You all guess that your women are still inland".' **AM135_21.34**

In (40), the verb *mcát* 'be afraid' takes the verbal clause headed by *karáw* 'invade' as a complement. In this example, the complement clause includes a preclausal frame (§8.3.1); the NP in this preclausal frame (headed by *yé* 'island') is coreferent with the object of the subordinated clause (*ana* '3SG.INAN').

(40) [lamcát [lanin yé ne, mé lakaráw
la-mcát la-ni-n yé ne mé la-karáw
3PL.AN-be.afraid 3PL.AN-POSS.II-NSG.POSS island ART person 3PL.AN-invade
ana]$_{CC}$]$_{MC}$
ana
3SG.INAN

'They were afraid that people would invade their island.' **AM058_01.53**

The verb *abí* 'want, FUT' behaves idiosyncratically, both with regards to the arguments it takes, and the semantics it contributes to the clause as a whole. For this reason, it is discussed separately below.

14.2.1.1.1 On *abí* 'want, FUT'

The verb *abí* can only take a clausal object.[8] The meaning of this verb can be either lexical 'want', indicating that the subject desires the state or event expressed by the CC to occur; or it can have a more grammatical future 'FUT' reading, meaning that the event expressed by the CC is about to take place (roughly equivalent to the English 'be going to, be about to'). A preliminary example of *abí* with the lexical reading 'want' is given in (41).

(41)

aa,	mánsar	i	ahana	lamséw	la	akuk,
aa	mánsar	i	a-hana	la-séw	l-a	akuk
HES	old.man	NSG	DEM.NCNT-AND	3PL.AN-not.want	3PL.AN-depart	randomly

labí	**lató**	**lone**	**bi**
l-abí	la-tó	lo-ne	bi
3PL.AN-want	3PL.AN-live	DEIC.N-PROX	just

'Umm, the ancestors [lit: 'old men in the past'] did not want to depart willy-nilly [i.e. they did not want to keep moving the location of the village], **they just wanted to stay in this place**.' **AM032_01.03**

As can be seen in (41), *abí* 'want, FUT' can take subject-marking morphology: in this example, the prefix *l-* '3PL.AN' marks the (omitted) subject. The full paradigm for *abí* 'want, FUT' is given in Table 14.4. The verb inflects similarly to a Class II verb, with one difference: if the subject is 3SG.INAN, it is unmarked.[9]

In practice, however, *abí* is frequently either uninflected, or inflected with the 3SG.AN prefix *n-*, regardless of the person, number, and animacy of the subject of the clause. An example of uninflected *abí* 'want' is given in (42). The subject of *abí* 'want' in this example is the 3DU pronoun *ua*.

8. I thank David Gil for his questions about the behaviour of *abí*, which were a great help in developing the analysis presented in this section.
9. As with the other verb paradigms given in Table 4.1, only the realisation of lexical /H/ is transcribed on the inflected forms, rather than all of the underlying /H/ specifications.

Table 14.4: The inflectional paradigm for *abí* 'want, FUT'

	SG	DU	PC	PL
1INC	y-abí	tut-abí	(a)tút-abi	t-abí
1EX		um-abí	atúm-abi	ám-abi
2	ny-abí	mum-abí	matúm-abi	m-abí
3AN	n-abí	ul-abí	atúl-abi	l-abí
3INAN	Ø-abí	sin-abí		

(42) *akhirnya* ua **abí** ubun i
akhirnya ua abí u-bun i
finally 3DU want 3DU-kill 3SG.AN.O

'Finally, the two of them wanted to/were going to kill him.' **AM135_11.49**

An example of *abí* inflected with *n-* '3SG.AN' with a non-3SG.AN subject is given in (43). The (omitted) subject of *abí* in this example is 1PL.I. This is shown by the 1PL.I subject marking on the subordinated verb *bélen* 'fish with fly'; as will be shown below, the subject of both the subordinated verb and *abí* 'want' must be coreferential.

(43) nabí tabélen no, *nelon* i pa simós
n-abí ta-bélen no nelon i pa si-mós
3SG.AN-want 1PL.I-fish.with.fly also fishing.line NSG ART 3NSG.INAN-be.prepared
to
to
IAM

'If we also want to/are going to fish with a fly, the fishing lines are already prepared.' **AM172_00.34**

A reasonable assumption, based on the data presented thus far, would be that *abí* 'want, FUT' is grammaticalising from a lexical 'want' to a grammatical 'FUT' reading, and that the reduction in the morphological marking of *abí*, exemplified in (42) and (43), patterns with the semantic bleaching of the verb (see e.g. Heine and Kuteva 2007: 40). In other words, it might be presumed that fully inflected *abí* has a lexical 'want' reading, whereas uninflected or *n-* prefixed *abí* has a grammatical 'FUT' reading. The following examples, however, demonstrate that

this is not necessarily the case: both fully-inflected or uninflected *abí* can have either a lexical 'want' or a grammatical 'FUT' meaning.

Example (44) shows that either inflected or uninflected *abí* can have the reading 'want'. In this example, only a lexical 'want' reading is possible: as the speaker's wishes are unrealised, a future reading is ruled out. Speakers of Ambel accept either inflected or uninflected *abí* 'want' in this context, with no apparent change in meaning.

(44) (y-)abí y-áp be Kabáre, pape cam po, kukura y-ámsi
(1SG-)want 1SG-paddle ALL Kabare but CIR.can NEG because 1SG-sick

'I want to go to Kabare by boat, but I can't, because I'm sick.' **AM145_el.**

Examples (45) and (46) show that, in a context where only a future interpretation is possible, *abí* can also occur either inflected or uninflected. The involuntary (and generally undesirable) nature of the event communicated by *mdól* 'fall' in (45), and the inanimate subject in (46), make a lexical 'want' reading difficult.

(45) (ny-)abí nya-mdól
(2SG-)FUT 2SG-fall

'You're going to fall.' **AM145_el.**

(46) áy i-kop i wa-i-pa (sin-)abí si-mdól
tree 3INAN-branch NSG DEM.CNT-OUT-MID (3NSG.INAN-)FUT 3NSG.INAN-fall

'Those branches outside are going to fall.' **AM146_el.**

There are three other characteristics of *abí* 'want, FUT' that are noteworthy. The first, mentioned in the introduction to this section, is that it can only take a clausal complement; it cannot, for example, take a nominal object. This is shown in (47) and (48).

(47) (y-)abí [y-íy dún]$_{Cl}$
(1SG-)want 1SG-eat fish

'I want to eat fish; I'm going to eat fish.' **AM146_el.**

(48) * y-abí / *abí [dún]$_{NP}$
1SG-want / want fish

[Intended reading:] 'I want a fish.' **AM146_el.**

In order to express a desire for a particular entity, the PM loan *maw* 'want' must be used, as shown in (49). Unlike *abí* 'want', this loan obligatorily takes subject morphology.

(49) na*maw* túlu pa isor pa
na-maw túlu pa i-sór pa
3SG-want knife ART 3INAN-cover ART

'She wanted the sheath of the knife.' **AM097_00.58**

The second point of interest regarding the behaviour of *abí* 'want, FUT' is that the subject of *abí* 'want, FUT' must be the same as the subject of the clausal complement. This is shown in (50). In (50a), the subject of both the MC and the CC are 1SG. In (50b), however, the subjects of *abí* 'want' and the CC are not coreferent: the subject of the MC is 1SG, and the subject of the CC is 3SG.AN. This construction is thus ungrammatical.

(50) a. y-abí y-áp be Kabáre
1SG-want 1SG-paddle ALL Kabare

'I want to go to Kabare.'

b. * y-abí n-áp be Kabáre
1SG-want 3SG-paddle ALL Kabare

[Intended reading:] 'I want him to go to Kabare.' **AM146_el.**

If a speaker wishes to express a state of desire in which the subject of the MC is distinct from the subject of the CC, the PM *maw* 'want' again must be used. An example of this is given in (51).

(51) *jadi* yámnyo po, ya*maw* atútbe kitém ho
jadi y-ámnyo po ya-maw atút-be kitém ho
so 1SG-permit NEG 1SG-want 1PC.I-become one IMM.FUT

'[The head of the village said:] "So I don't permit [the village to be split into two administrative units], I want us to be one for the time being."' **AM125_13.16**

A final point to note about the behaviour of *abí* 'want, FUT' is that, if the form is grammaticalising, the two functions (lexical and grammatical) have not (yet) separated from one another. This is shown by the fact that the two readings of *abí* cannot occur in the same sentence, as shown in (52).

(52) * nyelál mansope abí y-abí y-íy dún wéy
tomorrow then FUT 1SG-want 1SG-eat fish again

[Intended reading:] 'Tomorrow I will want to eat fish again.' **AM145_el.**

14.2.1.2 Reported and direct speech: *bín(e)* 'say' and *(mo(n))ko(mo)né* 'say.3SG.AN'

The verb *bín(e)* 'say', and the form *(mo(n))ko(mo)né* 'say.3SG.AN', are both used to introduce reported and direct speech. When they do so, they take unmarked complement clauses.

Examples of the verb *bín(e)* 'say' are given in (53) and (54). In (53), *bíne* 'say' introduces direct speech. This is signalled by the deictic shift in the subject-marking morphology.

(53) mán low pa ubíne: "mumcát are!"
mán low pa u-bíne mum-mcát are
man two ART 3DU-say 2DU-be.afraid PROHIB

'The two men said: "Don't you two be afraid!".' **AM066_30.30**

Example (54) shows *bíne* 'say' introducing reported speech. In this case, there is no deictic shift in the subject-marking morphology.

(54) ... labíne je *kepala kampung*
la-bíne <y>be kepala kampung
3PL.AN-say <1SG>become head.of.village

'They said that I [should] become the head of the village.' **AM125_09.21**

The form *(mo(n))ko(mo)né* 'say.3SG.AN' is only felicitous with a 3SG.AN subject.[10] Examples of *(mo(n))ko(mo)né* 'say.3SG.AN' are given in (55) and (56). In example (55),

10. There is one attestation in the corpus of *(mo(n))ko(mo)né* with a 3DU subject; see example (96) and footnote 21 in §6.2.11.

mokoné 'say.3SG.AN' introduces direct speech. Like the direct speech introduced with *bíne* 'say' in (53), there is a deictic shift in the subject-marking morphology.

(55) ... háwisi ini béle pa, mokoné "béle,
N-háwisi i-ni béle pa mokoné béle
3SG.AN-take.leave 3SG-POSS.I cross.cousin ART say.3SG.AN cross.cousin
kicán ho"
ki=<y>tán ho
EMO=<1SG>go IMM.FUT

'...He took leave of his cousin, he said: "Cousin, I'm going now".'

AM020_01.57

In (56), *mokoné* 'say.3SG.AN' introduces reported speech. In this example, there is no deictic shift; this is shown by the 3SG.AN agreement on the possessive NP headed by *wán* 'canoe'.

(56) *kapten* lupa mokoné ni wán lupa *bisa*
kapten lu-pa mokoné ni-Ø wán lu-pa bisa
captain SEA-MID say.3SG.AN POSS.II-3SG.AN canoe SEA-MID be.capable
ansá be líl...
aN=sá be líl
3SG.INAN=ascend ALL landwards

'The captain said that his canoe in a seawards location could come up on land...'

AM072_03.57

While *(mo(n))ko(mo)né* 'say.3SG.AN' can only be used with a 3SG.AN subject, it is not a suppletive form in the *bíne* 'say' paradigm. As shown in (57), *bíne* 'say' can also take a 3SG.AN subject.

(57) mbíne: "mimsá ido musá aro lé wen bey
N-bíne mim-sá ido m-ut-sá aro lé wena bey
3SG.AN-say 2PL-ascend FRA 2PL-carry-ascend completely thing DEF.NSG all
to..."
to..."
IAM

'She said: "When you all come up, then bring up every last one of the things".'

AM074_02.08

The difference between speech introduced with *(mo(n))ko(mo)né* 'say.3SG.AN' and that introduced with *N-bíne* '3SG.AN-say' is unclear. However, when the subject is 3SG.AN, *(mo(n))ko(mo)né* 'say.3SG.AN' is far more frequently attested than *bíne* 'say'.

14.2.2 Complement clauses marked with *be* 'COMPL'

In this section, complement clauses in which the complement is marked with *be* 'COMPL' are discussed. Complement clause constructions with *tóhon* 'try' as the head are discussed in §14.2.2.1, and those with *sól* 'order' as the head are discussed in §14.2.2.2. In §14.2.2.3, I describe periphrastic causative constructions, which are a subtype of complement clauses formed with *be* 'COMPL'.

14.2.2.1 *tóhon* 'try'

The verb *tóhon* 'try' is the only verb attested in the corpus that takes a complement clause marked with *be* 'COMPL', but no nominal object. An example of *tóhon* is given in (58).

(58) ine cóhon be yáp, pape cam po
ine <y>tóhon be y-áp pape cam po
1SG <1SG>try COMPL 1SG-paddle but CIR.can NEG

'I am trying to paddle, but I can't [because, for example, I'm too weak].'

AM182_el.

14.2.2.2 *sól* 'order'

The verb *sól* 'order' takes both a nominal object, and a CC marked with *be* 'COMPL'. An example was given in (34) above; another is given in (59).

(59) *artinya* nsól i be mbe *wakil* be i
artinya N-sól i be N-be wakil be i
means 3SG.AN-order 3SG.AN COMPL 3SG.AN-become representative BEN 3SG.AN
ke
ke
EPI.may

[On the Biak hero Manarmakeri:] 'That means maybe he [God] ordered him to become a representative for him.' **AM112_18.04**

14.2.2.3 Causative constructions

One strategy for forming causatives in Ambel was described in §4.2.1: the unproductive causative prefix *ha-* 'CAUS'. The second strategy for forming causatives is with a periphrastic construction, using a complement clause marked with *be* 'COMPL'. This strategy is productive. An example of a periphrastic causative construction is given in (60).

(60) ... ulúkua Lamlám ne be anán bey
ul-úku-a Lamlám ne be aN=nán bey
3DU-endanger-PAR Lamlam ART COMPL 3SG.INAN=burn all

'... The two of them made all of Lamlam burn.' **AM033_05.58**

After Comrie (1989: Chap. 8) and Kroeger (2004: 192), the example given in (60) communicates two separate events: the actions of the subject of the first event, expressed in (60) by the verb *úku* 'endanger', cause the second event, which in this example is the burning of Lamlam. The subject of the event that causes the second event – in (60), the omitted 3DU subject, which can be seen from the subject marking on the verb – will be referred to as the 'causer', and the event that the causer brings about through his, her, or their actions will be referred to as the 'caused event'. The subject of the caused event – in (60), this is Lamlam village – will be referred to as the 'causee'.

The verb of causation in (60) is *úku* 'endanger'. Two other verbs of causation are attested: *in* 'make' and *alén* 'do'. An example of a causative construction in which the verb of causation is *in* 'make' is given in (61).

(61) y-in i be na-pyúm
1SG-make 3SG.AN.O COMPL 3SG.AN-be.fat

'I make him fat [e.g., by feeding him too much].' **AM141_el.**

The difference between causative constructions in which the verb of causation is *úku* 'endanger' and those in which the verb of causation is *in* 'make' is semantic, based on how directly the causer causes the caused event. Comrie (1989: 172) describes the direct/indirect causation distinction as "concerned with the mediacy of the relationship between cause and effect". For example, if I push someone and they fall, the relationship between the causing and caused events is

immediate. This is a relationship of direct causation. If, however, I order someone to climb a tree, and they fall, I have arguably still caused their fall; but the relationship between the causing and caused events is much less immediate, and the relationship of causation is more indirect. In Ambel, causative constructions in which the verb of causation is *úku* 'endanger' generally communicate more direct relationships of causation, whereas those in which the verb of causation is *in* 'make' communicate more indirect relationships of causation.

This difference is shown in the minimal pairs in (62) and (63). In (62a), the relationship between the causing and caused events is direct: the causer tickles the causee, causing the causee to laugh. In (62b), however, the relationship is not quite so immediate: the causer causes the causee to laugh not by touching her, but by telling funny stories.

(62) a. y-úku i be n-ámi
1SG-endanger 3SG.AN.O COMPL 3SG-laugh

'I make her laugh [for example, by tickling her].'[11]

b. y-in i be n-ámi
1SG-make 3SG.AN.O COMPL 3SG-laugh

'I make her laugh [for example, by telling a funny story].'[12] **AM141_el.**

In (63), we see the same pattern: the more direct relationship of causation is expressed with *úku* 'endanger', whereas the less direct relationship is expressed with *in* 'make'. While the relationship of causation expressed in (63a) is not particularly direct – the causing event is the causer ordering the causee to work, and the causee has an accident while working, resulting in his death – it is more direct than the relationship of causation expressed in (63b), in which the causee kills himself because he has been insulted by the causer.

(63) a. y-úku i be N-bun i
1SG-endanger 3SG.AN.O COMPL 3SG.AN-kill 3SG.AN.O

'I make him kill himself [for example, because I have ordered him to work, and he injures himself while working].'[13]

11. Context provided by the speaker: *Brarti saya gili gili dia*.
12. Context provided by speaker: *Brarti saya cerita lucu*.
13. Context provided by speaker: *Karna mungkin saya yang suru dia, ada kerja, ahirnya dia dapat luka, begitu*.

b. y-in i be N-bun i
1SG-make 3SG.AN.O COMPL 3SG.AN-kill 3SG.AN.O

'I make him kill himself [for example, by threatening him and making him miserable].'[14] **AM141_el.**

One minimal pair is attested for which the direct/indirect pattern is reversed, i.e. *úku* 'endanger' is used to express the less direct relationship of causation, and *in* 'make' is used to express the more direct relationship. In this minimal pair, the caused event is expressed by *ábin* 'wake up'; the minimal pair is given in (64). In (64a), the causal relationship is less direct than it is in (64b). In (64b), the causer comes in to physical contact with the causee in order to wake him (for example, by shaking him or tickling him). In (64a), however, the causing event does not involve the causer coming in to physical contact with the causee.

(64) a. y-úku i be n-ábin
1SG-endanger 3SG.AN.O COMPL 3SG-wake.up

'I make him wake up [for example, because I am making too much noise].'[15]

b. y-in i be n-ábin
1SG-make 3SG.AN.O COMPL 3SG-wake.up

'I make him wake up [for example, because I tickle him or shake him].'[16]
AM141_el.

It is unclear why causative constructions in which the caused event is expressed with *ábin* 'wake up' behave in this way; compare the minimal pair given in (64) with the one in (62), in which the causing events are similar, but reversed.

Finally, as was stated above, the verb *alén* 'do' can also be used as the verb of causation in causative constructions. I have no systematic data looking at causative constructions in which the verb of causation is *alén* 'do'; it is thus unclear what the difference is between causative constructions with *alén* 'do', and those with *úku* 'endanger' and *in* 'make'. Examples of causative constructions with *alén* 'do' from the naturalistic corpus are given in (65) and (66).

14. Context provided by speaker: *Umpamanya, saya mungkin ancam dia, ato bikin– apa? Bicara barang yang tida menyenangkan hati, ahirnya dia tida brani balas, ahirnya dia bisa bunu diri, ya, begitu.*
15. Context provided by speaker: *Aa, brarti, ya, itu dia tidur, tapi saya trlalu ribut, ahirnya dia bangun, ato saya bikin bunyi bunyi apa ka, lansun dia bangun.*
16. Context provided by speaker: *Brarti gili gili dia* [LAUGHS] *ato kasi bangun dia, aa, ya pake tangan untuk kasi bangun.*

(65) koku lé wa ntó now bít ane wa **nalén**
koku lé wa N-tó now bít a-ne wa n-alén
because thing NMC.DEF 3SG.AN-live house side ART.NMC-ART FOC.DEF 3SG-do

i **be** **námsi** **bi** apa
i be n-ámsi bi a-pa
3SG.AN.O COMPL 3SG-be.sick just ART.NMC-ART

'Because it is the thing that is living at the edge of the house [a dragon] that is making him sick.' **AM113_10.51**

Example (66) comes from a folk tale, in which a child becomes possessed by *kábyo* spirits because he eats some of their food. The boy's uncle exorcises the spirit by holding the child under water until he nearly drowns. In (66), the uncle is informing the villagers the boy is not possessed anymore.

(66) "yalén i be níy macúbey póto"
y-alén i be n-íy macúbey póto
1SG-do 3SG.AN.O OBL 3SG-eat human NEG.IAM

'[He said:] "I have made him not eat humans anymore".' **AM181_03.48**

14.3 Clause combining

In this section, ways of combining clauses asyndetically and using conjunctions will be described. In §14.3.1, asyndetic conjunction is addressed. In §14.3.2, I discuss the different conjunctions in Ambel.

14.3.1 Asyndetic conjunction

In asyndetic conjunction, two clauses are juxtaposed, without an overt conjunction. Asyndetic conjunction functions to express that the actions, events, or states expressed by the two clauses either occurred simultaneously, or concurrently. In this way, asyndetically conjoined clauses are similar to clauses joined with *be* 'and'. The difference between asyndetically conjoined clauses and clauses conjoined with *be* 'and' is unclear from the present corpus.

When two clauses are asyndetically conjoined, each of the clauses constitute a separate Intonational Phrase (as defined in §2.3.1). There may be a slight pause

between the two conjoined clauses. The pitch contours on two asyndetically conjoined phrases are shown in Figure 14.2. One of the clauses in this example is headed by *dú* 'pull', the other is headed by *kacábal* 'stick to'. Both clauses in this example are realised with Declarative/imperative intonation. As described in §2.3.4.1, Declarative/imperative intonation is characterised by a HL% final boundary tone; this HL% tone can be seen at the end of both IPs in this example. In this example, the speaker does not pause between the conjoined clauses.

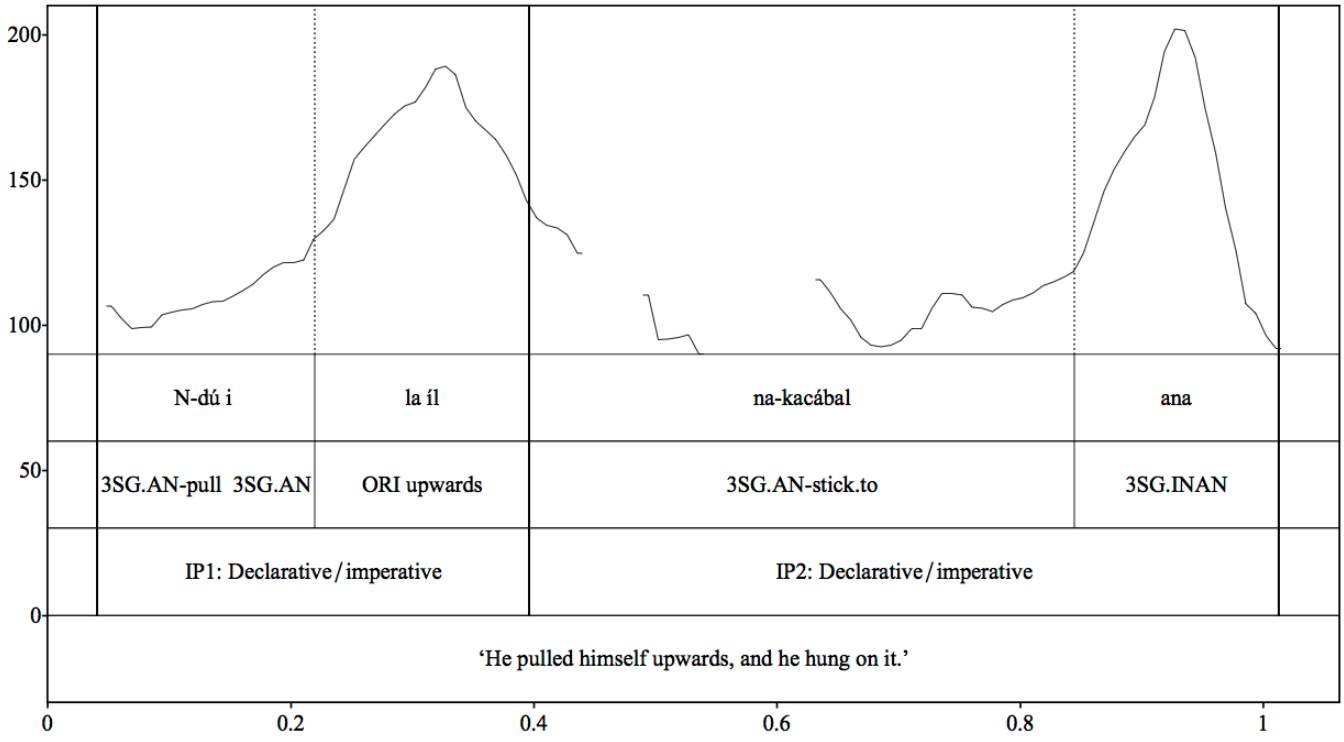


Figure 14.2: Asyndetic coordination

14.3.2 Conjunctions

A distinction is often made between coordinating and subordinating conjunctions (see e.g. Schachter and Shopen 2007: 45). While coordinating conjunctions combine two clauses in such a way that the two clauses are syntactically and semantically symmetrical, subordinating conjunctions associate one clause with another in such

a way that that clause is syntactically and semantically dependent on the other (see e.g. Crysmann 2006, Haspelmath 2007: 46-48).

Like many other languages spoken in the area, the idea of syntactic 'weight' is not applicable in Ambel – the conjoined clauses are morphosyntactically identical, regardless of whether one clause is semantically subordinate to another. However, distinctions can be made between those conjunctions which form an intonational unit with the first conjoined unit (henceforth: C1), and those which form an intonational unit with the second conjoined unit (C2); and whether the conjunction is prepositive (occurring at the beginning of the conjoined unit) or postpositive (occurring at the end of the conjoined unit). These distributional and prosodic properties correspond, to some extent, to the concepts of semantic coordination and subordination: semantically coordinating conjunctions (such as *be* 'and', *mansope* 'then', *(p)ape* 'but') tend to occur prepositively to C2, whereas semantically subordinating conjunctions (such as *bisa(ra)* 'so that', *beposa* 'after', and *arekane* 'if not') tend to occur postpositively to C1. An example of the semantically coordinating conjunction *(p)ape* 'but' is given in (67), and an example of the semantically subordinating conjunction *beposa* 'after' is given in (68). In both examples, the boundaries of the intonational units are marked with a comma.

(67)

yalép	áy	wapa,	pape	antasíw	cam	po
ya-lép	áy	wa-pa	pape	aN=tasíw	cam	po
1SG-cut	tree	DEM.CNT-MID	but	3SG.INAN=fall.down	CIR.can	NEG

'I have been [trying to] fell that tree, but it won't fall down.' **AM272_el.**

(68)

yalép	áy	wap	beposa,	yané
ya-lép	áy	wa-pa	beposa	y-ané
1SG-cut	tree	DEM.CNT-MID	after	1SG-sleep

'After I have felled that tree, I will go to sleep.' **AM272_el.**

Intonationally, the C1 in (67) and the C1 in (68) are realised differently: while the C1 in (67) is realised with Declarative/imperative intonation, the C1 in (68) is optionally realised with Continuation intonation. In addition, (68) shows that the semantically subordinating conjunction *beposa* 'after' occurs in the same Prosodic Phrase as C1. Recall from §2.4.7 that there are two ProPs in a simplex clause: the

first comprising all of the material up to, but not including, the predicate; and the second comprising the material from the predicate to the end of the clause. When two clauses are combined, and one is postpositively marked with *beposa* 'after', this creates the appropriate context for /a/-elision from the contrastive demonstrative *wa-pa* 'DEM.CNT-MID'. The conjunction *pape* 'but', on the other hand, does not trigger /a/-elision of the preceding demonstrative; it is therefore not in the same ProP.

A full list of conjunctions in Ambel, organised according to whether they are semantically subordinating or semantically coordinating, is given in Table 14.5. In this table, information is provided about whether the conjunction is included in the prosodic unit (i.e., ProP) of the preceding conjoined unit (C1; i.e., if the material preceding the conjunction is in the same ProP as the conjunction), or whether it is included in the prosodic unit of the following conjoined unit (C2; i.e., if the material preceding the conjunction is not in the same ProP as the conjunction). As can be seen from this table, there are some homophonous conjunctions that are distinguished, not only by their semantic function, but also by their distributional and prosodic properties (e.g. coordinating *be* 'and', subordinating *be* 'PURP'; coordinating *rani* 'so', subordinating *rani* 'since').

It is tempting to use the distributional and prosodic features of conjunctions in Ambel as a basis for defining which conjunctions are coordinating vs. which are subordinating. However, while these features do pattern with the semantics of the conjunctions, it is not a one-to-one match. For example, one semantically coordinating conjunction, *rani* 'so', behaves distributionally like semantically subordinating conjunctions such as *bisa(ra)* 'so that', in that it occurs postpositively on C1, and C1 may be realised with Continuation intonation. Similarly, several semantically subordinating conjunctions (such as *aya, ay(a)sága(i)do* 'until', *(ku)kura* 'because', and *pina* 'therefore') behave more like the majority of semantically coordinating conjunctions, such as *be* 'and' and *mansope* 'then', in that they occur prepositively on C2, and C1 is not realised with Continuation intonation. Finally, note the semantically subordinating *rani* 'since'. This conjunction behaves differently to all of the other conjunctions in Table 14.5, in that it occurs postpositively on C2.

Owing to these mismatches between the function and the distributional and prosodic properties of the conjunctions, the remainder of this discussion will not make reference to whether the conjunction is coordinating or subordinating. Instead, following Kluge (2014: 288-290), I discuss each of the conjunctions

Table 14.5: Conjunctions organised by semantic function

Conjunction	Gloss	Forms a prosodic unit with	Prepositive or postpositive?	Continuation intonation on C1?
Semantically coordinating				
be	'and'	C2	Prepositive	✗
tu	'and'	C2	Prepositive	✗
ma	'and'	C2	Prepositive	✗
ke	'or'	C2	Prepositive	✗
mansope	'then'	C2	Prepositive	✗
yo	'then'	C2	Prepositive	✗
beposa	'after that'	C2	Prepositive	✗
ido	'so then'	C2	Prepositive	✗
rani	'so'	C1	Postpositive	✓
(p)ape	'but'	C2	Prepositive	✗
letem	'like, for example'	C2	Prepositive	✗
Semantically subordinating				
be	'PURP'	C1	Postpositive	✓
bisa(ra)	'so that'	C1	Postpositive	✓
aya, ay(a)sága(i)do	'until'	C2	Prepositive	✗
aylén	'in this way until'	C1	Postpositive	✗
beposa	'after'	C1	Postpositive	✓
ido	'if; when'	C1	Postpositive	✓
arekane	'if not'	C1	Postpositive	✓
rani	'since'	C2	Postpositive	✗
(ku)kura	'because'	C2	Prepositive	✗
pina	'therefore'	C2	Prepositive	✗

according to their meaning. Conjunctions used to mark addition or alternatives are discussed in §14.3.2.1; conjunctions marking time and/or condition are discussed in §14.3.2.2; conjunctions marking consequence are discussed in §14.3.2.3; and conjunctions marking contrast or similarity are discussed in §14.3.2.4.

14.3.2.1 Marking addition or alternatives

In this section, conjunctions marking addition or alternatives are described, in the following order: *be* 'and', *tu* 'and', *ma* 'and', and *ke* 'or'. In terms of distribution, all of the conjunctions described in this section occur prepositively on C2.

14.3.2.1.1 *be* 'and'

The conjunction *be* 'and' joins two VPs or two clauses, communicating that the actions, events, or states communicated by the VPs or clauses occurred simultaneously, or one after the other. An example of *be* 'and' joining two VPs is given in (69), and an example of *be* 'and' joining two clauses is given in (70).[17]

(69) ... nsúy po, [wán pa **[simábu]** **be** **[silál]$_{VP}$** rani]$_{CL}$
N-súy po wán pa si-mábu be si-lál rani
3SG.AN-go.home NEG canoe ART 3PL.INAN-many and 3PL.AN-big since

'...He [can]not go home, since the canoes are [too] many and large.'

AM074_03.03

(70) ... amatáli barári rani **[ga** **pa** **namséw** **to]$_{CL}$** **be**
aN=matáli barári rani gá pa na-mséw to be
3SG.INAN=be.fatty too so mouth.3SG.AN ART 3SG-not.want IAM and
[nané **lop** **to]$_{CL}$**
n-ané lo-pa to
3SG-sleep DEIC.N-MID IAM

'It was too fatty, so he did want to eat it anymore [lit: 'his mouth did not want'] and he went to sleep in that place.' **AM181_00.25**

14.3.2.1.2 *tu* 'and'

In §6.3.1.1, the conjunctive coordination of NPs with *tu* 'and' was described. The conjunction *tu* 'and' is also – rarely – used to join VPs. There is one example in the naturalistic corpus of *tu* 'and' joining two VPs. This example is given in (71).

17. As will be discussed below, in practice it is often hard to distinguish between clauses conjoined with *be* 'and', and those conjoined with the purposive *be* 'PURP'. The context and the nature of the conjoined clauses in (69) and (70), however, rule out a purposive reading.

(71)

lányun	wa	*ari*	*sabtu*	apa	ido	atúmati	be
lányun	wa	ari	sabtu	a-pa	ido	atúm-áti	be
late.afternoon	NMC.DEF	day	Saturday	ART.NMC-ART	FRA	1PC.E-run	PURP

[[atúmasiri]$_{VP}$	**tu**	**[atúmamu]$_{VP}$]$_{CL}$**
atúm-asíri	tu	atúma-mú
1PC.E-fish	and	1PC.E-beachcomb

'In the late afternoon on Saturday, we travelled by motorised canoe [lit: 'ran'] in order to go fishing and beachcombing.' **AM180_00.05**

The difference between VPs coordinated with *tu* 'and' and those coordinated with *be* 'and' is unclear. A minimal pair is given in (72). In both of these examples, the context is identical: the speaker is standing and smoking at the same time (rather than standing and then smoking in sequence). The PM translation given by the speaker for the two constructions is also provided.

(72) a.

y-ól	**be**	sóro	sabáka
1SG-stand	and	smoke.1SG	tobacco

'I am standing and smoking tobacco.'
PM: 'Saya berdiri isap rokok.'

b.

y-ól	**tu**	sóro	sabáka
1SG-stand	and	smoke.1SG	tobacco

'I am standing and smoking tobacco.'
PM: 'Saya berdiri **dan** saya isap rokok.' **AM194_el.**

There does appear to be a semantic difference in the choice of coordinator, reflected in the different coordination constructions used by the speaker in the PM translations: in (72a) the coordinator *be* 'and' is translated with an asyndetic coordination construction, whereas in (72b) the coordinator *tu* 'and' is translated with the PM coordinator *dan* 'and'. However, Kluge (2014) does not discuss the semantic difference between these two coordination strategies in PM.

14.3.2.1.3 *ma* 'and'

The conjunction *ma* 'and', borrowed from Biak, was introduced in §6.3.1.2. In that section, it was shown that *ma* 'and' occurs sporadically in the corpus, to coordinate NPs. It is also occasionally used to join clauses, as shown in (73).

(73) [nyamánin ncoróy tu atúmne po lányun
nya-mánin N-<y>tó-róy tu atúmne po lányun
2SG-to.here 2SG-<2SG>live-live.with COM 1PC.E ABL later.afternoon
wane]$_{CL}$ **ma** [nya*berkati* atúmne]$_{CL}$
wa-ne ma nya-berkati atúmne
DEM.CNT-PROX and 2SG-bless 1PC.E

[Addressing God:] 'Come here in order to live with us from this afternoon, and bless us.' **AM191_22.55**

Clause-combining *ma* 'and', like NP-combining *ma* 'and', is not attested outside of the two recordings in which the speaker reenacts a church service (**AM191** and **AM198**). The speaker in both of these recordings is the same man; it is likely that he considers *ma* 'and' to be a prestigious, high-register form.

14.3.2.1.4 *ke* 'or'

Disjunctive coordination of NPs with the conjunction *ke* 'or' was described in §6.3.2. This conjunction can also be used in disjunctive coordination of clauses. An example is given in (74).

(74) *putri* low wane ulasáw? **ulasáw** **ke** **ulasáw** **po?**...
putri low wa-ne ul-asáw ul-asáw ke ul-asáw po?
princess two DEM.CNT-PROX 3DU-marry 3DU-marry or 3DU-marry NEG

'Were these two princesses married? Were they married, or were they not married?...' **AM066_07.04**

14.3.2.2 Marking time and/or condition

In this section, conjunctions marking time and/or condition are described in the following order: *mansope* 'then', *yo* 'then', *aya, ay(a)sága(i)do* 'until', *aylén* 'like this until', *beposa* 'after', and *arekane* 'if not'. The distribution of each of these conjunctions will be described in the relevant section.

14.3.2.2.1 *mansope* 'then'

The conjunction *mansope* 'then' occurs prepositively on C2. It joins two clauses, marking that the action, event, or state communicated by the second clause

happened sequentially after the action, event, or state communicated by the first clause. Two examples of *mansope* 'then' are given in (75), an excerpt from a procedural text in which the speaker is explaining how to catch a sea turtle.

(75)

anta,	latúbun			i	beposa,	**mansope**	ámutsa
anta	la-túbun			i	beposa	mansope	ám-ut-sá
later	3PL.AN-shoot.with.harpoon			3SG.AN.O	after	then	1PL.E-carry-ascend
i	be	wán	lo,	**mansope**	ámal	i	
i	be	wán	lo	mansope	ám-ál	i	
3SG.AN.O	ALL	canoe	place	then	1PL.E-take	3SG.AN.O	

'Later, after he has been shot with a harpoon, then we bring him up into the canoe, then we take him [in the canoe].' **AM101_00.27**

14.3.2.2.2 *yo* 'then'

The conjunction *yo* 'then' occurs prepositively on C2. Like *mansope* 'then', *yo* 'then' marks a sequential series of events. It signals that the action, event, or state expressed by the second clause occurred after the action, event, or state expressed by the first clause. Two examples of *yo* 'then' are given in (76) and (77). These two examples show that *yo* 'then' can be used regardless of whether there is a shift in topic, as in (76), or not, as in (77).

(76)

ntéten	súy,	**yo**	anále	lapua
N-téten	súy	yo	aN=n-ále	la-pu-a
3SG.AN-perch	go.home	then	INAN=3SG-descend	DEIC.PREP-DOWN-AND

'It [a bird] perched [on the branch] again, then it [the branch] went downwards.' **AM042-05_00.30**

(77) ... nabít i do loia, **yo** nsi so
nabít i do lo-i-a yo N-si so
3SG-chuck 3SG.AN.O PERL DEIC.N-UP-AND then 3SG.AN-defecate hit
lanin abóp i pa
la-ni-n abóp i pa
3PL.AN-POSS.II-NSG.POSS sago.container NSG ART

[On the trickster Mansahur:] '...He threw himself up in the air [and landed on top of their boat], then he shat in their sago containers.' **AM188_04.07**

The difference between clauses conjoined with *yo* 'then' and those conjoined with *mansope* 'then' is unclear.

14.3.2.2.3 *aya, ay(a)sága(i)do* 'until'

The conjunctions *aya* and *ay(a)sága(i)do* 'until' both occur prepositively on C2. They signal that the action, event, or state expressed by the first, unmarked clause occurs up until the point at which the action, event, or state expressed by the second clause occurs. An example of *aya* 'until' is given in (78), and an example of *ay(a)sága(i)do* 'until' is given in (79).

(78) tagáli, tagáli, **aya** abí tamsúy to ido súy to
t-agáli t-agáli aya abí ta-msúy to ido Ø-súy to
1PL.I-dive 1PL.I-dive until want 1PL.I-be.cold IAM FRA 1PL.I-go.home IAM

[Explaining how to dive for sea cucumbers:] 'We dive, we dive until when we are about to get cold, we go home.' **AM173_00.42**

(79) nasáw i, **ayságado** ilo na*biasa* i
n-asáw i ayságado ilo na-biasa i
3SG-marry 3SG.AN.O until INCEP 3SG-be.used.to 3SG.AN.O

'He was married to her [a giant clam] until he began to get used to her.'
AM267_01.54

In some contexts, *ay(a)sága(i)do* 'until' has a more causal reading, in that it communicates that the action, event, or state expressed by the second clause results from the action, event, or state expressed by the first clause. In these

cases, *ay(a)sága(i)do* 'until' can be translated 'such that'. An example of this use of *ay(a)sága(i)do* 'until' is given in (80).

(80)

namcát,	**ayságado**	gám	wapa	nó	lalua
na-mcát	ayságado	gám	wa-pa	n-ó	la-lu-a
3SG-be.afraid	until	night	DEM.CNT-MID	3SG-run.away	DEIC.PREP-SEA-AND

'They [the Kein clan] were afraid such that that night, they ran away seawards.'
AM135_22.24

14.3.2.2.4 *aylén* 'like this until'

The conjunction *aylén* 'like this until' occurs postpositively on C1. It expresses that the action, event, or state expressed by the first, marked clause continued in an unchanging fashion up until the point at which the action, event, or state expressed by the second, unmarked clause occurred. An example of *aylén* 'like this until' is given in (81).

(81)

ulabáy	**aylén**	mákay	kipa	nala	il	nasidón	kábuna
ul-abáy	aylén	mákay	ki=pa	na-la	il	na-sidón	kábun-a
3DU-play	like.this.until	child	EMO=ART	3SG-ORI	upwards	3SG-inform	hide-PAR

inya	pa
i-nyá	pa
3SG-mother	ART

'The two of them played like this, until the small child went upwards in order to secretly inform his mother.' **AM066_21.39**

14.3.2.2.5 *beposa* 'after'

The conjunction *beposa* 'after' occurs postpositively on C1. It marks that the action, event, or state expressed by the second, unmarked clause occurred or will occur after the action, event, or state expressed by the first clause. The first, marked clause is often realised with Continuation intonation (§2.3.4.5).

An example of *beposa* 'after' is given in (82).

(82)	nsúpwe	**beposa**,	nsun	be	ni	dókow	pa	wéy
	N-súp-we	beposa	N-sun	be	ni-Ø	dókow	pa	wéy
	3SG.AN-bathe-water	after	3SG.AN-enter	ALL	POSS.II-3SG.AN	hole	ART	again

'After it [a dragon] had bathed in the river, it entered its cave [lit: 'hole'] again.'

AM031_01.38

14.3.2.2.6 *arekane* 'if not'

The conjunction *arekane* 'if not' occurs postpositively on C1. It is used to express negative subjunctive conditionals.[18] Subjunctive conditionals contrast with indicative conditionals, in that, in indicative conditionals, there is some possibility that the condition expressed can or could come to past, whereas in subjunctive conditionals, the condition expressed has not come to pass, and the speaker is communicating what could have happened if it had (see also §8.3.1.3).

Only negative subjunctive conditionals are attested in Ambel. In these constructions, *arekane* 'if not' occurs clause-initially at the beginning of the second clause. The clause marked with *arekane* 'if not' expressed what would have happened had the event expressed by the first, unmarked clause not occurred.

An example of a negative subjunctive conditional marked with *arekane* 'if not' is given in (83). This example comes from a tale about the trickster Mansahur. When a young woman spots Mansahur coming towards her, she pretends to be dead. Mansahur tries in vain to rouse the woman, but eventually gives up and leaves her for dead. After he departs, the woman counts her blessings at how lucky she is. In this example, *arekane* 'if not' is used to state that, if the woman hadn't pretended to be dead, Mansahur would have assaulted her.

(83)	yalén	**arekane**,	potó,	nak	*ajal*	mina	Mansahúr	a
	y-alén	arekane	potó	na-k	ajal	min-a	Mansahúr	a
	1SG-do	if.not	that's.that	POSS.II-1SG	doom	INSTR-PAR	Mansahur	PERS

'If I had not done [it, i.e. pretended to be dead], then that would have been that, I would have been doomed by [lit: 'had doom from'] Mansahur.'

AM188_13.57

18. The form *arekane* may originally have been comprised of the prohibitative *are* 'PROHIB' (§10.3.2) or the marker of strong deontic modality *áre* 'DEON.must' (§10.1.1) and the marker of weak deontic modality *kane* 'DEON.should.have' (§10.1.3).

14.3.2.3 Marking consequence

In this section, conjunctions marking consequence are described in the following order: *be* 'PURP', *bisa(ra)* 'so that', *(ku)kura* 'because', *rani* 'so; since', and *pina* 'therefore'. The distribution of each of these conjunctions will be described in the relevant section.

14.3.2.3.1 *be* 'PURP'

The conjunction *be* 'PURP' occurs postpositively on C1. It is used to mark a purposive relationship between two clauses, in that it signals that the action or event expressed by the first clause is carried out so that the action, event, or state expressed by the second clause can occur. Examples of purposive *be* 'PURP' are given in (84) and (85).

(84) ... labínte **ladók** **be** **lál** **lanin** ***sen*** **i**
la-bínte la-dók be l-ál la-ni-n sen i
3PL.AN-say 3PL.AN-leave PURP 3PL.AN-take 3PL.AN-POSS.II-NSG.POSS money NSG
pa, ape sidók pórin
pa ape si-dók pórin
ART but 3NSG.INAN-arrive NEG.CONT

[On a group of people who have travelled from Waifoi to Waisai:] '...They're saying that they have left to get their money, but it [the money] hasn't arrived yet.'
AM064_01.13

(85) bea **njí**, aa, **áy** **ikapyu** **be** **ámiy** **ke**
be-a N-<y>bí aa áy i-kapyu be ám-íy ke
and-PAR 2SG-<2SG>give HES tree 3INAN-fruit PURP 1PL.E-eat EPI.may

[Talking to the *mútum* spirits:] 'And perhaps you could provide, umm, some fruit for us to eat.' **AM280_04.40**

Note that *be* 'PURP' is formally identical with the conjunction *be* 'and'. While *be* 'and' occurs prepositively on C2, *be* 'PURP' occurs postpositively on C1. These two conjunctions also differ in that, while *be* 'and' is semantically coordinating, *be* 'PURP' is semantically subordinating. In practice, however, clauses conjoined with *be* are often ambiguous between a coordinating 'and' reading and a subordinating

'PURP' reading. This ambiguity is shown in the two possible translations in the example given in (86).

(86)

nálut	la	il	be	nál	i	
n-álut	la	il	be	n-ál	i	
3SG-travel.upriver	ORI	upwards	PURP/and	3SG-take	3SG.AN.O	

a) 'He travelled upriver in order to kidnap her.'
b) 'He travelled upriver and kidnapped her.' **AM020_04.06**

14.3.2.3.2 *bisa(ra)* 'so that'

The conjunction *bisa(ra)* 'so that' occurs postpositively on C1. It joins two clauses, in order to express that the action, event or state expressed in the second clause is the reason that the action, event, or state expressed in the first clause has, is, or will take place. In other words, the action, event, or state expressed by the first clause is carried out so that the event of the second clause can occur. Examples of *bisa(ra)* 'so that' are given in (87) and (88).

(87)

"... abí	yága	be	có	lokopuma,	**bisara**	ya*jaga*	
abí	y-ága	be	<y>tó	lo-ko-pu-ma	bisara	ya-jaga	
want	1SG-move	PURP	<1SG>live	DEIC.N-EMO-DOWN-DIST	SO.that	1SG-guard	
naka	*batas*	ilo	wa	njí	anki		
na-k-a	batas	i-lo	wa	N-<y>bí	<ki>ana		
POSS.II-1SG-PAR	border	3INAN-place	NMC.DEF	2SG-<2SG>give	<EMO>3SG.INAN		
ane"							
a-ne							
ART.NMC-PROX							

'[He said:] "I am going to move in order to live at the westwards place [lit: 'downwards place'], so that I [can] guard the place of my borders that you gave [to me]".' **AM135_16.31**

(88) tabót asi be sitámi, si ta sitámi, si
ta-bót asi be si-támi sia ta si-támi sia
1PL.I-boil 3NSG.INAN PURP 3PL.INAN-red 3PL NMC.NSPEC 3NSG.INAN-red 3PL

ta sibyáw, **bisa** sihey
ta si-byáw bisa si-hey
NMC.NSPEC 3NSG.INAN-blue so.that 3NSG.INAN-good

'[On preparing strips of bark to make *kahéne* bags:] "We boil them so that they are red, there are those that are red, there are those that are blue, so that they are pretty.'
AM107_00.31

14.3.2.3.3 *(ku)kura* 'because'

The conjunction *(ku)kura* 'because' occurs prepositively on C2. It marks a causal relationship between two clauses. It signals that the action, event, or state expressed by the marked clause is the reason for the action, event or state expressed by the first, unmarked clause. Examples of *(ku)kura* 'because' are given in (89) and (90).

