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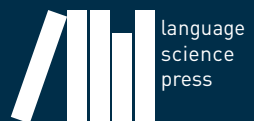
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A grammar of Ulwa (Papua New Guinea)

Russell Barlow

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Preface

This book is a revision of my PhD dissertation, *A grammar of Ulwa*, which I successfully submitted in May 2018 at the University of Hawaiʻi at Mānoa. Since then, I have returned again to Papua New Guinea, where I learned more about the Ulwa language. In particular, I met with more speakers of the Maruat-Dimiri-Yaul dialect. I also conducted research with Ulwa's four sister languages in the Keram family: Mwakai, Pondi, Ambakich, and Ap Ma. Although the general shape of this present grammatical description is the same as that of the earlier dissertation, I have made a number of revisions throughout, thanks in part to an improved understanding of the diachronic grammar of the Keram family. The introductory chapter has been divided into two chapters: the first discusses the sociolinguistics and historical linguistics of the language, and the second explains the data sources and conventions used throughout the book. I have also added two new chapters: one is an overview of Ulwa grammar, and the other is a description of the Maruat-Dimiri-Yaul dialect. Finally, I have added time codes to all examples taken from archived texts, so as to improve accessibility.

Acknowledgments

First I would like to thank the speakers of Ulwa, without whose help and indefatigable patience this book would not have been possible. In particular, I owe very much to the Ambata family in Manu village: Thomas, Betty, Bradley, Mel, Valentine, Davis, Eugene, and Shannon. I must also thank everyone else in Manu who ensured that I was well-fed and safe during my time there: Carobim, Cecilia, Chris, David, Elias, Fidelma, John G., John K., Janet, Jayson, Justin, Lucy, Nigel, Paula, Philo, Ruben, Samuel, Trisha, and Yambin, among others. Thanks also to Soti and Sylvia for their hospitality in Angoram.

Many people helped me learn about the Ulwa language; some of them are: Francis Ambata, Lucy Ambata, Alus Amombi, Michael Amombi, Kanisus Binda, Joseph Bram, Wesley Dovina, David Gambri, Gema Gambri, Janet Gambri, Samuel Gambri, Corona Gami, Christina Jomia, Danny Kanangula, Chris Kapos, Rosa Kapos, Yanapi Kua, Kunam Malaku, Elias Mangeme, Arnold Mangri, Ginam Mapipa, Paulina Mapul, Stephen Mawipa, John Morangi, Linneth Nungami, Mathew Sango, Cecilia Sikimba, Nicholas Sikimba, Philip Siwingin, Philo Tatu, Gweni Tungun, Elias Usimari, Otto Wandangin, Morris Womel, and Leo Yokombla. Above all, Mr. Thomas Ambata has been an exceptional teacher, as well as a good friend.

I also wish to thank the teachers who have guided and encouraged me along my academic career, especially John Van Sickle at Brooklyn College and Michael Janda at the Universität Münster. At the University of Hawaiʻi I have been fortunate to have had a number of amazing teachers. In particular, I must thank Lyle Campbell, the best of all possible doctoral advisors. I must also thank my other committee members at UH, a descriptive-linguistics dream team: Gary Holton, William O'Grady, and the late Robert Blust. Thanks to Alex Golub for his anthropological perspective. Thanks also to Jen Kanda and Nora Lum at UH for all their help and deft handling of administrative matters. And many thanks to William A. Foley at the University of Sydney, who helped me from the very start, guiding and advising me before I ever set foot in the Sepik.

After Hawaiʻi I was fortunate to have found my way to the Max Planck Institute in Germany, first in Jena, then in Leipzig, and I wish to thank Russell D. Gray for his continued support and encouragement.

Acknowledgments

Abbreviations

Interlinear glossing

The conventions of the Leipzig Glossing Rules (Comrie et al. 2008) are followed, with additions made where needed. The following is a complete list of the abbreviations used in the glosses of Ulwa morphemes.

1	1st person
2	2nd person
3	3rd person
COND	conditional
COP	copula
DEP	dependent marker
DETR	detransitivizer
DIST	distal
DU	dual
EMPH	emphatic
EXCL	exclusive
HAB	habitual (in loans from Tok Pisin)
IMP	imperative
INCL	inclusive
INDF	indefinite
INTERJ	interjection
INT	intensive
IPFV	imperfective
IRR	irrealis
NEG	negative/negator
NMLZ	nominalizer
NSG	non-singular
OBJ	object (or non-subject)
OBL	oblique
PART	partitive
PFV	perfective

PL	plural
POSS	possessive/possessor
PRED	predicate marker (in loans from Tok Pisin)
PROH	prohibitive
PROX	proximal
PST	past
REFL	reflexive
SG	singular
SPEC	speculative
SUBJ	subject
TOP	topic
VOC	vocative

Other abbreviations

A	the more agent-like argument of a transitive clause
ADJ	adjective
ADV	adverb
CONJ	conjunction
DEM	demonstrative
LEI	Language Endangerment Index
EGIDS	Expanded Graded Intergenerational Disruption Scale
ELAR	Endangered Languages Archive
INTERJ	interjection
IPA	International Phonetic Alphabet
ISO	International Organization for Standardization
LLG	Local-Level Government area
N	noun
NP	noun phrase
NUM	numeral
O	object
P	the more patient-like argument of a transitive clause
P	postposition
PARADISEC	Pacific and Regional Archive for Digital Sources in Endangered Cultures
PNG	Papua New Guinea
PP	postpositional phrase
PRO	pronoun

Q	question word / interrogative word
QUANT	quantifier
R	recipient
S	subject (or, the single argument of an intransitive clause)
SOAS	School of Oriental and African Studies
T	theme
TAM	tense-aspect-mood
TP	Tok Pisin
UNESCO	United Nations Educational, Scientific and Cultural Organization
V	verb
VP	verb phrase
X	oblique

1 Ulwa: The language context

This a description of Ulwa (ISO 639-3 code [yla], glottocode [yaul1241]), a language of Papua New Guinea. Ulwa is severely endangered. It is spoken fluently by fewer than 600 people, almost all of whom live in one of four villages in the East Sepik Province of Papua New Guinea. Ulwa is a member of the Keram branch of the Keram-Ramu family. It may thus be considered a Papuan language (or a non-Austronesian language). It was first described in Barlow (2018b), which serves as the basis for this book. This introductory chapter provides background information on the Ulwa language and its speakers.

1.1 The environment

The Sepik region of Papua New Guinea, where Ulwa is spoken, is known for its long, serpentine river and dense, tropical rainforest. All four Ulwa villages are somewhat removed from the Sepik River itself, instead being positioned on considerably smaller tributaries, where they are confronted by less boat traffic; however, small canoes can and do ply their waters. The Keram River tributary that passes along Manu village is a source of fish, turtles, crayfish, and other seafood, as well as a place to bathe and a source of drinking water during the dry season, when rainwater cannot be collected. The villages of Maruat, Dimiri, and Yaul, however, face harsher conditions, since the Yuat River tributary that passes near their villages becomes completely desiccated during the dry season. During the rainy season, the entire area becomes swampy and is besieged with mosquitoes.

1.2 The four villages

Ulwa is spoken in four villages located in Angoram District, East Sepik Province, Papua New Guinea. The map in Figure 1.1 shows the island of New Guinea, with the Sepik region indicated by a red rectangle. The map in Figure 1.2 (corresponding to the red rectangle in Figure 1.1) shows the general location of the Ulwa-speaking area, indicated by a red circle. The geographic coordinates of the four Ulwa villages are given in Table 1.1.
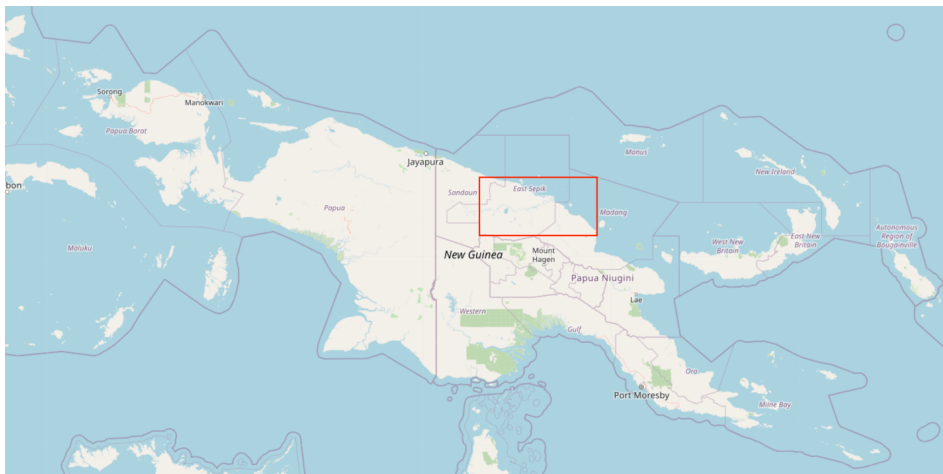
Figure 1.1: The Sepik region (red rectangle) on the island of New Guinea. Contains map data © OpenStreetMap contributors, made available under the terms of the Open Database License (ODbL)

Figure 1.2: The Ulwa language area (red circle) in the Sepik region. Contains map data © OpenStreetMap contributors, made available under the terms of the Open Database License (ODbL)

Table 1.1: Geographic coordinates of the four Ulwa villages

village	sexagesimal degrees	decimal degrees
Manu	4°29'00"S, 144°00'55"E	-4.483, 144.015
Maruat	4°25'20"S, 143°54'40"E	-4.422, 143.911
Dimiri	4°24'55"S, 143°54'30"E	-4.415, 143.908
Yaul	4°24'55"S, 143°56'10"E	-4.415, 143.936

Manu village is located in the Keram Rural Local-Level Government area (LLG). The village sits along the Keram Black tributary to the Keram River, which is itself a tributary to the Sepik. There are no other villages upstream of Manu on the Keram Black River. The inhabitants of villages downstream of Manu (including its nearest neighbor Yamen) speak Ap Ma as their traditional language. On the main Keram River are found villages whose inhabitants traditionally speak Kanda (also known as Angoram), a member of the Lower Sepik family. The Keram River leads to the Sepik River, meeting this larger river around Angoram, the nearest town connected by road (to Wewak). The Ulwa name for the village of Manu is *Nïmalnu* (perhaps derived from *nïmal* 'river' plus *nu* 'near'). The region immediately surrounding Manu village is known to Ulwa speakers as *Bulon*.

The other three Ulwa-speaking villages (Maruat, Dimiri, and Yaul) form a small triangle in the Yuat Rural LLG, west of Manu village. These three villages are closer to the Yuat River, another tributary of the Sepik River, than they are to the Keram River. The Yuat River lies west of the villages and is at times accessible from them by creeks. The nearest neighbors on this river speak Mundukumo (downstream) and Bun (upstream), two closely related members of the Yuat family. In Ulwa, Maruat village is known as *Mamala*, Dimiri village is known as *Andïmali*, and Yaul village is known as *Mosombla*.

The villages of Maruat, Dimiri, and Yaul are each within an hour's walk of the other two, and they share an elementary school located roughly in the middle of the three. Manu is considerably farther from the other three villages. In the dry season (roughly June to November), it is at least a four-hour hike away from any of them; in the wet season (roughly December to May), however, when the jungle paths are mired in swampy water, the journey is much less tractable.

The closest neighbors to Manu, the residents of Yamen village (as well as those of all other villages downstream from Manu), speak Ap Ma. This languages is also a member of the Keram family, but it is lexically very different from Ulwa.

Ap Ma is a considerably larger language, with perhaps as many as 10,000 speakers (Eberhard et al. 2023).[1] Yamen village is only about 3.5 km (2.2 miles) away, and many Yamen children walk to Manu each day to attend the Manu village elementary school. To the north of Manu there are other Ap Ma villages, which are accessible by foot. To the southeast of Manu (and not very accessible) there are villages that speak Waran (also known as Banaro), which, as a member of the Ramu branch of the Keram-Ramu family, is very distantly related to Ulwa. Waran has perhaps as many as 4,000 speakers (Eberhard et al. 2023).[2] Farther to the west there are speakers of Bun, Mekmek, and Kyenele (also known as Miyak), all of which are members of the Yuat family. The other three Ulwa-speaking villages are about 13 km (8 miles) to the northwest of Manu.

The closest neighbors to the three villages of Maruat, Dimiri, and Yaul speak the Yuat language Mundukumo, which is another relatively large language, of perhaps some 3,040 speakers (Eberhard et al. 2023).[3] Maruat, Dimiri, and Yaul are also relatively close to Ap Ma-speaking villages.

The relative locations of the four Ulwa-speaking villages and their neighbors are depicted in the map in Figure 1.3. In this map, the Ulwa-speaking villages are marked in red, Ap Ma-speaking villages are marked in yellow, Mundukumo-speaking villages are marked in light green, and the eponymous Bun-speaking village is marked in dark green.

1.3 The people

The subsistence pattern of the Ulwa people is a combination of hunting, gathering, fishing, horticulture, and husbandry.

The primary staple carbohydrate is sago, a starch that must be arduously extracted from certain palm species and then prepared either as a jelly (*ay* in Ulwa) or as a chewy pancake (*we* in Ulwa). Traditionally, this entire process was the work of women alone, though men nowadays often help in extracting the pulp – that is, felling the sago palm, stripping the bark, and hacking the wood into the splinters through which water may subsequently be passed to collect a starchy water to process the sago flour. While men assist in the felling of the sago palms and beating of the sago pulp, it is still generally considered the work of women to press the pulp to extract the starchy water, to carry the starch back to the village, and to cook the sago into a jelly by stirring boiling water into the dry flour.

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[1]They cite "2010 PBT [Pioneer Bible Translators]".
[2]They cite "2019 PBT [Pioneer Bible Translators]".
[3]They cite "2003 SIL".
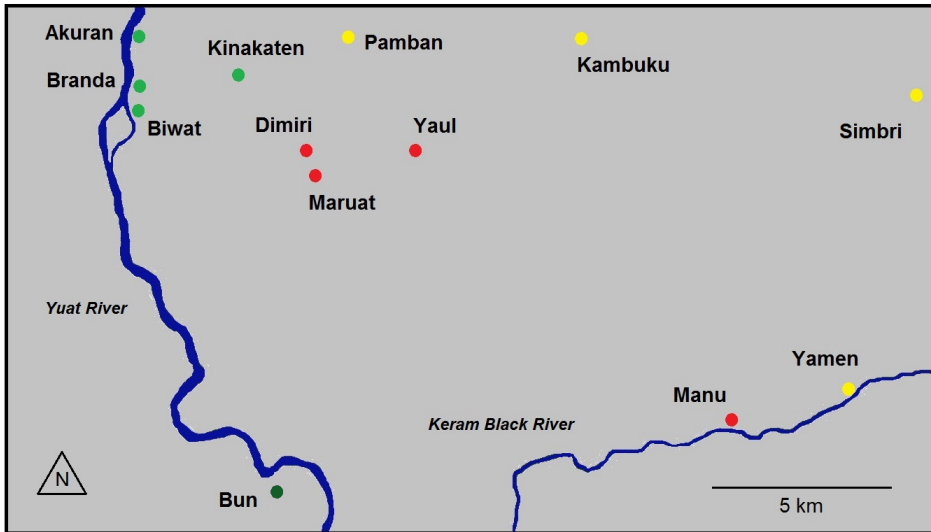
Figure 1.3: The four Ulwa villages and their neighbors

When men wish to cook the sago starch themselves, it is more socially acceptable to prepare *we*, the sago pancake that is made without adding water to the flour.

The second most prevalent source of carbohydrates is the banana (or plantain), of which, according to the folk taxonomy, there are 13 indigenous varieties. There are, in addition, various introduced varieties. Most of the commonly consumed bananas are of the starchy plantain variety that must be cooked (usually boiled), but some are sweet and may be eaten raw when ripe. While sago and bananas account for the bulk of the Ulwa diet and are the only traditional starches, some people today also grow and harvest root crops, such as yams, *kaukau* (sweet potato), taro, and cassava (manioc, yuca). This is more common in Manu village than in Maruat, Dimiri, or Yaul, whose territory is swampier.

Another traditional staple on which the Ulwa people rely greatly is the coconut. Coconut milk is integral to the preparation of most meals; and coconut water may also be drunk, a helpful source of hydration during the dry season. People also grow leafy green vegetables, string beans, corn (maize), and sugarcane, among other crops, including non-food cash crops, such as tobacco and betel nut.

The most important source of protein is fish, especially during the dry season, when the lowered river levels facilitate fishing with nets. Other sources of protein include bandicoot, pig, lizard, the occasional crocodile, turtle, crayfish, wild and

domesticated fowl, sago grubs, and eggs. Fat in the diet comes from coconut meat and milk as well as from animal sources. Vegetables are both grown and gathered.

Fishing is a common daily activity, often undertaken by children. A number of small species of fish are caught and then typically boiled, but sometimes (especially during times of great yields) they may be preserved by smoking. Fish, as well as the occasional crayfish or turtle, are caught either by net or by hand.

Hunting is the domain of men. It is usually undertaken at night, though this depends on the quarry: bandicoot, lizard, and crocodile are usually hunted at night, whereas pig is more commonly hunted during the day. All animals are hunted by spear. At night people are aided by battery-powered flashlights (which have replaced traditional flame torches). During the day (that is, to hunt pig) the hunters are assisted by dogs. Birds are also hunted, often by slingshot. This is one of the favorite pastimes of children.

Two major species of grub are harvested from sago palms: the relatively large *siwi* and the smaller *mïnkïn*; the latter is often worked into sago pancakes (*we*). A third species of grub, *mundum*, is taken from the trunks of certain dead tree species.

Few animals are raised, but some people do keep chickens, ducks, or larger fowl, which are used for eggs as well as meat. Despite the inefficiency and cost, some prominent villagers also raise the occasional pig for slaughter. As elsewhere in New Guinea, pigs are very valuable and are important in paying bride prices.

A number of vegetables are gathered from the jungle, mostly leafy greens, such as *yomal* (known as *aibika* in Tok Pisin) and *anmopa* (known as *tulip* in Tok Pisin).

Men, women, and children thus spend much of their day gathering vegetables and insects, fishing and hunting, processing sago, tending their gardens, and cooking (generally two meals a day). Since there is limited food preservation, it is common to eat large meals when food is plentiful (and, of course, to do without when food is scarce). People also very commonly share with other families in the community. A butchered pig will provide meat for more than just the hunter's family; leftovers are commonly offered to anyone who happens to be around.

The economy is thus fairly self-contained. Indeed, it has to be, since the nearest store is located in the town of Angoram, about six hours away by motorized canoe, a trip that requires an expensive amount of fuel. That said, cash does indeed enter the villages, especially Manu, which is more prosperous than the other three villages. Betel nut (the seed of the *Areca catechu* palm) and tobacco (a crop introduced many generations ago) are grown, both for personal consumption and to be sold in town for the domestic market. Betel nut is especially popular among highland populations, who cannot grow areca palms in the mountains. Cocoa is

also grown for sale, ultimately to enter the international market. People use cash to buy commodities such as pots and pans, batteries for flashlights, razors, metal nails, soap, clothing, and nonperishable foodstuffs, such as rice, noodles, canned fish and meat, palm oil, processed sugar, and salt.

Houses are built from jungle materials such as timber, woven bamboo, and vine ropes, but store-bought nails are occasionally used as well. Houses are raised on stilts, preventing the interiors from getting mired in swamp during the rainy season. Houses may contain multiple rooms as well as outdoor verandas, although some consist of just a single large room. They typically need to be rebuilt every five to seven years, an effort that can involve much of the community, who, working together, are able to finish constructing a house in about seven to ten days (although this process can take longer, especially if resources are limited). People sleep inside store-bought mosquito nets, which are especially important during the rainy season, when malaria-carrying mosquitoes plague the villages. Traditionally, people slept in meshwork enclosures (known as *al*), which were made from bark. The insides of these traditional mosquito nets would become sweltering hot, especially when shared by multiple people. Malaria carried by mosquitoes is probably the greatest health risk that the villagers face.

Households can be large, as it is not uncommon for married couples to have six or more children, and grandparents and other relatives commonly live in the same household. Houses in Manu have about five people on average living in them, whereas those in Maruat, Dimiri, and Yaul tend to have more.

Manu village has a single elementary school, attended by most of the children in the village, as well as by many children from the neighboring Yamen village, whose native language is Ap Ma, and by a few children from other, more distant, villages as well. Maruat, Dimiri, and Yaul share an elementary school, situated roughly in the middle of the three villages. The two schools provide instruction up through the eighth grade. Few students proceed with their education past that grade, since doing so would require living away from home in a larger town (such as Angoram), a financial burden and logistical difficulty.

The villagers are predominantly Christian, many of them devout and regular churchgoers. Manu and Maruat each have a single Catholic church; Yaul has one Catholic church and one Revival church; and Dimiri has four separate churches: Catholic, Jehovah's Witness, Lutheran, and Seventh Day Adventist. Still, traditional beliefs in jungle spirits and magical powers persist. However, no traces remain of the ancestral men's houses (known as *haus tambaran* or *haus boi* in Tok Pisin, and as *amba* in Ulwa), where earlier generations of young men were initiated into sacred rites.

In addition to fishing and hunting birds, children divert themselves by swimming in the river or playing sports, mostly soccer for boys, and volleyball and basketball for girls. Annual soccer competitions, to which teams from other villages are invited, are a major source of entertainment for both young and old.

Many other important community activities revolve around the church, which hosts prayer meetings for women, youth gatherings, and occasional feasts for special occasions, during which many families come together for potluck meals. A death in the family is occasion for a long period of mourning, and, depending on the (perceived) circumstances of the death, may require compensation to be paid to the bereaved. Many community conflicts are resolved by paying monetary (or equivalent) compensation, often brokered through the help of respected village leaders. If, for example, a dispute results in a physical altercation, and one party is injured or killed, then the assailant will be expected to pay a certain amount to the victim or the victim's family.

Marriage, too, is a major cause for celebration. The family of the groom is typically required to pay (in money or goods, often pigs) the family of the bride (i.e., a bride price as opposed to a dowry). Nowadays in Manu, people are usually married by the Catholic church. Traditionally, marriage among Ulwa speakers was exogamous and patrilocal: it was customary for a man to marry a woman belonging to a different *amba* 'clan' (literally 'men's house'), and for the woman to leave her clan to live with her new husband. Today, however, people practice both exogamy and endogamy. Clan distinctions are no longer recognized, and men and women alike are permitted to marry people from other villages (and of different language backgrounds); sometimes Ulwa speakers leave their village to live with their spouses, and other times their spouses move to the Ulwa village. These marriages are neither exclusively patrilocal nor matrilocal. Due to such exogamy, there are a number of speakers of other languages living in Manu, Maruat, Dimiri, and Yaul. Most marriages, however, are endogamous. Although formerly it was forbidden to marry within one's clan, nowadays people abide by the simpler rule of avoiding marriages with first cousins or any more closely related kin.

Although the Ulwa people have adopted many customs of broader modern Papua New Guinea, they are still mostly cut off from long-distance communication. Aside from the power provided by occasional diesel generators, the Ulwa-speaking villages lack electricity. There are no phone lines and, although some residents own cell phones, there is no cell phone service in the villages (or anywhere near them). Occasional newspapers find their way into the villages (often to be used for rolling cigarettes); these are written in either Tok Pisin or English. It is usually only when villagers visit the town of Angoram that that have access

to information about the wider world, which of course finds its way back to the villages.

1.4 Relationships with neighboring villages

Ulwa is a relatively small language, flanked by languages that are more vital and more widely spoken. All of Manu's closest neighbors are villages where Ap Ma is spoken. Maruat, Dimiri, and Yaul's closest neighbors (excluding one another) speak Mundukumo. While it is common (especially among older men) for Ulwa speakers to have some familiarity with Ap Ma or Mundukumo, very few Ap Ma or Mundukumo speakers have any facility with Ulwa. Although tribal warfare was once a regular part of life among villages in the area, the Ulwa villages nowadays enjoy mostly peaceful relations with their neighbors. Children from neighboring Yamen village attend the Manu Elementary School; it is common for travelers to overnight in neighboring villages; people buy and sell goods as they pass neighboring villages on the river; and soccer teams from different villages play against one another in friendly competition.

Manu shares a local representative (called a ward councilor) with the Ap Ma-speaking village of Simbri, which is about 11 km (7 miles) northeast of Manu.

A map depicting the language communities that are nearest to Ulwa is provided in Figure 1.4. In this map, the five Keram languages (Ulwa, Pondi, Mwakai, Ap Ma, and Ambakich) are presented in the darker shade of red. They constitute the Keram branch of the Keram-Ramu family. The two languages shown in a lighter shade of red are Waran and Abu, both members of the Ramu branch of the Keram-Ramu family. The five members of the Yuat family (Changriwa, Mundukumo, Mekmek, Bun, and Kyenele) are in gray. Kanda (in green) is a member of the Lower Sepik family. Buna (in blue) is a member of the Marienberg branch of the Torricelli family.

1.5 Borrowing

The language that has traditionally had the greatest influence on Ulwa's lexicon, especially on that of the Manu dialect, is Ap Ma. Ap Ma also belongs to the Keram family, but it is not very closely related to Ulwa. Table 1.2 provides some Ulwa words that likely come from Ap Ma (less certain borrowings are indicated with a question mark).

Most of the Ap Ma forms in Table 1.2 are taken from Barlow (2021). Four forms (<ale>, <ko>, <leag>, and <lolop>), however, come from Wade (1983). The forms
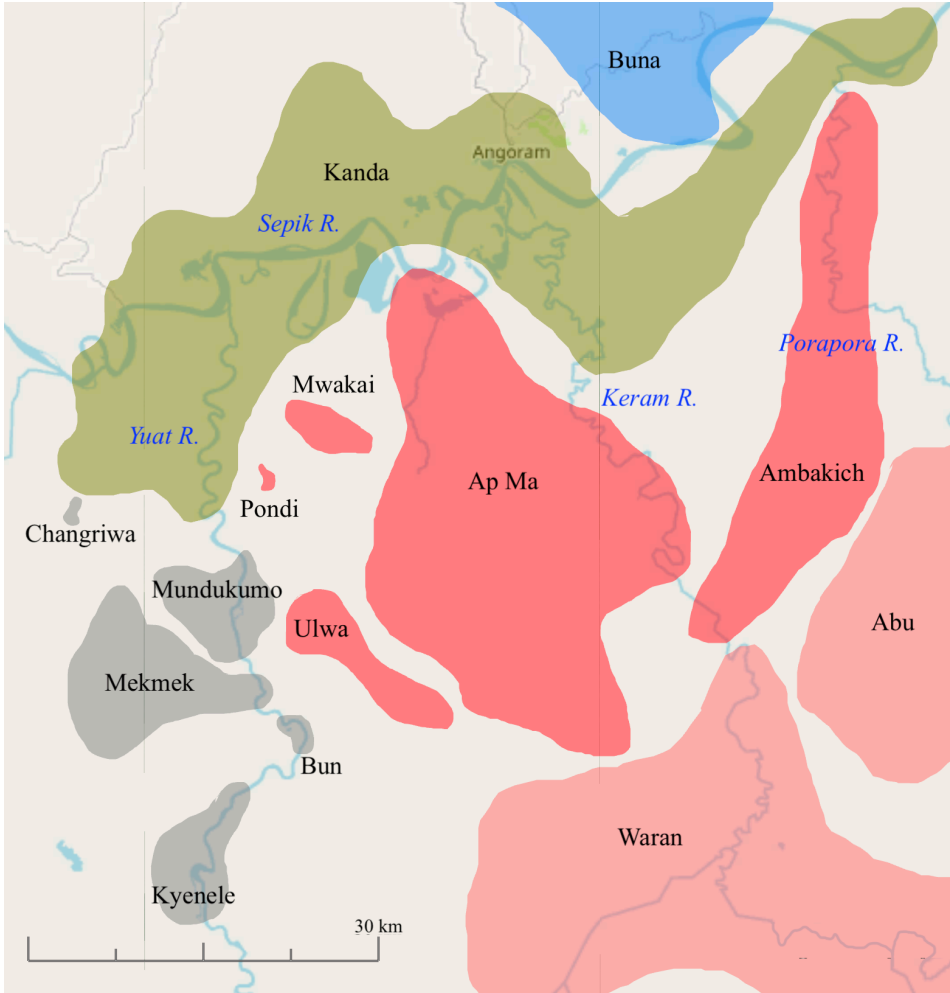
Figure 1.4: The language communities surrounding Ulwa. Contains map data © OpenStreetMap contributors, made available under the terms of the Open Database License (ODbL)

Table 1.2: Loans from Ap Ma

Ulwa word	gloss	Ap Ma source word
ale-	'scrape (sago)'	\<ale\> 'tool for beating sago' (?)
almba	'hornbill'	\<alɨmba\>
amangala	'hawk'	\<maŋgal\> (?)
i	'lime'	\<ai\>
ika	'riverbank'	\<jika\>
kaw	'song'	\<ko\>
lam	'meat'	\<lam\>
lanjin	'perch'	\<landʒin\>
le	'rattan cane'	\<leag\> (?)
li	'down'	\<ji\> (?)
lolop	'just'	\<lolop\>
mïnkïn	'sago grub'	\<mɨlɨk\>
molombi	'statuette'	\<molɨmbi\> 'spirit'
mom	'grandmother'	\<mom\> 'old woman'
mbinmbin	'grave'	\<mbɨn\> 'land, ground'
mblandu	'rat species'	\<mbalundo\>
nandu	'grass skirt'	\<nando\>
saklup	'broom'	\<saklup\> 'coconut flower sheath'
samnang	'yam species'	\<semnoŋg\>
umbopa	'stomach'	\<mbuop\> 'belly'
way	'turtle'	\<we\>
wonglin	'ladle'	\<koŋgle\>
woplota	'lungs'	\<kolop\> (?)
yaki	'rat'	\<jake\>
yalum	'grandchild'	\<jalum\> 'grandson'
yokomakan	'small wildfowl'	\<ɲokok\> (?)

nandu 'grass skirt' and *yaki* 'rat' are both from the Maruat-Dimiri-Yaul dialect. The Ap Ma form <molïmbi> 'spirit' may ultimately be of Waran origin (Table 1.5). The Ap Ma form <ai> 'lime' is also found in its fellow East Keram language Ambakich (also known as Aion) (Barlow 2021: 60), and similar forms are found in nearby unrelated languages, such as those of the Lower Sepik family: for example, <awi> in Yimas and <awer> in Kanda (Foley 1986: 215). It probably traces back to an Austronesian origin (Timothy Usher, p.c.).[4]

The unrelated Mundukumo language has also been influential on Ulwa. Some probable loans from Mundukumo to Ulwa are given in Table 1.3 (less certain borrowings are indicated with a question mark).

Table 1.3: Loans from Mundukumo

Ulwa word	gloss	Mundukumo source word
kalim	'cassowary'	<kɑlim>
kokawe	'bird species'	<kukwɔm> 'heron' (?)
ngïnïm	'chin'	<gənɑmɔŋ>
sakïma, sakanma	'adze, axe'	<sɑkɑnmɑ> 'axe'
sawi	'saliva'	[unknown] cf. <sɑɸi> (Bun)
wa	'village'	<watək> (?)
walimot	'pigeon'	<wɑlim>
wusim	'crocodile'	<ɑsm> (?)

Most of the Mundukumo forms in Table 1.3 are taken from Laycock (1971a). One form (<watək>), however, comes from McElvenny (2006: 18). I do not know the Mundukumo word for 'saliva', but Laycock (1971c: 5056) recorded the closely related language Bun as having <sɑɸi> 'saliva'. The form *sakïma* 'adze' is from the Manu dialect; the form *sakanma* 'axe' is from the Maruat-Dimiri-Yaul dialect. Additional loans from Mundukumo that are found only in the Maruat-Dimiri-Yaul dialect are given in §20.7.

Mwakai, which is a fellow member of the West Keram family, may also be the source of some loans, given in Table 1.4 (less certain borrowings are indicated with a question mark).

All Mwakai forms in Table 1.4 are taken from Barlow (2020a). The form *lïngïn* 'fog' is from the Manu dialect; the form *sïngïm* 'fog' is from the Maruat-Dimiri-Yaul dialect. The form <sambon> 'fish species' is also found in Pondi

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[4]Compare, for example, <avu> in the Austronesian language Gitua (Lincoln 1977: 2), from Proto-Oceanic *qapuR 'lime' (Blust 2013: 612).

Table 1.4: Loans from Mwakai

Ulwa word	gloss	Mwakai source word
mbun	'black, blue'	\<kïmbïn\>
katmombe	'ant species'	\<kasïmbum\>
lïngïn, sïngïm	'fog'	\<ingim\>
palam	'cane grass'	\<pïrïm\>
wambana	'fish'	\<sambon\> (?)

(Barlow 2020b: 168). A similar word for 'black' is also found in Ap Ma: \<pɨnd\> (Barlow 2021: 86).

Pondi, the third member of the West Keram family, however, has not been identified as contributing many loans to Ulwa; nor has Ambakich (of the East Keram branch of the family), which is spoken somewhat farther away. Waran (Ramu), which is distantly related, may be the source of some borrowing in Ulwa, although perhaps mediated by other languages (most likely Ap Ma). Possible loans from these three languages are summarized in Table 1.5 (less certain borrowings are indicated with a question mark).

Table 1.5: Possible loans from other languages

Ulwa word	gloss	source language and word
wemali	'sago pot'	Ambakich \<mɨrɨ\>
anasa	'pick-axe'	Pondi \<asangame\> (?)
kalam	'knowledge'	Waran \<kɑrɑm\> 'I know'
lumnjap	'fish species'	Waran \<jɑp\> 'fish' (?)
molombi	'statuette'	Waran \<mʉrɔm\> 'spirit of ancestors' (?)

The Ambakich form in Table 1.5 is taken from Barlow (2021: 67). The Pondi form is taken from Barlow (2020b: 160). The first two Waran forms are taken from Butler (1981a: 8–9). The third Waran form is taken from Z'graggen (1972: 20).

Some words may be considered areal terms, in that similar forms recur among multiple families within the region. These have no doubt diffused due to contact, but it is often difficult if not impossible to identify the immediate source for any given language. For example, the Ulwa word *sokoy ~ sokay* 'tobacco' is definitely

of foreign origin, but it is impossible to discern the immediate source for Ulwa, since this word is so pervasive in the area, as suggested by the mere sample of terms and languages provided in Table 1.6.[5]

Table 1.6: Some languages with words similar to *sokoy ~ sokay* 'tobacco'

'tobacco'	language	family
<soke>	Ap Ma	Keram (Keram-Ramu)
<soke>	Mwakai	Keram (Keram-Ramu)
<sakwe>	Pondi	Keram (Keram-Ramu)
<tʃuke>	Ambakich	Keram (Keram-Ramu)
<soke>	Waran	Ramu (Keram-Ramu)
<čukwai>	Rao	Ramu (Keram-Ramu)
<sokoi>	Tayap	isolate (Torricelli?)
<tsoḳáe>	Monumbo	Bogia (Torricelli)
<sɑkeí>	Juwal	Marienberg (Torricelli)
<sakwe>	Mehek	Tama (Sepik)
<sakuen>	Sos Kundi	Ndu (Sepik)
<sɑkwei>	Chambri	Lower Sepik
<sakue>	Mundukumo	Yuat
<tɑɣeikˀ>	Andai	Arafundi (Upper Yuat)
<tʸuŋgóy>	Haruai	Piawi (Upper Yuat)
<cgoy>	Kalam	Madang (Trans New Guinea?)
<saukh>	Korowai	Asmat-Awyu-Ok (Trans New Guinea?)
<seku>	Nuk	Finisterre-Huon (Trans New Guinea?)
<sɑkwɛn>	Kis	Oceanic (Austronesian)

Assuming that tobacco was not introduced to New Guinea earlier than 1600 CE (Bourke 2009: 15), it is unlikely that a word for 'tobacco' can be reconstructed with any significant depth within the Keram-Ramu family.

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[5]See the following sources: Ap Ma (Barlow 2021: 83), Mwakai (Barlow 2020a: 98), Pondi (Barlow 2020b: 168), Ambakich (Barlow 2021: 70), Waran (Butler 1981b: 9), Rao (Stanhope 1980: 15), Tayap (Kulick & Terrill 2019: 424), Monumbo (Vormann & Scharfenberger 1914: 182), Juwal (Laycock 1971e: 5336), Mehek (Hatfield 2016: 483), Sos Kundi (Janzen & Corbalan 2018), Chambri (Laycock 1971c: 4974), Mundukumo (McElvenny 2006: 43), Andai (Laycock 1971d: 5268), Haruai (Laycock 1970: 849), Kalam (Pawley & Bulmer 2011: 179), Korowai (de Vries & van Enk 1997: 241), Nuk (Retsema et al. 2009: 26), Kis (Laycock 1971b: 3474).

It is possible that the words for 'tobacco' given in Table 1.6 all derive from Malay *sugeh* or *sogeh* or *sugi* "quid (of tobacco ...)" (cf. Wilkinson 1959: 1128).[6]

Another term that seems to have diffused widely is the word for 'chicken' – that is, the domesticated junglefowl that is generally thought to have been introduced to Oceania by Lapita people (Storey et al. 2008). The Ulwa term *wowal* 'chicken' probably derives from Proto-Keram *kowal. Similar words in other languages are given in Table 1.7.[7]

Table 1.7: Some languages with words similar to *wowal* 'chicken'

'chicken'	language	family
<kokol>	Ap Ma	Keram (Keram-Ramu)
<yokon>	Mwakai	Keram (Keram-Ramu)
<kawal>	Pondi	Keram (Keram-Ramu)
<kokor>	Ambakich	Keram (Keram-Ramu)
<kɑkur>	Kaian	Ramu (Keram-Ramu)
<kʌːr>	Rao	Ramu (Keram-Ramu)
<kokok>	Tayap	isolate (Torricelli?)
<kakatarak>	Monumbo	Bogia (Torricelli)
<koko>	Mehek	Tama (Sepik)
<kɨlɨkala>	Kanda	Lower Sepik
<klokl>	Kalam	Madang (Trans New Guinea?)
<kʷɔkwɑrɛk>	Kis	Oceanic (Austronesian)

There is most likely an onomatopoetic element underlying these forms (based on the sound of a rooster's crow). However, the fact that so many unrelated languages in a given area share this same general pattern of *koko[l/r]* 'chicken' suggests the influence of contact, perhaps ultimately an Austronesian origin. Compare Proto-Oceanic *kokorako (Clark 2011: 284).

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[6]I suspect that this same Malay word may also be the ultimate origin of certain forms beginning with [j-], such as Manambu <yaki> (Aikhenvald 2008: 597) (Sepik family) and Yimas <yaki> (Foley 1991: 250) (Lower Sepik family). Aikhenvald (2008: 597), on the other hand, traces these forms back to Iatmul as the assumed ultimate source, citing also Riesenfeld's (1951: 90) hypothesis that they somehow derive from a corruption of English *tobacco* or *smoke*.

[7]See the following sources: Ap Ma (Barlow 2021: 77), Mwakai (Barlow 2020a: 99), Pondi (Barlow 2020b: 162), Ambakich (Barlow 2021: 64), Kaian (Z'graggen 1972: 102), Rao (Z'graggen 1972: 102), Tayap (Kulick & Terrill 2019: 376), Monumbo (Vormann & Scharfenberger 1914: 159), Mehek (Hatfield 2016: 558), Kanda (Foley 1986: 216), Kalam (Pawley & Bulmer 2011: 296), Kis (Laycock 1971b: 3482).

Another term that likely owes some of its etymology to onomatopoeia is the word for 'mosquito'. In Ulwa, this is *yangun* 'mosquito' (Manu dialect) or *nangun* 'mosquito' (Maruat-Dimiri-Yaul dialect). Similar forms are given in Table 1.8.[8]

Table 1.8: Some languages with words similar to *yangun ~ nangun* 'mosquito'

'mosquito'	language	family
<nangun>	Mwakai	Keram (Keram-Ramu)
<nangun>	Pondi	Keram (Keram-Ramu)
<ugun>	Waran	Ramu (Keram-Ramu)
<nɑŋgit>	Kaian	Ramu (Keram-Ramu)
<naŋgɨt>	Kopar	Lower Sepik
<yaŋgun>	Tabriak	Lower Sepik
<nget>	Monumbo	Bogia (Torricelli)
<nagur>	Aisi	Madang (Trans New Guinea?)
<nʊgur>	Kis	Oceanic (Austronesian)

One major and more recent source of borrowing into Ulwa is Tok Pisin, the English-based creole that serves as Papua New Guinea's primary lingua franca, and is rapidly becoming the first (and only) language for more and more Papua New Guineans. Some Tok Pisin words are used to refer to novel referents for which there is no native word (e.g., *koko* 'cocoa', *popo* 'papaya'), although coinages based on native words are also possible (e.g., *asimu* 'grass seed' for 'rice'), as are metaphorical extensions of existing lexemes (e.g., *apïn* 'fire' for 'matches, lighter') (§16.9).

Tok Pisin forms are also sometimes used where native vocabulary would also be possible. Even among the oldest speakers there is frequent code-switching between Ulwa and Tok Pisin, and speech in all registers is commonly peppered with Tok Pisin words, such as *olsem* 'thus', *nogat* 'no', and *tok* 'talk'. Some Tok Pisin function words are used where there is no equivalent in Ulwa, such as *na* 'and' and *o* 'or' (see §14.1 on coordination).

Loanwords may be naturalized to the phonotactics of Ulwa. In practice, this most commonly results in pronouncing loan rhotics as laterals and pronouncing loan plain voiced stops as prenasalized voiced stop.

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[8]See the following sources: Mwakai (Barlow 2020a: 95), Pondi (Barlow 2020b: 166), Waran (Z'graggen 1972: 114), Kaian (Z'graggen 1972: 114), Kopar (Foley 1986: 215), Tabriak (Foley 1986: 215), Monumbo (Vormann & Scharfenberger 1914: 155), Aisi (Daniels 2020: 280), Kis (Laycock 1971b: 3482).

While many of the aforementioned borrowings may be viewed as natural forms of linguistic change (that is, the type typically experienced by languages that are not endangered), there have also been influences on Ulwa that likely reflect its recent decline in usage and current state of severe endangerment (see Chapter 17 for the effects of endangerment on Ulwa's grammatical structure).

1.6 Dialects

There are two major dialects of Ulwa. One is spoken in Manu village, while the other is spoken in the three villages of Maruat, Dimiri, and Yaul. Although there are some minor differences among these latter three villages as well, they are each much more similar to one another than to Manu. Speakers from all four villages consider all four communities to speak the same language, although each village notes how other villagers "change" the language slightly.

The two dialects are mutually intelligible. Although morphosyntactically quite similar, they exhibit a number of lexical differences, some due to a handful of innovative sound changes, most notably of *l to /n/ in many environments in Manu. Maruat-Dimiri-Yaul is, in general, the more conservative of the two dialects. Other lexical differences may be due to borrowing or other forms of replacement. Unless otherwise noted, the data in this grammar have been gathered from speakers of the Manu dialect. Occasional reference to Maruat-Dimiri-Yaul is made where relevant, and a brief comparative description of this dialect (in particular the variety spoken in Yaul village) is given in Chapter 20.

1.7 Language vitality

Ulwa is a severely endangered language. Although the population of all four Ulwa-speaking villages is swelling, the language is not being transmitted to children. I estimate that there are fewer than 600 fluent speakers or Ulwa, plus roughly 1,200 semi-speakers. If these numbers were to be naïvely compared to earlier reports of speaker numbers, then these figures could, perhaps, appear relatively high – that is, as if the language were thriving. Earlier counts of Ulwa speakers, however, may be misleading. When Laycock (1973: 36) first reported on the language, he offered the number 814. As is often the case with apparent speaker number counts, however, this is not intended to mean the number of Ulwa speakers, but rather the combined population of the villages where Ulwa is spoken, in this case, the "population (estimated or censused) as at 1 January 1970" (Laycock 1973: 3).

Official census numbers from the Papua New Guinea government are also problematic. The most recently released census (from 2011) lists 669 inhabitants for Manu, 424 for Muruat (= Maruat), and 1,111 for Dimiri; it has no information on Yaul (National Statistic Office 2014: 31–32). The census thus seems to be lacking in data. Furthermore, the figure of 669 for "Manu" seems to include the population of the neighboring Simbri village, which shares a government representative with Manu, but whose population speaks a different language (Ap Ma).