(89) ape yém i ido yawár i, **kura** kimát...
ape y-ém i ido ya-wár i kura ki=N-mát
but 1SG-see 3SG.AN.O so.then 1SG-think 3SG.AN.O because EMO=3SG.AN-die

'But I saw it [a dolphin], so I think about it, because it is dead...' **AM066_22.34**

(90) "be nyapúsal ine, **kukura** ine abí súy to..."
be nya-púsal ine kukura ine abí Ø-súy to
and 2SG-release 1SG because 1SG want 1SG-go.home IAM

'[The morning star said:] "And release me, because I want to go home..."'
AM112_06.01

14.3.2.3.4 *rani* 'so; since'

The conjunction *rani* can occur either postpositively on C1, or postpositively on C2. Depending on its distribution, *rani* can have the reading 'so' or 'since'.

When *rani* occurs postpositively on C1, it has the reading 'so'. It indicates that the action, event, or state communicated by the second clause is as a result of the first clause. This is shown in (91).

(91)

	kasút	ne	amági	barári	**rani**	amtow
	kasút	ne	aN=mági	barári	rani	aN=mtow
	sago.oven	ART	3SG.INAN=be.glowing	too	so	3SG.INAN=be.tough

'The sago oven is too hot [lit: 'glowing too much'], so it [the sago biscuit] is tough.'

AM069_31.13

When *rani* occurs postpositively on C2, it has the reading 'since'. In this context, *rani* 'since' marks that the action, event, or state communicated by the first, unmarked clause is a result of the second, marked clause. An example of this construction is given in (92).[19]

(92)

	umtó	lo	now	bi,	namcát	lenkaváy	**rani**
	um-tó	lo	now	bi	na-mcát	lenkaváy	rani
	1DU.E-stay	place	house	just	3SG-be.afraid	crocodile	since

'We two just stay in the house, since she [my mother] is afraid of crocodiles.'

AM067_00.49

14.3.2.3.5 *pina* 'therefore'

The conjunction *pina* 'therefore' occurs prepositively on C2. When a clause is marked with *pina* 'therefore', it communicates that the action, event, or state communicated by the first, unmarked clause is that reason for the action, event, or state expressed by the second clause. An example of *pina* 'therefore' is given in (93).

19. The PM conjunction *jadi* 'so, since' behaves similarly, occurring either clause-initially or clause-finally, depending on which of the two clauses expresses the cause and which expresses the outcome (Kluge 2014: 516-517). This construction in Ambel may be a calque on the PM construction; or the PM construction may reflect a wider areal tendency.

(93)

ido	sia	sipo	to,	**pina**	wane	yanót
ido	sia	si-po	to	pina	wa-ne	y-anót
so.then	3PL	3PL.INAN-NEG	IAM	therefore	DEM.CNT-PROX	1SG-make.handle

[Talking about the *kahéne* bags she is weaving:] 'So they are finished [POINTS TO FINISHED BAGS], therefore now I am attaching handles.' **AM107_02.56**

14.3.2.4 Marking contrast or similarity

In this section, the conjunctions *(p)ape* 'but' and *letem* 'like, for example' are described. Both of these conjunctions occur prepositively on C2.

14.3.2.4.1 *(p)ape* 'but'

The conjunction *(p)ape* 'but' marks contrast, in that the action, event, or state expressed by the second, marked clause may be counter to the addressee's expectations given the information communicated by the first, unmarked clause. Examples of *(p)ape* 'but' are given in (94) and (95).

(94)

ido	umémsapa	pimám	tápran,	pimám
ido	um-ém-sap-a	pimám	tápran	pimám
so.then	1DU.E-look-seek-PAR	sea.cucumber	pineapple	sea.cucumber

rawé rawé,	tua	pimám	wepa,	**ape**	umapén	po
rawé rawé	tu-a	pimám	we-pa	ape	um-apén	po
k.o.sea.cucumber	and-PAR	sea.cucumber	DEM.CNT.NSG-MID	but	1DU.E-get	NEG

'So then the two of us looked for *tápran* sea cucumbers, *rawé rawé* sea cucumbers, and those [other] sea cucumbers, but we didn't get any.' **AM167_02.28**

(95)

"*biasa*	mét	wane	ia	ntán	ido	nsúy	ido
biasa	mét	wa-ne	ia	N-tán	ido	N-súy	ido
be.usual	person	DEM.CNT-PROX	3SG.AN	3SG.AN-go	if	3SG.AN-go.home	when

gám,	**pape**	nahándun	nanán	po"
gám	pape	na-hándun	n-anán	po
night	but	3SG-need	3SG-eat	NEG

'[She said:] "Usually, if this person goes out, then when he comes home, it is night, but he does not need to eat".' **AM188_07.13**

14.3.2.4.2 *letem* 'like, for example'

The conjunction *letem* 'like' marks that the action, event, or state expressed by the first, unmarked clause is similar to that expressed in the second clause. An example of *letem* 'like' is given in (96).

(96)

labe	letem,	aa,	labáy	arúku	pu?
la-be	letem	aa	l-abáy	a-rúku	pu
3PL.AN-become	like	HES	3PL.AN-play	NMLZ-chase	ATT.INT

'It was like [lit: 'They were like'] they were playing chase, you know?' **AM204_06.25**

Sometimes, *letem* 'like' is used to give an example of an action one could take to bring about some other event. In these cases, the second clause explains how the first clause could be made to happen. In these contexts, *letem* 'like' can be translated as 'for example'. An example is given in (97).

(97)

nin	sadaká,	letema	narora	lé	ki	ke
n-in	sadaká	letem-a	na-ror-a	lé	ki	ke
3SG-make	traditional.offering	like-PAR	3SG-chuck-PAR	thing	little.bit	EPI.may

'She [should] do a *sadaká* offering, for example maybe she [could] throw a few things [for the *mútum* spirits].' **AM064_04.36**

Chapter 15

Discourse phenomena

In this chapter, several issues relating to language use in context will be discussed. In §15.1, I describe two discourse markers: *ido* 'so then' and *beposa* 'after that'. In §15.2, I discuss some discourse particles in Ambel. This is followed in §15.3 by a description of the use of non-reduplicative repetition to communicate durativity. Two salient ideophones in Ambel are described in §15.4. Finally, this chapter closes in §15.5, in which placeholders, hesitations, and interjections are addressed.

15.1 Discourse markers

There are two discourse markers in Ambel, i.e. conjunctions that join sentences: *ido* 'so then', and *beposa* 'after that'. Both of these discourse markers occur sentence-initially, at the beginning of the second sentence. An example of discourse-marking *ido* 'so then' is given in (1), and an example of discourse-marking *beposa* 'after that' is given in (2).

(1)

"nén	e,	ncumdel		umne,	*bisa*	nyanán	diri",	**ido**
nén	e	N-<y>tum-del		umne	bisa	ny-anán	diri	ido
mother	VOC	2SG-<2SG>follow-follow		1DU.E	be.capable	2SG-eat	as.well	so.then

inya	wana	mokoné:	"i,	mumabón!"
i-nyá	wana	mokoné	i	muma-bón
3SG-mother	DEF	say.3SG.AN	yes	2DU-go.first

'[He said:] "Mother, follow us two, you can eat as well", so then his mother said: "Yes, you two go first!".' **AM105_07.59**

(2) "... tamú, yo ine yamú lahana, mewá
ta-mú yo ine ya-mú la-hana mewá
1PL.I-beachcomb then 1SG 1SG-beachcomb DEIC.PREP-AND 2PL
mamú lalua", **beposa** nut ápil si la
ma-mú la-lu-a beposa n-ut ápil si la
2PL-beachcomb DEIC.PREP-SEA-AND after.that 3SG-carry drop.off 3PL.AN.O ORI
hanin be Go
hanin be Go
to.there ALL Go

'[He said:] "...When we beachcomb, I will beachcomb in that direction, you will beachcomb towards the sea"; after that, he took them by canoe to drop them off over there in Go.' **AM204_1.20.35**

The discourse marker *ido* 'so then' is formally identical with the frame marker *ido* 'FRA' (§8.3.1), and *beposa* 'after that' is formally identical with the conjunction *beposa* 'after' (§14.3.2.2). However, the discourse markers are distributionally and prosodically distinct from these other elements.

15.2 Discourse particles

15.2.1 *yo* 'EMPH'

The particle *yo* 'EMPH' is used clause-finally to emphasise the point the speaker is making with the clause. Examples of *yo* 'EMPH' are given in (3) and (4). Note that, in (4), *yo* 'EMPH' occurs after clause-final *po* 'NEG'.

(3) "manan cunhaw, aa, i ne sihey **yo**,
ma-na-n cun-haw, aa, i ne si-hey yo,
2PL-POSS.II-NSG.POSS sago.biscuit-sago.funnel HES NSG ART 3NSG.INAN-good EMPH
simatáli ane"
si-matáli a-ne
3NSG.INAN-be.fatty DEM.NCNT-PROX

'[He said:] "Your [pl.] smoked sago is very tasty indeed, it's fatty".'

AM188_15.46

(4) ... ábu a namtén igain pa po **yo**
ábu a na-mtén i-gáin pa po yo
grandparent PERS 3SG-name 3SG-name ART NEG EMPH

[When asked the name of a character in a story:] '...Grandpa didn't name his name at all".' **AM105_10.29**

15.2.2 *e* 'VOC'; *u* 'VOC'

The vocative particles *e* 'VOC' and *u* 'VOC' are used when addressing a person (or, more rarely, an animal, or an anthropomorphised or zoomorphised inanimate object), in order to attract his or her attention.

The particle *e* 'VOC' is used over short distances. Some typical circumstances in which one might use *e* 'VOC' include if the speaker and addressee are in the same room or canoe; or if the speaker and the addressee are travelling in a group in the forest. An example of *e* 'VOC' is given in (5). This example comes from a folk tale; at this point in the tale, the speaker and his grandmother are in the same room.

(5) ... monkoné: "**ábu bísar e**, abí ya*sakola* yo"
monkoné ábu bísar e abí ya-sakola yo
say.3SG.AN grandparent old.woman VOC want 1SG-school EMPH

'...He said: "Hey Grandma, I really want to go to school".' **AM113_02.22**

The particle *u* 'VOC' is used over greater distances, for example when calling to someone out-of-sight in the forest; or calling from shore to someone out at sea. An example of *u* 'VOC' is given in (6). In this example, the speaker is imagining what he will shout to his grandchild Rispa from his boat when he returns to his village.

(6) jíne: "**Ríspa u!** kacú i ne sinailune"
<y>bíne Ríspa u kacú i ne sinai-lu-ne
<1SG>say Rispa VOC seaweed.jelly NSG ART 3PL.PRED-SEA-PROX

'I will say: "Hey Rispa! The *kacú* seaweed jelly is seawards here.' **AM078_03.14**

15.3 Non-reduplicative repetition

Reduplication (described in §2.5.3) is the repetition of all or part of a root. In Ambel, larger units than the root can be repeated: following van den Heuvel (2006: 255), I refer to this as 'non-reduplicative repetition'.[1] Non-reduplicative repetition is attested for inflected verbs, as in (7), or an inflected verb with its object, as in (8). As can be seen from these examples, non-reduplicative repetition of a verb or a verb plus its object signals durativity, i.e. that the the event or state expressed by the clause happened for a long time.

(7) be ái wana nakalép ki, **nakalép**, **nakalép**, **nakalép**, **nakalép**
be ái wana na-kalép ki=i na-kalép na-kalép na-kalép na-kalép
and dog DEF 3SG-lick EMO=3SG.AN.O 3SG-lick 3SG-lick 3SG-lick 3SG-lick
aya, ayságado kinamanów
aya ayságado ki=na-manów
a.lot TERM EMO=3SG-move.in.one.spot

'And [then] the dog licked him, it licked and licked a lot for a long time, until he moved.' **AM098_01.09**

(8) **ulém** **ut**, **ulém** **ut**, **ulém** **ut** aylén ido, aléna,
ul-ém ut ul-ém ut ulém ut aylén ido aléna
3DU-look louse 3DU-look louse 3DU-look louse like.this.until FRA PLH
Magdaléna a kinané...
Magdaléna a ki=n-ané
Magdalena PERS EMO=3SG-sleep

'The two of them looked for lice in this way for a long time, until then, y'know, Magdalena fell asleep...' **AM019_06.44**

In both (7) and (8), each instance of the repeated unit constitutes its own intonational phrase (defined in §2.3.1). The boundaries of these IPs are represented in (7) and (8) with commas.

1. Tail-head linkage, discussed in §8.3.1.3.1, may also be considered a kind of non-reduplicative repetition.

15.4 Ideophones

In this section, I comment on two ideophones in Ambel. Both of these ideophones involve a lengthened vowel (which, as described in §2.8, is transcribed with triplication of the vowel), and [HL] pitch realised on the final syllable. The ideophone *VVV\HL*, in which the final vowel of the root is lengthened as a narrative device, is discussed in §15.4.1, and the ideophone *eee\HL*, in which a suffix *-e* is appended to the root and lengthened to indicate excessive quantity or distance, is discussed in §15.4.2.[2]

15.4.1 Marking narrative climax: *VVV\HL* 'CLIM'

The ideophone *VVV\HL* is attested most frequently in fictional narratives, especially folk narratives told by female speakers. It serves to mark a climactic moment in the narrative. This ideophone operates by lengthening the final vowel of the word on which it is realised. It is attested on directional nouns, as in (9), conjunctions, as in (10), and the definite article *wana* 'DEF', as in (11).

(9)

Heléna	a	nsun	la	**muuul**	ido	Magdaléna	a	natápe
Heléna	a	N-sun	la	mul:VVV	ido	Magdaléna	a	na-tápe
Helena	PERS	3SG.AN-enter	ORI	inwards:CLIM	FRA	Magdalena	PERS	3SG-stab
i								
i								
3SG.AN.O								

'When Helena went inside, Magdalena stabbed her.' **AM019_07.34**

(10)

ido	krís	wana	ansá	be	amáne	**beee**
ido	krís	wana	aN=sá	be	aN=máne	be:VVV
so.then	k.o.tree	DEF	3SG.INAN=ascend	and	3SG.INAN=be.tall	and:CLIM
anlálik...						
aN=lálik						
3SG.INAN=be.very.tall						

'So then the *krís* tree ascended and [became] tall and [became] extremely tall...'
AM076_03.21

2. An earlier version of the analysis in this section was presented in Arnold and Gil (2017).

(11) kamtát ikapanai **kiwanaaa** ido Heléna a yane...
kamtát i-kapanaí ki=wana:VVV ido Heléna a ya-ne
letter 3INAN-sheet EMO=DEF:CLIM FRA Helena PERS 3SG.AN.PRED-PROX

'As for that letter, [it said] Helena is here...' **AM019_08.38**

The same ideophone is also attested on the verbs of speech *monkoné* 'say.3SG.AN' and *bíne* 'say'. Impressionalistically, this use of *VVV\HL* is more common in mythological or historical narratives, and there is less of a gender bias. In this context, it marks that what is about to be said is important to the remainder of the narrative. An example is given in (12).

(12) **labíneee**: "bin i lima lahey póto"
la-bíne:VVV bin i li-ma la-hey póto
3PL.AN-say:CLIM woman NSG LAND-DIST 3PL.AN-good NEG.IAM

'They said: "The women on land are in danger [lit: 'are not good anymore']".'
AM074_04.26

15.4.2 Marking excessivity: *eee\HL* 'EXCESS'

The ideophone *eee\HL* is realised on nouns, the preposition *be* 'ALL', or on words derived from deictic units (described in §12.2). In all cases, it communicates excessivity.

When this ideophone is realised on *be* 'ALL' or words derived from deictic units, it expresses excessive distance. The ideophone coalesces with the final vowel, such that it is realised [eee]. This is shown in (13), in which the final vowel of *a-lu-ma* 'DEM.NCNT-SEA-DIST' is realised [eee].

(13) nyakalít ido nyakalít do lo wálut **alumeee**!
nya-kalít ido nya-kalít do lo wálut a-lu-ma:eee
2SG-cast.net FRA 2SG-cast.net PERL place sea DEM.NCNT-SEA-DIST:EXCESS

'When you cast [your] net, cast it far out to sea there!' **AM067_06.31**

The use of *eee\HL* 'EXCESS' with nouns expresses excessive quantity of the referent of the noun. This is shown in (14). There is no coalescence with the final vowel when this ideophone is used with nouns; this is shown by the preservation of the final vowel of *kaní* 'shell'.

(14) **karákameee**, **hájum** **ikanieee**, le i pa sinaipa...
karákam-eee hájum i-kaní-eee le i pa sinai-pa
sago.oven.lid-EXCESS shellfish 3INAN-shell-EXCESS thing NSG ART 3PL.PRED-MID

[Talking about the bits and pieces left behind by two men who were hiding on a mountain:] 'There are lots of sago oven lids, there are lots of shellfish shells, those things are there...' **AM135_12.59**

15.5 Placeholders and hesitations, and interjections

15.5.1 Placeholders and hesitations

Placeholders are words that have lexical content, but can function as a substitute for a word that the speaker has temporarily forgotten. Hesitations do not have any lexical content; in contrast to placeholders, they fill gaps in discourse, rather than function as a substitute for another lexical item. A list of placeholders and hestitations in Ambel is given in Table 15.1.

Table 15.1: Placeholders and hesitations

Form	Gloss	Type	Lexical meaning
(a)lén(a)	'PLH'	Placeholder	Related to nominal *lé(n)* 'thing' and verbal *alén* 'do'
a-ne	'DEM.NCNT-PROX'	Placeholder	Proximal non-contrastive demonstrative
aa	'HES'	Hesitation	n/a
ee	'HES'	Hesitation	n/a
mm	'HES'	Hesitation	n/a
nn	'HES'	Hesitation	n/a

An example of the placeholder *(a)lén(a)* is given in (15), and an example of the most frequent hestitation marker, *aa*, is given in (16).

(15) ... nsúp beposa, ido nsá be nakátu i
N-súp beposa ido N-sá be na-kátu i
3SG.AN-bathe after FRA 3SG.AN-ascend PURP 3SG-let.down.hair 3SG.AN.O
kagala pa do **alén** pa, kanáw pa
kagalá pa do alén pa kanáw pa
skull.3SG.AN ART PERL PLH ART window ART

'...After she had bathed then she ascended [to her house] in order to let down her hair out of the y'know, the window.' **AM020_02.54**

(16) **aa**, lagáli, lagáli, **aa**, kámbowa be lawop
aa la-gáli la-gáli aa kámbowa be la-wop
HES 3PL.AN-dive 3PL.AN-dive HES kind.of.sea.cucumber PURP 3PL.AN-sell

'Umm, they dived, they dived for, umm, *kámbowa* sea cucumbers to sell.'
AM032_02.05

15.5.2 Interjections

Interjections are used to "express a speaker's current mental state or reaction toward an element in the linguistic or extralinguistic context" (Ameka 2006: 743). They consitute an utterance by themselves, and are bound to the context, such that the same interjection may have a different interpretation in different contexts.

A list of the interjections attested in Ambel is given in Table 15.2. The intonation realised on several of these interjections is quite distinctive; this information is provided in the table.

Table 15.2: Interjections

Interjection	Gloss	Used to...	Intonation
a(ʔ)a	ah!	express agreement, satisfaction	High falling
ax	hmph!	express annoyance	Low flat
adu	oh no!	express disappointed surprise (< PM)	Falling
astaga	crikey!	express incredulity (< PM)	Falling
ara	oh no!	express pity, disappointed surprise	Falling
are	yikes!	express fear	Falling
aw	grr!	express annoyance	High falling
ay	oh no!	express worry	High falling
bɔɔ	hmph!	express disbelief, annoyance	Low falling
ə	eh?	request the interlocutor repeat the information	Rising
eee	ooh	create a cosy mood for storytelling	Vibrato
feyfe	oh!	express pleasant surprise	High flat
ii	ow!	express pain	High flat
mákay	goodness!	expresses disgust or revulsion	High-low
male	really?	express disbelief	Rising
mári	be.patient	expresses the desire for the addressee to be patient[a]	Falling
m(ʔ)m	mmhm	express agreement	High falling
mʔmʔmʔ	wow!	express amazement	Falling
obo	oh no!	express worry	Rise-fall
ooo	ooh!	express excessivity	Falling
oo	oh?	express interest	Rising
ow	oh!	express surprise (pleasant or otherwise)	Falling
|	tsk!	express annoyance	n/a
tʃi	shoo!	chase something (e.g. a dog) away	High flat
we	hey!	give a warning	Rising
we	wow!	express admiration	Falling
(w)ey	hey!	call out to someone	Falling
ye	dunno	express that the speaker does not know the answer	Fall-rise

[a] Only attested when modified by *ho* 'IMM.FUT'; see §10.2.3.

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Appendix A

Notes on Ambel culture

In this appendix, I describe some features of present-day Ambel culture, and record some information about older traditions. Issues relating to the family, sustenance, the economy, and Christian and pre-Christian beliefs will be addressed. As well as providing a documentary record of these aspects of Ambel life, this information will help to set much of the linguistic material in this description in an appropriate context.[1]

A.1 The social system and family life

The social system of the Ambel is arranged according to clans (*gélet*). The marriage system is exogamous, in that one must marry outside of one's own clan, and patrilineal, in that children belong to their father's clan, and thus take their father's clan name. When she marries, a woman keeps her own clan name.

Today, the Ambel are monogamous. Historically, they were polygynous: a man could take up to three wives, but a woman could have only one husband. If a man wishes to marry a woman, his father must request her hand from her father, in a formal ceremony.[2] If the father of the intended bride refuses, the matter is not pursued further; if, however, he accepts, then the groom's family must pay a bride-price to the bride's family. This bride-price usually takes the form of the Chinese plates that are common throughout coastal Indonesian Papua (Yembise 2013: 20); typically, 50-150 plates are given in payment for the bride. More recently, a cash payment is also expected (usually around IDR 5-10 million; up to IDR 50 million, approximately GBP 2850/USD 3790, for a very eligible bride).

1. Some of the information reported in this appendix can be found, in Papuan Malay, in recording **AM265**.

2. The language used in these ceremonies is metaphorical; for example, the potential bride may be referred to as a 'flower' (*áysu*) a 'banana seedling' (*tál inay*), or a 'sugarcane seedling' (*túp inay*), which the father of the groom wishes to take home and plant in his garden. Unfortunately, I was unable to witness this ceremony first-hand during my time in Ambel villages.

Since Christianisation, many couples are married officially in church. Young couples, however, may simply live together and start a family in a de facto marriage, while they save the money for an official wedding ceremony. Traditionally, the Ambel were patrilocal, i.e. a married couple lived close to the groom's parents. However, this practice seems to be declining, with couples tending to live wherever they choose (including moving away from traditional Ambel lands). A household typically consists of a couple and their children. Divorce, while frowned upon these days, is not unheard of, particularly if one of the parties is infertile; traditionally, however, it appears that separation was more common.[3] Child-rearing is generally the domain of the women, but men are frequently seen looking after their babies, while the women carry out other household tasks.

A.2 Sustenance

In the Ambel villages, almost every household is self-sufficient. Families support themselves through fishing and harvesting other sea produce, cultivating the land, and hunting wild pigs. With regards to sea produce, both men and women go fishing. While women fish near to the shore with non-motorised canoes during daylight hours, the men undertake the bigger and more dangerous fishing expeditions further out to sea using motorised canoes, both during the day and at night. Fishing methods include fishing with lines, nets, and spears. Occasionally, a group of men go hunting for sea turtles together, using spears. Once or twice a week, a household might take a daytrip in a motorised canoe to one of the many 'finding places' along the coast (*máncari lúl*, from Malay *mencari* 'search for' and Ambel *lúl* 'seawards'). Traditionally, each of these finding places was owned by a certain clan: a family could only take food from the finding place that is owned by their clan. While there are those today who still abide by this tradition, others say that, since Christianisation, the clans have been united as one under God, and should therefore share their finding places accordingly. In these finding places, the men will fish or go diving for giant clams, sea cucumbers, and other sea produce, while the women and the children beachcomb for bivalves.

As well as sea produce, the Ambel sustain themselves with food cultivated on land. Each household has a garden, in which they grow produce such as cassava, taro, sweet potatoes, sugar cane, aubergines, chillies, bananas, pineapples, coconuts, langsat fruit, and mangoes, as well as leafy vegetables such as water spinach, amaranth, and aibika. Other leafy vegetables, such as melinjo, grow wild, and are foraged from the forest. The style of agriculture is slash-and-burn: once the soil nutrients on one plot of land are exhausted, a new garden is created on a new plot of land. The slash-and-burn techniques needed to clear a new plot of land are

3. From anecdotes I have heard, it seems that either the man or the woman could bring the partnership to an end, apparently without too heavy an obligation to provide a reason.

carried out by the men; both men and women, however, work together on planting, cultivating, and harvesting the produce. As with the finding places, traditionally a household could only cultivate a garden on a plot of land belonging to the clan of the father of the household. Many households also have sago gardens, which are an important part of the Ambel economy (see below); both men and women work in the sago gardens.

Finally, groups of men will sometimes hunt wild pigs together, especially if a big festivity is coming up (for example, around Christmas). Traditional methods, using dogs and spears, are still used to hunt pigs. The hunting parties generally consist of one to five men, and up to five dogs. One of three methods is used to prepare the dogs for the hunt: (1) The bark of either a *dawá* or *ay kani lalów* tree is burnt, and the charcoal is mixed with the dogs' food; (2) Someone takes a bite of ginger root (*láliw*), and blows it up the dogs' noses; (3) A kind of itchy leaf is pushed up the dogs' noses until they sneeze. The Ambel believe that, without preparing them in this way, the dogs would be unable to pick up a scent. Once the dogs do pick up a scent, they chase and surround the pig. If the pig is small, the dogs themselves may kill it, but if the pig is larger, one of the men will kill it with a spear.

Pig meat, as well as the meat from sea turtles, is generally cooked and shared out amongst the village straight away, or consumed at festivals. Pig meat may also be preserved (either smoked or salted). Caught fish are often cooked straightaway and then eaten, or shared out in the village; they may also be smoked or salted, and either kept in the village, or sold in town. Most other sea produce, as well as most garden produce, is consumed at home or shared with family and friends; excess is occasionally taken to town (Waisai or Kabare) to sell.[4] Sea cucumbers, apparently highly valued by the Chinese market, fetch a good price in town; they are thus rarely eaten, and frequently sold. The Ambel also rear chickens, again to sell in town – the meat is seldom eaten. The Ambel villages on the north coast are an important source of sago for the nearby Biak settlements, which are located in areas where sago does not grow. Historically, Biak traders would come to Ambel villages to purchase their sago (see recording **AM183**). Finally, the Ambel also sell the accoutrements of areca nut chewing (areca nut, betel fruit or leaf, and lime powder) in town, as well as local handicrafts such as bags (*kahéne*), hats (*turú*), and mats (*lám*), all of which are made from pandanus leaves dyed bright colours.

A.3 Christian and pre-Christian beliefs

All of the Ambel are Christian, of the Gereja Kristen Injil (Evangelical Christian Church) denomination. Every Sunday, at least two church services are held;

4. This is less true of the villages towards the north of Mayalibit Bay, such as Go, Waifoi, and Warimak. I have been told that the journey is not economical, owing to the high price of fuel and the low selling price of the produce.

services are also held on other important dates throughout the year. The church is important in distributing information throughout the village: after a church service, announcements are made about the activities for the upcoming week (for example building projects, or arrangments for festivities). The dominant language in church is Standard Indonesian.

The Ambel were Christianised comparatively recently. For example, the people of Fofak Bay (where present-day Kapadiri is located) converted to Christianity in 1951, following the arrival of the missionary Elia Yapen.[5] The villages of Kalitoko and Kabilo were Christanised before the people of Fofak Bay; the people of Go, Warimak, and Waifoi, however, converted more recently, i.e. after 1951.

While Christianity plays a large role in the day-to-day lives of the Ambel, many traditional beliefs are still practised. For example, each important piece of land is associated with a guardian spirit or spirits (*mútum*). If a big change is planned for that piece of land (for example, if someone wants to cultivate a large garden there, or if a company wants to start mining or logging operations), the elders of the clan or clans to which that piece of land belongs make an offering (*sadaká*) in order to request permission from, or appease these spirits. This offering may take the form of food (e.g. rice flavoured with coconut milk and turmeric, PM *nasi kuning*; fish; cooked banana; chicken eggs; baked sweet goods), tea, areca nut and betel fruit or leaf, cigarettes, and incense (*manyán*). A white flag may be also be raised. There must be eight of each item offered at these ceremonies (i.e., eight cups of tea, eight bowls of food); during the ceremony, four of each offering are thrown seawards, and four are thrown landwards. These offerings are also made throughout the year, so that hunting and fishing expeditions are successful; to fix a practical problem in a village, for example, if the water is not running, or the electricity is not working; and to ensure the continuing success of any companies operating in the area. (See **AM280** for a recording of a *sadaká* offering, in which the supplicant asks the *mútum* spirits for a plentiful harvest of fruit.) Divination may also take place at these ceremonies: the head of a clan, for example, may sacrifice two white chickens to the *mútum*. If the chickens die immediately, then this indicates that the *mútum* agree to the changes planned; if they does not, this means they do not assent. Chickens may also be sacrified to protect an individual or individuals from harm or sickness. The *sadaká* offerings are also made to the

5. According to one consultant, **MW**, the people of Fofak Bay had already been visited by the Dutch missionary Freerk Kamma in the 1930s, but had refused his conversion attempts. Not long after Kamma departed, a disease struck the settlement, and the majority of the population died – of the 90 households that made up the village before the plague struck, only eight remained once the disease had passed. The Ambel in Fofak Bay believed that the disease was a curse from Kamma; thus, when Elia Yapen arrived in 1951, they quickly converted to Christianity. See **AM021** and **AM125**.

According to **MW**, before conversion to Christianity, the people of Fofak Bay practiced traditional religion. This conflicts with the account given in Cheesman (1949), who states that the people of Lamlam, the settlement in Fofak Bay at the time of her visit in 1938, were Muslim, in contrast to the people of the Ambel villages in Mayalibit Bay, who were neither Muslim nor Christian.

mútum when travelling in the jungle, in order to ensure safe passage (see **AM064**, in which several speakers talk about these offerings); in this case, the offering is normally much smaller, consisting of cigarettes and areca nut.

As well as these neutral *mútum* spirits, most Ambel are afraid of the malevolent *kábyo* spirits (typically translated into local Malay as either *swanggi* or *setan*). These spirits manifest in human form; typically, they take the shape of one of the villagers, and then lure other people away from the village so that they can kill them and eat them. A person can also be possessed by a *kábyo*, for example if they have accidentally eaten their food; if someone is possessed, then their eyes glow bright red, and they would start eating human flesh (see **AM181**, a folk tale about possession). The *kábyo* play an important role in some of the clan histories (for example, the history of the dispersal of the Kein clan; see **AM193**); several of the narratives in the Ambel corpus tell stories about the interactions between humans and the *kábyo* spirits (see for example **AM066**, **AM076**, and **AM095**).

Finally, the Ambel also believe that a dragon (*kórben*) lives at the top of each significant peak on Waigeo. These dragons can be either benevolent or malevolent. If one, for example, bathes upstream of a malevolent dragon, it may steal one's *gamú* 'smell'.[6] Cheesman (1949) recounts how, during her visit to Waigeo in 1938, many Ambel men were so afraid of dragons that they refused to accompany her on insect-collecting missions.[7]

There is little record of Ambel pre-Christian beliefs. In an account of a 1705 Dutch expedition to Raja Ampat, Andaya notes of the local populations: "The Dutch believed that they worshipped all manner of land and sea plants, as well as idols of humans, beasts, and fish which they themselves made and to whom they presented offerings" (1993: 103). Corbey (2017), based on writings by the missionary Freerk Kamma and ritual artefacts collected during the colonial era, describes the cosmology of the pre-Christian and pre-Muslim Raja Ampat groups. This cosmology is described as animistic and ancestor-worshipping, heavily influenced by practices from the Moluccas in the west, and Cenderawasih Bay in the east. Male spirit priests played a major role in society, as healers, and as intermediaries between the human world and the spirit world.

Schultze-Westrum (2003) is a documentary which looks at the present-day interaction between Christian and pre-Christian beliefs on Waigeo, focussing on the practices of a Ma'ya chief, Segir Kasyan, who lives in Lupintol.[8] One subject of discussion is the *orang gi* 'Gi People' (PM), a group of spirit-like people who are

6. One's *gamú* 'smell' appears to be a vital part of one's well-being. There are several ways one can lose one's *gamú* 'smell' – for example, through possession by an evil *kábyo* spirit, or if one is cursed by a sorceror. If one loses one's *gamú* 'smell', one wastes away and eventually dies. Traditionally, one's *gamú* 'smell' was restored by a sorceror bathing the victim in a certain way; nowadays, the Christian church acts as the intermediary force.

7. Some pictures of what appear to be dragons, collected from the pre-Christian spirit priests of Raja Ampat during the colonial era, can be found in Corbey (2017).

8. At the time of writing, this documentary is available to watch on YouTube, in either German (*Waigeo: Insel der Magier*) or French (*Waigeo: L'île des magiciens*).

said to live in the interior of Waigeo.[9] While some of the Ambel I asked about the *orang gi* said that they were the stuff of fairy tales, others claimed to know people who had seen them; they are said to be short, with very dark skin. Based on these descriptions, it is plausible that stories of these *orang gi* refer to a now-disappeared group who once lived on Waigeo.

During my time on Waigeo, I was able to record a performance of the *Bintakí* fish-poisoning ritual and associated dances (see **AM260**, **AM273**). In an 'authentic' performance of the ritual (rather than the stylised performances that I was able to record), the participants spend the whole night pounding the bark of the *bintakí* tree into a river. This bark is an icthyotoxin; the next morning, the stunned fish are collected by the rest of the village, and a feast is held.[10] While the participants pound the bark, they sing a song. Most of the words of this song are not identifiably Ambel. According to legend, the Ambel learnt this ritual several generations ago. Two Ambel men came across a group of *kábyo* spirits performing the ritual; they hid themselves to watch the techniques, including the song. The words of the song are said to be in the language of the *kábyo*. Again, it is possible that this legend reflects a historical incident, in which the group identified as *kábyo* by the Ambel were in fact another population group living on Waigeo, who have since disappeared. Presumably, the language spoken by this group is one that is now extinct; the song that is sung during the *Bintakí* ritual may have originally been in this language.

According to the older consultants with whom I worked, before the Ambel were Christianised, most people practiced magic (*sarát*). Some of the magic practiced by the parents and grandparents of the older people I worked with is outlined below:

- One could 'order' an animal such as a snake or millipede to bite someone, by cutting out the shape of the animal from pandanus leaves, and blowing on it.[11]
- One could take a stick of betel fruit (*nyán*), say the name of an enemy, snap the fruit in two, and the named person would drop dead.
- One could break the branch of a tree, for example if there was ripe fruit out of reach, by breaking a betel fruit or twig and shouting, or by opening and closing a pen-knife very quickly.

9. The *gi* element is likely related to the Ambel word *gíy* 'areca nut'.
10. An 'authentic' performance of this ritual has not occurred for several decades.
11. The consultants who described this particular practice, **MW** and **MaK**, recall the following from their childhood: one Christmas, when several households had travelled from Paput in Fofak Bay to Warimak in Mayalibit Bay, some of the adults were playing around with this particular spell, to see whether it still 'worked' since they had become Christian. As soon as they blew on the leaf, both **MW** and another child were bitten by two separate millipedes.

- One could order a *kábyo* spirit to travel on the wind and attack an enemy in another village.
- One could carve a figurine (*ayhi*) out of stone or wood, and then order it to walk. This method could also be used to animate corpses.[12]
- If one of these figurines was carved in the likeness of someone living, one could inflict pain on that person by manipulating the statue (i.e., voodoo).
- By grinding up human bones and adding it to someone's food or drink at a feast, one could make an enemy waste away over the course of two to three months. The victim would eventually starve to death, despite eating the same amount as normal.
- At night, very powerful practitioners could detach their heads and internal organs from the rest of their bodies. Using their ears as wings, they would fly to other villages to attack their enemies. At around 4 or 5am, the head and trailing organs would return to the sleeping body.[13]
- Very powerful sorcerors could also order inanimate objects to lodge deep inside their enemy's body. Again, the victim would waste away and eventually starve to death.

However, all of the people to whom I spoke about this pre-Christian magic were at pains to point out that these traditions are no longer practiced by the Ambel, and have not been since they were Christianised. Some people (e.g. **MeK**) have suggested to me that, before Christianisation, the Ambel practised cannibalism. Others, however (e.g. **MW**), assert that it was not the Ambel themselves who ate human meat; but that they would summon *kábyo* spirits to kill and eat the meat of their enemies.

Finally, systems of taboo are practiced: for each clan, there is a particular food that it is forbidden to eat. For example, members of the Gaman clan cannot eat a certain type of shellfish (*kaséy*), members of the Fiay clan cannot eat a certain kind of small shrimp (*marása*), members of the Wakaf clan cannot eat giant clams (*kátop bísar*), and members of the Kein clan cannot eat the Waigeo brushturkey (*ambyán*). Each taboo is connected to a myth. Thus, for example, it is said that the Keins cannot eat the Waigeo brushturkey because, eight generations ago, their ancestor hatched out of a brushturkey egg (see **AM157**); and the Wakafs cannot eat giant clams because, according to one myth, a Wakaf ancestor once married one of these clams, who had transformed herself into a beautiful woman (see **AM267**

12. These *ayhi* figurines may be the same phenomenon as the *korwar* figurines described in Corbey (2017).

13. There is a kind of bird that lives on Waigeo that makes a *wok wok wok* sound in the middle of the night. The Ambel once believed this was the sound of the detached heads flying around and calling to each other.

and Appendix D.5). If a Wakaf were to eat a giant clam, or a Kein were to eat a Waigeo brushturkey, it is believed that they would become blind and deaf, their teeth would fall out, and/or they would be covered in wounds.

Appendix B

Overview of naturalistic recordings

In this appendix, I summarise each of the naturalistic recordings used in the analysis of Ambel. The following information is provided for each recording:

- **ID:** The unique identifying code for the recording.
- **Content:** A summary of the content of the recording.
- **Genre:** The genre of the recording (see below).
- **Patricipant(s):** The unique identifying code for the participant or participants in the recording (see Appendix C for a list of participant codes). If there are several or many participants in the recording, this is marked with 'several pps' and 'many pps', respectively.
- **Location:** The location in which the recording was made.
- **Date:** The date on which the recording was made, in the format YYYY-MM-DD.
- **Length:** The length of the recording, in the format H:MM:SS.
- **Video/audio:** Whether the recording is video and audio (V), or audio only (A).

All of these recordings are archived with the Endangered Languages Archive. The corpus is available at https://elar.soas.ac.uk/Collection/MPI845897.

With regards to the genre of the recording, the recordings were classified into the following genres, based on the categories given in van den Heuvel (2006: 15) and Payne (1997: 356-363) (see also §1.4.3):

- **Narrative:** Stories, either fictional or non-fictional, which communicate a series of generally chronological events. The genre 'narrative' can be further divided into the following subgenres:

  - *Folk tale:* Generally short, fictional stories, which may contain elements of the supernatural.
  - *Historical:* Non-fictional stories about historical events.
  - *Mythology:* Generally lengthier stories, which provide explanations for the way things are the the world (e.g. clan origin myths). This genre is hard to distinguish from historical narrative in Ambel: even events that happened fairly recently in history (e.g. two or three generations previously) may be mythologised. As a general rule of thumb, if the events contain elements of the supernatural, they are categorised as mythological narratives, whereas if they do not, they are categorised as historical narratives.
  - *Personal:* Non-fictional stories about events in the speaker's personal life.
  - *Religious:* Religious narratives (e.g., the story of Genesis).

- **Procedural:** The speaker explains how to do something, for example the steps involved in thatching a roof, or catching a fish.
- **Performative:** Similar to procedural texts, but the speaker carries out the task as he or she provides the instructions.
- **Expository:** The speaker explains something, for example why they are planning to go to town the following day.
- **Conversation:** Two or more speakers in conversation with one another.
- **Hortatory:** The speaker tries to persuade someone or something to do something; for example certain kinds of church sermon.
- **Description:** The speaker provides a basic description of a person or entity.
- **Task:** The speakers were set a task by the researcher, which was descigned to stimulate naturalistic dialogue, for example a map task.
- **Song:** Music that involves the human voice.
- **Instrumental music:** Music that does not involve the human voice.

In some cases, a recording is ambiguous between two or more genres. For example, as described in §1.4.3, some of the historical and mythological narratives in the corpus involve two or more speakers in dialogue, and so could justifiably be categorised as 'conversations'. In these cases, I tried to categorise the recording by what I felt the 'primary' genre to be. As a rule of thumb, if there was more than one participant in the recording, and the contribution of each of the participants was comparatively equal, the recording was categorised as 'conversation'. If, however, one of the speakers dominated the dialogue in the recording (for example, when telling a historical or mythological narrative), the recording was categorised appropriately.

ID	Content	Genre	Participant(s)	Location	Date	Length	Video/ audio
AM019	Magdelena and the beautiful flower	Narrative (folk tale)	MK	Kapadiri	2014-02-14	0:09:04	A
AM020	The two cousins	Narrative (folk tale)	MK	Kapadiri	2014-02-14	0:11:32	A
AM021	The history of Fofak Bay	Narrative (historical)	MW	Kapadiri	2014-02-19	0:17:13	A
AM024	Map task	Task	DTW, FAL	Go	2014-10-30	0:04:30	A
AM027	About my canoe	Expository	SF	Go	2014-10-31	0:04:05	V
AM028	The cooking race	Narrative (folk tale)	WDK	Go	2014-11-01	0:00:43	V
AM029	Chatting on the pier	Conversation	DTW, WDK, FAL	Go	2014-11-01	0:01:56	V
AM031	A dragon near Go	Narrative (folk tale)	KFT	Go	2014-11-01	0:07:30	V
AM032	What my parents' life was like	Narrative (personal)	MF	Go	2014-11-02	0:06:46	V
AM033	Origin of the Fiay clan	Narrative (mythology)	KFT	Go	2014-11-02	0:08:42	V
AM036	You have goodness	Song	KFT	Go	2014-11-03	0:01:24	V
AM037	Young woman	Song	KFT	Go	2014-11-04	0:01:46	V
AM038	I'm sitting on the beach	Song	KFT	Go	2014-11-04	0:02:20	V
AM039	You have goodness	Song	KFT, DTW, LA	Go	2014-11-04	0:01:55	V
AM040	I remember my homeland	Song	SK	Go	2014-11-04	0:01:24	A
AM041	Pity you all	Song	SK	Go	2014-11-04	0:02:18	A

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ID	Content	Genre	Participant(s)	Location	Date	Length	Video/ audio
AM042	Owl stories	Task	KFT, DTW	Go	2014-11-05	0:08:53	V
AM043	I will remember Go forever	Song	KFT	Go	2014-11-05	0:02:51	V
AM044	Young woman	Song	KFT, DTW, FAL, LA, MR	Go	2014-11-05	0:03:06	V
AM045	I'm sitting on the beach	Song	KFT, DTW, FAL, MR	Go	2014-11-05	0:02:48	V
AM046	Flute music	Instrumental music	KFT, MR, YF	Go	2014-11-05	0:02:39	V
AM047	Flute music	Instrumental music	KFT, MR, YF	Go	2014-11-05	0:05:06	V
AM048	Flute music	Instrumental music	KFT, MR, YF	Go	2014-11-05	0:02:52	V
AM049	Building a canoe	Conversation	KFT, AF, SF, others	Go	2014-11-06	0:05:56	V
AM051	How to build a canoe	Procedural	AF	Go	2014-11-06	0:01:53	V
AM052	Flute music	Instrumental music	KFT, MR, YF, AF, DF, SeK	Go	2014-11-06	0:01:57	V
AM053	Flute music	Instrumental music	KFT, MR, YF, AF, DF, SeK	Go	2014-11-06	0:03:14	V
AM054	Flute music	Instrumental music	KFT, MR, YF, AF, DF, SeK	Go	2014-11-06	0:02:14	V
AM055	Flute music	Instrumental music	MR, YF, AF, DF, SeK	Go	2014-11-06	0:03:25	V
AM056	The construction of the reservoir	Narrative (historical)	KFT, YF, AF	Go	2014-11-07	0:06:06	V
AM057	How to light a fire without matches	Procedural	KFT, YF, AF	Go	2014-11-07	0:03:52	V

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ID	Content	Genre	Participant(s)	Location	Date	Length	Video/ audio
AM058	The *hongi* slave raids	Narrative (historical)	KFT	Go	2014-11-07	0:08:48	A
AM064	Catching up on news	Conversation	NG, ESD, JK, ELD, YRM	Waifoi	2014-11-27	0:17:55	A
AM066	Three mythological narratives	Narrative (mythology)	DD, WG	Warimak	2014-11-28	0:39:19	V
AM067	Crocodiles and crabs	Conversation	NG, WG, NiG, MiW	Waifoi	2014-11-29	0:11:20	V
AM068	How to light a fire without matches	Procedural	SL, MG	Waifoi	2014-11-29	0:03:44	V
AM069	Making sago biscuits	Performative	YO, MG	Waifoi	2014-11-30	0:41:20	V
AM072	The king of the South wind	Narrative (folk tale)	MeW	Kapadiri	2014-12-17	0:04:40	V
AM073	Grandfather Jambu	Narrative (folk tale)	RK	Kapadiri	2014-12-17	0:02:59	V
AM074	The story of Ilipap	Narrative (historical)	MeW	Kapadiri	2014-12-17	0:04:46	V
AM075	The baby with the knife in her side	Narrative (folk tale)	MaG	Kapadiri	2014-12-17	0:03:25	V
AM076	Old woman Sombersaw	Narrative (folk tale)	MaG	Kapadiri	2014-12-17	0:04:04	V
AM078	Garden story	Narrative (folk tale)	RW	Kapadiri	2014-12-18	0:03:51	V
AM079	Ukulele song	Song	RW	Kapadiri	2014-12-18	0:03:53	V
AM080	Ukulele song	Song	RW	Kapadiri	2014-12-18	0:02:19	V

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ID	Content	Genre	Participant(s)	Location	Date	Length	Video/ audio
AM081	I'm sitting on the beach	Song	RW, RK	Kapadiri	2014-12-18	0:01:16	V
AM082	Young woman	Song	RW, RK, AA	Kapadiri	2014-12-18	0:02:21	V
AM084	Welcome song	Song	FW	Kapadiri	2014-12-20	0:01:46	V
AM085	Sago pounding song	Song	FW	Kapadiri	2014-12-20	0:01:32	V
AM086	Two cousins went fishing	Song	FW	Kapadiri	2014-12-20	0:01:55	V
AM087	Christmas procession	Instrumental music	Many pps	Kapadiri	2014-12-21	0:06:03	V
AM088	I'm sitting on the beach	Song	MeK	Kapadiri	2014-12-21	0:01:15	V
AM089	I'm sitting on the beach	Song	MeK	Kapadiri	2014-12-21	0:02:10	V
AM090	Oh, young woman, don't cry!	Song	MeK	Kapadiri	2014-12-21	0:01:48	V
AM091	Pity you all	Song	MeK, OG, M	Kapadiri	2014-12-21	0:04:17	V
AM093	Come and help cook!	Hortatory	IK	Kapadiri	2014-12-26	0:00:56	A
AM094	Mother and father	Song	MiG	Kapadiri	2014-12-26	0:00:29	V
AM095	Old woman Sombersaw	Narrative (folk tale)	RG	Kapadiri	2014-12-26	0:01:45	V
AM096	I remember my home	Song	RG	Kapadiri	2014-12-26	0:00:26	V
AM097	The wife who died	Narrative (folk tale)	RG	Kapadiri	2014-12-26	0:01:45	V

Continued on next page...