Population counts conducted by villagers in 2017 at my request yielded the figures given in Table 1.9–Table 1.12 for each village.

Table 1.9: Age demographics of Manu village in 2017

age range	number of people	percentage of total
0–19	186	50%
20–40	113	31%
> 40	70	19%
Total population	369	100%

Table 1.10: Age demographics of Maruat village in 2017

age range	number of people	percentage of total
0–19	406	49%
20–40	234	28%
> 40	192	23%
Total population	832	100%

Table 1.11: Age demographics of Dimiri village in 2017

age range	number of people	percentage of total
0–19	728	52%
20–40	446	32%
> 40	225	16%
Total population	1,399	100%

Table 1.12: Age demographics of Yaul village in 2017

age range	number of people	percentage of total
0−19	636	49%
20−40	459	35%
> 40	204	16%
Total population	1,299	100%

The population of the four Ulwa-speaking villages in 2017 was thus 3,899, as shown in Table 1.13. This figure of approximately 3,900 was probably about equal to the total (global) ethnic Ulwa population at the time: the small number of non-Ulwas living within these four villages was probably about equal to the number of Ulwas living outside them. Considering the birth and death rates in the area, I estimate the current ethnic Ulwa population to be 4,500 or more (in 2023).

Table 1.13: Total population of all four Ulwa villages in 2017

age range	number of people	percentage of total
0−19	1,956	50%
20−40	1,252	32%
> 40	691	18%
Total population	3,899	100%

In 2017 there were 691 Ulwas older than 40 years old. At that time, I observed that almost all Ulwas older than 40 were fluent (or mostly fluent) speakers of the language, whereas very few Ulwas younger than 40 were fluent (and the number of non-fluent older-than-40 Ulwas was probably about equal to the number of fluent younger-than-40 Ulwas). Given typical mortality rates (and the fact that there are no new Ulwa speakers), the number of fluent Ulwa speakers may be less than 600 today (in 2023). The number of semi-speakers (roughly correlating to the number of Ulwas who were between 20 and 40 years old in 2017) is probably not much higher than 1,200. Thus, of a total ethnic population of roughly 4,500 Ulwas, perhaps less than 15% are fluent speakers and less than 30% are semi-speakers.

"Semi-speaker" is not a term with a standard definition, and it can be used to mean different things in different contexts. The Ulwa semi-speaker community can be roughly defined by those who:

(i)   generally understand the spoken language;
(ii)   can produce short responses, generally limited to formulaic expressions or words in common semantic domains (e.g., food preparation, traveling); and
(iii)   have native phonology; but
(iv)   cannot produce long, interrupted speech in Ulwa.

Indeed, even many speakers defined here a "fluent" have difficulty speaking Ulwa for long stretches and are generally more comfortable using Tok Pisin.

The group of "non-speakers" (who constitute more than half the ethnic population) consists of those who cannot understand spoken Ulwa or produce any novel utterances. However, some vocabulary items (especially for very culturally salient referents, like sago, betel nut, and string bags) are so integrated into the colloquial Ulwa form of Tok Pisin, that probably almost all ethnic Ulwas know their meanings and can produce them.

The estimate of < 600 fluent speakers may be considered "small" in comparison to some of Ulwa's more expansive neighbors, in particular Ap Ma. Furthermore, it is readily apparent that the language is in rapid decline. Less than half of the ethnic population speaks the language to any degree, and less than one-seventh of the ethnic population is fluent.

The most important indicator for the decline in vitality of Ulwa is the utter lack of intergenerational transmission. Even though most people older than about 45 (in 2023) are fluent, they nevertheless communicate almost entirely in Tok Pisin. Some elders regularly use Ulwa, but even among members of this demographic group there are no monolinguals, and elders often rely heavily on Tok Pisin as well. For those who do speak Ulwa, code-switching with Tok Pisin is common. Even attempts at "pure" speech (offered for the benefit of the outside researcher) are usually riddled with Tok Pisin loanwords. It is very uncommon for parents to speak Ulwa to their children, aside from in a few set formulae (e.g., *Umbenam anma!* 'Good morning!', *U ango mana?* 'Where are you going?', *Aw kot nīnan!* 'Please pass betel the nut!'). Several nouns referring to culturally salient items are commonly used in child-directed speech (and in general) (e.g., *ay* 'jellied sago', *we* 'sago starch', *ani* 'string bag').

Thus, Tok Pisin is the language that is currently exerting the greatest influence on Ulwa. Every Ulwa community member speaks Tok Pisin (i.e., there are

are no monolingual Ulwa speakers), and probably every Ulwa speakers is more comfortable using Tok Pisin than Ulwa. English is ostensibly the language of instruction at the two elementary schools, but teachers often resort to using Tok Pisin, and students do not seem to be acquiring English; or, if they are, then they are developing a passive knowledge at best. There are perhaps just a handful of adults with a passing knowledge of English. Some members of the older generation are also conversant in one or more of the neighboring languages. As Manu village is quite near a number of Ap Ma-speaking villages, some residents have a familiarity with this language. Similarly, Maruat, Dimiri, and Yaul are not far from the Mundukumo language community, and some villagers there can speak this language as well.

Tok Pisin is the primary language in almost every domain. Church services, classroom instruction (alongside English), sporting events, communication with other villages, and even family discussions are typically all conducted in Tok Pisin. Most parents exclusively use Tok Pisin when addressing their children.

While some adults overestimate the linguistic abilities of the younger generation, assuming that they will naturally become speakers of Ulwa once they become older, many villagers are becoming concerned about the fate of their language, noting the fast decline in intergenerational transmission. There is interest in introducing Ulwa into the Manu school classrooms, but this could prove very difficult, if not impossible, in part due to the dearth of language materials in Ulwa, but mainly due to the fact that most students are not from an Ulwa-speaking village (slightly more than half the students commute from the nearby Ap Ma-speaking Yamen village). Furthermore, most teachers in the Manu elementary school come from other parts of Papua New Guinea entirely, such as the highlands, and are thus not speakers of Ulwa.

Local attitudes toward the language are positive. Many ethnic Ulwas lament the decline in language use, as well as the loss of traditional ecological knowledge that they sometimes view as being bound to linguistic knowledge. Although a number of community members have aspirations of economic advancement and, as such, support the use of dominant languages, Ulwa is not viewed as a hindrance to progress. Rather, there is a fairly common view that the spread of Tok Pisin has been an unnecessary step in the process of globalization, many wishing their children to be fluent in just two languages, English and Ulwa, the former for reasons of socioeconomic betterment and cross-cultural communication, the latter for reasons of cultural preservation and identity.

There have been a number of frameworks proposed for assessing language vitality. The following subsections offer assessments of Ulwa's vitality with respect to UNESCO's nine factors (§1.7.1), the Language Endangerment Index (LEI) (§1.7.2), and the Expanded Graded Intergenerational Disruption Scale (EGIDS) (§1.7.3).

1.7.1 UNESCO's nine factors

Based on UNESCO's (2003) framework, Ulwa would be considered severely endangered or critically endangered. Table 1.14 presents Ulwa's endangerment status according to each of UNESCO's nine factors.

Table 1.14: Ulwa's endangerment according to UNESCO's nine factors (UNESCO 2003: 7–17)

factor	description	Ulwa's status
1	"Intergenerational language transmission"	"severely endangered" (2)
2	"Absolute number of speakers"	"at risk"
3	"Proportion of speakers within the total population"	"severely endangered" (2)
4	"Trends in existing language domains"	"limited or formal domains" (2)
5	"Response to new domains and media"	"inactive" (0)
6	"Materials for language education and literacy"	"a practical orthography is known to the community" (1)
7	"Governmental and institutional language attitudes and policies, including official status and use"	"equal support" (5)
8	"Community members' attitudes toward their own language"	"most members support language maintenance" (4)
9	"Amount and quality of documentation"	"fair" (3)

The first six factors are meant to be taken together to indicate the language's vitality. Factor 2 does not have a grade associated with it. Of the remaining five factors, Ulwa averages a grade of 1.4 out of 5.0, which can probably be taken to mean that the language is "severely endangered" or "critically endangered".

1.7.2 LEI

According to the LEI (Language Endangerment Index) (Lee & Van Way 2016, 2018), Ulwa would be classified as "severely endangered", receiving an endangerment score of 68% (where "severely endangered" equals 61–80%, with a higher percentile indicating greater endangerment). The LEI assessment of Ulwa is summarized in Table 1.15.

Table 1.15: Ulwa's endangerment according to the LEI (Lee & Van Way 2018: 58–62)

LEI factor	Ulwa's status	description in LEI
f_1 Intergenerational transmission	3: endangered	"Some adults in the community are speakers, but the language is not spoken by children."
f_2 Absolute number of speakers	3: endangered	"100–999 speakers"
f_3 Speaker number trends	4: severely endangered	"Less than half of the community speaks the language, and speaker numbers are decreasing at an accelerated pace."
f_4 Domains of use	4: severely endangered	"Used mainly just in the home and/or with family, and may not be the primary language even in these domains for many community members."
calculation of factors: $[(f_1 \times 2) + f_2 + f_3 + f_4] \div 25$	$[(3 \times 2) + 3 + 4 + 4] \div 25 = 68\%$	"80–61% = Severely Endangered"

1.7.3 EGIDS

According to the EGIDS (Expanded Graded Intergenerational Disruption Scale) (Lewis & Simons 2010), Ulwa may be assumed to be either "Level 7 (shifting)" or "Level 8a (moribund)". If semi-speakers are admitted into the set of people who "can" use the language, then "Level 7" applies ("The child-bearing generation knows the language well enough to use it among themselves but none are transmitting it to their children", p. 210). If, however, a higher proficiency in the language is required to qualify one as a speaker, then "Level 8a" seems more appropriate ("The only remaining active speakers of the language are members of the grandparent generation", p. 210). Citing data from Barlow (2018b), the 26th edition of *Ethnologue* (Eberhard et al. 2023) classifies the status Ulwa as "8a (moribund)".

1.8 Classification

In this section I discuss the genealogical classification of Ulwa. A more detailed classification, which presents the evidence on which the following subsections are based, will be found in Usher & Barlow (In preparation).

1.8.1 Papuan languages

First a note on so-called Papuan languages is in order. This oft-used category of languages does not refer to a single language family, since its members are not all demonstrably genealogically related. Instead, it is a negative classification, referring to all the indigenous (non-sign) languages spoken within a particular area of the southwest Pacific that do not belong to the Austronesian language family. Foley (2000: 357), using the term "New Guinea region", defines this area as roughly running "from the easterly Indonesian islands of Halmahera, Timor, and Alor in the west (125°E), to the westerly island group of New Georgia in the Solomon Islands in the east (155°E), a land area of approximately 850,000 km^2". This heterogeneous group of non-Austronesian languages consists of numerous families: even the most liberal classifications (in terms of a researcher's willingness to accept evidence for genetic relatedness) posit no fewer than 32 Papuan families and isolates, as in Ross (2005: 30). The most conservative classifications, on the other hand, could distinguish more than 120 Papuan families and isolates. *Glottolog 4.7*, for example, includes 71 families and 52 isolates that could be considered "Papuan" (Hammarström et al. 2022). Moderate estimates might be closer to a combined 80 families and isolates. Palmer (2018), for example, identifies 43 families and 37 isolates.

These families and isolates are found on the island of New Guinea and its smaller satellite islands, as well as in the Bismarck Archipelago, the Solomon Islands Archipelago, the northern Maluku Islands, and the Alor Archipelago. Additionally, one Papuan language is spoken within the territory of Australia: Meriam, an Eastern Trans-Fly language spoken in the Torres Strait. The extinct language Tambora once spoken on the island of Sumbawa has been designated as Papuan as well (Donohue 2007).

All told, there are well over 800 indigenous spoken non-Austronesian languages in this region. Palmer (2018: 7) counts 862; *Glottolog 4.7*, by my count, includes 876 (Hammarström et al. 2022). These Papuan languages have at times suffered from the zealous efforts of comparative linguists to fit them all into a small number of large language families, most notably the "Indo-Pacific hypothesis" (Greenberg 1971) and the "Trans-New Guinea Phylum" (McElhanon & Voorhoeve 1970; Wurm et al. 1975). But the broader claims of genetic affiliations have mostly failed to garner support from rigorous application of the comparative method. While it is certainly possible that all Papuan languages descend from just a few protolanguages (or even just a single protolanguage), it may simply be impossible (given current methods and the nature of the data available) to prove this. One reason for this is likely the great time depth involved. The ancestors of the modern Papuan peoples first migrated to the Sahul continent perhaps some 47,000 to 51,000 years ago (Allen & O'Connell 2020: 3), and, given their subsequent dispersal, their languages were allowed multiple millennia during which to diversify. Perhaps many sister languages have diversified to the point that any cognacy (if it were ever present) is now irrecoverable due to the extensive amount of language change over such an extensive amount of time.

1.8.2 The West Keram family (Ulmapo family)

Instead of starting with massive notions like "Papuan" or "Trans New Guinea", a more rigorous approach to language classification is to work bottom-up. The languages that are the most obviously related to Ulwa are Mwakai and Pondi. Laycock (1973: 36) was the first to recognize this grouping of three languages, referring to the group as "Mongol-Langam" (and placing them within the Ramu branch of his "Sepik-Ramu Phylum"). Foley (2018: 205–206) referred to them as "Koam" and placed them within the Ramu branch of his "Lower Sepik-Ramu Family". Previously, I referred to them as "Ulmapo", while remaining agnostic as to their genealogical relationship to other languages (Barlow 2018b: 11, 34–35, passim). Here, however, following Timothy Usher (n.d.), I refer to Ulwa, Mwakai,

and Pondi as "West Keram", as their relationship to the two "East Keram" languages has been established (§1.8.3). The West Keram languages are spoken in the area to the west of the Keram River, between the Keram River and the Yuat River, both of which are tributaries of the Sepik River to the north. A grammatical sketch of Mwakai is provided by Barlow (2020a), and a somewhat more developed description of Pondi is provided by Barlow (2020b).

Impressionistically, I would say that the three languages are fairly similar in terms of morphosyntax. Lexically, however, they are somewhat more divergent from one another. Among the items included in the Swadesh 100-word list and standard SIL-PNG survey word list (so-called "basic vocabulary"), around 40–50% are cognate among the West Keram language.

The three members of the West Keram (Ulmapo) group are presented in Figure 1.5, which provides the seven villages in which the three languages have traditionally been spoken. Note that the terminal nodes in Figure 1.5 are village names, not languages. Also, Mwakai and Pondi likely constitute a subgroup within West Keram (§1.8.3), although this is not depicted in Figure 1.5.
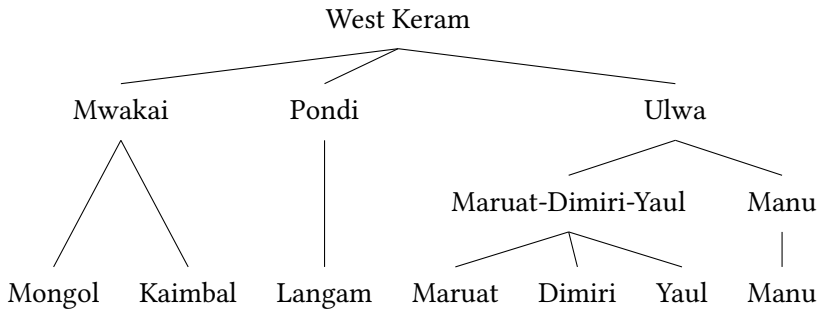
Figure 1.5: The seven villages of the West Keram (Ulmapo) group

1.8.3 The Keram family

The West Keram family (§1.8.2) constitutes one of two branches of the Keram family. The other branch is the East Keram family, which consists of two languages: Ambakich and Ap Ma. Although Laycock (1973) and Foley (2018) both included all five Keram languages in their respective versions of a "Sepik-Ramu" macrofamily, Timothy Usher (n.d.) was the first to propose a Keram family consisting of these (and only these) two branches. The East Keram languages are spoken mostly along the Keram River and in the area immediately to the east, along the Porapora River (also known as the Bien River), which is also a tributary of the

Sepik River to the north. A dialect survey of Ambakich with wordlists and observations on language use is provided by Potter et al. (2008). A phonological sketch of Ambakich (with wordlist) is provided by Barlow (2021). Ap Ma is relatively better described. Martha Wade (1984) has written a master's thesis providing a grammatical description, along with several unpublished manuscripts, including a dictionary (Wade 1983). An Ap Ma wordlist is also provided by Barlow (2021).

The two East Keram languages are more distantly related, although there are still a fair number of lexical cognates (these were largely overlooked in the past due to Ap Ma's loss of initial syllables from polysyllabic words). Using the same rough means of describing lexical similarity mentioned in §1.8.2, I would estimate that around 30% of "basic vocabulary" is cognate between Ambakich and Ap Ma (although sound changes rather obscure a number of these). Between the two branches (East Keram and West Keram), around 20–30% of "basic vocabulary" is cognate.

Figure 1.6 is a tree depicting what I consider to be the most likely subgroupings of the Keram family. The evidence for the Mwakai-Pondi subgrouping is less secure.
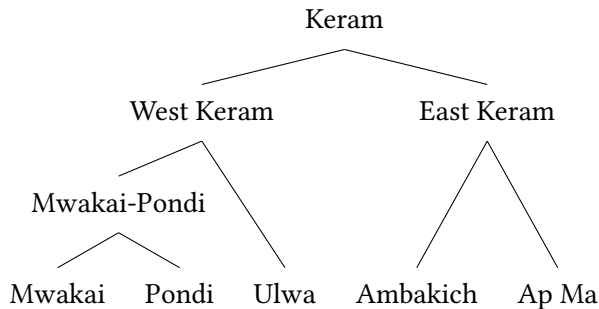
Figure 1.6: The five languages of the Keram family

1.8.4 The Keram-Ramu family

Whereas the Keram family is well established with the support of basic lexical cognates and regular sound correspondences, attempts to reconstruct deeper genealogical connections begin to test the limits of historical linguistics. Nevertheless, the evidence for a Keram-Ramu family is quite strong (Usher & Barlow In preparation). The "Ramu Phylum" was first proposed by John A. Z'graggen (1969: 27, 137–179).[9] Z'graggen (1971: 88) only tentatively includes Ambakich and Ap Ma

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[9]A revised version is given in Z'graggen (1971: 14, 73–92).

in the Ramu family; of the six villages where Ulwa and Mwakai are spoken, he mentions that they "were said to have languages of their own" (no mention is made of Pondi or the village where it is spoken, Langam). Z'graggen's classification of Ramu is impressively good, and – with the minor adjustment of moving Ambakich and Ap Ma to a coordinate Keram branch – it has essentially been upheld by subsequent investigation.

There are not many lexical cognates between Keram and Ramu, although they do exist. Function words and bound morphology, rather, provide the strongest evidence for the Keram-Ramu family. In short, the pronoun paradigms of Proto-Keram and Proto-Ramu are completely cognate, including dual marking, as are the deictic demonstratives. There are also two (and only two) nominal plural suffixes that reconstruct back to each branch's protolanguage and which are cognate across the two. There may also be a singulative suffix *-m, although a possible derivation from a medial deictic marker leaves open the possibility of later innovation. Likewise, although an oblique marker *-n is likely reconstructible back to Proto-Keram-Ramu, this is not particularly enlightening, since this morpheme may have long ago diffused across unrelated families, including Sepik and Lower Sepik, as proposed by Foley (1986: 68).

The Keram-Ramu family consists of a total of some 29 languages, A genealogical classification of the Keram-Ramu languages, based on Usher & Barlow (In preparation), is provided in Figure 1.7.

The member languages in this classification, along with their ISO codes, glottocodes, and alternative names, are presented in Table 1.16.

1.8.5 Evidence for broader genealogical affiliations?

Following Z'graggen's (1971) classification of the Ramu Phylum, Laycock (1973) posited many broader genealogical relationship to Ramu in his so-called "Sepik-Ramu Phylum" that included connections not only to the Keram languages, but also to the Sepik family (including Ndu), the Lower Sepik family, the (ill-defined) Leonhard Schultze family, the Yuat family, the Upper Yuat family, and the possible isolates Biksi (also known as Yetfa) and Gapun (also known as Tayap or Taiap) (Laycock & Z'graggen 1975). However, the wider-reaching claims of Laycock's massive Sepik-Ramu Phylum have generally been dismissed (Ross 2005: 24), and, at least since Foley's (1986) more conservative classification of Papuan languages, this grouping has rarely if ever been invoked in its most expansive form.
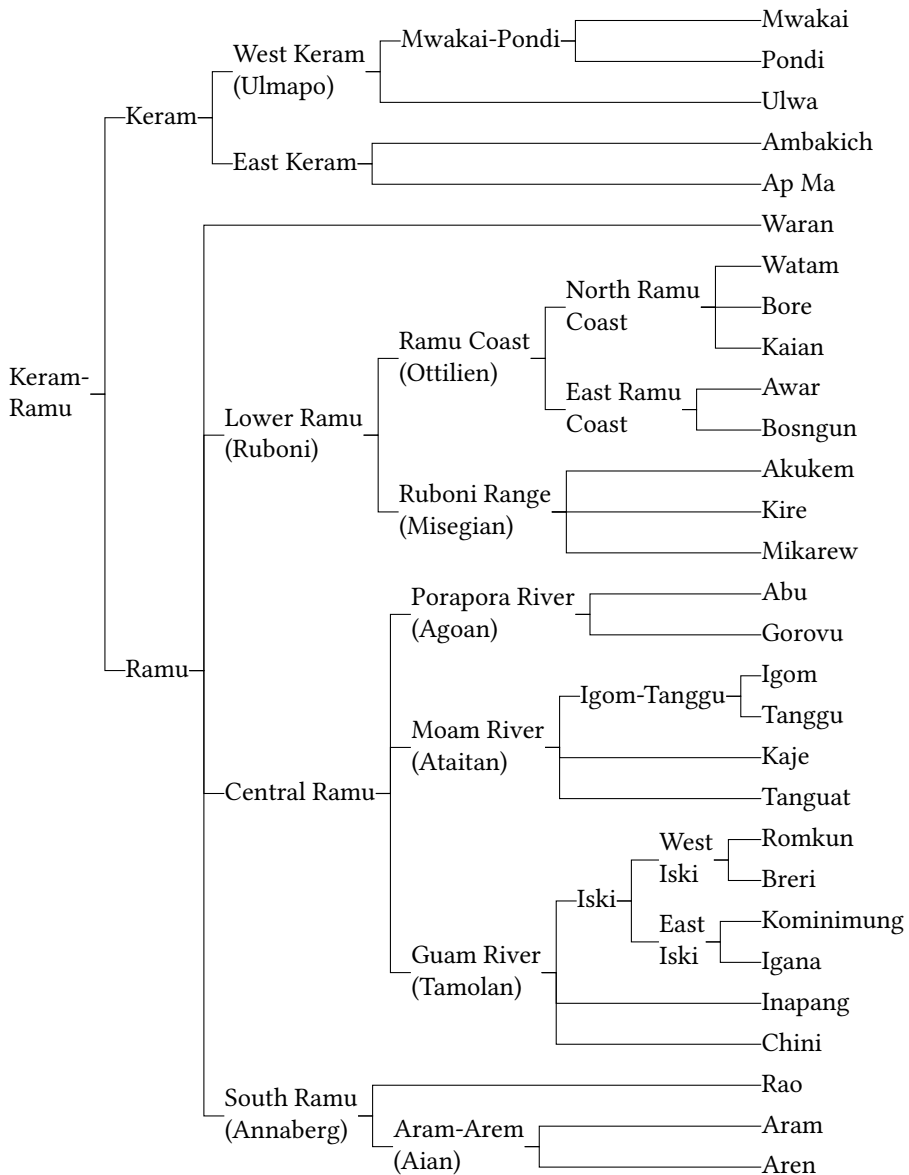
Figure 1.7: The Keram-Ramu family

Table 1.16: The Keram-Ramu languages

ISO	glottocode	language names
mgt	mong1344	Mwakai, Mongol, Kaimba, Momgwo, Mwa
lnm	lang1328	Pondi, Langam, Kaimba, Mwa
yla	yaul1241	Ulwa, Ulwa (Papua New Guinea), Yaul, Yaulu, Dimiri, Dimili, Yaul-Dimiri, Unamama, Andjilowa
aew	amba1269	Ambakich, Aion, No. 1 Porapora
kbx	apma1241	Ap Ma, Kambot, Kambót, Botin, Keram, Kambaramba, Unter-Keram
byz	bana1292	Waran, Banaro, Bánaro, Bakaram, Ober-Keram
wax	wata1253	Watam, Watám, Marangis, Mugdyana Kam
gai	bore1247	Bore, Borei, Mbore, Boroi, Gamai, Gamay, Gamei, Mborena Kam
kct	kaia1245	Kaian, Kayan
aya	awar1249	Awar, Nubia
bqs	bosn1248	Bosngun, Bosman, Bosmun, Mbiermba
spm	sepe1240	Akukem, Akukum, Sepen
geb	kire1240	Kire, Gire, Giri, Kire-Puire
msy	arua1260	Mikarew, Aruamu, Ariawia, Makarub, Makarup, Gumasi, Mikarew-Ariaw
ado	abuu1241	Abu, Adjora, Adjoria, Porapora #2, Gwɨn
grq	goro1261	Gorovu, Crovu, Yerany, Yerani
igm	kang1291	Igom, Kanggape
tgu	tang1355	Tanggu, Tanggum, Tangu
aod	anda1284	Kaje, Andarum
tbs	tang1356	Tanguat
rmk	romk1240	Romkun, Romkuin, Romakun, Iski
brq	brer1240	Breri, Kwanga, Kuanga, Iski
xoi	komi1271	Kominimung, Komunimung, Iski
igg	igan1243	Igana, Wasmuk, Iski
mzu	inap1241	Inapang, Midsivindi, Itutang, Yigaves, Yigavesakama, Itutang-Inapang
afi	akru1241	Chini, Akrukay, Akrukai, Akruray
rao	raoo1244	Rao, Annaberg, Annanberg, Anaberg, Ndelo
anj	anor1241	Aram, Anor, Atemble, Atemple
aki	aiom1240	Aren, Aran, Aiome, Aomie

More recently, however, Foley (1999, 2000, 2005, 2018, 2020) has presented arguments for a special connection between the Lower Sepik and Ramu families.[10] The evidence supporting Foley's proposal for a "Lower Sepik-Ramu family" consists of:

(i)   a small number of lexical cognates;
(ii)   cognate pronominal forms or formatives; and
(iii)   cognate nominal number morphology.

However, (i) most of the five putative lexical cognates are problematic, including one Austronesian loanword ('lime', §1.5), (ii) the rather limited resemblances among pronouns mostly boil down to single-segment "cognacy" (e.g., the 1PL forms in Proto-Ramu and Proto-Lower Sepik both begin with *a-); and (iii) the seemingly elaborate Ramu nominal number system, which Foley (2018: 203–204) suggests to be a vestige of an older noun class system as found in the Lower Sepik languages, can actually mostly be explained in terms of phonological conditioning environments, and it reduces to just two reconstructible plural suffixes. Moreover, these two suffixes do not exhibit any systematic cognacy with Lower Sepik suffixes – that is, although Proto-Keram-Ramu *-i 'PL' and *-Vr 'PL' may resemble some of the dozen or more plural suffixes found in a Lower Sepik language such as Yimas (cf. Foley 1991: 167–168), there is no paradigmatic relationship between suffixes and bases, as one would expect from a noun class system.

Therefore, while a deep genealogical connection between the neighboring Keram-Ramu and Lower Sepik language families may indeed exist, I have yet to see what I consider sufficient evidence to support a "Lower Sepik-Ramu family". Aside from this proposed family, I do not know of any hypotheses of distant genealogical relationships involving Keram-Ramu that are current being put forward in the literature.

1.9 Typological overview

Before examining Ulwa's grammatical features in greater detail, I provide here a general description of its phonology, morphology, and syntax, in an attempt to place Ulwa's grammar in a crosslinguistic context.

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[10]In Foley's (2018) classification, the Keram languages are subsumed within the Ramu family.

1.9.1 Phonetics and phonology

Ulwa has a rather small consonant inventory, consisting of just 13 consonants (§4.1). This figure may be compared to the average of 22.7 consonants in Maddieson's (2013a) sample of 562 languages, or to an average of 23.9 consonants among the 3,020 languages in PHOIBLE 2.0 (Moran & McCloy 2019). However, Ulwa's consonant inventory is fairly typical for the languages of the region (cf. Foley 2018: 243). Ulwa's vowel inventory, composed of 6 monophthongs (§4.2), is closer to the crosslinguistic average of "just fractionally below 6" (Maddieson 2013b). Ulwa thus has a "moderately low" consonant-to-vowel ratio of 2.17 (Maddieson 2013c). Including diphthongs (§4.2.2), Ulwa has 8 or 9 vowels in total, which may be compared to the average of 10.3 among the 3,020 languages in PHOIBLE 2.0 (Moran & McCloy 2019) (i.e., it is close to the global average).

There is nothing particularly unusual about either the consonant inventory or the vowel inventory. The only notable gap in the consonant inventory is found among palato-alveolars, since there exists a (prenasalized) voiced palato-alveolar affricate /ⁿdʒ/ without a voiceless counterpart (i.e., no †/tʃ/ or †/ʃ/, §4.1.3). Otherwise, there are no unusual contrasts (or absences of common contrasts) among phonemes. Ulwa distinguishes stops (plosives) in three places of articulation: labial, alveolar, and velar (§4.1.1, §4.1.2). In each place of articulation, there is a contrast in voicing. Somewhat less common (but not particularly unusual for the region), however, is the fact that the voiced stops are all prenasalized (§4.1.2). Thus, Ulwa's version of the set of typologically common stops is manifested as: /p, t, k, ᵐb, ⁿd, ᵑg/. There is, however, no contrast in voicing among fricatives. In fact, the only fricative is the voiceless alveolar /s/ (§4.1.6). There are no uvular consonants, nor are there glottalized consonants nor other consonants with secondary manners of articulation. There is one liquid consonant: a voiced alveolar lateral approximant /l/ (§4.1.5). There is no phonemic velar nasal, although this sound occurs phonetically, both as part of the prenasalized voiced velar stop and when an underlying alveolar nasal precedes the voiceless velar stop (§4.1.2). The vowel inventory is likewise fairly typical, consisting of the five standard vowels plus the high central vowel /ɨ/ (§4.2.1), which is also a common "sixth" vowel of the region (Laycock & Z'graggen 1975: 732; Foley 1986: 53). The two back vowels are rounded; and the two front vowels are unrounded. There are no phonemic nasal vowels.

Ulwa generally has a simple syllable structure, but the phonotactics of the language do permit structures as complex as CCVC (typically only when the CC cluster is composed of a velar-plus-labial-velar or a bilabial stop-plus-liquid). However, consonant clusters are not common (§4.3). There is no phonemic tone in Ulwa; nor is stress phonemic (§4.4).

1.9.2 Morphology and word classes

Ulwa is a mostly analytic (or isolating) language, in that it has a relatively low morpheme-to-word ratio. There is not much inflectional morphology in the language, but some does exist: there are TAM suffixes on verbs (§6.2) and oblique markers on NPs (§13.4.1). Since these affixes and clitics tend to express one grammatical feature each, Ulwa can be considered more agglutinative than fusional.

Ulwa employs the morphological process of suffixation, both on verbs and on noun phrases. The only known prefix is a detransitivizing marker that affixes to verbs (§15.8.2). Object markers, while properly proclitics and not prefixes, have a close phonological affinity with their following host verbs (§9.2). Although almost exclusively suffixes, some TAM affixes take forms resembling circumfixes (§6.3). There are no known productive processes of infixation, stem modification, suprasegmental modification, or reduplication. Some verbs have suppletive forms for certain TAM distinctions (§6.3). Derivational morphology includes nominalizing suffixes that derive nouns from verbs (§5.2). Verbs, in a sense, may be derived from other parts of speech through the use of a copular enclitic (§12.3).

There is little agreement marking between heads and dependents in Ulwa, but based on what does exist, Ulwa may be considered a dependent-marking language: in a postpositional phrase, a 3SG object (dependent) takes a form that reflects its status as object (§10.1, §11.3.1); similarly, in possessive noun phrases, the possessor (dependent) argument can be marked as such by a suffix (§8.2, §11.1.5). If, however, object markers are indeed undergoing a process whereby they are fusing to following verbs, and thereby becoming prefixes, then clauses may be considered to be becoming head-marked (§9.2).

Nouns in Ulwa are not marked in any way for person, number, gender, or case (§5.1). Subject and object NPs do, however, receive subject markers and object markers – these are determiners used with third person referents that index number: singular, dual, or plural (§9.1, §9.2). Also, non-core NPs can be indicated by an oblique-marker enclitic (§13.4.1). Possession is generally indicated by a separate possessive word, but it can alternatively be signaled by an oblique-marking enclitic, or by simple placement, without marking, of the possessor immediately before the possessum (§11.1.5). There are no obligatorily possessed nouns (i.e., no special treatment of inalienable possession).

The basic paradigm of personal pronouns consists of 11 items (§8.1). There is a three-way number distinction among singular, dual, and plural forms (in which the category of "plural" can, in broader usage, refer to exactly two referents as well as to more than two, §11.1.2). Among first person non-singular

pronouns there is a distinction between inclusive and exclusive forms. Gender is not marked in any way in pronouns, nor are there any politeness distinctions made among pronouns. There is colexification between reflexive and reciprocal pronouns (§8.3), as well as between indefinite and interrogative pronouns (§8.4, §8.5), and between the interrogative word 'which?' and the negator 'no, not' (§10.2.3).

Determiners are largely represented by subject markers and object markers, which are free lexemes that follow their respective NPs, marking them for number (§9.1, §9.2). They are not obligatory, nor do they necessarily mark NPs for definiteness. There are also a few demonstratives that serve deictic function (§9.3). There are no demonstrative classifiers, numeral classifiers, possessive classifiers, or verbal classifiers.

Verbs are marked for a few aspect and mood distinctions by suffixes. There is a basic three-way contrast among imperfective (often unmarked), perfective, and irrealis forms (§6.2). There is generally no grammatical evidentiality, but epistemic possibility can be expressed with a speculative suffix (§6.11). There is also a conditional suffix that marks the verb in the protasis of a conditional statement (§6.12).

There are no (non-borrowed) coordinators (§14.1) and no (obligatory) subordinators in Ulwa (§14.2). There is, however, a verbal suffix that signals that a given clause is dependent (§14.2.1). This suffix anticipates a following clause, which may be either the independent clause of the sentence or another dependent clause. There is no morphologically or phonologically defined class of ideophones.

1.9.3 Word order and syntax

The basic order of basic constituents in Ulwa is SOV (§13.1). This order is fairly rigid: there is essentially no variation from this pattern in active-voice main clauses. Oblique phrases follow the subject of the clause and precede the verb (and object if there is one) (i.e., SXOV) (§13.4). Negators occur between subjects and objects as well (S-NEG-O-V) (§15.3.1). Non-verbal predicate negation often employs discontinuous negators, one occurring between the subject and the verb, the other occurring clause-finally (§15.3.2). Adpositions always follow their NPs – that is, there are only postpositions, no prepositions (§10.1). In possessive constructions, the possessor (genitive) precedes the possessum (possessed) (§11.1.5). Adjectives (or property-denoting words) follow the nouns that they modify (§7.1). Demonstratives (§9.3) and numerals (§9.5) also follow nouns. Relative clauses pre-

cede their respective head nouns (§14.3). Ulwa thus conforms very neatly to the typological expectations of OV languages.

Ulwa has nominative-accusative morphosyntactic alignment (§13.2). There are no indications of ergativity, whether morphological or syntactic, in any aspect of the grammar. Although it is useful to differentiate intransitive and transitive verbs in Ulwa, there is no evidence that any verb is ditransitive – that is, a verb may never have more than two core arguments: a subject and a (direct) object (§13.3). There is also only minimal evidence to suggest that some verbs may be ambitransitive (§15.8.1).

Ulwa does not employ a robust set of serial verb constructions, although a modest and restricted form of such constructions may exist (§13.3). There are, however, a number of discontinuous verbs (or separable verbs) in the language, which contain at least one light verb element, and which function much like adjunct-plus-verb constructions (§11.2.1).

Ulwa does not exhibit any particular comparative or superlative construction, relying instead exclusively on positive adjectives.

Both nouns and adjectives can function as predicate complements, either with a zero copula (§12.2) or with a copular enclitic, which may take additional marking for (irrealis) mood (§12.3), or with a suppletive (past-tense) locative verb form (§12.4).

Questions are formed simply by applying a rising intonation to a declarative statement. Polar questions ('yes/no' questions) generally employ no question particle, nor do they involve any inverted word order (§15.1.1); content questions (*wh-* questions) contain their question word in the syntactic slot to be expected from the standard SOV order of declarative sentences – that is, there is no *wh-*movement (§15.1.2).

Ulwa may be considered a pro-drop language, in that subjects can be omitted from clauses without resulting in ungrammaticality (§13.1).

Passives are formed in a very unusual, syntactic way: instead of relying on verbal morphology to promote the more patientive argument of a transitive verb to the grammatical subject of a clause, Ulwa inverts the word order to achieve this effect (VS instead of SV) (§15.7). The more agentive argument of this passive sentence may be encoded as an oblique phrase, preceding the verb (i.e., XVS). There is also a verbal prefix that functions to reduce the valency (or transitivity) of a verb and may, in a sense, be considered a means of forming antipassive constructions (§15.8.2, §15.8.9). There is no productive process of noun incorporation in the language.

Causatives in Ulwa are periphrastic, always composed of two clauses (§15.9.1). They are of the sequential, not the purposive variety – that is, the two clauses are

juxtaposed without any linking element: first the clause of the cause and second the clause of the effect. There are no morphosyntactic applicative constructions in Ulwa.

Only subjects are accessible to relativization (§14.3). Relative clauses in Ulwa immediately precede the head nouns they modify, leaving a "gap" in the relative clause where the shared nominal element would be expected.

2 The present description

In this chapter I offer a brief account of how this grammatical description was written and how the data within it are organized and presented. I begin by situating the present description in the wider context of research relating to Ulwa.

2.1 Previous research on the language

As far as I am aware, the earliest published mention of the Ulwa people occurs in Mead (1938: 199), who describes the pottery of "the Dimili and Yaulu peoples". For the Dimili people she offers the alternative name "Dimiri", describing them as "'Grass-men' people living southeast of the Mundugumor [= Mundukumo], inland from the Yuat River" (Mead 1938: 347). For the Yaulu people she offers the alternative name Yaul, describing them as "'Grass-man,' people living east of the Mundugumor between the Yuat and the Little Ramu (Potter's River) [= Keram River]" (Mead 1938: 349). Although Mead does not discuss their language, the names Yaul and Dimiri refer to two villages where Ulwa was spoken.[1]

Following World War II, the Sepik area, as part of the Australian-administered Territory of New Guinea, was regularly visited by patrol officers (called *kiap* in Tok Pisin), whose patrol reports occasionally contained linguistic classifications, of varying accuracy. One of these reports, written in 1950 by officer F. D. Anderson, provides a rather correct identification of some of the languages spoken in the Grass Country Census Group (Patrol Reports 1950: no. 19). No language names are provided, but villages are sorted into columns, according to language. One such column contains five villages: Dimiri, Yaul, Manu, Bruten, and Marawat [= Maruat]. These are the villages where Ulwa was spoken.[2] Later

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[1]Mead's description was presumably the source for Loukotka's (1957: 30) inclusion of Yaulu and Dimili within a list of 21 unknown "languages" of the Sepik Basin: "Les autres langues dans le bassin du Sepik sont jusqu'à présent inconnues. Les principales sont les suivantes ... le *Yaulu* entre le Yuat et le Kerám, le *Dimili* au sud-est du Mundokuma, ..." ["The other languages in the Sepik Basin are thus far unknown. The main ones are the following ... *Yaulu* between the Yuat and the Kerám, *Dimili* southeast of the Mundokuma [= Mundukumo], ..."].

[2]I do not know what has become of "Bruten" village, which was apparently situated very close to the former location of Manu village. I can find no record of it later than the 1950s.

reports, however, were not as accurate, often grouping Ulwa together with different languages. However, a patrol report written in 1969 by officer Jon R. Bartlett for the Yuat Census Division, correctly groups together the four Ulwa-speaking villages, even assigning a name to the language:

> UNAMAMA Language: is spoken by YAUL, DIMIRI and MARAWAT – a total of 714 people. The only other group to speak this language is MANU Village in the Grass Census Division. The older men from DIMIRI are fluent in the MUNDUGOMOR language as they used to live very close to BRANDA Village pre-war. (Patrol Reports 1969: no. 4)

These are indeed the four villages where Ulwa was, and still is, spoken. The name *Unamama* (i.e., *una[n]* '1PL.INCL' + *mama* 'mouth') literally means 'our mouth'. "Mundugomor" here refers to Mundukumo (also known as Biwat), which is a member of the Yuat family.

However, these two patrol reports did not apparently inform any linguistic descriptions or indeed even any future patrol reports, which continued to conflate Ulwa with other languages, in particular with Ap Ma (also known as Kambot or Botin).

In his linguistic survey, Capell (1962: 48) writes: "The languages on the southeast of the Sepik River, reported in the first edition of this work [(Capell 1954)] as unknown, still remain in practically the same situation." No mention is made of Ulwa, nor does the language appear on his map of the Sepik Basin (Capell 1962: 38–39). In this map, the two language areas of Biwat [= Mundukumo] and Kambot [= Ap Ma] are shown as being adjacent, whereas the Ulwa-speaking area should appear somewhere between them. As far as I can tell, the earliest documentation of the Ulwa language itself consists of a single word by Haberland (1966: 95), who, apparently based on a letter from Karl Laumann in 1965, records the word <*wä*> 'sago palm' as being used in the villages of Yaul and Dimeri [= Dimiri].[3] This recorded word no doubt refers to Ulwa *we* 'sago starch'.

The first person to mention Ulwa in the linguistic material was Donald Laycock (1973: 36), who refers to the language as Yaul. He classifies Yaul [= Ulwa] as being related to Mongol [= Mwakai] and Langam [= Pondi], lists the four villages where Ulwa is spoken, estimates the total population of these four villages to have been 814 in 1970, and names the two speakers (Silami and Ansamari) from whom he collected data in Yaul village in 1971. Laycock's (1971a) unpublished handwritten field notes on the Yaul dialect of Ulwa are reproduced in Appendix F.

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[3]Although flagging these villages with a question mark, he suggests that they could be part of the Mundukumo dialect area.

In 2005, while researching the Mundukumo language, James McElvenny was able to record some speakers of "Yaul" and "Dimili". These Ulwa recordings are archived with PARADISEC (McElvenny 2005). The collection consists of four recordings:

(i)   an elicitation session of basic vocabulary and sentences conducted in Dimiri village (01:29);

(ii)   a story told in Ulwa and Tok Pisin recorded in Dimiri village (02:38);

(iii)   an elicitation session of basic vocabulary and sentences conducted in the Mundukumo-speaking Kinakatem village with an Ulwa speaker from Yaul village (40:00); and

(iv)   a story told in Ulwa by the same speaker, also recorded in Kinakatem village (03:04).

I began researching Ulwa in 2015, thanks to the good advice and guidance of William A. Foley. See §2.3 for discussion of my sources and data collection.

2.2 The name of the language

Speakers from all four villages where the language is spoken agree upon *Ulwa* as a glottonym. When Laycock conducted his survey work of the Sepik area between 1970 and 1971, he recorded the name of this language as "Yaul", which is the name of one of the four villages. In doing so, Laycock (1973: 3) seems to have contravened one of his principles in choosing language names: "The name should not be that of a village, clan or locality that is significantly smaller than the language area, or that is not accepted by the whole group without feelings of rivalry". This name lent itself to the formation of the ISO 639-3 code [yla] and the glottocode [yaul1241]. Nevertheless, I do not use it to refer to the language described by this grammar, since it is not the preferred name for the language among its speakers. Furthermore, the term "Yaul" creates confusion between reference to the village (and dialect) of that name and reference to the language as a whole. That is, I agree with the principle of not naming a language for a village, particularly in cases such as this one, in which the language is spoken in multiple villages. Foley (2018: 206) refers to Ulwa as "Yaul-Dimiri", which is indeed more inclusive, but still does not cover the two other villages where Ulwa is spoken. *Glottolog 4.7* (Hammarström et al. 2022) refers to the language as "Ulwa (Papua New Guinea)", presumably to differentiate it from a wholly unrelated Misumalpan language of Nicaragua also known as Ulwa.

As is common among languages of the Sepik (and is indeed attested in various languages across the globe), the glottonym *Ulwa* is based on a word that means 'no' or 'nothing'. However, although this naming strategy is recurrent throughout the Sepik area, there is no evidence that Ulwa speakers have had a long tradition of employing it to refer to their language. It is my impression that it is, and was, more common for people of the region to identify themselves and others by village affiliation rather than by language. Laycock (1971a: 3218) presumably did not encounter the name *Ulwa* when interviewing his consultants in Yaul village. He did, however, record what was perhaps an ad hoc glottonym: <ANDJI LOWA> (probably /aⁿdʒi la wo/, i.e., 'our own talk'). As mentioned in §2.1, an Australian patrol officer in 1969 recorded the name of the language as <UNAMAMA> 'our mouth' (Patrol Reports 1969).

2.3 Sources and data

I began collecting Ulwa language data in 2015, during a two-month trip to Papua New Guinea. During that trip as well as during subsequent trips, I worked with native speakers of the language, all of whom were at least 30 years old and were raised in Ulwa-speaking villages. Most of my consultants were between 40 and 60 years old and were from Manu village. Although I collected texts from both men and women, my elicitation sessions were mainly conducted with male speakers. I also collected data from speakers from the other three Ulwa villages, as well as from speakers who were older than 60 or 70.

In total, I spent about twelve months living and working with Ulwa speakers, divided among four research trips:

    (i)   two months in 2015 (June to August)
    (ii)   six months in 2016 (June to December)
    (iii) three months in 2017 (April to June)
    (iv) one month in 2018 (August to September)

In total, I recorded over 60 hours of audio (including about 6 hours with accompanying video). Most of my time was spent in Manu village, but I also visited the three other Ulwa-speaking villages (Maruat, Dimiri, and Yaul) in 2015. In 2018, I worked with speakers originally from Yaul but living in the town of Angoram. Although I consider data from a variety of speakers, this is foremost a grammatical description of the Manu dialect of the Ulwa language as spoken by older

speakers. A brief comparative study of the Yaul variety of Ulwa is provided in Chapter 20.[4]

The data gathered during my research trips consist of various types: elicited words and sentences, grammaticality judgments, prepared texts, and texts of more naturalistic speech, including both monologues and conversations. I have tried to base my descriptions on actual language use – that is, analyzing the language based on a corpus of naturalistic speech. Most of the examples in this grammar are therefore drawn from a corpus of about 6 hours of transcribed, translated, and glossed texts. Nevertheless, elicited sentences and grammaticality judgments offer invaluable insights into the nuances of certain grammatical distinctions; and sets of elicited sentences often provide the most illustrative examples of grammatical phenomena. Accordingly, in addition to examples culled from a recorded corpus of texts, there are a number of example sentences taken from elicitation sessions. All examples, whether they were elicited or not, have been vetted by native speakers for their grammaticality (or, in the case of starred sentences, for their ungrammaticality).

My analysis of the language is not limited to or by any particular theoretical framework. Rather, my overarching goal in writing this grammar has been to describe the language "in its own terms" (Dryer 2006: 211), drawing insights from different approaches where appropriate, in keeping with what I consider to be the best practices of typologically informed descriptive linguistics. My primary concern has been to make the description and analysis clear and accessible to a broad range of linguists and others who may have interest in this language.

2.4 Recordings

Audio recordings that were produced in 2015 are archived with the Kaipuleohone Language Archive at the University of Hawaiʻi (Barlow 2015). Audio and video recordings, transcriptions and translations of texts, and some photographs of village life that were produced between 2015 and 2018 are archived with the Endangered Languages Archive (ELAR) at the School of Oriental and African Studies, University of London (SOAS) (Barlow 2018a). Although only recordings contained within the ELAR archive have been selected as sources for examples in this description (§2.6), my understanding of the language has also benefited from the recordings contained within the Kaipuleohone archive.

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[4]I have also conducted research with the other members of Keram language family, which constitute Ulwa's sister languages. The grammars of these languages have at times informed my analysis of Ulwa's grammar.

Table 2.1 provides a list of the audio recordings for Ulwa that are deposited with the Kaipuleohone Language Archive:

https://hdl.handle.net/10125/37432

These are the earliest recordings I made of Ulwa, during my first visit to the speaker community in 2015. Only speakers' initials are included in the table; their full names are given in Table 2.4.

Table 2.1: Ulwa recordings archived with Kaipuleohone

File	Speaker(s)	Date	Village	Title
RXB1-001	AA	25.06.2015	Manu	Crocodile story
RXB1-002	TG	29.06.2015	Manu	Bandicoot story
RXB1-003	TG, MW	29.06.2015	Manu	Conversation
RXB1-004	LA	02.07.2015	Manu	The two sisters
RXB1-005	CK	02.07.2015	Manu	Life in the "stone age"
RXB1-006	LA	02.07.2015	Manu	The turtle
RXB1-007	MS	17.07.2015	Yaul	World War II story
RXB1-008	EU	17.07.2015	Yaul	The song "Kamul"
RXB1-009	KM	17.07.2015	Dimiri	Dimiri's new location
RXB1-010	KM	17.07.2015	Dimiri	Song
RXB1-011	JM	17.07.2015	Maruat	Warrior story
RXB1-012	PS	17.07.2015	Maruat	Song about water
RXB1-013	PS	17.07.2015	Maruat	Welcome song to Maruat
RXB1-014	TG	23.07.2015	Manu	Cannibalism
RXB1-015	TG	23.07.2015	Manu	How to harvest grubs
RXB1-016	TG	23.07.2015	Manu	A trip to Maruat village
RXB1-017	TG	23.07.2015	Manu	Origin of the Ulwas
RXB1-018	SG	23.07.2015	Manu	Men's house song
RXB1-019	MW	25.07.2015	Manu	Water spirit song
RXB1-020	MW	25.07.2015	Manu	Ornament song
RXB1-021	MW	25.07.2015	Manu	Welcome song to Manu
RXB1-022	MW	27.07.2015	Manu	The lullaby song "Nane"
RXB1-023	PT	27.07.2015	Manu	Song about moving
RXB1-024	FA	27.07.2015	Manu	Francis's move
RXB1-025	FA	27.07.2015	Manu	Description of his father

File	Speaker(s)	Date	Village	Title
RXB1-026	FA	27.07.2015	Manu	Missionaries
RXB1-027	FA	27.07.2015	Manu	Life in Manu long ago
RXB1-028	LA	27.07.2015	Manu	How to prepare sago
RXB1-029	LA	27.07.2015	Manu	Funeral customs
RXB1-030	EM	27.07.2015	Manu	The song "Jambisa"
RXB1-031	FA	27.07.2015	Manu	Men's houses
RXB1-032	SM	28.07.2015	Manu	Resurrection
RXB1-033	SM	28.07.2015	Manu	A trip to Madang
RXB1-034	SM	28.07.2015	Manu	Mock debate
RXB1-035	SM, OW	28.07.2015	Manu	Language policies
RXB1-036	SM, OW	28.07.2015	Manu	Sago story
RXB1-037	PM	28.07.2015	Manu	The story of the moon
RXB1-038	PM	28.07.2015	Manu	The meal song "Lawlo"
RXB1-039	OW	28.07.2015	Manu	Otto's move
RXB1-040	PM	28.07.2015	Manu	Pig story
RXB1-041	TA	02.08.2015	Manu	The story of sago
RXB1-042	TA	02.08.2015	Manu	Epilogue
RXB1-043	TA	02.08.2015	Manu	The first people
RXB1-044	FA	02.08.2015	Manu	Stone axe

Table 2.2 provides a list of the audio and video recordings of Ulwa that are deposited with the ELAR archive:

http://hdl.handle.net/2196/cffec915-d63a-4482-a0c7-bb606c504b2a
http://hdl.handle.net/2196/00-0000-0000-000F-CB61-A

All texts used in examples in this grammar can be found in the ELAR archive.[5] The recordings in this collection were all made in Manu village. Only speakers' initials are included in the table; their full names are given in Table 2.4.

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[5]Some material from the very beginning and end of the text ulwa014 are not included in ELAR: example sentences taken from these sections are marked with an obelisk (†) in the relevant examples.

Table 2.2: Ulwa recordings archived with ELAR

File	Speaker(s)	Date	Title
ulwa001	YK	22.06.2016	Wonmelma
ulwa002	AB	16.11.2016	Origins of the Ulwa people
ulwa003	AB	16.11.2016	Tobacco
ulwa004	AB	16.11.2016	Ayndin's grandmother
ulwa005	AB	16.11.2016	Yambalpa
ulwa006	AB	16.11.2016	The mother of the turtle (§19.1)
ulwa007	AB	16.11.2016	Ayndin's personal history
ulwa008	AB	16.11.2016	Sago
ulwa009	AB	16.11.2016	Ambawanam Ngata
ulwa010	AB	16.11.2016	Splitting the coconut
ulwa011	AB	16.11.2016	Molpan Ngata
ulwa012	AB	16.11.2016	Metmet
ulwa013	TG	20.11.2016	Tarambi's personal history
ulwa014	TK, YK	28.04.2017	Tangin and Yanapi
ulwa015	TG	21.05.2017	Shell armbands
ulwa016	TG	21.05.2017	Boar tusks
ulwa017	TG	21.05.2017	Shell bilum
ulwa018	TG	21.05.2017	Eating in the men's house
ulwa019	YK	26.05.2017	Itïtïl Yena
ulwa020	YK	26.05.2017	The woman Amblom (§19.2)
ulwa021	YK	26.05.2017	Gasuwa's trip to the spirit world
ulwa022	YK	26.05.2017	Scraping sago
ulwa023	YK	26.05.2017	Ulimal makes the river
ulwa024	YK	26.05.2017	Yanapi's children
ulwa025	AJ	27.05.2017	Sago palms at Wopata
ulwa026	AJ	27.05.2017	When Ambasap was sick
ulwa027	AJ	27.05.2017	Trips to Angoram
ulwa028	AJ	27.05.2017	Going between Wopata and Manu
ulwa029	AJ	27.05.2017	Getting tattoos
ulwa030	AJ	27.05.2017	Preparing food
ulwa031	AJ	27.05.2017	Making plans for tomorrow
ulwa032	TK	29.05.2017	Tangin's trip to Bun village
ulwa033	GT, TK	01.06.2017	Gweni's childhood
ulwa034	GT, TK	01.06.2017	Battle at Talamba
ulwa035	GT, TK	01.06.2017	Snakes (§19.3) / crocodile hunt

File	Speaker(s)	Date	Title
ulwa036	GT, TK	01.06.2017	Child's death / poisoning fish
ulwa037	AB, TG	12.06.2017	Ayndin and Tarambi
ulwa038	AB, AJ	19.06.2017	Dry season
ulwa039	AB, AJ	19.06.2017	Murder at Maruat village
ulwa040	AB, AJ	19.06.2017	Yesterday's activities
ulwa041	AB, AJ	19.06.2017	Plans for the evening
ulwa042	AB, AJ	19.06.2017	Ayndin's plans to grow tobacco
ulwa043	Manu village	20.09.2016	Singsing

The set of examples used in this description draws from most of the recordings listed in Table 2.2. Six of these recordings, however, although available in the ELAR archive, were not used for any examples in this book: ulwa005, ulwa007, ulwa012, ulwa017, ulwa025, ulwa043. The ELAR archive also includes 15 photographs of the Ulwa language community and its environment (Table 2.3).

Table 2.3: Photographs archived with ELAR

File	Date	Title
ulwa044	27.06.2015	Manu village
ulwa045	27.06.2015	Keram Black River
ulwa046	02.07.2015	Fishing
ulwa047	06.07.2015	Harvesting sago
ulwa048	07.07.2015	Cocoa
ulwa049	16.07.2015	Maruat village
ulwa050	17.07.2015	Yaul village
ulwa051	17.07.2015	Dimiri village
ulwa052	20.07.2015	Sago and grubs
ulwa053	23.07.2015	Bandicoot meat
ulwa054	27.07.2015	Masks
ulwa055	29.07.2015	House
ulwa056	31.07.2015	Burning a pig
ulwa057	02.08.2015	Pick-axe
ulwa058	05.08.2015	Watching a boat depart

Table 2.4 gives the full names of the Ulwa speakers recorded in the files listed in Table 2.1 and Table 2.2.

Table 2.4: Speakers

Initials	Speaker	Also known as
AA	Alus Amombi	
AB	Ayndin Bram	Joseph Bram
AJ	Ambasap Jomia	Christina Jomia
CK	Cecilia Sikimba	
EM	Elias Mangeme	
EU	Elias Usimari	
FA	Francis Ambata	
GT	Gweni Tungun	
JM	John Morangi	
KM	Kunam Malaku	
LA	Lucy Ambata	
MS	Mathew Sango	
MW	Morris Womel	
OW	Otto Wandangin	
PM	Paulina Mapul	
PS	Philip Siwingin	
PT	Philo Tatu	
SG	Samuel Gambri	
SM	Stephen Mawipa	
TA	Thomas Ambata	Alimban Ambata
TG	Tarambi Gambri	David Gambri
TK	Tangin Kapos	Rosa Kapos
YK	Yanapi Kua	Yaka Kua

2.5 Orthography

The Ulwa writing system was proposed in Barlow (2018b). In developing this orthography, I had a number of interests in mind. First, as much as possible, I tried to maintain an isomorphic relation between sound and symbol. Indeed, each phoneme can be written in only one way. There is thus exactly one grapheme for every phoneme and one phoneme for every grapheme. Second, I considered the practicalities of reading and writing the language, and I thus mostly avoided using unusual characters. The Ulwa alphabet consists of 19 letters, almost all of which are basic Latin characters, found both in English and in Tok Pisin, and are

easily typed on any keyboard. The one exception is the grapheme <ï>, which represents the high central vowel (written in the IPA as <ɨ>). Although it would be preferable to avoid diacritics entirely, there is no readily available alternative to this form (which contains a dieresis), since all five basic vowels of the Latin alphabet are used to represent other phonemes in Ulwa's orthography. The form <ï> was chosen over the IPA form <ɨ>, since it is easier to type on a computer (on a PC: Alt 139; on a Mac: option u + i) or with a smartphone (by pressing and holding the i button) and hopefully also less easily confused with the form <i>.

Aside from <ï>, the phonemic values of Ulwa's 19 letters should not be difficult for a general audience to intuit. The only digraphs in the orthography are the four that are used to represent the language's three prenasalized voiced stops and one prenasalized voiced affricate. On phonemic grounds, these could have been written as <b, d, g, j> as opposed to <mb, nd, ng, nj>, since there are no phonemic contrasts between prenasalized and plain voiced stops in the language.[6] Nevertheless, I decided to represent the nasal gesture in these phonemes (i.e., the nasal sub-segments) overtly in the orthography with a digraph, so as to avoid any possible mispronunciation. As the language faces attrition, younger speakers and language learners may fail to note the prenasalized quality of the voiced stops, and they are likely to read Ulwa by following Tok Pisin and English spelling conventions, not those chosen explicitly for Ulwa, thus pronouncing <b, d, g> as [b, d, g], rather than with their prenasal gesture as [^{m}b, ^{n}d, ^{ŋ}g]. Indeed, whereas the oldest speakers are inclined to pronounce plain voiced stops in Tok Pisin as prenasalized voiced stops (e.g., [^{n}dok] for Tok Pisin /dok/ 'dog'), younger speakers, whose first language is usually Tok Pisin, do just the opposite – that is, they fail to pronounce the nasal portion of Ulwa's voiced stops, especially when word-initial (e.g., [dunduma] instead of [^{n}du^{n}duma] 'great-grandparent'). Also, regarding these graphemes, it may be noted that the phonetic realization of <ng> is [^{ŋ}g] – that is, with a nasal velar (as opposed to alveolar) nasal element. However, there is no need to write this grapheme with an engma (<ŋ>), since there is no phonemic velar nasal in the language, and writing one would require a less common character. Furthermore, a natural phonological process assimilates alveolar nasals to the place of following velar stops (i.e., /nk/ → [ŋk]). It should likewise be noted that <ng> is always pronounced [^{ŋ}g] and never †[ŋ] or †[ŋ.g] (as in, say, English, *singer* or *finger*). Similarly, the <n> component of the grapheme <nj> represents a palato-alveolar nasal gesture, as opposed to an alveolar nasal gesture.

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[6]Similarly, there is no need to write the voiceless stops (all of which are aspirated) as <p^h, t^h, k^h>, since there is no contrast between aspirated and unaspirated voiceless stops in the language.

When a proper noun (such as the name of a person or place) begins with a pre-nasalized stop (or affricate), however, only the stop (or affricate) gesture of the phoneme is written. Thus, for example, the personal names [ᵐbaⁿdʒiwa, ⁿdamⁿda, ᵑganmali, ⁿdʒukan] are written <Banjiwa, Damnda, Ganmali, Jukan>. This is in keeping with earlier Ulwa name-writing practices, which were themselves likely influenced by the perceptions or preferences of the colonial Australian officers charged with taking census and writing names. Whatever its origin, this practice is maintained here, since it is in keeping with the preferences of current Ulwa speakers. But since the present work also maintains the convention of capitalizing the first letter of proper nouns, the graphemes <B, D, G, J> may simply be thought of as representing [ᵐb, ⁿd, ᵑg, ⁿdʒ].

There is one further point to make concerning proper nouns: while the liquids [l] and [r] are almost always in free variation (as allophones of the phoneme /l/), there is a strong preference among speakers that certain proper nouns be pronounced with a rhotic [r] sound and never with a lateral [l] sound (even though speakers themselves, in casual speech, may pronounce the sound in question as closer to [l] in these names). Since many proper nouns are apparently shared with neighboring language communities, it is not unreasonable to assume that such names are in origin loanwords. Regardless of their history, these names are written here with the grapheme <r>: for example, the proper names <Gambri, Guren, Yaruwa>.

When a phonological rule changes the underlying form of a word, the orthography reflects the phonological realization, not the underlying form. Thus, when the shape of one or more morphemes in an underlying form alters due to a phonological rule that occurs within a phonological word, the resultant phonological realization is written. In practice, this mainly only affects verbs, which take a number of TAM suffixes. Object markers, though properly proclitics (and not prefixes), are nevertheless so closely connected to the following verb, that they are written immediately preceding the verb, without any space. Phonological rules that apply across this clitic boundary are also reflected in the orthography.

Finally, the basic English (and Tok Pisin) conventions of capitalization and punctuation have been adopted for Ulwa.

2.6 Presentation of examples

Throughout the work, numbered examples are presented in four lines. The first line consists of an utterance in Ulwa as written in the orthography, including capitalization and punctuation. Words are spelled such that they reflect any word-

internal phonological rules that have applied. Parentheses indicate optional material (i.e., versions of the utterance both with and without the parenthetical material are attested).

The second line contains a morpheme-by-morpheme morphological analysis of the utterance: morphemes are separated such that tabbed spaces are placed between all phonological words, an equal sign (=) is placed between clitics and their hosts, and a dash (-) is placed between bound morphemes within a single grammatical word. Square brackets occasionally enclose one or more words to indicate clause boundaries (or, when indicated, to enclose other constituents, such as phrases). Brackets are also sometimes used (within words) to indicate suspected elided phonological or morphological material.

The third line contains the morphological gloss of the utterance. In glossing the language, I have followed the conventions of the Leipzig Glossing Rules (Comrie et al. 2008). Lexical items are given a basic English translation. If more than one English word is required to gloss a single Ulwa morpheme, then a period (.) is used to separate the words in a gloss (e.g., <older.brother> for *atuma*). Functional morphemes are glossed with a standard abbreviation, written in SMALL CAPITALS. When a single morpheme encodes more than one grammatical feature, these are separated in the gloss by a period (e.g., <1PL.EXCL> for the first person plural exclusive pronoun *an*).

Finally, the fourth line provides a translation of the utterance into English, usually designed to be as literal as possible, though still flowing. Although these translations are almost entirely in English, an occasional word from Tok Pisin will be used (in *italics*) when it provides a clearer or more accurate translation of the Ulwa word (e.g., Tok Pisin *bilum* 'string bag' to translate Ulwa *ani*). A glossary of these words is given in Appendix D.

Where further clarification or context is deemed helpful, this is provided, parenthetically, following the translation. Loanwords from Tok Pisin (TP) are identified in parentheses as well. The Tok Pisin orthography used here follows Volker (2008). More literal alternate translations are also sometimes provided within parentheses in this fourth line. Examples taken from recorded texts are identified as such, following the English translation (and any other parenthetical explanations, if provided). The identification of texts takes the form "[ulwa000_00:00]": the numbers preceding the underscore refer to the text number as it occurs in ELAR (Barlow 2018a); the numbers following the underscore refer to the time (minutes:seconds) in the recording where the quoted part of the speech begins. A list of these recordings is given in Table 2.2. Examples taken from elicitation sessions, on the other hand, are identified as "[elicited]".

Ungrammatical utterances are indicated by an asterisk (*) at the start of the first line of the example. Note, however, that, elsewhere in the grammar, reconstructed forms are also indicated by an asterisk. This ambiguity is at times mitigated by using a superscript obelisk (†) to indicate forms that may be expected to occur but do not. Note that a normal obelisk (†) is used when citing material from the text ulwa014 that is not included in the ELAR archive and thus does not have a timecode. A sentence preceded by a question mark (?) is taken to be somehow doubtful: it may be grammatically acceptable but semantically bizarre, or some speakers may be uncertain as to whether it is grammatical or not.

Morphemes, words, or phrases of particular relevance to the topic being discussed are emphasized in the first two lines of numbered examples by **bold** font. Prosody is generally not reflected in the transcriptions of examples.

Whenever reference is made to forms in Ulwa, these forms are written in *italics*. Where necessary, slashes (/…/) are used to enclose phonemic transcriptions and square brackets ([…]) are used to enclose phonetic transcriptions. Angle bracket (<…>) are used when presenting a form exactly as written by someone else or when needed to draw special attention to the orthography of a form.

2.7 Organization of this book

This remainder of this book is organized as follows. The following chapter (Chapter 3) provides a brief grammar sketch, intended to equip the reader with the knowledge needed to understand the examples throughout this book. Then, the main body of the grammar proceeds from describing the phonetics and phonology of the language (Chapter 4) to detailing the morphology of various parts of speech: nouns (Chapter 5), verbs (Chapter 6), adjectives (Chapter 7), pronouns (Chapter 8), determiners (Chapter 9), and other smaller word classes (Chapter 10). The grammar then describes Ulwa's syntax, beginning at the phrase level (Chapter 11), with particular attention paid to the predicate (Chapter 12), proceeding to the clause level (Chapter 13), covering complex sentences (Chapter 14), and then considering additional topics in syntax (Chapter 15). This is followed by a discussion of some topics in semantics (Chapter 16). Finally, the structural consequences of language loss are discussed (Chapter 17).

Following these chapters of grammatical description, there is a lexicon containing 1,429 entries, included as both an Ulwa-to-English wordlist and as an English-to-Ulwa finder list (Chapter 18); a selection of three texts from the corpus of texts, transcribed in Ulwa with interlinear morpheme-by-morpheme glossing and translated into English (Chapter 19); and a brief description of the Maruat-Dimiri-Yaul dialect of Ulwa (Chapter 20).

The following appendices are included at the end of the book: a Swadesh 100-word list (Appendix A), a Swadesh 200-word list (Appendix B), a standard SIL-PNG survey word list (Appendix C), a glossary of Tok Pisin words encountered in this book (Appendix D), an account of the Ulwa people's traditional origin stories (Appendix E), and a reproduction of Laycock's (1971a) field notes on the Yaul dialect of Ulwa (Appendix F).

3 A grammatical overview of Ulwa

This chapter provides an overview of the grammar of Ulwa. It is intended to help readers understand the descriptions and glossed examples presented elsewhere. The examples in this chapter have either been taken from elicited responses or have been adapted from other examples in this book, designed to be presented as simply as possible.

3.1 Phonology

Table 3.1 presents the 13 consonants of Ulwa. Table 3.2 presents the 6 vowels of Ulwa.

Table 3.1: Ulwa consonants

	labial	alveolar	palatal	velar
voiceless stops	p	t		k
prenasalized voiced stops	mb	nd		ng
prenasalized voiced affricate			nj	
nasals	m	n		
liquid		l		
fricative		s		
glides	w		y	

Table 3.2: Ulwa vowels

	front	central	back
high	i	ï	u
mid	e		o
low		a	

In addition to these 19 basic phonemes, there is a rhotic consonant [r], which is the preferred pronunciation in some proper nouns and is thus written as <r>. Elsewhere [r] is an allophone of /l/. There is also a very infrequent low front vowel [æ], which is not considered here to be phonemic. It is written as <ae> in the four words known to exhibit it. There are two basic diphthongs, /aw/ and /ay/, and potentially also /oy/.

All consonants may occur word-initially and word-medially. Voiced stops /mb, nd, ng/, the voiced affricate /nj/, and the voiceless velar stop /k/ do not occur word-finally. There is no velar nasal phoneme, but alveolar /n/ assimilates in place to [ŋ] when immediately preceding the velar stop /k/. The sole fricative /s/ may optionally be palatalized to [ʃ] when immediately preceding the high front vowel /i/.

All vowels may occur word-medially and word-finally, but only /a, i, u/ may occur word-initially. Speakers often insert optional glides [y] and [w] before word-initial /i/ and /u/, respectively. The contrast between /a/ and /o/ is often neutralized in the environment immediately preceding /w/, where they may both be pronounced as [ɔ]. The high central vowel /ɨ/ is often elided.

Consonant clusters are relatively uncommon, but they do occur. Complex onsets are more common than complex codas. The sonorants /m, n, l/ can all behave as syllabic consonants, generally only when a preceding /ɨ/ has been elided. Stress is not phonemic. There is a preference for penultimate stress in polysyllabic words and for alternating stress in longer utterances.

3.2 Morphophonology

There are several morphophonemic processes that result in different surface forms. The high vowels /i/ and /u/ become glides when immediately following the low central vowel /a/ (1).

(1)   a.   /maita/ → [mayta] 'build it'
      b.   /mauta/ → [mawta] 'grind it'

The sequences [ay] and [aw] may optionally monophthongize to [e] and [o], respectively (2).

(2)   a.   /nai/ → [nay] (→ [ne]) 'went away'
      b.   /maul/ → [mawl] (→ [mol]) 'with it'

When the low central vowel /a/ is immediately followed by a non-high vowel, however, /a/ is deleted (3).

(3)   a. /wanaen/ → [wanen] 'cook'
      b. /andao/ → [ando] 'that!'
      c. /maasa/ → [masa] 'hit it'

The high central vowel /ï/ is deleted when immediately followed by any vowel (4).

(4)   a. /ndïin/ → [ndin] 'in them'
      b. /ndïul/ → [ndul] 'with them'
      c. /lïe/ → [le] 'put'
      d. /nïasa/ → [nasa] 'hit me'

All vowels are deleted before an immediately following mid front vowel /e/ (5).

(5)   a. /nie/ → [ne] 'act'
      b. /mokoe/ → [moke] 'take'
      c. /alee/ → [ale] 'scrape'
      d. /itaen/ → [iten] 'builder'

The high back vowel /u/ becomes a glide [w] when immediately before a vowel occurring in the same syllable (6).

(6)   a. /uasa/ → [wasa] 'hit you'
      b. /uama/ → [wama] 'eat you'

The high central vowel /ï/ optionally assimilates in place and rounding to the high back rounded vowel [u] when immediately preceding the glide /w/ (7).

(7)   a. /ndïwana/ (→ [nduwana]) 'cook them'
      b. /nïwali/ (→ [nuwali]) 'hit me'

The low central vowel /a/ harmonizes to the mid back vowel [o] when immediately following labial /m/ and preceding /o/ in the subsequent syllable (8).

(8)   a. /mako/ → [moko] 'break it'
      b. /matoplï/ → [motoplï] 'throw it'

Geminate consonants are reduced to single segments (9).

(9) a. /tïnn/ → [tïn] 'with the dog'
　　 b. /tumullakana/ → [tumulakana] 'will bend'

There is also a sort of quasi-degemination, whereby a nasal consonant is elided when immediately preceding a homorganic prenasalized voiced stop (10).

(10) a. /annji/ → [anji] 'our'
　　 b. /kunnda/ → [kunda] 'will break'

There are morphophonological alternations that either are fairly restricted in their environments or are morphologically conditioned. For example, in perfective verbs whose stems end in /kï/, the final /ï/ is lowered to [a] (11).

(11) a. /kïp/ → [kap] 'said'
　　 b. /nïkïp/ → [nïkap] 'dug'

In irrealis verbs whose stems end in /le/ or /lo/, the final vowel is raised to [i] or [u], respectively (12).

(12) a. /alenda/ → [alinda] 'will scrape'
　　 b. /londa/ → [lunda] 'will cut'

Finally, there are a number of lexically determined phonological alternations. Notably, in the verb *lï-* 'put', the high central vowel [ï] is often elided, sometimes obligatorily, sometimes only optionally (13).

(13) a. /ndïlïp/ → [ndïlp] 'put them'
　　 b. /malïnda/ (→ [malnda]) 'will put it'

3.3 Nouns and noun phrases

There is no designated nominal morphology. Nouns, however, may host the oblique enclitic *=n* 'OBL', which signals that a noun phrase is functioning in some role other than that of subject or object (14). The oblique enclitic *=n* 'OBL' has the allomorphs *=ïn* 'OBL' and *=nï* 'OBL'.

(14) *mundun*
　　 mundu=n
　　 food=OBL
　　 'with food'

Nouns may be derived from verbs by means of the nominalizer suffix *-en* 'NMLZ' (15). The nominalizer suffix *-en* 'NMLZ' has the allomorphs *-n* 'NMLZ', *-wen* 'NMLZ', and *-yen* 'NMLZ'.

(15) *iyen*
      i-en
      go-NMLZ
      'the one going'

Noun phrases are built around either a noun or a pronoun. If there is a possessor argument, it precedes the possessum (16).

(16) **manji** *yana*
      ma-nji   *yana*
      3SG.OBJ-POSS woman
      'his wife'

Adnominal adjectives generally follow head nouns (17).

(17) *tïn* **njukuta**
      tïn **njukuta**
      dog small
      'small dog'

Adnominal numerals also follow nouns (and any adjectives, if present) (18).

(18) *mïnda* **lele**
      mïnda **lele**
      banana three
      'three bananas'

Determiners, when they occur in noun phrases, are usually the final element of the NP (19).

(19) *ankam ambi* **anda**
      ankam ambi **anda**
      person big   SG.DIST
      'that big person'

The collective universal quantifier *wopa* 'all', however, follows determiners when it is used adnominally (20).

(20)　*tawatïp ngala **wopa***

　　　*tawatïp ngala　**wopa***

　　　child　　PL.PROX all

　　　'all these children'

The distributive universal quantifier *nunu* 'every', on the other hand, precedes the noun (21).

(21)　***nunu** wombïn tembi*

　　　***nunu** wombïn tembi*

　　　every work　　bad

　　　'every bad job'

3.4　Verbs and verb phrases

Verbs typically receive one of three basic TAM suffixes (22).

(22)　Basic TAM suffixes

　　　-e　　imperfective ('IPFV')

　　　-p　　perfective ('PFV')

　　　-na　irrealis ('IRR')

Imperfective verbs are used for events and states that are viewed as incomplete or ongoing (23).

(23)　*Nï amun we **ame**.*

　　　*nï　amun we　ama-**e***

　　　1SG now　sago eat-IPFV

　　　'I am eating sago now.'

Imperfective morphology thus signals continuous, habitual, or iterative happenings or states. In addition to the imperfective suffix *-e* 'IPFV', which has the phonologically conditioned allomorph *-ye* 'IPFV', there is an irregular imperfective form *-n* 'IPFV'.

Perfective verbs, on the other hand, are used for events and states that have reached their end (24).

(24)　*Itom mï lamndu **masap**.*

　　　*itom　mï　　lamndu ma=asa-**p***

　　　father 3SG.SUBJ pig　　3SG.OBJ=hit-PFV

　　　'Father killed the pig.'

Perfective morphology thus often signals past time, although it may also occur with present-time reference. In addition to the perfective suffix *-p* 'PFV', which has phonologically conditioned allomorphs *-ap* 'PFV', *-ip* 'PFV', and *-op* 'PFV', there are irregular perfective forms *-al* 'PFV', *-m* 'PFV', and *-n* 'PFV'.

Irrealis verbs are used for events or states that are not known to the speaker to have happened (25).

(25) *Itom mï apa **itana**.*
       *itom   mï   apa   ita-**na***
       father 3SG.SUBJ house build-IRR
       'Father can build house.'

Although all future events are encoded with irrealis verbs, irrealis morphology can be applied to any time frame, provided the verb is referring to something unreal or hypothetical. The irrealis suffix *-na* 'IRR' has the allomorph *-nda* 'IRR', which occurs when the preceding consonant is a sonorant. There is also an irregular irrealis form *-m* 'IRR', as well as a prefix-like element *la-* 'IRR' or *lo-* 'IRR' or *l-* 'IRR' that occurs in some irrealis forms along with the suffixing morphology, thereby creating a sort of circumfix.

Imperatives are formed with the verbal suffix *-n* 'IMP', which follows the verb stem (26).

(26) *U **man**!*
       *u   ma-**n***
       2SG go-IMP
       'Go!'

Conditional statements are formed with the verbal suffix *-ta* 'COND', which occurs on the verb in the protasis, and which follows a TAM suffix, if present (27).

(27) *Sinda nji **wanapta** ...*
       *Sinda   nji   wana-p-**ta***
       [name] thing cook-PFV-COND
       'If Sinda cooks something ...'

The speculative suffix *-t* 'SPEC' may immediately follows the irrealis suffix on the verb to convey a sense of epistemic possibility (28).

(28) *Mï mol **inat**.*
      mï   ma=ul   i-na-**t**
      3SG.SUBJ 3SG.OBJ=with come-IRR-SPEC
      'He might come with her.'

There is only one verbal prefix, the detransitivizer *na-* 'DETR', which may be used to reduce the transitivity of a verb (29).

(29) *Nï ta **namap**.*
      nï   ta   **na**-ama-p
      1SG already DETR-eat-PFV
      'I've already eaten.'

Transitive verb phrases often contain object markers, which are pronoun-like verbal proclitics that index whether an object argument is singular (30), dual (31), or plural (32).

(30) *mïnda **mame***
      mïnda   **ma**=ama-e
      banana 3SG.OBJ=eat-IPFV
      'eating the banana'

(31) *utam **minwanap***
      utam **min**=wana-p
      yam 3DU=cook-PFV
      'cooked the (two) yams'

(32) *lamndu **ndasap***
      lamndu **ndï**=asa-p
      pig   3PL=hit-PFV
      'killed the pigs'

The indefinite marker *ko=* 'INDF' is another proclitic that may precede a verb stem. It indicates that the object of the verb is indefinite (33).

(33) *way nungol **kotïn***
      way   nungol **ko**=tï-n
      turtle child   INDF=take-PFV
      'caught a little turtle'

Some light verbs co-occur with a preceding nominal element. These adjunct-verb pairings may result in compound-like structures. However, it is also possible for the nominal adjunct to occur discontinuously in the verb phrase – that is, with the object of the verb interceding (34).

(34)   ***kïkal*** *na **mawana***
       kïkal *na   ma=**wana***
       ear   talk 3SG.OBJ=feel
       'hear the message'

These separable verb forms occur commonly with verbs of perception. The irregular suppletive verb *ala-* ~ *andï-* 'see', although itself glossed as 'see', must nevertheless co-occur with the nominal element *lïmndï* 'eye' in order to complete its meaning (35).

(35)   ***lïmndï*** *apa **mala***
       lïmndï *apa   ma=**ala***
       eye   house 3SG.OBJ=see
       'see the house'

Other light verbs that are commonly used in separable construction are *lï-* 'put', *u-* 'put', and *ka-* 'let'.

3.5 Adjectives

Attributive adjectives follow the head noun of the noun phrase but precede any determiners (36).

(36)   *ankam **ambi** mï*
       *ankam **ambi** mï*
       person big   3SG.SUBJ
       'the big person'

Predicative adjectives, on the other hand, exist syntactically outside the noun phrase – that is, they follow all elements in the NP (37).

(37)   *Ankam mï **ambi**.*
       *ankam mï   **ambi***
       person 3SG.SUBJ big
       'The person is big.'

Adjectives are not syntactically very different from nouns. Thus, property-denoting words can themselves serve as the heads of noun phrases (38).

(38)   ***Ambi*** *mï nip.*
    ambi *mï*   *ni-p*
    big   3SG.SUBJ die-PFV
    'The big one died.'

3.6 Pronouns

Pronouns index first ('1'), second ('2'), and third ('3') person, and singular ('SG'), dual ('DU'), and plural ('PL') number. There is a distinction made between inclusive ('INCL') and exclusive ('EXCL') non-singular first person pronouns. Subject ('SUBJ') and non-subject ('OBJ') pronouns are nearly identical in form. Only the 3SG forms are consistently differentiated. Reflexive pronouns ('REFL') encode number but do not encode person. Possessive pronouns are all derived from the set of non-subject pronouns plus the element *-nji* 'POSS'. The most common Ulwa pronouns are given in Table 3.3.

Table 3.3: Ulwa pronouns

	subject ('SUBJ')	non-subject ('OBJ')	possessive ('POSS')
1SG	*nï*	*nï=*	*nïnji*
2SG	*u*	*u=*	*unji*
3SG	*mï*	*ma=*	*manji*
1DU.EXCL	*ngan*	*ngan=*	*nganji*
1DU.INCL	*ngunan*	*ngunan=*	*ngunanji*
2DU	*ngun*	*ngun=*	*ngunji*
3DU	*min*	*min=*	*minji*
1PL.EXCL	*an*	*an=*	*anji*
1PL.INCL	*unan*	*unan=*	*unanji*
2PL	*un*	*un=*	*unji*
3PL	*ndï*	*ndï=*	*ndïnji*
SG.REFL	–	*ambï=*	*ambïnji*
DU.REFL	–	*ambin=*	*ambinji*
PL.REFL	–	*ambla=*	*amblanji*

There are other pronominal forms that may be created by combining these more basic forms with various suffixes. The intensive suffix *-awa* 'INT' combines with non-subject pronouns to stress their role in a sentence (39).

(39) *mawa*
      ma-***awa***
      3SG.OBJ-INT
      'he himself'

The partitive-intensive suffix *-we* 'PART.INT' combines with non-subject pronouns to stress their role as sole participants in an event or action (40).

(40) *mawe*
      ma-***we***
      3SG.OBJ-PART.INT
      'he himself [from among several]'

The emphatic suffix *-nam* 'EMPH' serves similar functions to these two intensive suffixes, although it combines with the subject form of a pronoun and it may be restricted to third person referents (41).

(41) *mïnam*
      mï-***nam***
      3SG.SUBJ-EMPH
      'he's the one'

The topic-marker suffix *-ambi* 'TOP' may be used to mark the topic of a sentence. It combines with non-subject pronominal forms (42).

(42) *nambi …*
      nï-***ambi***
      1SG-TOP
      'as for me, I …'

Affective pronouns, which are used to convey compassion toward a second person or third person referent, are formed by combining non-subject pronominal forms with the adjective *ngusuwa* 'poor, pitiful' (43).

(43) *ungusuwa*
      *u-**ngusuwa***
      2sg-poor
      'you poor thing'

3.7 Determiners

Ulwa noun phrases often contain postnominal determiners that index the number of referents in a full NP. These subject markers ('subj') and non-subject markers ('obj') are derived from the set of third person pronominal forms and seem to play a role in indicating topic or focus. Demonstrative determiners occupy the same position in the NP. Proximal ('prox') forms are used when the referent is near the speaker. Distal ('dist') forms are used when the referent is not near the speaker. Determiners are given in Table 3.4.

Table 3.4: Ulwa determiners

	SUBJ	OBJ	PROX	DIST
SG	*mï*	*ma=*	*nga*	*anda*
DU	*min*	*min=*	*ngin*	*andin*
PL	*ndï*	*ndï=*	*ngala*	*ala*

The main formal difference between subject markers and non-subject markers occurs in the singular forms: *mï* '3sg.subj' versus *ma=* '3sg.obj', the latter also exhibiting the phonologically conditioned allomorph *mo=* '3sg.obj'. The dual non-subject marker *min=* '3du' similarly exhibits an allomorph *mini=* '3du.obj' when immediately preceding /n/. The non-subject markers cliticize to immediately following verbs or postpositions (44).

(44) *al **men***
      *al   **ma**=in*
      net 3sg.obj=in
      'into the mosquito net'

The demonstratives show no formal distinctions based on their grammatical roles. However, like the object markers, they tend to cliticize to the following word when functioning in non-subject roles (45).

(45)   *tïn **andol***
       *tïn **anda**=ul*
       dog SG.DIST=with
       'with that dog'

3.8 Postpositions

Adpositions always follow their object in Ulwa – that is, there are only postpositions, no prepositions. Postpositional phrases occur within verb phrases, always preceding the head verb. If the verb is transitive, then the postpositional phrase also precedes the object of the verb (46).

(46)   ***tïn mol** lamndu masap*
       ***tïn ma**=ul   lamndu ma=asa-p*
       dog 3SG=with pig   3SG.OBJ=hit-PFV
       'killed the pig with the dog'

3.9 Adverbs

Adverbs are non-inflecting words that are never required by the argument structure of a verb, but which can be employed to give additional information about things like the manner, time, or space in which an action or event transpires. They typically follow subjects and precede objects (47) but may alternatively appear as the first element within a clause (48).

(47)   *Mï **wolka** impul matïn.*
       *mï   **wolka** im-pul   ma=tï-n*
       3SG.SUBJ again   wood-piece 3SG.OBJ=take-PFV
       'It again got a piece of wood.'

(48)   ***Amun** tïn mï mïnda mame.*
       ***amun** tïn mï   mïnda ma=ama-e*
       now   dog 3SG.SUBJ banana 3SG.OBJ=eat-IPFV
       'The dog is eating the banana now.'

3.10 Negators

The verbal negator *ango* 'NEG' ('no, not') follows subjects and precedes objects
(49).

(49) *Tïn mï **ango** mïnda ndamap.*
      tïn   mï   **ango** mïnda   ndï=ama-p
      dog 3SG.SUBJ NEG   banana 3PL=eat-PFV
      'The dog did not eat the bananas.'

Non-verbal negation, on the other hand, usually occurs with a clause-final
negator, whether *me* 'NEG', *kom* 'NEG', or *kome* 'NEG'. These may co-occur with
the preverbal negator *ango* 'NEG' ('no, not'), thereby creating a discontinuous
structure (50).

(50) *Way **ango** ambi **me**.*
      way   **ango** ambi **me**
      turtle NEG   big   NEG
      'The turtle was not big.'

Negative commands (i.e., prohibitions) are formed with the prohibitive marker
wana 'PROH' ('don't!') (51). It occurs in the same position as the verbal negator
ango 'NEG' ('no, not') that is used in declarative and interrogative sentences. The
prohibitive marker *wana* 'PROH' has the allomorph *wanap* 'PROH'.

(51) *(U) **wana** nuwalinda!*
      *(u)   **wana** nï=wali-nda*
      (2SG) PROH 1SG=hit-IRR
      'Don't hit me!'

3.11 Interrogative words

No special words are needed for polar questions, which are syntactically identical
to declarative statements. These 'yes/no' questions are generally differentiated
from statements through intonation alone. Content questions, on the other hand,
use interrogative words, such as *kwa* 'who?' or *angos* 'what?'. The position of
these question words is determined by their grammatical role in the clause. For
example, a question word occurs clause-initially if it is the grammatical subject
of the question (52), but clause-medially if it is the grammatical object (53).

(52) ***Kwa*** *utam mamap?*
  kwa *utam ma=ama-p*
  one yam 3SG.OBJ=eat-PFV
  'Who ate the yam?'

(53) *Itom **angos** mamap?*
  itom ***angos*** *ma=ama-p*
  father what 3SG.OBJ=eat-PFV
  'What did father eat?'

Although most pronouns and determiners maintain a three-way number distinction (singular 'SG' vs. dual 'DU' vs. plural 'PL'), the interrogative pronoun 'who?' maintains a two-way number distinction: singular *kwa* 'who? [SG]' versus non-singular *kuma* 'who? [NSG]'.