ID	Content	Genre	Participant(s)	Location	Date	Length	Video/ audio
AM098	The grandmother who boiled her grandson	Narrative (folk tale)	MiG	Kapadiri	2014-12-26	0:01:36	V
AM099	A young woman was fishing	Song	MiG	Kapadiri	2014-12-26	0:00:32	V
AM100	Dragons near Kapadiri	Expository	RG, MiG, MarG	Kapadiri	2014-12-26	0:00:49	V
AM101	Sea turtles	Procedural	OG, LA	Kapadiri	2014-12-29	0:01:54	V
AM102	I sit and look at the sea	Song	YK	Kapadiri	2014-12-29	0:03:25	V
AM103	I hear the story of the ancestors	Song	YK	Kapadiri	2014-12-29	0:01:14	V
AM105	Manarmakeri	Narrative (mythology)	MaG, MirG, DTW	Kapadiri	2014-12-31	0:12:32	V
AM106	When a baby is born	Expository	MirG	Kapadiri	2014-12-31	0:00:53	V
AM107	How to make a *kahéne* bag	Performative	MirG, MaG, DTW	Kapadiri	2014-12-31	0:03:07	V
AM112	Manarmakeri	Narrative (mythology)	MaK, AEG	Kapadiri	2015-01-05	0:18:23	V
AM113	The forest child	Narrative (folk tale)	MaK	Kapadiri	2015-01-05	0:16:15	V
AM125	The history of Fofak Bay	Narrative (historical)	MW, AEG	Kapadiri	2015-07-02	0:16:26	V
AM131	Four songs	Song	DW	Kapadiri	2015-07-07	0:04:01	V

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ID	Content	Genre	Participant(s)	Location	Date	Length	Video/ audio
AM135	The origin of the Wakaf clan	Narrative (mythology)	MW	Kapadiri	2015-07-10	0:27:38	V
AM147	Owl stories	Task	MW, AEG	Kapadiri	2015-07-23	0:03:05	V
AM149	Welcome speech, *wor* songs	Hortatory; songs	ArF	Kabare	2015-07-24	0:04:20	A
AM155	Evelyn Cheesman	Narrative (historical)	AM	Waigelas	2015-08-15	0:18:22	A
AM157	Origin of the Kein clan	Narrative (mythology)	MaK, WG	Kapadiri	2015-08-20	0:06:43	V
AM160	Description of Kapadiri	Description	MeK	Kapadiri	2015-08-22	0:01:59	V
AM167	What I did this morning	Narrative (personal)	MeK, LA	Kapadiri	2015-08-26	0:04:27	V
AM172	How to fish	Procedural	MeK	Kapadiri	2015-08-31	0:02:02	V
AM173	How to dive for sea cucumbers	Procedural	MeK	Kapadiri	2015-08-31	0:01:40	V
AM174	How to thatch a roof	Procedural	MeK	Kapadiri	2015-08-31	0:01:50	V
AM176	What I'm going to do tomorrow	Expository	MeK	Kapadiri	2015-09-01	0:01:48	V
AM177	How to make a rattan mat	Procedural	YK	Kapadiri	2015-09-01	0:01:46	V
AM178	My house	Description	YK	Kapadiri	2015-09-01	0:01:05	V
AM179	How to gather coconuts	Procedural	YK	Kapadiri	2015-09-01	0:00:43	V

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ID	Content	Genre	Participant(s)	Location	Date	Length	Video/ audio
AM180	The time we got hit by a big wave (twice)	Narrative (personal)	YK	Kapadiri	2015-09-01	0:01:04	V
AM181	The possessed child, and other stories	Narrative (folk tale)	AF	Kapadiri	2015-09-01	0:11:56	V
AM183	On sago	Expository	MaK	Kapadiri	2015-09-02	0:06:17	V
AM184	Tribal song	Song	MaK	Kapadiri	2015-09-02	0:00:25	V
AM185	Forging	Performative	MW	Kapadiri	2015-09-03	0:07:40	V
AM186	The orphan boy	Song	MerW	Kapadiri	2015-09-03	0:01:08	V
AM188	The tales of Mansahur	Narrative (mythology)	EK	Kapadiri	2015-09-03	0:21:30	V
AM191	Sermon	Hortatory	EK	Kapadiri	2015-09-04	0:23:08	V
AM193	The history of the Kein clan	Narrative (mythology)	MaK	Kapadiri	2015-09-05	0:09:54	V
AM198	Genesis	Narrative (religious)	EK	Kapadiri	2015-09-09	0:11:15	V
AM202	Goodbye Laura	Song	MaK	Kapadiri	2015-09-11	0:00:56	V
AM203	Goodbye Laura	Song	MaK, MerW, AA, KW	Kapadiri	2015-09-12	0:02:50	V
AM204	The history of the Gaman clan	Narrative (mythology)	DG, AEG	Waisai	2016-05-30	1:39:18	V
AM235	Religious song	Song	MeK	Kapadiri	2016-07-29	0:03:05	V
AM236	Religious song	Song	MeK	Kapadiri	2016-07-29	0:03:23	V
AM237	Religious song	Song	MeK	Kapadiri	2016-07-29	0:04:14	V
AM240	Religious song	Song	Several pps	Kapadiri	2016-07-31	0:04:47	V

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ID	Content	Genre	Participant(s)	Location	Date	Length	Video/ audio
AM241	Sermon	Hortatory	EK	Kapadiri	2016-07-31	0:14:42	A
AM242	Religious song	Song	Several pps	Kapadiri	2016-07-31	0:06:19	A
AM243	Il Mon Nok	Song	YK	Kapadiri	2016-07-31	0:03:44	V
AM245	Oh no! I'm sitting all alone	Song	YK	Kapadiri	2016-07-31	0:07:58	V
AM246	Goodbye Laura	Song	YK, LA	Kapadiri	2016-07-31	0:03:46	V
AM254	Several songs	Song	Several pps	Kapadiri	2016-08	0:38:40	V
AM260	Bintaki dance; songs	Song	Many pps	Darumbab	2016-08-11	0:31:13	V
AM267	Wakaf clan taboo	Expository	MW, LA	Kapadiri	2017-05-22	0:04:17	V
AM273	Bintaki ritual; songs	Song	Many pps	Darumbab	2017-05-27	0:47:27	V
AM280	*Sadaká* spirit offering	Hortatory	MW, others	Kapadiri	2017-06-20	0:15:25	V
AM286	Goodbye songs	Song	Many pps	Kapadiri	2017-06-24	0:04:17	V

Appendix C

Overview of speakers

In this appendix, I provide biographical details for each of the participants in the naturalistic and elicited corpora. The following information is provided for each participant:

- **ID:** The unique identifying code of the participant. This is usually the speaker's initials. If there is another participant in the corpus with the same initials, the first letter or letters of the participant's first name are added to the code.
- **Name:** The participant's full name (where known). Nicknames/alternative names are given in single quotation marks.
- **Sex:** The sex of the participant.
- **YOB:** The year in which the participant was born (or an estimate, if unknown).
- **Lives in:** The village(s) or town that the participant lives in.
- **First language; Other languages (spoken); Other languages (understood):** A summary of the participant's language proficiency. The following abbreviations are used:

B	Biak
Eng	English
M(K)	Maˈya (Kawe dialect)
M(L)	Maˈya (Laganyan dialect)
M(W)	Maˈya (Wauyai dialect)
PM	Papuan Malay
StInd	Standard Indonesian

- **Raised in:** The village(s) or town that the participant lived in for most of their childhood.

ID	Name	Sex	YOB	Lives in	First language	Other languages (spoken)	Other languages (understood)	Raised in
AA	Apelina Awom	F	1984	Kapadiri	Ambel	PM	B	Kapadiri
AbF	Abigael Fiay	F	1960s?	Kapadiri	Ambel	PM	*Unknown*	Go; Kapadiri
AEG	Alfred 'Esri' Gaman	M	1993	Manokwari, Kapadiri	Ambel	PM, StInd	English	Waifoi
AF	Abraham Fiay	M	1962	Go	Ambel	*Unknown*	*Unknown*	Go
AL	Andarias Lapon	M	1958	Kalitoko	Ambel	PM, B	M(L)	Selegof
AM	†Amandus Mentansen	M	c.1918	Waigelas	Ambel	PM, Eng, Dutch	–	*Unknown*
ArF	Arbet Fiay	M	c.1940s	*Unknown*	*Unknown*	*Unknown*	*Unknown*	*Unknown*
DD	Damianus Dawa	M	1959	Warimak	Ambel	PM, M(L), B	–	Selegop
DF	Dolfina Fiay	F	1997	Go	*Unknown*	*Unknown*	*Unknown*	*Unknown*
DG	Daud Gaman	M	1964	Waisai; Kapadiri	Ambel	PM, M(W)	–	Sorong
DTW	Darius 'Tomi' Wakaf	M	1995	Sorong; Kapadiri	Ambel	PM	–	Kapadiri
DW	Derek Wakaf	M	1964	Kapadiri	Ambel	PM, M(K)	–	Paput
EK	Elia Kein	M	1960	Kapadiri	Ambel	PM, StInd, Biak	–	Lamlam, Paput
ElD	Elia Dawa	M	1995	Warimak	PM	Ambel	–	Waifoi; Warimak
EsD	Esau Dawa	M	1985	Warimak	PM	Ambel	–	Go

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ID	Name	Sex	YOB	Lives in	First language	Other languages (spoken)	Other languages (understood)	Raised in
FAL	Felix Awre Lius	M	1999	Go	Ambel	PM, StInd	–	Go
FW	Frans Wakaf	M	1957	Kapadiri	Ambel	PM	*Unknown*	*Unknown*
GIL	Gais Ismael Lapon	M	1988	Kalitoko	Ambel	PM, StInd, Eng	*Unknown*	*Unknown*
IK	Ines Kein	M	late 1980s	Kapadiri	Ambel	PM	*Unknown*	*Unknown*
KFT	Korneles Fiay Tokoadat	M	1957	Go	Ambel	PM, M(K)	–	Go
KN	Korlianus Nok	M	1960	Waifoi	Ambel	PM	–	*Unknown*
KW	Konstantina Wakaf	F	1990	Kapadiri	Ambel	PM	–	Kapadiri
LA	Laura Arnold	F	1986	Edinburgh, UK	Eng	PM, Ambel	–	Grantham, UK
M	'Manggro'	M	1980s?	Kapadiri	Ambel	PM	*Unknown*	*Unknown*
MaG	Marta Gaman	F	1960s?	Kapadiri	Ambel	PM	–	Kapadiri
MaK	Matius Kein	M	1951	Kapadiri	Ambel	PM, Biak	–	Lamlam; Paput
MarG	Margarita Gaman	F	c.1930s	Kapadiri	Ambel	PM	*Unknown*	Lamlam
MaW	Magdalena Wakaf	F	1994	Kabare	PM	Ambel	–	Waliam, Salawati
MeK	Mesak Kein	M	c.1970s	Kapadiri	Ambel	PM	Eng	*Unknown*
MerW	Merit Wakaf	F	late 1980s	Kapadiri	Ambel	PM	*Unknown*	Kapadiri
MeW	Melkianus Wakaf	M	1973	Kapadiri	Ambel	PM	–	Kapadiri

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ID	Name	Sex	YOB	Lives in	First language	Other languages (spoken)	Other languages (understood)	Raised in
MF	Markus Fiay	M	1977	Go	Ambel	PM,	M(K), B	Go
MG	Manase Gaman	M	1960	Waifoi	Ambel	PM	*Unknown*	Kabilo
MiG	Mia Gaman	F	c.1960s	Kapadiri	Ambel	PM	*Unknown*	Warimak
MirG	Miriam Gaman	F	c.1960s	Kapadiri	Ambel	PM	Biak	*Unknown*
MiW	Mia Wakaf	F	late 1980s	Waifoi	Ambel	PM	*Unknown*	*Unknown*
MK	Mina Kein	F	1960	Kapadiri	Ambel	PM	*Unknown*	*Unknown*
ML	Marten Lapon	M	1939	Kabare	Ambel	PM	*Unknown*	*Unknown*
MR	Mariam Rumbewas	F	c.1960	Go	B	PM, Ambel	*Unknown*	*Unknown*
MW	Martinus Wakaf	M	1944	Kapadiri	Ambel	PM, B, M(K)	–	Lamlam; Paput
NG	Naomi Gaman	F	1975	Waifoi	Ambel	PM	B, M(L)	Waifoi
NiG	Nimrod Gaman	M	1969	Waifoi	Ambel	PM	*Unknown*	Waifoi
OG	Oktofianus Gaman	M	1980s?	Kapadiri	Ambel	PM	–	*Unknown*
RG	Rosina Gaman	F	c.1930s	Kapadiri	Ambel	PM	*Unknown*	Lamlam
RK	Regina Kein	F	1979	Kapadiri	Ambel	PM	–	Kapadiri
RW	Robet Wakaf	M	1964	Kapadiri	Ambel	PM	–	Paput; Kapadiri
SK	Senerina Kein	F	c.1980s	Go	Ambel	PM	*Unknown*	*Unknown*
SF	Stefan Fiay	M	c.1960s	Go; Kapadiri	Ambel	PM	M(L), M(K), B	Go
SK	Samuel Kein	M	c.1977	Kapadiri	Ambel	PM	–	Kapadiri

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ID	Name	Sex	YOB	Lives in	First language	Other languages (spoken)	Other languages (understood)	Raised in
SL	Silas Louw	M	1963	Kabilo	Ambel	PM	*Unknown*	Kabilo
SW	Selep Wakaf	M	1987	Kapadiri	Ambel	PM	–	Kapadiri
WDK	Wilem Domingus Kein	M	1997	Go	Ambel	PM, StInd	Eng	Kabilo
WG	Wolter 'Oter' Gaman	M	1987	Waifoi	Ambel	PM, StInd, Eng	–	Waifoi
YD	Yeheskial Dawa	M	1974	Warimak	Ambel	PM	–	*Unknown*
YF	Yahya Fiay	M	c.1950	Go	Ambel	PM	*Unknown*	Go
YK	Yubel Kein	M	1984	Kapadiri	Ambel	PM	–	Kapadiri
YL	Yonaton Lapon	M	1978	Kalitoko	Ambel	PM	*Unknown*	*Unknown*
YO	Yosina Olom	F	c.1960	Waifoi	Ambel	PM	–	*Unknown*
YRM	Yusuf Rahmata Mentansen	M	1977	Waisai; Waifoi	Ambel	PM	Eng	Waigelas

Appendix D

Texts

D.1 AM074: The story of Ilipap

This story is a folk story, based on a historical event. It tells of a time during the *hongi* slave raids (see §1.1.2), when a group of Ambel man left Fofak Bay to raid other villages. While they were gone, the women of the Bay relocated to live on top of Ilipap, a steep island in Fofak Bay. However, some raiders from another tribe arrive. The women build a long ladder, and trick the invaders into climbing up it. While they are climbing the ladder, two of the women cut the ladder, and the invaders plunge to their death.[1]

Genre:	Narrative (folk tale)
Participants:	**MeW** (Speaker A) – Male, born 1973
	RW (Speaker B) – Male, born 1964
	RK (Audience) – Female, born 1979
	DTW (Audience) – Male, born 1995
	LA (Audience, researcher) – Female, born 1986
	One other woman, two children (Audience)
Length:	04.46
Translator:	**AEG**

(1) A: ine yasúy gana wéy, ni?
ine y-asúy gana wéy ni
1SG 1SG-tell one again POS.INT

'I'll tell one more, right?'[2]

1. Some people believe that this story took place in Mayalibit Bay, in the area of *Ye Sabáka* 'Tobacco Islands', to the south of the bay. There are human bones on one of the Tobacco islands; those that say this story is from Mayalibit Bay identify these bones as the bones of the invaders.
2. Earlier, the same speaker told another story (**AM072**).

(2) B: nyasúy
ny-asúy
2SG-tell

'[Yes], you tell [a story].'

(3) A: aa, yasúy gámsu wane ido gámsu sárita wane
aa y-asúy gámsu wa-ne ido gámsu sárita wa-ne
HES 1SG-tell folk.tale DEM.CNT-PROX FRA folk.tale history DEM.CNT-PROX

'Umm, if I tell this folk tale, [it is] a historical folk tale [i.e., a folk tale based on history].'

(4) A: gámsu sárita wane ido mánsar, aa, mánsar
gámsu sárita wa-ne ido mánsar aa mánsar
folk.tale history DEM.CNT-PROX FRA respected.man HES respected.man
wapa ido igain wa mánsar mámnyay a, mánsar
wa-pa ido i-gáin wa mánsar mámnyay a mánsar
DEM.CNT-MID FRA 3SG-name PRED respected.man Mamnyay PERS respected.man
mámnyay a
mámnyay a
Mamnyay PERS

'As for this historical folk tale, there was this man, his name was Mr Mamnyay, Mr Mamnyay.'[3]

(5) A: ini bísar pa ido gain wa bísar malélen
i-ni bísar pa ido gáin wa bísar malélen
3SG-POSS.I wife ART FRA name.3SG PRED respected.woman Malelen

'As for his wife, her name was Mrs Malelen.'

(6) A: ido bísar pa– mánsar pa abí láp
ido bísar pa mánsar pa abí l-áp
so.then respected.woman ART respected.man ART want 3PL.AN-paddle
pórin
pórin
NEG.CONT

'So the woman– [FALSE START] the man, they hadn't gone out to sea [lit: 'paddled'] yet.'[4]

3. This character's name (*Mámnyay*) is the same as the name of an island near the mouth of Mayalibit Bay (*Mámnyay*; see **AM204_01.34.23**).
4. I.e., Mamnyay and his comrades were planning to go out to raid other tribes, but they hadn't left yet.

(7) A: ido mbidon ini bísar ne
ido N-bidon i-ni bísar ne
so.then 3SG.AN-inform 3SG-POSS.I wife ART

'So he let his wife know.'

(8) A: monkoné: "nyabá be nya*jaga* mé i ne ni?"
monkoné nya-bá be nya-jaga mé i ne ni
say.3SG.AN 2SG-stay.behind PURP 2SG-guard person NSG ART POS.INT

'He said: "Stay behind in order to watch over the people, right?"'

(9) A: "nya*jaga* bin i ne be mé i ne bey ido
nya-jaga bin i ne be mé i ne bey ido
2SG-guard woman NSG ART PURP person NSG ART all FRA
labedel ine, be ámtan be ámahanat be
la-be-del ine be ám-tán be áma-hanát be
3PL.AN-become-follow 1SG PURP 1PL.E-go PURP 1PL.E-go.looking.for.war and
ámbun"
ám-bun
1PL.E-kill

'"Watch over the women so that, the people [i.e., the men], they [can] follow me, so that we can go to find war and kill [people]".'

(10) A: "be ámakaraw be ámusuy lé sia be isne wéy
be áma-karáw be ám-ut-súy lé sia be isne wéy
PURP 1PL.E-invade PURP 1PL.E-carry-go.home thing 3PL BEN 1PL.E again
pu?"
pu
ATT.INT

'"So that we can invade [other villages] in order to bring back home some things for us all, you know?".'

(11) A: ido bísar pa mokoné: "i, ncán, nyá, aa,
ido bísar pa mokoné i N-<y>tán ny-á aa
so.then respected.woman ART say.3SG.AN yes 2SG-<2SG>go 2SG-depart HES
ine yabá tu mé i ne rín"
ine ya-bá tu mé i ne rín
1SG 1SG-stay.behind COM person NSG ART CONT

'So then the woman said: "Yes, go, depart, umm, I will stay behind with the people [i.e., the women]".'

(12) A: ido wán wana, la*mulay*, aa, lakárin lún
ido wán wana la-mulay aa la-kárin lún
so.then boat DEF 3PL.AN-start HES 3PL.AN-sew sail

'So then the boat, they began to sew a sail [for it].'

(13) A: lakarín lún beposa, ido mane– pánye pa ido la*mulay*
la-karín lún beposa ido pánye pa ido la-mulay
3PL.AN-sew sail after FRA morning ART FRA 3PL.AN-start
láp pomá
l-áp pomá
3PL.AN-travel.by.sea IAM.EMPH

'After they had sewed a sail then– in the morning they started to go to sea.'

(14) A: lakái ido lakái, lakái, lakái, aya ooo! lopua,
la-kái ido la-kái la-kái la-kái aya ooo lo-pu-a
3PL.AN-sail FRA 3PL.AN-sail 3PL.AN-sail 3PL.AN-sail TERM ooh! DEIC.N-DOWN-AND
latayságado lo patáni, ayságado mába, be lopu to
lat-ayságado lo patáni ayságado mába be lo-pu-a to
3PL.AN-TERM place Patani TERM Maba ALL DEIC.N-DOWN-AND IAM

'When they sailed, then they sailed a very long way, as far as ooh! the place towards the bottom [i.e., westwards], they went as far as Patani, as far as Maba,[5] to the place at the bottom [i.e., westwards].'

(15) A: ido bísar wana, we! nusá si be
ido bísar wana we n-ut-sá si be
so.then respected.woman DEF wow! 3SG-carry-ascend 3PL.AN.O ALL
ípon wa amáne– aa, amáne do alima,
ípon wa aN=máne aa aN=máne do a-li-ma
mountain NMC.DEF 3SG.INAN=tall HES 3SG.INAN=tall PERL DEM.NCNT-LAND-DIST
ílipap alima
ílipap a-li-ma
Ilipap DEM.NCNT-LAND-DIST

'So then the woman [i.e., Malelen], wow! She brought them [i.e., the women she was watching over] up the mountain that is tall inland there, Ilipap inland there.'

5. Patani and Maba are locations in Halmahera.

(16) A: ido bísar pa ntoróy si be lop
ido bísar pa N-tó-róy si be lo-pa
so.then respected.woman ART 3SG.AN-live-live.with 3PL.AN.O LOC DEIC.N-MID
to
to
IAM

'So then the woman [Malelen] lived together with them [the other women] in that place.'

(17) A: ido na*komando*: "bin mew! mabáy are! be magali ine
ido na-komando bin mewá m-abáy are be ma-gali ine
so.then 3SG-command woman 2PL 2PL-play PROHIB and 2PL-help 1SG
be talén, tin lúnte ne"
be t-alén t-in lúnte ne
COMPL 1PL.I-do 1PL.I-make ladder ART

'Then she commanded: "You women! Don't mess around! Help me to do, to make a ladder".'

(18) A: ido lala líl ladú– ladú dow
ido la-la líl la-dú la-dú dow
so.then 3PL.AN-ORI landwards 3PL.AN-pull 3PL.AN-pull rattan

'So then they [went] landwards, they pulled– they pulled rattan [i.e., they collected rattan].'

(19) A: ladú dow pa beposa, ido labí asi be lasél
la-dú dow pa beposa ido la-bí asi be la-sél
3PL.AN-pull rattan ART after FRA 3PL.AN-give 3NSG.INAN.O and 3PL.AN-tie
asi be pón aima be ilo pa la– lén,
asi be pón a-i-ma be i-lo pa lén
3NSG.INAN.O ALL top DEM.NCNT-UP-DIST ALL 3INAN-place ART PLH
ayságado tásilo alua
ayságado tási-lo a-lu-a
TERM salt.water-place DEM.NCNT-SEA-AND

'After they had collected the rattan, then they passed it up [lit: 'gave it'] and they tied it to the top [of the mountain] there, to the place, y'know, as far as the sea [i.e., they made a ladder that stretched from the top of the mountain down to the shore].'

(20) A: beposa ido mán wena ladók to, ladóka *lewat*a
beposa ido mán wena la-dók to la-dók-a lewat-a
after.that FRA man DEF.NSG 3PL.AN-leave IAM 3PL.AN-leave-PAR pass.by-PAR
lanyán low ke, túl ke
lanyán low ke túl ke
day two EPI.may three EPI.may

'After that, the men had already left, they had been gone for maybe two days, maybe three.'

(21) A: ido léma álelepita aluma ido káwasa
ido l-ém-a álelepita a-lu-ma ido káwasa
so.then 3PL.AN-see-PAR mouth.of.bay DEM.NCNT-SEA-DIST FRA group.of.people
pa
pa
ART

'Then when they [the women] looked to the mouth of the bay, there was a group of people [i.e., a group of invaders from another tribe].'

(22) A: we! wán pa
hey! boat ART

'Hey! There were canoes.'[6]

(23) A: wán pa bi ido dadi áy i ne
wán pa bi ido dadi áy i ne
boat ART just FRA SIM tree NSG ART

'As for these canoes, [they were] the same as the trees.'[7]

(24) A: ido bísar ne mokoné: "ay! bin mew, isne
ido bísar ne mokoné ay bin mewá isne
so.then respected.woman ART say.3SG.AN oh.no! woman 2PL 1PL.I
hey po"
Ø-hey po
1PL.I-good NEG

'So then the woman [Malelen] said: "Oh no! You women, we are not good [i.e., our situation is not good]".'

(25) A: "wán welum kada, isne hey póto"
wán we-lu-ma kada isne Ø-hey póto
canoe DEM.CNT.NSG-SEA-DIST CIR.can[8] 1PL.I 1PL.I-good NEG.IAM

'"There are canoes at sea, our situation is not good anymore".'

(26) A: ido sinai lolum lakatarán, ido lagága
ido sinai lo-lu-ma la-katarán ido la-gága
so.then 3PL.PRED DEIC.N-SEA-DIST 3PL.AN-land.canoe so.then 3PL.AN-shout

'So then when they [the invaders] were in the seawards place, they landed the canoes, and then they shouted.'

6. While there is no plural marking in this existential clause, the subsequent utterances indicate that there was more than one canoe.
7. A simile, indicating that there were many canoes.
8. The use of *kada* 'CIR.can' in this context is not understood (see §10.1.2 for more on *kada* 'CIR.can').

(27) A: "we! ba– lúnte pa lote?"
we lúnte pa lo-te
hey! ladder ART DEIC.N-INF.QU

'[They said:] "Hey! Where is the ladder?".'

(28) A: ido nagága: "ey! lúnte pa la líl"
ido na-gága ey lúnte pa la líl
so.then 3SG-shout hey! ladder ART ORI landwards

'Then she [Malelen] shouted: "Hey! The ladder is towards the land".'

(29) A: mimsá súy la pál líl ane
mim-sá súy la pál líl a-ne
2PL-ascend go.home[9] ORI side landwards DEM.NCNT-PROX

'"Come back up towards the landwards side here".'

(30) A: ido lasá bey to
ido la-sá bey to
so.then 3PL.AN-ascend all IAM

'So then they [the invaders] all went up [the ladder].'

(31) A: mbíne: "mimsá ido musá aro lé wen bey
N-bíne mim-sá ido m-ut-sá aro lé wena bey
3SG.AN-say 2PL-ascend FRA 2PL-carry-ascend completely thing DEF.NSG all
to, mimsá bey to"
to mim-sá bey to
IAM 2PL-ascend all IAM

'She said: "When you all come up, bring up every last one the things [i.e., weapons], all of you come up together".'

9. The use of a manner serial verb construction with V2 *súy* 'go home' is unusual here, as it implies that the invaders are returning to their rightful place (see §13.1.3). Possibly Malelen is pretending that she thinks the invaders are the men of the village, who are coming home.

(32) A: ido lasá ido lusá náeee, básueee,
ido la-sá ido l-ut-sá ná-eee básu-eee
so.then 3PL.AN-ascend FRA 3PL.AN-carry-ascend spear-EXCESS bow-EXCESS
sómbereee, lé wepa, labí ita i pa,
sómber-eee lé we-pa la-bí i-tá i pa
machete-EXCESS thing DEM.CNT.NSG-MID 3PL.AN-give 3INAN-blade NSG ART
silaine
si-la-i-ne
3NSG.INAN-DEIC.PREP-UP-PROX

'So then when they ascended, they brought up lots of spears, lots of bows, lots of machetes, those things, they passed [lit: 'gave'] the blades [so that] they went up here.'

(33) A: ido labí ita i pa sila il ido
ido la-bí i-tá i pa si-la il ido
so.then 3PL.AN-give 3INAN-blade NSG ART 3NSG.INAN-ORI upwards so.then
lasá, lasá, lasá, lasá ayságado abí
la-sá la-sá la-sá la-sá ayságado abí
3PL.AN-ascend 3PL.AN-ascend 3PL.AN-ascend 3PL.AN-ascend TERM want
lahárita lúnte pa loipa ido
la-hárit-a lúnte pa lo-i-pa ido
3PL.AN-be.close-PAR ladder ART DEIC.N-UP-MID FRA

'So then when they passed the blades [so that] they went upwards, then they ascended, they ascended, they ascended, they ascended, until when they were near the top of the ladder, then...'

(34) A: bísar malélen a tua páne a iawa ne usáw
bísar malélen a tu-a páne a i-awá ne u-sáw
respected.woman Malelen PERS COM-PAR Pane PERS 3SG-spouse ART 3DU-hold
sómber i pa be sómber kaytapíri i pa low
sómber i pa be sómber kaytapíri i pa low
machete NSG ART PURP machete k.o.machete NSG ART two

'Mrs Malelen and Pane's wife[10] held machetes, so that there were two *kaytapíri* machetes.'

10. This is our first introduction to Pane and his wife; neither had been mentioned earlier in the story.

(35) A: be lúnte labí anlane beposa ido, aa, ula*hitun*
be lúnte la-bí aN=la-ne beposa ido aa ula-hitun
and ladder 3PL.AN-give 3SG.INAN=DEM.V-PROX after FRA HES 3DU-count

aya... ula*hitun*, ido mbíne: "kitém! low! túl!" ido ulakút
aya ula-hitun ido N-bíne kitém low túl ido ula-kút
TERM 3DU-count so.then 3SG.AN-say one two three so.then 3DU-cut

'And after they had given the ladder like this [i.e., after they had shown the invaders how to climb up], the two of them counted to– the two of them counted, then she [Malelen] said: "one! two! three!!' and then the two of them cut [the ladder].'

(36) A: ulakútkamtu dow ikatara low wana ido *lansung*
ula-kút-kámtu dow i-katara low wana ido lansung
3DU-cut-break.off rattan 3INAN-end two DEF FRA straightaway

káwasa wen bey ido lamdól do lopua
káwasa wena bey ido la-mdól do lo-pu-a
group.of.people DEF.NSG all FRA 3PL.AN PERL DEIC.N-DOWN-AND

'When they cut and broke the two ends of the rattan [ladder], then as for all of the group of people [i.e., the invaders], straightaway they fell down (to the place at the bottom).'

(37) A: lamdól do lopu beposa ido popomá, lamát
la-mdól do lo-pu-a beposa ido popomá la-mát
3PL.AN-fall PERL DEIC.N-DOWN-AND after FRA that's.that 3PL.AN-die

aro pomá
aro pomá
completely IAM.EMPH

'After they had fallen down (to the place at the bottom), then that was that, every single one of them was indeed dead.'

(38) A: beposa ido ném la lúl yo, pórin, daw
beposa ido n-ém la lúl yo pórin daw
after.that FRA 3SG-see ORI seawards then NEG.CONT remain

lanin mácu kipa
la-ni-n mácu ki=pa
3PL.AN-POSS.II-NSG.POSS young.man EMO=ART[11]

'After that, when Malelen looked to sea, then [she saw that they were] not yet [all dead], there remained one of their young men.'

11. In this passage, *ki*= 'EMO' appears to carry a diminutive reading (i.e., emphasising that there is only *one* person left), rather than any of the emotional readings discussed in §3.10. Note that the referent of the NP is an enemy, and thus a positive emotional reading is odd here.

(39) A: ee, lanin mácu kipa kintó po
ee la-ni-n mácu ki=pa ki=N-tó po
ooh 3PL.AN-POSS.II-NSG.POSS young.man EMO=ART EMO=3SG.AN-stay LOC
wán kipa be kin– aléna, ném lalua, potó, abí
wán ki=pa be aléna n-ém la-lu-a potó abí
canoe EMO=ART and PLH 3SG-look DEIC.PREP-SEA-AND that's.that want
nsúy be?
N-súy be
3SG.AN-go.home PURP

'Ooh, their young man was in a canoe, and, y'know, he was looking to sea – that's that, how was he going to get home?'[12]

(40) A: nsúy cam póto, nsúy po, wán pa
N-súy cam póto N-súy po wán pa
3SG.AN-go.home CIR.can NEG.IAM 3SG.AN-go.home NEG canoe ART
simábu be silál rani
si-mábu be si-lál rani
3NSG.INAN-many and 3NSG.INAN-big since

'He cannot go home anymore, he was not going home, since there are many canoes and they are [too] large [i.e., for him to paddle by himself].'

(41) A: aa, bísar malélen a nagága: "ey! pórin ma!"
aa bísar malélen a na-gága ey pórin ma
HES respected.woman Malelen PERS 3SG-shout hey! NEG.CONT indeed

'Umm, Mrs Malelen shouted: "Hey! Indeed [they are] not yet [all dead]".'

(42) A: "bát wáygeo a nyai ne amásil ane"
bát wáygeo a nyái ne aN=másil a-ne
earth Waigeo PERS belly.3SG.AN[13] ART 3SG.INAN=be.hungry DEM.NCNT-PROX

'"The stomach of the Land of Waigeo is hungry".'

(43) A: "hyáy wéy, nyál wéy"
N-<y>háy wéy ny-ál wéy
2SG-<2SG>return again 2SG-take again

'[Speaking to the remaining young man:] "If you return again, you will bring [people] again".'

12. As discussed in §9.2.3.3, the use of *be* 'PURP' with omission and Constituent Interrogative intonation normally has a translational equivalent of 'why'. However, in this context, a 'how' question seems more appropriate; this is supported by the translation given by the native speaker.
13. Note that, although the possessor is inanimate, the possessive marking does not cross-reference an inanimate possessor here (i.e., with *i-* '3INAN'). This suggests *bát Wáygeo* 'the land of Waigeo' is being anthropomorphised. This analysis is supported by the use of the marker of personal names *a* 'PERS', usually reserved for NPs with animate referents (see §3.2.2).

(44) A: ido kinasúy po
ido ki=n-asúy po
so.then EMO=3SG-speak NEG

'[But] then he did not speak.'

(45) A: ido bísar pa– law– ooo! abí lányun to
ido bísar pa– ooo abí lányun to
so.then respected.woman ART oh! want late.afternoon IAM

'So then the woman [FALSE START]– oh! It was nearly late afternoon.'

(46) A: nabí ankinanyúy ido bísar ne nále
n-abí aN=ki=nanyúy ido bísar ne n-ále
3SG.AN-want[14] 3SG.INAN=EMO=be.dark FRA respected.woman ART 3SG-descend
súy la pál líl
súy la pál líl
go.home ORI side landwards

'When darkness was falling [lit: 'when it was going to be dark'], then the woman [Malelen] went back down [the mountain] via the landwards side.'

(47) A: nsáw tu sómber pa, beposa ido nakabút an–
N-sáw tu sómber pa beposa ido na-kabút an–
3SG.AN-hold COM[15] machete ART after.that FRA 3SG-hold.machete
nlá be nakabút an be kagala ne
N-lá be na-kabút ana be kagalán ne
3SG.AN-swim PURP 3SG-hold.machete 3SG.INAN ALL skull.3SG.AN ART

'She took a machete, after that she held [FALSE START]– she swam in order to hold it to his skull.'

(48) A: nlá la lúl, nlá la líl, nlá
N-lá la lúl N-lá la líl N-lá
3SG.AN-swim ORI seawards 3SG.AN-swim ORI landwards 3SG.AN-swim
ayságado abí ankinanyúy to
ayságado abí aN=ki=nanyúy to
TERM want 3SG.INAN=EMO=be.dark IAM

'She swam seawards, she swam landwards, she swam until darkness was falling [lit: 'it was going to be dark'].'

14. See §14.2.1.1.1 for more on the generic use of 3SG.AN inflection on *abí* 'want'.
15. It is unclear what the function of *tu* 'COM' is here; *sáw* 'hold' is also grammatical with an object (as opposed to an adjunct).

(49) A: ido nala hánin be íri páp wán beposa
ido na-la hánin be íri páp wán beposa
so.then 3SG.AN-ORI to.there ALL outrigger.beam underneath canoe after
ido ndú sómber pa la il
ido N-dú sómber pa la il
FRA 3SG.AN-pull machete ART ORI upwards

'So then after she had [gone] there to the [space] underneath the outrigger beams of the canoe, then she pulled the machete upwards.'

(50) A: ndú sómber pa la il, natákukamtu mácu pa
N-dú sómber pa la il na-táku-kámtu mácu pa
3SG.AN-pull machete ART ORI upwards 3SG-chop-break.off young.man ART
kagala pa, beposa ido mát
kagalán pa beposa ido N-mát
skull.3SG.AN ART after.that FRA 3SG.AN-die

'She pulled the machete upwards, she chopped the young man's skull so that it broke open, after that he died.'

(51) A: mát beposa ido na*komando*: "ey! bin mew!"
N-mát beposa ido na-komando ey bin mewá!
3SG.AN-die after FRA 3SG-command hey! woman 2PL

'After he had died, then she commanded: "Hey, you women!".'

(52) A: "mále ma lúl to, be táytal, aa, lé
m-ále ma lúl to be t-áytal aa lé
2PL-descend VEN seawards IAM PURP 1PL.I-transport HES thing
wailuma"
wa-i-lu-ma
DEM.CNT-NSG-SEA-DIST

'"Come down in a seawards direction, so that we can transport, umm, those things by the sea [i.e., the invaders' provisions and suchlike]".'

(53) A: we! lala lúl ido láytal aro lé wena
we la-la lúl ido l-áytal aro lé wena
hey! 3PL.AN-ORI seawards FRA 3PL.AN-transport completely thing DEF.NSG

'Hey! When they [went] seawards, then they transported every last thing.'

(54) A: láytal aro asi beposa ido lut
l-áytal aro asi beposa ido l-ut
3PL.AN-transport completely 3NSG.INAN.O after FRA 3PL.AN-carry
asi do lo ípon alip– ilipáp, ilipáp, ípon
asi do lo ípon ilipáp ilipáp ípon
3NSG.INAN.O PERL place mountain Ilipap Ilipap mountain
alia
a-li-a
DEM.NCNT-LAND-AND

'After they had transported all of them [the things], then they carried them via moutain [FALSE START]– Ilipap, Ilipap, [the] mountain in a landward direction.'

(55) A: lusá aro asi beposa ido eee, lakáton
l-ut-sá aro asi beposa ido eee la-káton
3PL.AN-carry-go.home completely 3NSG.INAN.O after FRA ooh 3PL.AN-sit
aya arí wapa, arí wapa ampo, ey! mu
aya arí wa-pa arí wa-pa aN=po ey mu
TERM week DEM.CNT-MID week DEM.CNT-MID 3SG.INAN=NEG hey! low.tide
lányun pa rani
lányun pa rani
late.afternoon ART so

'After they had brought them all home, ooh! they sat for that week, until that week was finished, hey! The low tide was in the late afternoon, so...'

(56) A: mu lányun pa ido lém ido ow!
mu lányun pa ido l-ém ido ow
low.tide late.afternoon ART FRA 3PL.AN-see FRA oh!

'When it was low tide in the late afternoon, when they looked, then oh!'

(57) A: mé wena sinailum to
mé wena sinai-lu-ma to
person DEF.NSG 3PL.PRED-SEA-DIST IAM

'The people [i.e. the men of the village] were seawards.'

(58) A: mé wena sina[16] lasúy alum to
mé wena sina la-súy a-lu-ma to
person DEF.NSG 3PL 3PL.AN-go.home DEM.NCNT-SEA-DIST IAM

'The people were coming home from the sea.'

16. Note the unusual form of the 3PL pronoun here: *sina*, rather than the usual *sia* (see §3.2.3). It appears that *sina* is an archaic form.

(59) A: latayságado yesbé ikatara ne
lat-ayságado yesbé i-katara ne
3PL.AN-TERM Yesbe 3INAN-end ART

'They came as far as the end of Yesbe [an island in Fofak Bay] .'

(60) A: ido lém lalima, wán i pa silap
ido l-ém la-li-ma wán i pa si-la-pa
so.then 3PL.AN-look DEIC.PREP-LAND-DIST canoe NSG ART 3NSG.INAN-DEM.V-MID
bi, sáy rani
bi sáy rani
just ?alone[17] so

'Then they looked landwards, the canoes were just like that [i.e., there were lots of unfamiliar canoes on the shore].'

(61) A: labíne: "ey! bin i lima lahey póto"
la-bíne ey bin i li-ma la-hey póto
3PL.AN-say hey! woman NSG LAND-DIST 3PL.AN-good NEG.IAM

'They said: "Hey! The women inland are not good anymore [i.e., their situation is not good].'

(62) A: ido bísar malélen a nagága la lúl be
ido bísar malélen a na-gága la lúl be
so.then respected.woman Malelen PERS 3SG-shout ORI seawards ALL
ini mánsar wa igain wa mánsar mámey[18]
i-ni mánsar wa i-gáin wa mánsar mámey
3SG-POSS.I husband NMC.DEF 3SG-name PRED respected.man Mamey

'[But] then Mrs Malelen shouted seawards to her husband whose name was Mr Mamey.'

(63) A: monkoné: "ey! mewá mewá mewá!" "ámne ámne ámne"
say.3SG.AN hey! 2PL 2PL 2PL 1PL.E 1PL.E 1PL.E

'She said: "Hey! You you you!" [He replied:] "Us, us us".'

17. The meaning of *sáy* 'alone' in this context is unknown.
18. The name of Malelen's husband given here (*Mámey*) is different from that given in (4) above (*Mámnyay*).

(64) A: na*samangat* ayságado nái wane, ái
na-samangat ayságado n-ái wa-ne ái
3SG-enthusiastic TERM 3SG-comb.roughly DEM.CNT-PROX bamboo.comb

wana namér an be taji sórom wana ido ia
wana na-mér ana be tají sórom wana ido ia
DEF 3SG-strike 3SG.INAN ALL eye.3SG.AN middle DEF so.then 3SG.AN

mát ahana
N-mát a-hana
3SG.AN-die DEM.NCNT-AND

'She was very happy until she was combing [her hair], as for the bamboo comb she struck the middle of her eye with it, so then she died.'

(65) A: mát beposa ido popomá, iara pa be lokopa
N-mát beposa ido po-pomá i-ara pa be lo-ko-pa
3SG.AN-die after FRA NEG-IAM.EMPH 3INAN-end ART LOC DEIC.N-EMO-MID

'After she died, then that was that, that is the end [of the story; lit: 'it has its end in that place'].'

D.2 AM107: How to make a *kahéne* bag

This text is a performative text, in which two women explain how to weave traditional *kahéne* bags, using dyed strips of bark. The women are weaving the bags, as they explain the technique. The young man interviewing the women is the son of one of the women. Aside from being a record of a local cultural practice, this text contains lots of interesting switching between person/number/animacy marking, in particular between inclusive and exclusive marking, and the marking of the impersonal subject using 1PL.I marking. These switches are commented on in the footnotes.

Genre:	Performative
Participants:	**MirG** (Speaker A) – Female, born 1960s
	MaG (Speaker B) – Female, born 1960s
	DTW (Speaker C) – Male, born 1995
	LA (Audience, researcher) – Female, born 1986
Length:	03.07
Translator:	**WG**

(1) A: tutáp be tutakapíri kasána
tut-áp be tuta-kapíri kasána
1DU.I-travel.by.boat PURP 1DU.I-strip.bark k.o.tree

'We two travel by boat in order to strip *kasána* bark.'[19]

(2) A: tutaném kahéne
tuta-ném kahéne
1DU.I-weave k.o.bag

'We two weave *kahéne* bags.'

(3) A: tutala líl be– umala líl be umakút
tuta-la líl be uma-la líl be uma-kút
1DU.I-ORI landwards PURP 1DU.E-ORI landwards PURP 1DU.E-cut

'We two go inland to cut [bark from the *kasána* tree].'[20]

19. The use of inclusive subject marking here suggests that **MirG** is addressing **MaG** (who is sitting weaving a *kahéne* bag next to her); see footnote 20.
20. Here, **MirG** switches from inclusive to exclusive subject marking. This is presumably because her addressee has shifted from **MaG** to **DTW** (who, as a young man, is not expected to weave *kahéne* bags).

(4) A: ee, umsúy be usa– takapíri asi
ee um-súy be ta-kapíri asi
HES 1DU.E-go.home PURP 1PL.I-strip.bark 3NSG.INAN

'We two come home so that [the *kasána* bark] can be stripped.'[21]

(5) A: umakapíri asi beposa, yo tuta– tuhá asi be
uma-kapíri asi beposa yo tut-há asi be
1DU.E-strip.bark 3NSG.INAN.O after then 1DU.I-dry 3NSG.INAN INSTR
gányul
gányul
sunshine

'After we two have stripped them, then we dry them in the sun.'[22]

(6) A: ido sibu to, sara tutaném
ido si-bu to sara tuta-ném
so.then 3NSG.INAN-white IAM so.that 1DU.I-weave

'So then they are white [i.e. the *kasána* bark blanches in the sun], so that we two [can then] weave them [i.e., then they are ready to weave].'

(7) B: tutaném asi to
tuta-ném asi to
1DU.I-weave 3NSG.INAN.O IAM

'We two are already weaving them.'

(8) A: kahéne pa apa, nyakapuí
kahéne pa a-pa nya-kapuí
k.o.bag ART DEM.NCNT-MID 2SG-begin.weaving.'

'That is a *kahéne* bag, you have [just] started weaving [it].'

(9) A: nyakapuí kahéne wapa
nya-kapuí kahéne wa-pa
2SG-begin.weaving k.o.bag DEM.CNT-MID

'You have [just] started weaving that *kahéne* bag.'

(10) B: i, yakapuí an to
i ya-kapuí ana to
yes 1SG-begin.weaving 3SG.INAN IAM

'Yes, I have already begun weaving it.'

21. The use of 1PL.I subject marking on *kapíri* 'strip bark' suggests an impersonal or generic subject; this is reflected in the use of a passive construction in the free translation.
22. **MirG** switches back to using 1DU.I subject marking on *há* 'dry', suggesting her addressee it **MaG** again.

(11) A: mm
mm

'Mmhm.'

(12) A: tabót asi be sitámi, si ta sitámi, si
ta-bót asi be si-támi sia ta si-támi sia
1PL.I-boil 3NSG.INAN PURP 3PL.INAN-red 3PL NMC.NSPEC 3NSG.INAN-red 3PL
ta sibyáw, bisa sihey
ta si-byáw bisa si-hey
NMC.NSPEC 3NSG.INAN-blue so.that 3NSG.INAN-good

'We boil them [with dyes extracted from flowers] so that they are red; there are those that are red, there are those that are blue, so that they are pretty.'

(13) A: ine nak kahéne ne ampo to, daw yanót
ine na-k kahéne ne aN=po to daw y-anót
1SG POSS.II-1SG k.o.bag ART 3SG.INAN=NEG IAM remain 1SG-make.handle

'My *kahéne* bag is finished, all that remains is for me to attach handles.'

(14) A: potó, yanót ini– yanót asi to
potó y-anót i-ni y-anót asi to
that's.that 1SG-handle 3INAN-POSS.II 1SG-make.handle 3NSG.INAN.O IAM

'That's that, I make their– [FALSE START] I have attached handles to them.'

(15) B: ine yaném rín
ine ya-ném rín
1SG 1SG-weave CONT

'I am still weaving.'

(16) A: *yo*
yeah

'Yeah.'

(17) B: yaném–
ya-ném
1SG-weave

'I am weaving– [CUT OFF BY A].'

(18) A: nyaném ho!
nya-ném ho
2SG-weave IMM.FUT

'Go on, weave!'

(19) A: ine potó, daw yanót to
ine potó daw y-anót to
1SG that's.that remain 1SG-handle IAM

'I'm done, all that remains is for me to attach handles.'

(20) C: anta nyin asi late?
anta ny-in asi la-te
later 2SG-make 3NSG.INAN.O DEM.V-INF.QU

'How will you make them?'

(21) A: ə? umakáin
ə uma-káin
eh? 1DU.E-strip.bark

'Eh? We two strip [the strips of *kasána* bark, i.e. make them smooth].'

(22) B: umakáin ******
uma-káin ******
1DU.E-strip.bark ******

'We strip [UNCLEAR].'

(23) A: umakáin asi be kahéne to, nén a ia
uma-káin asi be kahéne to nén a ia
1DU.E-strip.bark 3NSG.INAN.O PURP k.o.bag IAM mother PERS 3SG.AN
naném to
na-ném to
3SG-weave IAM

'We have already stripped them so that [they can be used for] *kahéne* bags, Mother [i.e., **MaG**] is already weaving [one].'

(24) A: ine yanót to, ikapya i ne sipo to
ine y-anót to i-kapyá i ne si-po to
1SG 1SG-make.handle IAM 3INAN-arm NSG ART 3NSG.INAN-NEG IAM

'I have already attached handles, their handles [lit: 'arms'] are already done.'

(25) A: mm, popomá, iara kipa pomá, nyasidón i
mm popomá i-ara ki=pa pomá nya-sidon i
hmm that's.that 3INAN-end EMO=ART IAM.EMPH 2SG-inform 3SG.AN.O

'Hmm, that's that, [that's] the end [of our explanation], let her [**LA**] know [so that she can turn the camera off].'

(26) C: wéy
again

[Encouraging them to keep talking:] 'Again.'

(27) A: pórin?
pórin
NEG.CONT

'[Is the recording] not [finished] yet?'

(28) C: i, anta mumasúy hey asi
i anta mum-asúy hey asi
yes later 2DU-say good 3NSG.INAN.O

'Yes, tell it properly.'

(29) A: posa ido tutakút ianot wéy, be tutakút pa
posa ido tuta-kút i-anót wéy be tuta-kút pa
after.that FRA 1DU.I-cut 3INAN-handle again and 1DU.I-cut k.o.tree

'After that, we two cut the handles again, and cut [bark from the] *pa* tree.'