3.12 Interjections

Interjections are sometimes glossed with approximations in English (e.g., 'ah', 'hey') and are other times glossed as 'INTERJ'. This category also includes the tag question interjection *a ~ e* 'eh?', which may be used utterance-finally in polar interrogatives, typically in leading questions (54).

(54) *Ngun mundu ngunas **a**?*
  *ngun mundu ngun=asa **a***
  2DU hunger 2DU=hit INTERJ
  'You two are hungry, yeah?'

The vocative interjection *=o* 'VOC' may cliticize to various forms when the referents are being emphasized or are being directly called to (55).

(55) *Supamo!*
  *Supam=**o***
  [name]=VOC
  'Hey, Supam!'

3.13 Clause structure

The order of constituents within a clause is generally rather fixed in Ulwa. Intransitive and transitive clauses are both verb-final and subject-initial. The object follows the subject and precedes the verb in transitive clauses (56).

(56) Basic constituent order

    Intransitive clauses: SV
    Transitive clauses: SOV

    This order is maintained in all active-voice clauses, whether indicative, inter-rogative, or imperative, although it is common for arguments to be left unexpressed when recoverable from context (i.e., "pro-drop").

    Oblique NPs most commonly follow the subject and precede the verb phrase (i.e., SXV or SXOV) (57).

(57) *Ankam mï **manani** lamndu masap.*
    ankam mï   ***mana=ni** lamndu ma=asa-p*
    person 3SG.SUBJ spear=OBL pig   3SG.OBJ=hit-PFV
    'The person hit the pig with a spear.'

    In passive-voice clauses, the word order is inverted. Passive sentences have the order VS. If the agent argument is expressed, then it occurs as a clause-initial oblique phrase.

3.14 Non-verbal clauses

Non-verbal predication can be accomplished without any overt verbal marking. In such constructions, the predicate (whether a noun, noun phrase, or adjective) simply follows the subject (58).

(58) *Nïnji itom mï **anma**.*
    nï-nji   *itom*   *mï*   ***anma***
    1SG-POSS father 3SG.SUBJ good
    'My father is good.'

    As an alternative to these zero-copula constructions, it is also possible to add a copular enclitic *=p* 'COP' to a noun, adjective, or other parts of speech to create a predicate (59).

(59) *Nïnji itom mï **anmap**.*
    nï-nji   *itom*   *mï*   *anma=**p***
    1SG-POSS father 3SG.SUBJ good=COP
    'My father is good.'

The copula *=p* 'COP' is clearly related to the locative verb *p-* 'be, be at (be located at)', which is used in locative predication (60).

(60) *Ndï amun Mosombla **pe**.*
      *ndï amun Mosombla **p-e***
      3PL now   Yaul   be-IPFV
      'They are now in Yaul [village].'

This locative verb *p-* 'be, be at' has a suppletive form that is used for reference to past time: *wap* 'be.PST' (61).

(61) *Ndï Mosombla **wap**.*
      *ndï Mosombla **wap***
      3PL Yaul   be.PST
      'They were in Yaul [village].'

3.15 Complex sentences

Independent clauses may be coordinated paratactically. Dependent clauses, however, are linked to following clauses by means of the dependent marker *-e* 'DEP', which occurs as the final suffix on the verb in the dependent clause (62).

(62) ***Nï inim lopope*** *nï mana.*
      *nï inim lopo-p-**e**   nï ma-na*
      1SG water wash-PFV-DEP 1SG go-IRR
      'After I have bathed, I will go.'

In (62) the dependent clause has a temporal relationship with the following main clause. Other semantic relationships, such as causal relationships, are also possible. Furthermore, the subject of the main clause may be different from the subject of the dependent clause (63).

(63) ***Lamndu mï Anam manji utam amape*** *Anam mï masap.*
      *lamndu mï   Anam ma-nji   utam ama-p-**e**   Anam mï*
      pig   3SG.SUBJ [name] 3SG.OBJ-POSS yam eat-PFV-DEP [name] 3SG.SUBJ
      ma=asa-p
      3SG.OBJ=hit-PFV
      'Anam killed the pig, because it ate his yam.' (Literally '[Because] the pig ate Anam's yam, Anam killed it.')

The dependent marker *-e* 'DEP' is pervasive, occurring not only in clauses that are clearly being subordinated but also in clauses that would appear to be main clauses. This may in part be due to the morpheme's function as a floor-holding device, signaling that the speaker still has more to say.

The dependent marker is also used in passive sentences, which have VS word order despite functioning as independent clauses (64).

(64) ***Asape** lamndu mï.*
       *asa-p-**e***   *lamndu mï*
       hit-PFV-DEP pig   3SG.SUBJ
       'The pig was killed.'

Multiple analyses of verb forms are at times possible given the homophony between the dependent marker *-e* 'DEP' and the imperfective suffix *-e* 'IPFV'.

4 Phonetics and phonology

In this chapter I describe and analyze Ulwa's phonetics and phonology. The basic phoneme inventory of Ulwa consists of 19 segments, including 13 consonants and 6 vowels.

4.1 Consonants

Table 4.1 shows the 13 consonants of Ulwa, presented in the practical orthography; where this orthography differs from the conventions of the IPA, the IPA equivalent is also given (in parentheses). The form [r] is generally an allophone of /l/, but it is the preferred pronunciation in some proper nouns (§2.5).

Table 4.1: Ulwa consonants (in practical orthography)

	labial	alveolar	palatal	velar
voiceless stops	p	t		k
prenasalized voiced stops	mb (^{m}b)	nd (^{n}d)		ng (^{ŋ}g)
prenasalized voiced affricate			nj (^{n}dʒ)	
nasals	m	n		
liquid		l, [r]		
fricative		s		
glides	w		y (j)	

4.1.1 Voiceless stops /p, t, k/

There is a three-way place distinction among voiceless stops in Ulwa: labial /p/, coronal /t/, and dorsal /k/. These are all quite similar to their English equivalents: the /p/ is bilabial, like English /p/; the /t/ is alveolar, like English /t/; and the /k/ is velar, like English /k/. They are all slightly aspirated. The following sets of minimal pairs illustrate contrasts among voiceless stops: /p/ versus /t/ (1), /p/ versus /k/ (2), and /t/ versus /k/ (3).

(1) /p/ versus /t/

*p*al 'palm shoot' vs. *t*al 'tail feather'
a*p*a 'house' vs. a*t*a 'up'
u*p*a 'fish species' vs. u*t*a 'bird'
wo*p* 'sleep [PFV]' vs. wo*t* 'younger (sibling)'

(2) /p/ versus /k/

*p*alam 'cane grass' vs. *k*alam 'knowledge'
no*p*al 'coconut frond' vs. no*k*al 'beak'
nu*p*u 'bottom' vs. nu*k*u 'flatus'

(3) /t/ versus /k/

*t*a 'already' vs. *k*a 'thus'
*t*ukul 'fish trap' vs. *k*ukul 'type of basket'
a*t*al 'laughter' vs. a*k*al 'ringworm'

While /p/ and /t/ may appear in all word positions (that is, word-initially, word-medially, or word-finally), /k/ may not appear word-finally. The words in (4) all begin with voiceless stops.

(4) Word-initial voiceless stops

*p*iya 'banana species'
*p*ul 'piece'
*t*embi 'bad'
*t*ongan 'mosquito-swatter'
*k*uman 'large wildfowl'
*k*we 'one'

The words in (5) all have voiceless stops in medial position.

(5) Word-medial voiceless stops

ma*p*u 'fish species'
ni*p*um '*kunai* grass'
awe*t*a 'friend'
nï*t*e '*kundu* drum'
lu*k*e 'too'
ya*k*al 'insect species'

The words in (6) all end with voiceless stops.

(6)   Word-final voiceless stops

    *i**p***   'nose'
    *na**p***   'arrow'
    *moniwo**t*** 'plant species'
    *nïkï**t***   'lizard'

4.1.2 Prenasalized voiced stops /mb, nd, ng/

There is a three-place prenasalized voiced stop series, which corresponds in place of articulation to the set of voiceless stops: bilabial /^{m}b/, alveolar /^{n}d/, and velar /^{ŋ}g/. In the practical orthography used in this grammar, these are written as <mb>, <nd>, and <ng>, respectively. These stops are all prenasalized – that is, they are preceded by a homorganic nasal. Minimal pairs between prenasalized voiced stops and their voiceless equivalents are given in (7). Minimal pairs between prenasalized voiced stops and their simple nasal equivalents are given in (8).[1]

(7)   Contrasts between prenasalized voiced stops and voiceless stops

    *a**mb**a*   'men's house' vs. *a**p**a*   'house'
    *a**nd**ana* 'left'   vs. *a**t**ana* 'older sister'
    *n**g**a*   'this'   vs. *k**a*   'thus'

(8)   Contrasts between prenasalized voiced stops and simple nasals

    *mb**ï* 'here'   vs. *m**ï* 'he/she/it'
    *nd**ï* 'they' vs. *n**ï* 'I'
    *ng**a* 'this'   vs. *n**a* 'talk'

There are several reasons for treating these complex articulations as single phonemes, rather than as sequences of nasal-plus-stop. First, no voiced stop ever occurs without a preceding nasal (although a nasal may appear without any adjacent stop). Second, when asked to syllabify a word, native speakers do not place

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[1]The velar nasal component of /ng/, as seen in *nga* 'this' (8), has no simple nasal equivalent, as †/ŋ/ is not a phoneme in Ulwa. It occurs only phonetically, in the prenasalized voiced velar stop and in the realization of /n/ when preceding /k/ (i.e., the nasal consonant assimilates in place of articulation). Thus, the third row of example (8) actually contrasts [^{ŋ}g] with [n].

a syllable boundary between a nasal and a following voiced stop.[2] Third, in loanwords from languages that have a simple voiced-stop series, these phonemes are very frequently realized in Ulwa as prenasalized voiced stops.[3] Finally, nasal segments can precede voiceless stops. In these instances, there are in fact two distinct segments, as seen in words illustrating the following CC sequences: /np/ (9), /nt/ (10), /nk/ (11), /mp/ (12), /mt/ (13), /mk/ (14).

(9) /np/

 *in**p**u* 'elbow'
 *won**p*** 'cut [PFV]'

(10) /nt/

 *in**t**ïp* 'cassowary bone'
 *wen**t**a* 'bird species'

(11) /nk/

 *an**k**am* 'person' [aŋkam]
 *in**k**aw* 'mountain' [iŋkaw]
 *mï**nk**ïn* 'grub species' [mïŋkïn]

(12) /mp/

 *im**p**ul* 'piece of wood'
 *kala**mp*** 'know'[4]

(13) /mt/

 *le**m**ta* 'spade'
 *nï**m**tu* 'bird species'

(14) /mk/

 *ilu**mk**a* 'a little'
 *ya**mk**we* 'sago fried with banana and coconut'

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[2]For example, *umbenam* 'morning' is broken into [u.ᵐbe.nam], and not into †[um.be.nam]. Note that, while CC onsets are possible in Ulwa (§4.3), there are no known nasal-plus-(heterorganic) stop onsets; therefore, the interpretation †/u.mbe.nam/ is highly unlikely. It may also be noted that the syllabification of words with prenasalized stops can be affected in language attrition, as I have noticed that children, when asked to syllabify Ulwa words, follow the phonotactics of Tok Pisin, producing forms such as [um.be.nam] for *umbenam* 'morning'.

[3]For example, the Tok Pisin word *nogat* 'no' is often pronounced as [no.ᵑgat].

[4]Literally 'be knowledgeable' or 'have knowledge'.

It should be noted that, except in very slow speech, the sequence /nk/ is realized as [ŋk], the nasal assimilating in place to the following velar stop, a typologically very common process. Interestingly, the sequence /np/, as found in (9), is not realized as [†][mp] – that is, /n/ does not assimilate in place to the following bilabial stop /p/.

Since it is possible for homorganic nasals to precede voiceless stops, it is thus also possible to find (pseudo-)minimal pairs such as /mb/ versus /mp/, /nd/ versus /nt/, and /ng/ versus /nk/. It must be maintained, however, that the phonetic sequences [ᵐb], [ⁿd], and [ᵑg] are each monophonemic, whereas the sequences [mp], [nt], and [ŋk] each consist of two phonemes. There are not many attested examples of such putative minimal pairs; however, the contrast between the single phoneme /ng/ and the consonant cluster of /nk/ can be seen in a handful of words (15).

(15) Contrasts between /ng/ and /nk/

angïn	'vine species'	vs.	*ankïn*	'vegetable species'
mongi	'banana species'	vs.	*monkin*	'gray hair'
tangam	'sprout'	vs.	*ankam*	'person'
tïngïn	'many'	vs.	*mïnkïn*	'grub species'

Prenasalized voiced stops may occur word-initially or intervocalically, as in (15), but cannot close a syllable, and thus never appear word-finally, at least not in surface forms. There is at least one lexeme, however, that seems underlyingly to end in a prenasalized voiced stop. The underlying form of the verb stem /kamb-/ 'shun' ends in a prenasalized voiced bilabial stop /mb/. When followed by vowel-initial suffixes, this verb stem does not undergo any phonological change (16).

(16) [kambe]
      /kamb-e/
      'shun [IPFV]'

When no (phonemic) vowel follows, however, either: an epenthetic [ï] is added to the root, as in the conditional form of the word (17), or the stop gesture of the final phoneme /mb/ is lost, as in the perfective form of the word (18).

(17) [kambïta]
      /kamb-ta/
      'shun [COND]'

(18)   [kamp]
      /kamb-p/
      'shun [PFV]'

While the change in (18) may seem to be conditioned by the following homorganic /p/, it also occurs when the root *kamb-* 'shun' appears in isolation (i.e., [kam]). These possible phonological strategies for dealing with the illicit word-final /mb/ are summarized in (19).

(19)   Possible realizations of an underlying word-final /mb/

      a. Ø → [ï] / mb _ C [-labial]
      b. /mb/ → [m] / _ { $\begin{smallmatrix} C\ [+labial] \\ \# \end{smallmatrix}$

The change of /mb/ to [m] (especially in word-final surface forms) is particularly interesting, since it implies the splitting of a single segment (/ᵐb/) into a sequence of phonemes (/mp/), a morphophonemic change.

4.1.3 The prenasalized voiced palato-alveolar affricate /nj/

There is one affricate in Ulwa. This is the prenasalized voiced palato-alveolar affricate /ⁿdʒ/, which has no voiceless affricate counterpart (and no voiceless fricative counterpart either). As with the three prenasalized voiced stops, the sole voiced affricate is analyzed here as a single phoneme (with multiple articulatory gestures), rather than as a sequence of nasal-plus-affricate (or nasal-plus-stop-plus-fricative). In the practical orthography, it is written as <nj>. It can occur word-initially (20) or word-medially (21).

(20)   Word-initial affricate

      ***nj**i*   'thing'
      ***nj**ukuta* 'small'

(21)   Word-medial affricate

      *i**nj**i*   'innards'
      *la**nj**in*   'fish species'
      *mï**nj**a*   'speech'
      *tamba**nj**i* 'bird species'

Like the prenasalized voiced stops, the prenasalized voiced affricate does not occur word-finally.

Since almost every instance of [nj] precedes a high vowel (/i, u/), it could be argued that the affricate is not a distinct phoneme, but rather a palatalized allophone of /nd/. There is evidence against this hypothesis, however, since there exist contrasts between these two segments (22).

(22)   Contrasts between /nj/ and /nd/

    *an**j**i*   'our [EXCL]' vs. *an**d**i*   'OK'
    *nïn**j**i*   'my'   vs. *nïn**d**iwe* 'sago species'
    ***nj**ukuta* 'small'   vs. ***nd**ukumbu* 'palm species'

Indeed, there are a number of words in which /nd/ occurs before a high vowel (23).

(23)   Words in which /nd/ occurs immediately before a high vowel

    *mï**nd**it*   'yellow'   *lam**nd**u*   'pig'
    *mo**nd**in*   'fruit species'   *mu**nd**u*   'animal, food, hunger'
    *to**nd**iway* 'plant species' ***nd**u**nd**uma* 'great-grandparent'
    *wo**nd**i*   'bandicoot'   *u**nd**uwan*   'head'

An alternative hypothesis could be that [nj] is actually a palatalized version of the cluster /ny/, since this cluster is found only before low vowels (/a/), as seen in (24).

(24)   Words with the cluster /ny/

    *ku**ny**a*   'yam species'
    *mi**ny**am*   'feces'
    *yama**ny**awi* 'bird of paradise'

It should be noted, however, that /ny/ is a very uncommon surface form. The form /nj/, on the other hand, is somewhat more common. Also, it is possible that /n/ and /y/ in these examples fall across a morpheme boundary, or at least a syllable boundary.[5]

Also, despite its limited distribution, it is not altogether impossible for /nj/ to occur before a low vowel. While the form *lumnjap* 'fish species' is possibly a loanword (§1.5), the form *mïnja* 'speech', which – despite perhaps having derived from an older from that contained the word *nji* 'thing' – is probably native

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[5]There is, however, at least one lexeme in which /ny/ seems to occur within a single syllable: *wotnya* 'bird species' Since the language does not permit CCC consonant clusters within a syllable, this word must syllabify as [wot.nya]. This word, however, is almost certainly onomatopoetic, since the bird is described as having the call *wotnya wotnya*.

to Ulwa; it is quite common in speech and not synchronically analyzable as be-
ing polymorphemic. Also, it is not unusual for the series [nja] to occur in rapid
speech, as in [njala] for /nji ala/ 'those things'. Therefore, it is most parsimonious
to accept the existence of /nj/ as a phoneme, but one whose distribution is mostly
limited to environments directly preceding high vowels.

4.1.4 Nasals /m, n/

There are two phonemic nasal consonants, a bilabial /m/ and an alveolar /n/.
Either nasal may occur word-initially (25), word-medially (26), or word-finally
(27).

(25)   Contrasts between word-initial nasals

    ***m**ï*   'he/she/it'   vs.   ***n**ï*   'I'
    ***m**il*   'sugarcane'   vs.   ***n**il*   'body hair'

(26)   Contrasts between word-medial nasals

    *a**m**e*   'type of basket'   vs.   *a**n**e*   'day'
    *ma**m**a*   'mouth'   vs.   *ma**n**a*   'spear'

(27)   Contrasts between word-final nasals

    *u**m***   'neck'   vs.   *u**n***   'you [PL]'
    *uta**m***   'yam'   vs.   *uta**n***   'cough'

The two nasals can also occur in sequence together, either as /mn/ or as /nm/,
although the former is not especially common. Whenever these sequences do
occur, the set of two nasals are always split by a syllable boundary (28).

(28)   Sequences of two heterorganic nasals

    a.   [nm]
        *a**nm**a*   'good'   [an.ma]
        *wo**nm**i*   'hair'   [won.mi]
        *a**nm**oka*   'snake'   [an.mo.ka]
    b.   [mn]
        *na**mn**a*   'afraid'   [nam.na]
        *nu**mn**ata*   'earthquake'   [num.na.ta]

Also, it may be noted that the alveolar nasal /n/ may immediately precede the
prenasalized labial stop /mb/ (29).

(29)   /n/ immediately followed by /mb/

      *ke**nmb**u*   'heavy'   [ken.mbu]
      *u**nmb**ï*   'buttocks'   [un.mbï]
      *wa**nmb**i* 'betel pepper' [wan.mbi]

Likewise, the labial nasal /m/ may immediately precede the prenasalized alveolar stop /nd/ (30).

(30)   /m/ immediately followed by /nd/

      *i**mnd**e*   'type of basket' [im.nde]
      *la**mnd**u* 'pig'   [lam.ndu]
      *lï**mnd**ï*   'eye'   [lïm.ndï]

There is at least one known instance of the labial nasal /m/ immediately preceding the prenasalized velar stop /ng/ (31).

(31)   /m/ immediately followed by /ng/

      *kïtï**mng**ïle* 'banana species' [kï.tïm.ngï.le]

There are no known instances of the alveolar nasal /n/ immediately preceding the prenasalized velar stop /ng/. If these ever occur underlyingly, such as across a morpheme boundary, then the alveolar /n/ would assimilate in place to the prenasalized velar stop and then delete.

Indeed, it is not possible for a nasal immediately to precede a homorganic voiced stop or affricate. The phonetic realization of such a series would theoretically include an extra-long nasal articulation. These do not occur phonetically in any word. When an underlying nasal is immediately followed by a homorganic voiced stop or affricate, it deletes, as in (32) (cf. §6.1).

(32)   [i**nd**a]
    /i**n-nd**a/
    'get [ɪʀʀ]'

In the set of possessive pronominal forms, which all end in /-nji/ (§8.2), a similar sort of quasi-degemination can be witnessed, since an immediately preceding /n/ deletes (presumably after assimilating slightly to the palato-alveolar place of [nji]). Thus, there is a resulting homophony between two of the possessive forms, as illustrated in (33).

(33) Quasi-degemination in possessive forms

    a. [un**j**i]   b. [u**nj**i]
        /u-**nj**i/   /u**n-nj**i/
        'your [sɢ]'   'your [ᴘʟ]'

The labial nasal /m/, on the other hand, may precede the palato-alveolar affricate /nj/ without assimilating, as in the word *inimnji* 'water spirit'.

There are no sequences of prenasalized voiced stop (or affricate) before a nasal, whether homorganic or heterorganic (i.e., [†]/mbm, mbn, ndm, ndn, njm, njn/ are all unattested).

4.1.5 The liquid /l/

The single liquid in Ulwa is usually realized as a voiced alveolar lateral approximant [l]. It may occur word-initially (34), intervocalically (35), and word-finally (36).

(34) Word-initial liquids

    lamndu   'pig'
    lemetam 'tree species'
    li   'down'
    lïmndï   'eye'
    luke   'too'

(35) Word-medial liquids

    ilom 'day'
    mïli 'vegetable species'
    ulet 'dish'
    wala 'rat species'

(36) Word-final liquids

    mil   'sugarcane'
    mïnal 'taro'
    wal   'ribs'

The liquid /l/ may also occur in consonant clusters, as in (37) and (38), where syllable breaks are included to show that not all of these clusters occur within a single syllable.

(37)   Liquid as second member of a consonant cluster: [Cl]

ambla	'tooth'	[a.mbla]
nïplopa	'flying fox'	[nï.plo.pa]
matlaka	'rat species'	[mat.la.ka]
saklup	'broom'	[sak.lup]
amla	'tree species'	[am.la]

(38)   Liquid as first member of a consonant cluster: [lC]

almba	'hornbill'	[al.mba]
wolmu	'nipple'	[wol.mu]
molpan	'tree spirit'	[mol.pan]
wolka	'again'	[wol.ka]
alsa	'scorpion'	[al.sa]

Although the liquid is generally realized as a lateral, it can, for some speakers, in some environments, be realized as a rhotic, either an alveolar flap [ɾ] or an alveolar trill [r]. However, the lateral phone occurs more frequently overall and in more environments (the rhotic variants do not occur word-finally, nor can they act as syllabic consonants, as described for [l] in the following paragraph). Therefore, because of its greater distribution, /l/ is chosen here to represent the basic liquid phoneme.[6]

Finally, laterals may be syllabic. In words in which this is the case, there is almost always variation between a form with syllabic [l̩] and one with [ï] preceding the lateral [l]. It is proposed here that the vowel /ï/ is part of the underlying form, and that those realizations with syllabic [l̩] have undergone syncope of this unstressed high central vowel. Examples of alternations with syllabic [l̩] are given in (39).

(39)   Syllabic [l̩]

andïl	'careful'	[andïl ~ andl̩]
iwïl	'moon'	[iwïl ~ iwl̩]
nïpïl	'vine'	[nïpïl ~ nïpl̩]
tïmbïl	'fence'	[tïmbïl ~ tïmbl̩]

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[6]As further justification for choosing /l/ over /r/ as the basic phoneme, it may be noted that many Ulwa speakers produce [l] for /r/ when speaking Tok Pisin (i.e., [lawsim] for Tok Pisin *rausim* 'remove'), but will rarely (if ever) produce [r] for /l/ (i.e., never †[raykim] for Tok Pisin *laikim* 'like').

4.1.6 The fricative /s/

The single fricative in Ulwa is a voiceless alveolar sibilant /s/. It is usually pronounced as an alveolar fricative [s], but may be realized as a palato-alveolar fricative [ʃ] before a high front vowel /i/, as in [ʃiwi] for *siwi* 'grub species', [ʃina] for *sina* 'knife', or [wuʃim] for *wusim* 'crocodile'. Palatalization is an optional rule – that is, for speakers who have this rule, there is free variation among the forms they use (40).

(40)   Optional palatalization of /s/
        /s/ → ([ʃ]) / _ i (optional)

The voiceless alveolar fricative /s/ may occur word-initially, as in (41), or word-medially, as in (42).

(41)   Word-initial /s/

sawi	'saliva'
sikal	'fly species'
simïnda	'banana species'
sokoy	'tobacco'

(42)   Word-medial /s/

asi	'grass'
isi	'salt'
misam	'brain'
nokosam	'tree species'
yangusole	'plant species'

The fricative /s/ does not occur very frequently in word-final position. In fact, only one word with final /s/ has so far been found, *angos* 'what?', whose form may be due to compounding (§10.3.2).[7] The fricative /s/ does not occur in consonant clusters.

4.1.7 Glides /w, y/

There are two glides (or semivowels or approximants) in Ulwa, a labial-velar /w/ and a palatal /j/. In the practical orthography used here, they are written as <w> and <y>, respectively. Whereas /w/ has a fairly wide distribution, /y/ is more

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[7]Verb stems (e.g., *asa-* 'hit' and *si-* 'push') may lose their final vowels (§6.2), thereby resulting in surface realizations of word-final [s].

restricted, mostly just occurring word-initially and only rarely word-medially. Examples of word-initial glides are given in (43).

(43) Word-initial glides

wa	'village'	**ya**	'coconut'
wi	'name'	**yïwa**	'mound'
wol	'breast'	**yot**	'machete'
wusim	'crocodile'	**yuname**	'bird species'
we	'sago starch'	**yeta**	'man'

While there are a number of words that begin with underlying glides, there is also an optional rule among many speakers that generates word-initial glide epenthesis (i.e., prothesis) in words that otherwise would not begin with glides. Thus, [w] may be inserted before /u/, and [y] (IPA [j]) may be inserted before /i/, producing forms such as [wulum] for /ulum/ 'sago palm' and [yip] for /ip/ 'nose' (44).

(44) Optional word-initial glide epenthesis
Ø → ([-syl, -cons, αback]) / # _ [+syl, +high, αback] (optional)

The words in (45) contain glides in medial position.

(45) Word-medial glides

awal	'afternoon'	*asiya*	'string'
aweta	'friend'	*iyo*	'yes'
awi	'shoulder'	*kayanmali*	'lizard species'
iwïl	'moon'	*ngaya*	'far'
malalïwa	'snake species'		

While the distribution of /w/ is fairly broad (it seems to be permitted before or after any vowel), /y/ is markedly more restricted. It occurs rarely in medial position, and when it does, the only permissible preceding vowels are /a/ and /i/ (and perhaps also /o/). The status of glides (or semivowels) in Papuan languages poses a notoriously difficult problem, and the line between vowels and glides is often blurred, especially in languages (like Ulwa) that exhibit the high central vowel [ï].[8] Nevertheless, it is assumed here that /y/ exists as a phoneme in Ulwa (i.e., it is not, say, strictly underlyingly /i/), even though it has a more limited distribution than /w/, since otherwise it would be necessary to admit unlikely vowel sequences into Ulwa's canonical forms.

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[8]See Foley (1986: 50–52) for issues in analyzing this phone in Papuan languages.

A glide may also be preceded by a consonant. Although apparently any consonant may occur before /w/, the only attested consonant to appear before /y/ is the alveolar nasal /n/, as seen in (46).

(46) Glides following other consonants

*mïn**w**ata*	'wet'	*ul**w**a*	'nothing'
*i**p**w**at*	'front'	*min**y**am*	'feces'
*at**w**ana*	'question'	*kun**y**a*	'yam species'

As discussed in §4.1.3, /ny/ is a very uncommon surface form. It may (at least in some words) derive from an earlier palatal nasal *ɲ, which persists in Ulwa's sister language Mwakai (compare Ulwa *minyam* 'feces' and Mwakai *ɲeri* 'feces').

In each of the words presented in (46), there is a syllable break preceding the glide (e.g., /mïn.wa.ta/, /min.yam/, etc.). It is also possible for the labial-velar glide /w/ to occur as the second member of a complex onset, as in (47). The palatal glide /y/, on the other hand, does not occur as the second element in CC onsets.

(47) /w/ as the second member of complex onsets

*k**w**a*	'one'	
*m**w**a*	'opening'	
*ing**w**a*	'spider'	[i.ngwa]

Finally, word-final glides may be considered. The words in (48) all end in either /w/ or /y/.

(48) Word-final glides

*a**w**	'betel nut'	*a**y**	'jellied sago'
*ka**w**	'song'	*langa**y**	'bird species'
*ma**w**	'correct'	*ma**y**	'fish species'
*nata**w**	'lizard species'	*soko**y**	'tobacco'
*wopa**w**	'ball'	*tomo**y**	'insect species'
*wowa**w**	'fish scale'	*wa**y**	'turtle'

As illustrated by the set of the words in (48), word-final glides appear almost exclusively after the low vowel /a/. Two examples of /-oy/ (*sokoy* 'tobacco' and *tomoy* 'insect species'), however, run counter to this. There are no examples of

/w/ following /o/, though, and these two examples of /-oy/ (two of only a few known to exist in the Ulwa lexicon) may be problematic.[9]

In the Maruat-Dimiri-Yaul dialect, there also exists a labiodental approximant [ʋ], which seems to be an allophone of /w/. It is perhaps borrowed from the influential neighboring language Mundukumo, which has a phonemic voiced labiodental consonant (McElvenny 2006: 60).

4.1.8 The glottal stop [ʔ]

Finally, although there is no phonemic glottal stop [ʔ] in Ulwa, this sound appears quite often before vowels when they are utterance-initial, as is typologically common. The words in (49) illustrate the phonetic realization of vowel-initial words in unconnected speech.

(49)   Glottal stop before utterance-initial vowels

        ***a**nma*   'good'   [ʔanma]
        ***a**pa*   'house'   [ʔapa]
        ***i**m*   'tree'   [ʔim]
        ***i**tom*   'father'   [ʔitom]
        ***u**lum* 'sago palm' [ʔulum]
        ***u**tal*   'worm'   [ʔutal]

As seen in (49), it is possible for the glottal stop to occur before /i/ or /u/, in addition to occurring before /a/. However, instead of producing initial sequences of [ʔi] or [ʔu], speakers often prefer sequences of [yi] or [wu], respectively – that is, they employ word-initial epenthetic glides (i.e., prothetic glides) (§4.1.7).

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[9]The pronunciation of *sokoy* 'tobacco' varies greatly among speakers, many pronouncing the word as [sokay] or [soke]. This variation is perhaps due to the presence of many similar-sounding words for 'tobacco' in neighboring languages (§1.5). The origin of *tomoy* 'insect species' is unclear, although it is known that several terms for flora and fauna in Ulwa have been borrowed from other languages. A third known word to end in /-oy/ is *sinokoy* 'crop', which may be derived from *sokoy* 'tobacco'; finally, the adverb *woyambïn* 'pointlessly, fruitlessly', seems to have been derived from other words as well (see §10.2.5 for a possible etymology).

4.2 Vowels

There are six vowels in Ulwa with relatively wide distribution, as well as two basic diphthongs.

4.2.1 Monophthongs /a, e, i, o, u, ï/

Table 4.2 presents the six vowels of Ulwa. Most graphemes in the practical orthography currently match their IPA equivalents. The main exception is <ï>, which represents IPA /ɨ/.[10] The seventh form in Table 4.2, <ae>, is included in brackets (and represents IPA /æ/): it is likely not a full-fledged phoneme in Ulwa.

Table 4.2: Ulwa vowels (in practical orthography)

	front	central	back
high	i	ï (ɨ)	u
mid	e		o
low	[ae] (æ)	a	

While the phonetic realizations of these vowels may occasionally approximate those of the cardinal vowels (especially in careful speech), they are more often pronounced somewhat more centralized. Thus, tense vowels may be lax, especially in closed syllables. Accordingly, the high front unrounded vowel /i/ has the allophone [ɪ]; the high back rounded vowel /u/ has the allophone [ʊ]; the mid front unrounded vowel /e/ has the allophone [ɛ]; and the mid back rounded vowel /o/ has the allophone [ɔ]. Similarly, the low central unrounded vowel /a/ may be raised to [ʌ].

Since the lax pronunciations of /o/ and /a/ approach each other somewhere in the middle of the vowel space, and since a preceding labial-velar /w/ has the effect of rounding an immediately following non-front vowel, the phonetic realizations of /o/ and /a/ after /w/ are often identical (50).

(50)   Merger of /o/ and /a/ before /w/
       /o, a/ → [ɔ] / w _

Indeed, it is often near impossible to deduce the underlying form of /o/ or /a/ following /w/ simply from hearing an utterance, and many native speakers

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[10]Another slight exception is <a>, which, as is common in linguistic literature, here represents a low central vowel, and not a low front vowel, as the IPA vowel chart might suggest.

themselves seem to have difficulty identifying the phoneme underlying what is often phonetically something like [ɔ].

That said, there are minimal pairs contrasting /wo/ and /wa/ (even if both can be phonetically [wɔ]), as seen in (51).

(51) Minimal pairs contrasting /wo/ and /wa/

wol	'breast'	vs.	**wa**l	'ribs'
won	'penis'	vs.	**wa**n	'sago shoot'
wonmbi	'tusk'	vs.	**wa**nmbi	'betel pepper'
wopa	'all'	vs.	**wa**pa	'leaf'
wot	'younger sibling'	vs.	**wa**t	'ladder'
wowal	'chicken'	vs.	**wa**wal	'hive'

Other minimal pairs reveal the phonemic difference between high vowels and mid vowels (52) as well as between front vowels and back vowels (53).

(52) Contrasts between high vowels and mid vowels

a. /i/ versus /e/

w**i**	'name'	vs.	w**e**	'sago starch'
as**i**	'grass'	vs.	as**e**	'no'
l**i**	'down'	vs.	l**e**	'*kanda* (rattan)'

b. /u/ versus /o/

il**u**m	'little'	vs.	il**o**m	'day'
n**u**m	'canoe'	vs.	n**o**m	'clay stand'
n**u**we	'I myself'	vs.	n**o**we	'sago species'

(53) Contrasts between front vowels and back vowels

a. /i/ versus /u/

im	'tree'	vs.	**u**m	'neck'
in	'in'	vs.	**u**n	'you [PL]'
ng**i**n	'net'	vs.	ng**u**n	'you [DU]'

b. /e/ versus /o/

and**e**	'OK'	vs.	and**o**	'there'
l**e**	'*kanda* (rattan)'	vs.	l**o**	'cut'
w**e**	'sago starch'	vs.	w**o**	'own'

The high central vowel and low central vowel also show phonemic contrasts (54).

(54)   Contrasts between /ɨ/ and /a/

    andɨ 'sago shoot' vs. *anda* 'that'
    nɨ   'I'   vs. *na*   'talk'
    tɨl   'husk'   vs. *tal*   tail feather'

The high central vowel can further be shown to be distinct from other high vowels, both back (55) and front (56).

(55)   Contrasts between /ɨ/ and /u/

    mɨ he/she/it' vs. *mu* 'fruit'
    nɨ 'I'   vs. *nu* 'near'
    tɨl 'husk'   vs. *tul* 'bird species'

(56)   Contrasts between /ɨ/ and /i/

    mɨ   'he/she/it'   vs. *mi*   'splinter'
    mɨnam 'he's the one' vs. *minam* 'urine'
    andɨn 'for'   vs. *andin* 'those'

Despite clearly having phonemic status in the language, the high central vowel /ɨ/ behaves somewhat differently from the other five vowels. When underlyingly present, it is the vowel most likely to be elided; and when underlyingly absent, it is the vowel most likely to be inserted epenthetically (e.g., to break up an elicit or disfavored consonant cluster).

There is one last vocalic phone in Ulwa that deserves attention: a lax low front unrounded vowel [æ], which has been observed in just a handful of words. It is only found, moreover, in the Manu dialect (it has not been observed in the Maruat-Dimiri-Yaul dialect). It is distinctly lower than /e/ and fronter than /a/. So far, four words have been found with this vowel sound (57).

(57)   Words with the vowel [æ]

    mae   'shovel'
    maep   'bird species'
    waembɨl 'white'
    waenkɨn 'plant species'

In at least some cases, this vowel may derive from sequences of /ea/. The plant *waenkɨn* 'plant species' is described as being similar to the plant *ankɨn* 'vegetable species', only having leaves with the (off-)white color of *we* 'sago starch' (i.e., *waenkɨn* 'plant species' < *we* 'sago starch' + *ankɨn* 'vegetable species').

Likewise, the word *mae* 'shovel' may be connected to the word *me* '*limbum* palm' (from which the shovel is made). The etymology of this word might thus be: *mae* 'shovel' < *me* '*limbum* palm' + *a-* 'break' (?).

The word *waembïl* 'white' also likely contains *we* 'sago starch' historically, but here the resulting [æ] may be the product of a formerly underlying /e/ phonetically nasalizing (due to the following nasal articulation) and consequently lowering (first in perception, then in production) to [æ].[11]

The word *maep* 'bird species', however, offers no ready etymology. It does not seem to be connected in any way with *me* '*limbum* palm'. The word could be onomatopoetic, as are the names of some other bird species (§16.3).

Given the extremely limited occurrence of [ae] and the fact that it can almost always be explained away as having different underlying vowels, it is not treated as a separate phoneme in this grammatical description. It is, however, written distinctly from both /a/ and /e/, since there are minimal (and near-minimal) pairs contrasting [ae] with both /a/ (58) and /e/ (59).

(58)   Minimal pair contrasting /ae/ and /e/

      mae   'shovel'   vs.   *me*   '*limbum* palm'

(59)   Minimal pair contrasting /ae/ and /a/

      mae   'shovel'   vs.   *ma*   'his/her/its'

There are some rather interesting phonotactic constraints placed on vowels. Most notably, the only permissible vowels in syllables without consonant onsets are /a, i, u/. Furthermore, since many speakers insert epenthetic glides before word-initial /i/ and /u/ (namely, [y] and [w], respectively, §4.1.7), the only permitted onset vowel in some idiolects is [a]. Since all vowel-initial syllables begin phonetically with a glottal stop [ʔ] (when utterance-initial, §4.1.8), it could further be argued that the language lacks V(C) syllables altogether, at least phonetically.

The high central vowel /ï/ patterns differently from the other vowels. As mentioned in §4.1.2, this vowel can serve an epenthetic function, breaking up certain consonant clusters. On the other hand, it sometimes seems to be underlyingly

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[11]The other dialects of Ulwa lend some insight here. In Dimiri, 'white' is [ʋeⁿdum] (cf. [ʋe] 'sago starch'), and in Yaul 'white' is [weᵐbal]. The meanings of the forms [ndum] and [mbal] is obscure, but at least the latter is found in the Manu dialect word *anembal* 'light (color)', which clearly contains *ane* 'sun'. Thus, it may be hypothesized that Manu *waembïl* 'white' derives from *we* 'sago starch' + *mbal* 'color (?)', the /a/ in the second syllable having reduced to [ï], and the /e/ in the first syllable having lowered to [ae] (see §16.5 for more on color terms in Ulwa).

4 Phonetics and phonology

present but commonly elided, for example when immediately preceding a liquid, thereby resulting in a pronunciation with a syllabic [l̩] (§4.1.5). There are similar examples of words in which /ï/ is commonly elided before nasals, again resulting in a syllabic pronunciation of the following nasal consonant, whether bilabial (60) or alveolar (61).

(60) Syllabic [m̩]

    ambatïm 'knee'   [ambatïm ~ ambatm̩]
    mïnïm   'tongue' [mïnïm ~ mïnm̩ ~ mn̩m̩]

(61) Syllabic [n̩]

    apïn   'fire'   [apïn ~ apn̩]
    mïtïn   'egg'   [mïtïn ~ mïtn̩]
    mïnkïn 'grub species' [mïŋkïn ~ mïŋkn̩ ~ mŋ̍kn̩]

Like the sometimes syllabic liquids, the nasals in these and similar words are always transcribed in this grammar with the accompanying vowel <ï>.

4.2.2 Diphthongs /aw, ay/

The two primary diphthongs in Ulwa are /aw/ and /ay/, each formed through the combination of the low central vowel /a/ and one of the two glides, /w/ or /y/. On the status of [oy], which may be underlyingly /oi/, see §4.1.7.

4.3 Syllable structure

Ulwa permits a variety of syllable shapes: syllables may or may not have on-sets, codas, or both. Complex onsets are, however, quite limited, and complex codas are generally absent (limited only to certain instances of verbal suffixa-tion). Words that consist of a single vowel segment offer the clearest examples of V-only syllable structure (62).

(62) Syllables without onsets or codas (V)

    i 'hand, arm' *u* 'you [SG]'
    i 'lime'   *u* 'ditch, creek'
    i 'go.PFV'   *u* 'in, at, from, around, along'

Thus, neither onsets nor codas are required in the language. It should be noted, however, that this might be the case only at the underlying level, since otherwise

vowel-initial words are often realized with an initial glide (§4.1.7) or with an initial glottal stop (§4.1.8). Note also the high degree of homophony among words of the form /i/ and among words of the form /u/ (§16.2).

There are also longer words that may be analyzed as having syllables lacking both onsets and codas. Since prenasalized voiced stops do not occur in coda position, it can be assumed for each word in (63) that each stop is serving as onset to the second syllable.

(63)   Syllables without onsets or codas (in longer words) (V)

a*mbi*	'big'	[a.mbi]	***a****nda*	'that'	[a.nda]
i*mba*	'night'	[i.mba]	***i****nga*	'affine'	i.nga
u*mbopa*	'stomach'	[u.mbo.pa]	***u****nda*	'put [IRR]'	[u.nda]

Another possible syllable shape is CV (i.e., a simple onset and no coda) (64).

(64)   Syllables with simple onsets (CV)

li	'down'	*le*	'*kanda* (rattan)'
mae	'shovel'	*me*	'*limbum* palm'
mï	'he/she/it'	*mu*	'fruit'
nï	'I'	*tï*	'take'
na	'talk'	*ka*	'at, in, on'
pe	'be [DEP]'	*se*	'cry [IPFV]'
mbï	'here'	*ndï*	'they'
nga	'this'	*nji*	'thing'
ya	'coconut'	*wa*	'village'
we	'sago starch'	*wi*	'name'

Each word in (64) is monosyllabic, beginning with a consonant and ending with a vowel. Note that glides may form the onset of a CV syllable, as, for example, in *ya* 'coconut' or *wi* 'name'

It is also possible for syllables to contain codas. The words in (65) contain syllables with no onset, but with simple codas (which may be glides, as in *ay* 'jellied sago'). Disyllabic words may have initial VC syllables, as illustrated by examples such as *anma* 'good'.

(65)   Syllables with simple coda and no onset (VC)

im	'tree'		*ip*	'nose'	
al	'mosquito net'		*un*	'you [PL]'	
ay	'jellied sago'		*aw*	'betel nut'	
i*pka*	'before'	[ip.ka]	***u****nmbï*	'buttocks'	[un.mbï]
a*lmba*	'hornbill'	[al.mba]	***a****nma*	'good'	[an.ma]

A syllable may also have both a simple onset and a simple coda (CVC), as in (66).

(66) Syllables with both onset and coda (CVC)

lam	'meat'	*ndam*	'bridge'
tïn	'dog'	*ngin*	'net'
ngan	'we [DU.EXCL]'	*ngun*	'you [DU]'
nil	'body hair'	*tul*	'bird species'
pul	'piece'	*kot*	'break'
nap	'arrow'	*nip*	'die [PFV]'

One or both of the consonants in such a CVC syllable may be a glide, as illustrated by the words in (67).

(67) CVC syllables containing glides

wal	'ribs'	*wan*	'sago shoot'
wat	'ladder'	*wen*	'handle'
wol	'breast'	*won*	'penis'
wot	'younger'	*wun*	'fan'
yom	'heart'	*yot*	'machete'
kaw	'song'	*law*	'plant species'
maw	'correct'	*may*	'fish species'
way	'turtle'		

Finally, some complex onsets are allowed, resulting in the syllable shape CCV or CCVC. The attested permissible complex CC onsets are /kw-/ (68), /ngw-/ (69), /mbl-/ (70), /pl-/ (71), and /mw-/ (72).

(68) Velar-plus-labial-velar complex onset: *kw-*

kwa 'who?'

(69) Velar-plus-labial-velar complex onset: *ngw-*

i**ngw**a 'spider' [i.ngwa]

(70) Bilabial stop-plus-liquid complex onset: *mbl-*

mblandu	'rat species'	[mbla.ndu]
a**mbl**a	'tooth'	[a.mbla]
ko**mbl**am	'chair'	[ko.mblam]
na**mbl**i	'feather'	[na.mbli]

(71) Bilabial stop-plus-liquid complex onset: *pl-*

> *nï**pl**opa* 'flying fox' [nï.plo.pa]
> *wo**pl**ota* 'lungs' [wo.plo.ta]

(72) Bilabial nasal-plus-labial-velar complex onset: *mw-*

> ***mw**a* 'opening'

In an alternative analysis, at least some of these apparent CCs could be treated instead as consisting of single (complex) phonemes, such as labialized velar stops [kʷ, ŋgʷ] or a labialized bilabial nasal [mʷ]. But if these are in fact separate phonemes in Ulwa, then they have very limited representation in the lexicon.

No onsets of more than two consonants have been found, nor have any complex codas within a single morpheme.

4.4 Stress

Stress in Ulwa is not phonemic. In single-word utterances, disyllabic words may receive stress either on the ultima or on the penult, although there is perhaps a slight preference for penultimate (trochaic) stress. In longer words and phrases, pragmatic factors play a significant role in stress assignment, although there is nevertheless a tendency for stress to fall on alternating syllables. Ulwa may be considered a syllable-timed language.

There is no phonemic tone, nor are there other suprasegmental phonemic distinctions found in the language, such as vowel length.

4.5 Morphophonemic processes

As there is minimal affixation in Ulwa, there are few opportunities to witness phonological alternations occurring between related word forms. Nevertheless, while morphophonemic processes typically occur within phonological words, almost any such process is possible across lexeme boundaries of all types. Still, for the sake of clarity, phonological changes are noted as they occur within words or clitic-host pairs where possible in the following subsections.

4.5.1 Glide formation

Sequences of /au/ and /ai/ coalesce into series of vowel-plus-glide. That is, high vowels /u, i/ strengthen to approximants [w, y] when immediately following a low vowel (73). There are no contexts in which the high central vowel /ï/ follows a low vowel (or any vowel, for that matter).

(73)   Glide formation
       V [+high] → [-syl] / V [+low] _

This phonological process is clearly revealed by the addition of object-marker proclitics, which index person and number (§9.2). In the examples in (74), a glide is formed wherever the object-marker clitic ends in /a-/ (such as *ma=* '3sg.obj') and the verb stem host begins with a high vowel (/i/ or /u/).

(74)   Glide formation in object-marker proclitics

       a. [matï-]   b. [mintï-]
           /ma=tï-/   /min=tï-/
           'take it'   'take two'
       c. [mayta-]   d. [minita-]
           /ma=ita-/   /min=ita-/
           'build it'   'build two'
       e. [mawta-]   f. [minuta-]
           /ma=uta-/   /min=uta-/
           'grind it'   'grind two'

The mid vowels /e, o/ generally do not condition this fortition. Instead, epenthetic glides break up forbidden vowel sequences such as †[eu, ei, ou, oi], producing forms such as [eyu, eyi, owu, owi]. There is one partial exception, however. Although the vowel sequence /oi/ tends to become [owi] when occurring across a word boundary, it is possible for a glide to occur when this sequence falls across a clitic boundary (yielding [oy]) (75).

(75)   Glide formation of [oy]
       /i/ → [y] / o _]#

This change can be witnessed when the indefinite object-marker proclitic *ko=* 'INDF' (§9.2) precedes a verb beginning with /i-/, as in (76).

(76)   Glide formation of [oy] with *ko=* 'INDF'

       a. [koyta-]   b. [kotï-]
           /ko=ita-/   /ko=tï-/
           'build a'   'take a'

The high vowels /i, ï, u/ do not condition the fortition seen in (74). Here, too, epenthetic glides are formed to break up vowel sequences, as in the perfective form of the verb 'fall', /li-u/, in which an epenthetic [y] (IPA [j]) separates the sequence of two high vowels, producing [liyu].

4.5.2 Monophthongization

Sequences of /aw/ and /ay/ may optionally become [o] and [e], respectively, when not immediately followed by a vowel. Thus, for many speakers, *yawt* 'machete' is pronounced [yot]. The word for 'time', borrowed from Tok Pisin *taim* 'time', has been fossilized as [tem]. This change can also occur when the underlying forms are /au/ or /ai/. In other words, this monophthongization rule (77) can apply after the glide formation rule (§4.5.1).

(77) Monophthongization
      /aw/ → ([o]) / _ { $\begin{matrix} C \\ \# \end{matrix}$ (optional)
      /ay/ → ([e]) / _ { $\begin{matrix} C \\ \# \end{matrix}$ (optional)

This monophthongization occurs across morpheme boundaries (78).

(78) Monophthongization across morpheme boundaries

      a. [minul]   vs. b. [mawl] or [m**o**l]
          /min=ul/   /ma=ul/
          'with two'   'with it'
      c. [minin]   vs. d. [mayn] or [m**e**n]
          /min=in/   /ma=in/
          'in two'   'in it'
      e. [i]   vs. f. [nay] or [n**e**]
          /i/   /na-i/
          'went'   'went away'

4.5.3 High vowel gliding

The high back vowel /u/ becomes a glide immediately before a vowel occurring in the same syllable (79).

(79) High vowel gliding
      /u/ → [w] / _ V]$_\sigma$

Example (80) shows the verbs *asa-* 'hit' and *ama-* 'eat' occurring with different object-marker clitics. High vowel gliding can be seen in the 'you [sɢ]' forms.

(80)   High vowel gliding with 2sɢ object forms

    a. [minasa-]   b. [ngunasa-]
       /min=asa-/   /ngun=asa-/
       'hit two'   'hit you [ᴅᴜ]'

    c. [unasa-]   d. [**w**asa-]
       /un=asa-/   /u=asa-/
       'hit you [ᴘʟ]'   'hit you [sɢ]'

    e. [minama-]   f. [ngunama-]
       /min=ama-/   /ngun=ama-/
       'eat two'   'eat you [ᴅᴜ]'

    g. [unama-]   h. [**w**ama-]
       /un=ama-/   /u=ama-/
       'eat you [ᴘʟ]'   'eat you [sɢ]'

This rule (79) should not, however, be taken to suggest that the glides (or at least /w/) are not phonemic in Ulwa. That is, it would be implausible to treat every syllable with a glide in the onset as underlyingly /uV/ or /iV/. First, this would create undesirable and unlikely vowel clusters in the underlying forms and would even create double vowels in words such as *wusim* 'crocodile' and *wulis* 'platform', which would have to be assumed to be underlyingly †/uusime/ and †/uulis/, respectively, despite a total surface absence of sequences of identical vowels (i.e., there are no long vowels). It does not seem that forms such as [wusim] and [wulis] are the product of the optional glide epenthesis rule, since they are always pronounced with /w/.

Furthermore, there are minimal pairs (and near-minimal pairs), distinguishing words with initial /u-/ from words with initial /wu-/ (81).

(81)   Contrasts between word-initial /u-/ and word-initial /wu-/

    uta 'bird'   vs. *wuta* 'shell' (for some speakers)
    un   'you [ᴘʟ]' vs. *wun*   'fan'
    utïl 'refuse' vs. *wutï* 'leg, foot'

Indeed, for purposes of differentiating these /wu/-initial words from their /u/-initial near-homophones, some speakers pronounce them with an initial labiodental [ʋ], as in [ʋuta] 'shell' versus [uta] 'bird'. This [ʋ] sound sometimes colors the following high back vowel, producing forms such as [ʋïta] 'shell'.

It would of course also seem likely, insofar as the other glide /y/ patterns like /w/, that a process might also exist of high front vowel gliding. However, there are no examples of proclitics or prefixes ending in /i-/, and thus no way of knowing

how this would apply within phonological words. When /i-/ precedes a vowel across a word boundary, though, a number of phonological changes are possible. If the following vowel is a mid vowel, then the /i/ may delete (§4.5.4). If the following vowel is high, then an epenthetic glide [y] may break up the following sequence. If the following vowel is low, however, it is possible for /i-/ and /-a/ to coalesce into [e] (§4.7).

4.5.4 Vowel elision before mid vowels

All vowels are deleted before an immediately following /e/ or /o/ (82).

(82) Vowel elision before mid vowels
      V → Ø / _ V [-high, -low]

Since neither /e/ nor /o/ occurs word-initially (§4.2.1), the only environments in which this process may be observed are within phonological words. The elision of vowels before /e/ may be witnessed when vowel-final verbs take the imperfective suffix *-e* 'IPFV'(§6.4) or the nominalizer *-en* 'NMLZ' (§5.2). The final vowels of the verb stems in (83) are lost before the imperfective suffix, in which the vowel immediately precedes /e/, but not in the perfective forms, in which the vowel immediately precedes the suffix *-p* 'PFV'.

(83) Vowel elision before the imperfective suffix *-e* 'IPFV'

a.	[ase]	vs.	b.	[asap]	
	/as**a**-e/			/asa-p/	
c.	[me]	vs.	d.	[mep]	
	/m**e**-e/			/me-p/	
	'sew [IPFV]'			'sew [PFV]'	
e.	[ne]	vs.	f.	[nip]	
	/n**i**-e/			/ni-p/	
	'act [IPFV]'			'act [PFV]'	
g.	[moke]	vs.	h.	[mokop]	
	/mok**o**-e/			/moko-p/	
	'take [IPFV]'			'take [PFV]'	
h.	[ke]	vs.	i.	[kïna]	
	/kï-e/			/kï-na/	
	'say [IPFV]'			'say [IRR]'[12]	

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[12]The perfective form of *kï-* 'say' is irregular; see Table 6.1 in §6.2, Table 15.1 in §15.4.

Among regular verbs, there are no environments in which to observe the deletion of /u/ before /e/. The irregular verb *li-* 'fall', however, has a perfective form /li-u/ [liyu], which, when followed by the imperfective suffix /-e/, is realized as [liye] – that is, the underlying /u/ is deleted before /-e/.

The examples in (84) illustrate the loss of vowels before the nominalizing suffix *-en* 'NMLZ', which affixes to the verb stem.

(84) Vowel elision before the nominalizing suffix *-en* 'NMLZ'

    a. [iten]   b. [wanen]
       /it**a**-en/   /wan**a**-en/
       'builder'   'cook'
    c. [inden]   d. [unen]
       /ind**a**-en/   /un**i**-en/
       'walker'   'shouter'

There are hardly any environments in which the mid vowel /o/ immediately follows another vowel. The vocative interjection *=o* 'VOC' (§10.3.3) may, however, affix to certain words, especially demonstratives, as in the examples given in (85), which demonstrate the loss of the vowel /a/ before /o/.

(85) Vowel elision before the vocative interjection *=o* 'VOC'

    a. [anda] vs. b. [ando]
       /anda/   /and**a**=o/
       'that'   'that [VOC]'
    c. [ala]   vs. d. [alo]
       /ala/   /al**a**=o/
       'those'   'those [VOC]'

Since all known examples of vowel elision occurring before /o/ consist of the loss of /a/, the changes in (85) may rather exemplify the process of central vowel elision, described in §4.5.5.

4.5.5 Central vowel elision

The central vowels /a, ï/ delete when immediately followed by any other vowel – that is, central vowels elide not only before mid vowels (§4.5.4), but whenever immediately followed by any other vowel (86).

(86) Central vowel elision
     V [-back, -front] → Ø / _ V

For example, the vowels /ɨ/ and /a/ are deleted when they occur at the end of object-marker proclitics that precede vowel-initial verb stems (87).

(87)   Central vowel elision in object-marker proclitics

   a.   [asa-]   b.   [nasa-]
        /asa-/   /nɨ=asa-/
        'hit'   'hit me'
   c.   [ndasa-]   d.   [masa-]
        /ndɨ=asa-/   /ma=asa-/
        'hit them'   'hit it'
   e.   [ita-]   f.   [ndita-]
        /ita-/   /ndɨ=ita-/
        'build'   'build them'

Note that this rule must be ordered after the glide formation rule (§4.5.1), which bleeds the otherwise possible change of [†]/ai/ → [a]. Thus the form /ma=ita-/ 'build it' is pronounced as [mayta-] and not as [†][mita-].[13]

The fact that the two central vowels in this language pattern distinctly both from front vowels and from back vowels may support the use of a distinctive feature [+/−front] in addition to the traditional feature [+/−back] (such that a central vowel /a, ɨ/ may be described as [−front, −back]). Alternatively, however, the feature [+/−front] could perhaps be avoided, if this rule is divided into two separate rules (88). In such an analysis, there would be one vowel degemination (or shortening) rule, and one /ɨ/-elision rule.

(88)   A two-rule analysis of central vowel elision

   a. $V_i \rightarrow \emptyset \; / \; \_ \, V_i$
   b.   /ɨ/ $\rightarrow \emptyset \; / \; \_ \, V$

Combined with the glide formation rule (§4.5.1), the first rule in (88) would account for all alternations involving /a/. Since the only vowels permitted in onset are /i, u, a/, the only possible low-vowel-initial vowel combinations would be [†]/ai/, [†]/au/, and [†]/aa/. While the first two sequences would be diphthongized (or become vowel-glide sequences), the third sequence would undergo the reduction (deletion of one vowel) suggested by the first rule in (88). Thus the vowel elision rule would only need to apply to the high central vowel. In this analysis, /ɨ/ behaves uniquely among vowels. Perhaps this analysis is preferable, considering the distinct behavior of /ɨ/ (§4.2.1).

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[13]Alternatively, it could be argued that the deletion of /ɨ/ and /a/ only takes place before certain vowels, but not before /i/, thus not requiring rule ordering.

4.5.6 High central vowel assimilation

Another case in which /ï/ behaves uniquely involves the presence of glides. Immediately before the high back glide /w/, this vowel often assimilates in both roundness and backness, being realized as the high back rounded vowel [u]. This rule (89) is optional for most speakers.

(89) High central vowel assimilation
      /ï/ → ([u]) / _ w (optional)

This assimilation may be illustrated by verb forms containing glide-initial stems (90).

(90) High central vowel assimilation before glide-initial verb stems

a.	[mawana-]	vs.	b.	[nd**u**wana-]
	/ma=wana-/			/ndï=wana-/
	'cook it'			'cook them'
c.	[**u**wali-]	vs.	d.	[n**u**wali-]
	/u=wali-/			/nï=wali-/
	'hit you [SG]'			'hit me'
e.	[minwe-]	vs.	f.	[nd**u**we-]
	/min=we-/			/ndï=we-/
	'cut two'			'cut them'

This assimilation is most likely primarily one of rounding and not backness (with backness tagging along, since the only available high rounded vowel in the language is also [+back]). If, however, this were a case of place-assimilation and not rounding-assimilation, then it might be expected that the high central vowel /ï/ would also assimilate in place to a following high front glide /y/, as hypothesized in (91).

(91) A possible place assimilation analysis (?)
      /ï/ → [i] / _ y (?)

Although the sequence /ïy/ never occurs within a single word, it is possible for one word ending in /-ï/ to precede another beginning with /-y/, as in the examples in (92).

(92)   Sequences of /ɨ/ + /y/ (across word boundaries)

   a.   *nɨ ya* 'I … coconut …'

   b.   *mɨ yana* 'he … woman …'

Crucially, this sequence is never pronounced [iy]. That is, there is no place assimilation of /ɨ/ preceding a high front glide. Thus, the rounding assimilation analysis of /ɨ/ → [u] is preferable.

4.5.7 **Local vowel assimilation of /a/ to /o/**

All of the rules mentioned so far (§4.5.1–§4.5.6), which have been shown to apply within phonological words, may also apply across word boundaries, and thus seem to reflect general phonetic preferences in the languages. Accordingly, gliding often occurs in rapid speech when a word ending in a low vowel /a/ is immediately followed by a word beginning with a high non-central vowel /i, u/. Likewise, the elision of central vowels, the gliding of /u/ to [w], and the deletion of vowels immediately preceding identical vowels can occur across word boundaries, all of which are illustrated in the examples in (93).

(93)   Some phonological processes occurring across word boundaries

   a.   [**n**amun]
        /**nɨ a**mun/
        1sg today
        'Today, I …'

   b.   [**w**amun]
        /**u   a**mun/
        2sg today
        'Today, you …'

   c.   [**u**mbe]
        /**u   u**mbe/
        2sg tomorrow
        'Tomorrow, you …'

Processes such as these are generally more likely to occur when one of the elements involved is a clitic or an affix, and this may perhaps be the case in (93), if in fact all pronominal markers in Ulwa are analyzed as clitics. Nevertheless, these alternations are still possible with full lexical items, suggesting a strong phonetic basis for these phonological rules.

At least one change, however, is extremely limited in its scope, and is perhaps purely morphologically conditioned. This is the change of underlying /a/ to [o]. It has only been observed to occur with one morpheme, the 3sg object marker /ma=/. The allomorphy of this morpheme when it is followed by a high non-central vowel is discussed in (§4.5.1) (i.e., it can be realized as [may=] or [maw=]). Before another low vowel (§4.5.5.), it has the allomorph [m=]. The allomorph [mo=] occurs when the proclitic is immediately followed by a syllable containing a mid back vowel /o/ (94).

(94) Local vowel assimilation of /a/ to /o/
      /a/ → [o] / _ C$_0$V [-high, +back], when in the proclitic /ma=/

Thus, instead of †[ma=], the surface form [mo=] is found when this 3sg object marker immediately precedes verb stems that create this environment (95).

(95) Local vowel assimilation of /a/ to /o/ in the 3sg object marker /ma=/
      a. [**mo**kot-]   b. [**mo**toplï-]
          /ma=kot-/   /ma=toplï-/
          'break it'   'throw it'
      c. [**mo**moplï-]   d. [**mo**poplï-]
          /ma=moplï-/   /ma=poplï-/
          'tie it'   'sweep it'

No other vowel in the following syllable will condition this change; nor does any similar process occur in the object markers containing other vowels (/i, ï, u/), as illustrated by the examples in (96).

(96) Lack of vowel assimilation with other object markers

      a. [**mi**nkot-]   b. [**u**toplï-]
          /min=kot-/   /u=toplï-/
          'break two'   'throw you [sg]'
      a. [**u**nmoplï-]   b. [ndï̈poplï-]
          /un=moplï-/   /ndï=poplï-/
          'tie you [pl]'   'sweep them'

It is also worth noting that no similar process affects other object markers with the same vowel /a/, as illustrated by the examples in (97).

(97) Lack of vowel assimilation with other object markers ending in /a-/

    a. [andakot-]   b. [antoplï-]
        /anda=kot-/   /an=toplï-/
        'break that'   'throw us [EXCL]'

    c. [alamoplï-]   d. [ngapoplï-]
        /ala=moplï-/   /nga=poplï-/
        'tie those'   'sweep this'

The result is that this process is restricted to the single morpheme /ma=/. It could thus be argued that this process is morphologically conditioned. If, however, it is indeed a phonologically conditioned process after all, then the most likely explanation is that it is the labiality of the /m/ combined with the presence of /o/ in the following syllable that together cause /ma/ to become [mo], as suggested by the rule in (98).

(98) possible phonological motivation for /ma=/ → [mo]
    /a/ → [o] / C [+labial] _ C_0V [−high, +back]

This very well may be the case. It is, of course, difficult to argue from absence of evidence, but I have found no words containing the low vowel /a/ immediately following a labial consonant /p, mb, m/ and preceding a syllable with the mid back vowel /o/ (i.e., the sequences [†][paCo, mbaCo, maCo] all appear to be disallowed). It is thus possible that this rule is not actually morphologically conditioned, but rather applies to every environment in which an underlying /a/ immediately follows a labial consonant and precedes a mid back vowel in the next syllable – that is, the preceding labial and the following rounded vowel conspire to condition the change.

4.5.8 Degemination

There is a process in Ulwa by which geminate consonants are reduced to single segments (99).

(99) Degemination
    C_i → Ø / _ C_i

This is mostly observed across word boundaries in rapid speech. There are few instances in which identical consonants would occur underlyingly across a morpheme boundary, but the oblique marker *=n* 'OBL' (§13.4.1) can follow words ending in /-n/. Although this marker has the allomorph [ïn], which could bleed

a possible degemination, it is also possible for the sequence of /n=n/ to reduce to a single [n], as seen in (100).

(100)   Degemination with the oblique marker *=n* 'OBL'

    a.   [tï**n**]
         /tï**n=n**/
         'with the dog'

    b.   [u**n**]
         /u**n=n**/
         'with you [PL]'

    c.   [unduwa**n**]
         /unduwa**n=n**/
         'with the head'

    d.   [ngi**n**]
         /ngi**n=n**/
         'with the net'

It is also possible to witness degemination within words when certain separable verbs (§11.2.1) occur with their elements unseparated (101).

(101)   Degemination with unseparated separable verb forms

    a.   [tumulka]
         /tumu**l**-ka/
         'bend [PFV]'

    vs.   b.   [tumu**l**akana]
              /tumu**l**-**l**a-ka-na/
              'bend [IRR]'

Degemination also occurs between object-marker proclitics that end in /-n/ and verb stems that begin with /n-/, as illustrated by the examples in (102).

(102)   Degemination with object-marker proclitics ending in /n/

    a.   [u**n**an]
         /u**n=n**a-n/
         'give you [PL] [PFV]'

    b.   [a**n**an]
         /a**n=n**a-n/
         'give us [EXCL] [PFV]'

    c.   [u**n**ip]
         /u**n=n**i-p/
         'beat you [PL] [PFV]'

    d.   [a**n**ip]
         /a**n=n**i-p/
         'beat us [EXCL] [PFV]'

Other instances of degemination occur when the conditional suffix *-ta* 'COND' (§6.12) immediately follows a verb form ending in /t/ (e.g., /at-ta/ 'hit [COND]' → [ata]) and when the copular enclitic *=p* 'COP' (§12.3) immediately follows a form ending in /p/ (e.g., /awlop=p/ 'be in vain' → [awlop]).

4.5.9 Lexically determined alternations and rules

A few interesting lexically determined phonological alternations or rules may also be noted. Some common words vary between two pronunciations, even within the speech of individual speakers. Thus, 'woman' may be pronounced

either as [yena] or as [yana] and, similarly, 'man' may be pronounced either as [yeta] or as [yata].

There may also be dialectal differences, even within the rather small Manu dialect, which is the focus of this grammatical description. For example, some speakers of Manu Ulwa use the form *angla* 'awaiting', whereas other speakers use the form *andïla* 'awaiting' for the same postpositional meaning.

There also appear to be generational differences. For example, older speakers of the Manu dialect prefer the form *namndu* 'pig', whereas younger speakers prefer *lamndu* 'pig'. Indeed, the form *namndu* 'pig' is also used by speakers (of all ages) of the Maruat-Dimiri-Yaul dialect. Although there are often correspondences of *l* : *n* between the two dialects, they usually occur in the opposite manner – that is (when there is a difference between the two dialects), typically an /l/ in the Maruat-Dimiri-Yaul dialect corresponds to an /n/ in the Manu dialect.[14]

The verb *lï-* 'put' shows great variability. It may even be the case that, for some speakers, the stem-final vowel /ï/ is underlyingly /u/; and that, for some other speakers, this vowel is underlyingly /i/ – at least it is realized as such by these speakers, at least in some environments. Often the vowel is lost entirely when the root immediately follows a vowel and immediately precedes /-p/, as occurs with the perfective suffix *-p* 'PFV' (§6.5). This may be seen in the contrasts presented in (103): the vowel is lost following *ma=* '3SG.OBJ' (a.) and *ndï=* (b.) '3PL' in the perfective forms, but not following *min=* '3DU' (c.) and not in the irrealis forms (d., e., f.).

(103)   Loss of [ï] in perfective forms of *lï-* 'put'

    a. [malp]   b. [ndïlp]
        /ma=lï-p/   /ndï=lï-p/
        'put it [PFV]'   'put them [PFV]'

    c. [minlïp]   d. [malïnda]
        /min=lï-p/   /ma=lï-nda/
        'put two [PFV]' 'put it [IRR]'

    e. [minlïnda]   f. [ndïlïnda]
        /min=lï-nda/ /ndï=lï-nda/
        'put two [IRR]' 'put them [IRR]'

The deletion that occurs in (103) is an obligatory rule for many speakers. For some speakers, there is additionally an optional rule to delete this same vowel /ï/

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[14]The form *lamndu* 'pig' may thus be a recent innovation of the Manu dialect, the result perhaps either of hypercorrection or of folk etymology, in this case based on a perceived connection between *namndu/lamndu* 'pig' and *lam* 'meat', itself a loanword from Ap Ma (§1.5). Chapter 20 contains further discussion of the Maruat-Dimiri-Yaul dialect of Ulwa.

in the irrealis forms as well, provided that there is a vowel immediately preceding the verb stem. Thus, /malïnda/ (d.) may at times be pronounced as [malnda]; however, /minlïnda/ (e.) would never be pronounced as †[minlndna], as this would create a phonotactically forbidden cluster.

4.6 Metathesis

Sometimes speakers invert the order of two phonological segments in a word. Some instances of this sort of metathesis may be simple speech errors, but others reflect free variation in the pronunciation of certain words or of certain combinations of phonemes. This latter class does not seem to show any phonological or morphological conditioning (hence the designation as free variation).

Example (104) illustrates two instances of sporadic metathesis, which may represent speech errors. The first exhibits the local reversal of two consonants. The second exhibits the change in order of consonant and vowel (with subsequent elision of /ï/).

(104)   Sporadic metathesis

      a.   [amnopa] for /anmopa/ '*tulip* greens' [ulwa029_01:06]

      b.   [ndumne] for /ndïmune/ 'throw them' [ulwa035_00:23]

Unlike these somewhat unusual changes, however, there is one word for which metathesis is rather common. The postposition *ul* 'with' is often realized as [lu]. Perhaps counterintuitively, this allomorphy generally occurs when the postposition immediately follows a consonant (as opposed to a vowel), resulting in a sequence of two consonants (across a syllable boundary). Some examples of metathesized *ul* 'with' are given in (105).

(105)   Metathesis of *ul* 'with' to [lu] following a consonant

      a.   *ambin lu* 'with each other' [ulwa032_17:31]

      b.   *Yaklap lu* 'with Yaklap' [ulwa014_32:00]

      c.   *Nicholas lu* 'with Nicholas' [ulwa018_00:14]

The metathesized version also sometimes occurs even when following a vowels provided the object of the postposition is not a clitic (object markers *ma=* '3sg.obj' and *ndï=* '3pl', for example, never license the metathesized form, but are rather always followed by [ul]). Two examples of metathesis in this environment are provided in (106).

(106)   Metathesis of *ul* to *lu* following a vowel

      a. *mangusuwa lu* 'with the poor thing' [ulwa037_46:27]

      b. *Tema lu* 'with Tema' [ulwa037_60:27]

Where these two phonemes /l/ and /u/ occur elsewhere in succession, it is also possible (although not necessarily common) to metathesize them (107).

(107)   Other examples of [ul] ~ [lu] metathesis

      a. [ulwa] for /luwa/ 'place' [ulwa032_50:31]

      b. [ulke] for /luke/ 'too' [ulwa037_06:57]

      c. [nolnda] for /na-lu-nda/ 'will put' [ulwa038_02:53]

In example (107c) the metathesis must precede a monophthongization process (§4.5.2) – that is, /nalunda/ > /naulnda/ > [nolnda].

4.7 Phonetics and phonology of connected speech

This chapter may be concluded with an impressionistic note on the sounds of connected speech in Ulwa. Similar to the synalepha found in languages like Spanish, there is a tendency in Ulwa for words to blend together, such that it is often impossible (on phonetic grounds) to separate one word from the next. Specifically, sound changes such as elision and coalescence of vowels at word boundaries are common in rapid speech. Sometimes two vowels coalesce when an epenthetic glide might otherwise be expected. For example, the sequence /i#a/ may be realized as [e] instead of [iya], as in (108).

(108)   [ambenda]
       /ambi anda/
       'that big [man]'[15]

Finally, some phonological phenomena are only observable at the utterance level. For example, many speakers employ an occasional utterance-final epenthetic (i.e., paragogic) alveolar nasal /n/. This can cause confusion between nominalized verb forms, which end in /-en/ (§5.2), and verbs that end (underlyingly) with the imperfective suffix /-e/ (§6.4) or the dependent marker /-e/ (§14.2.1), but which also take this utterance-final epenthetic [-n], resulting in the homophonous ending [-en].

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[15]The form [ambiyanda], with an epenthetic glide, would also be possible.

5 Nouns

This chapter provides a description of the morphosyntactic attributes of nouns in Ulwa. Nouns comprise a large, open class of words. There is no canonical syllabic structure peculiar to nouns beyond the general patterns found in the language (§4.3). Nouns can vary in length from being monosyllabic (even mono-phonemic) to being triysllabic or even longer, although it is not common for underived nouns to have more than two syllables. Indeed, many longer nouns appear to derive from compounding, onomatopoeia, or loans. Some monosyllabic nouns are provided in (1), some disyllabic nouns in (2), and some trisyllabic nouns in (3).

(1) Monosyllabic nouns

al 'loincloth'
i 'hand'
im 'tree'
ka 'peak'
na 'talk'

(2) Disyllabic nouns

ame 'type of basket'
ina 'liver'
longom 'dream'
mana 'spear'
nonal 'wind'

(3) Trisyllabic nouns

itïtïl 'dust'
iwanal 'ant species'
nambana 'ancestral spirit'
tambeta 'chest'

There are not many nouns longer than three syllables. Those that do exist seem mainly to refer to particular flora or fauna (4).

(4)   Nouns of four syllables

popotala   'frog species'
sambulumbu   'insect species'
supangasa   'banana species'

Nouns can be defined by their distribution. Only nouns (or pronouns) can serve as subjects or objects of verbs. In practical terms, this means that the first word in a basic indicative sentence with overtly expressed arguments will be either a noun or a pronoun, since the unmarked SOV word order demands a sentence-initial subject and only nouns and pronouns can serve that role.[1] In examples (5) and (6), both intransitive clauses, the noun is the first element in the sentence.

(5)   **Alum** *mï se.*
      alum *mï*   *sa-e*
      child 3SG.SUBJ cry-IPFV
      'The baby is crying.' [elicited]

(6)   **Ankam** *mï nip.*
      ankam *mï*   *ni-p*
      person 3SG.SUBJ die-PFV
      'The person died.' [elicited]

In transitive clauses that have overtly expressed objects, there is also typically a noun preceding the verb (again, in accordance with the demands of SOV word order). Examples (7) and (8) are both transitive clauses. In each, there is one noun that is at the beginning of the clause (the subject) and one noun that precedes the verb (the object).

(7)   **Tïn** *ndï* **mïnda** *ndamap.*
      tïn *ndï* **mïnda** *ndï=ama-p*
      dog 3PL banana 3PL=eat-PFV
      'The dogs ate the bananas.' [elicited]

(8)   **Sina** *mï* **lam** *maweyunda.*
      sina *mï*   **lam** *ma=we-u-nda*
      knife 3SG.SUBJ meat 3SG.OBJ=cut-put-IRR
      'The knife will cut the meat.' [elicited]

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[1]However, see §13.1 on argument omission; §7.3 on the nominal uses of adjectives; and §10.2 on adverbs, whose freer word order allows sentence-initial placement.

Nouns may also be objects within postpositional phrases, such as the second noun, *itom* 'father', in (9).

(9) ***I*** *anma mï keka **itom** alol i.*
     i *anma mï* *keka* ***itom*** *ala=ul* *i*
     way good 3SG.SUBJ completely father PL.DIST=with go.PFV
     'Good behavior has completely gone with [our] fathers.' [ulwa032_46:16]

Nouns may also occur as the subjects of non-verbal clauses, such as the noun *na* 'talk' in (10).

(10) ***Na*** *ndï tïngïnpe.*
      na *ndï tïngïn=p-e*
      talk 3PL many=COP-DEP
      'There are many arguments.' [ulwa037_40:19]

Nouns, moreover, always precede subject markers or object markers, when present (§9.1, §9.2), although not always immediately: longer noun phrases, with postnominal modifiers, may contain words intervening between the noun and its person/number marker. Only nouns may be modified by adjectives, which almost always follow the noun (§7.1). Nouns may immediately follow possessive pronouns (§8.2).

Nouns are not inflected for number or gender. They may precede the oblique marker *=n* 'OBL', however, which may be thought of as filling certain semantic case functions (§13.4.2). There is no productive diminutive or augmentative marking on nouns.

Nouns may refer to humans, as in (5), (6), and (9); to non-human animates, as in (7); or to inanimate objects, as in (8). They may also refer to abstract concepts, as in (9) and (10). Example (11) illustrates the use of a proper noun that signifies a location.

(11) *U **Wopata** may.*
      *u **Wopata** ma=i*
      2SG [place] 3SG.OBJ=go.PFV
      'You went to Wopata.' [ulwa037_01:36]

Although there is no nominal inflection in Ulwa (§5.1), nouns that are derived from verbs bear derivational (i.e., nominalizing) morphology (§5.2), and multiple nouns can be joined together to form compounds (§5.3). There does not seem to be any productive process of reduplication in the language, but some nouns appear to be composed of reduplicative elements (§5.4).

5.1 Nominal inflection

There is no nominal inflectional morphology in Ulwa. Nouns are not marked in any way for gender, number, case, or other grammatical attributes. However, some nouns have inherent gender, semantically determined by the natural gender of the referent, such as *yeta* 'man' versus *yena* 'woman' and *atuma* 'older brother' versus *atana* 'older sister'. Also, number can be signaled by postnominal subject markers (§9.1) or object markers (§9.2). Although there is no grammatical case, an oblique marker, which indicates that an argument is functioning as an adjunct, can appear to affix to nouns. However, properly, this marker is an enclitic that follows entire NPs (§13.4.1).

Sentences (12) and (13) illustrate the lack of contrast in nouns according to grammatical relation and according to number. In (12), *uta* 'bird' is a grammatical subject and has a singular referent ('the bird'). In (13), *uta* 'bird' is a grammatical object and has a plural referent ('the birds').

(12) **Uta** *mï im may.*
      uta *mï*   *im*   *ma=i*
      bird 3SG.SUBJ tree 3SG.OBJ=go.PFV
      'The bird flew to the tree.' [elicited]

(13) *Itom mï* **uta** *nduwalinda.*
      itom   *mï*   **uta** *ndï=wali-nda*
      father 3SG.SUBJ bird 3PL=hit-IRR
      'Father will shoot the birds.' [elicited]

This absence of number and case marking holds for nouns with human referents as well. In sentence (14), *ankam* 'person' is a grammatical object and has a singular referent; in sentence (15), on the other hand, *ankam* 'person' is a grammatical subject and has a plural referent.

(14) *Nï lïmndï* **ankam** *ambi mala.*
      nï   *lïmndï* **ankam** *ambi ma=ala*
      1SG eye   person big   3SG.OBJ=see
      'I saw the big person.' [elicited]

(15) **Ankam** *ndï awal imba wondi anglalop.*
      ankam *ndï awal*   *imba wondi*   *angla-lo-p*
      person 3PL yesterday night bandicoot await-go-PFV
      'The people hunted bandicoot(s) last night.' [elicited]

It should be noted that optional subject markers and object markers can be used to indicate number in noun phrases. When such a marker is not included, however, the noun is underspecified for number, as may be seen for the object *wondi* 'bandicoot' in (15), whose verb lacks an object-marker enclitic (§9.2).

5.2 Derivational morphology: Nominalization

Nouns can be derived from verbs to denote the agent of the action indicated by the verb. An agent noun (nomen agentis) bares the derivational suffix *-en* 'NMLZ'.[2] The nominalizing morphology in most instances affixes to the end of the verb stem, as in (16), which may be compared to a sentence illustrating a conjugated form of the same verb (17).

(16) *Nï **inden**.*
      *nï   inda-**en***
      1SG walk-NMLZ
      'I am a walker.' [elicited]

(17) *Nï indap.*
      nï   inda-p
      1SG walk-PFV
      'I walked.' [elicited]

The nominalized verb (functioning as a noun) may be followed by a subject marker (or an object marker). In (18) and (19), the verb stem is the suppletive perfective form of the verb *ma-* 'go' – that is, *i* 'go.PFV'. In (18) this form receives the singular subject marker *mï* '3SG.SUBJ', whereas in (19) it receives the plural subject marker *ndï* '3PL'.

(18) *Laykos **iyen** mï mat ngata lanji anda.*
      *Laykos i-**en**   mï   ma=ta   ngata ala-nji   anda*
      [place] go.PFV-NMLZ 3SG.SUBJ 3SG.OBJ=say grand PL.DIST-POSS SG.DIST
      'The one who went to the Rai Coast said: "That belongs to those grandparents."' (Literally 'the having-gone-to-the-Rai-Coast one')
      (*Laykos* < TP *Raikos* 'Rai Coast') [ulwa014_42:06]

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[2]This suffix may perhaps be further analyzable as consisting of the polysemous suffix /-e/, which can either mark imperfective aspect (§6.4) or signal that a clause is dependent (§14.2.1), followed by a derivational suffix /-n/, which could itself be related to the oblique marker of the same form (§13.4).

(19) *Ndï mo tïnanga ngap **iyen** ndï.*
      ndï ma=u   tïnanga nga=p   i-**en**   ndï
      3PL 3SG.OBJ=from arise   SG.PROX=be go.PFV-NMLZ 3PL
      'They were the ones who got up from there and came to this place.'
      (Literally 'the getting-up-from-there-and-coming-to-this-[place] ones')
      [ulwa002_02:43]

As the translations of sentences (18) and (19) suggest, clauses with nominalized verb forms are in some ways akin to (subject) relative clauses (§14.3).

In example (20), the nominalized verb form is followed by the demonstrative determiner *anda* 'that'.

(20) *mundu nïpat **amen** anda*
      *mundu nïpat ama-**en**   anda*
      food   giant eat-NMLZ SG.DIST
      'that glutton' (Literally 'that giant-food eater') [ulwa037_19:32]

Nominalized transitive verbs can maintain their objects. Example (21) illustrates a transitive clause. An entire nominalized VP (object plus verb) of such a transitive clause can function as the predicate nominative (22), subject (23), or object (24) of a sentence.

(21) *Nïnji nungol mï **apa ite**.*
      *nï-nji   nungol mï   **apa   ita-e***
      1SG-POSS child   3SG.SUBJ house build-IPFV
      'My son is building a house.' [elicited]

(22) *Nïnji nungol mï **apa iten**.*
      *nï-nji   nungol mï   **apa   ita-en***
      1SG-POSS child   3SG.SUBJ house build-NMLZ
      'My son is a house builder.' [elicited]

(23) ***Apa iten** mï nip.*
      apa   ita-en   *mï*   *ni-p*
      house build-NMLZ 3SG.SUBJ die-PFV
      'The house builder died.' [elicited]

(24) *Nï lïmndï nipe **ap iten** mala.*
    *nï lïmndï ni-p-e   **apa ita-en**   ma=ala*
    1SG eye   die-PFV-DEP house build-NMLZ 3SG.OBJ=see

    'I saw the dead house builder.'[3] (Literally 'I saw the having-died house
    builder.') [elicited]

In sentence (25), the nominalized verb is modified by an adjective, *wutota* 'tall',
and the entire NP is marked as the subject of the clause by the subject marker
mï '3SG.SUBJ'.

(25) ***Ulepawen** wutota mï liyu.*
    *ulep-aw-**en**   wutota mï   li-u*
    jump-put.IPFV-NMLZ tall   3SG.SUBJ down-put

    'The tall jumper fell.' [elicited]

In sentence (26), the nominalized verb is the head of an NP that is serving as
direct object and receives the object marker *ma=* '3SG.OBJ'.

(26) *Nï lïmndï mïnda **amen** wutota mala.*
    *nï lïmndï mïnda ama-**en**   wutota ma=ala*
    1SG eye   banana eat-NMLZ tall   3SG.OBJ=see

    'I saw the tall banana-eater.' [elicited]

In example (27), the nominalizer suffix attaches to the locative verb *p-* 'be at',
which here has a location as its grammatical object (indexed with the object-
marker proclitic *ma=* '3SG.OBJ').

(27) *Li **mapen** ndï wopa wa i.*
    *li   ma=p-**en**   ndï wopa wa   i*
    down 3SG.OBJ=be-NMLZ 3PL all   village go.PFV

    'The downstream people all came to the village.' (Literally 'the
    being-down-there ones') [ulwa034_00:08]

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[3]The suffix *-e* 'DEP' marks verbs in clauses in a dependent relation to the matrix clause (§14.2),
here marking 'die' as the main verb of a relative clause. There could thus be some relationship
(whether diachronic or synchronic) between the /-e/ component of the nominalizing suffix and
this dependent-marking suffix *-e* 'DEP'. That is, *apa iten mï* 'the house builder' could in effect
be (or have evolved from being) a phrase meaning something like 'the one that builds houses'.
Since the suffix in question consists of more than just /e/, however, (that is, the form is /-en/)
it is treated as something other than (or at least more than) a relativizer. Furthermore, the
nominalized forms that contain /-en/ behave in every way syntactically as nominal elements,
receiving subject marking (or object marking), preceding adjectives that modify them, and
exhibiting all other distributional properties of nouns.

As NPs, these phrases formed with nominalizations can also be possessed – that is, they can be modified by possessive words preceding them (§8.2, §11.1). Example (28) is a bit unusual in showing perfective marking on the verb.

(28) *manji inom **mokotpen***
      *ma-nji   inom   ma=kot-p-**en***
      3SG.OBJ-POSS mother 3SG.OBJ=break-PFV-NMLZ
      'his biological mother' (Literally 'his having-borne-him mother')
      [ulwa001_05:37]

Nominalized verb forms may be used to define or describe people's characteristics or habits, as illustrated by (29), (30), and (31).

(29) *Nï ango ay nïpat **amen**.*
      *nï   ango ay   nïpat ama-**en***
      1SG NEG sago giant eat-NMLZ
      'I don't eat a lot of sago.' (Literally 'I am a not-giant-sago eater.')
      [ulwa014†]

(30) *Anambi aw **amen** alawa.*
      *an-ambi   aw   ama-**en** ala-awa*
      1PL.EXCL-TOP betel.nut eat-NMLZ PL.DIST-INT
      'As for us, we're really betel nut chewers.' [ulwa037_51:45]

(31) *Nï wandam ngape **wowen**.*
      *nï   wandam nga=p-e   wow-**en***
      1SG jungle SG.PROX=be-IPFV sleep.IPFV-NMLZ
      'I live in this jungle.' (Literally 'I am an in-this-jungle sleeper.')
      [ulwa001_03:24]

Nominalized verb forms also commonly indicate habitual action, as in (32), (33), and (34).

(32) *Mangusuwata ango niya **mbunden**.*
      *ma-ngusuwata ango nï=iya   mbï-unda-**en***
      3SG.OBJ-poor   NEG 1SG=toward here-go-NMLZ
      'The poor thing doesn't come around here to me [anymore].'
      [ulwa032_05:18]

(33) *Ala mundun amblol **inden**.*
      *ala   mundu=n ambla=ul   inda-**en***
      PL.DIST food=OBL PL.REFL=with walk-NMLZ
      'They were ones who walked around with food with one another.'
      [ulwa014_63:23]

(34) *An ango ndiya amba **unden**.*
      *an   ango ndï=iya   amba   unda-**en***
      1PL.EXCL NEG 3PL=toward mens.house go-NMLZ
      'We didn't go to them in the men's house.' [ulwa018_04:44]

In example (35), the speaker uses a Tok Pisin aspectual marker *save* 'HAB' (literally 'know'), which indicates habitual action, along with a nominalizing suffix. For more on the structural influences of Tok Pisin on Ulwa, see Chapter 17.

(35) *Nambi sawe anmoka ala **namnapen**.*
      *nï-ambi sawe anmoka ala   namna=p-**en***
      1SG-TOP HAB snake   from afraid=COP-NMLZ
      'As for me, I am afraid of snakes.' (*sawe* < TP *save* 'know'; habitual marker) [ulwa035_00:03]

While typically forming agentive nouns, the nominalizer suffix *-en* 'NMLZ' may also be used to create a more patientive noun (nomen patientis), which is derived not from the logical subject of the verb (36), but rather from the direct object (37).