(30) A: kukura áy ne áy kasána ane
kukura áy ne áy kasána a-ne
because tree ART tree k.o.tree DEM.NCNT-PROX

'Because this tree is a *kasána* tree [i.e. the bark that is used to make the body of the bag comes from the *kasána* tree].'

(31) A: rani takút pa be taném mia ianot ki
rani ta-kút pa be ta-ném mi-a i-anót ki=i
so 1PL.I-cut k.o.tree PURP 1PL.I-weave INSTR-PAR 3INAN-handle EMO=NSG
ne
ne
ART

'So [bark from the] *pa* tree is cut so [it can] be used to weave handles.'[23]

(32) B: nyelál ido tutakút, aa, harón
nyelál ido tuta-kút aa harón
tomorrow FRA 1DU.I-cut HES k.o.tree

'Tomorrow, we two are going to cut, umm [leaves from the] *harón* tree.'[24]

23. Here, generic/impersonal 1PL.I marking is used again.
24. In this example, **MaG** switches to 1DU.I marking, indicating her addressee is **MirG**.

(33) A: *yo*
yeah

'Yeah.'

(34) B: harón po lopapa
harón po lo-pa-pa
k.o.tree ABL DEIC.N-SIDE-MID

'*Harón* [leaves] from the place at the side.'

(35) B: potó
potó
that's.that

'That's that.'

(36) C: mm
mmhm

'Mmhm.'

(37) A: ə
eh?

[To C:] 'Eh?'

(38) C: posa ido mumaléna, mumalén asi late? anta ma–
posa ido mum-alén-a mum-alén asi la-te anta
after.that FRA 2DU-DO-PAR 2DU-DO 3NSG.INAN.O DEM.V-INF.QU later
talén asi– malén asi late?
t-alén asi m-alén asi la-te
1PL.I-DO 3NSG.INAN.O 2PL-DO 3NSG.INAN.O DEM.V-INF.QU

[Pointing to another pile of prepared strips:] 'After that, what will you two do, what will you two do with them? Later, what do we– [FALSE START] What do you do with them?'[25]

(39) B: katita
cape

'Cape.'[26]

25. The subject marking in this example is interesting. Note that Speaker C (**DTW**) begins by using 2DU marking, so his question is clearly addressed to the two women. He then switches to 1PL.I subject marking to indicate he is asking a more general question about how the *kahéne* bags are made; but then corrects himself, using 2PL marking. This correction is presumably because, as a man, he does not consider himself part of the group that traditionally makes *kahéne* bags. His final question could thus be paraphrased: 'What do you women do with them?'.

26. The meaning of this utterance is unclear, to me and the native speakers I have asked. One possibility is that **MaG** is continuing her train of thought from earlier (see example 34), and is elucidating the location where they plan to cut *harón* leaves.

(40) A: u– uma– umakáin
uma-káin
1DU.E-strip.bark

'We strip [them].'[27]

(41) B: takáin hey, anta umakáin ikaytekabom i ne
ta-káin hey anta uma-káin i-kayté-kabóm i ne
1PL.I-strip.bark good later 1DU.E-strip.bark 3INAN-back-bone NSG ART

'The bark is stripped properly; later we two will strip their midribs [lit: 'backbones'].'[28]

(42) B: posa ido umhá asi, be sibu ári,
posa ido um-há asi be si-bu ári
after.that FRA 1DU.E-dry 3NSG.INAN.O and 3NSG.INAN-white DEON.must
kiwane sibu pórin
ki=wa-ne si-bu pórin
EMO=DEM.CNT-PROX 3NSG.INAN-white NEG.CONT

'After that, we will dry them, they must be white [i.e., blanched in the sun], these are not white yet.'

(43) B: antanane takáin an ido ambu mansope yo
antanane ta-káin ana ido aN=bu mansope yo
later 1PL.I-weave 3SG.INAN FRA 3SG.INAN=white then EMPH

'If, when a bag is woven, it is white, then, yeah.'

(44) B: umabót asi be sibe, aa, támi, sibyáw
uma-bót asi be si-be aa támi si-byáw
1DU.E-boil 3NSG.INAN.O PURP 3NSG.INAN-become HES red 3NSG.INAN-blue

'We boil them [the strips] so that they become, umm, red, they are blue.'

(45) A: *****

[UNCLEAR]

(46) B: beposa mansope umaném asi
beposa mansope uma-ném asi
after.that then 1DU.E-weave 3NSG.INAN.O

'After that, then we weave them.'

27. **MirG** uses 1DU.E marking, showing her addressee is **DTW**.
28. **MaG** uses 1PL.I marking for the first clause headed by *káin* 'strip bark', to reflect a generic/impersonal subject; and 1DU.E marking for the second clause headed by *káin* 'strip bark', as this is an explanation of what she and **MirG** plan to do.

(47) B: ido umwop asi ke, umwop asi do
ido um-wop asi ke um-wop asi do
so.then 1DU.E-sell 3NSG.INAN.O EPI.may 1DU.E-sell 3NSG.INAN.O PERL
loite? ráuk ke
lo-i-te ráuk ke
DEIC.N-NSG-INF.QU Rauki EPI.may

'So then we might sell them, in what places do we sell them? Maybe Rauki.'

(48) B: po be umáp be umut asi do
po be um-áp be um-ut asi do
NEG and 1DU.E-travel.by.boat PURP 1DU.E-carry 3NSG.INAN.O PERL
loite?
lo-i-te
DEIC.N-NSG-INF.QU

'If not, then where do we take them [lit., 'to which places to we travel by boat in order to carry them']?'

(49) C: kada wane, anta mumaném asi late?
kada wa-ne anta muma-ném asi la-te
DEON.should[29] DEM.CNT-PROX later 2DU-weave 3NSG.INAN.O DEM.V-INF.QU

'Try [answering] this [question]: how will you weave them?'

(50) B: umaném asi apa, yo wane yakapuí
uma-ném asi a-pa yo wa-ne ya-kapuí
1DU.E-weave 3NSG.INAN.O DEM.NCNT-MID then DEM.CNT-PROX 1SG-being.weaving
ane pomá
a-ne pomá
DEM.NCNT-PROX IAM.EMPH

'We two are indeed weaving them, now I have finished the first part of weaving this [one].'

(51) A: annane pu? umakapuí an ane
anna-ne pu uma-kapuí ana a-ne
3SG.INAN.PRED-PROX ATT.INT 1DU.E-begin.weaving 3SG.INAN DEM.NCNT-PROX
biti yo
biti yo
indeed EMPH

'It's here, you know? We two are indeed weaving it here.'

29. See §10.1.2 for the utterance-initial use of *kada* 'DEON.should', and its translation as 'try'.

(52) B: an wa yo wane yakapuí an
ana wa yo wa-ne ya-kapuí ana
3SG.INAN NMC.DEF then DEM.CNT-PROX 1SH-begin.weaving 3SG.INAN
ane
a-ne
ART.NMC-PROX

'This one [lit: 'it'] that I have now recently begun to weave.'[30]

(53) B: kahéne pa yakapuí an ane pu?
kahéne pa ya-kapuí ana a-ne pu
k.o.bag ART 1SG-begin.weaving 3SG.INAN DEM.NCNT-PROX ATT.INT

'The *kahéne* bag, I am just starting to weave it, you know?'

(54) A: tutaném kahéne pa ane
tuta-ném kahéne pa a-ne
1DU.I-weave k.o.bag ART DEM.NCNT-PROX

'We are weaving *kahéne* bags.'

(55) B: kahéne pa ane
kahéne pa a-ne
k.o.bag ART DEM.NCNT-PROX

'The *kahéne* bags are here.'

(56) B: wane ine yaném an to
wa-ne ine ya-ném ana to
DEM.CNT-PROX 1SG 1SG-weave 3SG.INAN IAM

'Now I am weaving it [i.e., I have finished the beginning bit of the weaving, and have moved on to the main body of weaving].'

(57) A: mm
mmhm

'Mmhm.'

(58) A: ine cul lám, hana ine jaw láp pa be yakátit
ine <y>tul lám hana ine <y>daw láp pa be ya-kátit
1SG <1SG>sew.mat k.o.mat AND 1SG <1SG>make.fire fire ART PURP 1SG-grate
an be lolup biti
ana be lo-lu-pa biti
3SG.INAN ALL DEIC.N-SEA-MID indeed

[The two women start talking to each other about household matters:] 'I [will] sew a *lám* mat, earlier I made the fire so that the grate was [prepared] in the seawards direction [of the house].'

30. In this example, *yo* 'then' is used to mean 'recently' – just as *mansope*, and, in PM, *baru*, can mean both 'then' and 'recently' (see §3.4.1). This is the only attestation of *yo* 'then' used in this way.

(59) B: monkoné ikanu pa apa, jíne i, lawát pa
monkoné i-kanu pa a-pa <y>bíne i lawát pa
say.3SG.AN 3INAN-leaf ART DEM.NCNT-MID <1SG>say yes k.o.leaf ART
ane
a-ne
DEM.NCNT-PROX

'S/he said the leaves are there, I said yes, the leaves are here.'[31]

(60) B: kahéne kiwane ya– yakapuí ana, ido an
kahéne ki=wa-ne ya-kapuí ana ido ana
k.o.bag EMO=DEM.CNT-PROX 1SG-begin.weaving 3SG.INAN so.then 3SG.INAN
wane
wa-ne
DEM.CNT-PROX

[Speaking again to the camera:] 'This *kahéne* bag, I have started weaving it, so this is it.'

(61) A: mm
mmhm

'Mmhm.'

(62) B: yakapuí an to
ya-kapuí ana to
1SG-begin.weaving 3SG.INAN IAM

'I have already started weaving it.'

(63) A: ido sia sipo to, pina wane yanót
ido sia si-po to pina wa-ne y-anót
so.then 3PL 3NSG.INAN-NEG IAM therefore DEM.CNT-PROX 1SG-make.handle

'So they are finished [INDICATES A FINISHED BAG], so now I am attaching a handle.'

(64) A: lé apa
lé a-pa
thing DEM.NCNT-MID

'That thing.'

(65) B: po-pomá
NEG-IAM.EMPH

'It's over.'

31. It is unclear here who 's/he' refers to.

(66) A: potó
potó
that's.that

'That's that.'

D.3 AM155 (excerpt): Prayer

This is an excerpt from a recording made by Amandus Mentansen. At the time of recording, *abu mánsar* Amandus was in his late 90s, living in hermit-like conditions in his garden near Warimak. He has since passed away. In this recording, he has been talking about what he remembers of Evelyn Cheesman, the British entomologist who visited Waigeo in 1938 (see §1.3.1), and of her interactions with the Gaman *mambrí* 'heroes'. At the end of the recording, he invited me to join him in a prayer, which I gladly did. This excerpt is of that prayer. As *abu mánsar* Amandus was so elderly at the time of the recording, there are many false starts and hesitations in this text.

Genre:	Prayer (extract from historical narrative)
Participants:	**AM** (Speaker A) – Male, born c.1918
	LA (Audience, researcher) – Female, born 1986
Length:	00.57 (text total: 18.22)
Translator:	**AEG**

(1) A: jowsúba Ála Tála
hail Lord.God

'Hail, Lord God.'

(2) A: mám a wa mi sorongá dunyáy i- i- i- i-lo i
father PERS NMC.DEF LOC heaven world 3INAN-place RES[32]

'Father who is indeed in heaven [and] earth.'

(3) A: awa ncén, ncén si, macúbey dunyáy ne be
awa N-<y>tén N-<y>tén si macúbey dunyáy ne be
2SG 2SG-<2SG>share 2SG-<2SG>share 3PL.AN.O human.being world ART PURP

macúbey lala hánin, lala mánin
macúbey la-la hánin la-la mánin
human.being 3PL.AN-ORI to.there 3PL.AN-ORI to.here

'You have spread [lit: 'shared'], spread them, the human beings [of the] world so that they have [gone] over there, they have [come] over here.'

(4) A: ape iwanat pa ido ámne ámun- ámun- ámun an po
ape i-wanát pa ido ámne ám-un ana po
but 3INAN-meat[33] ART FRA 1PL.E 1PL.E-know 3SG.INAN NEG

'But as for his nature [lit: 'flesh'], we do not know it.'

32. The marker *i* 'RES' occurs only very sporadically in the corpus. Older speakers translate it as Ind *ialah*. It appears to be an archaic marker of respect.
33. See §7.2.1.1 for the use of 3INAN marking in Direct I constructions when the possessor is non-specific.

(5) A: ape mám hun a wa hun yésus a, hun ála a, hun yésus
ape mám hun a wa hun yésus a hun ála a hun yésus
but father king PERS NMC.DEF king Jesus PERS king God PERS king Jesus
a nya*jadikan* dunyáy sorongá
a nya-jadikan dunyáy sorongá
PERS 2SG-become earth heaven

'But Lord Father who is Lord Jesus, Lord God, Lord Jesus who became heaven and Earth.'

(6) A: hun yésus awa nyalál do matém apa
hun yésus awa nya-lál do matém a-pa
king Jesus 2SG 2SG-big PERL world DEM.NCNT-MID

'Lord Jesus, you are powerful [lit: 'big'] in this world.'

(7) A: ia nun aro lé isana sana sana ido ia
ia n-un aro lé i-sana sana sana ido ia
3SG.AN 3SG-know completely thing 3INAN-one one one FRA 3SG.AN

'He knows all things, it is him.'

(8) A: aa, hun yesus a nya*berkat* i, nya*berkat* bísar
aa hun yesus a nya-berkat i nya-berkati bísar
HES king Jesus PERS 2SG-bless 3SG.AN.O 2SG-bless respected.woman
wane, ndók ane
wa-ne N-dók a-ne
DEM.CNT-PROX 3SG.AN-come DEM.NCNT-PROX

'Umm, lord Jesus, bless her, bless this woman, she has come here.'

(9) A: njí ni *umur* ne amaó sagádo
N-<y>bí ni-Ø umur ne aN=maó sagádo
2SG-<2SG>give POSS.II-3SG.AN age ART 3SG.INAN=be.long TERM
nsúy be ni matén *Inggris*
N-súy be ni-Ø matén Inggris
3SG.AN-go.home ALL POSS.II-3SG.AN homeland U.K.

'Make her life long, until she goes home to her homeland, the U.K.'[34]

(10) A: ayságado be láw láw, *amin*
TERM ALL far far amen

'Forever and ever, amen.'

34. In this construction, the verb *bí* 'give' seems to be used as a verb of causation. This is not typical of periphrastic causative constructions, in which the verb of causation is normally *alén* 'do', *in* 'make', or *úku* 'endanger' (see §14.2.2.3).

D.4 AM180: The time we got hit by a big wave (twice)

This text is a short explanation of a trip the speaker and his family took the previous weekend. During this trip, the sea was somewhat rough, and the family nearly fell in the sea twice.

Genre:	Narrative (personal)
Participants:	**YK** (Speaker A) – Male, born 1984
	LA (Addressee, researcher) – Female, born 1986
Length:	01.04
Translator:	**AEG**

(1) A: lányun wa *ari* *sabtu* apa ido atúmati be
lányun wa ari sabtu a-pa ido atúm-áti be
late.afternoon NMC.DEF day Saturday ART.NMC-MID FRA 1PC.E-run PURP
atúmasiri tu atúmamu
atúm-asíri tu atúma-mú
1PC.E-fish and 1PC.E-beachcomb

'In the late afternoon on Saturday, we travelled by motorised canoe [lit: 'ran'] in order to go fishing and beachcombing.'

(2) A: ido atúmati aya loluma ido mú pa ame
ido atúm-áti aya lo-lu-ma ido mú pa aN=me
so.then 1PC.E-run TERM DEIC.N-SEA-DIST FRA low.tide ART 3SG.INAN=be.dry
hey, rani jíne: "tamú hájum kálin!"
hey rani <y>bíne ta-mú hájum kálin
good so <1SG>say 1PL.I-beachcomb shellfish k.o.shellfish

'So then when we travelled by motorised canoe as far as the seawards place, the low tide was very far out [lit: 'very dry'], so I said: "Let's beachcomb for *kálin* shellfish!"'[35]

35. *Kálin* are a kind of small edible shellfish. The opening of the shell is closed off with a smooth white stone with a spiral on it. In PM, *kálin* shellfish are know as *bia matabulan*.

(3) A: ido abí atúmakataran wane, ya*hitun* sála tápo
ido abí atúma-katarán wa-ne ya-hitun sál-a tápo
so.then want 1PC.E-land.canoe DEM.CNT-PROX 1SG-count be.wrong-PAR breaker
pa
pa
ART

'So then we were about to land, [but] I counted the breakers wrong.'[36]

(4) A: ido daw loki ido atúmamju
ido daw loki ido atúm-ámju
so.then remain little.bit FRA 1PC.E-fall.in.water

'So then we nearly fell in the water.'

(5) A: *tapi* lé po, ido yakatarán wán pa, be atúmale be
tapi lé po ido ya-katarán wán pa be atúm-ále be
but thing NEG so.then 1SG-land.canoe canoe ART and 1PC.E-disembark ALL
lil
líl
landwards

'But there was no problem [lit: 'no thing'], so I landed the canoe, and we disembarked towards the land.'

(6) A: yakatarán wán pa be atúmale be líl beposa ido
ya-katarán wán pa be atúm-ále be líl beposa ido
1SG-land.canoe canoe ART and 1PC.E-disembark ALL landwards after FRA
atúmamu
atúma-mú
1PL.E-beachcomb

'After I had landed the canoe and we had disembarked towards the land, then we went beachcombing.'

(7) A: atúmamu beposa ido abí atúmsuy wéy ido ya*hitun*
atúma-mú beposa ido abí atúm-súy wéy ido ya-hitun
1PC.E-beachcomb after FRA want 1PC.E-go.home again FRA 1SG-count
sál tápo pa wéy
sál tápo pa wéy
be.wrong breaker ART again

'After we had finished beachcombing, when we were going to go home again, then I counted the breakers wrong again.'

36. When setting out from the shore into a rough sea, one should wait first for a certain number of waves to break on the shore, before pushing off. If the sea is only somewhat rough, one should count four breakers; if the sea is rougher, one should count seven breakers. Once the requisite number of waves have broken, this means there is a space of calm water, before the next waves begin breaking on the shore. Compare the 'seventh/ninth wave' maxim in English.

(8) A: jóronpo potó, iit to
<y>bóronpo potó i-ít to
<1SG>guess that's.that 3INAN-between IAM

'I guessed it was over, that there was a space between [the breakers].'

(9) A: ido jíne atúmakarow wán pa lalua ido ilo
ido <y>bíne atúma-károw wán pa la-lu-a ido ilo
so.then <1SG>say 1PC.E-push.canoe canoe ART DEIC.PREP-SEA-AND FRA INCEP
sana wap no ansá
sana wa-pa no aN=sá
one DEM.CNT-MID also 3SG.INAN=ascend

'So when then I said we [should] push the canoe in a seawards direction, then this one also [another wave] began to come up.'

(10) A: ansá ma líl ido popomá
aN=sá ma líl ido popomá
3SG.INAN=ascend VEN landwards FRA that's.that

'When it came up towards the land, then that was that.'

(11) A: mé low ne ulamcát to, monkoné: "are! lawa atútamju
mé low ne ula-mcát to monkoné are lawa atút-ámju
person two ART 3DU-afraid IAM say.3SG.AN yikes! nearly 1PC.I-fall.in.water
to, are!"
to are
IAM yikes!

'The two people [i.e., his wife and son] were afraid, she [my wife] said: "Yikes! We nearly fell in the water, yikes!"'

(12) A: ido jíne: "lé po, lalóy ne lé po, kitém pa ane
ido <y>bíne lé po lalóy ne lé po kitém pa a-ne
so.then <1SG>say thing NEG wave ART thing NEG one ART DEM.NCNT-PROX
to"
to
IAM

'So then I said: "There's no problem [lit: 'no thing'], the waves are not a problem, the one here has already [passed by].'

(13) A: ido atúmala lúl beposa ido atúmati
ido atúma-la lúl beposa ido atúm-áti
so.then 1PC.E-ORI seawards after FRA 1PC.E-run

'So then after we had [gone] towards the sea [i.e., pushed the canoe out seawards], then we travelled with a motor [lit: 'ran'].'

(14) A: atúmati súy ma líl pomá, *suda*
atúm-áti súy ma líl pomá suda
1PC.E-run go.home VEN landwards IAM.EMPH already
'We travelled home by motorised canoe towards the land, the end.'

D.5 AM267: Wakaf clan taboo

In this text, the researcher's primary teacher of Ambel, **MW**, is explaining why there is a taboo for members of the Wakaf clan on a kind of very large giant clam (approx 1 metre in length). The explanation is that, once upon a time, one of these giant clams could turn herself into a beautiful woman to bathe. A Wakaf ancestor fell in love with her and married her. As the speaker explains, it is believed that if a Wakaf were to eat the meat from one of these clams, he or she would become blind, deaf, his or her teeth would fall out, and/or he or she would be covered in wounds. This is a text with mythological elements; however, as the primary focus of this conversation was to explain something about the world (why the Wakafs can't eat giant clams), it is categorised as expository.

Genre:	Expository
Participants:	**MW** (Speaker A) – Male, born 1944
	LA (Speaker B, researcher) – Female, born 1986
Length:	04.17
Translator:	**MeK**

(1) B: *oke*
okay

'Okay'

(2) A: *ya*, aa
yes HES

'Yes, umm'

(3) A: *ibu* Láwra, yabí yasárita metÁka ámne
ibu Láwra y-abí ya-sárita mét-áka ámne
Mrs Laura 1SG-want 1SG-tell.story person-Wakaf 1PL.E

'Laura, I am going to tell a story [about] we Wakafs.'

(4) A: ámiy katóp bísar po, ane *karna*
ám-íy katóp bísar po a-ne karna
1PL.E-eat giant.clam old.woman NEG DEM.NCNT-PROX because
ámtabyun wapa
ám-tábyu-n wa-pa
1PL.E-grandparent-NSG.POSS DEM.CNT-MID

'We don't eat *katóp bísar* giant clams; this is because that [kind of clam] is our ancestor [lit: 'grandparent'].'

(5) A: ámtabyun wapa kukura mánsar isana
ám-tábyu-n wa-pa kukura mánsar i-sana
1PL.E-grandparent-NSG.POSS DEM.CNT-MID because respected.man 3INAN-one
nasáwa *putri laut* wane
n-asáw-a putri laut wa-ne
3SG-marry-PAR mermaid DEM.CNT-PROX

'That [giant clam] is our ancestor because a man married this mermaid.'

(6) A: mbe *bisa* hájum wane
N-be bisa hájum wa-ne
3SG.AN-become be.capable shellfish DEM.CNT-PROX

'She [the mermaid] could become this shellfish [i.e., the giant clam].'

(7) A: mánsar wapa nasáwa *putri laut* wane
mánsar wa-pa n-asáw-a putri laut wa-ne
respected.man DEM.CNT-MID 3SG-marry-PAR mermaid DEM.CNT-PROX

'That man married this mermaid.'

(8) A: *jadi* kato- hájum lál wane, katóp lál wane ntó
jadi hájum lál wa-ne katóp lál wa-ne N-tó
so shellfish big DEM.CNT-PROX giant.clam big DEM.CNT-PROX 3SG.AN-stay
lolima, mamá alima
lo-li-ma mamá a-li-ma
DEIC.N-LAND-DIST reef DEM.NCNT-LAND-DIST

'So this big shellfish, this big giant clam lives at the landwards place, the landwards reef [i.e., a reef across the other side of Fofak Bay from Kapadiri].'

(9) A: ntó lo mamá alima
N-tó lo mamá a-li-ma
3SG.AN-stay place reef DEM.NCNT-LAND-DIST

'She lives at the landwards reef.'

(10) A: *jadi* hájum wapa *biasanya* nakáhi i
jadi hájum wa-pa biasanya na-káhi i
so shellfish DEM.CNT-MID usually 3SG-open.shellfish 3SG.AN.O

'So that shellfish usually opens herself.'

(11) A: *langsung* naka- nakái iwanat ne beee, ayságado
langsung na-kái i-wanát ne be:VVV ayságado
immediately 3SG-sail 3INAN-meat[45] ART ALL:EXCESS TERM

ntó lopama, be nala pál be nsúp lo we
N-tó lo-pa-ma be na-la pál be N-súp lo we
3SG.AN-stay DEIC.N-SIDE-DIST and 3SG-ORI side PURP 3SG.AN-bathe place water

wa lúl an be We Sábu apama
wa l-úl ana be We Sábu a-pa-ma
NMC.DEF 3PL.AN-call 3SG.INAN OBL water Sabu DEM.NCNT-SIDE-DIST

'Straightaway [after opening herself], she sails far [with] her meat [i.e., she would use the meat of the giant clam as a sail], until she is at the place at the side, and she goes to the side in order to bathe in the river that is called We Sabu at the side there.'

(12) A: *jadi* nsúp, *jadi* anta nakáhi iwanat ne ido nakái
jadi N-súp jadi anta na-káhi i-wanát ne ido na-kái
so 3SG.AN-bathe so later 3SG-open.shellfish 3INAN-meat ART FRA 3SG-sail

an lapaya
ana la-pay-a
3SG.INAN DEIC.PREP-SIDE-AND

'So she bathes; so when she opens up her meat then she sails [with] it towards the side [of Fofak Bay].'

(13) A: nabe lopama, *trus* na- nakáhi i wéy
na-be lo-pa-ma trus na-káhi i wéy
3SG-ALL DEIC.N-SIDE-DIST next 3SG-open.shellfish 3SG.AN.O again

'She [goes] to the side, then she opens herself again.'

(14) A: nakátiw, aa, iwanat ne wéy, ido mbe *bisa*
na-kátiw aa i-wanát ne wéy ido N-be bisa
3SG-undress HES 3INAN-meat ART again so.then 3SG.AN-become be.capable

macúbey, mbe *bisa* bin
macúbey N-be bisa bin
human.being 3SG.AN-become be.capable woman

'She takes off her meat again, then she can become a human, she can become a woman.'

45. Recall from §5.2 that bivalves are considered animate by the subject-marking and pronominal systems, but inanimate by the system of possessive marking.

(15) A: nala líl nsúp lo we wa lúl
na-la líl N-súp lo we wa l-úl
3SG.AN-ORI landwards 3SG.AN-bathe place water NMC.DEF 3PL.AN-call
an be We Sábu alima
ana be We Sábu a-li-ma
3SG.INAN OBL water Sabu DEM.NCNT-LAND-DIST

'She [goes] inland and bathes in the river that is called We Sabu inland there.'

(16) A: nsúp be napól, násil abában ikai ne
N-súp be na-pól n-ásil abában i-kái ne
3SG.AN-bathe PURP 3SG-finish 3SG-comb.finely carefully 3INAN-head ART
beposa, ido nál iwanat wan wéy, ido nsúy,
beposa ido n-ál i-wanát wana wéy ido N-súy
after so.then 3SG-take 3INAN-meat DEF again so.then 3SG.AN-go.home
ido anta nál iwanát ne wéy be nsun an
ido anta n-ál i-wanát ne wéy be N-sun ana
so.then later 3SG-take 3INAN-meat ART again and 3SG.AN-enter 3SG.INAN
wéy
wéy
again

'She bathes until she has finished; after she has carefully combed her hair [lit: 'head'], then she takes her meat again, and then she goes home, and then later she takes her meat again in order to put it on [lit: 'enter it'] again.'

(17) A: nsun an wéy beposa ido nakái súy lalua
N-sun ana wéy beposa ido na-kái súy la-lu-a
3SG.AN-enter 3SG.INAN again after FRA 3SG-sail go.home DEIC.PREP-SEA-AND

'After she has put it on again, then she sails home in a seawards direction.'

(18) A: nakái súy lalu be nataya lo mamá
na-kái súy la-lu-a be nat-aya lo mamá
3SG-sail go.home DEIC.PREP-SEA-AND and 3SG.AN-TERM place reef
alima
a-li-ma
DEM.NCNT-LAND-DIST

'She sails home in a seawards direction, and she goes as far as the landwards reef.'

(19) A: *trus* nakajúrun i
trus na-kajúrun i
next 3SG-sink 3SG.AN.O

'Then she sinks herself [i.e. returns underwater].'

(20) A: nakátiw i la pul mansope yo, antanane na-
na-kátiw i la pul mansope yo, antanane
3SG-undress 3SG.AN.O ORI downwards then EMPH later

nsun ikani wan wéy, be mbe *bisa* hájum
N-sun i-kaní wana wéy be N-be bisa hájum
3SG.AN-enter 3INAN-shell DEF again and 3SG.AN-become be.capable shellfish

wéy
wéy
again

'She undresses herself (in a downwards direction), then yeah, she enters her shell again, and she can become a shellfish again.'

(21) A: *sehingga* mánsar wane, ia nasáw i,
sehingga mánsar wa-ne ia n-asáw i
so respected.man DEM.CNT-PROX 3SG.AN 3SG-marry 3SG.AN.O

nasáwa, aa, *putri* ne
n-asáw-a aa putri ne
3SG-marry-PAR HES mermaid ART

'So this man, he married her, he married, umm, the mermaid.'

(22) A: *jadi* nasáw i ayságado ilo...[46] aa, nasáw i ayságado
jadi n-asáw i ayságado ilo aa nasáw i ayságado
so 3SG-marry 3SG.AN.O TERM INCEP HES 3SG-marry 3SG.AN.O TERM

ilo na*biasa* i
ilo na-biasa i
INCEP 3SG-be.used.to 3SG.AN.O

'So he was married to her until [he] began... umm, he was married to her until he began to become used to her.'

(23) A: ido nsúy cam póto
ido N-súy cam póto
so.then 3SG.AN-go.home CIR.can NEG.IAM

'So then he could not go home anymore.'

46. Here the speaker loses his thread, probably because he is trying to avoid the Malay *biasa* 'be used to'.

(24) A: nsúy po be ayságado mbe *bisa–* *ya*
N-súy po be ayságado N-be bisa ya
3SG.AN-go.home NEG and TERM 3SG.AN-become be.capable yeah
namanya lémsap i no, lapén i póto
namanya l-ém-sap i no lapén i póto
namely 3PL.AN-look-seek 3SG.AN also 3PL.AN-find 3SG.AN.O NEG.IAM

'He didn't go home, and in the end he could become– yeah, in other words, they [his family and friends] looked for him, [but] they couldn't find him anymore.'

(25) A: *jadi* la- sia labórompo mát, *padahal* mát po
jadi sia la-bórompo N-mát padahal N-mát po
so 3PL.AN 3PL.AN-guess 3SG.AN-die in.fact 3SG.AN-die NEG

'So they guessed he was dead; in fact he was not dead.'

(26) A: bísar– ee katóp bísar ne nál i to
bísar ee katóp bísar ne n-ál i to
old.woman HES giant.clam old.woman ART 3SG-take 3SG.AN IAM

'The woman– Umm, the big giant clam had taken him.'

(27) A: a, *jadi* namin po wálut wap ido lém i po
a jadi na-min po wálut wa-pa ido l-ém i po
HES SO 3SG.AN-be.lost LOC sea DEM.CNT-MID FRA 3PL.AN-see 3SG.AN.O NEG
ayságado labór i bi
ayságado la-bór i bi
TERM 3PL.AN-lose.trace 3SG.AN.O just

'Um, so when he was lost at sea, they didn't see him until they competely lost trace of him.'

(28) A: *sehingga* [COUGHS] metÁka ámne ámiy katóp lál wane
sehingga met-Áka ámne ám-íy katóp lál wa-ne
so person-Wakaf 1PL.E 1PL.E-eat giant.clam big DEM.CNT-PROX
po
po
NEG

'So [COUGHS] we Wakafs don't eat this [type of] big giant clam.'

(29) A: bísar wane– katóp bísar wane ámne
bísar wa-ne katóp bísar wa-ne ámne
old.woman DEM.CNT-PROX giant.clam old.woman DEM.CNT-PROX 1PL.E
ámiy i po, *karna* mánsar wane
ám-íy i po karna mánsar wa-ne
1PL.E-eat 3SG.AN.O NEG because respected.man DEM.CNT-PROX

'This woman– this *katóp bísar* giant clam, we don't eat it, because of this man.'

(30) A: mánsar wane namin po tásilo
mánsar wa-ne na-min po tási-lo
respected.man DEM.CNT-PROX 3SG.AN-be.lost LOC salt.water-place
ane ido labór i bi, ngwáy póto
a-ne ido la-bór i bi N-wáy póto
DEM.NCNT-PROX FRA 3PL.AN-lose.trace 3SG.AN.O just 3SG.AN-return NEG.IAM

'So when this man was lost at sea, they completely lost trace of him, he didn't return anymore.'

(31) A: *sehingga* la*sasi* ka- hájum wane be ámiy i
sehingga la-sasi hájum wa-ne be ám-íy i
so 3PL.AN-taboo shellfish DEM.CNT-PROX PURP 1PL.E-eat 3SG.AN.O
po
po
NEG

'So they have placed a taboo on this shellfish so that we do not eat it.'

(32) A: aa, anáti ayśagado *skarang* wane, mákay bábo ámne
aa aN=n-áti ayśagado skarang wa-ne mákay bábo ámne
HES INAN=3SG-run TERM now DEM.CNT-PROX child young 1PL.E
man to, ámiya katóp bísar po
man to ám-íy-a katóp bísar po
also IAM 1PL.E-eat-PAR giant.clam old.woman NEG

'Umm, it [the taboo] lasts until today, we young people [i.e. descendents] as well, we do not eat *katóp bísar* giant clams.'

(33) A: katóp bísar pa *karna* ámanin sárita pa,
katóp bísar pa karna áma-ni-n sárita pa
giant.clam old.woman ART because 1PL.E-POSS.II-NSG.POSS story ART
ikapuy pa anlapa
i-kapuy pa aN=la-pa
3INAN-base ART 3SG.INAN-DEM.V-MID

'[We do not eat] *katóp bísar* giant clams because of our story, the beginning of it [the taboo] is like that.'

(34) A: ikapuy pa, metÁka ámne, mánsar wane,
i-kapuy pa met-Áka ámne mánsar wa-ne
3INAN-base ART person-Wakaf 1PL.E respected.man DEM.CNT-PROX
mánsar wane nasáwa katóp bísar
mánsar wa-ne n-asáw-a katóp bísar
respected.man DEM.CNT-PROX 3SG-marry-PAR giant.clam old.woman
wane
wa-ne
DEM.CNT-PROX

'The beginning of it, we Wakafs, this man, this man married this *katóp bísar* giant clam.'

(35) A: *karna* katóp wap po be *putri* wapa [LAUGHS]
karna katóp wa-pa po be putri wa-pa
because giant.clam DEM.CNT-MID NEG and mermaid DEM.CNT-MID

'Because that [giant clam] was not a giant clam, that [giant clam] was a mermaid [LAUGHS].'

(36) A: *jadi putri* wapa nál i wan ido ámbor
jadi putri wa-pa n-ál i wana ido ám-bór
so mermaid DEM.CNT-MID 3SG-take 3SG.AN.O DEF FRA 1PL.E-lose.trace
i bi, mánsar labór i bi
i bi mánsar la-bór i bi
3SG.AN.O just respected.man 3PL.AN-lose.trace 3SG.AN.O just

'So when that mermaid took him, then we completely lost trace of him, the men [i.e., his friends and family] completely lost trace of him.'

(37) A: ya, *sehingga* la*sasi*a hájum wapa, *tida bole* ámne
ya sehingga la-sasi-a hájum wa-pa, tida bole ámne
yeah so 3PL.AN-taboo-PAR shellfish DEM.CNT-MID NEG may 1PL.E
ámiy i po [LAUGHS]
ám-íy i po
1PL.E-eat 3SG.AN.O NEG

'Yeah, so they have placed a taboo on that shellfish, we are not allowed to eat it [LAUGHS].'

(38) B: míy si ido?
m-íy si ido
2PL-eat 3PL.AN.O FRA

'If you eat them [then what happens]?'

(39) A: ámiy i ido, anta ámiy i ido amalabét
ám-íy i ido anta ám-íy i ido ama-labét
1PL.E-eat 3SG.AN.O FRA later 1PL.E-eat 3SG.AN.O FRA 1PL.E-be.wounded

'If we eat it, if we eat it then we become covered with wounds.'

(40) A: aa, ámtajin imala, ámwalin sitáro
aa ám-taji-n i-malá ám-walí-n si-táro
HES 1PL.E-tooth-NSG.POSS 3INAN-blind 1PL.E-tooth-NSG.POSS 3NSG.INAN-fall.out

'Umm, there is a blindness in our eyes, our teeth fall out.'

(41) A: *jadi* wane ido mákay bábo i ne ido líy cam
jadi wa-ne ido mákay bábo i ne ido l-íy cam
SO DEM.CNT-PROX FRA child young NSG ART FRA 3PL.AN-eat CIR.can
i po
i po
3SG.AN.O NEG

'So nowadays, as for the young children [i.e., the descendent generations], they cannot eat it.'

(42) A: [LAUGHS] *ya*
yeah

'[LAUGHS] yeah.'

(43) A: *kalo pernakan* kada, *pernakan* kada, *macam* ámne
kalo pernakan kada pernakan kada macam ámne
if adopted.family CIR.can adopted.family CIR.can for.example 1PL.E
wane *pernakan* Gamán, *macam* atúmne
wa-ne pernakan Gamán macam atúmne
DEM.CNT-PROX adopted.family Gaman for.example 1PC.E

'As for adopted family, [they] can [eat giant clam] [GESTURES TO HIMSELF], adopted family can [eat giant clam], for example we here are adopted family [from] the Gamans, for example us [GESTURES TO HIS HOUSEHOLD].'[47]

(44) A: *tapi kalo* metÁka *asli*, *macam* ane, Yánis a, *tida*
tapi kalo mét-áka asli macam a-ne Yánis a tida
but if person-Wakaf native for.example DEM.NCNT-PROX Yanis PERS NEG
bisa
bisa
be.capable

'But as for born and bred Wakafs, for example whassisname, Yanis, [they] can't [eat giant clam].'

47. **MW** was adopted into the Wakaf clan at a young age.

(45) A: líy cam po
l-íy cam po
3PL.AN-eat CIR.can NEG

'They can't eat [giant clam].'

(46) A: *kalo* atúliy i ido anta lakákal, lalabét,
kalo atúl-íy i ido anta la-kákal la-labét
if 3PC-eat 3SG.AN.O FRA later 3PL.AN-be.itchy 3PL.AN-be.wounded
tajin simalá, aa, walin sitáro
tají-n si-malá aa walí-n si-táro
eye-NSG.POSS 3NSG.INAN-be.blind HES tooth-NSG.POSS 3NSG.INAN-fall.out

'If they eat it then later they will be itchy, they will be covered with wounds, their eyes will be blind, umm, their teeth will fall out.'

(47) A: *jadi* metÁka *asli* ne ido líy cam po
jadi mét-Áka asli ne ido l-íy cam po
so person-Wakaf native ART FRA 3PL.AN-eat CIR.can NEG

'So as for born and bred Wakafs, they cannot eat [giant clam].'

(48) A: *kalo* ámne, *pernakan* ámne kada, *bisa*, *bisa* ámiy i
kalo ámne pernakan ámne kada bisa bisa ám-íy i
if 1PL.E adopted.family 1PL.E CIR.can be.able be.able 1PL.E-eat 3SG.AN.O

'As for us, we adopted family can [eat giant clam], [we] can, we can eat it.'

(49) A: *tapi* *kalo* metÁka *asli* ido cam po, líy cam po
tapi kalo met-Áka asli ido cam po, l-íy cam po
but if person-Wakaf native FRA CIR.can NEG 3PL.AN-eat CIR.can NEG

'But as for born and bred Wakafs, then [they] can't, they can't eat [it].'

(50) A: líy i ido lalabét, *ato* tajin imala,
l-íy i ido la-labét ato taji-n i-malá
3PL.AN-eat 3SG.AN.O FRA 3PL.AN-be.wounded or eye-NSG.POSS 3INAN-blind
ato walin sitáro
ato walí-n si-táro
or tooth-NSG.POSS 3NSG.INAN-fall.out

'If they eat it then they will be covered with wounds, or there will be a blindness of their eyes, or their teeth will fall out.'

(51) A: *jadi* anlapa, ini *dasar* wa metÁka ámne
jadi an-la-pa i-ni dasar wa met-Áka ámne
SO 3SG.INAN-DEM.V-MID 3SG.INAN-POSS.II base NMC.DEF person-Wakaf 1PL.E
ámiya katóp bísar po apa, ini *dasar*
ám-íy-a katóp bísar po a-pa i-ni dasar
1PL.E-eat-PAR giant.clam old.woman NEG ART.NMC-MID 3SG.INAN-POSS.II base
pa annapa
pa anna-pa
ART 3SG.INAN.PRED-MID

'So it's like that, the foundation [of the story explaining why] we Wakafs don't eat *katóp bísar* giant clams, that is its foundation [lit: 'its foundation is there'].'

(52) A: aa, *itu saja*
HES MID just

'Umm, that's it.'

(53) B: potó?
potó
that's.that

'Is that it?'

(54) A: *ya* [LAUGHS]
yeah

'Yeah [LAUGHS].'

Appendix E

Wordlist

E.1 Ambel-English

A a

-a *v.II intr.* depart
abában *adv* careful
abáy *n indir.II* game [See 1104 - 1257 seconds of recording AM171 for information in Papuan Malay on children's games.]
-abáy *v.II S=A* play, play with something [When taking a human object, has sexual connotations.]
-abay-tají *v.comp.II* make eyes at someone when you fancy them
-ábay *v.II S=A* pay, pay for
-abaypén *v.II tr.* do bad things to someone [Possibly a serial verb construction including *-abáy* 'play'.]
-abí *v.II CoCl* want | | *yabí sá be ípon* 'I want to climb a mountain' (el.)
-ábil *v.II* fan
-ábin *v.II intr.* wake up
abóp *n indir.II* sago container
abrís *n indir.II* grass
ábru *n indir.II* mung bean
abu *n indir.II* **1)** dust **2)** ashes [< Malay *abu* 'ash']
ábu *n indir.II* grandparent
abu-bísar *n.comp indir.I* grandmother [Kinship term: Parent's mother [PM].]
abu-bisar-ú *n.comp indir.I* great-grandmother [Kinship term: Parent's parent's mother [PPM].]
abu-mánsar *n.comp indir.I* grandfather [Kinship term: Parent's father [PF].]
abu-mansar-ú *n.comp indir.I* great-grandfather [Kinship term: Parent's parent's father [PPF].]

-ábu *v.II* hug the coast while travelling by boat
-ábuk *v.II tr.* make blunt [cf. *-búk* 'blunt']
-ábyan *v.II* load || *yawásana naka lé wapa be yábyan ana* 'I remembered my thing [bag] so that I can load it [into the canoe]' (el.)
abyáp *n indir.II* cave
áci *n indir.II* part of outrigger [Part of an outrigger that connects the float to the beam.]
-ádi *v.II* whip
adí *n indir.II* long tail on a bird of paradise [Alienable.]
-ádo *v.II* **1)** jump up and down **2)** dance
-ága *v.II* move place [For example, to move from one sitting place to another.]
-agáli *v.II S=A* dive, dive for
-agít *v.II* block
-águl *v.II* shave [Before razors, men shaved with knives or shards of glass.]
ahál *n indir.II* forest jambu fruit
-áhar *v.II* **1)** tell history, tell stories about family lines or land rights **2)** search for people who have gone ahead
áhar *n indir.II* lime [For betel nut chewing]
ahéw *n indir.II* door frame
-áhi *v.II tr.* choose
ahón *n indir.II* plank
ái *n indir.II* dog
ai-rám *n.comp indir.II* wild dog [*rám* not attested as an independent noun, but according to MW means something like 'wild'.]
ái *n indir.II* bamboo comb [Used for getting knots out of the hair before styling.]
-ái *v.II* comb roughly
-áje *v.II* sneeze
-áka *v.II tr.* scratch
-akáy *v.II S=A* **1)** write **2)** draw
kakáy *n indir.II* writing [Unexpected reduplication of Class II *-akáy* 'write'.]
-ákayn *v.II* pick vegetables
-áko *v.II* scrape
-ákyar *v.II* **1)** *tr.* trust **2)** *CoCl* expect **3)** *CoCl* hope || *yákyar náp, ape namséw* 'I hope he'll go to sea, but he doesn't want to.' (el.) || *yákyar ntum* 'I hope he follows [me]' (el.)
-ál *v.II tr.* **1)** take **2)** adopt
ála *n indir.II* fence
-ále *v.II S=A* **1)** descend, descend to **2)** disembark, disembark to
aléle *n indir.II* cricket [Often modifies the head noun *máni* 'bird'.]
-alén *v.II tr.* do
aléw *n indir.II* grease
álip *n indir.II* kind of long drum [Traditional small drum, hit with hand, PM *tifa*. Nowadays very rarely played.]