(36) *apa **mayten** ankam mï*
      *apa   ma=ita-**en**   ankam mï*
      house 3SG.OBJ=build-NMLZ person 3SG.SUBJ
      'the person who is building the house' [elicited]

(37) ***iten** apa mï*
      ***ita-en**   apa   mï*
      build-NMLZ house 3SG.SUBJ
      'the house that is being built' [elicited]

There can therefore at times be ambiguity, as in (38).

(38) ***iten** mï*
      *ita-**en**   mï*
      build-NMLZ 3SG.SUBJ
      (a) 'the one who is building'
      (b) 'the one that is being built' [elicited]

Usually, however, the nature of the derivation is clear from context. Further examples of patientive nominalizations are given in (39) and (40).

(39) *Ambawanam Ngata ankam ambi anda ankam ango lïmndï **uten** me.*
*Ambawanam Ngata ankam ambi anda   ankam ango lïmndï uta-**en***
[name]   grand person big   SG.DIST person NEG eye   grind-NMLZ
me
NEG
'Ambawanam Ngata is that big person, a person who has never been seen.' (This could also mean 'a person who has never seen [something/anything]'.) [ulwa009_00:00]

(40) ***Nungunupen** ndï ngamana.*
*nungun-u-p-**en**   ndï nga=ma-na*
break-put-PFV-NMLZ 3PL SG.PROX=go-IRR
'The broken ones will go here.' [ulwa014_68:51]

Beyond agents and patients, the nominalizing suffix is not known to derive other semantic categories of nouns, such as instruments, locations, actions, or states.

Although the nominalizing suffix may serve certain aspectual functions, often it is difficult to discern the particular function of verbal ending with [-en]. Moreover, speakers may sometimes employ a paragogic /n/ at the end of clauses, especially those marked by the dependent marker *-e* 'DEP' (41) or the homophonous imperfective suffix *-e* 'IPFV' (42).

(41) *Ala yotnï mase mï **nipen**.*
*ala   yot=nï   ma=asa-e   mï   ni-p-e-**n***
PL.DIST machete=OBL 3SG.OBJ=hit-DEP 3SG.SUBJ die-PFV-DEP-?
'They hit him with a machete and he died.' [ulwa039_00:03]

(42) *Ndï ango kïkal **nïwanen**.*
*ndï ango kïkal nï=wana-e-**n***
3PL NEG ear   1SG=feel-IPFV-?
'They weren't listening to me.' [ulwa037_08:10]

5.3 Compound nouns

Although lacking inflectional morphology, nouns can nevertheless be polymorphemic, provided that they are formed by combining two or more lexical roots in a single compound word. In most instances, such compounds are formed exclusively from nouns, although it is also possible for compounds to include non-nominal elements. Some compounds are readily analyzable as being composed of two distinct lexical elements, whereas the sources of others are obscured somewhat by sound changes, and still others contain at least one entirely obscure element. Each of the compounds in (43) is transparently composed of two nouns.[4]

(43)   Compound nouns

apa ini	'floor'	< *apa* 'house' + *ini* 'ground'
apaka	'roof'	< *apa* 'house' + *ka* 'peak'
asiyot	'grass knife'	< *asi* 'grass' + *yot* 'machete, knife'
im nambï	'bark'	< *im* 'tree' + *nambï* 'skin'
im nangïn	'branch'	< *im* 'tree' + *nangïn* 'tongs'
inimnji	'dew'	< *inim* 'water' + *nji* 'thing'
lïmndï inim	'tear'	< *lïmndï* 'eye' + *inim* 'water'
nil nopa	'beard'	< *nil* 'body hair' + *nopa* 'cheek'
unduwan apïn	'headache'	< *unduwan* 'head' + *apïn* 'fire'
wala uta	'bat'	< *wala* 'rat species' + *uta* 'bird'
won inim	'semen'	< *won* 'penis' + *inim* 'water'
wutïmu	'toe'	< *wutï* 'leg, foot' + *mu* 'fruit, seed'
wutï yombam	'sole'	< *wutï* 'leg, foot' + *yombam* 'palm'
ya inim	'coconut milk'	< *ya* 'coconut' + *inim* 'water'
yawe	'sago fried with coconut'	< *ya* 'coconut' + *we* 'sago'

Most of these are compositional, endocentric compounds. For example, a 'roof' is the 'peak of a house', 'bark' is the 'skin (i.e., outside covering) of a tree', and

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[4]Some of these are writeen as multiple words (with a space between compound members), whereas others are written as single orthographic units. This decision is not always easy. When a phonological change (especially an irregular or strictly historical one) has obscured one or more elements of the compound, then it is written as one word. When the complete phonological integrity of all the compound members is maintained, however, then the compound members may be written with spaces between them. Complications arise, however, when regular phonological processes occur where two compound members meet: this is especially common when one member ends with a vowel and the following member begins with a vowel. In some cases, I have taken speaker preferences into consideration when deciding how to write compounds.

a 'grass knife' is a 'knife for (cutting) grass'. Although the head is almost always the second element, it is also possible for the head to come first, as in *nil nopa* 'beard', in which *nil* 'body hair', precedes *nopa* 'cheek'. While many compounds are completely literal, some contain a more metaphorical element. For example, a 'branch' is the 'tongs of a tree', a 'headache' is 'fire of the head', and a 'toe' is the 'fruit of the foot'. Also, not all compounds are strictly endocentric. The word *yawe* 'sago pancake cooked with coconut' is a copulative compound, and the word for 'bat' is an exocentric compound.[5]

Further compounding is possible – that is, compound nouns may consist of more than two lexical elements, as in (44)

(44)   Compound nouns containing three members
    imu unduwan   'thumb'   < *i* 'hand, arm' + *mu* 'fruit, seed' +
                                      unduwan 'head'
    wutïmu unduwan   'big toe'   < *wutï* 'leg, foot' *mu* 'fruit, seed' +
                                      unduwan 'head'

Compounds can be used productively to coin words for novel things, such as introduced foods. The word for 'rice', for example, is *asimu*, derived from *asi* 'grass' plus *mu* 'fruit, seed' – that is, 'seed of grass' (§16.9).

Sometimes, although a compound may be easily analyzable into two discrete lexical elements, the semantic derivation is nevertheless obscure. That is, it is not always clear how the meanings of two component morphemes interact to produce the resultant exocentric compound, as in the examples given in (45).

(45)   Semantically obscure nominal compounds

    apa imot   'veranda, awning'   < *apa* 'house' + *imot* 'log'
    nipum amba   'grassland'   < *nipum* '*kunai*' + *amba* 'men's house'

Some compounds, however, have undergone historical sound changes that have altered the shape of one or both constituent lexemes, as in the compounds given in (46).

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[5]That is, unless *uta* in the Ulwa taxonomy means 'flying non-insect animal' rather than 'bird', in which case the word for 'bat' is a regular endocentric compound, with the second element serving as the head.

(46) Nominal compounds exhibiting sound change

apep	'front of house'	<	*apa* 'house' + *ip* 'nose'
apïnsi	'ashes'	<	*apïn* 'fire' + *isi* 'ashes, salt'
apombam	'middle of house'	<	*apa* 'house' + *wombam* 'middle'
sinananangïn	'claw'	<	*sinanan* 'nail' + *nangïn* 'tongs'
tïlwa	'road, path'	<	*utï* 'foot' + *luwa* 'place'
wandapata	'fallow garden'	<	*wandam* 'garden' + *wapata* 'old, dry'

The first word in (46), *apep* 'front of house' is the product of a still productive phonological process of coalescence, which may optionally yield [e] from /a#i/ (cf. the similar coalescence of /i#a/ to [e], §4.7). The word *sinananangïn* 'claw' has likewise undergone only a minor change: the degemination of consecutive consonants (§4.5.8). The other words listed in (46), however, have undergone more drastic changes – that is, changes not apparently motivated by any regular phonological rules of the language.[6]

Although most compounds exhibit two (or more) nominal elements, there are also possibly examples of nominal compounds consisting of one non-nominal element (47).[7]

(47) Compound nouns possibly containing non-nominal members

limama	'jaw'	<	*li* 'down' + *mama* 'mouth'
yenanu	'woman, wife'	<	*yena* 'woman, wife' + *nu* 'near'

However, examples such as these can be problematic. Thus, although *li* 'down' may be considered an adverb, it can also be used as a noun, meaning, among other things, 'the downstream part of the village'. One complication in the form *yenanu* 'woman, wife' is the fact that, synchronically, it is synonymous with its putative compound member *yena* 'woman, wife' – thus, both can mean either 'woman' or 'wife'.[8]

In some cases – either because the phonological change has been too great or a lexical item remains too obscure – only one element of the compound is

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[6]Some of these changes may reflect the sort of phonological reductions common among high-frequency lexical items – that is, the case could be made that such compounds have more fully lexicalized than others. The word *wandapata* 'fallow garden' has lost both the final /m/ of *wandam* 'jungle, garden' and the initial /wa/ of *wapata* 'old, dry'; and the word for *apombam* 'middle of house' has lost both the final /a/ of *apa* 'house' and the initial /w/ of *wombam* 'middle'. I assume that *apïnsi* 'ashes' was coined to disambiguate *isi 'ashes' from *isi* 'salt'.

[7]Cf. also *wandapata* 'fallow garden' in (46).

[8]While it is possible that there was once a derivation of *yenanu* (*'wife') from *yena* (*'woman') plus *nu* ('near'), no semantic distinction currently exists between the words (§16.7).

identifiable or the semantic derivation from two putative elements is unclear, as in (48). Some of these unknown forms could be loanwords.

(48)   Compound nouns including members of unknown meaning

im kal	'sap'	<	*im* 'tree' + *kal* '?'
kat ambla	'molar'	<	*kat* '?' + *ambla* 'tooth'
kïkal indam	'temple (of the head)'	<	*kïkal* 'ear' + *indam* '?'
tumbu itïm	'outhouse, toilet'	<	*tumbu* '?' + *itïm* 'trash'

Sometimes the forms of both members in a compound have known meanings, but it is not clear how those two meanings combine to form the meaning of the compound. Perhaps the form of one of the compound members has some other meaning (i.e., a homophone) that is unknown to me; or perhaps the semantics of the compound are simply obscure (49).

(49)   Compound nouns with unclear derivations

aymoma	'stick for stirring jellied sago'	< *ay* 'jellied sago' + *moma* 'leaf species'
nipum amba	'grassland'	< *nipum* 'sword grass' + *amba* 'men's house'

5.4 Reduplication?

There does not appear to be any productive morphological process of reduplication in Ulwa. There are, however, a number of nouns that – at least phonologically – appear to exhibit full reduplication. If in fact any of these is derived from a single non-reduplicated lexical root, then this history has been lost to time, as the presumed root of the seemingly reduplicated word is meaningless on its own. Examples of nouns with apparent reduplication are given in (50).

(50)   Nouns with apparent reduplication

masamasa	'tree species'
mbatmbat	'tilapia'
metmet	'swamp dwarf'
misimisi	'story'
natnat	'greens'
ngungun	'red ant' (assuming < *ngun-ngun)

The noun *mbinmbin* 'grave' apparently results from the reduplication of a borrowing from Ap Ma, *mbɨn* 'land, ground' (§1.5), perhaps modeled as a superficial

calque of sorts of Tok Pisin *matmat* 'grave' (itself an unanalyzable "reduplication" in Tok Pisin).

There are, on the other hand, a few nouns that appear to be decomposable into two morphemes each, one a duplicate of the other (51).

(51)   Nouns with possibly meaningful reduplication

    wutïwutï   'duck'   < *wutï* 'leg, foot' (?)
    manjimanji 'maggot' < *njimana* 'housefly' (?)

Given the salience of the duck's waddle and the feet that accomplish it, it seems possible that its name was derived from the word for 'foot' (although it could just be a case of accidental homophony). Likewise, it is possible that *manjimanji* 'maggot' derives from reduplication (and reduction) of *njimana* 'housefly'.[9] At any rate, reduplication is certainly not a productive morphological process in Ulwa.

Apparent reduplication (and partial reduplication) also occurs in a several onomatopoetic words (§16.3), most notably in a number of terms for various frog and bird species (52).

(52)   Onomatopoetic nouns with reduplication

    wandïwandï 'frog species'
    kïlakïli   'frog species'
    popotala   'frog species'
    kulkul   'bird species'
    awalawa   'bird species'
    kukumali   'bird species'

Beyond the lexical class of nouns, we find a few other possible example of (nonproductive) reduplication (53).

(53)   Apparent reduplication in words other than nouns

    nini   'two'
    lele   'three'
    kekaka   'one each, one by one'
    nunu   'every'
    nipinpu- 'die.PL'

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[9]The form *njimana* 'housefly' might itself be derivative, possibly stemming from *nji* 'thing' plus *ma-na* 'go-IRR'.

The reduplication in *nini* 'two' may have been iconically motivated. The reduplication in *lele* 'three' may have then resulted by analogy (§9.5). The distributive quantifier *kekaka* (or *kwekaka*) 'one each, one by one' seems to derive from reduplication of the numeral *kwe ~ kwa* 'one'.[10] The distributive universal quantifier *nunu* 'every' apparently derives from reduplication, but its exact etymology is obscure. The historical derivation of the verb *nipinpu-* 'die.PL' may involve reduplication (and metathesis) of the inflected verb form *nip* 'die.SG [PFV]' (§6.3).

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[10]Cf. Tok Pisin *wanwan* 'one by one', from *wan* 'one'.

6 Verbs

This chapter is dedicated to the description and analysis of verbs in Ulwa. Verbs constitute the part of speech that exhibits the most inflection, variability, and irregularity. Non-verbal lexemes may function like verbs (that is, they may occur at the end of a clause and fulfill the role of predicate of the clause), but only true, underived verbs receive verbal morphology. Verbs in Ulwa are thus the words that can be inflected for the full range of tense-aspect-mood (TAM) distinctions in the language (1).[1]

(1) Verbs exhibiting verbal morphology (TAM suffixes)

kol-e   'break (imperfective)'
ita-p   'build (perfective)'
moko-na 'take (irrealis)'

There is no morphological indexing of subjects (i.e., S or A arguments) on verbs. Transitive verbs, however, may be preceded by an object-marker proclitic (§9.2), which may index direct objects (i.e., P arguments) (2). These markers can occur with verbs marked for any TAM category; they can occur both in positive and in negative sentences. No animacy distinction is found in verbs: animate and inanimate P arguments are indexed alike.

(2) Verbs exhibiting object-marker proclitics

ma=wali-   'hit it'
min=lo-   'cut two'
ndï=moko- 'take them'

Although verb phrases may consist of more than one word, a typical unmarked indicative clause contains exactly one inflected verb, which occurs at the end of the clause. In a transitive clause, the (direct) object immediately precedes the verb (3).

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[1]Here and throughout the book, the abbreviation "TAM" is used, largely due to its ubiquity in contemporary grammatical description. Tense, however, plays a minimal role in Ulwa verbal inflection. Verbs are primary inflected for distinctions in aspect and mood (§6.2).

(3)   *Ankam mï tïn **masap**.*
      ankam mï   tïn   ma=**asa**-p
      person 3SG.SUBJ dog 3SG.OBJ=hit-PFV
      'The person hit the dog.' [elicited]

There are no auxiliary verbs in Ulwa, at least none that serve as dedicated, productive, and obligatory means of providing grammatical marking. On the grammaticalization of 'go' to refer to future time, however, see §12.3; and on the perhaps recently innovated use of the locative verb *wap* 'be.PST' as an auxiliary verb (or particle), see §17.3.

A verb consists, minimally, of a stem (§6.1), to which an inflectional TAM suffix may be added (§6.2). To any of the TAM suffixes, the dependent-marker suffix *-e* 'DEP' may be added as well (§14.2.1).

6.1 The verb stem

Monomorphemic verbs in Ulwa (i.e., verbs that are not compounds), are generally disyllabic or, less commonly, monosyllabic. Verb stems generally end in vowels (4).

(4)   A selection of vowel-final verb stems

      ita-   'build'
      na-   'give'
      ale-   'scrape'
      ne-   'harvest'
      uni-   'shout'
      i-   'come'
      lopo-   'rain'
      wo-   'sleep'
      u-   'put'
      kï-   'say'

However, for most verbs, this final vowel is lost in the imperfective form, which takes the suffix *-e* 'IPFV'. There is also a small set of verbs that end in consonants. Interestingly, these verbs almost all belong to the same semantic domain of cutting, splitting, breaking, and so on (5).

(5)   Verbs with consonant-final stems

kol-	'break, split'
tukul-	'break (intransitive)'
kun-	'break, break off'
lomon-	'ignite, set fire to'
won-	'cut, cross'
klop-	'cross, pass'
kot-	'break; bear, give birth'
kamb-	'shun, avoid'

Some 'breaking' verbs may derive from collocations with the indefinite marker *ko=* 'INDF'.[2] Surprisingly (given the phonotactics of the language), the verb *kamb-* 'shun'[3] seems to have an underlying stem-final voiced stop (§4.1.2). In addition to the verbs in (5), the verb *ina-* 'get' seems to have an alternate consonant-final stem /in-/, which is used in the irrealis form [inda] (< /in-nda/). The locative verb *p-* 'be, be at', whose stem also ends in a consonant (indeed it consists entirely of a single consonant), is discussed at the end of §6.3.

Ulwa may be said to contain a relatively small number of verb roots. Although it is impossible to provide an exact count, the total number of verb roots in the language is certainly less than 100. What may be expressed by a single verb in English is often expressed in Ulwa by means of light verb constructions (§11.2.1–§11.2.3).

6.2 Basic verbal morphology

There is a basic three-way distinction in TAM in Ulwa, reflected in the choice of verbal suffix. The three forms are imperfective (§6.4), perfective (§6.5), and irrealis (§6.6) (6).

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[2]Thus, for example, *kol-* 'break' < *ko=* 'INDF' + *l[ï]-* 'put' (i.e., 'put a [piece]'), or *kot-* 'break' < *ko=* 'INDF' + *t[ï]-* 'take' (i.e., 'take a [piece]'). This compounding is in part suggested by the fact that Ulwa generally lost Proto-Keram *k- when word-initial in polysyllabic words, but preserved it in monosyllabic forms, such as *ko=* 'INDF'. Also, it should be noted that the verb *kot-* 'break, bear' is analyzed here as ending in /t-/ (and not †/ï-/), despite often exhibiting the perfective form [kotïp] and the irrealis form [kotïna]. The presence of [ï] in these forms, however, is taken to be phonetically motivated – that is, it is an epenthetic vowel breaking up the consonant cluster. Indeed, this vowel can be avoided in the perfective form in instances in which the /tp/ sequences can be broken across a syllable boundary (e.g., in the dependent-marked form [kot.pe]). Moreover, the conditional form of the verb *kot-* 'break, bear' is [kota] (not †[kotïta]), from underlying /kot-ta/ – in other words, instead of acquiring an epenthetic vowel, the /tt/ sequence simply degeminates (§4.5.8).

[3]Also its derivatives *ala-kamb-* 'dislike' and *na-kamb-* 'suffice'.

(6)   Basic TAM suffixes

    -e   imperfective ('IPFV')
    -p   perfective ('PFV')
    -na irrealis ('IRR')

Briefly, the imperfective aspect encodes events and states that are viewed as incomplete or ongoing; the perfective aspect encodes events and states that have reached their end (i.e., they are over and done with); and the irrealis mood encodes events or states not known to the speaker to have happened (i.e., unreal or hypothetical events and states), whether imperfective or perfective in aspect. This section provides an overview of the morphology of these three basic forms, as they appear in regular verbs. Irregular verbs (that is, verbs whose morphology does not in some way conform to the generalizations in this section) are discussed in §6.3.

The regular imperfective suffix *-e* 'IPFV' is homophonous with the dependent marker *-e* 'DEP' (§14.2.1). It is sometimes ambiguous which of these suffixes is marking a given verb or, indeed, whether both are underlyingly present on the same verb, since the double vowel sequence /ee/ would reduce to [e] in any case. However, at least with verbs with an irregular imperfective suffix (§6.3), it is clear that the two morphemes can co-occur (7).

(7)   Dependent marker and irregular imperfective suffix co-occurring

    a.   *mane*   b.   *tane*
         *ma-**n**-**e***   *ta-**n**-**e***
         go-IPFV-DEP   say-IPFV-DEP
         'going'   'saying'

Most verb stems end in a vowel, which deletes when immediately followed by the imperfective suffix *-e* 'IPFV' (§4.5.4).

The regular perfective suffix is *-p* 'PFV'. Aside from in a few irregular verbs (§6.3), this suffix always appears, quite transparently, suffixed to the verb stem. Although stem-final vowels are never lost before /p/, there is one notable phonological change that occurs in certain verb stems before the perfective suffix *-p* 'PFV', a change that has a rather specific conditioning environment. Namely, the high central vowel /ï/ is lowered to [a] when immediately following the voiceless velar stop and immediately preceding the voiceless bilabial stop (8).

(8)   Lowering of /ï/ to [a] in perfective verbs whose stems end in /kï/
     /ï/ → [a] / k _ p

This is known to affect only two verbs: *kï-* 'say' and *nïkï-* 'dig, cut'. The low vowel [a] may be seen in the perfective forms in the paradigms of these two verbs (Table 6.1).

Table 6.1: Lowering of /ï/ to [a] in perfective verbs whose stems end in /kï/

gloss	verb stem	imperfective	perfective	irrealis
'say'	*kï-*	*ke*	*ka**p***	*kïna*
'dig, cut'	*nïkï-*	*nïke*	*nïka**p***	*nïkïna*

As there are no known word forms in Ulwa that contain the sequence /kï/ immediately followed by a labial, it could be that †[kïp] ~ †[kïmb] is prohibited in the phonotactics of the language.[4]

Another interesting characteristic of the verb *nïkï-* 'dig, cut' is its propensity for eliding its initial high central vowel /ï/ entirely. In fact, it seems to be deleted in all instances where it is phonotactically permissible to do so. The examples in (9) illustrate how the addition of object markers can license elided forms, which would be unpronounceable without these immediately preceding elements.

(9)   Forms of the verb *nïkï-* 'dig' with and without an elided *ï*

   nïkap   'dig [PFV]'
   nïkïna   'dig [IRR]'
   mankap   'dig it [PFV]'
   ndïnkïna 'dig them [IRR]'

The last basic TAM morpheme to be considered is the irrealis suffix *-na* 'IRR'. It has the phonologically conditioned allomorph *-nda* 'IRR', which appears only when the preceding consonant is a sonorant (10).

(10)   Conditioned allomorphy of the irrealis suffix
   /n/ → [nd] / C [+SON] V_0 _ (in the irrealis verb form)

The exact phonetic underpinnings of this change are unclear. Perhaps this strengthening of /n/ to [nd] is a means of dissimilating a sequence of sonorants, a

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[4]While this a rather specific sequence to be prohibited in a language, there is diachronic support for it being disfavored in Ulwa. Forms that began with *kïp- and *kïmb- in Proto-West Keram are reflected as /nïp-/ and /nïmb-/, respectively, in Ulwa (e.g., *kïpa > *nïpa* 'breadfruit' > and *kïmbi[n] > *nïmban* 'fish species').

sequence which would, presumably, cause perceptual or articulatory challenges for listeners or speakers. Whatever the phonetic motivation, however, this alternation is quite regular, as illustrated by irrealis verb forms that have [nd] after a preceding sonorant consonants /l, n, m, w, y/ (11).

(11) Irrealis verb forms with the allomorph -*nda* 'IRR'

*la**nd**a*	'eat [IRR]'
*kol**nd**a*	'break, split [IRR]'
*ana**nd**a*	'scrub [IRR]'
*ku**nd**a*	'break (off) [IRR]'
*me**nd**a*	'sew [IRR]'
*lowo**nd**a*	'sleep [IRR]'
*liyu**nd**a*	'fall [IRR]'

Note that *kunda* 'break (off) [IRR]' is underlyingly /kun-nda/, having undergone quasi-degemination of the sequence /nnd/ (§4.1.4).

These forms may be compared with the irrealis forms given in (12), which have [n] when the preceding consonant is an obstruent /p, t, k, nd, ng, s/ (there are no known forms with preceding /mb/ or /nd/) or when there is no preceding consonant at all, as in the final example, *ina* 'come [IRR]'.

(12) Irrealis verb forms with the allomorph -*na* 'IRR'

*lo**p**o**n**a*	'rain [IRR]'
*i**t**a**n**a*	'build [IRR]'
*tï**n**a*	'take [IRR]'
*mo**k**o**n**a*	'take (one-by-one) [IRR]'
*i**nd**a**n**a*	'walk [IRR]'
*tï**n**a**ng**a**n**a*	'arise [IRR]'
*s**i**n**a*	'push [IRR]'
*i**n**a*	'come [IRR]'

The few exceptions to this pattern are treated with the discussion of irregular verbs (§6.3). Like the perfective suffix, the irrealis suffix does not condition the loss of a stem-final vowel. There is, however, one very specific environment in which this vowel may change. Namely, between /l/ and /nd/, underlying mid vowels /e, o/ are realized as high vowels [i, u] (13).

(13) Raising of /e, o/ to [i, u] in irrealis verbs whose stems end in /le/ or /lo/
      /e, o/ → [i, u] / l _ nd

The only two verbs that this process is known to affect are *ale-* 'scrape' and *lo-* 'cut, go', whose basic paradigms are given in Table 6.2. The phonetic motivation for this process is unclear. It could result from a form of hypercorrection or it could be related to a phonotactic constraint.[5]

Table 6.2: Raising of /e, o/ to [i, u] in irrealis verbs whose stems end in /le/ or /lo/

gloss	verb stem	imperfective	perfective	irrealis
'scrape'	*ale-*	*ale*	*alep*	*al**i**nda*
'cut, go'	*lo-*	*le*	*lop*	*l**u**nda*

It is worth noting that the raising of /o/ to [u] in *lunda* 'go [IRR]' must occur after the local vowel assimilation of /a/ to /o/ that occurs in the 3SG object marker when this marker is present (§4.5.7). In examples (14), (15), and (16), the 3SG.OBJ form [mo=] (as opposed to [ma=]) is seen accompanying each of the three basic TAM-marked verbs. The aforementioned rule ordering accounts for the surface form [molunda] in (16).

(14) *Yawat mï awal num **molop**.*
*Yawat mï awal num **ma**=lo-p*
[name] 3SG.SUBJ yesterday canoe 3SG.OBJ=cut-PFV
'Yawat made the canoe yesterday.' [elicited]

(15) *Yawat mï amun num **mole**.*
*Yawat mï amun num **ma**=lo-e*
[name] 3SG.SUBJ now canoe 3SG.OBJ=cut-IPFV
'Yawat is making the canoe now.' [elicited]

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[5]The hypercorrection hypothesis would run as follows: speakers are raising vowels they assume to have been lowered phonetically due to secondary nasalization from the following nasal gesture giving the vowel a perceived lower quality. The alternative hypothesis would be that there is a phonotactic constraint at play here, since there are no known forms †[-lend-] or †[-lond-] in Ulwa. Actually, since there are also no known instances of †[-len-] or †[-lon-], it is equally possible that this raising of /e/ and /o/ to [i] and [u], respectively, occurs before the morphophonemic change of /n/ to [nd]. This second hypothesis may be supported by the fact that the imperative forms of these verbs are *alin* 'scrape [IRR]' and *lun* 'cut, go [IRR]' (§6.7). It may also be the case, however, that the imperative forms are built by analogy to the irrealis forms; this is almost certainly the case with the conditional forms (§6.12), which are *alita* 'scrape [COND]' and *luta* 'cut, go [COND]', respectively.

(16) *Yawat mï umbe num **molunda**.*
      *Yawat   mï   umbe   num   **ma**=lo-nda*
      [name] 3sg.subj tomorrow canoe 3sg.obj=cut-irr
      'Yawat will make the boat tomorrow.' [elicited]

This set of examples also lends further support to the analysis that there are underlying stem-final vowels that are lost in imperfective forms, since the /o/ of the stem /lo-/ must have been present underlyingly in the imperfective verb form in order to have conditioned the change of /ma=/ to [mo=] in (8).[6]

Finally, it should be mentioned that I consider the basic set of three TAM suffixes to be obligatory aspectual and modal morphology. However, there are several verbs, all of them high-frequency lexical items with rather generic meanings, that seem capable of occurring without any TAM suffix, even when one is available to them. Usually, when they occur in this bare form, they also elide their stem-final vowel. The most common examples are given in (17).

(17) Abbreviated verb forms

      as 'hit'   < *asa-*
      l   'put'   < *lï-*
      s   'push'   < *si-*
      t   'say'   < *ta-*
      t   'take'   < *tï-*

It may be the case that such verbs are undergoing a process of grammaticalization.

6.3 Irregular verbs and suppletion

This section is devoted to describing the morphology of verbs that in one way or another do not conform to the patterns described in §6.2 – that is, verbs that exhibit unexpected TAM suffixes, verbs that are defective in that they lack certain forms or may be uninflected for certain TAM designations, or verbs that have suppletive forms that come from unrelated stems.

First, there is a set of verbs that have *-n* 'pfv' as their perfective suffix, instead of the expected regular form *-p* 'pfv', a shown in Table 6.3.

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[6]It may be noted that the common imperative (or jussive) *nol* '(let's) go!' is likely derived from the verb *lo-* 'cut, go'. In this analysis, the form derives from *na-lo-n* 'detr-go-imp', the /o/ first raising to [u] (13), then the /l/ and /u/ metathesizing (§4.6), then the sequence /au/ becoming the monophthong [o] (§4.5.2), and then the final /n/ of this high-frequency word being elided (i.e., apocopated).

Table 6.3: Verbs with the irregular perfective suffix *-n* 'PFV'

gloss	verb stem	imperfective	perfective	irrealis
'take'	*tï-*	*te ~ tï ~ t*	*tïn ~ tï ~ t*	*tïna*
'give'	*na-*	–	*nan ~ nana*	*nanda*
'come'	*i-*	*[man]*	*in*	*ina*

The first verb listed in Table 6.3, *tï-* 'take', is often defective, especially when used in multi-verb constructions with *na-* 'give' to express 'giving' events (§13.3). The final central vowel /ï/ of the stem is often lost in such defective verb forms, but may, alternatively, be present. Its presence in such instances is taken to be phonetically motivated – that is, it is assumed that, in the imperfective and perfective forms, the final vowel /ï/ of this verb is always lost, but, when the resulting form [t] is followed by a consonant, an epenthetic [ï] emerges to break up the forbidden consonant cluster. Otherwise, when present, the perfective suffix is *-n* 'PFV'. The irrealis suffix is the expected form *-na* 'IRR'. When this verb occurs in its reduced form [t], it often appears to cliticize to a following vowel-initial word.

The second verb, *na-* 'give', also has *-n* 'PFV' as its perfective suffix, although this may optionally be realized (perhaps for added emphasis) as *-na* 'PFV'. The irrealis suffix *-nda* 'IRR' is regular – that is, it is the expected allomorph of *-na* 'IRR', given that the preceding consonant is a sonorant (§6.2). The verb *na-* 'give' is defective in another sense: there is no distinct imperfective form (i.e., there is no form [†]/ne/); the perfective form, however, may be used to convey imperfective aspect, if needed.

The third verb, *i-* 'come', relies on a suppletive form based on the stem *ma-* 'go' for its imperfective form.

Another verb, *si-* 'push', has a unique perfective suffix, *-al* 'PFV'. It is also common for this verb to use the bare stem [si] as the perfective form – that is, the final vowel may be retained.[7] The paradigm for *si-* 'push' is given in Table 6.4.

In yet another set of verbs, there is an unusual prefix-like form that occurs in the irrealis mood, in addition to the expected irrealis suffix. Thus, these forms appear to have something like circumfixes encoding irrealis mood. The verbs in question are given in Table 6.5.

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[7]An alternative analysis would be that this verb results from a historical periphrastic verbal construction consisting of *tï-* 'take' and *i* 'go.PFV' (§12.3), with initial *t having spirantized to [s] immediately preceding the high front vowel *i. In this analysis, the irrealis form [sina] would derive from *tï-* 'take' plus *i-na* 'come-IRR'.

Table 6.4: The irregular verb *si-* 'push', with perfective suffix *-al* 'PFV'

gloss	verb stem	imperfective	perfective	irrealis
'push'	*si-*	*se*	*s**al** ~ si*	*sina*

Table 6.5: Verbs with the apparent irrealis circumfix *la-* ... *-n(d)a*

gloss	verb stem	imperfective	perfective	irrealis
'let'	*ka-*	–	–	***la**ka**na***
'sleep'	*wo-*	*wowe*	*wop*	***lo**wo**nda***
'eat'	*ama-*	*ame*	*amap*	***landa***

All the irrealis forms given in Table 6.5 appear, at least historically, to have the same prefix-like element, /la-/, which is mostly clearly seen in *lakana* 'let, leave, allow [IRR]'. The form *lowonda* 'sleep [IRR]' likely derives from *la-wo-nda, the *a having been rounded and raised by the following labial-velar /w/. The suffix *-nda* 'IRR' is the expected allomorph following the sonorant /w/. The form *landa* 'eat [IRR]' perhaps derives from *la-am-nda, the initial *a having deleted before the following vowel (§4.5.5) and the *m having been lost after assimilating in place to the following nasal gesture. Here, too, the suffix *-nda* 'IRR' is expected, following the sonorant /l/. This initial [la] may be a fossilized form of the detransitivizing prefix *la- (§15.8.1, §20.4).

The verb *ka-* 'let, leave, allow' is highly defective, lacking TAM morphology for both imperfective and perfective forms; for these TAM distinctions, the bare stem [ka] is used, instead of the predicted forms [†][ke] for 'let [IPFV]' and [†][kap] for 'let [PFV]'. This verb is used in separable verb constructions (§11.2.3).

The verb *wo-* 'sleep' does not lose its final vowel before the imperfective suffix *-e* 'IPFV'. Rather, the /-o/ of the stem remains. This verb has an alternate stem /wow-/ used for imperfective aspect.

Three verbs have stems consisting of just a vowel, as shown in Table 6.6. (The verb *i* 'come' is also included in Table 6.3.)

Both *a-* 'break' and *u-* 'put' exhibit the unexpected allomorph *-nda* 'IRR' – unexpected because there is no preceding sonorant consonant, unless the glides [y] and [w] of the respective imperfective forms are somehow in the underlying form of the irrealis forms or otherwise influencing a fortition of /-na/ to [-nda]. In the imperfective forms of these verbs, the stem-final vowel is not lost. Indeed,

Table 6.6: Verb stems consisting of just a vowel

gloss	verb stem	imperfective	perfective	irrealis
'break'	*a-*	*aye*	*ap*	*anda*
'come'	*i-*	*[man]*	*in*	*ina*
'put'	*u-*	*awe*	*up*	*unda*

that would mean the loss of the entire phonological content of the verb stem.[8]
The verb *u-* 'put' is used in a number of separable verb constructions (§11.2.2).
The imperfective form of this verb is sometimes reduced to [aw].

Three high-frequency verbs that are also highly irregular are *ma-* 'go', *andï-* 'see', and *asa-* 'hit, kill', the last of which is in a suppletive relationship with *wali-* 'hit, kill'. These verbs are shown in Table 6.7.

Table 6.7: The irregular verbs 'go', 'see', and 'hit, kill'

gloss	verb stem	imperfective	perfective	irrealis
'go'	*ma-*	*man*	*[i]*	*mana*
'see'	*andï-*	*[ala]*	*andïm ~ [ala]*	*andïna*
'hit, kill'	*asa-*	*ase*	*asap ~ as*	*atïna ~ atïm*
				~ [walinda]
'hit, kill'	*wali-*	*wale*	*[asap]*	*walinda*

First, the verb *ma-* 'go' does not have a perfective form derived from this stem. Rather, the bare stem of the verb *i-* 'come' is used to encode perfective aspect for this verb. The imperfective form [man] is very strange in that it employs the suffix *-n* 'IPFV', which is otherwise found as an irregular perfective marker, as for the verbs *tï-* 'take' and *na-* 'give' (Table 6.3). The irrealis form [mana] is also irregular, in that it exhibits the suffix *-na* 'IRR' (not [†-nda]), despite the presence of the preceding sonorant consonant /m/.

Second, the verb *andï-* 'see' has a suppletive imperfective form [ala], built from a different stem. This form is also commonly used with perfective meaning. The

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[8]Instead, the imperfective forms appear to be derived from the stem-plus-dependent marker. For the verb *a-* 'break' this entails the derivation *a-e > [aye], with an epenthetic glide /y/ breaking up the VV sequence. For the verb *u-* 'put', the derivation of the imperfective form is probably as follows: *u-e > *uwe > [awe], the initial *u having been lowered as a means of dissimilating it from the following high back glide /w/.

perfective form built on the stem [andï-] has the unusual suffix *-m* 'PFV'. This form is much less commonly used than [ala], which is used for perfective as well as imperfective meaning. The irrealis form is the regular [andïna], which may be shortened to [andïn].

Third, the verb *asa-* 'hit, kill' does not have the predicted irrealis form †[asana]. Instead, one of two irregular forms is used, [atïna] or [atïm], the first of which exhibits the regular irrealis suffix *-na* 'IRR'.[9] The final [-m] of the alternate irrealis form [atïm] is even harder to account for, especially since this /-m/ ending is used with perfective meaning in the verb *andï-* 'see'.[10] Most commonly, however, instead of [atïna] or [atïm], the suppletive form [walinda] is used for the irrealis mood. This form comes from the verb stem *wali-* 'hit kill', which itself relies on suppletion for its otherwise lacking perfective form. The verb *asa-* 'hit, kill' often appears without TAM marking, perhaps especially when it has perfective meaning.

Table 6.8 includes the paradigms for verbs that are missing basic forms, including the verbs *na-* 'give' (cf. Table 6.3) and *ka-* 'let' (cf. Table 6.5).

Table 6.8: Defective verbs

gloss	verb stem	imperfective	perfective	irrealis
'give'	*na-*	–	*nan ~ nana*	*nanda*
'let'	*ka-*	–	–	*lakana*
'arise'	*tïnanga-*	–	–	*tïnangana*
'feel'	*wana-*	–	–	*wananda*
'put'	*lumo-*	–	*lumop*	–

The verb *tïnanga-* 'arise' lacks imperfective and perfective forms; the bare stem may be used for these aspects. The irrealis form is regular. Similarly, the verb *wana-* 'feel' relies on its bare stem for the imperfective and perfective forms. Although the form [wan] sometimes occurs, it seems simply to be a phonetically reduced form of the stem, not a morphologically conditioned imperfective form, despite its missing stem-final vowel – [wan] is found both with imperfective and with perfective meaning.

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[9]The nature of the apparent stem change (i.e., [atï-] instead of †[asa-]) is not clear, but there could be alternate forms of this root, at least historically, as suggested by the noun *at* 'fight, battle'.

[10]This form (with both its perfective meaning and its irrealis meaning) may derive from a non-finite verbal suffix *-m. Compare a similar form in Pondi (Barlow 2020b: 61–62).

The verb *lumo-* 'put' is only found in the perfective form and in conditional forms (§6.12). This verb is also used in separable verb constructions (§11.2.2).

Two verbs remain to be discussed in this section: *ta-* 'say' and *li-* 'fall'. The basic paradigm for *ta-* 'say' is given in Table 6.9.

Table 6.9: The irregular verb *ta-* 'say'

gloss	verb stem	imperfective	perfective	irrealis
'say'	*ta-*	*tan ~ t*	*tap ~ t*	*tana*

Like *ma-* 'go', the verb *ta-* 'say' has the irregular imperfective suffix *-n* 'ɪᴘғᴠ'. Furthermore, this high-frequency verb is commonly used (especially in perfective aspect) without any overt TAM marking. Like *tï-* 'take', its stem-final central vowel is lost in such instances. The loss of /a/ is not optional when the verb is used without any TAM suffixation (i.e., the form ⁺[ta] 'say' is completely unattested).

The verb *li-* 'fall' is transparently derived from the adverb *li* 'down' and the verb *u-* 'put' (see §11.2.2 for similar constructions). A paradigm for *li-* 'fall' is given in Table 6.10. It has, however, undergone phonological changes in its various forms. The imperfective form [liwe] derives from *li-awe, the /a/ having been elided. The perfective form [liyu] derives from *li-up: while the epenthetic [y] is indeed expected (§4.5.1), the loss of final /-p/ is difficult to explain. The irrealis form [liyunda], which derives from *li-unda, also employs an epenthetic [y] to break up two consecutive vowels.

Table 6.10: The irregular verb *li-* 'fall'

gloss	verb stem	imperfective	perfective	irrealis
'fall'	*li-*	*liwe*	*liyu*	*liyunda*

In all such instances of irregularity or suppletion in verb stems, the alternations are conditioned by TAM distinctions. There are no verbs whose stems alter according to the person of an argument, whether subject or object. There may be one verb, however, that exhibits an alternation based on the number of the subject argument. The verb stem *ni-* 'die' appears to have a weakly suppletive stem *nipinpu-* 'die.ᴘʟ' that is used when the subject is plural (or the event is iterative), thus representing perhaps a solitary example of pluractionality. This pluractional

verb form appears to be a compound containing *u-* 'put' (see §11.2.2). Examples are given in (18) through (21).

(18)   *Ipka ndan matmat mbu ulwa pe ndï ankam ndï **nipinpawe**.*
     ipka   anda-n   matmat mbï-u   ulwa   p-e   ndï ankam ndï
     before sg.dist-obl cemetery here-from nothing be-dep 3pl person 3pl
     nipinp*-*aw*-*e
     die.pl-put.ipfv-dep
     'In the past, there was no cemetery here, but they, the people, were dying.'
     (*matmat* = TP) [ulwa028_04:26]

(19)   *Ndï **nipunpup**.*
     *ndï **nipunp**-*u*-*p**
     3pl die.pl-put-pfv
     'They have died.' [ulwa037_27:16]

(20)   *Maka lepen ngusuwa ndï wopa **nipinpup** ulwap.*
     *maka lo-p-en   ngusuwa ndï wopa **nipinp**-*u*-*p*   ulwa=p*
     thus go-pfv-nmlz poor   3pl all   die.pl-put-pfv nothing=cop
     'But the poor things who used to go around like that have all died completely.'[11] [ulwa032_48:58]

(21)   *Ankam wa **nipunpunda**.*
     *ankam wa **nipunp**-*u*-*nda**
     person just die.pl-put-irr
     'People will just die.' [ulwa037_25:33]

There is some variability in the pronunciation of the second vowel of *nipinpu-* 'die.pl', often being pronounced [u] (i.e., [nipunpu]) perhaps under influence from the following /u/. It may be possible for *ni-* 'die' to be used optionally with plural subjects or events, but this seems rarely to be the case (the only examples of plural *ni-* 'die' come from elicitations). On the other hand, the use of *nipinpu* 'die.pl' with a singular subject will produce a semantically unlikely interpretation, as illustrated by the elicited examples (22), (23), and (24).

(22)   *Ndï **nipunpup**.*
     *ndï **nipunp**-*u*-*p**
     3pl die.pl-put-pfv
     'They died one by one.' [elicited]

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[11]The pronunciation [lepen] is unexpected.

(23)   *Mï awal **nip**.*
       *mï   awal   **ni**-p*
       3SG.SUBJ yesterday die-PFV
       'He died yesterday.' [elicited]

(24)   ? *Mï awal **nipunpup**.*
        *mï   awal   **nipunp**-u-p*
        3PSG.SUBJ yesterday die.PL-put-PFV
        (a) 'He kept dying yesterday.' (?)
        (b) 'He died again and again yesterday.' (?) [elicited]

Similar highly restricted examples of verbal number are found throughout the Keram family, as in Pondi *alas-* ~ *alawa-* 'fly' (Barlow 2020b: 124), Mwakai *wura-* ~ *wurura-* 'fly' (Barlow 2020a: 78), and Ambakich *krɨ-* ~ *kano* 'fall' (Barlow 2021: 70). Some of these forms (including Ulwa *nipinpu-* 'die.PL') may derive from iconic reduplication. Reduplication, however, does not ever seem to have been a productive morphological process in the family.

One final irregular verb to be considered is the locative verb *p-* 'be, be at (be located at)'. This verb may be considered defective in that it does not encode any aspect. It can be used to refer either to past or to present time. There is, however, an irrealis form [pïna], which has an epenthetic [ï] to break up the /pn/ consonant cluster. A weakly suppletive form *wap* 'be.PST', perhaps derived historically from the modal adverb *wa* 'just' (?) plus *p-* 'be', may be used to refer explicitly to past time. See §12.1 for the use of the locative verb *p-* 'be', see §12.3 for the formally related copular enclitic *=p* 'COP', see §12.4 for the form *wap* 'be.PST', and see §17.3 for possibly contact-influenced uses of *wap* 'be.PST'.

6.4 Imperfective aspect

The imperfective aspect reflects atelicity. If an event did not reach or has not reached its end, whether in past or present time, the verb encoding it usually receives imperfective marking. In other words, imperfective morphology signals continuous, habitual, or iterative happenings or states.

Sentences (25) through (31) exemplify the imperfective aspect as it applies to different verbs.

(25)   *Malman mï amun lamndu **mase**.*
       *Malman mï   amun lamndu ma=asa-**e***
       [name] 3SG.SUBJ now   pig   3SG.OBJ=hit-IPFV
       'Malman is killing the pig now.' [elicited]

(26) *Anam mï amun apa **mayte**.*
      *Anam   mï   amun apa   ma=ita-**e***
      [name] 3SG.SUBJ now   house 3SG.OBJ=build-IPFV
      'Anam is building the house now.' [elicited]

(27) *Anam mï awal apa **mayte**.*
      *Anam   mï   awal   apa   ma=ita-**e***
      [name] 3SG.SUBJ yesterday house 3SG.OBJ=build-IPFV
      'Anam was building the house yesterday.' (Implication: the process was ongoing yesterday or he has not finished.) [elicited]

(28) *Inom mï ya **ute**.*
      *inom   mï   ya   uta-**e***
      mother 3SG.SUBJ coconut grind-IPFV
      'Mother is grinding coconut.' [elicited]

(29) *Inom mï ipka ya **ute**.*
      *inom   mï   ipka   ya   uta-**e***
      mother 3SG.SUBJ before coconut grind-IPFV
      'Mother was grinding coconut earlier.' (Implication: she was continuing to grind it.) [elicited]

(30) *Itom mï amun **inde**.*
      *itom   mï   amun inda-**e***
      father 3SG.SUBJ now   walk-IPFV
      'Father is walking now.' [elicited]

(31) *Itom mï utam **mame**.*
      *itom   mï   utam ma=ama-**e***
      father 3SG.SUBJ yam   3SG.OBJ=eat-IPFV
      'Father was eating the yam.' [elicited]

Sentence (32) provides an example of the irregular imperfective suffix *-n* 'IPFV', found on the verb *ma-* 'go'.

(32) *Tïn mï ankam maya **man**.*
      *tïn   mï   ankam ma=iya   ma-**n***
      dig 3SG.SUBJ person 3SG.OBJ=toward go-IPFV
      'The dog is going toward the person.' [elicited]

Habitual action may also be indicated by use of the imperfective suffix. In examples (33) through (37), atelic verbs are used to refer not to events that occur at one particular time, but rather to regular occurrences.

(33)   *Inom mï alum nunu ilom mat **inde**.*
      *inom   mï   alum nunu ilom ma=tï   inda-**e***
      mother 3SG.SUBJ child every day 3SG.OBJ=take walk-IPRV
      'Mother carries the baby every day.' [elicited]

(34)   *Ginam mï mïnda **ame**.*
      *Ginam mï   mïnda ama-**e***
      [name] 3SG.SUBJ banana eat-IPFV
      'Ginam eats bananas.' [elicited]

(35)   *Ginam mï ipka mïnda **ame**.*
      *Ginam mï   ipka   mïnda ama-**e***
      [name] 3SG.SUBJ before banana eat-IPFV
      'Ginam used to eat bananas before.' [elicited]

(36)   *Mï **ane**.*
      *mï   an=na-**e***
      3SG.SUBJ 1PL.EXCL=feed-IPFV
      'She would feed us.' [ulwa013_00:33]

(37)   *Nïnji inom mï nït **inde**.*
      *nï-nji   inom   mï   nï=tï   inda-**e***
      1SG-POSS mother 3SG.SUBJ 1SG=take walk-IPFV
      'My mother used to carry me around.' [ulwa013_00:34]

Another use of imperfective forms is to signal that an action began or is beginning. For the form and function of the inchoative imperfective, see §6.10.

6.5 Perfective aspect

Perfective aspect is applied to events that have reached their logical conclusion. This is, arguably, the semantically unmarked form for a verb to take when referring to past time. When a perfective form refers to present time, the verbal morphology suggests that an event has just now happened. The regular perfective suffix is *-p* 'PFV'. Sentences (38) through (40) illustrate the use of the perfective aspect.

(38) *Mï awal mïnda **mamap**.*
  mï   awal   mïnda   ma=ama-**p**
  3sg.subj yesterday banana 3sg.obj=eat-pfv
  'He ate the banana yesterday.' [elicited]

(39) *Mï amun mïnda **mamap**.*
  mï   amun mïnda   ma=ama-**p**
  3sg.subj now   banana 3sg.obj=eat-pfv
  'He just now ate the banana.' [elicited]

(40) *Banjiwa mï numbu **manip**.*
  *Banjiwa mï   numbu   ma=ni-**p***
  [name] 3sg.subj garamut 3sg.obj=beat-pfv
  'Banjiwa has beaten the *garamut* drum.' [elicited]

6.6 Irrealis mood

The third major TAM suffix does not encode the aspect of an event, but rather its mood: irrealis mood applies to unreal or hypothetical events and states. The irrealis suffix is *-na* 'irr', which has the phonologically conditioned allomorph *-nda* 'irr' (§6.2).

   The irrealis mood can be applied to verbs referring to events thought of as occurring in any temporal frame. Examples (41) and (42) are both translated in English as occurring in the future. As a time frame that is perforce hypothetical or not (yet) real, the future is almost always encoded in Ulwa with irrealis verb forms. Note that aspect – perfective or imperfective – is not specified by the irrealis suffix, as suggested by the multiple translations in (41) and (42).

(41) *Gambri mï umbe apa **maytana**.*
  *Gambri mï   umbe   apa   ma=ita-**na***
  [name] 3sg.subj tomorrow house 3sg.obj=build-irr
  (a) 'Gambri will build the house tomorrow.'
  (b) 'Gambri will be building the house tomorrow.' [elicited]

(42) *Nungol ndï wambana **nduwananda**.*
  *nungol ndï wambana ndï=wana-**nda***
  child   3pl fish   3pl=cook-irr
  (a) 'The children will cook the fish.'
  (b) 'The children will be cooking the fish.' [elicited]

The irrealis suffix can express a number of modal distinctions, such as deontic ('should', 'must'), abilitative ('can', 'could'), and optative ('would that') moods, as illustrated by (43).

(43) *Gambri mï (tap) apa **maytana**.*
      *Gambri mï   (tap)   apa   ma=ita-**na***
      [name] 3SG.SUBJ (maybe) house 3SG.OBJ=build-IRR
      (a) 'Gambri should build the house.'
      (b) 'Gambri can build the house.'
      (c) 'Would that Gambri were building the house!' [elicited]

The epistemic adverb *tap* 'maybe' is often possible in these sentences, but it is not necessary for conveying irrealis mood (§10.2.4). Note, however, that *tap* 'maybe' cannot be used when the speaker wishes to convey that the action will necessarily happen (i.e., 'will', 'must'). Thus, sentence (43) (with *tap* 'maybe' included), cannot mean *'Gambri will build the house' or *'Gambri must build the house'.

When used in reference to past time, the irrealis mood indicates potential (i.e., ability) or lack thereof (44).

(44) *Ndï ango luwa miniya **mana**.*
      *ndï ango luwa min=iya   ma-**na***
      3PL NEG place 3DU=toward go-IRR
      'They could not go to them.' (Literally 'They nowhere could go to them.')
      [ulwa001_18:34]

When used in reference to past time, the irrealis mood can also indicate a counterfactual statement, as in (45).

(45) *Awal maka nungol ndul li **mana**.*
      *awal   maka nungol ndï=ul   li   ma-**na***
      yesterday thus child 3PL=with down go-IRR
      '[He] would have gone down with [his] children yesterday.'
      [ulwa014_33:22]

Sentence (45) is proven to be counterfactual by the speaker's immediately following sentence (46), which shows that this intended action of the man going with his children was unrealized.

(46)   *Ticha ngala mbiye em i stap.*
       ticha   ngala   mbï-i-e   em i   stap
       teacher PL.PROX here-go.PFV-DEP 3SG PRED stay
       'But these teachers came, so he stayed.' (*ticha, em, i, stap* = TP)
       [ulwa014_33:26]

In some multiclausal constructions, the irrealis form of a verb may be best translated by an English infinitive, showing purpose or intention, as in (47) and (48).

(47)   *Wa me ndul **landa**.*
       wa   ma=i   ndï=ul   la-**nda**
       village 3SG.OBJ=go.PFV 3PL=with eat-IRR
       '[They] went home to eat with them.' [ulwa002_05:56]

(48)   *Malimap matï yawa **mananda**.*
       ma=alima-p   ma=tï   yawa ma=na-**nda**
       3SG.OBJ=beat-PFV 3SG.OBJ=take uncle 3SG.OBJ=give-IRR
       '[We] beat it [= sago starch] to give to [our] uncle.' [ulwa014_00:15]

Sentences such as (47) and (48) are analyzed as consisting of two full clauses, so there is actually nothing akin syntactically to the English infinitive. The absence of dependent marking (§14.2.1) on the first clauses of examples (47) and (48) suggests that the clauses containing these purpose-denoting irrealis verbs are actually independent sentences, without any sentences dependent upon them. Thus, the irrealis suffix can be considered here a means of imbuing a desiderative or intentive meaning to the verb. Thus, (47) could be translated '[They] went home; [they] wanted to eat with them'; and (48) could be translated '[We] beat it; [we] intended to give it to [our] uncle'.

6.7 Imperative

The three basic TAM markings in Ulwa account for much of the suffixal verbal morphology of all declarative and interrogative sentences. In imperative sentences, however, verbs in Ulwa may receive the imperative suffix -*n* 'IMP'. For the syntax and function of imperative clauses in Ulwa, see §15.2.

Table 6.11 presents a sample of Ulwa verbs to illustrate their imperative forms, shown along with the irrealis forms for comparison.

Table 6.11: Some imperative verb forms

gloss	verb stem(s)	irrealis	imperative
'eat'	*ama-, la-*	*landa*	*lan*
'let'	*ka-, laka-*	*lakana*	*lakan*
'say'	*kï-, ka-*	*kïna*	*kïn*
'cut, go'	*lo-, lu-*	*lunda*	*lun*
'go'	*ma-, i-*	*mana*	*man*
'sew'	*me-*	*menda*	*men*
'give'	*na-*	*nanda*	*nan*
'put'	*u-*	*unda*	*un*
'hit'	*wali-*	*walinda*	*walin*

The form [-n] found in imperative verbs may be related historically to the irrealis suffix *-na* 'IRR'. [12]

6.8 The double perfective

As detailed in sections §6.4–§6.7, an inflected verb in Ulwa typically has exactly one TAM suffix (which may be null in certain imperfective verb forms). There are circumstances, however, in which perfective verbs may be marked twice – that is, they take the form: [stem]-[PFV]-[PFV]. In such instances, the second perfective marker adopts the vowel from the verb stem, preventing the otherwise impossible sequence [†][pp]. Thus, for example, verbs with [a]-final stems have the form [stem]-[p]-[ap], and verbs with [o]-final stems have the form [stem]-[p]-[op] (although there seems to be some variation allowed).

The semantic effect of this double perfective is often one of signaling that an action is all-the-more over-and-done-with. Since a single perfective marker typically signals that the event is viewed as whole and completed, this double

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[12]At any rate, there is indeed something kindred between irrealis and imperative forms, since, in irregular verbs that exhibit different stems in the irrealis mood, the imperative ending will affix to the irrealis verb stem, never to the perfective/imperfective stem. Thus, for example, the imperative of 'eat' is [lan] (cf. *la-nda* 'eat [IRR]') and not [†][aman] (cf. *ama-p* 'eat [PFV]') and the imperative of 'let' is [lakan] (cf. *laka-na* 'let [IRR]') and not [†][kan] (cf. *ka* 'let [IPFV/PFV]'). Furthermore, there is a semantic similarity between the two suffixes, since, among other things, the irrealis suffix can encode deontic mood (i.e., 'must'), which, when expressed in an utterance, is not unlike issuing an imperative.

marking could be seen as superfluous.[13] There are instances, however, in which the double perfective functions something like the pluperfect category of some European languages, showing that an event is not only viewed as a completed whole, but that is has been completed before the time of some other event in the more-recent past. These usages can often be translated with the English auxiliary 'had' plus the past participle, as in examples (49) through (53).

(49) *Man **nïkapap**.*
      *ma=n   nï=kï-**p-ap***
      3SG.OBJ=OBL 1SG=say-PFV-PFV
      '[She] had told me.' [ulwa014_11:15]

(50) *Mana man **masapap**.*
      *mana ma=n   ma=asa-**p-ap***
      spear 3SG.OBJ=OBL 3SG.OBJ=hit-PFV-PFV
      '[They] had killed him with a spear.' [ulwa037_11:41]

(51) *Nï mape Madang pe **ndïlopop**.*
      *nï ma=p-e   Madang p-e   ndï=lo-**p-op***
      1SG 3SG.OBJ=be-DEP [place] be-DEP 3PL=cut-PFV-PFV
      'I had made them when I was there in Madang.' [ulwa014_11:34]

(52) *Ndïnji inga mol **lopope**.*
      *ndï-nji   inga ma=ul   lo-**p-op**-e*
      3PL-POSS affine 3SG.OBJ=with go-PFV-PFV-DEP
      '[They] had gone with their in-law.' [ulwa035_03:33]

(53) *Asika lïmndï **ndïlpïpe** ngala luke asi tï nap ndala une.*
      *asi-ka lïmndï ndï=lï-**p-ïp**-e   ngala   luke asi tï na-p   ndï=ala*
      sit-let eye   3PL=put-PFV-PFV-DEP PL.PROX too sit take DETR-be 3PL=for
      uni-e
      shout-IPFV
      'After [they] had sat and watched them, these people also took seats, cheering them on.' [ulwa032_36:45]

The double perfective can, similarly, provide the sense of 'already', and is translated accordingly in (54).

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[13]Indeed, it may be that – as speakers use different TAM suffixes ever more interchangeably, perhaps as the result of grammatical attrition – the extra perfective marking is simply redundant (see Chapter 17 for structural changes due to grammatical attrition).

(54) *Numbu ala **nungunupop**.*
      *numbu ala   nungun-u-**p**-**op***
      post   PL.DIST break-put-PFV-PFV
      'Those posts have already broken.' [ulwa042_05:18]

It is also possible for the word *ta* 'already' to appear within a clause exhibiting such a construction (55).[14]

(55) *Nïnji wot yena mï ta **nipop**.*
      *nï-nji   wot   yena   mï   **ta**   ni-**p**-**op***
      1SG-POSS younger woman 3SG.SUBJ already die-PFV-PFV
      'My younger sister has already died.' [ulwa027_00:33]

Sentences (54) and (55) also illustrate the fact that the vowels in the second perfective suffix do not always match the final vowel of the verb stem. Indeed, there is variability within certain verb forms. For example, there are attested forms such as *lï-p-ap* 'put-PFV-PFV' alongside *lï-p-ïp* 'put-PFV-PFV', as seen in (53). It may be that some of these putative second perfective forms are actually reduced forms of the past locative verb *wap* 'be.PST' (§12.4).[15] Sentences (56) and (57) further exemplify the form [-op], following the stem-final vowels /i/ and /u/, respectively.

(56) *Ane nda ine nda **nipop**.*
      *ane anda   i-n-e   anda   ni-**p**-**op***
      sun SG.DIST come-PFV-DEP SG.DIST die-PFV-PFV
      'That [woman] died the day before yesterday.' [ulwa037_36:02]

(57) *John maweka i Mongima ul ngalan **upop**.*
      *John   maweka i   Mongima ul   ngala=n   **u-p-op***
      [name] also   go.PFV [name]   with PL.PROX=OBL put-PFV-PFV
      'John had also gone and planted these with Mongima.' [ulwa014_55:24]

In many instances, as in (58) and (59), it is not clear whether the inclusion of a double perfective should be taken to convey any sense different from that of a regular (i.e., single) perfective verb form.

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[14]In example (55), however, it may be that the form /nip/ has been reanalyzed as monomorphemic, a new verb 'die', derived from the perfective form of the verb *ni-* 'die' (cf. the pluractional version of this verb, *nipinpu-* 'die.PL', §6.3).

[15]Indeed, it is possible that they have all derived historically from *wap* 'be.PST', which is often pronounced [wɔp]: thus, it may be that first the /w/ was lost; then, when following non-low vowels, the vowel [ɔ] was colored to [o], and when following the low vowel, it was colored to [a]. There are no attested (double) perfective forms with the vowels [e] or [u] (i.e., †[-ep] and †[-up] are not found as perfective suffixes).

(58) *An **ndamapape** inim nga ambip.*
      *an   ndï=ama-**p-ap**-e   inim nga   ambi=p*
      1PL.EXCL 3PL=eat-PFV-PFV-DEP water SG.PROX big=COP
      'We were eating them [= fish], but [now] the water is high [again].'
      [ulwa014_29:36]

(59) *Mï maka aw ndïn **mopop**.*
      *mï   maka aw   ndï=n   ma=u-**p-op***
      3SG.SUBJ thus   betel.nut 3PL=OBL 3SG.OBJ=put-PFV-PFV
      'He had [?] planted the betel nut there.' [ulwa014†]

Some apparent examples of double perfective marking may reflect grammatical attrition: as verbal suffixes come to be used in increasingly interchangeable ways, they lose their aspectual force. Perhaps such seemingly redundant perfective markers are used to show that the meaning intended is truly perfective. For example, although the form *i* 'go.PFV' is intrinsically marked for perfective aspect, speakers on occasion add what seems to be a perfective suffix – that is, as if they were treating this form as unmarked for aspect and thus requiring a perfective suffix. Example (60) contains the perfective form *i* 'go.PFV' with an unnecessary additional perfective marker *-ap* 'PFV', realized here as [-yap] due to glide insertion (§4.5.1).

(60) *Li kïkal wopa nda ango **mbiyap**.*
      *li-i   kïkal wopa nda   ango mbï-i-**ap***
      down-go.PFV ear   all   SG.DIST NEG here-go.PFV-PFV
      '[She] went downstream, but that deaf one did not stay here.' [ulwa014†]

Example (61), on the other hand, shows how *i* 'go.PFV' – with the added suffix *-ap* 'PFV' – can function in a double perfective construction.

(61) *Ndï lïmndï ute **iyapen**.*
      *ndï lïmndï u=uta-e   i-**ap**-en*
      3PL eye   2SG=grind-IPFV go.PFV-PFV-NMLZ
      'They were the ones who had gone and watched over you.'
      [ulwa013_01:25]

Example (62) shows how a double perfective construction can function when *i* 'go.PFV' is reanalyzed as lacking (intrinsic) TAM marking. In this instance,

the speaker uses a perfective-marked form of the past-tense locative verb *wap* 'be.PST' as something like an auxiliary verb.[16]

(62) *Ngata ala **i wapapen**.*
      ngata ala   i   wap-**ap**-en
      grand PL.DIST go.PFV be.PST-PFV-NMLZ
      '[Our] ancestors are the ones who had gone [there].' [ulwa014_23:29]

6.9 The irrealis perfective

An interesting tug-of-war occurs when one must refer to a completed action in future time (cf. the future perfect in English, e.g., *we will have eaten*). The three designations in Ulwa's basic three-way TAM system are not mutually exclusive: that is, an event could, theoretically, be viewed both as a completed whole (perfective aspect) and as something not (yet) real (irrealis mood). Typically in Ulwa, all irrealis-mood verbs are treated the same – that is, there are no aspectual distinctions maintained among them (§6.6). Thus, the sentence in (63) could be translated variously into English.

(63) *Nungol ndï **landa**.*
      nungol ndï **la-nda**
      child   3PL eat-IRR
      (a) 'The children will eat.' (unspecified aspect)
      (b) 'The children will be eating.' (imperfective aspect)
      (c) 'The children will have eaten.' (perfective aspect) [elicited]

In certain multiclausal constructions, however, it may become necessary to designate the aspect of an irrealis event as being perfective. Namely, when one future event is contingent on the completion of another, this yet-to-be-completed event can be marked with a perfective suffix (64). Thus, in these tug-of-war scenarios between aspect and mood, aspect wins.

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[16]I suspect that this is a recent innovation, one influenced by grammatical attrition in the face of competing influences from the dominant language, Tok Pisin (see Chapter 17).

(64) *Anji wa **koytap** namndu nungol kot ma mat malnda.*
    *an-nji   wa   ko=ita-**p**   namndu nungol ko=tï   ma*
    1PL.EXCL-POSS village INDF=build-PFV pig   child   INDF=take go
    ma=tï   ma=lï-nda
    3SG.OBJ=take 3SG.OBJ=put-IRR
    'Once [we] have built a village for ourselves and gotten a pig, [we] will go and put it there.' [ulwa014_07:07]

Such irrealis perfective constructions are especially common in multiclausal imperatives. In (65), the perfective verb is the suppletive form *i* 'go.PFV'.

(65) *Un **i** anul ndul amblawalin.*
    *un **i**   an=ul   ndï=ul   ambla=wali-n*
    2PL go.PFV 1PL.EXCL=with 3PL=with PL.REFL=hit-IMP
    'Go and fight with us with [= against] them!' (Literally 'You having gone, fight with us with them!') [ulwa002_05:19]

A verb in the first clause of such an imperative may be marked with the conditional suffix *-ta* 'COND' (§6.12). Especially when the subject of the first clause differs from that of the second, the inclusion of this suffix may be seen as necessary to convey the irrealis perfective sense of the protasis: in (66), the conditional suffix on the first verb, *anmbi* 'come out [PFV]', helps signal that the action of the following verb is contingent on the completion of the action described by this one.

(66) *Ngun **anmbita** una **malamape** una lowon.*
    *ngun an-mbï-i-**ta**   unan   ma=la-ama-**p**-e   unan*
    2DU out-here-go.PFV-COND PL.INCL 3SG.OBJ=IRR-eat-PFV-DEP 1PL.INCL
    lo-wo-n
    IRR-sleep-IMP
    'Once you two have come and we've eaten it, let's sleep!' [ulwa041_01:15]

Sometimes, in the tug-of-war between perfective aspect and irrealis mood, there is a morphological tie, at least in instances in which the verb form allows some indication of irrealis mood by means other than suffixation. This applies to verbs that have circumfix-like irrealis forms beginning with [lo-] or [la-], such as *wo-* 'sleep' and *ama-* 'eat' (§6.3). In irrealis perfective constructions involving these verbs, the verb combines the irrealis stem with the perfective suffix.

For example, the form *lowop* 'sleep [IRR/PFV]' combines the beginning of the irrealis form *lowonda* 'sleep [IRR]' with the ending of the perfective form *wop*

'sleep [PFV]' (cf. §6.3). It is thus capable of indicating perfective aspect and irrealis mood simultaneously, as in (67) and (68).

(67)   *Wa ma **lowop** ma siwi anglalunda mane.*
    *wa   ma **lo-wo-p**   ma siwi   angla-lo-nda ma-n-e*
    village go IRR-sleep-PFV go grub.species await-go-IRR go-IPFV-DEP
    '[He] was going to the village, and, having slept [there], was going to search for grubs.' [ulwa038_03:51]

(68)   *Maka **lowop** apa mot anda luke itana mane.*
    *ma=ka   **lo-wo-p**   apa   mot   anda   luke ita-na*
    3SG.OBJ=at IRR-sleep-PFV house awning SG.DIST too build-IRR
    ma-n-e
    go-IPFV-DEP
    'Having slept there, I was going to build that house awning, too.' [ulwa042_04:44]

In example (69), the form *lowop* 'sleep [IRR/PFV]' occurs with some borrowed grammar from Tok Pisin (*i no laik*, literally 'do not want'; here, roughly, 'should').

(69)   *Un i no laik anul mbï ka **lowop** mana?*
    *un i   no laik an=ul   mbï ka **lo-wo-p**   ma-na*
    2PL PRED NEG want 1PL.EXCL=with here thus IRR-sleep-PFV go-IRR
    'Why don't you spend the night here with us and [then] go?' (*i no laik* = TP) [ulwa014_16:04]

In a somewhat different but related manner, the irrealis perfective form of *ama-* 'eat' seems to combine two stems in the same form: the irrealis stem [la-] and the non-irrealis stem [ama-] occur together, along with the perfective suffix *-p* 'PFV', thus yielding *lamap* 'eat [IRR/PFV]'. Although elsewhere in examples containing this verb the form [la-] is glossed as the verb stem 'eat', in irrealis perfective constructions such as those in (70) and (71), it is glossed as 'IRR', since it is the part of the verb form that is signaling its irrealis value. The vowel of /la-/ deletes before the initial vowel of /ama-/ (§4.5.5).

(70)   ***Ndilamap** we un namndu atïna.*
    *ndï=**la-ama-p** we   un namndu atï-na*
    3PL=IRR-eat-PFV then 2PL pig   hit-IRR
    'Once [we] have eaten them, then you will kill pigs!' [ulwa014_43:54]

(71) *Mol **lamap** mana mat mananda.*
      ma=ul   ***la-ama-p*** *mana ma=tï*   *ma=na-nda*
      3SG.OBJ=with IRR-eat-PFV spear 3SG.OBJ=take 3SG.OBJ=give-IRR
      'Having eaten with him, [they] will give him the spear.' [ulwa014_62:16]

In the text that contains sentence (71), there is another irrealis perfective construction that immediately follows: (72). Here it may be seen again that – as for most verbs – the irrealis perfective form of *ita-* 'build' is morphologically identical to the perfective form.

(72) *Mana **maytap** mat mananda.*
      *mana ma=**ita-p***   *ma=tï*   *ma=na-nda*
      spear 3SG.OBJ=build-PFV 3SG.OBJ=take 3SG.OBJ=give-IRR
      'Having made the spear, [they] will give it to him.' [ulwa014_62:19]

6.10 The inchoative imperfective

There is a special use of imperfective verb forms that may at first seem to run counter to its typically continuous aspectual force. Imperfective verbs may be used to signal that an action is beginning or starting. This may be referred to as inchoative aspect (or inceptive aspect). Indeed, there is nothing technically atelic about verbs denoting the commencement of an action. That said, the inchoative imperfective verb usually does maintain the sense of uncompleted action (i.e., it encodes that an action was started but interrupted or that an action has begun but has not yet reached its conclusion, both of which actions are ongoing). Sentence (73) illustrates the use of the inchoative imperfective.

(73) *We mokotïp mat manane mï **mame**.*
      we   *ma=kot-p*   *ma=tï*   *ma=na-n-e*   *mï*
      sago 3SG.OBJ=break-PFV 3SG.OBJ=take 3SG.OBJ=give-PFV-DEP 3SG.SUBJ
      *ma=ama-**e***
      3SG.OBJ=eat-IPFV
      '[He] broke a piece of sago and gave it to him, and he began to eat it.'
      [ulwa001_11:42]

In (74), it is ambiguous whether the ending [-e] on the verb *sa-* 'cry' is encoding (only) clausal dependence or (additionally) the inchoative imperfective aspect.

(74) *Mï **se** nï mala ndïwanawne.*
    *mï   sa-**e**   nï mala   ndï=wana-uni-e*
    3SG.SUBJ cry-DEP 1SG 3SG.OBJ=for 3PL=feel-shout-IPFV
    'When she started to cry, I called to them to get her.' [ulwa032_04:28]

In (75), the inchoative imperfective is marked by the irregular imperfective suffix *-n* 'IPFV'.

(75) *Tana kot ambïn wutï anmot ngalïp anankïn ala li **mane**.*
    tana ko=tï   ambï=n   wutï anmot nga=lï-p   anankïn
    axe INDF=take SG.REFL=OBL leg   post   SG.PROX=put-PFV blood
    *ala   li   ma-**n**-e*
    PL.DIST down go-IPFV-DEP
    '[He] cut his shin with an axe, and blood began to run down.'
    [ulwa009_00:25]

In (76), the inchoative imperfective is indicated by the suppletive imperfective stem of the verb *u-* 'put', without any overt suffix.

(76) *Ndï kïkal ndïwana **ndïnawte** inim **naw**.*
    *ndï kïkal ndï=wana ndï=na-uta-e   inim na-**aw***
    3PL ear   3PL=feel 3PL=DETR-grind-IPFV water DETR-put.IPFV
    'They heard them [= their names] and started grinding them [= coconuts] into water.' [ulwa018_02:14]

Likewise, in (77), no overt suffix is present, but the [w]-final verb stem *wow-* 'sleep.IPFV' indicates that imperfective aspect is intended.

(77) *Mawap imba pe mï wolka **nawow**.*
    *ma=wap   imba p-e   mï   wolka na-**wow***
    3SG.OBJ=be.PST night be-DEP 3SG.SUBJ again DETR-sleep.IPFV
    '[He] stayed the night there and again he fell asleep.' [ulwa006_04:33]

A minor variation to inceptive or ingressive aspect may be termed resumptive aspect. This aspect can also be encoded by imperfective verb forms to signal that an action that had stopped has begun again, as in (78).

(78) *Mï numbu **mole**.*
    *mï   numbu ma=lo-**e***
    3SG.SUBJ garamut 3SG.OBJ=cut-IPFV
    'He resumed making the *garamut* drum.' [ulwa009_00:56]

6.11 The speculative suffix *-t* 'SPEC'

As detailed in §6.6, the irrealis suffix can express a number of modalities, including various predictions, such as that a state or event might be or might happen. There is also, however, a verbal suffix *-t* 'SPEC', which can convey a sense of epistemic possibility. It immediately follows the irrealis suffix on the verb, as seen in (79) and (80).

(79) *Nakanaka **nundate**.*
    *na-kanaka   lu-nda-**t**-e*
    DETR-unwrap put-IRR-SPEC-DEP
    '[It] might unwrap.'[17] [ulwa014_57:24]

(80) *Mï amun wa mbi an nït mol **inat**.*
    mï   amun wa   mbï-i   na=n   nï=ta   ma=ul
    3SG.SUBJ now   village here-go.PFV talk=OBL 1SG=say 3SG.OBJ=with
    *i-na-**t***
    come-IRR-SPEC
    'He recently came here to the village and told me that he might come with her.' [ulwa037_46:28]

Examples (79) and (80) both illustrate the sense of 'might' being conveyed by the speculative suffix *-t* 'SPEC', in both instances directly following an irrealis suffix. Example (80) further illustrates this use in indirect discourse. This must not, however, be taken to have evidential force – that is, the suffix is used because the reported speech is of someone who himself is speculating about whether or not he would come (not because the person reporting this information can only speculate as to whether or not the person would come). Indeed, the speaker who uttered this sentence followed it with the one given in (81), which does not include any speculative form.[18]

(81) *Inim ngol mol ina nït.*
    inim   nga=ul   ma=ul   i-na   nï=ta
    water SG.PROX=with 3SG.OBJ=with come-IRR 1SG=say
    '[He] told me [he] would come with her this year.' [ulwa037_46:32]

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[17]The pronunciation [nundate] – with initial [n] – may represent influence from the Maruat-Dimiri-Yaul dialect.

[18]For more on indirect discourse, see §15.4.5.

The speculative suffix can also be used in conjunction with the epistemic adverb *tap* 'maybe', which always comes earlier in the clause, as in (82).

(82)   *Ngunanji yalum anda **tap** i wa **mbïpïnate**.*
       *ngunan-nji   yalum   anda   **tap**   i   wa*
       1DU.INCL-POSS grandchild SG.DIST maybe go.PFV village
       *mbï-p-na-**t**-e*
       here-be-IRR-SPEC-DEP
       'Our granddaughter might come and stay here in the village.'
       [ulwa014_11:10]

Sentence (82) also illustrates that this suffix may be followed by the dependent marker *-e* 'DEP'. More examples of the speculative suffix are given in (83) and (84).

(83)   ***Makïnate**.*
       *ma=kï-na-**t**-e*
       3SG.OBJ=say-IRR-SPEC-DEP
       '[He] might tell him.' [ulwa032_51:01]

(84)   *Una iken malka **manate**.*
       *unan   iken ma=lï-ka   ma-na-**t**-e*
       1PL.INCL may 3SG.OBJ=put-let go-IRR-SPEC-DEP
       'We may go follow it [= an accusation].' (*iken* < TP *i ken* 'may, can')
       [ulwa037_08:44]

In sentence (84), the force of the suffix *-t* 'SPEC' is closer to English 'may'. Indeed, it is used alongside a Tok Pisin loanword *i ken* 'may', often used in granting permission. In sentence (85), *-t* 'SPEC' is used along with a different Tok Pisin loanword, here giving the sentence a speculative sense, although one with a negative flavor. The Tok Pisin word used here, *nogut* 'bad', often carries a conjunctive meaning similar to that of English 'lest'.

(85)   ***Nongut** mundu tï **unanandat**.*
       nongut** mundu tï   unan=na-nda-**t
       lest   food   take 1PL.INCL=give-IRR-SPEC
       '[It] might give us food.' (*nongut* < TP *nogut* 'bad; lest') [ulwa029_05:25]

The speculative suffix is indeed often used in negative irrealis clauses, typically following the negative marker *ango* 'NEG', which tends to come early in the clause, as in sentences (86) through (93).

(86)   **Ango** *maka anma apombam* **manate**.
       ango *maka an-ma apombam*   *ma-na-t-e*
       NEG   thus   out-go middle.of.house go-IRR-SPEC-DEP
       '[She] shouldn't go into the middle of the house, going out like that.'
       [ulwa014_35:26]

(87)   **Ango** *apa kwan lusim* **manat**.
       ango *apa*   *kwa=n*   *lusim ma-na-t*
       NEG   house one=OBL leave go-IRR-SPEC
       '[They] were not going to leave out a single household.' (*lusim* = TP)
       [ulwa029_02:26]

(88)   *Una* **ango** *luwa* **lundat**.
       unan   **ango** *luwa lo-nda-t*
       1PL.INCL NEG   place go-IRR-SPEC
       'We can't go anywhere.' [ulwa029_03:17]

(89)   *Nï* **ango** *mbuka wiya* **inat**.
       nï   **ango** *mbï-u-ka*   *u=iya*   *i-na-t*
       1SG NEG   here-from-let 2SG=toward come-IRR-SPEC
       'I will not come to you quickly.' [ulwa031_00:46]

(90)   **Ango nokoplïndat**.
       ango *nokop-lï-nda-t*
       NEG   hide-put-IRR-SPEC
       '[It] couldn't hide [from us].' [ulwa037_14:36]

(91)   *Mï* **ango** *un apa* **pïnat**.
       mï   **ango** *un=n*   *apa*   *p-na-t*
       3SG.SUBJ NEG   2PL=OBL house be-IRR-SPEC
       'It won't last [long] in your house.' [ulwa037_52:13]

(92)   **Ango** *in* **malandate** *unji ametamal*.
       ango *i=n*   *ma=la-nda-t-e*   *u-nji*   *ametamal*
       NEG   hand=OBL 3SG.OBJ=eat-IRR-SPEC-DEP 2SG-POSS spoon
       '[You] may not eat it with [your] hand, but [must use] your spoon.'
       [ulwa014_36:27]

(93) *Nï **ango manat** nï mbï napïna.*
　　 *nï　**ango** ma-na-**t**　　nï　mbï　na-p-na*
　　 1SG NEG　go-IRR-SPEC 1SG here DETR-be-IRR
　　 'I won't go; I'll stay here.' [ulwa037_35:57]

The two clauses in (93) illustrate the contrast between negative irrealis clauses (here marked with speculative *-t* 'SPEC') and positive irrealis clauses (here, as usual when not needed for extra speculative force, not marked with *-t* 'SPEC'). In sentence (94) there is also a contrast between a negative irrealis clause and a positive one. Here, the negator *ango* 'NEG' is missing; the speculative suffix *-t* 'SPEC' alone is conveying the negative force of the first clause.

(94) *Apombam **manate** angani wat ando li mana.*
　　 *apombam　　　ma-na-**t**-e　　angani wat　anda=u　　li*
　　 middle.of.house go-IRR-SPEC-DEP rear　ladder SG.DIST=from down
　　 ma-na
　　 go-IRR
　　 '[She won't] go to the middle of the house, but will go down the back ladder.' [ulwa014_34:48]

This suffix is also commonly used in negative commands, which may use the prohibitive marker *wana ~ wanap* 'PROH' (see §15.2.4 and §15.3.2 for examples). The negative polarity function of the speculative marker *-t* 'SPEC' may reflect an origin as a postverbal negator (cf. Ap Ma *-at* 'NEG'). But this historical explanation is itself speculative. See §15.3.2 for the synchronically more common postverbal negators in Ulwa.

Questions, which often contain words derived from the negative marker *ango* 'NEG' (§15.3), may also carry speculative force, employing the suffix *-t* 'SPEC' (95).

(95) *A un **angos tïnat**?!*
　　 *a　un　**angos** tï-na-**t***
　　 ah 2PL what　take-IRR-SPEC
　　 'Ah, what will you get?!' [ulwa018_06:11]

This suffix can also be used as a device for indicating politeness, suggesting more tentativeness in the question being asked (96).

(96) *Unan **angos natanate**?*
　　 *unan　　**angos** na-ta-na-**t**-e*
　　 1PL.INCL what　DETR-say-IRR-SPEC-DEP
　　 'What could we talk about?' [ulwa037_58:33]

6.12 The conditional suffix *-ta* 'COND'

Perhaps etymologically related to the speculative suffix *-t* 'SPEC' (§6.11), the conditional suffix *-ta* 'COND' is used to mark the verb in the protasis of a conditional statement. The syntax of such sentences is addressed in §15.5; the morphology and basic uses of this suffix are addressed in this section.

In the protases of conditional statements, the suffix *-ta* 'COND' is affixed either to the stem of the verb (always including the vowel) (97) or to the perfective form (that is, including the perfective suffix) (98).[19]

(97) *Inim **lopota** nï mana.*
      *inim lopo-**ta**   nï ma-na*
      water rain-COND 1SG go-IRR
      'If it rains, I'll leave.' [elicited]

(98) *Inim **lopopta** nï mana.*
      *inim lopo-p-**ta**   nï ma-na*
      water rain-PFV-COND 1SG go-IRR
      'If it rains, I'll leave.' [elicited]

In verbs that exhibit different stems for the irrealis mood, the conditional form is never built from the imperfective/perfective stem alone. Either it is built from this realis stem plus the perfective marker or it is built from the suppletive irrealis stem without any additional marker (cf. the discussion of imperatives in §6.7). Thus, the verb *ama-* 'eat' has as its conditional form either [amapta] (from the fully inflected perfective form) (99) or [lata] (from the irrealis stem) (100), but never †[amata] (from the imperfective/perfective stem alone).

(99) *U nïnji mundu **amapta** nï uwalinda.*
      *u   nï-nji   mundu ama-p-**ta**   nï u=wali-nda*
      2SG 1SG-POSS food   eat-PFV-COND 1SG 2SG=hit-IRR
      'If you eat my food, I'll hit you.' [elicited]

(100) *U nïnji mundu **lata** nï uwalinda.*
      *u   nï-nji   mundu la-**ta** nï u=wali-nda*
      2SG 1SG-POSS food   eat-COND 1SG 2SG=hit-IRR
      'If you eat my food, I'll hit you.' [elicited]

---

[19]Often the two forms appear to be interchangeable. I suspect that, for many speakers, an aspectual or modal distinction that perhaps once existed is now being lost. Still, at least in some circumstances, it may be the case that the perfective version of the conditional verb is required to show a sequence of events.

I have not found any discernible difference in meaning between the alternative verb stems in cases such as these.

Example (101) illustrates the conditional suffix following the suppletive perfective stem *i* 'go.PFV'.

(101)   *Mï **ita** nï nan makïna.*
        mï   i-**ta**   nï   na=n   ma=kï-na
        3SG.SUBJ go.PFV-COND 1SG talk=OBL 3SG.OBJ=say-IRR
        'If he comes, I'll tell him.' [ulwa014_09:39]

The conditional suffix can also appear following the locative verb *p-* 'be at', as in (102) and (103).

(102)   *Kuma lawa **mapta** landa.*
        kuma ala-awa   ma=**p-ta**   la-nda
        some PL.DIST-INT 3SG.OBJ=be-COND eat-IRR
        'When some other people are there, [they] might eat [our food].'
        [ulwa033_00:18]

(103)   *Ambi **napta** we mï lïmndï anala.*
        ambi na-**p-ta**   we   mï   lïmndï an=ala
        big   DETR-be-COND then 3SG.SUBJ eye   1PL.EXCL=see
        'Once [we] had gotten big, then she saw us.' [ulwa013_00:47]

Especially when needed to break up impossible consonant clusters, the locative verb *p-* 'be at' may be realized phonetically as [pï] when preceding the conditional suffix *-ta* 'COND', as in (104) and (105).

(104)   *Akum **pïta** akumnï ndutana.*
        akum **p-ta**   akum=nï   ndï=uta-na
        basket be-COND basket=OBL 3PL=grind-IRR
        'If there is basket, [they] scoop them with the basket.' [ulwa036_01:43]

(105)   *Mawapta mï **anmapïta** we ande ndï wolka mol nena.*
        ma=wap-ta   mï   anma=**p-ta**   we   ande ndï wolka
        3SG.OBJ=be.PST-COND 3SG.SUBJ good=COP-COND then ok   3PL again
        ma=ul   na-i-na
        3SG.OBJ=with DETR-come-IRR
        'If [the sick person] has stayed there and has gotten well, then OK, they would come back with him.' [ulwa029_10:14]

Sentence (105) also illustrates the use of the conditional suffix *-ta* 'COND' following the suppletive locative form *wap* 'be.PST'. More examples of conditional sentences are provided in §15.5.

6.13 Derivational morphology: Verbalization

Unlike nouns, which may be formed from other parts of speech through the addition of the derivational suffix *-en* 'NMLZ' (§5.2), there is no single means of deriving verbs from other parts of speech. That said, it is possible for non-verbal words to serve as predicates. This is accomplished through the use of the copular clitic *=p* 'COP' (§12.2).

6.14 Compound verbs

While most verbs are composed of simply a single free root (plus, potentially, bound morphology such as TAM suffixes, the detransitivizing prefix *na-* 'DETR', or object-marker proclitics), some can be analyzed as compounds – that is, consisting of more than one free morpheme. The final element of such compounds (excluding any suffixes) is always a verb stem. The first element, on the other hand, may be either a noun (106) or another verb (107) (or perhaps a postposition, although this may be analyzed otherwise).[20]

(106) *Ndïn ndiya i iwan **ndïnambïlumope**.*
 ndï=n   ndï=iya   i   iwa=n   ndï=**nambï**-**lumo**-p-e
 3PL=OBL 3PL=toward go.PFV basket=OBL 3PL=skin-put-PFV-DEP

 '[Men] would go to them [= women] with them [= bamboo stalks], blocking them [= fish] with fish trap baskets.' [ulwa036_02:11]

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[20]Often it is not clear whether such a combination of non-bound morphemes should best be analyzed as a compound. A noun preceding a verb, for example, could simply be the object of the verb. Only when this noun-plus-verb combination permits a direct object (or an object marker) can it be said to be a compound. Similarly, two verb stems in succession may be separate words that are coordinated paratactically. A true compound verb consisting of two verbal elements, however, should permit only one object marker (that is, the object marker should affix to the beginning of the first member of the compound). Often, series of postposition-plus-verb-stem seem very much like compound verbs, especially when considering their phonological tendency to coalesce and reduce. However, there are few if any morphosyntactic tests to prove that such forms are true compounds.

(107) *Ul wandam ma i tï u kïkal **welunda**.*
    *u=ul   wandam ma i   tï   u   kïkal **we-lo**-nda*
    2SG=with jungle   go hand take 2SG ear   cut-cut-IRR
    '[They] will go to the jungle with you and box your ears with [their]
    hands.' [ulwa014_00:44]

Compound verbs may contain nouns as their first element. Evidence that these
forms are single (though polymorphemic) lexical items comes from the fact that
they permit object markers (preceding the entire word) and TAM suffixes (follow-
ing the entire word). Examples of noun-plus-verb verbal compounds are given
in (108), (109), and (110).