-álip *v.II tr.* **1)** make a hole in a coconut **2)** gut a pig
alók *n indir.II* kind of cockatoo [Small, white neck and body, black wings. Raps on trees. Often modifies the head noun *máni* 'bird'.]
álu *n indir.II* kind of sago palm [Has short thorns. Often modifies the head noun *bey* 'sago palm'.]
-áluk *v.II* stupid
-álut *v.II* travel upriver
-áma *v.II intr.* dance [Obsolete traditional female dance. Men and women would dance in two separate groups, with the women dancing behind the drum players. See also *-kábu* 'traditional male dance'. See 845 - 1078 seconds in recording AM171 for more information in Papuan Malay.]
amák *n indir.II* tool for pounding sago
-amanta *n dir.I* **1)** beginning **2)** first [Tonal specification unclear.]
-amányamin *v.II* **1)** beautiful **2)** handsome [Synonymous with *-ányar* 'beautiful, handsome'.]
ámay *n indir.II* firewood [Probably contains the form *áy* 'wood'.]
ambár *n indir.II* tool for funnelling sago into a sago oven [see **AM069_17.25**.]
ambóbor *n indir.II* kind of bamboo, PM *bulutui* [Often modifies the head noun *go* 'bamboo'.]
ambyán *n indir.II* kind of brushturkey, PM *ayam hutan* [Possibly Waigeo brushturkey, Aepypodius bruijnii. Often modifies the head noun *máni* 'bird']
-ámdo *v.II* repent
-ámerek *v.II* mark, make a sign on something [For example, a tree to show that later you will chop it down.]
-ámi$_1$ *v.II* suck
-ámi$_2$ *v.II S=A* **1)** laugh, laugh at **2)** smile, smile at
ámit *n indir.II* corpse [Animate]
amít yawin *n indir.II* skeleton [The element *yawin* is not independently attested. Before the arrival of Christianity, there are tales of evil spirits entering the skeletons of dead humans and using them to walk around.]
-ámgay *v.II* weak (humans) [Cannot take an inanimate subject.]
-ámju *v.II* fall in water
amnyé *n indir.II* **1)** dawn **2)** kind of sea cucumber [So-called because it is found in the daylight; cf. *-mnyé* 'be bright, brighten'. Often modifies the head noun *konkon* 'kind of sea cucumber'.]
-ámnyo *v.II tr., CoCl* permit || *yámnyo mumsóro sabáka po* 'I do not allow you two to smoke' (el.)
-ámo *v.II* squeeze sago
-ámol *v.II* comfort
amón *n indir.II* outrigger float [The part of an outrigger that lies parrallel to the canoe and skims the surface of the water.]
ampén *n indir.II* kind of seagull [Often modifies the head noun *máni* 'bird'.]
ámpinpon *n indir.II* megapode mound

-ámse *v.II* **1)** dizzy **2)** drunk
-ámsi *v.II intr.* sick, poorly
-amsíri *v.II* healthy
-ámtin *v.II* fasten together [e.g. tie parts of a canoe outrigger together, tie parts of a fishing spear together, tie the frame of a house together.]
-ámu *v.II* tame
ámut *n indir.II* cloth
ámyum *n indir.II* kind of sago palm [Has short thorns. Often modifies the head noun *bey* 'sago palm'.]
anán *n indir.II* food
anan-taním *n.comp indir.II* edible plants
-anán *v.II intr.* eat
ándow *n indir.II* breadfruit tree
-ané *v.II intr.* sleep
anjóron *n indir.II* drying platform [Used to dry, for example, sago or salted fish.]
-ánkar *v.II* coax
ankó *n indir.II* water spinach [Often modifies the head noun *su* 'leafy vegetable'.]
anot *n dir.I* handle of a *kahéne* bag [Tonal specification unclear.]
-anót *v.II S=A* attach handle to a *kahéne* bag
-ansin *n dir.I* bunch of bananas [Tonal specification unclear.]
anta(nane) *adv* later
ánum *n indir.II* drink
-ánum *v.II S=A* drink
ánut *n indir.II* sago strainer [Traditionally made from fibres from coconut trees, which were sewn together three sheets thick, and nailed to a sago funnel. Nowadays, mass-produced cloth is used.]
-ányar *v.II* **1)** handsome **2)** beautiful [Synonymous with *-amányamin* 'beautiful, handsome']
-ánye *v.II* thatch roof; put roof on house [Can be used for either traditional sago-leaf roofs, or for modern roofs made out of metal.]
-áp *v.II S=A* paddle, paddle someone somewhere
-apén *v.II tr.* **1)** get **2)** find
-ápil *v.II tr.* drop someone off somewhere
-apmáy *v.II* be powerful
-ápo *v.II* fly
apú *n indir.II* conch [PM *tritong*]
-ápu *v.II* wrap smoked sago
apúp *n indir.II* tangle
-ara *n dir.I* end [Tonal specification unclear.]
ará *n indir.II* bait
ára *n indir.II* kind of cockatoo [Blue/green plumage. Often modifies the head noun *máni* 'bird']

-árak *v.II tr.* relax || *yakátown be yárak ine be yál móro* ÂtI sit to relax and feel the wind' (el.)
arakák *n indir.II* kind of crow [Often modifies the head noun *máni* 'bird'.]
-áraru *v.II S=O* gather
aráta *n indir.II* plates used in dowry payment
-árer *v.II* *** move something moving a lever
arí *n indir.II* week [< Malay *hari* 'day']
-árip *v.II* leave behind
arúkun *n indir.II* kind of puffafish [Edible. Often modifies the head noun *kasót* 'puffafish'.]
áryar *n indir.II* strength (humans)
-áryar *v.II* strong (person)
aryáy *n indir.II* headdress [Worn by women during tradtiional dance ceremonies. Made from light-coloured metal. Now obsolete.]
asák *n indir.II* palm cockatoo [Black plumage, eats tropical almonds. Probosciger aterrimus. Often modifies the head noun *máni* 'bird'.]
-asáw *v.II S=A* **1)** get married, marry **2)** mate, mate with
-áse *v.II* reproduce, have children
ásen$_1$ *n indir.II* kind of tree [Used in traditional fire-lighting; see AM057 and AM068 for more details. Often modifies the head noun *áy* 'tree'.]
ásen$_2$ *n indir.II* kind of small creature that eats wood, PM *maimai*
-ási *v.II* prepare the land to make a garden
-ásil *v.II* comb finely, style
-asilí *v.II* breathe
asilí *n dir.I* belly button
-ásin *v.II* lift from fire or sago oven
-asíri *v.II S=A* fish [See 162 - 690 seconds of recording AM189 for information in Papuan Malay about fishing techniques.]
áso *n indir.II* bellows
  -áso *v.II* pump bellows
ásu *n indir.II* waterfall
-ásu$_1$ *v.II* travel by land following a river
-ásu$_2$ *v.II* **1)** breastfeed [cf. *su* 'breast, milk'] **2)** adopt
asúy *n indir.II* story
  -asúy *v.II S=A* **1)** speak, speak to **2)** tell **3)** talk, talk to
asúwa- *n dir.I* ribs
  asúwa- bit *n dir.I* area to the side of one's body
át *n indir.II* enemy
-átay *v.II* follow
áte *n indir.II* raft
-áti *v.II* **1)** *intr.* run **2)** *tr.* approach || *kalíw wane macu asáw abi anáti útun* 'In this village, [the number of] households is approaching 100', i.e. 'there are nearly 100 households' (el.)

atúk *n indir.II* **1)** lie **2)** trick
-atúk *v.II S=A* lie, trick someone
átun *n indir.II* question
-átun *v.II tr.* ask
-aún *v.II intr.* grow new skin (e.g. crabs, shrimp, etc)
-áut *v.II tr.* shed skin (e.g. crabs, shrimp, etc)
-áw *v.II* harvest sago, PM *tokok*
awá *n dir.II* spouse [Archaic when the possessor is anything other than 3SG.]
awák *n indir.II* **1)** orphan **2)** step-relation [Parent's spouses child [PSpC], Spouse's children [SpC].] **3)** adopted family member [< Biak]
awír *n indir.II* fishing hook, PM *mata kail* [< Biak]
-áy *v.II* *** look for fish in a river
áy *n indir.II* **1)** wood **2)** tree **3)** cassava [Often modifies the head noun *katíli* 'tuber'] **4)** kind of grub, PM *ulat kayu* [Lives on wood. Often modifies the head noun *sétew* 'grub'.]
ay-li *n.comp indir.II* frame of house
áy-lo *n.comp indir.II* forest
ay-lun *n.comp indir.II* pillow [*lun* not attested as an independent word.]
ay-su *n.comp indir.II* flower
ay-tacít *n.comp indir.II* tree bridge
ay-tátut *n.comp indir.II* mortar and pestle [Once made of wood, and used to grind hard food (such as smoked fish) for the elderly who have lost their teeth. Not traditionally used to grind spices. The form *tátut* is not attested as an independent word, but is likely to be a reduplication of *-tut* 'grind'.]
-áydam *v.II tr.* rob
ayhi *n indir.II* statue [Possibly a compound containing the element *áy* 'wood'. Traditional figurines used in casting spells. Carved from wood or stone in the likeness of the victim. Now obsolete.]
-áyo *v.II intr.* stupid
ayse *n indir.II* kind of rattan [Has thorns. Often modifies the head noun *dow* 'rattan'.]
aysórom *n indir.II* kind of shellfish, PM *tambelo* [Lives in mangrove roots; tastes like mussels. Often modifies the head noun *hájum* 'shellfish'.]
áyt *n indir.II* quarrel
-áyt *v.II* quarrel
-áytal *v.II* transport, move things from one location to another
ayú *n indir.II* kind of snake [Approximately 2-3m in length. Black and brown. Kills by biting the victim, then constricting them. Often modifies the head noun *lemát* 'snake'.]
aywánu *n indir.II* styling comb [Possibly a compound containing *áy* 'wood' and/or *wánu* 'bracelet, kind of turtle'.]

B b

-bá$_1$ *v.IV* be swollen

-bá$_2$ *v.IV S=O* stay behind; leave something behind || *yabá* 'I stay behind'; *yabá i* 'I leave him behind' [When the verb is transitive, it cannot take an inanimate subject.]

-bá$_3$ *v.III tr.* lift

bábasa *n indir.II* kind of shellfish, PM *bia topi* [Often modifies the head noun *hájum* 'shellfish'.]

babatkór *n indir.II* mangrove swamp

-bábo *adj.vIV intr.* **1)** be young **2)** be new

bábow *n indir.II* lemongrass

babúgul *n indir.II* bubble

-babúr *v.I/II tr.* exile [Ambiguous between Class I and Class II membership.]

-báhon *v.I* be infertile

bajólow *n indir.II* worm

-bák *v.IV* be open [Specifically used to refer to an open mouth or an open clam.]

bakóp *n indir.II* dam

bakúlu *n indir.II* kind of large drum [Large drum played with beaters. Very common in flute and drum processions. See recording AM087 for an example.]

balakamá *n indir.II* lemon basil

baláp *n indir.II* **1)** cooking, cookery **2)** ceremony [cf. *-bláp* 'cook'.]

bálayk *n indir.II* **1)** kind of ant nest [Made from earth.] **2)** azure kingfisher [So-called because it eats from ant nests. Alcedo azurea? Often modifies the head noun *máni* 'bird'.]

báli *n indir.II* kind of palm tree, PM *kayu baru* [The stem or midrib of the palm fronds are scraped and used in canoe building (MW: 'pake jum perahu') -- see 72 - 90 seconds of recording AM158 for more information in Papuan Malay. Also used in traditional fire-lighting: see recordings AM057 and AM068. Often modifies the head noun *áy* 'tree'.]

-**balóko** *v.IV intr.* be naked

  -habalóko *v.III tr.* take someone's clothes off

-bálow *v.IV S=A* be loose, be loose on

-bálu *adj.vIV intr.* raw

-balúk *v.IV intr.* be bare chested

  -habalúk *v.III tr.* take someone's shirt off

bálum *n indir.II* great-billed heron [Grey plumage, very tall - Arcka sumantrana? Often modifies the head noun *máni* 'bird'.]

bámi *n indir.II* kind of shellfish [Often modifies the head noun *hájum* 'shellfish'.]

-báp *v.III tr.* carry on shoulders

  babáp *n indir.II* child who enjoys being carried on back

bará *n indir.II* underclass; non-royal [When there were kings who ruled in Raja Ampat, those of non-royal blood were obliged to sit on the floor with their legs folded beneath them - if they did not, they were punished by the kings. Those that were obliged to sit in this way were referred to as *bará*.]

básu *n indir.II* bow

bát *n indir.II* **1)** earth **2)** kind of bee/wasp [So-called because it builds its nest on the ground. Often modifies the head noun *tápi* 'wasp'.]

bát iasili *n indir.II* earth spirits

bát-lo *n.comp indir.II* garden

bat-marú *n.comp indir.II* **1)** red, nickel-rich earth **2)** kind of sea cucumber, PM *teripang sepatu* [So-called because it is the same colour as nickel-rich earth. Often modifies the head noun *pimám* 'sea cucumber'.]

-bátak *v.IV* be very dry (sea, river) [When referring to the sea, possibly refers to the neap tide.]

-bátal *v.I tr.* slap [Ambiguous between Class I and Class II membership.]

batár *n indir.II* slipway [For moving a canoe from the sea to the land.]

batawe *n indir.II* cassava [< Biak. Often modifies the head noun *katíli* 'tuber'.]

batít *n indir.II* kind of shellfish, PM *bia tembak* [Often modifies the head noun *hájum* 'shellfish'.]

bátnya *n indir.II* kind of snake [Less than 1m in length. Brown and patterned. Poisonous. After biting, winds itself around the victim. Often modifies the head noun *lemát* 'snake'.]

baw *n indir.I* **1)** great-great-grandchild [Kinship term: Child's child's child's child [CCCC].]; **2)** great-great-grandparent [Kinship term: Parent's parent's parent's parent [PPPP].]

báwin *n indir.II* uterus

báy 1) *n dir.I* trunk **2)** punt [Long stick for punting a canoe.]

-báybor *v.III intr.* crazy

báylik *n indir.II* Bigeye trevally, PM *ikan bubara ketupat* [Multicoloured. Caranx sexfasciatus? Often modifies the head noun *dún* 'fish'.]

báynte *n indir.II* door

-be *v.III tr.* **1)** become || *amtúm be ambe kanú to* 'It has grown and become a leaf' (el.) **2)** be || *mbe bin báhon* 'She is an infertile woman' (el.)

béle *n indir.I* cousin [Kinship term: Male ego's father's sister's child [EmFZC]; Male ego's mother's sibling's child [EmMSC]; Female ego's mother's brother's child [EfMBC]; Female ego's father's sibling's child [EfFSC].]

-bélek *v.III* cross open water

-belémay *v.III intr.* fast

bélen *n indir.II* fishing line

-bélen *v.I* fish with fly while moving

bém *n indir.II* plate

bem-wán *n.comp indir.II* kind of hanging plate [Shaped like a canoe.]

beró *n indir.II* kind of shellfish, PM *bia bor* [Often modifies the head noun *hájum* 'shellfish'.]

-béw *v.I tr.* poison (humans)

babéw *n indir.II* poison [Unexpected reduplication from Class I *-béw* 'poison', which suggests the verbal root was once Class III.]

-bewár *v.III* make two people fight [e.g., by telling each of them that the other has been saying bad things about them.]

bey *n indir.II* **1)** sago palm **2)** unprocessed sago **3)** processed raw sago [See 1756 - 3049 seconds of recording AM175 for information in Papuan Malay about sago farming, production, and preparation.] **4)** kind of anchovy-like fish that lives in puddles, PM *puri pecek* [Often modifies the head noun *náy* 'anchovy-like fish'] **5)** kind of grub, PM *ulat sagu* [Lives on sago palm. Edible. Often modifies the head noun *sétew* 'grub'.]

-beym *v.III* cover in sand

-bi *v.IV* be rotten and falling apart

-bí *v.III ditr.* give || *tutanin mét mana mbí sabáka be tutne* 'Our two's friend gives a cigarette to us' (el.)

-bidon *v.III tr.* inform [Note the similarity of the second syllable to e.g. Ma'ya *do*^{12}*n* 'hear'.]

bíli *n indir.II* bracelet [Worn by women during traditional dance ceremonies. Made from seashells, worn from the wrists to the elbows. Now obsolete.]

bin *n indir.II* **1)** woman **2)** female **3)** kind of mangrove tree, PM *perahi* [Has short fruit. Often modifies the head noun *kor* 'mangrove tree'.]

bin-báhon *n.comp indir.II* infertile woman

-bíne *v.III tr., CoCl* say || *ubíne "tután wey"* 'The two of them said: "Let's go again!"' || *mbíne "mám e! mákay wane be natáni serep a?"* She said: "Father! What is this child crying for?"

bintakí *n indir.II* **1)** kind of tree [Poisonous bark, used for killing fish in rivers. Often modifies the head noun *áy* 'tree'.] **2)** name of a traditional dance [A dance traditionally performed during river-poisoning ceremonies. Named after the *bintakí* tree, which is used to poison the river. See bundle AM260.]

bísar 1) *n indir.II* old woman, respected woman **2)** *n indir.I* wife

bisó *n indir.II* adolescent girl

-bít$_1$ *n dir.I* side (of a thing)

-bít$_2$ *v.IV* be bitter

-bít$_3$ *v.I/II* throw, chuck [Ambiguous between Class I and Class II membership.]

bití- *n dir.I* body

-bláp *v.I/II S=A* cook [Ambiguous between Class I and Class II membership.]

-blét *v.I/II* pick up (someone from somewhere) [Ambiguous between Class I and Class II membership.]

boki *n indir.II* cat

bókol *n indir.II* large bowl [< Malay]

bókoy *n indir.II* whirlpool

-bom *n dir.I* stalk [Tonal specification unclear.]
-bón *v.I S=A* go first, go ahead of
bonko *n indir.II* spangled drongo [Rarely seen, only heard. Lives at the top of trees. Black plumage. Name is onomatopoeic. Dicrurus bracteatus? Often modifies the head noun *máni* 'bird'.]
-bór *v.I/II tr.* lose trace of [Ambiguous between Class I and Class II membership.]
-bóronpo *v.III tr., CoCl* guess | | *ido nláw ido gali pa bóronpo ái* 'Then it [the dragon] howled, and his voice was like a dog', lit: 'his voice we guess is a dog'.
-bót *v.I/II tr.* boil [Ambiguous between Class I and Class II membership.]
-bra *v.I/II tr.* sing [Ambiguous between Class I and Class II membership.]
-bru *v.I/II tr.* open a woven *lám* mat [Ambiguous between Class I and Class II membership.]
brus *n indir.II* din, racket, loud noise
bú *n indir.II* border
bu **1)** *adj.vIV intr.* white **2)** *n indir.II* kind of tree, PM *kayu besi* [Often modifies the head noun *áy* 'tree'] **3)** *n indir.II* kind of taro, PM *keladi rawa* [Often modifies the head noun *káwia* 'taro'.]
buba *n indir.II* mosquito net
bubá *n indir.II* condensation
búblit *n indir.II* scabies
búk *n indir.II* **1)** land rights **2)** family background **3)** area
-búk *v.IV intr.* be blunt
-bukut *v.III* succeed
  -bukut po *v.III* fail | | *jukút am po* 'I can't afford it' (el.) | *jukút i po* 'I can't match him' (el.) [There is no separate lexeme for 'fail'.]
-búluy *v.I tr.* roll in flat of palm
-bun *v.III* **1)** *tr.* hit **2)** *tr.* kill **3)** *intr.* go to war
  bábun *n indir.II* 1) hit, punch 2) murder 3) war
buriás *n indir.II* kind of shrimp [Poisonous. Often modifies the head noun *kapyáy* 'shrimp'.]
burumán *n indir.II* kind of tree [Used for poisoning fish. Often modifies the head noun *áy* 'tree'.]
búrua *n indir.II* trunk
busú *n indir.II* kind of fruit, PM *namu namu* [Small sour fruit; Cynometra cauliflora.]
-bút$_1$ *v.III* emerge from water
-bút$_2$ *v.IV* reach (e.g. a rope that reaches from one river bank to the other)
byálam *n indir.II* kind of tree, PM *kayu agatis* [Often modifies the head noun *áy* 'tree'.]
byát *n indir.II* kind of shark, PM *hiw putih* [Has a large liver. Often modifies the head noun *rúmun* 'shark'.]
byáw *adj.vIV intr.* blue
-byók *v.IV* be soft

C c

calan *cardnum* thousand || *calan lahe hat* forty thousand empat puluh ribu [Tonal specification unclear. Appears to be ultimately a borrowing from Ternate/Tidore.]
-cán *v.I/II ex.intr* urge [Ambiguous between Class I and Class II membership.]
-cát *v.I tr.* frighten
  acát *n indir.II* person who is in the habit of frightening others
cú *n indir.II* kind of turtle, PM *teteruga ikan* [Large turtle. Often modifies the head noun *hín* 'sea turtle'.]
cun *n indir.II* sago biscuit
  cun-haw *n.comp indir.II* sago that has been packed in leaves, smoked, and is eaten with fat (e.g. fish grease or the grease from sago grubs) [So-called because it is made with the leftover sago that remains in the *haw* sago funnel.]
-cúbun *v.I tr.* send for something or something (e.g., send for a relative who is in another village to return home)
  acúbun *n indir.II* message sending for someone or something

D d

dá *n indir.II* smoking platform [For smoking meat and fish.]
-dadi *v.IV S=A* be the same, be the same as
-daki *v.III tr.* fill with [Direct object is the item being used to fill a container.]
-dál *v.III* crow
dár *n indir.II* kind of tree, PM *kayu buah rau* [< Biak. Often modifies the head noun *áy* 'tree'.]
-dáraw *n dir.I* smoke
  -dáraw *v.IV* be smoking (of fires)
daré *n indir.I* sibling-in-law [Kinship term: Female ego's husband's brother's sister [EfHBW]; Male ego's wife's sister's husband [EmWZH].]
dárian *n indir.II* soursop
daw *adv* remain || *daw kalúlu lim* 'There are five rolled cigarettes left' (el.)
-daw *v.III tr.* make fire [Refers to the process of collecting firewood and making a fire.]
dáwi *n indir.II* nest [Specifically: a crocodile's nest, a brush turkey's nest, or a place where a pig keeps its young.]
day *n indir.II* catapult
démow *n indir.II* town
-demul *v.III* be last
derem *adv* consecutively

-deyn *v.III* row (boat)
-di *v.IV* be full
-dilí *v.III* lean
din *n indir.II* stitch [Archaic, replaced by *kárin* 'stitch'.]
-din *v.III S=A* sew
-dóbor *v.I/II* burp [Ambiguous between Class I and Class II membership.]
dódow *n indir.II* bridge to house [Bridge leading from land to a traditional house, built above water.]
doí *n indir.II* **1)** closed bay [A bay whose mouth cannot be seen from the inside, e.g. Mayalibit Bay. An alternative analysis of the underlying segments is *doy* with no tonal specification. Possibly a loan from Biak.] **2)** Mayalibit Bay
-dók *v.III* **1)** *intr.* leave || *jadi sárita wapa, galí wapa andók po doí ne to* 'So that story, that tale has left this Bay...' **2)** *intr.* arrive || *amne mét po li mansope amdók* "We people from the outside had just arrived..." **3)** *tr.* meet || *mimdók si ido masidón* "If you all meet them, then let [them] know..."
dókow *n indir.II* hole
-dókow *v.IV intr.* be pierced
-kadókow *v.I S=A* pierce
-dókoy *v.III tr.* throw away
don *n indir.II* striated heron [People follow this bird when they go fishing, because it indicates where the fish are. Butorides striatus? Often modifies the head noun *máni* 'bird'.]
dorój *n indir.II* bay with a small mouth
dow *n indir.II* rattan
-dow *v.III tr.* push
-du *v.III tr.* obey
dádu *n indir.II* person who obeys
du *n indir.II* beetle
-dú *v.III* **1)** pull **2)** borrow **3)** catch fish
dúbul *n indir.II* spring, water source
dún *n indir.II* fish
dunyáy *n indir.II* world [Possibly < Malay *dunia*]

E e

-ém *v.II S=A* **1)** look **2)** see **3)** look for

G g

-gá *v.IV* be stiff
gá- *n dir.I* mouth
  gá- halap *n.comp dir.I* cheek
  gá- kabo- *n.comp dir.I* **1)** chin **2)** jaw
  gá- kani- *n.comp dir.I* lip
  gá- kaprun *n.comp dir.I* beard, moustache
gácul *n indir.II* kind of shark [Metsam dialect. Has a white liver. Often modifies the head noun *úy* 'shark'.]
-gága *v.I S=A* shout, shout someone
  agága *n indir.II* shout
-gagét *v.IV S=A* be tight, be tight on
-gági *v.IV* be very young (fruit) [For example, a coconut that has just emerged and doesn't have any flesh yet.]
gagilí- *n dir.I* armpit
gagót *n indir.II* kind of snake [Approximately 1m in length. Black with white neck. Poisonous. Often modifies the head noun *lemát* 'snake'.]
gáhana *adv* last night [Historically derived from *gám* 'night' and the andative deictic unit *hana* 'AND'. See §12.2.3 for the use of *hana* 'AND' to refer to past time.]
gáin *n, n dir.III* name
  -gáin *v.I ditr.* name
  gain-mánsar *n.comp indir.II* nickname [Specifically, a respectful nickname for an older man.]
galán *n indir.II* coconut shell
-galáp *v.IV* be dusty
galáw *n indir.II* kind of bandicoot [Has a white tail; synonymous with *kakápan*.]
galawán *n indir.II* stream that has dried out, leaving pools
-gále *v.I/II* slice using the tip of a knife or machete [Ambiguous between Class I and Class II membership.]
galí 1) *n dir.I* voice **2)** *n indir.II* language **3)** *n indir.II* story **4)** *n indir.II* word
-gali *v.I tr.* help
  agali *n indir.II* help
galíhin *n indir.II* millipede
gáliw *n indir.II* tool for cooking sago porrige, PM *bale bale papeda*
  -gáliw *v.I* turn food while cooking
-galút *v.I/II* slice using the blade of a knife or machete [Ambiguous between Class I and Class II membership.]
gám *n indir.II* **1)** night **2)** kind of sea cucumber, PM *teripang malam* [Often modifies the head noun *pimám* 'sea cucumber'.] **3)** kind of sea cucumber [Often modifies the head noun *konkon* 'kind of sea cucumber'.]

gám-habru *n.comp indir.II* midnight
gám-pak *n.comp indir.II* late at night [Approximately 9pm.]
gáman *n indir.II* kind of tree, PM *kayu buah rau* [Often modifies the head noun *áy* 'tree'.]
gámin *n indir.II* kind of leaf [Used for poisoning fish.]
gamlé *n indir.II* firefly
gámnyay *n indir.II* dry sago leaf litter
gamsélep *n indir.II* kind of shark, PM *mangewan gergaji* [Often modifies the head noun *rúmun* 'shark'.]
gámsu *n indir.II* folktale [May historically be a compound containing the forms *gám* 'night' and *-súy* 'speak, tell, talk'.]
gamú *n dir.I* smell [One's *gamú* appears to be a vital part of one's well-being. If an evil spirit - for example a dragon - steals one's *gamú* , this causes sickness (see e.g. AM031). If a dragon lives at the bottom of a river, and children bathe upstream, this is dangerous as the dragon can steal the children's *gamú* , which causes them to become very thin and eventually die. If a child's *gamú* has been stolen, it can be restored by someone bathing them in a special way. Both good and evil spirits can also inhabit a person's body, taking their *gamú*. If someone is inhabited by one of these spirits, they will get a sign from the spirit; for example, a person may repeatedly come across a certain kind of snake, including in their dreams, that indicates they are inhabited by a spirit. If the possessing spirit is evil, the person's eyes will glow red (see AM181); if the possessing spirit is not evil, the eyes of the person will appear as normal.]
gámut *n indir.II* lump
gángim *n indir.II* striped possum [Dactylopsila trivirgata]
ganyét *n indir.II* rattan mat [See AM177 for instructions on how to make a rattan mat.]
gányul *n indir.II* rays
ganyul-mánsar, ganyul-bísar *n.comp indir.II* last rays of sunlight of the day, around 6pm [Men seem to prefer *ganyul mánsar* , women seem to prefer *ganyul bísar*.]
garis *n indir.II* lighter [< Malay]
gasi *n indir.II* salt
-gát *v.IV* be angry || *nyáik ne angat i* 'I am angry with him/her.' [Only attested in this body part expression.]
-gáw *v.I/II* have a plan [Ambiguous between Class I and Class II membership.]
-gaw *n dir.I* remains
gáwa *n indir.II* gecko
gawín *n indir.II* kind of breadfruit tree, PM *sukun hutan* [Archaic, replaced with *ándow* 'breadfruit tree'. Often modifies the head noun *áy* 'tree'.]
gaynkiáne *adv* recently
-gél *v.I/II intr.* crawl [Ambiguous between Class I and Class II membership.]
gélet *n indir.II* **1)** clan **2)** tribe

-gét *n dir.I* bunch of fruit
-gigíl *v.I/II tr.* hold [Ambiguous between Class I and Class II membership.]
ginya *n indir.II* half a sago trunk [When the sago is being processed, the trunk is split lengthwise down the middle. The top half (*kapyál*) is removed and set aside for processing later; the bottom half (*ginya*) is processed first.]
-gisáp *v.I/II tr.* look for, seek [Ambiguous between Class I and Class II membership.]
gíy *n indir.II* **1)** areca nut [Metsam: *gèy*.] **2)** kind of sago palm [Has very long thorns. Often modifies the head noun *bey* 'sago palm'.]
gíy-lamat *n.comp indir.II* red spit from chewing areca nut
go *n indir.II* bamboo
-gó *v.I* put inside a bamboo container
go-kápo *n.comp indir.II* flute
gobán *n indir.II* **1)** metal **2)** money
gókawre *n indir.II* bamboo flask [This was probably historically a compound, containing the form *go* 'bamboo'. Cf. *gósen* 'batch of bamboo flasks'.]
-gón *v.I ditr.* promise | | *yagón lé be awa* 'I promise something to you' (el.)
ágon *n.* promise
gop *n indir.II* jambu fruit (yellow)
gópoy 1) *n indir.II* umbilical cord **2)** *n dir.I* top of fruit where it attaches to the stalk
gora *n indir.II* elastic band [Possibly a loan.]
gósen *n indir.II* batch of flasks [Before water was piped from the streams, people would take a bag full of bamboo flasks to bring back water to a settlement. Cf. *gókawre* , 'single bamboo flask'. This was probably historically a compound, containing the form *go* 'bamboo'.]
gu *n indir.II* hole
-gu *v.IV* be holey (fruit)
gúit *n indir.II* kind of fish, PM *ikan mas laut* [Has glittering scales.]
-gul *v.IV* be very young [When said of an areca nut, means that it is still quite watery.]
gumulá *n indir.II* fishing hook
-gúnu *v.IV* be completely burnt up

H h

-ha *v.III* dry in the sunshine
há *n indir.II* rice
-habru *v.IV* be half full
hacú *n indir.II* corn
hadém *n indir.II* downpour
-háhir *v.III* good

hahís *n indir.II* wrist
-hahúlu *v.I* **1)** *S=A* be confused, be confused because of || *yahahúlu i* 'I'm confused because of him [e.g. I've looked for him everywhere and can't find him]' (el.) **2)** *intr.* be trapped
hahyúl *n indir.II* curse
-hagonóm *v.III tr.* **1)** add **2)** live with, add to household
hájum *n indir.II* shellfish, sea urchin
-hakáyt *v.III tr.* coax
-hakóp *v.III tr.* turn plate upside-down, drain washed plates
-hakúr *v.III ex.intr.* admonish || *hyakúr be awa* 'I admonish you' (el.)
haláhu *n indir.II* storm
halák *n indir.II* sea turtle spear
-halásu *v.III tr.* make something slant
-halapyát *v.III* be horizontal
-hálat *v.III S=O* be stuck (on something); stick something
-hamamáy *v.III tr.* embarrass [Historically related to *-máy* 'be embarrassed, embarrass'.]
hamánit *n indir.II* floor
hamánkor *n indir.II* decoration
  -hamánkor *v.III tr.* decorate
-hán$_1$ *v.III tr.* shoot with bow
  hahán *n indir.II* bow shot
-hán$_2$ *v.I/II tr.* feed [Ambiguous between Class I and Class II membership.]
-hanandér *v.I tr.* forget, forget about || *yahandér i* ÂťI forget about him' (el.) || *yahandér, yé wapa angláw* 'I forgot, that island is far away' (el.) [Does not take an intonationally integrated complement clause; often realised as [-handér].]
-hanát *v.I/II S=A* go looking for war; headhunt [Ambiguous between Class I and Class II membership.]
handu *n indir.II* middle
hándun *n indir.II* need
  -hándun *v.I* need
háne *n indir.I* nephew, niece [Kinship term: Male ego's sister's child [EmZC]; Male ego's wife's brother's child [EmWBC]; Female ego's brother's child [EfBC]; Female ego's husband's sister's child [EfHZC]; Spouse's parent's sibling's child's child [SpPSCC].]
-haním *v.III tr.* watch
  haním *n indir.II* glass
-hankárin *v.III S=A* give birth [Less polite than *-su* 'give birth'.]
-hantán *v.I tr.* describe
-haranáw *v.III S=A* make a noise (human), make a noise at someone or something
-haranyáyn *v.III* be quick
-harárur *v.III* **1)** *intr*. work **2)** *tr.* repair
-haraváy *v.III tr.* mix

-hárit *v.IV S=A* be near
harón *n indir.II* kind of tree [Leaves are similar to tikar leaves; leaves are used to weave *kahéne* bags; see **AM107**.]
-háryan *v.III S=O* move (from one place to another, esp. moving from one village to another); move something
-hasál *v.IV S=A* be different; be different from
hát *cardnum* four
háta *n indir.II* platform
-háta *v.I/II S=O* be located; place, put [Ambiguous between Class I and Class II membership.]
-hatanáw *v.III ex.intr.* advise || *hyatanáw be awa* 'I advise you' (el.) [Takes prepositional complement headed by *be*.]
-hatanún *v.III tr.* be siblings with
-hatáput *v.III tr.* make quiet || *nhyatáput aw bi!* 'Be quiet!' (el.) [Synonymous with *-mnyát* 'quiet'.]
háw *n indir.II* sago vessel [The vessel where sago starch is caught after sieving, typically an old canoe or a container made out of sago stems.]
-háwa *v.IV intr.* be vengeful || *nyáik ne anháwa* 'I am vengeful', lit: 'my stomach is vengeful' [Can also take an animate subject.]
-hawi *v.III tr.* be used to
-háwisi *v.III tr.* take leave of someone || *hyáwisi aw be abi súy* 'I take my leave of you, so that I [can] go home' (el.)
-háwre *v.III* **1)** replace || *jú ho, mansope hyáwre rín* 'I will borrow [it] now, then I will replace [it]' (el.) **2)** change || *hyáwre kursi wa yakátown an ane* 'I am changing the chair I am sitting in' (el.)
hayápa *n indir.II* twin
-háy$_1$ *v.I/II tr.* beckon [With arm outstretched, palm facing the ground, the wrist is bent and the palm is brought towards the body of the person beckoning. Ambiguous between Class I and Class II membership.]
-háy$_2$ *v.I/II tr.* **1)** be acquainted with **2)** recognise [Ambiguous between Class I and Class II membership.]
-háy$_3$ *v.III intr.* return [Also realised: [-wáy].]
-hén *v.I/II* hang around neck [Ambiguous between Class I and Class II membership.]
-henkáray *v.III* arrogant
-hey *v.III intr.* alive
  háhey *n indir.II* life
hey 1) *adj.vIII intr.* good; safe; beautiful **2)** *n indir.II* kind of manta ray [Has a large fatty liver. Often modifies the head noun *manápa* 'manta ray'.]
  háhey *n indir.II* 1) goodness 2) gift
  -hey po *v.III intr.* **1)** evil **2)** bad [There is no separate lexeme for 'evil' or 'bad'.]
-hil *v.III* step
hín *n indir.II* sea turtle

hín latáje ine *idiom* hiccup [Lit: 'The turtles are chasing me'.]
hit *cardnum* seven
-hlór *v.I/II* jump forwards [Ambiguous between Class I and Class II membership.]
ho *n indir.II* arrow [Kind of arrow used for shooting birds, etc. Made from PM *tulang sagu*.]
-hol *v.III* stick wood in ground
-hón *v.IV S=O* be full; fill [Metsam dialect: *fun*]
hu *n indir.II* kind of cuscus, PM *kuskus tanah* [Often modifies the head noun *tamcám* 'cuscus'.]
hul *n indir.II* honey
-húlut *n indir.II* perimeter
hun *n indir.II* king
hunhún a *n prop* God [Reduplication.]
-huy *v.I* wipe out with hand
-hyá *v.I/II* feel by touching [Ambiguous between Class I and Class II membership.]
hyów *n indir.II* jambu fruit (red)

I i

il *n indir.II* upwards direction [Probably derived historically from *yíl* 'hill, mountain'.]
ímalap *n indir.II* kind of fish, PM *ikan bubara putih* [North coast dialect. Often modifies the head noun *dún* 'fish'.]
ímani *n indir.II* kind of fish [Small yellow fish. Probably related to *máni* 'yellow'. Often modifies the head noun *dún* 'fish'.]
imborónot *n indir.II* kind of tuna [Often modifies the head noun *dún* 'fish'.]
imonompír *n indir.II* kind of coral
impékem *n indir.II* kind of fish, PM *ikan gaca* [Often modifies the head noun *dún* 'fish'.]
-in *v.II tr.* build, make || *ulakále i be ulin i be kayáw, kayáw gasí* 'Those two have cut her up and made her into pig, salted pig!' || *bey ne lin ambe éke be lahán ine wa yamíngki* 'This sago, they made it into sago porridge to feed me when I was little.' || *mét kilow bi wa lina kalíw ne ahana* 'It was only a few people who built this village in the olden times.'
ínamer *n indir.II* kind of puffafish [Yellow flesh. Poisonous if eaten. Often modifies the head noun *kasót* 'puffafish'.]
ínkambow *n indir.II* **1)** archerfish [Toxotes sp. Often modifies the head noun *dún* 'fish'.] **2)** kind of taro [Often modifies the head noun *káwia* 'taro'.]
inkíri *n indir.II* kind of fruit [Sour yellow fruit, about 3 cm long. Spondias dulcis.]

inkmáy *n indir.II* kind of tuna, PM *cekalan batu* [Often modifies the head noun *dún* 'fish'.]

inkár *n indir.II* kind of fish [Approimately 60cm long with a horm on its head. Often modifies the head noun *dún* 'fish'.]

inkór *n indir.II* kind of fish, PM *ikan uci* [Approximately 10 cm long. Often modifies the head noun *dún* 'fish'.]

insáman *n indir.II* emperor fish [Often modifies the head noun *dún* 'fish'.]

insarwáy *n indir.II* kind of sea urchin

insoném *n indir.II* sand worm [Approx. 30 c long. Edible when smoked or fried.]

ipon *n indir.II* animal group [e.g. flocks of birds, schools of fish. Possibly morphologically complex, containing the Direct I prefix *i-* 'ʒɪnan'.]

ípon *n indir.II* mountain

irbúr *n indir.II* reef [Only attested in Metsam dialect.]

íri *n indir.II* outrigger beam [Part of an outrigger that lies horizontally across the canoe.]

iron *n indir.II* cliff [Possibly morphologically complex, containing the Direct I prefix *i-* 'ʒɪnan'.]

íron *n indir.II* valley

-ít *n dir.I* between

-íy *v.II tr.* eat

J j

jakó *n indir.II* welcome dance, PM *selewako*

-jakó *v.I* dance a welcome dance

jám *n indir.II* handle

jín *n indir.II* evil spirit [< Malay *jin*.]

-jíw *v.I/II S=O* be waving back and forth; wave something back and forth [Ambiguous between Class I and Class II membership.]

jow 1) *n indir.II* song **2)** *interj* respectful greeting [< Ternate.]

jowsúba *interj* respectful greeting

ju *n indir.II* kind of fish, PM *ikan gabus kali* [Often modifies the head noun *dún* 'fish'.]

-júy *v.I/II tr.* warm or heat up [Ambiguous between Class I and Class II membership.]

K k

kába *n indir.II* sago fibres
kabábat *n indir.II* butterfly [Often modifies the head noun *máni* 'bird'.]
-kabalím *v.I tr.* wind (e.g. a rope)
kábay *n indir.II* kind of snake [Brown, c. 30 cm long. Poisonous. Attacks from trees. If not disturbed, will not run away. Often modifies the head noun *lemát* 'snake'.]
kabé *n indir.II* claw
kábew *n indir.II* kind of small milipede, PM *ular cincin*
kabékey *n indir.II* kind of frog [Large brown frog. Lives on the ground.]
-kabénet *v.I tr.* close
kábi *n indir.II* flood
-kábi *v.IV intr.* flood
-kabílit *n dir.I* perimeter
kabíri *n indir.II* sea mullet [Mugil cephalus. Often modifies the head noun *dún* 'fish'.]
kabísum *n indir.II* large pot
-kablón *v.IV* snap, crunch
-kabóko *v.IV* be swollen (injury)
-kaból *v.I* force
kabóm *n, n dir.I* bone
kábom *n indir.II* widow
kabrá- *n dir.I* forehead
-kábu$_1$ *v.I intr.* dance [Obsolete traditional male dance. The men would wear beads and loincloths and dance in the front of the crowd, in front of drum players. See also *-áma* 'traditional female dance'. See 845 - 1078 seconds in recording AM171 for more information in Papuan Malay.]
-kábu$_2$ *v.I tr.* **1)** catch (large thing, e.g. ball) **2)** hug **3)** hold back someone who is fighting
-kábu$_3$ *v.I tr.* break open a sago grub [i.e. pull out its head to get to the fat inside.]
-kabúbu *v.I* hold a plant by the stem and strip the leaves off
-kábul *v.I* hug
-kabúluy *v.I tr.* **1)** twist **2)** spin **3)** play (e.g. a film; cf. PM *putar*)
kabumayéw *n indir.II* small bat [Often modifies the head noun *máni* 'bird'?]
-kábun *v.I S=O* hide | | *buku pa anakábun* 'The book is hidden' (el.) | | *yakábun buku pa* 'I hide the book' (el.)
-kabút$_1$ *v.I tr.* hold
-kabút$_2$ *v.I* lead
-kábyal *v.IV S=O* be floating; make something float
kabyáli *n indir.II* kind of vine
kábyo *n indir.II* ghost [For more information on local ghosts, see under *sarát* 'spell'.]
kabyót *v.IV S=A* be cold; be cold on, be cold because of

-kacábal *v.I* stick
kacú- *n dir.I* neck
kacú *n indir.II* kind of jelly made from seaweed, PM *agar-agar*
kacúcu *n indir.II* kind of manta ray, PM *pari duri* [Has a large fatty liver. Often modifies the head noun *manápa* 'manta ray'.]
kádibit *n indir.II* coast
-kádut *v.I* urge
-kaéloy *v.I tr.* roll
ka- galán *n dir.Ia* skull
kaháni *n indir.II* bat [Metsam dialect.]
kahát *n indir.II* bush
-kahaw *n dir.I* sago stem [Tonal specification unclear.]
kahéne *n indir.II* kind of bag, PM *noken* [See recording AM107 for information on how to make a noken.]
-káhi *v.I tr.* open shellfish with hands
kahlé *n indir.II* **1)** wing **2)** flipper (e.g. of a turtle)
-káho **1)** *v.I tr.* squeeze (especially citrus fruit) **2)** *intr.* be funny [The second meaning is idiomatic; if someone finds someone else funny, they will present them with a citrus fruit to squeeze.]
kaholó- *n dir.I* thigh
kahón *n indir.II* limestone cliff
-kahótol *v.I S=A* **1)** squeeze **2)** strangle **3)** peel fruit with thin skin [e.g. lansat, rambutan] **4)** massage
-káhu *v.I* turn over while sleeping
-káhul *v.I* tie and then wrap a rope around (e.g. a bundle of firewood)
kahúluy *n indir.II* roll, bundle
  -kahúluy *v.I* wring
-kahyála *v.IV intr.* be numb; have pins and needles
-kái *v.I* sail
kái- *n dir.I* head
  kai-lál *n.comp indir.II* kind of shrimp, PM *udang setan* [Has a large head. Often modifies the head noun *kapyáy* 'shrimp'.]
káin *n indir.II* rabbitfish [Siganus sp., Siganus argenteus, Siganus guttatus, Siganus doliatus. Often modifies the head noun *dún* 'fish'.]
-káin *v.I tr.* **1)** strip palm midrib or vine, e.g. to remove thorns **2)** remove lice
kája *n indir.II* kind of fish [Small, lives at the mouth of rivers. Similar to fish *gúit*. Has a small long mouth and glittering scales. Often modifies the head noun *dún* 'fish'.]
kajámpon *n indir.II* river bank
kajén *n indir.II* wall
-kájiw *v.I tr.* pierce
kajú- *n dir.I* Adam's apple
-kajúrun *v.I tr.* make something sink, drop something in water

kak *n indir.I* uncle [Kinship term: Mother's brother [MB]]
-kákal *v.IV S=A* be itchy, be itchy because of
kakápan *n indir.II* kind of bandicoot [Has a white tail; synonymous with *galáw*.]
kakára *n indir.II* cold chisel [Kind of tool used in forging to manipulate metal. Approximately 20cm long, shaped like a large nail with the pointed end flattened out. Once the metal is heated, the flattened end is held against the metal, and the head is hit with a hammer.]
kakés *n indir.II* offering [Either for guests, or a traditional *sadaká* offering to local guardian spirits, of cigarettes, areca nut, and so on.]
  -kakés *v.I* make an offering
kaklát *n indir.II* kind of shellfish, PM *bia kuku* [Often modifies the head noun *hájum* 'shellfish'.]
ka- kó- *n dir.Ia* throat
-kákor *v.IV intr.* be thin (not fat)
kakrók *n indir.II* problem
  -kakrók *v.I S=A* have a problem, quarrel with
kakúl *n indir.II* tool for scraping dried coconut flesh, PM *kukuran*
kákus *n indir.II* toilet
kalá- *n dir.I* testicles
kalabét *n indir.II* **1)** goanna [Metsam: *kàlábìt*] **2)** kind of sea cucumber [Often modifies the head noun *pimám* 'sea cucumber'.]
kalábya *n indir.II* crocodile fish [Often modifies the head noun *dún* 'fish'.]
-kalák *v.I* hang on back
kalál$_1$ *n indir.II* large crab
kalál$_2$ *n indir.II* invitation
  -kalál *v.I tr.* invite
kalálan *n indir.II* strand (of e.g. hair)
-kalám *v.I tr.* weed
kalamlú *n indir.II* scoop for removing water from the bottom of a canoe
-kalápi *v.I tr.* make curved
-kaláy *v.I intr.* spread legs [Has sexual connotations.]
kálayn *n indir.II* kind of nutmeg tree [Often modifies the head noun *áy* 'tree'.]
-kále *v.I* cut meat from bone
-kalép *v.I* lick
kalépe *n indir.II* gap [e.g., between planks of wood in a house]
-kálet *v.I tr.* open shellfish with a machete
káli *n indir.II* shit
kalí *n indir.II* large broad root, PM *bandar* [Of e.g. a *manjaw* tree.]
-káli *v.I tr.* **1)** make someone (e.g. a child) get out of a canoe when they don't want to; make someone or something descend when they don't want to **2)** depart, go [Takes a coreferent object pronoun when used reflexively.]

kálin *n indir.II* kind of shellfish, PM *bia matabulan* [The opening is closed off with a smooth white stone with a spiral on it; the flesh is edible. Often modifies the head noun *hájum* 'shellfish'.]
-kalít *v.I* cast net
-kalíw *n dir.I* tip
kalíw *n indir.II* village
-kálo *v.I* cut leaves [e.g. cut sago leaves to make a thatched roof.]
kálo *n indir.II* star
kalo-tási *n.comp indir.II* starfish [Possibly a calque from PM *bintang laut*.]
kalóbo *n indir.II* kind of tree, PM *kayu marsawa* [Often modifies the head noun *áy* 'tree'.]
-kalóko *v.IV* be incomplete || *sómber ne ankalóko* 'This machete is incomplete [e.g. the handle is missing]' (el.) || *bitik ne ankalóko* 'I am naked' [lit: 'My body is incomplete'] ||*yakolóko* 'I am very poor' (el.) [Note the metaphorical extension to 'poverty' when the subject is human.]
-kálown *v.I* rub eyes
-kálu$_1$ *v.I tr.* fold woven *lám* mat
-kálu$_2$ *v.I* peel (coconut)
kalúbu *n indir.II* rat
kalubu-rám *n.comp indir.II* bandicoot [*rám* not attested as an independent noun, but according to MW means something like 'wild'.]
kalúlu *n indir.II* roll-up cigarette
-kalulu *v.I* roll (a cigarette) [NB the difference in tonal specification between this and the nominal form.]
kálut *n indir.II* kind of vine [Has small thorns. Often modifies the head noun *wáli* 'vine'.]
kalút *n indir.II* part of an *óro* spear, PM *sangi-sangi*
káma *n indir.II* kind of tree, PM *kayu pinang hutan* [Often modifies the head noun *áy* 'tree'.]
-kamahál *v.IV* have cramp [e.g. from staying out in the rain for too long]
kamáma *n indir.II* chewed up pad of areca nut, betel vine, and lime
kamamúr *n indir.II* gravel
kamansán *n indir.II* blacksmith
-kamára *v.I tr.* tear
-kamát *v.IV* be tired
kamayó *n indir.II* fog
kámbowa *n indir.II* kind of sea cucumber, PM *teripang gosok* [Often modifies the head noun *pimám* 'sea cucumber'.]
kambóy *n indir.II* portable bed [cf. *tua* 'bed that is fixed to the ground'.]
-kamanín *v.I* busy
kámey *n indir.II* stolen thing
-kámey *v.I* steal
kámil *n indir.II* wooden stick for searching for lice

kamíti *n indir.II* cockroach [Metsam dialect.]
-kámje *v.I tr.* **1)** break **2)** round (cape, pier)
kamkáma *n indir.II* kind of shrimp, prawn, or lobster [Lives in rivers; large claws. Often modifies the head noun *kapyáy* 'shrimp'.]
kamnyán *n indir.II* kind of fish, PM *ikan sumasi kali* [Striped black and red. Often modifies the head noun *dún* 'fish'.]
kamnyát *n indir.II* animal
-kamoí *v.I* rub
-kamów *v.IV intr.* be mute
kamtát *n indir.II* paper
  kamtat-narów *n.comp indir.II* Bible
-kámtu *v.I tr.* break
kámtum *n indir.II* sapling
kámu *n indir.II* **1)** mosquito [Often modifies the head noun *kanyó* 'mosquito, sand fly']; **2)** kind of pigeon, PM *burung kumkum* [Often modifies the head noun *máni* 'bird'.]
kamú- *n dir.II* different generation in-law [Kinship term: Child's spouse [CSp]; Spouse's sibling's child's spouse [SpSCSp]; Spouse's parent [SpP]; Spouse's parent's sibling [SpPS].]
  kamu- mánsar *n dir.II.comp* father-in-law, grandfather-in-law [Kinship term: Spouse's father [SpF], Spouse's parent's father [SpPF].]
  kamu- bísar *n dir.II.comp* mother-in-law, grandmother-in-law [Kinship term: Spouse's mother [SpM], Spouse's parent's mother [SpPM].]
-kamúgum *v.I* crumple, crumble; destroy
kámuk *n indir.II* namesake [Can be used to mean 'namesake', or 'person that my name was given to'.]
  -hakámuk *v.I ditr.* give somebody the name of somebody else
-kamún *v.IV* be dirty from debris (e.g. sand, dust, or sawdust)
kamyám *n indir.II* kind of bird of prey, PM *elang merah* [Eats fish; white neck. Often modifies the head noun *máni* 'bird'.]
kanán *n indir.II* pus
kanáw *n indir.II* window [Archaic. Window of a building, or a hole through a rock: 'Itu tuan tanah punya jendela, dinamakan *kanáw* ' - 'That [the hole through a rock] is the earth spirit's window, called *kanáw* (MW, AM158 663 seconds)]
kaní *n dir.I* **1)** shell **2)** peel **3)** skin
kankólom *n indir.II* scorpion
kankónot *n indir.II* marsh [Metsam dialect.]
-kánol *v.I tr.* wake up
kansasér *n indir.II* kind of bag [Small woven bag used to hold areca nut, betel leaf, lime, and cigarettes. Now obsolete.]
-kánu *n dir.I* leaf
-kánum *v.I* **1)** glimpse **2)** spy on

-kanúy *v.I* strip || *nakatówn be nakanúy asi* 'He sat and he stripped them [the vines]...' [e.g. rattan, palm fronds to make brushes, etc.]
-kanyél *v.IV* be tough (areca nut)
kanyó *n indir.II* mosquito, sand fly
-káp *v.I/II* grab and hold onto something above (e.g. a tree branch) [Ambiguous between Class I and Class II membership.]
-kapá *v.I tr.* pull out; uproot (e.g. small trees)
kapá- *n dir.I* lung
-kapák *v.I tr.* open (bag)
-kapálin *v.I tr.* **1)** wake and lift (e.g. a child); rise from sleep **2)** uncover plate or glass
kapám *n indir.II* kind of fish, PM *ikan gabus mangi mangi* [Often modifies the head noun *dún* 'fish'.]
kápan *n indir.II* strand (of hair)
kapanaí *n indir.II* sheet (of paper)
-kapápar *v.IV intr.* be short (not tall)
kapár *n indir.II* kind of taro [Often modifies the head noun *káwia* 'taro'.]
kapára *n indir.II* trail [Left by e.g. footprints or broken twigs.]
-kapáw *v.I tr.* **1)** chop **2)** smash
-kápaw *v.I tr.* cover (food)
kapáy *n indir.II* axe
-kapé *v.I tr.* split firewood
-kápe *v.I tr.* split open a sago grub
kapéket *n indir.II* puddle
  kápeket-lo *n.comp indir.II* marsh
-kapéney *v.I* chip wood
kápi *n indir.II* saliva
  -kápi *v.I S=A* spit, spit something
  kapi-lómo *n.comp indir.II* tuberculosis
-kapíl *v.I tr.* roast, grill
-kápin *v.I* flick
-kapíri *v.I S=A* strip bark
kápit *n indir.II* pinch
  -kápit *v.I tr.* pinch
-kápla *v.I tr.* fry
-kápla *v.IV* exploding noise
-kápo *v.I tr.* peel with hands [e.g. banana]
kápo *n indir.II* whistle
  -kápo *v.I* whistle
-kapól *v.I tr.* unstick, pull off
kapólot *n indir.II* house spider
kapón *n indir.II* lid
  -kapón *v.I tr.* close lid

-kapów *v.I* **1)** *tr.* open **2)** *tr.* uncover mug or rice pot
kaprún *n indir.II* **1)** body hair **2)** feather
kapuk 1) *n indir.II* corner **2)** *n dir.I* bamboo joint
  kapuk-bít *n.comp indir.II* edge
kapukéy *n indir.II* aubergine
-kapuy *n dir.I* base (tree) [Tonal specification unclear.]
kapyá- *n dir.I* arm [Shoulder to fingers.]
  kapyá- hahis *n.comp dir.I* wrist
  kapyá- kapuk *n.comp dir.I* elbow
  kapyá- maton *n.comp dir.I* upper arm [Shoulder to elbow.]
  kapyá- ta *n.comp dir.I* lower arm [Elbow to wrist.]
kapyál *n indir.II* half a sago trunk [When the sago is being processed, the trunk is split lengthwise down the middle. The top half (*kapyál*) is removed and set aside for processing later; the bottom half (*ginya*) is processed first.]
kapyáy *n indir.II* shrimp, prawn (general)
kapyów *n indir.II* batch [A batch of sago, salt, sugar, or flour, contained in a pot or noken, or in a heap on a drying platform.]
kapyu *n indir.II* fruit
  -kápyu *v.IV* fruit
-kapyút *v.IV intr.* be short (not long)
karákam *n indir.II* sago oven lid
  -karákam *v.I* put lid on sago oven
-karákir *v.I* plan
karandáy *n indir.II* kind of manta ray, PM *pari batu* [Often modifies the head noun *manápa* 'manta ray'.]
karanú *n indir.II* scale (fish, reptile)
karáp *n indir.II* tunnel
kárapesa *n indir.II* chair [< Portuguese or Biak. Archaic.]
kararí *n indir.II* hole to bury things
-kárari *v.I* bury
-karáw *v.I S=A* **1)** reach inside, reach inside and touch [Specifically used to refer to reaching inside e.g. a window, a hole.] **2)** invade
karbayúk *n indir.II* stretcher
-káre *v.I* split sago trunk lengthwise [Thereby creating the two halves of a sago trunk, *ginya* (the bottom half) and *kapyál* (the top half).]
kári *n indir.II* kind of tree, PM *kayu bupasa* [Often modifies the head noun *áy* 'tree'.]
-kari *v.I tr.* **1)** pour **2)** spill
-kárijan *v.I* work [< Malay *kerja*]
-karími *v.I* **1)** clean **2)** brush **3)** scrub **4)** rub **5)** massage
kárin *n indir.II* stitch
  -kárin *v.I S=A* sew
-karírik *v.I* tickle
-káro *v.I* pull out

-károw *v.I* **1)** *intr.* leave by boat **2)** *tr.* push canoe
-karúru *v.I* push
-kása *v.I* separate
kasabábat *n indir.II* kind of spider [Has a poisonous bite. Lives on the ground. Tarantula?]
-kasága *v.I* divorce
kasagát *n indir.II* fork in branch
-kasál *v.I* strip (bamboo or wood)
kasán *n indir.II* fork in river
kasána *n indir.II* kind of tree, PM *kayu seman* [Leaves are used to make *kahéne* bags; see **AM107**. Often modifies the head noun *áy* 'tree'.]
kasanán *n indir.II* picnic seabream [Found in seaweed. Acanthopagrus berda. Often modifies the head noun *dún* 'fish'.]
kasáp *n indir.II* tongs [Made from bamboo.]
-kasáp *v.I tr.* hold with tongs
-kasárak *v.I tr.* tear
-kasáram *v.I tr.* break
kaséke *n indir.II* grasshopper
-kaséke *v.I tr* **1)** flatten **2)** open book
kásey *n indir.II* kind of shellfish, PM *bia kodok* [Often modifies the head noun *hájum* 'shellfish'.]
kasí *n indir.II* crab [Small crab, found in Mayalibit Bay.]
-kasóron *v.I* plug (a hole in something)
káso *n indir.II* obstacle
-káso *v.IV* obstruct
kasót *n indir.II* puffafish [Often modifies the head noun *dún* 'fish'.]
kásu *n indir.II* name that one uses to address other people who have been named after one's relative [For example, if I call person X as *mám* 'father', then I can refer to all the people named after person X as *mám kásu*; if I call person Y *núk* 'same sex-sibling', then I can refer to all the people named after person Y as *núk kásu*.]
-kásu$_1$ *v.I tr.* peel with knife [e.g. pineapple, mango, taro.]
-kásu$_2$ *v.I tr.* tap coconut tree in order to make *swán* palm wine
kásul$_1$ *n indir.II* open bay [A bay that is open to the sea, i.e. that has a broad mouth.]
kásul$_2$ *n indir.II* shove
-kásul *v.I* shove
-kásunder *v.I* bolt door
kasút *n indir.II* sago oven
-kásut *v.I* pick teeth [e.g., to remove food debris.]
kásyawa *n indir.II* kind of manta ray [Often modifies the head noun *manápa* 'manta ray'.]
kata *n indir.II* cape
káta *n indir.II* ladle

-káta *v.I* ladle, scoop
katalém *n indir.II* queenfish [Scomberoides sp. Often modifies the head noun *dún* 'fish'.]
-kataní *v.I* press
-katarán *v.I S=O* land (canoe)
katatéw *n indir.II* spear for catching sea cucumbers
katé *n indir.II* roof [Traditional thatched roof made from sago leaves.]
-katébel *v.IV S=A* be rigid, be sticking out of || *túlu pa ankatébel* 'The knife is sticking out, e.g. because it has been stabbed in a piece of wood' (el.)
-katétel *v.I* cut meat into small chunks
káteyn *n indir.II* sea urchin
-káti *v.IV* be splattered
katíli *n indir.II* tuber
-katimíl *v.I* pass by || *yakatimíl kata pon aluma* 'I pass by the cape at sea there' (el.)
kátin *n indir.II* stone [Metsam: *atin*]
katin-sapápa *n.comp indir.II* kind of white coral
kátit *n indir.II* grate in fire [The two metal poles above a hearth fire, used for grilling fish and putting pots and pans on.]
-kátiw *v.I tr.* untie; undress; let down hair
katógo *n indir.II* mountain ridge
-katól *v.I tr.* oppose
katóp *n indir.II* giant clam [Tridacna gigas. Often modifies the head noun *hájum* 'shellfish'.]
katoplatét *n indir.II* kind of shellfish, PM *bia matatuju* [There are seven holes around one edge of the shell. This is possibly a compound, cf. *katóp* 'giant clam' and *latét* 'sieve'. Often modifies the head noun *hájum* 'shellfish'.]
kátown *n indir.II* (sitting) position, place
-kátown *v.I intr.* sit [Also pronounced [-káton].]
-katu *v.I tr.* fold
-kátu$_1$ *v.I* fix (canoe)
-kátu$_2$ *v.I* let down rope, let down hair
-kátul *v.I* poke
kátut *n indir.II* **1)** mortar and pestle **2)** kind of container [Small tube for storing mashed up betel nut, which is fed to the elderly with a spoon. Now obsolete. See 79 - 125 seconds of recording AM192 for more information in Papuan Malay.]
-kátut *v.I S=A* grind
-katút *v.I* collide
kaúkuy *n indir.II* kind of shellfish [Often modifies the head noun *hájum* 'shellfish'.]
-kautép *v.I* hold
-káw *v.I/II tr.* **1)** scratch, scrape **2)** use an instrument (e.g. a stick or twig) to flick an object out of the fire [Ambiguous between Class I and Class II membership.]

kawá *n indir.II* border
-kawá *v.I* distribute land, divide land
káwa$_1$ *n indir.II* kind of seaweed [Long fronds, grows near the shore.]
káwa$_2$ *n indir.II* medicine
-kawágal *v.I tr.* open up a sago stem [e.g. for when processing sago.]
kawák *n indir.II* root
-kawanát *v.IV* be authentic
káwasa *n indir.II* **1)** group of people **2)** community
kawawí *n indir.II* something that is hanging
-káwawi *v.I S=O* hang || *anakáwawi* 'It hangs, it is hanging' (el.) || *yakáwawi ana* 'I hang it up' (el.)
-kawáy *v.I S=O* **1)** turn around; turn something **2)** retort
kawayrór *n indir.II* kind of shellfish, PM *bia kapak* [Often modifies the head noun *hájum* 'shellfish'.]
káwia *n indir.II* taro
káwil *n indir.II* kind of red fruit
káwra *n indir.II* kind of container [Traditional box made from 'daun tikar', approximately 4cm deep and 7cm wide. Used for storing powdered lime. Often patterned with dye extracted from local plants. Now obsolete. See 43 - 79 seconds of recording AM192 for more information in Papuan Malay.]
kawré 1) *n indir.II* rung of ladder **2)** *n dir.I* space between bamboo joints
kayáw *n indir.II* pig [Metsam: *ayaw*]
kaybílik *n indir.II* kind of shark, PM *hiw salip* [Often modifies the head noun *rúmun* 'shark'.]
-kayé *v.I tr.* heat someone or something
kayí *n indir.II* kind of large shellfish [Thin yellow shell; about the size of a small football. Edible. Often modifies the head noun *hájum* 'shellfish'.]
-káyl *v.I* clear charred debris away after a fire
-kaymúl *n dir.I* **1)** behind **2)** last
-káyow *v.IV* crooked
-káyt *v.IV* **1)** be abnormal (fruit) [For example, a banana that is ripe on the outside but unripe on the inside.] **2)** be bluish-black
kaytapíri *n indir.II* kind of machete with a wide and rounded blade
kay- té- *n dir.Ia* back (body)
kay- té- kabom *n.comp dir.Ia* backbone
keremkán *n indir.II* sea eel [Often modifies the head noun *dún* 'fish']
-ket *n dir.I* half [Tonal specification unclear.]
kéw *n indir.II* kind of tree, PM *kayu palaka* [Wood is used to build canoes. Often modifies the head noun *áy* 'tree'.]
kéy *n indir.II* eating bowl [Traditionally made out of the stems of sago.]
-kí *v.I/II S=A* reach inside bag, reach inside bag to look for [Ambiguous between Class I and Class II membership.]

kía *n indir.II* kind of puffafish [Edible. Often modifies the head noun *kasót* 'puffafish'.]
-kíkit *v.I* hold hands with a child
-kíl *v.I/II* dig [Ambiguous between Class I and Class II membership.]
kit *n indir.II* octopus
kitém *cardnum* one
  kitém kitém one by one
kmáp *n indir.II* amaranth [Typically only attested with the noun class marker *su*; but it is possible to separate this element. Note the onset /km/ of the second element is unattested elsewhere. Possibly a borrowing from Biak? Often modifies the head noun *su* 'leafy vegetable'.]
kó *n indir.II* kind of shellfish, PM *bia darah* [Lives in the mud, contents look like blood. Often modifies the head noun *hájum* 'shellfish'.]
-kó *v.I/II S=A* forge, forge something [Ambiguous between Class I and Class II membership.]
kodón *n indir.II* attic
kók *n indir.II* snake [Metsam dialect.]
ko- ká- *n dir.Ia* limb
  ko- ká- bat *n.comp dir.I* leg
  ko- ká- hey *n.comp dir.I* calf
  ko- ká- kapuk *n.comp dir.I* knee [Often shortened to [kokapuk].]
  ko- ká- nyai *n.comp dir.I* 1) palm of hand 2) sole of foot
  ko- ká- pon *n.comp dir.I* arm
  ko- ká- ti- *n.comp dir.I* finger
  ko- ká- ti- kabe *n.comp dir.I* fingernail
kokánu *n indir.II* leaf
kolóm *n indir.II* sandal [Possibly borrowed from Tidore or Malay. Sole was made out of wood; a piece of rubber was used as a strap. Now obsolete.]
konkon *n indir.II* kind of sea cucumber [Tonal specification unknown. Often modifies the head noun *pimám* 'sea cucumber'.]
kóp *n indir.II* **1)** twig **2)** branch
kor *n indir.II* mangrove tree [Often modifies the head noun *áy* 'tree'?]
koránu *n indir.II* king, queen [Archaic.]
kórben *n indir.II* dragon [See, for example, recordings AM031 and AM100 for local stories about dragons.]
korpák *n indir.II* kind of owl [Metsam dialect.]
-kóryay *v.I* mess around
kót *n indir.II* kind of tree [The wood burns for an extremely long time. Often modifies the head noun *áy* 'tree'.]
kow *n indir.II* ashes [Synonymous with *lagaláp* 'ash'.]
kówk *n indir.II* hooded butcherbird [Lives in the gardens. Black and white plumage. Cracitus cassicus? Often modifies the head noun *máni* 'bird'.]
kóya- *n dir.III* footprint

krís *n indir.II* kind of tree [Often modifies the head noun *áy* 'tree'.]
kuábe *n indir.II* crocodile [Metsam dialect.]
kún *n indir.II* charcoal [Also pronounced [kówn].]
kúru *n indir.II* sago bucket [Traditional bucket made out of sago stems and used in sago production. Obsolete; nowadays plastic buckets are used.]
kurupák *n indir.II* Papuan frogmouth [Often modifies the head noun *máni* 'bird'.]
kút *n indir.II* coconut [Also pronounced [kówt]; Metsam: *kòwt*.]
-kút *v.I tr.* cut [The existence of the reduplicated form *kakút* suggests that this root was once Class III *-kút*.]
  kakút *n indir.II* **1)** piece **2)** decision [Unexpected reduplication of Class I *-kút* 'cut']
kwár *adj.vIV intr.* old [Can only take an inanimate subject.]
kyá *n indir.II* kind of fish, PM *ikan garopa* [Metnyo dialect. Often modifies the head noun *dún* 'fish'.]
-kyém *v.I/II S=O* become one, come together; make people or things come together || *tutakyém tutne* 'We two come togther' (el.) [Ambiguous between Class I and Class II membership.]
-kyéw *v.IV* be very early in the morning [Approximately 3am.]

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-la *v.III* sharpen
-lá$_1$ *v.III intr.* swim [Specifically for humans and land animals. Pronounced [hlá] by some speakers.]
-lá$_2$ *v.IV tr.* be like || *imále pa angla lúkum* 'Its sweetness is like a langsat fruit' (el.)
lába *n indir.II* kind of fruit, PM *labu* [Large fruit, yellow skin and red flesh when ripe.]
labét *n indir.II* wound
  -labét *v.IV* be wounded
lablú *n indir.II* kind of sea urchin [Has short thorns.]
labrán *n indir.II* wire
lábut *n indir.II* moss
  labut-tási *n.comp indir.II* algae that grows in the sea
  labut-welo *n.comp indir.II* algae that grows in rivers
ladán *n indir.II* tattoo [Ambel people often tattoo their names into their forearms.]
lagaláp *n indir.II* ash [Synonymous with *kow* 'ash'.]
láhe *cardnum* ten
lahén *n indir.II* part of a spear [The rope on a *halák* turtle spear.]
-lál *adj.vIV intr.* be big
-lála *v.I/IV* *** be worried [Ambiguous between Class I and Class IV membership.]

lálam *n indir.II* kind of tree, PM *kayu waringin* [Small, grows near the shore. Often modifies the head noun *áy* 'tree'.]
lálambu *n indir.II* kind of snake [Approximately 1m in length. White. Very poisonous; poison paralyses victims. Often modifies the head noun *lemát* 'snake'.]
lálay *n indir.II* kind of leaf, PM *daun tikar* [Often modifies the head noun *rómbyon* 'kind of leaf'.]
lalé *n indir.II* fly [Metsam dialect.]
laléle *n indir.II* mouth of a bay
  laléle pita *n indir.II* mouth of a bay
laléw *n indir.II* lightning
  -lálew *v.IV* be dazzling
-lálik *v.IV intr.* be tall
lalím *n indir.II* expert [Archaic.]
láliw *n indir.II* **1)** ginger [Used in pig hunting: ginger is blown up the dogs' noses, as it is believed that this enables them to pick up the scent of the pig.] **2)** kind of snake [Approximately 2m in length. Yellow. Lives on the ground, but can climb trees. Poisonous. Often modifies the head noun *lemát* 'snake'.]
laló *n indir.II* sago settlement [Temporary settlement for harvesting sago.]
lálo *n indir.II* thunder
lalón *n, n dir.I* vein
lalóy *n indir.II* wave (the waves at sea, rather than breakers; see also *tápo*)
-lalóy *v.I/II tr., ditr.CoCl* wait for something to happen || *yalalóy mew aya mimwáy mapal mansope ta* 'I will wait for you until you come back from the side [of the bay], then we will leave' (el.) || *yalalóy we ne amári rín* 'I am waiting for this water to be hot' (el.) [Ambiguous between Class I and Class II membership.]
lám *n indir.II* woven mat [Traditional woven mat, coloured with dyes derived from flowers; PM *tikar*.]
lámat *n indir.II* sauce, broth
lamlám *n indir.II* scoop for removing water from the bottom of a canoe [Archaic. The former settlement of Lamlam on Fofak Bay took its name from this kind of scoop. According to local history, two men from the Fiay clan put out a big fire that was started in the village by two men from the Wakaf clan, using only these scoops to carry water to extinguish the fire. See AM021, AM033, AM125.]
lán *n indir.II* **1)** fly [Metnyo dialect.] **2)** kind of bee/wasp [So-called because it looks like a fly. Often modifies the head noun *tápi* 'wasp'.]
langín *n indir.II* traditional song [See e.g. AM184.]
lanyán *n indir.II* day
  lanyán wané *n indir.II* today
lánye *n indir.II* kind of tree, PM *kayu susu* [Often modifies the head noun *áy* 'tree'.]
lányun$_1$ *n indir.II* late afternoon
lányun$_2$ *n indir.II* kind of fish, PM *ikan sumasi laut* [Often modifies the head noun *dún* 'fish'.]

láp *n indir.II* fire
laplíp *n indir.II* gust of wind [Possibly onomatopoeic.]
laptín *n indir.II* hearth
láte *n indir.II* iron
latét *n indir.II* sago sieve
latéy- *n dir.I* liver
-láw$_1$ *v.III* howl
-láw$_2$ *v.IV* be far
lawa *adv* nearly
lawát *n indir.II* kind of leaf, PM *daun tikar* [Often modifies the head noun *rómbyon* 'kind of leaf'.]
lawé *n indir.II* thread
láwiata *n indir.II* calm season [On the north coast of Waigeo, calm season is during south wind season, i.e. around June - October.]
-lawiáy *v.IV* be calm (sea, weather)
lai- hun *n dir.I* waist
láym *n indir.II* sago funnel [Made from the stem of a sago palm.]
láyn *n indir.II* sand
  láyn-bit *n.comp indir.II* beach [Synonymous with *láyn sarabit*.]
  láyn-pon *n.comp indir.II* packed sand
  láyn-sarabit *n.comp indir.II* beach [Synonymous with *láyn bit*.]
láynta *n indir.II* sun [Metsam: *làyntàgí*. Historically, the Metsam form probably contained the element *tají* 'eye' and possibly an element derived from *lanyán* 'day'. The present-day Metnyo form *láynta* is presumably a truncation of this former compound.]
layntatopón *n indir.II* afternoon [Metsam: *làyntàtútūt*.]
láyntohana *adv* a few days ago
láyntopana *adv* yesterday
-lé *v.IV* be perfect
-léa *v.IV* be different || *sinahasal, sana angléa, sana angléa* 'They are different, one is different from the other' (el.)
-lél *v.IV S=A* be glowing (fire), shine glowing light on
lelá *n indir.II* table [Possibly a compound, containing the form *lén* 'thing'.]
lemári *n indir.II* kind of snake [Approximately 2-3m in length. White with a black head. Extremely poisonous. If you touch its scales, it feels as if you've received an electric shock. Often modifies the head noun *lemát* 'snake'.]
lemát *n indir.II* snake [Metnyo dialect.]
  lemat-tási *n.comp indir.II* sea snake
lé(n) *n indir.II* thing
  le-kamún *n.comp indir.II* rubbish
  le-lót *n.comp indir.II* gun
  le-tálim *n.comp indir.II* weapon
lenkábo *n indir.II* earring [Possibly a compound, containing the form *lén* 'thing'.]

lenkawáy *n indir.II* crocodile [Metnyo dialect.]
-lép *v.I/II* cut [Ambiguous between Class I and Class II membership.]
li *n indir.II* outside
-ligí *v.I tr.* look for
likahyét *n indir.II* sash [Traditional dance and ceremonial wear. Now obsolete.]
líl *n indir.II* landwards direction
lim *cardnum* five
limpón *n indir.II* road
lisosráy *n indir.II* neck decorations [Worn by women during traditional dance ceremonies. Made from beads. Now obsolete.]
lo *n indir.II* place
lók *n indir.II* cage
loki *n* little bit
-lóko *v.IV intr.* be boiling
-lókot *v.I* **1)** measure **2)** taste **2.1)** feel (metaphorical extension of 'taste' meaning)
-lóm *v.I/II* fish with spear at night, PM *balobe* [Ambiguous between Class I and Class II membership.]
lómo *n indir.II* blood
  -lómo *v.IV* bleed
  lomo-bus *n.comp indir.II* kind of sickness, PM *dara puti* [*bus* not attested as an independent word.]
  lomo-máy *n.comp indir.II* scab
lóp *n indir.II* grave [Specifically, the hole dug for the corpse.]
  lóp-pon *n.comp indir.II* covered grave
-lót *v.IV* be noisy
low *cardnum* two
lu- *n dir.III* shadow
  lu- talay *n dir.I* front (body)
lúbut *n indir.II* bundle that has been tied together [e.g. firewood, a brush made out of palm fronds.]
lúkum *n indir.II* langsat [Lansium parasiticum]
lúl *n indir.II* seawards direction
lún *n indir.II* sail
lúnte *n indir.II* steps, ladder

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má- *n dir.II* father [For non-1sg or 2sg possessors. Kinship term: Father [F]; Father's brother [FB]; Mother's sister's husband [MZH]. When possessed, appears to be shifting from taking direct possession to taking indirect possession. See §7.2.2.]

ma *n indir.II* kind of bird of prey, PM *elang hutan* [Kind of bird of prey that lives in the jungle. Eats chicks, snakes, frogs, other birds. May cover e.g. Pacific baza (Aviceda subcristata). Often modifies the head noun *máni* 'bird']
-mábayn *v.IV intr.* be empty
  -hamábayn *v.III tr.* empty
mabót *n indir.II* sweat
  -mabót *v.IV intr.* be sweaty || *yamabót* 'I am sweating' (el.) | *we pa amabót* 'The water is sweating' [i.e. there is condensation] (el.)
-mabóbo *v.IV intr.* be trembling
mábu *n indir.II* majority || *imábu pa líy kayáw hey, mét sia líy kayáw nun po* 'Most [people] eat pig, there are some who don't eat pig' (el.)
  -mábu *adj.vIV S=O* **1)** be many **2)** make something many
-mabyála *v.IV intr.* be paralysed? [Feeling one gets when one is bitten by a millipede or poisonous fish.]
macát *n indir.II* coward [cf. *-mcát* 'afraid'.]
mácu *n indir.II* **1)** servant **2)** term of endearment for younger males
macúbey *n indir.II* human being [Probably a compound containing the forms *mácu* 'servant' and *bey* 'sago'.]
mádu *n indir.II* breeze
-magaláy *v.IV intr.* be withered
-magaléyn *v.IV* be warm
-mágasa *v.I tr.* salt
magáyol *n indir.II* kind of vine [Grows up the trunk of coconut trees; leaves are split. Often modifies the head noun *wáli* 'vine'.]
-mági *v.IV S=A* be glowing (candle), shine glowing light on
magín *n indir.II* politeness
-mágin *v.I S=A* be polite; be polite to
mahá *adj.vIV intr.* grey
mája *n indir.II* kind of shark, PM *hiw lontar* [Often modifies the head noun *rúmun* 'shark'.]
majáli *n indir.II* truth
májo *n indir.II* dew
-majúlu *v.IV intr.* be smooth
-majúrun *v.IV intr.* **1)** be sinking **2)** be drowning
-mákat *v.IV intr.* be weak
mákay *n indir.II* child [Not a kin term. Can be used to refer to anyone younger than oneself.]
  makay-ásu *n.comp indir.II* adopted child
  makay-awák *n.comp indir.II* orphan
  makay-gul *n.comp indir.II* baby
  makay-úpu *n.comp indir.II* adolescent
mál *n indir.II* kind of loincloth [Made from tree bark. Obsolete.]

-malá *v.IV intr.* be blind | | *tajik ne amalá* 'I am blind' [Most frequently attested in this body part expression, but also grammatical with an animate subject.]
-malaí *v.IV* **1)** *intr.* be bland **2)** *tr.* be bored | | *gak amalaí i* 'I'm bored of him.' [Only attested in this body-part expression; cannot take an animate subject.]
-malák *v.I tr.* lie down, lie something or someone down | | *yamalák ine* 'I lie (myself) down' (el.)
-malámnya *v.IV* be crumbly
maláw 1) *adj.vIV intr.* green **2)** *n indir.II* kind of frog
mále *adj.vIV intr.* sweet
malélen 1) *adj.vIV intr.* multicoloured **2)** *n indir.II* kind of manta ray [Lives in river mouths. Yellow/white/black. Often modifies the head noun *manápa* 'manta ray'] **3)** *n indir.II* kind of cuscus, PM *kuskus pohon* [Often modifies the head noun *tamcám* 'cuscus'.]
malíli *n indir.II* ant
-málin *v.IV* be drifting, floating
  -hamálin *v.I tr.* make something float
málkabyalat *n indir.II* kidney [Alienable.]
-malólo *v.IV* be straight (wood)
malsándia *n indir.II* loincloth [Traditional male dance and ceremonial wear. Reaches to the floor in front, knee-length at back. Now obsolete.]
-malúlun *v.IV* be noisy (e.g. machine)
málup *n indir.II* kind of fish, PM *ikan bandeng* [Often modifies the head noun *dún* 'fish'.]
mám *n indir.II* father [For 1sg or 2sg possessors. Kinship term: Father [F]; Father's brother [FB]; Mother's sister's husband [MZH]. When possessed, appears to be shifting from taking direct possession to taking indirect possession. See §7.2.2.]
  mam-péy *n.comp indir.II* **1)** step-father [Mother's husband [MH].] **2)** adopted father
mamá *n indir.II* reef
-mámbayn *v.IV intr.* be gone, be missing, be not there
mambepám *n indir.II* headdress [Traditional male headdress worn at dance ceremonies. Made from bird of paradise feathers. Now obsolete.]
mambokím *n indir.II* son-in-law [Kinship term: Daughter's husband [DH].]
mambráp *n indir.II* kind of turtle [Approximately 30cm across. Has small eggs. Floats in the sea. Often modifies the head noun *hín* 'sea turtle'.]
mambrí *n indir.II* hero [< Biak]
mambuárak *n indir.II* kind of shrimp, PM *udang bambu* [Blue, has a large tail. Often modifies the head noun *kapyáy* 'shrimp'.]
maméy *n indir.II* **1)** brain **2)** marrow
mámin *n indir.II* kind of fish, PM *ikan mamin* [Probably a borrowing < PM. Often modifies the head noun *dún* 'fish'.]
-mámo *v.I* talk nonsense
-mamón *v.IV intr.* be deep

mampápyar *n indir.II* bridge
mámpi *n indir.II* kind of fish, PM *ikan sua* [Metnyo dialect.]
-mámpram *v.I intr.* not want to go home
mamprék *n indir.II* wild duck [Often modifies the head noun *máni* 'bird'.]
-mán *v.IV S=O* be dry (food), dry (food)
mán *n indir.II* **1)** man **2)** male **3)** kind of mangrove tree [Has long fruit. Often modifies the head noun *kor* 'mangrove tree'.]
man-báhon *n.comp indir.II* infertile male
manápa *n indir.II* manta ray
-manáw *v.I* cough
mandawám *n indir.II* Blyth's hornbill [Rhyticeros plicatus. Often modifies the head noun *máni* 'bird'.]
-mandawán *v.IV* be bleeding from the nose
mandemúr *n indir.II* kind of shark [Doesn't have teeth. Often modifies the head noun *rúmun* 'shark'.]
mandép *n indir.II* cloud
-máne$_1$ *v.IV intr.* be tall
-máne$_2$ *v.IV* be light (weight)
mangín *n indir.II* freshwater turtle
máni$_1$ *n indir.II* **1)** bird **2)** kind of manta ray [So-called because it looks like a bird. Often modifies the head noun *manápa* 'manta ray'.]
mani-lál *n.comp indir.II* cassowary
mani-lál mbun i *idiom* epileptic fit [Lit: 'A cassowary hits/kills him.']
máni$_2$ 1) *adj.vIV intr.* yellow **2)** *n indir.II* kind of bee/wasp [Has a painful sting. So-called because of its yellow colour. Often modifies the head noun *tápi* 'wasp'.]
mánil *n indir.II* lime
-manjá *v.I tr.* spoil (child)
mánjangan *n indir.II* deer [Not native to Waigeo, but known on the Bird's Head mainland.]
mánjaw *n indir.II* kind of tree [Often modifies the head noun *áy* 'tree'.]
mankabrán *n.prop* morning star
mankankán *n indir.II* kind of bird of prey [Often modifies the head noun *máni* 'bird'.]
mankaparáran *n indir.II* kind of snake, PM *ular patola kecil* [Often modifies the head noun *lemát* 'snake'.]
mankensús *n indir.II* kind of kingfisher [Lives on the coast. Small, white neck, blue wings. Todiramphus saurophagus? Often modifies the head noun *máni* 'bird'.]
mankirió *n indir.II* kind of brushturkey, PM *burung maleo* [Possibly Waigeo brushturkey, Aepypodius bruijnii. Often modifies the head noun *máni* 'bird'.]
mankombón *n indir.II* kind of bird [Small, lives in mangroves. Often modifies the head noun *máni* 'bird'.]
-mánkwan *v.IV* be long [e.g. fishing line]

mankwáy *n indir.II* fruit bat [Metnyo dialect. Borrowing < Biak? Often modifies the head noun *máni* 'bird']
mánkyaw *n indir.II* kind of frog [Small frog, lives in grass.]
-manów *v.IV S=O* be moving in one spot [e.g. move body around]; move something in one spot
mánsar 1) *n indir.II* old man, respected man **2)** *n indir.I* husband
mansawándum *n indir.II* starfish
mánsyan *n indir.II* widower
mánu *n indir.II* snot
-mánu *v.IV* be snotty
-mánun *v.I intr.* groan while feverish
manyál *n indir.II* dream [Cf. *-mnyál* 'dream (v.)'.]
manyán *n indir.II* incense [Traditionally made from the bark of a tree; now obsolete. Nowadays, bought from shops in town.]
-maó *v.IV intr.* be long [e.g. a piece of wood.]
marakák *n indir.II* armlet [Woven from vine and worn on the upper arm. Worn by men at traditional dance ceremonies. Now obsolete.]
marámuk *n indir.II* blanket
maráp *n indir.II* melinjo [Kind of leafy vegetable, Gnetum gnemon. Often modifies the head noun *su* 'leafy vegetable'.]
-marápam *v.IV* be fixed
marapi *n indir.II* embers
-márapo *v.IV intr.* be wide
-hamárapo *v.III tr.* widen
márarat *n indir.II* crisis [< Malay *melarat*]
-márarat *v.I* be in crisis
mararat-anán *n.comp indir.II* famine
marása *n indir.II* kind of shrimp, PM *udang halus* [Used to make 'terasi' shrimp paste. Often modifies the head noun *kapyáy* 'shrimp'.]
-marasé *v.IV intr.* be slippery [When taking a human subject, this means the person's feet are slippery, e.g. *yamarasé* 'My feet are slippery.']
-marási *v.IV intr.* be thin (not thick)
-maratí *v.I* understand [Archaic, < Malay *mengerti*.]
máre$_1$ *n indir.II* kind of tree, PM *kayu matowa* [Has edible fruit. Often modifies the head noun *áy* 'tree'.]
máre$_2$ *adj.vIV intr.* ripe
-maré 1) *v.IV* be fine (e.g. fine sand) **2)** *n indir.II* sand fly [Often modifies the head noun *kanyó* 'mosquito, sand fly']
mári 1) *v.IV S=A* be hot, be hot on **2)** *v.IV* be spicy **3)** *v.IV intr.* be angry || *nyáik ne amári* 'I am angry.' [Only attested with this sense in this body part expression.] **4)** *v.IV intr.* be rude || *nyáik ne amári hey* 'I am rude.' [Only attested with this sense in this body part expression.]
-hamári *v.III tr.* re-heat food

-márin$_1$ *v.IV* be near
-márin$_2$ *v.I S=A* be happy; like
marisán *n indir.II* chilli
mármar *n indir.II* kind of seagull [Black plumage, forked tail. Often modifies the head noun *máni* 'bird'.]
-maroków *v.I S=A* be angry; scold [Often realised as [-marków].]
-maróroy *v.IV* be hanging
máru *n indir.II* kind of sago palm [Doesn't have thorns. Often modifies the head noun *bey* 'sago palm'.]
-marúm *n dir.I* stalk of a coconut
marúr *adj.vIV intr.* brown
masáhar *n indir.II* rain that seeps inside a building or is blown in through a window
masámar *n indir.II* kind of forest flower
-masáram *v.IV intr.* be broken [Used to refer to fishing nets, machines, etc.]
-masáy *v.IV intr.* be broad
-masén *v.IV S=A* be irritating or itchy (e.g., a plant); be irritating on
másí *n indir.II* illness [cf. *-ámsi* 'sick']
  masi-tápran *n.comp indir.II* kind of sickness, PM *penyakit nenas* [Makes the legs come up in little bumps like the skin of a pineapple, which are very itchy; can be fatal to children.]
-másí *v.I/II S=O* be tickled; tickle [Ambiguous between Class I and Class II membership.]
-másil *v.IV intr.* be hungry || *nyáik ne amasil* 'I am hungry.' [Only attested in this body part expression.]
-másin *v.IV S=O* be salty, salt
-másul *v.IV* be narrow [Archaic.]
-masúru *v.IV* be straight (e.g. fishing line)
-másut *v.IV S=A* be wet, be wet on
-mát 1) *v.III intr.* die [Metnyo dialect: *mnát*] **2)** *v.I tr.* turn off, extinguish || *nyamát láp lupa!* 'Extinguish the fire!'
  mamát *n indir.II* death [Reduplication.]
-matáli *v.IV intr.* be fatty, greasy
-matálo *v.IV intr.* be thick
matém *adj.vIV intr.* black
matén *n indir.II* **1)** homeland **2)** air **3)** world
máto *n indir.II* plain
matólon *n indir.II* honesty [cf. *-mtólon* 'upright, correct'.]
-matón *v.IV intr.* be , not hungry || *nyáik ne amatón* 'I am full, I am not hungry.' [Only attested in this body part expression.]
máy *quant* more than || *kalíw wane macu asáw láhe lim may* 'In this village, there are more than fifty five households' (el.)
máy *n indir.II* leftovers
-máy *adj.vIV intr.* be cooked

-máy *v.I S=O* be embarrassed; embarrass someone
mamáy *n indir.II* **1)** embarrassment gentials [Unexpected reduplication from Class I *-máy*; this meaning may be a calque on Indonesian *kemaluan* 'genitals'.]
-mayál *v.I* sell [Synonymous with *-wop* 'sell'.]
mayé *n indir.II* disease
máyun *n indir.II* shade
-mcát *v.I S=A, CoCl* afraid || *yamcát námju* 'I'm afraid he will drown' (el.) || *yamcát i* 'I'm frightened of him/her' (el.)
-mdól *v.IV intr.* fall
amdól *n indir.II* fall
me *n indir.II* aibika [Kind of leafy vegetable. Abelmoschus manihot. Often modifies the head noun *su* 'leafy vegetable'.]
-me *v.IV intr.* **1)** be shallow **2)** be dry
-mér *v.I/II* strike [Ambiguous between Class I and Class II membership.]
mésel *n indir.II* cement
mé(t) 1) *n indir.II* person **2)** *n indir.I* comrade **3)** *n indir.I* boyfriend/girlfriend
met-akáy *n.comp indir.II* secretary
met-asíat *n.comp indir.II* adult
met-harárur *n.comp indir.II* sorceror
met-kái *n.comp indir.II* leader
met-kapów *n.comp indir.II* guard
met-li *n.comp indir.II* foreigner
-mi *v.IV* be the same || *ami tu lúkum* ÂťIt's the same as a lansat fruit' (el.)
míl *adj.vIV intr.* sour
mílik *n indir.II* oil
-min *v.IV* **1)** be lost || *niya sandal pa amin to* 'His sandals are lost' (el.) **2)** be dead (polite form) [When used with a human subject.]
-mín *v.IV S=A* be lit, light up
mínki *adj.vIV intr.* small
míy$_1$ *n indir.II* rain [Metsam: *mey, mèí*]
míy$_2$ *n indir.II* kind of tree [Traditionally used to make *sankóy* loincloths. There are apparently people who now live on Batanta who once live in the Kawe islands in west Waigeo. They moved to Batanta in the hopes of finding more *míy* trees with which to make loincloths. Often modifies the head noun *áy* 'tree'.]
mnát *n indir.II* strength (things) || *meja ne i-mnát pa ikoka ne* 'This table's strength is its legs'.
-mnát *v.IV intr.* be strong (thing) [When used with an animate subject, the meaning becomes something like 'endure', e.g. *yamnát lone to* 'I am not moving, I am staying here.']
-mnów *v.IV* be clear (e.g. water)
-mnyál *v.I/II S=A; CoCl* dream, dream about something [Ambiguous between Class I and Class II membership.]
-mnyám *v.I* chew

mnyáran *n indir.II* diligence
  -mnyáran *v.I S=A* **1)** be hard-working **2)** be enthusiastic about
  -mnyaran po *v.I S=A* be lazy, be lazy regarding [There is no separate lexeme for 'lazy'.]
-mnyát *v.IV S=O* **1)** be quiet || *kalíw ne ankimnyát* ÂťThis village is quiet' (el.) **2)** quieten || *yamnyát ine* 'I quieten myself' (el.) [Synonymous with *-hatáput* 'quiet'. Takes a coreferent object pronoun when used reflexively.]
-mnyé$_1$ *v.IV S=A* be bright, brighten
  amnyé *n indir.II* dawn
-mnyé$_2$ *v.IV* be clear of weeds
-mnyó *v.IV intr.* be soft (food, wood)
mo *n indir.II* **1)** current **2)** tide
-mó *v.IV intr.* **1)** be faint **2)** be dizzy || *tajik ne amó* 'I am dizzy, I faint.' [Only attested in this body part expression.]
món$_1$ *n indir.II* cursed place
món$_2$ *n indir.II* kind of tree, PM *kayu bintangor pantai* [Often modifies the head noun *áy* 'tree'.]
-món *v.IV* be heavy [Metsam dialect: *mawón*]
-mondá *v.IV* not have any bait (of fishing hooks)
móro *n indir.II* wind
morúr *n indir.II* north wind
  morur-máce *n.comp indir.II* north-west wind
-mós *v.IV intr.* **1)** be easy **2)** be prepared
mót *n indir.II* kind of fish, PM *ikan garopa* [Metsam dialect. Often modifies the head noun *dún* 'fish'.]
-mów *v.IV* be noisy (rain)
-mói *v.I/II* swallow [Ambiguous between Class I and Class II membership.]
-msál *v.I/II* lost [Possibly historically contained the form *-sál* 'wrong'. Ambiguous between Class I and Class II membership.]
-msám *v.IV* be snagged
-mséw *v.I/II tr., CoCl* not want [Ambiguous between Class I and Class II membership.]
-msínit *v.I/II tr.* reject [Ambiguous between Class I and Class II membership.]
-msú *v.IV* be muddy
-msúkul *v.IV* be wrinkled
-msúy *v.IV intr.* feel cold [Cannot take an inanimate subject.]
-mtén *v.I/II tr.* name [Ambiguous between Class I and Class II membership.]
-mtín$_1$ *v.IV* spit (fire) [e.g. when fat falls in the flames]
-mtín$_2$ *v.IV* *** wheeze || *ini béle pa nyái ne amtín* 'His cousin was wheezing.' [Used in a body part expression.]
-mtólon *v.IV intr.* **1)** be upright [Inanimate or animate subject.] **2)** be correct [Animate subject.] **3)** have integrity [Animate subject.] **4)** be honest [Animate subject]

-mtow *v.IV intr.* **1)** be tough **2)** be hard **3)** be brave || *nyáik ne amtow* 'I am brave.' [Only attested with this sense in this body part expression.]
-mtúm *v.IV* grow (plants) || *ido bút lanyán kitúl ido angkibe áysu, ankimtúm ido angkibe áysu* 'So when the third day broke, it had become a flower, it had grown and it had become a flower.'
mú *n indir.II* low tide
-mú *v.I intr.* beachcomb
múk *adj.vIV intr.* unripe
múl *n indir.II* descendents
mul *n indir.II* inwards direction
mun *n indir.II* **1)** season (fruit) **2)** seasonal fruit (e.g. mango, lansat, rambutan, jambu, pineapple, jackfruit)
-múr 1) *n dir.I* seed **2)** *n indir.II* a breadfruit that has already disintegrated, leaving only its seeds
mútel *n indir.II* marble
mútika *n indir.II* pearl
mútum *n indir.II* guardian spirits of place [See Appendix A for more on *mútum* spirits.]
myáran *n indir.II* diligent person [cf. *-mnyáran* 'be diligent'.]

N n

ná *n indir.II* spear [Has a single metal head.]
na *n indir.II* weather
-nábat *v.IV S=A* creep, creep onto (e.g. vines)
-nabéblen *v.IV* **1)** dazzle || *anabéblen* 'It is dazzling' (e.g. the light from a mirror) (el.) **2)** reflect
-nabít *v.IV* be catapulted [e.g. when one steps on one end of a stick and it flips up.]
-naháta *v.IV intr.* be located
-naholó *v.IV* infected [Cannot take an animate subject.]
-nakérep *v.IV* be clamped
naló *n indir.II* sky
nán *n indir.II* kind of tree, PM *pohon oka* [Grows at a high altitude and has very wide leaves. Often modifies the head noun *áy* 'tree'.]
-nán *v.IV S=A* be burning, burn (fire)
nankarów *n indir.II* kind of anchovy [Often modifies the head noun *dún* 'fish'.]
-nankyarán *v.IV* echo
-nanyúy *v.IV* **1)** be dark **2)** be cloudy
-narów *v.IV* **1)** be clean **2)** be sunny
-nát *v.I/II* send [Ambiguous between Class I and Class II membership.]

náy *n indir.II* kind of anchovy-like fish, PM *puri* [Often modifies the head noun *dún* 'fish'.]
-náy *n dir.I* seedling
-nayár *v.IV* stretch over a long distance (of land boundaries)
-ném *v.I/II* weave, plait [Ambiguous between Class I and Class II membership.]
nén *n indir.II* mother [For 1sg and 2sg possessors. Kinship term: Mother [M]; Mother's sister [MZ]; Father's brother's wife [FBW].]
nen-péy *n.comp indir.II* **1)** step-mother [Father's wife [FW].] **2)** adopted mother
ník *n indir.II* twister
now$_1$ *n indir.II* house [cf. Matbat *nu*^{3} 'village', Ma'ya *'pnu*^{3} 'village']
now-gélet *n.comp indir.II* close family
now-gu *n.comp indir.II* room
now-kabóm *n.comp indir.II* gecko [Kind of gecko that lives indoors.]
now-narów *n.comp indir.II* church
now-papór *n.comp indir.II* house erected over a grave
now-pyón *n.comp indir.II* shelter [Made with sago leaves. See 742 - 850 seconds of recording AM189 for more information in Papuan Malay about local building techniques.]
now$_2$ *n indir.I* opposite-sex sibling [Kinship term: Male ego's sister [EmZ]; Female ego's brother [EfB]; Male ego's father's brother's daughter [EmFBD]; Female ego's mother's sister's son [EfMZSo].]
-nów *v.I/II* sift sago [Ambiguous between Class I and Class II membership.]
nú- *n dir.II* same-sex sibling [Kinship term: Male ego's brother [EmB]; Female ego's sister [EfZ]; Male ego's father's brother's son [EmFBSo]; Female ego's mother's sister's daughter [EfMZD].]
-nut *v.IV intr.* be clever || *kabrak ne anut* 'I am clever.' [Only attested in this body-part expression; cannot take an animate subject.]
nyá- *n dir.II* mother [For non-1sg or 2sg possessors. Kinship term: Mother [M]; Mother's sister [MZ]; Father's brother's wife [FBW]. When possessed, appears to be shifting from taking direct possession to taking indirect possession. See §7.2.2.]
nyái- *n dir.I* belly
nyái- gawin *n.comp dir.I* chest
nyái- kabyali *n.comp dir.I* intestines, stomach
-nyál *v.I/II* guard, watch over [Ambiguous between Class I and Class II membership.]
nyán *n indir.II* betel leaf, PM *siri*
nyánde *n indir.II* area [< Biak]
nyelál *adv* tomorrow
-nyéw *v.IV* go extinct [e.g. a clan]
nyígi *n indir.II* bottle
nyiw *n indir.II* high tide
nyu *n indir.II* river eel [Often modifies the head noun *dún* 'fish']

O o

-ó *v.II**** run away
-ógol *v.II* vomit
okmóm *n indir.II* leatherback sea turtle [Dermochelys coriacea. Approximately 1.5m long. Soft shell. Often modifies the head noun *hín* 'sea turtle'.]
-ól $_1$ *v.II intr.* stand
-ól$_2$ *v.II intr.* pregnant
-olkalíw *v.II* fish or find crabs with a spear during the day while standing on a cape [Fish are tempted up to the shore by putting bait into the sea. As the waves go out, the smell of the bait draws the fish in; as the waves wash up onto the shore, the fish are washed up as well. Possibly a compound comprising *-ól* 'stand' and *kalíw* 'village'.]
ólom *n indir.II* kind of cockatoo [Red plumage. Often modifies the head noun *máni* 'bird'.]
ómbin *n indir.II* term of endearment for younger females
óro *n indir.II* kind of spear [Which has *kalút* (PM: *sangi-sangi*).]

P p

pa *n indir.II* kind of tree [Grows near the shore; bark is stripped and used to make *kahéne* bags. See **AM107**. Often modifies the head noun *áy* 'tree'.]
pacú *n* right (side)
pák *adv* long time || *wán wane pák to* 'This canoe is old, it has been around for a long time' (el.)
-pál *n dir.I* **1)** side **2)** half [Used for things that have been split or cut in two, for example coconuts. Cf *-ket* 'half', which is used more generally.]
-pám *v.I/II* connect [Ambiguous between Class I and Class II membership.]
pámuli *n indir.II* followers
pánye *n indir.II* morning
  panye-lál *n.comp indir.II* early in the morning
-páp *n dir.I* **1)** underneath **2)** bottom
-papáy *v.IV* be bald
papét *n* left (side)
papídan *n indir.II* shelter on a canoe, PM *kajang*
pápil *n indir.II* small hammer [In recording AM185, MW (the main speaker) holds this kind of hammer in his right hand.]
papór *n indir.II* house erected over a grave
papyú *n indir.II* oyster [Often modifies the head noun *hájum* 'shellfish'.]

paráy *n indir.II* kind of squid, PM *suntun batu* [Often modifies the head noun *ránu* 'squid'.]
pát *n indir.II* west wind
páy *n indir.II* kind of heron [Small heron with white plumage. Egretta sacra? Often modifies the head noun *máni* 'bird'.]
-payólon *v.IV* smell rancid, smell fishy
-pén *v.IV* be rotten
péy *n indir.II* adoptive parent
péyn *n indir.II* pigeon [Often realised as [píyn]. Eaten as food. Often modifies the head noun *máni* 'bird'.]
-pi$_1$ *v.IV* deep noise
-pi$_2$ *v.I/II* nail [Ambiguous between Class I and Class II membership.]
-pil *n dir.I* price [Tonal specification unclear.]
pimám *n indir.II* sea cucumber
pin *n indir.II* ridge of roof
pín *n indir.II* ringworm
píow *adv* day after tomorrow
pip *n indir.II* money
píyn *n indir.I* children's spouse's parents [Kinship term: CSP]
pó *n indir.II* kind of plant, PM *tali kuning* [Used as a medicine and as a yellow dye.]
-pol *v.I/II* put, release [Ambiguous between Class I and Class II membership.]
pombó *n indir.II* kind of pigeon [A kind of small pigeon, can be kept as a pet. Found on the mainland, and near Rauki. Not found near Kapadiri. Often modifies the head noun *máni* 'bird'.]
-pón *n dir.I* top
pop *n indir.I* aunt [Kinship term: Father's sister [FZ].]
  pop-mán *n.comp indir.I* uncle [Kinship term: Father's sister's husband [FZH].]
pown *n indir.II* umbrella [Archiac]
práy *n indir.II* kind of mangrove tree [Often modifies the head noun *kor* 'mangrove tree'?]
pú *n indir.II* paddle
pul *n indir.II* downwards direction
pulúk *n indir.II* scar
pun *n indir.II* thing that smells
  -pun *v.IV intr.* be smelly
pup *n dir.III* **1)** nest **2)** spider web
púp *n indir.II* lobster trap
pupú- *n dir.I* shoulder
-púsal *v.I* release
-pút *v.IV* be bruised
pyá *n indir.II* hair
pyán *n indir.II* gold
pyón *n indir.II* shelter

-pyúm *v.IV intr.* be fat

R r

randák *n indir.II* beginning
ránu *n indir.II* squid
-ráro *v.I/II* fish or find crabs with a spear on a boat during the day, PM *lobe siang* [Ambiguous between Class I and Class II membership]
rawé *n indir.II* kind of sea cucumber [Sometimes reduplicated as *rawé rawé*. Often modifies the head noun *pimám* 'sea cucumber'.]
ríp *n indir.II* skin
robisór *n indir.II* kind of dolphin [Kind of small white dolphin, about the length of a human arm. Often modifies the head noun *umbón* 'dolphin'.]
rom *n indir.II* kind of seaweed [Grows around reefs.]
rómbyon *n indir.II* kind of leaf, PM *daun tikar*
rós *n indir.II* kind of coral
-rúku *v.I tr.* chase
arúku *n indir.II* chase
-rúkun *v.I tr.* oppose, fight || *ularúkun* ÂťThose two oppose each other', i.e. 'Those two fight' (el)
arúkun *n.* fight
rúmun *n indir.II* shark [Metnyo dialect. Borrowing < Biak? Often modifies the head noun *dún* 'fish']
-rún *v.I tr.* attack
arún *n indir.II* attack
ruwá ruwá *n indir.II* bellows [Archaic.]
-ryáp *v.I/II tr.* enthusiastic about || *yaryáp i* 'I'm enthusiastic (about) him' (el.) [Ambiguous between Class I and Class II membership.]

S s

-sá *v.III* **1)** ascend || *láynta pa nsá* 'The sun is rising' (el.) **2)** embark
sabáka *n indir.II* cigarette [Probably < Dutch, either directly or through Malay, Tidore, or Biak.]
-sabát *v.I intr.* be beached; collide at sea
-sabít *v.I* throw underarm
sábokol *n indir.II* kind of shellfish [Often modifies the head noun *hájum* 'shellfish'.]
sabyái- *n dir.Ia* anus [Takes infixation for plural possessors.]
-sabyáy *v.I/II tr.* burn [Ambiguous between Class I and Class II membership.]

sadaká *n indir.II* traditional offering made to *mutúm* spirits [See Appendix A for a description of *sadaká* traditional offerings. See also **AM280**, which is a recording of a *sadaká* offering, and **AM064**, in which some Ambel speakers chat about *sadaká* offerings.]
sagaére *n indir.II* great-billed parrot [Tanygnathus megalorynchos? Often modifies the head noun *máni* 'bird'.]
ságale *n indir.II* tail
-sagalélew *v.IV intr.* be blazing
-sagaró *v.I/II* make an effort || *yaságaro be yabí yáp* 'I make an effort to paddle' (el.) [Ambiguous between Class I and Class II membership.]
sái- *n dir.I* bottom
  sái- gu *n.comp dir.I* anus
  sái- kabóm *n.comp dir.I* hips
  sái- kapeley *n.comp dir.I* buttocks
-sák 1) *v.III S=A* bite **2)** eat [This meaning is archaic.]
sák *n indir.II* kind of bird of paradise [Yellow plumage. Often modifies the head noun *máni* 'bird'.]
sáklit *n indir.II* rainbow lorikeet [Trichoglossus haematodus? Often modifies the head noun *máni* 'bird'.]
sál *n indir.II* mistake
-sál *v.IV* be wrong
-sál *v.I/II* sing (bird) [Ambiguous between Class I and Class II membership.]
Sálam *n indir.II* Islam
salambím *n indir.II* kind of tree, PM *kayu linggua* [Often modifies the head noun *áy* 'tree'.]
salanket *n indir.II* cliff [Only attested in Metsam dialect.]
sálen *n indir.II* kind of fish, PM *ikan sako* [Often modifies the head noun *dún* 'fish'.]
sámate *n indir.II* tomato [Probably < Dutch, either directly or through Malay, Tidore, or Biak.]
sámsen *n indir.II* danger
  -sámsen *v.IV S=A* **1)** be difficult, be dangerous for **2)** be dangerous, be dangerous for
samsóm *n indir.II* respect [Reduplication.]
sankóy *n indir.II* loincloth [Traditional day-to-day clothing. Made from the bark of the *míy* tree, which was pounded until malleable. Now obsolete.]
sánow *n indir.II* guest
  -sánow *v.I* visit [Possibly once a compound, constisting of *-sá* 'ascend' and *now* 'house'.]
-sansón *v.I* prepare to leave, prepare to depart
sánsun *n indir.II* clothes [See 118 - 192 seconds of recording AM182 for information in Papuan Malay about traditional Ambel costume. Possibly a reduplication of *-sun* 'enter', or a borrowing from Ma'ya or Biak.]
-sapák *v.I tr.* kick [< Malay *sepak* 'kick']

sapáp *n indir.II* cockroach [Metnyo dialect. Borrowing < Biak?]
sapurér *n indir.II* black-capped lory [Lorius lory? Often modifies the head noun *máni* 'bird'.]
sarábi *n indir.II* reception room
saráka *n indir.II* bracelet [Worn around the wrist. Made of metal or turtle shell. Probably < Biak.]
sarámur *n indir.II* kind of tree, PM *kayu waringin* [Grows in the jungle. Often modifies the head noun *áy* 'tree'.]
sarát *n indir.II* spell [See Appendix A for a description of pre-Christian magic.]
sárita *n indir.II* **1)** story **2)** history
  -sárita *v.I* tell (historical) story
-saró *v.I* suck (e.g., through a straw)
saróy *n indir.II* whale [Often modifies the head noun *dún* 'fish']
sasí *n indir.II* curse
-sasóp *v.I/II CoCl* really want to do something, be desperate to do something
-sát *v.IV* have food stuck in teeth
-sáw *v.III tr.* hold
sáwan *n indir.II* palm wine [Probably a borrowing < Biak *swán* 'palm wine'. Can be made from coconut or nipah palm blossoms. See 4643 - 4781 seconds of recording AM175 for information in Papuan Malay about alcohol production.]
sawáy *n indir.II* kind of bee/wasp [Poisonous sting; apparently can kill. Possibly a hornet. Often modifies the head noun *tápi* 'wasp'.]
sáwi$_1$ *n indir.II* south wind [South wind season is approximately from June - October. The Biak loan *wambráw* is more usually used to refer to the south wind in the Ambel villages on the north coast of Waigeo.]
sáwi$_2$ *n indir.II* swallow [Hirundo tahitica. Often modifies the head noun *máni* 'bird'.]
-sáy *v.III* alone
sáyop *n indir.II* needlefish [Tylosurus gavialoides. Often modifies the head noun *dún* 'fish'.]
-sayór *v.I* watch for
-sél *v.III tr.* tie
  sasél *n indir.II* knot [Reduplication.]
selemetém *n indir.II* kind of shark [Metsam dialect. Has a black tail. Often modifies the head noun *úy* 'shark'.]
séme *n indir.II* kind of itchy leaf
  seme-tási *n.comp indir.II* jellyfish
sen *n indir.II* coin money [< PM]
-sérep *v.III* cut soft things [e.g. leaves, vines; things that only need to be struck once to be cut.]
sétew *n indir.II* grub
sewá sewá *n indir.II* mallet
-si *v.III intr.* defecate

sí- *n dir.I* genitals
  sí- are *n.comp dir.I* vagina
  sí- put *n.comp dir.I* bladder [Tonal specification unclear.]
  sí- kapyal *n.comp dir.I* vaginal lips [Tonal specification unclear.]
  sí- tasol *n.comp dir.I* penis
-sidón *v.I/II tr.* inform [Ambiguous between Class I and Class II membership.]
-sigi *v.III tr.* blow nose
síki *n indir.II* sago scraper [Made from coconut shell.]
  -síki *v.I* scrape sago
-sím *v.IV* be temporarily dark [Used for things that are sooty. Also used to describe reddened teeth after betel nut chewing, and sun-darkened skin.]
-sin *v.III S=A* **1)** *tr.* catch with one hand **2)** *tr.* receive
-sín *v.III tr.* **1)** dress [Takes a coreferent object pronoun when used reflexively.] **2)** exchange
sin *n indir.II* knife [Metsam dialect.]
sinampán *n indir.II* harpoon
sínele *n indir.II* fried sago
-síri *v.III S=A* buy
sasíri *n indir.II* goods [Reduplication.]
siw *cardnum* nine
-síw *v.I/II tr.* request || *yasíw sabáka* 'I request a cigarette, may I have a cigarette?' (el.) || *yasíw po aw be nyáhi wop sana* 'I ask you to choose one' (el.) [Ambiguous between Class I and Class II membership.]
síy *n indir.II* kind of shark [Not dangerous. Often modifies the head noun *rúmun* 'shark'.]
so *n indir.I* friend
-só *v.I/II* poison fish [Ambiguous between Class I and Class II membership.]
-so *v.IV* hit
sokata *n indir.II* underwater cape
sokombéy *n indir.II* dragonfly
-sól *v.III tr. CoCl* order || *Salomo nyán a nsól ine be yanán* 'Salomo's mother orders me to eat' (el.)
  sasól *n indir.II* person who orders [Reduplication.]
-sóm *v.III tr.* respect
  samsóm *n indir.II* respect [Reduplication.]
sómber *n indir.II* machete
sómbo *n indir.II* kind of fish, PM *ikan cicak* [There are two varieties: one that lives in the sea (*sombo tási*) and one that lives in rivers (*sombo we lo*). Often modifies the head noun *dún* 'fish'.]
-somó *v.IV* be buried in mud
són *n indir.II* large pool [Usually found where there is a spring on higher ground in the deep jungle.]
-sónok *v.I/II* scold [Ambiguous between Class I and Class II membership.]

sopon *n indir.II* shallow patch of sea, PM *tanusang*
-sór *n dir.I* **1)** cover **2)** sheath
  sor-bát *n.comp indir.II* sandal
-sóro *v.III tr.* smoke (cigarette)
sórom *n indir.II* middle
sorongá *n indir.II* paradise
-sóswar *v.I/IV* be worried [Ambiguous between Class I and Class IV membership.]
sót *n indir.II* decorations on the crown of a bird or paradise [Alienable.]
-sow *v.III S=A* fart, fart on
  ásow *n indir.II* fart
-sów *v.III tr.* wash
  sasów *n indir.II* washer [Reduplication.]
-sowár *v.III* place a taboo on something [See e.g. AM267.]
-su$_1$ *v.III S=A* give birth [More polite than *-hankárin* 'give birth'.]
-su$_2$ *v.III tr.* tap coconut tree in order to make *swán* palm wine
-su$_3$ *v.I/II* travel? [Ambiguous between Class I and Class II membership. Tonal specification unknown.]
su$_1$ *n indir.II* **1)** breast **2)** milk **3)** kind of sea cucumber [Often modifies the head noun *pimám* 'sea cucumber'.]
su$_2$ *n indir.II* **1)** leafy vegetable **2)** flower **3)** kind of snake [Leaf green, head looks like a frog. Not poisonous. Lives in tikar leaves. Often modifies the head noun *lemát* 'snake'.]
sú- *n dir.I* nose
  sú-maó *n.comp indir.II* bandicoot [Possibly Echymipera kalubu.]
  sú- gu *n.comp dir.I* nostril
  sú- kabom *n.comp dir.I* bridge of nose
  sú- manu *n.comp dir.I* snot
-suk *v.III tr.* have sexual intercourse
súkut *n indir.II* race
-sul *v.III S=A* shovel
sul *n indir.II* spoon
sumasów *n indir.II* dolphin [Metsam dialect.]
sumuláy *n indir.II* kind of kingfisher, PM *burung balarotan* [Long forked tail. Possibly covers common paradise kingfisher - Tanysiptera galatea. Often modifies the head noun *máni* 'bird'.]
-sun *v.III S=A* enter, enter into
  -sun-arí *v.III.comp* worship
sundúy *n indir.II* bamboo which has been cut
-sup *v.IV* repeat
súp *n indir.II* darkness
  sup-kálat *n.comp indir.II* pitch black
-súp 1) *v.III S=A* bathe; bathe in **2)** *v.I tr.* bathe someone

-sup-gám *v.III.comp* bathe at night
-sup-míy *v.III.comp* get very wet in the rain
-sup-pánye *v.III.comp* bathe in the morning
-sup-tási *v.III.comp* bathe in the sea
-sup-we *v.III.comp* bathe in a river
-susu *v.III tr.* reverse
-suy *v.III* smoke [e.g. meat, fish]
suy *n indir.II* earthquake
-súy *v.III intr.* go home
syonkér *n indir.II* trotter (of pig)
-syót *v.IV* be packed, be full

T t

-tá *n dir.I* front (face of a thing)
tabán *n indir.II* **1)** box **2)** container
-tabán *v.I* pack, wrap up
-tabón *v.I tr.* wait (for something or someone to arrive)
-tábum *v.IV* be slanted
-tabyalím *v.IV intr.* be tangled
-tábyu *v.IV* hatch
tábyu- *n dir.II* **1)** grandchild **2)** grandparent
tabyu- ú *n dir.II.comp* great-grandchild [Kinship term: Child's child's child [CCC].]
tacít *n indir.II* bridge
tacúl *n indir.II* kind of tree, PM *kayu kenari hutan* [Often modifies the head noun *áy* 'tree'.]
táculi *adv* **1)** sometimes || *táculi ido yíy sapi* 'Sometimes I eat beef' (el.) **2)** often || *táculi mansope yíy há* ÂťI often eat rice' (el.)
-taéloy *v.IV intr.* be rolling
-tagágaym *v.I* scream
tagaini *n indir.II* kind of fish, PM *ikan sua* [Metnyo dialect]
-tagálulun *v.I S=O* **1)** roll, curl something || *yatágalulun ana* ÂťI roll it' (el.) **2)** be rolled, be curled || *anatágalulun* 'It is rolled' (el.)
-táho *v.IV intr.* be squeezed (e.g. of fruit)
tají- *n dir.I* eye
tají- kali *n.comp dir.I* sleep, rheum [Tonal specification unclear.]
tají- karaniw *n.comp dir.I* eyelash
tají- katara *n.comp dir.I* corner of eye
tají- lu *n.comp dir.I* tear
tají- pon *n.comp dir.I* eyebrow

tájin times
tájiw *n indir.II* hole (made by piercing)
-tájiw *v.IV intr.* be pierced
-táju *v.IV S=A* be sore, be sore because of
takék *n indir.II* chicken [Often modifies the head noun *máni* 'bird'.]
-táku *v.I tr.* chop
-tál *v.III tr.* kick with sole of foot
tál$_1$ *n indir.II* banana
tál$_2$ *n indir.II* front
-talán galé *v.III.comp* defecate (polite) [Neither *-talán* nor *galé* are independently attested.]
-talápi *v.IV intr.* be curved
tala- tú- *n dir.Ia* ear
tala- tu- kaliw *n.comp dir.I* earlobe
tala- tu- kapuy *n.comp dir.I* temple (face)
-taláy *n dir.I* in front
-táli *v.IV intr.* be startled || *nyáik ne antáli* 'I am startled.' [Only attested in this body part expression.]
-hatáli *v.III tr.* startle someone
-tálim *v.IV intr.* **1)** be sharp **2)** talkative || *gak ne antálim* 'I am talkative.' [The sense 'talkative' is only found in this body part expression; cannot take an animate subject.]
talmáre *n indir.II* kind of bird, PM *burung cui* [Often modifies the head noun *máni* 'bird'.]
tálo *n, n dir.III* egg
-hataló *v.III S=A* lay egg
támaka *n indir.II* watermelon
tamára *n indir.II* tear (in cloth)
-tamára *v.IV intr.* be torn
tamáy *n indir.I* same-generation in-law [Kinship term: Sibling's spouse [SSp]; Spouse's sibling [SpS]; Female ego's husband's sister's husband [EfHZH]; Male ego's wife's brother's wife [EmWBW]; Mother's sibling's child's spouse [MSCSp]; Father's sibling's child's spouse [FSCSp]; Spouse's parent's sibling's child [SpPSC].]
tamcám *n indir.II* cuscus [Spilocuscus papuensis, Phalanger orientalis]
támey *n indir.II* urine
-támey *v.I intr.* urinate
tamey sót *n.comp indir.II* kidney stone
támi *adj.vIV intr.* red
-támje *v.IV intr.* be broken
tamláka *n indir.II* papaya
tamtém *v.IV intr.* **1)** closed **2)** complete [Said of e.g. unopened cigarette packets.]
-támtu *v.IV intr.* be broken off

-tamyúgum *v.IV* be shattered
-tán *v.III intr.* go
tancán *n indir.II* journey || *nika tancán wane angláw* 'My journey is far' (el.) [Unexpected reduplication form from *-tán* 'go']
-tan-we *v.III.comp* urinate (polite)
tanák *n indir.II* kind of fruit, PM *cempedak* [Like a jackfruit, but with smaller fruit.]
-táni *v.I S=A* cry, cry about
-taním *v.I S=A* plant
-tanó *v.I S=A, CoCl* listen, hear || *yatanó mani takék ladál* 'I hear the cocks crowing' (el.) || *yatanó lé ta silót* 'I hear things that are noisy' (el.) || *yatanó iya ndók to* 'I heard that he's already arrived' (el.)
-tantólon *v.I S=O* sit up very straight and very still; sit something or someone (e.g. a radio, a child) up
tánu *n indir.II* arrow [Metal-tipped arrow.]
-tanyúl *v.I/II* turn back on someone, face away [Ambiguous between Class I and Class II membership.]
-taógal *v.IV intr.* be smashed up [e.g., a wet carboard box that has started to rip; cement that has been torn up by tree roots; over-ripe betel nut that falls to the ground and opens by itself.]
-tapáw *v.IV intr.* be smashed (e.g. of glass)
-tápe *v.I tr.* **1)** stab **2)** skewer
-tápi *v.IV intr.* come off || *antápi tabol kokak ne* 'It [my sandal] has come off my foot' (el.)
tápi *n indir.II* bee, wasp (general)
-tapít *v.I tr.* reveal someone or something [Same meaning as *-hatapít* 'reveal'.]
-hatapít *v.III tr.* reveal someone or something
-taplák *v.I* argue
-taplék$_1$ *v.IV* be twisted
-taplék$_2$ *v.IV* be struck by a wave
-taplów *v.I* be stupid, PM *nau-nau*
tápo *n indir.II* **1)** breaker (i.e., waves that break on the shore) **2)** rough sea season [On the north coast of Waigeo, the sea is rough when the wind blows from the west.]
tápran *n indir.II* **1)** pineapple **2)** kind of sea cucumber, PM *tripang nenas* [Often modifies the head noun *pimám* 'sea cucumber'.]
-tápru *v.IV* grumble (stomach)
-táput *v.IV* be deaf || *talatúk ne antáput* 'I am deaf', lit: 'my ears are deaf'. [Most frequently attested in this body part expression, but also grammatical with an animate subject.]
-tapyá$_1$ *v.IV intr.* **1)** be uprooted **2)** be washed away (earth) [e.g. by a flood.]
-tapyá$_2$ *v.IV* grow (humans)
-tapyálan *v.IV* erupt from, emerge from
-tapyára *v.IV* thunder, be thundering

-tapyáy *v.IV intr.* be uncovered (plate)
-hatapyáy *v.I tr.* uncover (plate)
-tapyól *v.IV intr.* come unstuck
-tapyów *v.IV intr.* be open
táre *n indir.II* splinter
-táre *v.IV* be splintered
-tari *v.IV intr.* be spilt
-táro *v.IV* come off; fall out (of teeth) || *sandal pa antáro* '[My] sandal has come off' (el.)
-tárun *v.IV* fall down a slope
-tarúru *v.IV* be sliding
tasárak *n indir.II* tear (in cloth)
-tasárak *v.IV intr.* be torn
-taséke *v.IV intr.* be flat (cloth)
tási *n indir.II* salt water
tasi-kábun *n.comp indir.II* an inland pool of water that has salt water fish and coral living in it [Found for example on Gunung Nok, and between Kalitoko and Kabare. Lit: 'hidden salt water'.]
-tasíw *v.IV intr.* fall down, be fallen down || *áy wane antasíw* ÂťThis tree has fallen down' (el.) [When used with a human subject, means 'very ill' or 'very tired'.]
-tata *v.III tr.* serve food
ta- tá- *n dir.Ia* face
-táto *v.I tr.* chop with machete
tátul *n indir.II* kind of fishing spear [Used to catch fish and sea turtles.]
tawágal *n indir.II* kind of fish, PM *ikan bulana kuning* [Often modifies the head noun *dún* 'fish'.]
táynta *n indir.II* kind of spear blade [Blade of the *halák* turtle spear.]
-tayúru *v.I S=A* be d [Cannot take an inanimate subject.]
-hatayúru *v.III tr.* **1)** disturb **2)**
-te *v.III tr.* spear
táte *n indir.II* someone who throws spears [Reduplication.]
-te *v.III* glide (birds)
-ten *n dir.I* bottom (of a thing) [Tonal specification unclear.]
-tén$_1$ *v.I/II* smell [Ambiguous between Class I and Class II membership.]
-tén$_2$ *v.III tr.* share || *cén dún* ÂťI share fish' (el.)
tancén *n indir.II* share [Reduplication.]
téregu *n indir.II* flour
-tét *v.I/II* sieve sago [Ambiguous between Class I and Class II membership.]
-téten$_1$ *v.III S=A* count, count something
tatéten *n indir.II* counting
tateten-lál *cardnum.comp* million
-téten$_2$ *v.III* perch

-teyn *v.III S=O* be soaking; soak || *ceyn sánsun* 'I soak clothes' (el.) || *sánsun pa anteyn* 'Those clothes soak' (el.)
-tí *v.III* **1)** pass by **2)** be alongside
til$_1$ *n indir.II* earwax
til$_2$ *n indir.II* cane, stick
-til$_1$ *v.III* tell history || *jadi mákay bábo amne masi ámtil an rín* 'So we young people still tell the history.'
-til$_2$ *v.III* punt (canoe)
-tín *v.I/II tr., CoCl* point at; show how to [Ambiguous between Class I and Class II membership.]
-tínim *v.III* **1)** *intr.* wait for news **2)** *tr.* try something out
-típ *n dir.I* palm blossom
-tíw *v.III tr.* use sago oven
-tíy *v.III tr.* rest || *cíy ine* 'I rest myself' (el.)
-tó *v.III S=A* live in one place; live in
táto *n indir.II* settlement [Reduplication.]
-tobán *v.III* *** cover one's face
-tóhon 1) *v.III Ex.intr.CoCol* try **2)** *tr.* test
-tól *v.IV* be taut
-tóp$_1$ *v.III* beat drum
-tóp$_2$ *v.I/II* observe [Ambiguous between Class I and Class II membership.]
-tú *v.III S=A* wash (clothes)
tua *n indir.II* bed [A bed that is fixed into the ground. See 43 - 63 seconds of recording AM175 for more information in Papuan Malay. < Tidore.]
-tubúl *v.III* reply (PM *menyaut*)
tatubúl *n indir.II* response [Reduplication.]
-túbun *v.III* **1)** light *cúbun mi óbor ne* 'I light this gas lamp' (el.) **2)** shoot with gun
-tul$_1$ *v.III tr.* **1)** bite (e.g. snake) **2)** peck
-tul$_2$ *v.III* **1)** stitch roof [Sew together dried sago leaves to make a traditional thatched roof; tonal specification unknown] **2)** sew *lám* woven mat
túl *cardnum* three
túlu *n indir.II* knife [Metnyo dialect.]
-tum *v.III S=A* follow || *anta nane taun bábo mana mansope nik mánsar wana ntum* 'Later on, next year, my husband will follow me [to Kapadiri]' (el.) || *uwa umtum dela uman pa* 'Those two follow their father' (el.) [Often takes a prepositional complement headed by *del.*]
-túmu *v.III* look for someone by following a trail
tun *n indir.II* thorn
tún *n indir.II* **1)** moon **2)** month [Also pronounced [tówn]; Metsam: *tòwn*.]
tun-amnów *n.comp indir.II* full moon
tun-amnyé *n.comp indir.II* full moon

túp *n indir.II* sugarcane [Before sugar was readily available, sugarcane was used as a sweetener. The juices were squeezed from it, then boiled an used to sweeten tea.]
turú *n indir.II* hat [Traditionally, hats were woven out of pandanus leaves dyed bright colours with dyes extracted from local flora, and are conical in shape. Nowadays, hats with brims are also made; this is a tradition borrowed from the Betew Biak.]
-tut *v.III S=A* grind
-tutul *v.III* stop off at
-tútun *v.IV* be scorched, singed
-túw *v.III* bark

U u

-ú *v.I/II S=A* blow [Ambiguous between Class I and Class II membership.]
-úku *v.II tr.* endanger
-úl *v.II S=A* call
ulúsiw *n indir.II* kind of tree, PM *kayu bintangor hutan* [Often modifies the head noun *áy* 'tree'.]
umbón *n indir.II* dolphin [Metnyo dialect. Borrowing < Biak? Often modifies the head noun *dún* 'fish'.]
úmpon *n indir.II* beach (at the mouth of a river)
-un *v.II S=A; CoCl* know
-ún$_1$ *v.II intr.* swim (fish) [Specifically for sea creatures.]
-ún$_2$ *v.II tr.* pick up (an object from the ground) [Also pronounced [-ówn].]
úpu *n indir.II* adolescent
-uru *n dir.I* log [Tonal specification unclear.]
ut *n indir.II* louse [Metsam dialect: *owt*.]
-ut *v.II tr.* carry, bring
útun$_1$ *n indir.II* pool
útun$_2$ *cardnum* hundred, one hundred [Probably a borrowing from either Biak or Ma'ya.]
úy *n indir.II* shark [Metsam dialect.]

W w

waím *n indir.II* kind of taro [Often modifies the head noun *káwia* 'taro'.]
wáka *n indir.II* sulphur-crested cockatoo [Cacatua galerita. Often modifies the head noun *máni* 'bird'.]

wál *cardnum* eight
wáli *n indir.II* **1)** rope **2)** vine **3)** sweet potato [Often modifies the head noun *katíli* 'tuber'.]
walí- *n dir.I* tooth
  walí- kaba *n.comp dir.I* gum
  walí- kasot *n.comp dir.I* gap between teeth
wálun *n indir.II* pot, pan
  walun-kapón *n.comp indir.II* pot for rice
  walun-tapíri *n.comp indir.II* frying pan [*tapíri* is not attested as an independent word, but carries a meaning like 'shallow'.]
wálut *n indir.II* **1)** sea **2)** kind of anchovy-like fish that lives at sea, PM *puri laut* [Often modifies the head noun *náy* 'kind of anchovy-like fish'.]
wambráw *n indir.II* south wind [< Biak]
wambréy *n indir.II* north-east wind [< Biak?]
waméres *n indir.II* south-west wind [< Biak?]
wamkádo *n indir.II* south-east wind [< Biak?]
wamúrum *n indir.II* east wind [< Biak]
wán *n indir.II* canoe
wanát 1) *n indir.II* meat **2)** *n dir.I* flesh **3)** *n dir.I* flesh (fruit)
-wánat *v.IV* bloom (of flowers)
wanóm *cardnum* six
wánu$_1$ *n indir.II* kind of turtle, PM *teteruga kerang* [Often modifies the head noun *hín* 'sea turtle'.]
wánu$_2$ *n indir.II* bracelet [Worn by women during traditional dance ceremonies. Made from seashells. Now obsolete.]
wáp *n indir.II* kind of shellfish, PM *bia garu kecil* [Found clinging to rocks. Possibly a limpet. Often modifies the head noun *hájum* 'shellfish'.]
-wár *v.I/II* miss || *yawár nika kalíw to* ÂťI miss my village' (el.) [Ambiguous between Class I and Class II membership.]
wárak *ClMod* always
-waráy *v.I/II S=A* **1)** be left behind by || *tajik ne anawaráy* 'I can't sleep [lit: my eyes are left behind]' || *yawaráy wán ta cum* 'I was left behind by the canoe that I followed' (el.) **2)** not have
waré- *n dir.I* tongue
warís *n indir.II* ancestors' tale
-wásan *v.I/II S=A, CoCl* **1)** remember || *yawásan tamum ipa labí ladók* 'I remember there are guests coming' (el.) **2)** think || *yawásan i* 'I think about him' (el.) ||*yawásan i hey po* 'I think he is not nice' (el.) **3)** hope [Ambiguous between Class I and Class II membership.]
wáte *n indir.I* aunt [Kinship term: Mother's brother's wife [MBW].]
wáwul *n indir.II* dew [Metsam dialect.]
-wáy *v.III intr.* return [Also realised: [-háy].]

waybúk *n indir.II* kind of fish, PM *ikan bubara putih* [Mayalibit Bay dialect. Often modifies the head noun *dún* 'fish'.]
we$_1$ *n indir.II* water
we-ikai *n.comp indir.II* river source
we-itaji *n.comp indir.II* freshwater spring that comes out in salt water
we-lo *n.comp indir.II* river
we-piríar *n.comp indir.II* piped water
we$_2$ *n indir.I* child [Kinship term: Child [C]; Male ego's brother's child [EmBC]; Female ego's sister's child [EfZC]; Male ego's wife's sister's child [EmWZC]; Female ego's husband's brother's child [EfHBC].]
wénder *n indir.II* kind of leafy vegetable, PM *sayur paku* [Often modifies the head noun *su* 'leafy vegetable'.]
wey *ClMod* again
-wík *v.III* imitate [Often used to describe how *kábyo* ghosts imitate human form to trick them - see for example AM193.]
wiyá *n indir.II* dry river [Probably historically contained the form *we* 'water'.]
-wók *v.I S=A* be greedy; be greedy for
-wokasúy *v.I* yawn
-wokót *v.IV* be just right
wól *n indir.II* kind of fish [Often modifies the head noun *dún* 'fish'.]
-wól *v.I S=O* be anchored; anchor something
-wóm *v.IV* touch, hit [Inanimate subject only; PM *kena*.]
-wón *v.I* eat raw (e.g. shellfish)
-wop *v.III* sell [Synonymous with *-mayál* 'sell'.]
-wóp *v.III* lie face down
-woryáy *v.I* patrol; travel around
wow *n indir.II* rainbow
wów *n indir.II* steam
-wów *v.III* spit out [e.g. if eating something unpleasant]
-wul *v.III tr.* **1)** beat with stick **2)** hit with large mallet
-wum *v.IV* be dirty
-wup *v.III tr.* drown

Y y

yákop *n indir.II* kind of cockatoo [Often modifies the head noun *máni* 'bird'.]
yám *n indir.II* needle
-yár *v.I/II* round (cape, pier, reef) [Ambiguous between Class I and Class II membership.]
yáy *n indir.II* mango
yé *n indir.II* island

yéke *n indir.II* sago porridge
  yeke-tási *n.comp indir.II* jellyfish
yél *n indir.II* **1)** sago pulp **2)** kind of sago palm [Has long thorns. Often modifies the head noun *bey* 'sago palm'.]
-yéle *v.I S=A* **1)** float in air **2)** feel as if one is floating when sick [when used with a human subject.] **3)** send a message to someone || *yayéle acúbun* 'I send a message.'
yén *n indir.II* mushroom
yét *n indir.II* anchor
yíl *n indir.II* hill, mountain
  yíl-ikayte-kabom *n.comp indir.II* spine of hill
  yíl-ikoka *n.comp indir.II* foot of mountain
yi *n indir.II* **1)** kind of manta ray, PM *pari sikat* [Lives at river mouths. The skin is rough, and is used to sand wood and brush cooked sago. Often modifies the head noun *manápa* 'manta ray'.] **2)** sander made out of the skin of a *yi* manta ray
yói- *n dir.I* heart

E.2 English-Ambel

A a

Adam's apple :: kaju- *n dir.I*
add :: -hagonóm *v.III*
adolescent :: úpu *n indir.II*
  adolescent girl :: bisó *n indir.II*
adopt :: -ásu *v.II* **::** -ál *v.II*
  adopted child :: makay-ásu *n.comp indir.II*
  adopted father :: mam-péy *n.comp indir.II*
  adopted mother :: nen-péy *n.comp indir.II*
  adopted parent :: péy *n indir.II*
adult :: asíat *n indir.II*
advise :: -hatanáw *v.III*
afraid :: -mcát *v.I*
afternoon :: layntatopón *n indir.II*
  late afternoon :: lányun *n indir.II*
again :: wéy *ClMod*
aibika :: me *n indir.II*
air :: matén *n indir.II*
algae :: labut tási *n indir.II*
alive :: -hey *v.III*
alone :: -sáy *v.III*
always :: wárak *ClMod*
amaranth :: su kmáp *n indir.II*
anchor :: -wól *v.I*; **::** yét *n indir.II*
angry :: -gát *v.IV* v.IV**: -** mári *v.IV*
animal :: kamnyát *n indir.II*
  animal group :: ipon *n indir.II*
ant :: malíli *n indir.II*
  ant nest :: bálayk *n indir.II*
anus :: sai**-** gu *n dir.I* **::** sábyai**-** *n dir.Ia*
approach :: -áti *v.II*
argue :: -taplák *v.I*
area :: nyánde *n indir.II* **::** búk *n indir.II*
areca nut :: gíy *n indir.II*
arm :: kapya**-** *n dir.I* **::** ko- ka- pón *n dir.I*
armlet :: marakák *n indir.II*
armpit :: gagili**-** *n dir.I*
arrive :: -dók *v.III*
arrogant :: -henkáray *v.III*
arrow :: tánu *n indir.II* **::** ho *n indir.II*
ascend :: -sá *v.III*
ash :: lagaláp *n indir.II*; **::** kow *n indir.II*
ask :: -átun *v.II*
  ask permission :: -háwisi *v.III*
attack :: -rún *v.II*; **::** arún *n indir.II*
attic :: kodón *n indir.II*
aubergine :: kapukéy *n indir.II*
aunt :: pop *n indir.I*; **::** wáte *n indir.I*
authentic :: -kawanát *v.IV*
axe :: kapáy *n indir.II*

B b

baby :: makay-gúl *n.comp indir.II*
back (body) :: kay-te- *n dir.Ia*
  backbone :: kay-te- kabom *n dir.I*
bad :: -hey po *v.III*
bag :: kahéne *n indir.II*; **::** kansasér *n indir.II*
bait :: ará *n indir.II*
bald :: -papáy *v.IV*
bamboo :: go *n*
  kinds of bamboo :: ambóbor *n indir.II* **::** sundúy *n indir.II*
banana :: tál *n indir.II*
bandicoot :: kalubu-rám *n.comp indir.II*; **::** su-maó *n.comp indir.II* **::** kakápan *n indir.II* **::** galáw *n indir.II*
bark :: -túw *v.III*
base
  of a box or bowl :: -ten *n dir.I*
  of a tree :: -kapuy *n dir.I*
bat

fruit bat :: mankwáy *n indir.II*; **::** kaháni *n indir.ii*
small bat :: kabumayéw *n indir.II*
batch :: kapyów *n indir.II*
bathe :: -súp *v.III*
bay
open bay :: kásul *n indir.II*
closed bay :: doí *n indir.II*
bay with small mouth :: doróy *n indir.II*
be :: -be *v.III*
beach :: láyn-bit *n.comp indir.II*; **::** láyn-sarabit *n.comp indir.II*
mouth of river :: úmpon *n indir.II*
beached :: -sabát *v.IV*
beachcomb :: -mú *v.I*
beard :: ga**-** kaprun *n dir.I*
beat
beat drum :: -tóp *v.III*
beat with stick :: -wul *v.III*
beautiful :: -amányamin *v.II*; **::** -ányar *v.II*
beckon :: -háy *v.I/II*
become :: -be *v.III*
bed :: kambóy *n indir.II*; **::** tua *n indir.II*
beetle :: du *n indir.II*
beginning :: randák *n indir.II*
behind :: -kaymúl *n dir.I*
bellows :: ruwá**-** ruwá *n indir.II* **::** áso *n indir.II*
use bellows :: -áso *v.II*
belly :: nyai**-** *n dir.I*
betel :: nyán *n indir.II*
between :: -ít *n dir.I*
bicep :: kapya**-** maton *n dir.I*
big :: lál *adj.vI*
bird :: máni *n indir.II*
kinds of bird :: alók *n indir.II*; **::** ambyán *n indir.II*; **::** ampén *n indir.II*; **::** ára *n indir.II*; **::** arakák *n indir.II*; **::** asák *n indir.II* **::** bálayk *n indir.II*; **::** bálum *n indir.II*; **::** bonko *n indir.II*; **::** don *n indir.II*; **::** kámu *n indir.II*; **::** kamyám *n indir.II*; **::** kówk *n indir.II*; **::** kurupák *n indir.II*; **::** ma *n indir.II*; **::** mamprék *n indir.II*; **::** mandawám *n indir.II*; **::** mankankán *n indir.II*; **::** mankensús *n indir.II*; **::** mankirió *n indir.II*; **::** mankombón *n indir.II*; **::** mármar *n indir.II*; **::** ólom *n indir.II*; **::** páy *n indir.II*; **::** péyn *n indir.II*; **::** pombó *n indir.II*; **::** sagaére *n indir.II*; **::** sák *n indir.II*; **::** sáklit *n indir.II*; **::** sapurér *n indir.II*; **::** sáwi *n indir.II*; **::** sumuláy *n indir.II*; **::** talmáre *n indir.II*; **::** wáka *n indir.II*; **::** yákop *n*
bite :: -sák *v.III*; **::** -tul *v.III*
bitter :: bít *v.IV*
black :: matém *adj.vI* **::** -sín *v.IV*
blacksmith :: kamansán *n indir.II*
bladder :: si**-** put *n dir.I*
bland :: -malaí *v.IV*
blanket :: marámuk *n indir.II*
blazing :: -sagalélew *v.IV*
blind :: -malá *v.IV*
block :: -agít *v.II*
blood :: lómo *n indir.II*
bleed :: -lómo *v.IV*
bloom :: -wánat *v.IV*
blow :: -ú *v.I/II*
blow nose :: -sigi *v.III*
blue :: byáw *adj.vI*
blunt :: -búk *v.IV*
make blunt :: -ábuk *v.I*
body :: biti**-** *n dir.I*
body hair :: kaprún *n indir.II*
boil :: -bót *v.I/II*
boiling :: -lóko *v.IV*
bolt :: -kásunder *v.I*
bone :: kabóm *n*
border :: kawá *n indir.II* **::** bú *n indir.II*
bored :: -malaí *v.IV*
borrow :: -dú *v.III*
bottle :: nyígi *n indir.II*
bottom :: sái**-** *n dir.I*

bow :: básu *n indir.II*
bowl :: bókol *n indir.II*; **::** kéy *n indir.II*
box :: -tabán *v.I*; **::** tabán *n indir.II*
bracelet :: bíli *n indir.II*; **::** saráka *n indir.II*; **::** wánu *n indir.II*
brain :: maméy *n indir.II*
branch :: kóp *n indir.II*
brave :: -mtow *v.IV*
breadfruit tree :: ándow *n indir.II*
break :: -kamje *v.I*; **::** -kámtu *v.I* **::** -kasáram *v.I*
breast :: su *n indir.II*
  breastfeed :: -ásu *v.I*
breathe :: -asilí *v.II*
breeze :: mádu *n*
bridge :: mampápyar *n indir.II*
  bridge to house :: dódow *n indir.II*
  bridge made from fallen tree :: ay-tacít *n.comp indir.II*
bring :: -ut *v.II*
  bring home :: -utsúy *v.II*
  bring inside :: -usun *v.II*
broad :: -masáy *v.IV*
broken :: -masáram *v.IV*; **::** -támje *v.IV*
  broken off :: -támtu *v.IV*
brown :: marúr *adj.vI*
bruised :: -pút *v.IV*
brush :: -karími *v.I*
bubble :: babúgul *n indir.II*
build :: -in *v.II*
bunch (of fruit) :: -gét *n dir.I*
bundle :: lúbut *n*
burn :: -sabyáy *v.I/II*
  burning :: -nán *v.IV*
burp :: -dóbor *v.I/II*
bury :: -kárari *v.I*
  hole to bury things :: kararí *n indir.II*
bush :: kahát *n indir.II*
busy :: -kamanín
butterfly :: kabábat *n indir.II*
buttocks :: sai**-** kapeley *n dir.I*
buy :: -síri *v.III*

C c

cage :: lók *n indir.II*
calf :: koka**-** héy *n dir.I*
call :: -úl *v.II*
calm :: -lawiáy *v.IV*
  calm season :: láwiata *n indir.II*
canoe :: wán *n indir.II*
cape :: kata *n indir.II*
careful :: abában *adv*
carry :: -ut *v.II*
  carry on shoulders :: -báp *v.III*
cassava :: áy *n indir.II*; **::** bat a we *n indir.II*
cassowary :: mani lál *n indir.II*
cat :: boki *n indir.II*
catapult :: dáy *n*
  catapulted :: -nabít *v.IV*
catch
  large thing :: -kábu *v.I*
  small thing :: -sin *v.III*
cave :: abyáp *n indir.II*
cement :: mésel *n indir.II*
centre :: -asilin *n dir.I*
ceremony :: baláp *n indir.II*
chair :: kárapesa *n indir.II*
change :: -háwre *v.III*
charcoal :: kún *n indir.II*
chase :: -rúku *v.II*; **::** arúku *n indir.II*
cheek :: ga**-** halap *n dir.I*
chest :: nyai**-** gawín *n dir.I*
chew :: -mnyám *v.I*
chicken :: takék *n indir.II*
child :: mákay *n indir.II*; **::** we *n dir.I*
  child-in-law :: mambokím *n indir.II*
chilli :: marisán *n indir.II*
chin :: ga**-** kabom *n dir.I*
choose :: -áhi *v.II*
chop :: - kapáw *v.I* **:: -** táto *v.I* **::** -táku *v.I*
  chopped :: -tapáw *v.IV*
church :: now-narów *n.comp indir.II*
cigarette :: sabáka *n indir.II*

clamped :: -nakérep *v.IV*
clan :: gélet *n indir.II*
claw :: kabé *n indir.II*
clean :: -karími *v.I*; **::** -narów *v.IV*
clear :: -mnów *v.IV*
clever :: -nut *v.IV*
cliff :: iron *n indir.II*; **::** salanket *n indir.II*
limestone cliff :: kahón *n indir.II*
close :: -kabénet *v.I*
close lid :: -kapón *v.I*
closed :: -tamtém *v.IV*
cloth :: ámut *n indir.II*
clothes :: sánsun *n indir.II*
cloud :: mandép *n indir.II*
cloudy :: -nanyúy *v.IV*
coast :: kádibit *n indir.II*
coax :: -ánkar *v.II*; **::** -hakáyt *v.III*
cockatoo
kinds of cocaktoo :: ára *n indir.II*; **::** ólom *n indir.II*; **::** yákop *n indir.II*
cockroach :: kamíti *n indir.ii*; **::** sapáp *n indir.II*
coconut :: kút *n indir.II*
coconut shell :: galán *n indir.II*
cold :: kabyót *adj.vI*
feel cold :: -msúy *v.IV*
collide :: -katút *v.I*
comb
roughly :: -ái *v.II*
finely; style :: -ásil *v.II*
styling comb :: aywánu *n indir.II*
bamboo comb :: ái *n indir.II*
comfort :: -ámol *v.II*
community :: káwasa *n*
complete :: -tamtém *v.IV*
comrade :: mét *n indir.I*
condensation :: bubá *n indir.II*
confused :: -hahúlu *v.I*
connect :: -pám *v.I*
consecutively :: derem
container :: tabán *n indir.II*
kinds of containers :: kátut *n indir.II*; **::** káwra *n indir.II*
cook :: -bláp *v.I/II*
cooked :: -máy *adj.vI*
cooking :: baláp *n indir.II*
coral :: imonompír *n indir.II*; **::** rós *n indir.II*
corn :: hacú *n indir.II*
corner :: kapuk *n indir.II*
corpse :: ámit *n*
correct :: -mtólon *v.IV*
cough :: -manáw
count :: -téten *v.III*
counting :: tatéten *n indir.II*
cousin :: béle *n indir.I*
cover :: -sór *n dir.I*
cover
food :: -kápaw *v.I*
with sand :: -beym *v.III*
coward :: macát *n indir.II*
crab :: kalál *n indir.II*; **::** kasí *n indir.II*
cramp :: -kamahál *v.IV*
crawl :: -gél *v.I/II*
crazy :: -báybor *v.III*
creep :: -nábat *v.IV*
cricket :: aléle *n*
crisis :: márarat *n indir.II*
crocodile :: lenkaváy *n indir.II* **::** kuábe *n indir.II*
crooked:: -káyow *v.IV*
crow :: -dál *v.III*
crow :: arakák *n indir.II*
crumbly :: -malámnya *n*
cry :: -táni **1**
current :: mo *n indir.II*
curse :: sasí *n indir.II* **::** hahyúl *n indir.II*
curve :: -kalápi *v.I*
curved :: -talápi *v.IV*
cuscus :: tamcám *n indir.II*
kinds of cuscus :: hu *n indir.II*; **::** malélen *n indir.II*
cut :: -lép *v.I/II*
leaves :: -kálo *v.I*

meat into small chunks :: -katétel *v.I*
meat from the bone :: -kále *v.I*
soft things :: -sérep *v.III*

D d

dam :: bakóp *n indir.II*
dance :: -áma *v.II*; **::** -ádo *v.II*; **::** -kábu *v.I* **::** -jakó *v.I*
danger :: sámsen *n indir.II*
dangerous :: -sámsen *v.IV*
dark :: -nanyúy *v.IV*
darkness :: súp *n indir.II*
dawn :: amnyé *n indir.II*
day :: lanyán *n indir.II*
day after tomorrow :: píow *n indir.II*
dazzle :: -béblen *v.I* **::** -lálew *v.IV*
deaf :: -táput *v.IV*
decision :: kakút *n indir.II*
decorate :: -hamánkor *v.III*
decoration :: hamánkor *n indir.II*
deep :: mamón *v.IV*
deer :: mánjangan *n indir.II*
defecate :: -si *v.III* **::** -talán galé *v.III*
depart :: -a *v.II*
descend :: -ále *v.II*
descendants :: múl *n*
describe :: -hantán *v.I*
dew :: májo *n indir.II*; **::** wáwul *n indir.ii*
die :: -mát *v.III*
death :: mamát *n indir.II*
be dead :: -min *v.IV*
different :: -hasál ; **::** -léa *v.IV*
difficult :: -sámsen*v.IV*
dig :: -kíl *v.I/II*
diligence :: mnyáran *n indir.II*
diligent person :: myáran *n indir.II*
diligent :: -mnyáran *v.I*
dirty :: -wum *v.IV* **::** -kamún *v.IV*
disease :: mayé *n indir.II*
disturb :: -hatayúru *v.III*
dive :: -gáli *v.I*
divorce :: -kasága *v.I*
dizzy :: -ámse *v.II* ; **::** -mó *v.II*
do :: -alén *v.II*
dog :: áyi *n indir.II*
dolphin :: sumasów *n indir.ii*; **::** umbón *n indir.II*
kind of dolphin :: robisór *n indir.II*
door :: báynte *n indir.II*
door frame :: ahéw *n indir.II*
dragon :: kórben *n indir.II*
dragonfly :: sokombéy *n indir.II*
draw :: -káy *v.I/II*
dream :: -mnyál *v.I/II*; **::** manyál *n indir.II*
dress :: -sín *v.III*
drifting :: -málin *v.IV*
drink :: -ánum *v.II*; **::** ánum *n indir.II*
drown :: -wup *v.III*
drum
kinds of drum :: álip *n indir.II*; **::** bakúlu *n indir.II*
dry :: -ha *v.III*; **::** -me *v.IV*
dry food :: -mán *v.IV*
dry river :: wiyá *n indir.II*
be very dry (sea, river) :: -bátak *v.IV*
dusty :: -galáp *v.IV*

E e

ear :: tala**-** tu**-** *n dir.Ia*
earlobe :: tala**-** tu**-** kalíw *n dir.I*
earring :: lenkábo *n indir.II*
earwax :: til *n indir.II*
earth :: bát *n indir.II*
earthquake :: suy *n indir.II*
easy :: -mós *v.IV*
eat :: -anán *v.II*; **::** **-íy** *v.II*
echo :: -nankyarán *v.IV*
edge :: kapuk bít *n indir.II*
eel

river eel :: nyu *n indir.II*
sea eel :: keremkán *n indir.II*
egg :: tálo *n indir.II*
eight :: wál *cardnum*
elbow :: kapya**-** kapúk *n dir.I*
embark :: -sá *v.III*
embarrass :: -hamamáy *v.III*
embarrassed :: -máy *v.I*
embers :: marapi *n indir.II*
empty :: -mábayn *v.IV*; **::** -hamábayn *v.III*
end :: -ara *n dir.I*
endanger :: -úku *v.II*
enemy :: át *n indir.II*
enter :: -sun *v.III*
enthusiastic :: -mnyáran *v.IV*
enthusiastic about :: -ryáp *v.I*
evil :: -hey po *v.III*
exchange :: -sín*v.III*
exile :: -babúr *v.I/II*
expect :: -ákyar *v.II*
expert :: lalím *n indir.II*
exploding noise :: -kápla *v.IV*
extinct :: -nyéw *v.IV*
extinguish :: -mát *v.I*
eye :: tají**-** *n dir.I*
eyebrow :: taji- pon *n dir.I*
eyelash :: taji**-** karaníw *n dir.I*

F f

face :: ta- ta- *n dir.Ia*
fail :: -bukút po *v.III*
faint :: -mó *v.IV*
fall :: amdól *n indir.II*; **::** -mdól *v.IV*
fall down slope :: -tárun *v.IV*
fall in water :: -ámju *v.II*
fallen down :: -tasíw *v.IV*
family :: now-gélet *n.comp indir.II*
famine :: mararat anán *n indir.II*
fan :: -ábil *v.II*
dist :: -láw *v.IV*
fart :: -sow *v.III*
fast :: -belémay *v*
fasten :: -ámtin *v.II*
fat :: -pyúm *v.IV*
father :: ma**-** *n dir.II*; **::** mám *n indir.II*
fatty :: -matáli *v.IV*
feather :: kaprún *n indir.II*
feed :: -hán *v.I/II*
feel
by touching :: -hyá *v.I/II*
female :: bin *n indir.II*
fence :: ála *n indir.II*
fill :: -daki *v.III* **::** -hón *v.IV*
find :: -apén *v.II*
fine :: -maré *v.IV*
finger :: koka**-** ti**-** *n dir.I*
fingernail :: koka**-** ti- kabe *n dir.I*
fire :: láp *n indir.II*
make fire :: -daw *v.III*
firefly :: gamlé *n indir.II*
firewood :: ámay *n indir.II*
first :: -amanta *n dir.I*
fish :: -asíri *v.II*; **::** dún *n indir.II*
fish with fly :: -bélen *v.I*
fishing hook :: awír *n indir.II* **::** gumulá *n indir.II*
fishing line :: bélen *n*
fishing spear :: tátul *n indir.II*
go night fishing :: -lóm *v.I/II*
kinds of fish :: báylik *n indir.II*; **::** ímalap *n indir.II*; **::** ímani *n indir.II*; **::** impékem *n indir.II*; **::** ínkambow *n indir.II*; **::** inkár *n* **::** inkór *n indir.II*; **::** insáman *n indir.II*; **::** ju *n indir.II*; **::** kabíri *n indir.II*; **::** káin *n indir.II*; **::** kája *n indir.II*; **::** kalábya *n indir.II*; **::** kamnyán *n indir.II*; **::** kapám *n indir.II*; **::** kasanán *n indir.II*; **::** katalém *n indir.II*; **::** kyá *n indir.II*; **::** lányun *n indir.II*; **::** málup *n indir.II*; **::** mámin *n*

indir.II **::** mámpi *n indir.II*; **::** mót *n indir.II*; **::** nankarów *n indir.II*; **::** náy *n indir.II*; **::** sálen *n indir.II*; **::** sáyop *n indir.II*; **::** sómbo *n indir.II* **::** tagaini n **::** tawágal *n indir.II*; **::** waybúk *n indir.II*; **::** wól *n indir.II*

five :: lim *cardnum*

flat :: -taséke *v.IV*

flatten :: -kaséke *v.I*

flesh :: -wanát *n dir.I*

flick :: -kápin *v.I*

float

in water :: -kábyal *v.IV* **::** -málin *v.IV*

in air :: -yéle *v.I*

flood :: kábi *n indir.II*; **::** -kábi *v.IV*

floor :: hamánit *n indir.II*

flour :: téregu *n indir.II*

flower :: ay-su *n.comp indir.II*

flute :: go kápo *n indir.II*

fly$_1$ :: -ápo *v.II*

fly$_2$ :: lán *n indir.II* **::** lalé *n indir.II*

fog :: kamayó *n indir.II*

fold :: -katu *v.I*

unfold :: -kálu *v.I*

folktale :: gámsu *n indir.II*

follow :: -átay *v.II*; **::** -tum *v.III*

food :: anán *n indir.II*

foot :: ko- ka- *n indir.II*

footprint :: kóya- *n dir.I*

force :: -kaból *v.I;*

forehead :: kabra- *n dir.I*

foreigner :: met-li *n.comp indir.II*

forest :: áy lo *n indir.II*

forge :: -kó *v.I/II*

forget :: -hanandér *v.I*

fork

in branch :: kasagát *n indir.II*

in river :: kasán *n indir.II*

four :: hát *cardnum*

friend :: so *n indir.I*

frighten :: -cát *v.I*

frog

kinds of frog :: kabékey *n indir.II*; **::** maláw *n indir.II*; **::** mánkyaw *n indir.II*

front :: -talay *n dir.I* **::** -ta *n dir.I*

fruit :: kapyu *n indir.II* **::** -kápyu *v.IV*

kinds of fruit :: busú *n indir.II*; **::** inkíri *n indir.II*; **::** káwil *n indir.II* **::** gámu *n indir.II*

fry :: -kápla *v.I*

frying pan :: walun-tapíri *n.comp indir.II*

full :: -hón *v.IV*

full (not hungry) :: -matón *v.IV*

funny :: -káho$_1$

G g

gap :: kalépe *n indir.II*

game :: abáy *n indir.II*

garden :: bát lo *n indir.II*

make garden :: -ási *v.II*

gather :: -áraru *v.II*

gecko :: gáwa *n indir.II*; **::** now-kabóm *n.comp indir.II*

get :: -apén *v.II*

ghost :: kábyo *n indir.II*

gift :: háhey *n indir.II*

ginger :: láliw *n indir.II*

give :: -bí *v.III*

give birth :: -hankárin *v.III*; **::** -su *v.III*

glass :: haním *n indir.II*

glide :: -te *v.III*

glimpse :: -kánum *v.I*

glow :: -mági *v.IV*

glue :: -hálat *v.III*

go :: -tán *v.III*

go first :: -bón *v.I*

go home :: -súy *v.III*

goanna :: kalabét *n indir.II*

God :: hunhún a *n prop*

gold :: pyán *n*

good :: -háhir *v.III*; **::** -hey *v.III*
goodness :: háhey *n indir.II*
goods :: sasíri *n indir.II*
grandparent :: ábu *n dir.I*; **::** tábyu- *n dir.II*
grandchild :: tábyu- *n dir.II*
great-grandchild :: tabyu- ú *n dir.II*
great-great-grandchild :: baw *n indir.I*
grandfather :: abu mánsar *n dir.I*
grandmother :: abu bísar *n dir.I*
grass :: abrís *n indir.II*
grasshopper :: kaséke *n indir.II*
grate :: kátit *n*
grater :: yi *n indir.II*
grave :: lóp *n indir.II* **::** lóp pon *n*
house erected over a grave :: papór *n indir.II*
gravel :: kamamúr *n indir.II*
grease :: aléw *n indir.II*
greedy :: -wók *v.I*
green :: maláw *intr.*
grey :: mahá *adj.vI*
grind :: -kátut *v.I*; **::** -tut *v.III*
grow
humans :: -tapyá *v.IV*
plants :: -mtúm *v*
grub :: sétew *n indir.II*
kinds of grub :: áy *n indir.II*; **::** bey *n indir.II*
guess :: -bóronpo *v.III*
guest :: sánow *n indir.II*
gun :: le-lót *n.comp indir.II*

H h

hair :: pyá *n indir.II*
body hair :: kaprún *n indir.II*
half :: -ket *n dir.I*; **::** -pál *n dir.I*
half full :: -habru *v.IV*
handle :: jám *n indir.II*
handsome :: -amányamin *v.II* ; **::** -ányar *v.II*
hang :: -káwawi *v.I*
hang around neck :: -hén *v.I*
hanging :: -maróroy *v.IV*
happy :: -márin *v.I*
hard :: -mtow *v.IV*
harpoon :: sinampán *n indir.II*
hatch :: -tábyu *v.IV*
head :: kái- *n dir.I*
headdress :: aryáy *n indir.II*; **::** mambepám *n indir.II*
healthy :: -amsíri
hear :: -tanó *v.I*
heart :: yoi- *n dir.I*
hearth :: laptín *n indir.II*
heavy :: -món *v.IV*
help :: -ágali *v.II*; **::** ágali *n indir.II*
hero :: mambrí *n indir.II*
heron :: páy *n indir.II*
hiccup :: hín latáje ine
hide :: -kábun *v.I*
hill :: yíl *n indir.II*
hips :: sai- kabom *n dir.I*
hit :: -bun *v.III* **::** -so *v.IV*
with large mallet :: -wul *v.III*
hold :: -gigíl *v.I/II*; **::** -kabút *v.I*; **::** -sáw *v.III* **::** -kaútep *v.I* **::** -káp *v.I/II*
with tongs :: -kasáp *v.I*
hole :: dókow *n indir.II*; **::** gu *n indir.II* **::** tájiw *n indir.II*
holey (fruit) :: -gu *v.IV*
homeland :: matén *n indir.II*
honest :: -mtólon *v.IV*
honesty :: matólon *n indir.II*
honey :: hul *n indir.II*
hope :: -ákyar *v*; **::** -wásan *v.I/II*
horizontal :: -halapyát *v.III*
hot :: mári *adj.vI*
heat up :: -kayé *v.I*
re-heat :: -hamári *v.III*
house :: now *n indir.II*
howl :: -láw *v.III*

hug :: -kábu *v.I*
human being :: macúbey *n indir.II*
hundred :: útun *cardnum*
hungry :: -másil *v.IV*
husband :: mánsar *n indir.I*

I i

illness :: másí *n indir.II*
incomplete :: -kalóko *v.IV*
infected :: -holó *v.I*
infertile :: - báhon *v.I*
inform :: -sidón *v.I/II*; **::** -bi don *v.III*
in-law
parent-in-law :: kamú- *n dir.II*
child-in-law :: kamú- *n dir.II*
sibling-in-law :: taméy *n indir.I* **::** daré *n indir.I*
children's spouse's parents :: píyn *n indir.I*
inside :: lo *n indir.II*
intestines :: nyai- kabyáli *n dir.I*
invade :: -karáw *v.I*
invitation :: kalál *n indir.II*
invite :: -kalál *v.I*
iron :: láte *n indir.II*
Islam :: Sálam *n indir.II*
island :: yé *n indir.II*
itchy :: -kákal *v.IV* **::** -masén *v.IV*

J j

jambu fruit :: hyów *n indir.II*; **::** gop *n*
forest jambu :: ahál *n indir.II*
jaw :: ga- kabom *n dir.I*
jellyfish :: seme tási *n.comp indir.II* **::** yeke tási *n.comp indir.II*
journey :: tancán *n indir.II*
jump
forwards :: -hlór *v.I/II*
up and down :: -ádo *v.II*

K k

kick :: -sapák *v*
with sole of foot :: -tál *v.III*
kidney :: málkabyalat *n indir.II*
kidney stone :: tamey sót *n indir.II*
kill :: -bun *v.III*
king :: hun *n indir.II*; **::** koránu *n indir.II*
kingfisher :: mankensús *n indir.II*; **::** sumuláy *n indir.II*
knee :: koka- kapuk *n dir.I*
knife :: túlu *n indir.II* **::** knife *n indir.II*
knot :: sasél *n indir.II*
know :: -un *v.II*

L l

ladle :: -káta *v.I*; **::** káta *n indir.II*
land :: -katarán *v.I*
language :: galí *n indir.II*
last :: - kaymúl *n dir.I*
laugh :: -ámi *v.II*
lazy :: -mnyaran po *v.IV*
lead :: -kabút *v.I*
leader :: met-kái *n.comp indir.II*
leaf :: kokánu *n indir.II* **::** -kanu *n indir.II*
kind of itchy leaf :: séme *n indir.II*
leaf litter :: gamnyáy *n indir.II*
lean :: -dilí *v.III*
leatherback sea turtle :: okmóm *n indir.II*
leave :: -dók *v.III*; **::** -dók tabol *v.III*
leave by boat :: -károw *v.I*
leave behind :: -bá *v.IV* **::** -árip *v.II*
leg :: ko- ka- bát *n dir.I*
left (side) :: papét
left behind :: -waráy
leftovers :: máy *n indir.II*

lemon basil :: balakamá *n indir.II*
lemongrass :: bábow *n indir.II*
lend :: -bí am be du *v.III*
lick :: -kalép *v.I*
lie :: -atúk *v.II*; **::** atúk *n indir.II*
  lie down :: -malák *v.I*
  lie face down :: -wóp *v.III*
life :: háhey *n indir.II*
lift :: -bá *v.III*
  lift from fire or sago oven :: -ásin *v.II*
light :: -túbun *v.III*
light (not dark) :: -lél *v.IV*
light (weight) :: -máne *v.IV*
lighter :: garis *n indir.II*
lightning :: laléw *n indir.II*
like :: -márin *v.I*
limb :: ko- ka- *n dir.Ia*
lime :: áhar *n indir.II*; **::** mánil *n indir.II*
lip :: ga**-** kani *n dir.I*
lit :: -mín *v.IV*
little bit :: loki
liver :: latey**-** *n dir.I*
load :: -ábyan *v.II*
lobster trap :: púp *n indir.II*
located :: -naháta *v.IV*
log :: -uru *n dir.I*
loincloth :: malsándia *n indir.II*; **::** sankóy *n indir.II* **::** mál *n indir.II*
long :: -mánkwan *v.IV*; **::** -maó *v.IV*
  long time :: pák *adv*
look for :: -ém *v.II*; **::** -émsap *v.II*; **::** -giság *v.I*; **::** -ligisáp *v.I*; **::** -ligí *v.I*
loose :: -bálow *v.IV*
lost :: -msál *v.I/II*; **::** -min *v.IV*
louse :: ut *n indir.II*
lump :: gámut *n indir.II*
lung :: kapa**-** *n dir.I*

M m

machete :: sómber *n indir.II*
majority :: mábu *n indir.II*
make :: -ín *v.II*
male :: mán *n indir.II*
mallet :: sewá-sewá *n indir.II*
man :: mán *n indir.II*
mango :: yáy *n indir.II*
mangrove tree :: kor *n indir.II*
  mangrove swamp :: babatkór *n indir.II*
  kinds of mangrove tree :: bin *n indir.II*; **::** man *n indir.II*; **::** práy *n indir.II*
manta ray :: manápa *n indir.II*
  kinds of manta ray :: hey *n indir.II*; **::** kacúcu *n indir.II*; **::** karandáy *n indir.II*; **::** kásyawa *n indir.II*; **::** malélen *n indir.II*; **::** máni *n indir.II*; **::** yi *n indir.II*
many :: mábu *adj.vI*
marble :: mútel *n indir.II*
marrow :: maméy *n indir.II*
marry :: -asáw *v.II*
marsh :: kápeket lo *n indir.II*; **::** kankónot *n indir.ii*
massage :: -karími *v.I*
mat :: lám *n indir.II*
mate :: -asáw *v.II*
measure :: -lókot *v.I*
meat :: wanát *n indir.II*
medicine :: káwa *n indir.II*
meet :: -dók *v.III*
melinjo :: maráp *n indir.II*
metal :: gobán *n indir.II*
middle :: handu *n indir.II*; **::** sórom *n indir.II*
milipede :: galíhin *n indir.II*
milk :: su *n indir.II*
million :: tateten lál *cardnum*
miss :: -wár *v.I/II*

mistake :: sál *n indir.II*
mix :: -haraway *v.III*
money :: gobán *n indir.II*; **::** pip *n indir.II*; **::** sen *n indir.II*
month :: tún *n indir.II*
moon :: tún *n indir.II*
  full moon :: tun-amnów *n.comp indir.II*; **::** tun-amnyé *n.comp indir.II*
more than :: may *cardnum*
morning :: pánye *n indir.II*
  early in the morning :: panye-lál *n.comp indir.II*
mortar and pestle :: ay tátut *n indir.II*
mosquito :: kámu *n indir.II*
  mosquito net :: bubá *n indir.II*
moss :: lábut *n*
mother :: nén *n indir.II*; **::** nya- *n dir.II*
mountain :: ípon *n indir.II*
mouth :: ga- *n dir.I*
move :: -manów *v.IV*
  move place :: -ága *v.II*
  move to one side :: -ut dók *v.II*
  move village :: -háryan *v.III*
muddy :: -msú *v.IV*
multicoloured :: -malélen *adj.vI*
mung bean :: ábru *n indir.II*
murder :: bábun *n indir.II*
mushroom :: yén *n indir.II*
mute :: -kamów *v.IV*

N n

nail :: -pi *v.I/II*
naked :: -balóko *v.IV*
name :: -mtén *v.I/II*; **::** -gáin *v.I*; **::** gáin *n, n dir.I*
  namesake :: kámuk *n indir.II*
narrow :: -másul *v.IV*
near :: -hárit *v.IV*; **::** -márin *v.IV*
nearly :: lawa
neck :: kacu- *n dir.I*
  neck decorations :: lisosráy *n indir.II*
need :: hándun *n indir.II* **::** -hándun *v.I*
needle :: yám *n indir.II*
nephew :: háne *n indir.I*
nest :: pup *n indir.II*
new :: -bábo *adj.vI*
niece :: háne *n indir.I*
night :: gám *n indir.II*
  late at night :: gám pak *n indir.II*
nine :: siw *cardnum*
noisy :: -lót *v.IV* **::** -malúlun *v.IV*
nose :: su- *n dir.I*
  bridge of nose :: su- kabom *n dir.I*
  nosebleed :: -mandawán *v.IV*
nostril :: su- gu *n dir.I*
numb :: -kahyála *v.IV*

O o

obey :: -du *v.III*
observe :: -tóp *v.I/II*
obstacle :: káso *n indir.II*
obstruct :: -káso *v.IV*
octopus :: kit *n indir.II*
often :: táculi *adv*
oil :: mílik *n indir.II*
old :: kwár *adj.vI*
  old man :: mánsar *n indir.II*
  old woman :: bísar *n indir.II*
one :: kitém *cardnum*
  one by one :: kitém kitém
open :: -kapów *v.I*; **::** -bák *v.IV*; **::** -tapyów *v.IV*
  open a bag :: -kapák *v.I*
  open a book :: -kaséke *v.I*
  open shellfish :: -káhi *v.I* **::** **-** kálet *v.I*
oppose :: -rúkun *v.I/II* **::** -katól *v.I*
order :: -sól *v.III*
orphan :: awák *n indir.II*
other :: asaí
outrigger
  beam :: íri *n indir.II*

float :: amón *n indir.II*
connector :: áci *n indir.II*
outside :: li *n indir.II*
oyster :: papyú *n*

P p

pack :: -tabán *v.I*
paddle :: -áp *v.II*; **::** pú *n indir.II*
papaya :: tamláka *n indir.II*
paper :: kamtát *n*
paradise :: sorongá *n indir.II*
pass by :: -katimíl *v.I*; **::** **-tí** *v.III*
patrol :: -woryáy *v.I*
pay :: -ábay *v.II*
pearl :: mútika *n indir.II*
peck :: -tul *v.III*
peel :: kaní *n indir.II*
peel with hands :: -kápo*v.I*
peel with knife :: -kásu *v.I*
peel coconut :: -kálu*v.I*
peel fruit with thin skin :: -kahótol *v.I*
penis :: sí *n dir.I*
perch :: -téten *v.III*
perfect :: -lé *v.IV*
perimeter :: -kabílit *n dir.I* **::** -húlut *n dir.I*
permit :: -ámnyo *v.II*
person :: mét *n indir.II*
pick up :: -blét *v.I/II*; **::** -ún *v.II*
piece :: kakút *n indir.II*
pierce :: -kadókow *v.I*; **::** -kájiw *v.I*
pierced :: -dókow *v.IV*; **::** -tájiw *v.IV*
pig :: kayáw *n indir.II*
pigeon :: péyn *n indir.II*
kinds of pigeon :: kámu *n indir.II*; **::** pombó *n indir.II*
pillow :: ay-lun *n.comp indir.II*
pinch :: -kápit *v.I*; **::** kápit *n indir.II*
pineapple :: tápran *n indir.II*
place :: lo *n indir.II* **::** -háta *v.I/II*
plain :: máto *n indir.II*
plan :: -karákir *v.I*
have a plan :: -gáw *v.I/II*
plank :: ahón *n*
plant :: -taním *v.I*
plate :: bém *n indir.II*
platform :: háta *n indir.II*
drying platform :: anjóron *n indir.II*
smoking platform :: dá *n indir.II*
play :: -abáy *v.II*
plead :: -siw kaból *v.II*
plug :: -kasóron *v.I*
point :: -tín *v.I/II*
poison ::- só *v.I/II* **::** -béw *v.I*; **::** babéw *n indir.II*
poke :: -kátul *v.I*
polite :: -mágin *v.I*
politeness :: magín *n indir.II*
pool :: útun *n indir.II*
large pool :: són *n indir.II*
possum
striped possum :: gángim *n indir.II*
pot :: wálun *n indir.II*
large pot :: kabísum *n indir.II*
pot for rice :: walun-kapón *n.comp indir.II*
pour :: -kari *v.I*
powerful :: -apmáy *v.II*
pregnant :: -ól *v.II*
press :: -kataní *v.I*
price :: -pil *n dir.I*
problem :: kakrók *n indir.II*
promise :: -gón *v.I*
puddle :: kapéket *n indir.II*
puffafish :: kasót *n indir.II*
kinds of puffafish :: ínamer *n indir.II*; **::** kía *n indir.II* **::** arúkun *n*
pull :: -dú *v.III*
pull out :: -kapá *v.I*; **::** -káro *v.I*
punch :: bábun *n*
punt :: -til *v.III* **::** báy *n indir.II*
pus :: kanán *n indir.II*
push :: -dow *v.III*; **::** -karúru *v.I*; **::** kásul *n indir.II*

push canoe :: -károw *v.I*
put :: -pol *v.I/II* **::** -háta *v.I/II*

Q q

quarrel :: -áyt *v.II* **::** -kakróp *v.I*
question :: átun *n indir.II*
quiet :: -hatáput *v.III*; **::** -mnyát *v.IV*
quick :: -haranyáyn *v.III*

R r

race :: súkut *n indir.II*
rain :: míy *n indir.II*
downpour :: hadém *n indir.II*
rain that seeps into a building :: masáhar *n indir.II*
rainbow :: wow *n indir.II*
raft :: áte *n indir.II*
rat :: kalúbu *n indir.II*
rattan :: dow *n indir.II*
rattan mat :: ganyét *n indir.II*
kind of rattan :: ayse *n indir.II*
raw :: bálu *adj.vI*
eat raw :: -wón *v.I*
rays :: gányul *n indir.II*
reach :: -bút *v.IV*
reach inside :: -karáw *v.I*
reach inside bag :: -kí *v.I/II*
receive :: -sin *v.III*
recipient :: sásin *n indir.II*
recognise :: -háy *v.I/II*
red :: támi *adj.vI*
reef :: mamá *n indir.II*; **::** irbúr *n indir.ii*
reflect :: -béblen *v.I*
reject :: -msínit *v.I/II*
relax :: -árak *v.II*
release :: -púsal *v.I*
remain :: daw
remember :: -wásan *v.I/II*
remove :: -ál suy *v.II*
repair :: -harárur *v.III*
repeat :: -sup *v.IV*
repent :: -ámdo *v.II*
replace :: -háwre *v.III*
reply :: -tubúl *v.III*
request :: -síw *v.I/II*
reproduce :: -áse *v.II*
respect :: -sóm *v.III*; **::** samsóm *n indir.II*
response :: tatubúl *n indir.II*
rest :: -tíy *v.III*
retort :: -kaváy *v.I*
return :: -váy *v.III*
reveal :: -tapít *v.I* **::** -hatapít *v.III*
reverse :: -susu *v.III*
rheum :: taji**-** kali *n dir.I*
rice :: há *n indir.II*
right (side) :: pacú
ringworm :: pín *n indir.II*
ripe :: máre *adj.vI*
river :: we lo *n indir.II*
river source :: we-ikai *n.comp indir.II*
river bank :: kajámpon *n indir.II*
road :: limpón *n indir.II*
roast :: -kapíl *v.I*
rob :: -áydam *v.II*
roll :: -kaéloy *v.I*; **::** -tagálulun *v.I*
roll in flat of palm:: -búluy *v.I*
roll a cigarette :: -kalulu *v.I*
rolled cigarette :: kalúlu *n indir.II*
rolling :: -tágalulun *v.I*; **::** -taéloy *v.IV*
roof :: katé *n indir.II*
ridge of roof :: pin *n indir.II*
room :: now-gú *n.comp indir.II*
root :: kawák *n indir.II* **::** kalí *n indir.II*
rope :: wáli *n indir.II*
rotten :: -pén *v.IV* **::** -bi *v.IV*
row (boat) :: -deyn *v.III*
rub :: -kamoí *v.I*; **::** -karími *v.I* **::** -kabubu *v.I*
rub eyes :: -kálown *v.I*
rubbish :: le kamún *n indir.II*
rude :: -mári *v.IV*

run :: -áti *v.II*
run away :: -ó *v.II*
rung :: kawré *n indir.II*

S s

safe :: hey *v.IV*
sago :: bey *n indir.II* **::** cun *n indir.II*
kinds of sago tree :: álu *n indir.II*; **::** ámyum *n indir.II*; **::** gíy *n indir.II*; **::** máru *n indir.II*; **::** yél *n indir.II*
fried sago :: sínele *n indir.II*
harvest sago :: -áw *v.II*
sago bucket :: kúru *n indir.II*
sago container :: abóp *n indir.II*
sago fibres :: kába *n indir.II*
sago funnel :: láym *n indir.II*
sago leaf litter :: gámnyay *n indir.II*
sago oven :: kasút *n indir.II*
sago porridge :: yéke *n indir.II*
sago pulp :: yél *n indir.II*
sago scraper :: síki *n indir.II*
sago settlement :: laló *n indir.II*
sago sieve :: latét *n indir.II*
sago stem :: -kahaw *n dir.I*
sago strainer :: ánut *n indir.II*
sago vessel :: háw *n indir.II*
scrape sago :: -síki *v.I*
sieve sago :: -tét *v.I/II*
sift sago :: -nów *v.I/II*
squeeze sago :: -ámo *v.II*
tool for cooking sago porridge :: gáliw *n indir.II*
tool for pounding sago :: amák *n indir.II*
wrap sago :: -ápu *v.II*
sail :: -kái *v.I*
saliva :: kápi *n indir.II*
salt :: -mágasa *v.I*; **::** gasi *n indir.II*
salt water :: tási*n indir.II*
salty :: -másin *v.IV*
same :: -dadi *v.IV*; **::** -mi *v.IV*
sand :: láyn *n indir.II*
sand fly :: maré *n indir.II*
sandal :: kolóm *n indir.II*; **::** sor bát *n indir.II*
sash :: likahyét *n indir.II*
sauce :: lámat *n*
say :: -bíne *v.III*
scab :: lomo-máy *n.comp indir.II*
scabies :: búblit *n indir.II*
scale :: karanú *n indir.II*
scar :: pulúk *n indir.II*
scold :: -sónok *v.I/II*; **::** -maroków *v.I*
scorched :: -túnun *v.IV*
scorpion :: kankólom *n indir.II*
scrape :: -áko *v.II* **::** -káw *v.I/II*
scratch :: -áka *v.II*
scream :: -tagágaym *v.I*
scrub :: -karími *v.I*
sea :: wálut *n indir.II*
sea cucumber :: pimám *n indir.II*
kinds of sea cucumber :: batmarú *n indir.II*; **::** gám *n indir.II*; **::** kalabét *n indir.II*; **::** kámbowa *n indir.II*; **::** konkon amnyé *n indir.II*; **::** konkon gám *n indir.II*; **::** rawé *n indir.II*; **::** su *n indir.II*; **::** tápran *n indir.II*
sea urchin :: káteyn *n indir.II*
season :: mun *n indir.II*
seaweed :: káwa *n indir.II*; **::** rom *n indir.II*
see :: -ém *v.II*
seed :: -múr *n dir.I*
seedling :: -náy *n dir.I*
sell :: -mayál *v.I*; **::** -wop *v.III*
send :: -nát *v.I/II*
servant :: mácu *n*
serve food :: -tata *v.III*
seven :: hit *cardnum*
sew :: -kárin *v.I* **::** -din *v.III*
shade :: máyun *n indir.II*

shadow :: lu**-** *n dir.I*
shallow :: -me *v.IV*
share :: -tén *v.III*; **::** tancén *n indir.II*
shark :: rúmun *n indir.II* **::** ui *n indir.II*
kinds of shark :: byát *n indir.II*; **::** gácul *n indir.ii*; **::** gamsélep *n indir.II*; **::** kaybílik *n indir.II*; **::** mája *n indir.II*; **::** mandemúr *n indir.II*; **::** selemetém *n indir.ii*; **::** síy *n indir.II*
sharp :: -tálim *v.IV*
sharpen :: -la *v.III*
shave :: -águl *v.II*
sheath :: -sór *n dir.I*
sheet :: kapanaí *n indir.II*
shell :: kaní *n indir.II*
shellfish :: hájum *n indir.II*
kinds of shellfish :: aysórom *n indir.II*; **::** bábasa *n indir.II*; **::** bámi *n indir.II*; **::** batít *n indir.II*; **::** beró *n indir.II*; **::** kaklát *n indir.II*; **::** kálin *n indir.II*; **::** kásey *n indir.II*; **::** katóp *n indir.II*; **::** katoplatét *n indir.II*; **::** kaúkuy *n indir.II*; **::** kawayrór *n indir.II*; **::** kayí *n indir.II*; **::** kó *n indir.II*; **::** sábokol *n indir.II*; **::** wáp *n indir.II*
shelter :: pyón *n indir.II*
shelter on a canoe :: papídan *n indir.II*
shit :: káli *n indir.II*
shoot
shoot with bow :: -hán *v.III*
shoot with gun :: -túbun *v.III*
short
not long :: -kapyút *v.IV*
not tall :: -kapápar *v.IV*
shoulder :: pupu**-** *n dir.I*
shout :: -gága *v.I/II*; **::** agága *n indir.II*
shove :: -kásul *v.I*
shovel :: -sul *v.III*
shrimp :: kapyáy *n indir.II*
kinds of shrimp :: buriás *n indir.II*; **:** kai-lál *n.comp indir.II*; **::** kamkáma *n indir.II*; **::** mambuárak *n indir.II*; **::** marása *n indir.II*
sibling :: nu**-** *n dir.II* **::** now *n indir.I*
sick :: -ámsi
side :: -bít *n dir.I*; **::** pal *n indir.II*
since :: -sansón
sing :: -bra *v.I*; **::** -sál *v.I/II*
singed :: -tútun *v.IV*
sink :: -majúrun *v.IV*
make something sink :: -kajúrun *v.I*
sit :: -kátown *v.I*
sit up :: -tantólon *v.I*
sitting position :: kátown *n indir.II*
six :: wanóm *cardnum*
skeleton :: amít-yawin *n.comp indir.II*
skewer :: -tápe *v.I*
skin :: kaní *n indir.II*; **::** ríp *n indir.II*
skull :: kagala**-** *n dir.Ia*
sky :: naló *n indir.II*
slant :: halásu *v.III*
slanted :: -tábum *v.IV*
sleep :: -ané *v.II*
slice :: -galút *v.I/II* **::** -gále *v.I/II*
slide :: -tarúru *v.IV*
slipway :: batár *n indir.II*
slippery :: -marasé *v.IV*
small :: -mínki *adj.vI.*
smash :: -kapáw *v.I*
smashed :: -tapáw *v.IV*
smell :: -tén *v.I/II*; **::** -pun *v.IV*
smell rancid :: -payólon *v.IV*
smile :: -ámi *v.II*
smoke :: -sóro *v.III*; **::** -suy *v.III*; **::** -dáraw *n dir.I*
smoking :: -dáraw *v.IV*
snagged :: -msám *v.IV*
snake :: lemát *n indir.II* **::** kok *n indir.II*
kinds of snake :: ayú *n indir.II*; **::** bátnya *n indir.II*; **::** gagót *n indir.II*; **::** kábay *n indir.II*; **::** lálambu *n indir.II*; **::** láliw *n indir.II*; **::** lemári *n indir.II*; **::** mankaparáran *n indir.II*; **::** su *n indir.II*

sea snake :: lemat-tási *n.comp indir.II*
snap :: -kablón *v.IV*
sneeze :: -áje *v.II*
snot :: mánu *n indir.II*
snotty :: -mánu *v.IV*
soak :: -teyn *v.III*
soft :: -byók *v.IV*; **::** -mnyó *v.IV*
sometimes :: táculi *adv*
song :: jow *n indir.II*
traditional song :: langín *n*
sooty :: -sím *v.IV*
sorceror :: met-harárur *n.comp indir.II*
sore :: -táju *v.IV*
sour :: míl *adj.vI*
soursop :: dárian *n indir.II*
speak :: -asúy *v.II*
spear :: -te *v.III*; **::** ná *n indir.II*
nudibranch spear :: katatéw *n indir.II*
sea turtle spear :: halák *n indir.II*
parts of sea turtle spear :: lahén *n indir.II*; **::** táynta *n indir.II*
someone who throws a spear :: táte *n indir.II*
spell :: sarát *n indir.II*
spicy :: -mári *v.IV*
spider
kind of spider :: kasabábat *n indir.II*
house spider :: kapólot *n indir.II*
spider web :: pup *n indir.II*
spill :: -kari *v.I*
spilt :: -tari *v.IV*
spin :: -kabúluy *v.I*
spit :: -kápi *v.I*
spit out :: -wów *v.III*
splattered :: -káti *v.IV*
splinter :: táre *n*
splintered :: -táre *v.IV*
split
firewood :: -kapé *v.I*
sago trunk :: -káre *v.I*
spoil :: -manjá *v.I*
spoon :: sul *n indir.II*
spouse :: iawa *n indir.II*
spring :: dúbul *n indir.II*; **::** we itaji *n.comp indir.II*
squat :: -katown-kapów *v.I*
squeeze :: -káho *v.I*; **::** -kahótol *v.I*
squid :: ránu *n indir.II*
kind of squid :: paráy *n indir.II*
stab :: -tápe *v.I*
stabbed :: -katébel *v.IV*
stalk :: -bom *n dir.I*
stand :: -ól *v.II*
star :: kálo *n indir.II*
morning star :: mankabrán *n.prop*
starfish :: kalo tási *n indir.II*; **::** mansawándum *n indir.II*
startle :: -hatayúru *v.III*
startled :: -táli *v.IV* **::** -tayúru *v.I*
statue :: ayhi *n indir.II*
stay :: -tó *v.III*
stay behind :: -bá *v.IV*
steal :: -kámey *v.I*
stolen thing :: kámey *n indir.II*
steam :: wow *n indir.II*
step :: -hil *v.III*
steps :: lúnte *n*
stick :: -kacábal *v.I* **::** -hálat *v.III*
stiff :: -gá *v.IV*
stitch :: din *n indir.II*; **::** kárin *n indir.II*
stomach :: nyái**-** kabyali *n.comp dir.I*
stone :: kátin *n indir.II*
storm :: haláhu *n indir.II*
story :: asúy *n indir.II*; **::** galí *n indir.II*; **::** sárita *n indir.II*
ancestor's tale :: warís *n indir.II*
folktale, fairytale :: gámsu *n indir.II*
straight
fishing line :: -masúru *v.IV*
wood :: -malólo *v.IV*
strand :: halálan *n indir.II* **::** kápan *n*
strangled :: -kahótol *v.I*
strike :: -mér *v.I/II*
strip :: -kanúy *v.I* **::** -kasál *v.I*
strong
person :: -áryar *v.II*

thing :: -mnát *v.IV*
stupid :: -áluk *v.II*; **::** -áyo *v.II* **::** -taplów *v.I*
succeed :: -bukút *v.III*
suck :: -ámi *v.II*
sugarcane :: túp *n indir.II*
sun :: láynta *n indir.II*
sunny :: -narow *v.IV*
swallow :: -mói *v.I/II*
sweat :: mabót *n indir.II*; **::** -mabót *v.IV*
sweet :: mále *adj.vI*
sweet potato :: wáli *n indir.II*
swim
humans and land animals :: -lá *v.III*
fish and sea creatures :: -ún *v.II*
swollen :: -bá *v.IV*
swollen injury :: -kabóko *v.IV*

T t

table :: lelá *n indir.II*
tail :: ságale *n indir.II*
take :: -ál *v.II*
talk :: -asúy *v.II*; **::** -bin *v.III*
talk nonsense :: -mámo *v.I*
tall :: -máne *v.IV* **::** -lálik *v.IV*
tame :: -ámu *v.II*
tangle :: apúp *n indir.II*
tangled :: -tabyalím *v.IV*
taro :: káwia *n indir.II*
kinds of taro :: bu *n indir.II*; **::** ínkambow *n indir.II*; **::** kapár *n indir.II*; **::** waím *n indir.II*
tattoo :: ladán *n indir.II*
taut :: -tól *v.IV*
tear (cloth) :: -kamára *v.I*; **::** -kasárak *v.I*; **::** tasárak *n indir.II* **::** tamára *n*
torn :: -tamára *v.IV*; **::** -tasárak *v.IV*
tear (eyes) :: táji**-** lu *n dir.I*
tell :: -asúy *v.II*; **::** -sárita *v.III*
tell history :: -til *v.III* **::** -áhar *v.II*
temple (forehead) :: tala-tu- kapuy *n dir.I*
ten :: láhe *cardnum*
test :: -tóhon *v.I*
testicles :: kala**-** *n dir.I*
thick :: -matálo *v.IV*
thigh :: kaholo**-** *n dir.I*
thin
not fat :: -kákor *v.IV*
not thick :: -marási *v.IV*
thing :: lén *n indir.II*
think :: -wásan *v.I/II*
thorn :: tun *n indir.II*
thousand :: calan *cardnum*
thread :: lawé *n indir.II*
three :: túl *cardnum*
throat :: kako**-** *n dir.Ia*
throw
throw at :: -bít *v.I/II*
throw away :: -dókoy *v.III*
throw underarm :: -sabít *v.I*
thunder :: lálo *n indir.II* **::** -tapyára *v.IV*
tickle :: -másí *v.I/II*; **::** -karírik *v.I*
tide :: mo *n indir.II*
high tide :: nyiw *n indir.II*
low tide :: mú *n indir.II*
tie :: -sél *v.III*; **::** -káhul *v.I*
tight :: -gagét *v.IV*
times :: tájin
tip :: -kaliw *n dir.I*
tired :: -kamát *v.IV*
today :: lanyán wane *n indir.II*
toilet :: kákus *n*
tomato :: sámate *n indir.II*
tomorrow :: nyelál *adv*
tongs :: kasáp *n indir.II*
tongue :: ware**-** *n dir.I*
tooth :: wali**-** *n dir.I*
top :: -pón *n dir.I*
tough :: mtow *v.IV*
tough areca nut :: -kanyél *v.IV*
trail :: kapára *n indir.II*
trapped :: -hahúlu *v.I*

tree :: áy *n indir.II*
kinds of tree :: ásen *n indir.II* **::** báli *n indir.II*; **::** bintakí *n indir.II* **::** bu *n indir.II*; **::** buruman *n indir.II*; **::** byálam *n indir.II*; **::** dár *n indir.II*; **::** gáman *n indir.II*; **::** kálayn *n indir.II*; **::** kalóbo *n indir.II*; **::** káma *n indir.II*; **::** kári *n indir.II*; **::** kasána *n indir.II*; **::** kéw *n indir.II*; **::** kót *n;* **::** krís *n indir.II*; **::** lálam *n indir.II*; **::** lánye *n indir.II*; **::** mánjaw *n;* **::** máre *n indir.II*; **::** míy *n indir.II*; **::** món *n indir.II*; **::** nán *n indir.II*; **::** pa *n indir.II*; **::** salambím *n indir.II*; **::** sarámur *n indir.II* **::** tacúl *n indir.II*; **::** ulúsiw *n indir.II*
tremble :: -mabóbo *v.IV*
tribe :: gélet *n indir.II*
trick :: -atúk *v.II*; **::** atúk *n indir.II*
trotter :: syonkér *n indir.II*
trunk :: báy *n dir.I*; **::** búrua *n indir.II*
trust :: -ákyar *v.I/II*
try :: -tóhon *v.III*
tuber :: katíli *n indir.II*
tuberculosis :: kapi lómo *n indir.II*
tuna :: imborónot *n indir.II*; **::** inkmáy *n indir.II*
tunnel :: karáp *n*
turn :: -kaváy *v.I*
turn body :: -káhu *v.I*
turtle
sea turtle :: hín *n indir.II*
kinds of sea turtle :: cú *n indir.II*; **::** mambráp *n indir.II*; **::** okmóm *n indir.II*; **::** wánu *n indir.II*
freshwater turtle :: mangín *n indir.II*
twig :: kóp *n indir.II*
twin :: hayápa *n indir.II*
twist :: -kabúluy *v.I*
twisted :: -taplék *v.IV*
twister :: ník *n*
two :: low *cardnum*

U u

umbrella :: pown *n indir.II*
uncle :: kak *n indir.I* **::** pop-mán *n.comp indir.I*
uncover
mug or rice pot :: -kapów *v.I*
plate or glass :: -kapálin *v.I*
uncovered :: -tapyáy *v.IV*
underneath :: -páp *n dir.I*
understand :: -maratí *v.I*
unripe :: múk *adj.vI*
unstick :: -kapól *v.I*
untie :: -kátiw *v.I*
upright :: -mtólon *v.IV*
uprooted :: -tapyá *v.IV*
urge :: -kádut *v.I* **::** -cán *v.I/II*
urine :: tamey *n indir.II*
urinate :: -támey *v.I* **::** -tan we *v.III*
uterus :: bawi**-** *n dir.I*

V v

vagina :: si**-** yaren *n dir.I*
valley :: íron *n indir.II*
vein :: lalón *n, n dir.I*
vengeful :: -háwa *v.IV*
village :: kalíw *n indir.II*
vine :: wáli *n indir.II*
kind of vine :: kálut *n indir.II* **::** magáyol *n indir.II*
visit :: -sánow *v.I*
voice :: galí**-** *n dir.I*
vomit :: -ógol *v.II*

W w

waist :: lay**-** hun *n dir.I*
wait :: -lalóy *v.I/II*; **::** -tabón
wake up :: -ábin *v.II*
wake someone up :: -kánol *v.I*
rise from sleep :: -kapálin *v.I*

walk :: -tán *v.III*
wall :: kajén *n indir.II*
want :: -abí *v.II*
  not want :: -mséw *v.I/II*
war :: bábun *n indir.II*
  go to war :: -bun *v.III*
warm :: -magaléyn *v.IV* **::** -júy *v.I/II*
wash :: -sów *v.III*
  wash clothes :: -tú *v.III*
  person who washes :: sasów *n indir.II*
wasp :: tápi *n indir.II*
  kinds of wasp :: bát *n indir.II*; **::** lán *n indir.II*; **::** máni *n indir.II*; **::** saváy *n indir.II*
watch :: -haním *v.III*
  watch for :: -sayór *v.I*
water :: we *n indir.II*
  piped water :: we-piríar *n.comp indir.II*
  water spinach :: ankó *n indir.II*
waterfall :: ásu *n indir.II*
watermelon :: támaka *n indir.II*
wave :: tápo *n indir.II* **::** lalóy *n indir.II*
weak :: -mákat *v.IV* **::** -ámgay *v.II*
weapon :: le tálim *n indir.II*
weather :: na *n indir.II*
weave :: -ném *v.I/II*
weed :: -kalám *v.I*
week :: ari *n indir.II*
wet :: -másut *v.IV*
whale :: saróy *n indir.II*
wheeze :: -mtín *v.IV*
whip :: -ádi *v.II*
whirlpool :: bókoy *n indir.II*
whisper :: gamumyú *n indir.II*
whistle :: -kápo *v.I*; **::** kápo *n indir.II*
white :: bu *adj.vI*
wide :: -márapo *v.IV*
  widen :: -hamárapo *v.I*
widow :: kábom *n indir.II*
widower :: mánsyan *n indir.II*
wife :: bísar *n indir.I*
wind :: móro *n indir.II*
  north wind :: morúr *n indir.II*
  north-east wind :: morur máce *n indir.II*
  east wind :: wamúrum *n indir.II*
  south-east wind :: waméres *n*
  south wind :: sáwi *n indir.II*; **::** wámbraw *n indir.II*
  south-west wind :: wamkádo *n indir.II*
  west wind :: pát *n indir.II*
  north-west wind :: wambréy *n indir.II*
wind (rope) :: -kabalím *v.I*
window :: kanáw *n indir.II*
wing :: kahlé *n indir.II*
wire :: labrán *n indir.II*
wither :: -magaláy *v.IV*
woman :: bin *n indir.II*
wood :: áy n
  firewood :: ámay *n indir.II*
work :: -harárur *v.III* **::** -kárijan *v.I*
world :: matén *n indir.II*
worm :: bajólow *n indir.II*
  sand worm :: insoném *n indir.II*
worry :: sóswar *v.I/IV*
wound :: labét *n indir.II*
  wounded :: -labét *v.IV*
wring :: -kahúluy *v.I*
wrinkled :: -msúkul *v.IV*
wrist :: kapya- hahí**s** *n dir.I*
write :: -káy *v.I/II*
  writing :: kakáy *n indir.II*
wrong :: -sál *v.IV*

Y y

yawn :: -wokasúy *v.I*
yellow :: máni *adj.vI*
yesterday :: láyntopana *adv*
young :: -bábo *adj.vI*
  very young (areca nut) :: -gul *v.IV*
  very young (fruit) :: -gágí *v.IV*