(108) ***Manambuweyup** kuma ndinap ndïtï wa i.*
    *ma=**nambï-we-u**-p   kuma ndï=ina-p   ndï=tï   wa   i*
    3SG.OBJ=skin-cut-put-PFV some 3PL=get-PFV 3PL=take village go.PFV
    '[She] peeled it, got some [greens], and brought them home.'
    [ulwa001_01:06]

(109) *An kaw **mawutïnip**.*
    *an   kaw ma=**wutï-ni**-p*
    1PL.EXCL song 3SG.OBJ=leg-beat-PFV
    'We danced the song.' [elicited]

(110) *Nï tïn **manambïtwana**.*
    *nï   tïn ma=**nambït-wana***
    1SG dog 3SG.OBJ=odor-feel
    'I smelled the dog.' [elicited]

Note that in example (108) the verb is analyzed as containing not only a nomi-
nal element, but also two verbal elements. Similar constructions with 'put' verbs
are discussed in §11.2.2. Additional examples of compound verbs consisting of
two verb roots are given in (111) and (112). Only the final element receives TAM
marking.

(111) *Ndï angos tïna nakap **anwanakap**.*
    *ndï angos tï-na   na-kï-p   an=**wana-kï**-p*
    3PL what take-IRR DETR-say-PFV 1PL.EXCL=feel-say-PFV
    '[When] they wanted to get something, [they] called us.'
    [ulwa018_05:01]

(112) ***Amblawanawne** nay.*
       *ambla=**wana-uni**-e   na-i*
       PL.REFL=feel-shout-DEP DETR-go.PFV
       'Calling to each other, they went.' [ulwa001_07:49]

Compound verbs can be even more complex, containing whole postpositional phrases (that is, units composed of noun-plus-postposition). Examples (113) and (114) contain the relatively prototypical noun *ina* 'liver'; example (115), on the other hand, includes as the object of the postposition a semantically verb-like noun, *top* 'throw'.

(113) *Nï kenmbu **maynakawana**.*
       *nï   kenmbu ma=**ina-ka-wana***
       1SG problem 3SG.OBJ=liver-at-feel
       'I thought about the problem.' [elicited]

(114) *Nungolke ngala ango **ndinakawana**.*
       *nungolke ngala   ango ndï=**ina-ka-wana***
       child   PL.PROX NEG 3PL=liver-at-feel
       'But these children aren't thinking about them.' [ulwa038_01:32]

(115) *Nï **natopinka**.*
       *nï   na-**top-in-ka***
       1SG DETR-throw-in-let
       'I've forgotten.' [ulwa037_17:58]

The verb *ka-* 'let, leave, allow' is presented more fully in the discussion on separable verbs (§11.2.3). Also see §11.2.1 for an overview of compound verbs that may be composed of discontinuous elements.

Some compounds may be composed of just postpositions and verbs. While there often seems to be a close connection (both semantic and phonological) between these two elements, it is difficult to prove that they indeed form compounds. Although in sentences such as (116), they are glossed as transitive compound verbs with direct objects, they could alternatively be analyzed as series of postpositional phrases (which contain objects of the postposition) and intransitive verbs (having no objects of their own).

(116) *Atana mï ko **malakam**.*
       *atana   mï   ko   ma=**ala-kamb***
       older.sister 3SG.SUBJ just 3SG.OBJ=from-shun
       'The older sister disapproved of it.' [ulwa011_02:25]

The verb *u-* 'put' usually takes a goal argument as its direct object (i.e., it does not have the same semantics or argument structure as English *put*, §11.2.2). In (117), the goal argument directly precedes the possible compound *inu-* 'put in'.

(117)   *Ndïn unji uta **menup**.*
       *ndï=n   u-nji   uta ma=**in-u-p***
       3PL=OBL 2SG-POSS shell 3SG.OBJ=in-put-PFV
       '[They] put them in your dish.' [ulwa014_39:19]

The form *watlo-* 'clear (as land of rubbish, foliage, etc.)', composed of the post-position *wat* 'atop' and a form of the verb *lo-* 'cut', is also possibly a compound. Examples (118) and (119) illustrate *watlo-* 'clear' as it appears to function as a compound verb.

(118)   *Ndï amun **nduwatlope**.*
       *ndï amun ndï=**wat-lo-p-e***
       3PL now   3PL=atop-cut-PFV-DEP
       'They have just now cleared them.' [ulwa014_06:43]

(119)   *Nï mape **ndïwatle**.*
       *nï   ma=p-e   ndï=**wat-lo-e***
       1SG 3SG.OBJ=be-DEP 3PL=atop-cut-IPFV
       'I cleared them there.' [ulwa037_42:27]

For the form and function of compound verbs containing locative adverbs, such as *mbï* 'here', see §10.2.2.

7 Adjectives

In Ulwa, words that denote properties are not particularly distinct as a class in terms of their morphosyntax. The fundamental divide among grammatical categories in Ulwa falls rather between verbs and non-verbs. When viewed within this dichotomy, adjectives resemble nouns somewhat more than they resemble verbs. For example, adjectives may receive the copular enclitic. They never receive any of the three basic TAM suffixes found on verbs. Like nouns, adjectives are not marked for person, number, gender, or case. One possible minor criterion by which adjectives may be distinguished from nouns is their placement within a noun phrase. Within NPs, adjectives follow nouns.

7.1 Attributive adjectives

When an adjective is neither functioning as a substantive nor serving as a predicate complement, it occurs within the limits of a noun phrase. When inside an NP, adjectives occur after the noun (the head of the NP) and before the subject marker, object marker, or any other determiner that may be found in an NP. Such adnominal adjectives never occur outside the NP (i.e., discontinuously). Sentences (1) through (4) provide examples of adjectives (in **bold**) as they appear in NPs, illustrating their postnominal position, preceding determiners.

(1) *Ankam **ambi** mï tïn **njukuta** masap.*
     *ankam **ambi** mï   tïn **njukuta** ma=asa-p*
     person big   3SG.SUBJ dog small   3SG.OBJ=hit-PFV
     'The big person hit the small dog.' [elicited]

(2) *Ndïnji i **anma** mï ndul i.*
     *ndï-nji i   **anma** mï   ndï=ul   i*
     3PL-POSS way good   3SG.SUBJ 3PL=with go.PFV
     'Their good behavior has gone with them.' [ulwa014_62:57]

(3) *Nï nïnji wandam **ambi** ndalop.*
    nï   nï-nji   wandam **ambi** anda=lo-p
    1SG 1SG-POSS jungle   big   SG.DIST=cut-PFV
    'I cleared that big garden of mine.' [ulwa042_00:04]

(4) *Nïmal **wapata** men pe apa ite mawap.*
    nïmal **wapata** ma=in   p-e   apa   ita-e   ma=wap
    river old   3SG.OBJ=in be-DEP house build-IPFV 3SG.OBJ=be.PST
    '[They] were building houses in the old river there.' [ulwa032_27:47]

7.2 Predicative adjectives

When adjectives function predicatively, they may receive copular morphology (§12.2), although this is not obligatory (neither for adjectives nor for nouns). These predicative adjectives occur clause-finally (the position held prototypically by verbs). Examples of predicative adjectives are given in (5), (6), and (7).

(5) *Mïnkïn ndï **wutota**.*
    mïnkïn   ndï **wutota**
    sago.species 3PL tall
    'The sago palms are tall.' [ulwa014_71:18]

(6) *Nïnji wutï ambatïm ngala **tembipe**.*
    nï-nji   wutï ambatïm ngala   **tembi**=p-e
    1SG-POSS foot joint   PL.PROX bad=COP-DEP
    'My knees are bad.' [ulwa032_49:17]

(7) *Mï **anmapïna**.*
    mï   **anma**=p-na
    3SG.SUBJ good=COP-IRR
    'It [= sago starch] will be good.' [ulwa014_60:25]

7.3 Substantive adjectives

Adjectives may also function as substantives – that is, they may have the same formal properties as prototypical nouns. In such cases, these adjectives have the same distribution as nouns. Thus, adjectives may serve as the heads of NPs, which may themselves serve as subject (8), direct object (9), or object of a postposition (10) within a clause.

(8) **Ambi** *mï ngunanu ndïtïna.*
    ambi *mï*   *ngunan=u*   *ndï=tï-na*
    big   3SG.SUBJ 1DU.INCL=from 3PL=take-IRR
    'The big man will get them from us.' (Literally 'the big [one]')
    [ulwa014_33:46]

(9) **Tembi** *ndinap.*
    tembi *ndï=ina-p*
    bad   3PL=get-PFV
    '[I] got the bad ones [= tobacco plants].' [ulwa037_55:49]

(10) **Tembi** *ngalawl inde.*
    tembi *ngala=ul*   *inda-e*
    bad   PL.PROX=with walk-IPFV
    '[They] walk around with these sick ones [= children].' [ulwa014_47:09]

7.4 Relationship to other word classes

One factor complicating the task of assigning words in Ulwa to the grammatical category of adjective is the fact that adjectives in NPs sometimes precede their head nouns (instead of following them). While some speakers consider this order to be ungrammatical (perhaps an influence from the word order of Tok Pisin; see Chapter 17), it nevertheless occurs in speech, thereby making it difficult to rely on the distributional criterion that adjectives follow nouns. This adjective-noun word order is exemplified in sentences (11), (12), and (13).

(11) **Waembïl** *ankam anda i.*
    waembïl *ankam anda*   *i*
    white   person SG.DIST go.PFV
    'That white person came.'[1] [ulwa013_05:21]

(12) **Tembi** *ankam ala imba pe.*
    tembi *ankam ala*   *imba p-e*
    bad   person PL.DIST night be-IPFV
    'Those bad people are around at night.' [ulwa032_16:02]

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[1]The form *waembïl ankam* 'white person' may be lexicalized, perhaps calqued from Tok Pisin *waitman* 'white man, white person'.

(13) **Tembi** *nji ala ala ndït indana.*
      tembi *nji*   *ala*   *ala*   *ndï=tï*   *inda-na*
      bad   thing PL.DIST PL.DIST 3PL=take walk-IRR
      'Those bad things – they will bring them [here].' [ulwa037_20:39]

The morphosyntactic similarity between nouns and adjectives also makes it difficult at times to assign certain words to one class or the other. For example, the word *kalam* 'knowledge' can have either the more nominal meaning 'knowledge, wisdom' or the more adjectival meaning 'knowledgeable, knowing, wise', and it is difficult to define one of these meanings as being the primary one. Whereas in (14) this word carries a more noun-like meaning, in (15) it functions more like a substantive adjective (§7.3).

(14) *Ndawa ndïnji* **kalam** *andol le.*
      ndï-awa ndï-nji **kalam**   *anda=ul*   *lo-e*
      3PL-INT 3PL-POSS knowledge SG.DIST=with go-IPFV
      'They went around with their knowledge.' [ulwa014†]

(15) *Yena ambi anda u* **kalam** *anda.*
      yena   *ambi anda*   *u*   **kalam**   *anda*
      woman big   SG.DIST 2SG knowledge SG.DIST
      'You're a grown woman; you know well.' (Literally '[You] are that big woman; you are that knowledgeable [woman].') [ulwa032_09:04]

Complicating matters even further is the fact that *kalam* 'knowledge, knowledgeable' very often functions like a verb. Although it does not take verbal TAM morphology but rather the copular enclitic (thus making it resemble nouns and adjectives rather than verbs), it seems capable of taking object arguments (thus making it resemble verbs). In each of examples (16), (17), and (18), *kalam* 'knowledge' appears to have a direct object argument, including proclitic object marking in (16) and (17).

(16) *Mï* **ukalampe**.
      mï   *u=***kalam***=p-e*
      3SG.SUBJ 2SG=knowledge=COP-DEP
      'She knows you.' [ulwa032_36:00]

(17) *Nï ango* **ndïkalam**.
      nï   *ango ndï=***kalam**
      1SG NEG 3PL=knowledge
      'I don't know about them.' [ulwa032_49:16]

(18) *Na ndï anjikakape i **kalampïna**.*
    na ndï anjikaka=p-e i **kalam=p-na**
    and 3PL how=COP-DEP way knowledge=COP-IRR

    'And how are they going to know [good] behavior?'[2] (*na* < TP *na* 'and')
    [ulwa014_41:07]

The peculiar behavior of *kalam* 'knowledge' may reflect the fact that it is a loanword from Waran (§1.5): in being borrowed, it may have come to be associated with additional lexical classes (cf. the Tok Pisin loan *lukautim* 'look after' in §17.6).

Even fairly prototypical adjectives, such as *tembi* 'bad, sick, etc.' can be employed nominally (i.e., to mean 'badness, sickness, etc.'), as seen in (19) and (20).

(19) ***Tembi** mï makape tïlwa ndo unden.*
    tembi *mï*   *maka=p-e*   *tïlwa anda=u*   *unda-en*
    bad   3SG.SUBJ thus=COP-DEP road SG.DIST=from go-NMLZ

    'The sickness is one that goes along this kind of road.' [ulwa038_02:16]

(20) ***Tembi** nji ala un mat **tembi** tï mananda.*
    tembi *nji*   *ala*   *u=n*   *u*   *ma=tï*   **tembi** *tï*
    bad   thing PL.DIST 2SG=OBL from 3SG.OBJ=take bad   take
    ma=na-nda
    3SG.OBJ=give-IRR

    'Bad things will take her from you and give her sickness.' [ulwa032_17:34]

In example (20) this word *tembi* 'bad/badness' functions both as an adjective and as a noun in the same sentence (note the non-canonical order of noun and adjective in the first NP). The sense of 'sick' (i.e., an adjectival meaning) is illustrated by example (21); here the word functions as a predicate adjective, receiving the copular enclitic.

(21) *U **tembipïta**.*
    u   **tembi=p-ta**
    2SG bad=COP-COND

    'You may be sick [someday].' [ulwa014_13:10]

Another notable characteristic of the grammatical class of adjectives is its rather small size. Taking the definition (based both on semantics and on syntactic distribution) that adjectives are words that denote properties and can occur

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[2]See §15.1.2 for the internal morphology of *anjikaka* 'how?'

within NPs after nouns and before determiners, then the class of adjectives is quite small, and is, perhaps, closed. The list in (22) contains the best exemplars of this class of adjectives. They almost all refer to physical properties.

(22)   Property words / adjectives
anma	'good'
tembi	'bad'
ambi	'big'
njukuta	'small'
nïpat	'giant'
ilum	'little'
wapata	'old, dry'
akïnaka	'new, young'
wananum	'hot'
mïnoma	'cold'
namli	'soft'
nïpokonam	'hard' (i.e., not soft)
kenmbu	'heavy'
wiwila	'light' (i.e., not heavy)
wutota	'tall, long'
mundotoma	'short'
nu	'near'
ngaya	'far'
mbun	'black'
waembïl	'white'
andïl	'careful, slow, quiet'
yangle	'strong'
yangïmot	'tasty, sweet'
mïnwata	'wet, ripe, rotten'
maw	'correct'
monop	'full, sated'
ngusuwa	'poor, pitiful'
wopa	'whole'

The words in (22) may come close to representing a complete list of true adjectives, at least those most commonly used in discourse. To denote most other properties that could be ascribed to nominals, Ulwa employs other grammatical strategies, such as using postpositional phrases or verb phrases. For example, the notion 'fast' may be expressed with a metaphorical postpositional phrase *apïn wat* 'on fire', as in (23).

(23) *Tïn **apïn wat** mï imbamka.*
    *tïn **apïn wat** mï   imbam-ka*
    dog fire   atop 3sg.subj run-let
    'The fast dog ran.' [elicited]

The notion 'happy' may be expressed with the compound verb *wana-ni-* 'feel-act' along with the adjective *anma* 'good' (24).

(24) ***Anma wanane** mol lope i.*
    ***anma wana-ni-e** ma=ul   lo-p-e   i*
    good   feel-act-ipfv 3sg.obj=with go-pfv-dep yay
    '[They] were happy, went with him, [and said:] "yay!".' [ulwa035_03:50]

It is also not uncommon to use Tok Pisin loanwords, as in (25), which contains Tok Pisin *amamas* 'happy' to denote the same attribute that is expressed with a verb phrase in (24).

(25) *Ndï wa **amamaspe** mol lopen.*
    *ndï wa **amamas=p-e** ma=ul   lo-p-en*
    3pl just happy=cop-dep 3sg.obj=with go-pfv-nmlz
    'They were just happy and went with him.' (*amamas* = TP)
    [ulwa035_03:48]

One final feature of adjectives to be discussed here is their ability to function as adverbs when placed immediately before the verb in the clause. This results in the direct object being demoted to an oblique, as in (26).

(26) *Inim u kwa **man** anma lan!*
    *inim u   kwa **ma=n**   anma la-n*
    water 2sg just 3sg.obj=obl good eat-imp
    'Water – just drink it well!' [ulwa014†]

For more on this phenomenon, including additional examples, see the sections on adverbs (§10.2), the oblique marker *=n* 'obl' (§13.4.1), and valency-changing operations (§15.8.9).

8 Pronouns

Various categories of pronouns are treated in the sections in this chapter. Demonstrative words, which may also function pronominally, are treated in §9.3. Defined in terms of discourse function, these subcategories of pronouns all consist of words that refer to something that is either identified elsewhere in the discourse or thought to be identifiable either from context or from shared knowledge of the speech act participants. The referents of these pronominal forms are semantically nouns. There are distributional similarities that exist among these subgroups of pronouns (for example, their members can all serve as the head of an NP), as well as shared structural features (for example, these forms do not permit TAM suffixation).

8.1 Personal pronouns

The paradigm for Ulwa personal pronouns consists of three persons – first, second, and third – and three numbers – singular, dual, and plural. There is a clusivity distinction exhibited in first person non-singular forms. The dual forms denote exactly two referents, whereas plural number implies more than two (but can, at least for some speakers, be used to refer to exactly two referents as well, §11.1.2). The singular form, as to be expected, is used when the referent is exactly one. Pronouns do not exhibit any gender distinctions or any politeness distinctions. The forms of the personal pronouns in Ulwa are given in Table 8.1.

Table 8.1: Personal pronouns

	SG	DU	PL
1	*nï*	*ngan* [EXCL]	*an* [EXCL]
		ngunan [INCL]	*unan* [INCL]
2	*u*	*ngun*	*un*
3	*mï*	*min*	*ndï*

All (and only the) non-singular speech-act personal pronouns end in the formative /n/. The second person is marked by the vowel /u/, which occurs in each number for this person. The presence of this vowel is also felt in the first person non-singular inclusive forms; this has a certain logic to it, since these forms include the addressee(s) as a referent. The vowel /a/ is found in all first person forms, except the first person singular. Dual forms are marked by initial /ng/, present in all dual pronouns except the third person. In fact, all dual forms (except the third person) can be analyzed as consisting of the plural equivalent of these pronouns plus word-initial /ng/. The third person dual pronoun *min* '3DU' stands out as being formally unusual in this regard.

The only polysyllabic personal pronouns (the dual and plural first person inclusive forms) are clearly derived from the combination of two other pronouns, namely a second person form (plural or dual) and an exclusive first person plural form – i.e., *unan* '1PL.INCL' < *un* '2PL' + *an* '1PL.EXCL' and *ngunan* '1DU.INCL' < *ngun* '2DU' + *an* '1PL.EXCL'.[1]

Some speakers have reported an alternative 3DU pronominal form /ndin/. However, it is not well attested in my corpus. The only examples of it seem to reflect an adnominal demonstrative rather than a personal pronoun. I suspect that it is an abridged form of the dual distal demonstrative *andin* (cf. the form [nda] for the singular distal demonstrative *anda*, §9.3). The form [ndin], for example, occurs at the end of an NP in (1).

(1) *Kambok inom ngusuwa **ndin** asika ndule.*
   *Kambok   inom   ngusuwa **ndin** asi-ka ndï=ula-e*
   Kambuku mother poor   3DU? sit-let 3PL=weave-IPFV
   'Two poor women from Kambuku [village] used to sit and weave them.'
   [ulwa014_42:11]

In (2), the functional similarity between *[a]ndin* 'DU.DIST' ('those two') and *anda* 'SG.DIST' ('that') is clear, as each form immediately follows a corresponding numeral.

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[1]If /ng/ is treated as a dual formative, /n/ as a non-singular speech act participant formative, and /a/ as an indicator of the first person, then these two pronouns could be further analyzed as /u-n-a-n/ '2-PL-1-PL' and /ng-u-n-a-n/ 'DU-2-PL-1-PL', respectively. These two exclusive pronouns are perhaps younger forms, possibly calqued from one of the nearby Yuat languages, which contrast inclusive and exclusive first person forms. Indeed, Foley (2018: 227) proposes that a pronominal clusivity distinction is an areal feature.

(2)   *wik wopa kwa nda nini **ndintïna***
        *wik   wopa kwa anda   nini **ndin**=tï-na*
        week all   one SG.DIST two 3DU?=take-IRR
        'for all of one week, or two' (*wik* = TP) [ulwa031_00:27]

Nevertheless, if there is in fact a pronominal use of *ndin* '3DU (?)', then it most likely derives historically from this demonstrative word. A similar functional change, whereby a demonstrative has come to serve more general pronominal functions without carrying any spatial deictic meaning, can be seen in the form *ala* 'PL.DIST' ('those') (§9.3).

Each of the forms given in Table 8.1 may serve as the subject of either an intransitive or a transitive clause. Pronominal objects, on the other hand, are indicated by a paradigm of clitics that precede a verb, postposition, or oblique marker (Table 8.2). They are almost identical to their subject-form equivalents; the main difference occurs in the third person singular form, which is /mï/ as a subject, but /ma=/ whenever in non-subject roles.

Table 8.2: Pronominal object markers (non-subject markers)

	SG	DU	PL
1	*nï=*	*ngan=* [EXCL]	*an=* [EXCL]
		ngunan= [INCL]	*unan=* [INCL]
2	*u=*	*ngun=*	*un=*
3	*ma=*	*min=*	*ndï=*

These non-subject pronominal forms may also be used as adnominal possessive pronominal forms, immediately preceding the possessum (§11.1.5). Further information on object markers (and non-subject pronominal forms) is provided in §9.2.

In casual speech, the dual and plural first person inclusive pronouns may be pronounced without the final /-n/ – that is, [nguna] and [una] for /ngunan/ and /unan/, respectively.

8.2 Possessive pronouns

Possessive pronominal forms are all clearly derived from the corresponding personal pronominal forms plus the word *nji* 'thing'. More precisely – the possessive pronouns correspond to the paradigm of non-subject personal pronominal

forms, since the third person singular possessive form is [manji], rather than
†[mïnji] (see Table 8.1 and Table 8.2 for the subject and object personal pronominal paradigms). These possessive forms do not necessarily function as subjects or objects themselves, but rather typically occur within NPs headed by another nominal form – that is, they are typically adnominal possessive pronouns. As with all pronominal forms, there is no gender distinction, whether in the third person or elsewhere.

Table 8.3 provides the forms of the possessive pronouns and possessive demonstratives in Ulwa.

Table 8.3: Possessive pronouns and demonstratives

	SG	DU	PL
1	*nïnji*	*nganji* [EXCL]	*anji* [EXCL]
		ngunanji [INCL]	*unanji* [INCL]
2	*unji*	*ngunji*	*unji*
3	*manji*	*minji*	*ndïnji*
REFL	*ambïnji*	*ambinji*	*amblanji*
PROX	*nganji*	*nginji*	*ngalanji*
DIST	*andanji*	*andinji*	*alanji*

All forms in Table 8.3 are transparently decomposable. There is only one minor phonological change, which affects the dual and non-third person plural forms, as well as the dual reflexive form. This is the shortening (i.e., quasi-degemination) of the sequence nasal-plus-prenasalization. Thus, the possessive first person plural exclusive form has the underlying form /annji/, but is realized as [anji]. Similarly, second person plural /unnji/ is realized as [unji], making it homophonous with the second person singular possessive form /unji/.

Throughout this grammar, the pronominal forms are treated orthographically as individual words, reflecting their phonological unity. However, the glossing reflects their composite structure (i.e., object pronoun + -*nji* 'POSS'). The possessive ending -*nji* 'POSS' is also found in full NPs, but only when they end in a determiner (i.e., an object marker or deictic); that is, -*nji* 'POSS' cannot attach to bare nouns. Possession with full-NP possessors is discussed further in §11.1.5.

Possessive pronouns do not index anything about the possessum. That is, although the possessive pronoun encodes the person and number of the possessor, it offers no information about the person or number (or gender) of that which

is possessed. Furthermore, no morphological or syntactic distinction is made in Ulwa between alienable and inalienable possession.

Possessive forms may refer to first person (3), second person (4), or third person (5) possessors.

(3) ***Nïnji*** *anapa mï atalap.*
     nï-nji *anapa mï   atal-a-p*
     1SG-POSS sister 3SG.SUBJ laughter-break-PFV
     'My sister laughed.' [elicited]

(4) ***Unji*** *aweta mï anma.*
     u-nji   *aweta mï   anma*
     2SG-POSS friend 3SG.SUBJ good
     'Your friend is nice.' [elicited]

(5) ***Manji*** *wonmi ndï namlip.*
     ma-nji   *wonmi ndï namli=p*
     3SG.OBJ-POSS hair   3PL soft=COP
     'Her hair is soft.' [elicited]

Possessors may be singular, dual, or plural, and may occur in object roles as well as subject roles. In example (6), the possessive form refers to a third person plural possessor, here part of a direct object NP.

(6) *Ndï lïmndï **ndïnji** aweta mala.*
     *ndï lïmndï **ndï-nji** aweta ma=ala*
     3PL eye   3PL-POSS friend 3SG.OBJ=see
     'They saw their friend.' [elicited]

Third person possessive forms, such as the one in (7), can have ambiguous reference, pointing either (reflexively) to an antecedent in the clause or to a third party not necessarily mentioned in the clause.

(7) *Ginam mï inim mo **manji** aweta ndït atalp.*
     *Ginam_i mï   inim ma=u   **ma-nji**_{i/j}   aweta ndï=tï*
     [name] 3SG.SUBJ water 3SG.OBJ=from 3SG.OBJ-POSS friend 3PL=take
     ata-lï-p
     up-put-PFV
     'Ginam pulled her friends out of the water.' [elicited]

That is, *manji* '3SG.OBJ-POSS' in sentence (7) can refer either to Ginam's friends or to someone else's (e.g., Yawat's). To clarify that the pronoun refers to Ginam, a different form may instead be used, composed of the reflexive pronoun of the appropriate number (§8.3) and *-nji* 'POSS', giving the meaning 'X's own', as in (8).

(8) *Ginam mï inim mo **ambïnji** aweta ndït atalp.*
    *Ginam*ᵢ *mï   inim ma=u   **ambï-nji**ᵢ/*ⱼ aweta ndï=tï*
    [name] 3SG.SUBJ water 3SG.OBJ=from SG.REFL-POSS friend 3PL=take
    ata-lï-p
    up-put-PFV
    'Ginam pulled her own friends out of the water.' [elicited]

These forms are similar in function to certain pronouns found in some other languages, such as the Latin possessive reflexive pronoun *suus* 'his/her/its/their own'. In addition to their use in clarifying third person antecedents, however, the Ulwa forms may also be used with first or second person reference in order to convey the sense 'my own', 'our own', 'your own', and so on, as in (9), (10), and (11).

(9) *Nï lïmndï **ambïnji** aweta mala.*
    *nï   lïmndï **ambï-nji**   aweta ma=ala*
    1SG eye   SG.REFL-POSS friend 3SG.OBJ=see
    'I saw my own friend.' [elicited]

(10) *Min lïmndï **ambinji** aweta mala.*
     *min lïmndï **ambin-nji**   aweta ma=ala*
     3DU eye   DU.REFL-POSS friend 3SG.OBJ=see
     'The two of them saw their own friend.' [elicited]

(11) *Un lïmndï **amblanji** aweta ndala.*
     *un lïmndï **ambla-nji**   aweta ndï=ala*
     2PL eye   PL.REFL-POSS friend 3SG.OBJ=see
     'You saw your own friends.' [elicited]

These reflexive possessive forms are not marked for person (or gender); they are only marked for number. They are included in Table 8.3.

It may here be noted that possessive forms need not necessarily precede nouns. Although they cannot precede verbs (without the verbs having been nominalized), they can precede adjectives. This happens, however, only when the adjective is functioning substantively (i.e., nominally) (§7.3), as in (12) and (13). This

further suggests that there is little if any morphosyntactic distinction between property words (i.e., "adjectives") and semantically more prototypical nouns.

(12) ***Manji** anma ndï apa map.*
      ***ma**-nji*   *anma ndï apa*   *ma=p*
      3SG.OBJ-POSS good   3PL house 3SG.OBJ=be
      'His good ones [= daughters] are in the house.' [elicited]

(13) ***Nïnji** njukuta mï wandam i.*
      ***nï**-nji*   *njukuta mï*   *wandam i*
      1SG-POSS small   3SG.SUBJ jungle   go.PFV
      'My small one [= dog] went into the jungle.' [elicited]

Finally, the possessive forms can be used substantively with an implied noun, as in (14) and (15).

(14) *Unji apa mï njukutap **nïnji** mï ambip.*
      u-nji   *apa*   *mï*   *njukuta=p **nï**-nji*   *mï*   *ambi=p*
      2SG-POSS house 3SG.SUBJ small=COP 1SG-POSS 3SG.SUBJ big=COP
      'Your house is small; mine is big.' [elicited]

(15) *Kayta manji tïn mï **nïnji** asap.*
      Kayta   *ma-nji*   *tïn mï*   ***nï**-nji*   *asa-p*
      [name] 3SG.OBJ-POSS dog 3SG.SUBJ 1SG-POSS hit-PFV
      'Kayta's dog attacked mine.' [elicited]

Substantive possessive forms (otherwise more akin to determiners) are thus in some ways rather similar to English possessive pronouns; they can, accordingly, be translated as 'mine', 'ours', 'yours', 'hers', and so on.

8.3 Reflexive and reciprocal pronouns

A reflexive pronoun generally has as an antecedent a form occurring (or implied) earlier in the same clause that has the same referent (i.e., the two words are co-indexed for reference). Reflexive pronouns are inflected for number, but not for person or gender. As these forms function as objects, they typically cliticize to a following verb or postposition. The Ulwa reflexive pronouns are given in Table 8.4.

Thus, these pronouns are similar to their English translations ending in '-self' or '-selves', in that there is no distinction made among them for person – whether

Table 8.4: Reflexive/reciprocal pronouns

	SG	DU	PL
REFL	*ambï=*	*ambin=*	*ambla=*

first, second, or third – but they are distinguished for number. These three forms are based on the same root, /amb(ï)-/. The use of reflexive pronouns is illustrated by examples (16) through (22).

(16) *Tambana mï **ambuwalinda**.*
      *Tambana mï   **ambï**=wali-nda*
      [name]   3SG.SUBJ SG.REFL=hit-IRR
      'Tambana will hit herself.' [elicited]

(17) *Mï **ambït** nïmal ndïlp.*
      *mï   **ambï**=tï   nïmal ndï=lï-p*
      3SG.SUBJ SG.REFL=take river   3PL=put-PFV
      'It has put itself in the rivers.' [ulwa014_69:32]

(18) *Nï **ambïnakap** mol une.*
      *nï   **ambï**=nakap ma=ul   uni-e*
      1SG SG.REFL=for   3SG.OBJ=with shout-IPFV
      'I was yelling at her on my own behalf.' [ulwa032_16:56]

(19) *Ngun **ambinkalamp**.*
      *ngun **ambin**=kalam=p*
      2DU   DU.REFL=knowledge=COP
      'You two know yourselves.' [elicited]

(20) *Nungol ndï **amblat** nay.*
      *nungol ndï **ambla**=tï   na-i*
      child   3PL PL.REFL=take DETR-go.PFV
      'The children brought themselves [to go along].' [ulwa014_60:09]

(21) *Una **amblakolp**.*
      *unan   **ambla**=kol-p*
      1PL.INCL PL.REFL=break-PFV
      'We have broken ourselves.' [ulwa037_31:10]

(22) *Ay ndïnkap ndïn **amblan** up.*
      *ay   ndï=nïkï-p   ndï=n   **ambla**=n   u-p*
      sago 3PL=dig-PFV 3PL=OBL PL.REFL=OBL put-PFV
      '[They] made [packets of] sago and left them for themselves.'
      [ulwa014_49:21]

There are indications that the binding domain for anaphors (i.e., reflexive pronouns) in Ulwa may be something greater than the clause – that is, unlike in English, it is possible for the antecedent of a reflexive pronoun in Ulwa to be located in a so-called higher clause. All known examples of this occur when the matrix clause (containing the antecedent) introduces the embedded clause (containing the reflexive pronoun) by means of a verb of speaking (or thinking).[2] Examples (23) and (24) illustrate the use of reflexive pronouns with antecedents in a "higher" clause.

(23) *Wangasa Wore ngala ini tï **ambïnanda** nate.*
      *Wangasa$_i$ Wore ngala ini tï **ambï**$_i$=na-nda na-ta-e*
      [name] [place] PL.PROX ground take SG.REFL=give-IRR DETR-say-DEP
      'Wangasa says that these Wore [people] will give him land.' (Literally '…
      will give himself land') [ulwa014_21:49]

(24) ***Ambïwalinda ambul** undate nakap.*
      ***ambï**=wali-nda **ambï**=ul   unda-t-e   na-kï-p*
      SG.REFL=hit-IRR SG.REFL=with go-SPEC-DEP DETR-say-PFV
      '[He] thought that [the crocodile] might go around with him to kill him.'
      [ulwa035_02:29]

Example (25) illustrates this long-distance (or logophoric) anaphoric reference with a reflexive pronominal modifier, here used as a bare possessor, without the form *-nji* 'POSS' (§8.2).

(25) *Kwa mï man **ambaweta** kap.*
      *kwa mï$_i$ ma=n   **ambï**$_i$=aweta   kï-p*
      one 3SG.SUBJ 3SG.OBJ=OBL SG.REFL=friend say-PFV
      'Someone said that it was his friend.' [ulwa020_00:39]

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[2]Thus, Ulwa may be said to exhibit a sort logophoricity, since these reflexives must be bound by an antecedent whose speech (or thought) is being reported. It should be noted, however, that there is no special logophoric pronoun in Ulwa.

Also to be mentioned here is an interesting idiomatic use of the reflexive pronominal object marker *ambla=* 'PL.REFL'. When used with the verb *asa-* ~ *wali-* 'hit, kill', this marker does not necessarily have a reflexive (or reciprocal) sense, but rather gives the entire verb the intransitive meaning 'fight' (as in battle). The object of fighting (the enemy) can be marked in a postpositional phrase with the postposition *ul* 'with'. This can cause ambiguity not unlike what often occurs in English, since this same postpositional phrase can mark either enemies or allies.[3] Sentences (26), (27), and (28) exemplify this use of the verb *asa-* ~ *wali-* 'hit, kill' with the reflexive pronominal object marker *ambla=* 'PL.REFL'.

(26) *Ndiya lop ndiya wa lop ndul **amblasap**.*
 *ndï=iya   lo-p   ndï=iya   wa   lo-p   ndï=ul   **ambla**=asa-p*
 3PL=toward go-PFV 3PL=toward village go-PFV 3PL=with PL.REFL=hit-PFV
 '[They] went to them, went to them in the village, and fought with them [as enemies].' [ulwa034_00:27]

(27) *Unan ndiya ma ndul **amblawalinda**!*
 *unan   ndï=iya   ma ndï=ul   **ambla**=wali-nda*
 1PL.INCL 3PL=toward go 3PL=with PL.REFL=hit-IRR
 'Let's go to them and fight with them [as allies]!' [ulwa002_05:37]

(28) *Ndul ndul **amblasap**.*
 *ndï=ul   ndï=ul   **ambla**=asa-p*
 3PL=with 3PL=with PL.REFL=hit-PFV
 'With them [= our allies] we fought with them [= our enemies].' [ulwa002_03:13]

The dual and plural reflexive pronouns may, alternatively, convey a reciprocal sense (i.e., 'each other', 'one another'). There may thus arise ambiguity in meaning, typically clarified through context. For example, sentence (19) could be interpreted either as having a reflexive sense or as having a reciprocal sense (i.e., either 'you two know each other' or 'you two know yourselves'). Examples of reciprocal meaning are given in sentences (29) through (34).

(29) *Kolpe Womel min **ambinasap**.*
 *Kolpe   Womel min **ambin**=asa-p*
 [name] [name] 3DU DU.REFL=hit-PFV
 'Kolpe and Womel fought each other.' [elicited]

---

[3]Cf. English sentences such as *The English fought with the French.*

(30) *Nguna **ambinlu** ndïtana.*
 ngunan **ambin**=lu *ndï=ta-na*
 1DU.INCL DU.REFL=with 3PL=say-IRR
 'We will tell them [= stories] with each other.' [ulwa033_02:36]

(31) *Ngan manap **ambinlu** une.*
 ngan ma=nap **ambin**=lu *uni-e*
 1DU.EXCL 3SG.OBJ=for DU.REFL=with shout-IPFV
 'We argued with each other over her.' [ulwa032_17:31]

(32) *Wopa **amblol** malanda mane.*
 *wopa **ambla**=ul ma=la-nda ma-n-e*
 all PL.REFL=with 3SG.OBJ=eat-IRR go-IPFV-DEP
 'All are going to eat it with one another.' [ulwa014_65:16]

(33) *Mundu ndata ndï na **amblakap**: ...*
 *mundu ndï=at-ta ndï na **ambla**=kï-p*
 hunger 3PL=hit-COND 3PL talk PL.REFL=say-PFV
 'And when [they] got hungry, they said to one another other: ...'
 [ulwa018_00:30]

(34) *An ambi nape an lïmndï **amblala**.*
 *an ambi na-p-e an lïmndï **ambla**=ala*
 1PL.EXCL big DETR-be-DEP 1PL.EXCL eye PL.REFL=see
 'When we had gotten big, we looked at one another.' [ulwa013_10:25]

Sometimes a personal pronoun occurs where a reflexive/reciprocal pronoun may otherwise be expected. It is unclear whether this is a permissible variation in pronoun use or an indication of grammatical attrition. It is common with the verb *ala-* 'see', as in (35) and (36).

(35) *An lïmndï **anala**.*
 *an lïmndï **an**=ala*
 1PL.EXCL eye 1PL.EXCL=see
 'We saw ourselves.' [ulwa013_04:15]

(36) *Olsem nï lïmndï **nala**.*
 *olsem nï lïmndï **ni**=ala*
 thus 1SG eye 1SG=see
 'I see myself like this.' (i.e., 'I view myself as a person from Manu.') (*olsem* = TP) [ulwa004_03:03]

8.4 Indefinite pronouns

Indefinite referents can be denoted by the numeral/interrogative word *kwa* 'one; who?; someone' when the referent is a human or by the phrase *nji kwa* 'one thing, something' when the referent is non-human, as illustrated by examples (37) through (40).

(37) ***Kwa** nip.*
    ***kwa** ni-p*
    one   die-PFV
    (a) 'Someone died.'
    (b) 'Who died?' [elicited]

(38) *Nï **kwa** asap.*
    *nï   **kwa** asa-p*
    1SG one   hit-PFV
    'I killed someone.' [elicited]

(39) ***Nji kwa** liyu.*
    ***nji**   **kwa** li-u*
    thing one   down-put
    'Something fell.' [elicited]

(40) *Nï lïmndï **nji kwa** ala*
    *nï   lïmndï **nji**   **kwa** ala*
    1SG eye   thing one   see
    'I saw something.' [elicited]

Sentence (37), if given the right intonation, could be interpreted as a question, as suggested by the second translation given. This is because the form [kwa] is also used as an interrogative pronoun meaning 'who?' (§8.5).

Dual and plural forms do not tend to be used for indefinite pronominal referents, at least not on their own. For non-singular indefinite referents, however, the word *kuma* 'some' may follow an NP, whether human (41) or non-human (42).

(41) *Ankam **kuma** mbin.*
    *ankam **kuma** mbï-i-n*
    person some   here-come-PFV
    'Some people came.' [elicited]

(42)   *Ya **kuma** liyu.*
       *ya   **kuma** li-u*
       coconut some   down-put
       'Some coconuts fell.' [elicited]

It is possible for subject markers (§9.1) to follow *kuma* 'some' (43). Although subject markers may also follow *kwa* 'someone', this is less common. In this way, *kwa* 'someone' seems to pattern with what are more likely true pronouns, whereas *kuma* 'some' seems to pattern more with adjectives.

(43)   *Ya **kuma ndï** liyu.*
       *ya   **kuma ndï** li-u*
       coconut some   3PL down-put
       'Some coconuts fell.' [elicited]

It should be noted as well that object markers (§9.2) can follow object NPs ending with *kuma* 'some', as in (44) and (45).

(44)   *Nï lïmndï ankam **kuma ndala**.*
       *nï   lïmndï ankam **kuma ndï**=ala*
       1SG eye   person some   3PL=see
       'I saw some people.' [elicited]

(45)   *Nï ya **kuma ndamap**.*
       *nï   ya   **kuma ndï**=ama-p*
       1SG coconut some   3PL=eat-PFV
       'I ate some coconuts.' [elicited]

The interrogative form *angos* 'what?' can also be used in negative-polarity sentences (e.g., with the negator *ango* 'NEG') to mean something along the lines of 'whatever, whatsoever, anything', as in examples (46) through (49).

(46)   *Ango **angos** na iye.*
       *ango **angos** na   i-e*
       NEG   what   talk go.PFV-DEP
       '[They] came to no thought whatsoever.' (i.e., they came without any particular purpose) [ulwa002_01:26]

(47)   *Una ango **angos** wombïn ninda.*
       *unan   ango **angos** wombïn=n ni-nda*
       1PL.INCL NEG what   work=OBL act-IRR
       'We will not do [just] whatever [sort of] work.' [ulwa030_02:30]

(48)   *Ango **angos** na ndït.*
       *ango **angos** na   ndï=ta*
       NEG what   talk 3PL=say
       '[She] didn't say anything to them.' [ulwa014†]

(49)   *Nï ango **angos** ame.*
       *nï   ango **angos** ama-e*
       1SG NEG what   eat-IPFV
       'I'm not eating anything.' [ulwa032_27:12]

When combined with *nji* 'thing', *angos* 'what?' can convey the sense 'whatever' in positive-polarity sentences (50).

(50)   ***Angos nji** inata una lïmndï mandï ande.*
       ***angos nji**   i-na-ta   unan   lïmndï ma=andï ande*
       what   thing come-IRR-COND 1PL.INCL eye   3SG=see ok
       'Whatever may come, we would see it [and say:] "OK".' [ulwa037_20:53]

8.5 Interrogative pronouns

The forms of the indefinite pronouns *kwa* 'one, someone' and *kuma* 'some' (§8.4) are the same as the forms used in asking content questions in Ulwa. The pronoun *kwa* 'one, someone' thus also means 'who?' (for a singular human referent), as illustrated by example (51).

(51)   ***Kwa** (mï) lamndu ndasap?*
       ***kwa** (mï)   lamndu ndï=asa-p*
       one (3SG.SUBJ) pig   3PL=hit-PFV
       'Who killed the pigs?' [elicited]

Similarly, the pronoun *kuma* 'some' conveys the means 'who?' when referring to multiple human referents, as in (52) and (53).

(52)   ***Kuma** (min) lamndu ndasap?*
       ***kuma** (min) lamndu ndï=asa-p*
       some (3DU) pig   3PL=hit-PFV
       'Who [= which (two) people] killed the pigs?' [elicited]

(53)   ***Kuma** (ndï) lamndu ndasap?*
       ***kuma** (ndï) lamndu ndï=asa-p*
       some (3DU) pig   3PL=hit-PFV
       'Who [= which (three or more) people] killed the pigs?' [elicited]

For non-human referents, the question word *angos* 'what?' is used, as in (54), (55), and (56). For all interrogative pronouns, subject markers are optional (as are object markers).

(54)   ***Angos** (mï) lamndu ndasap?*
       ***angos** (mï)   lamndu ndï=asa-p*
       what (3SG.SUBJ) pig   3PL=hit-PFV
       'What killed the pigs?' [elicited]

(55)   ***Angos** (min) lamndu ndasap?*
       ***angos** (min) lamndu ndï=asa-p*
       what (3DU) pig   3PL=hit-PFV
       'What [= which (two) things] killed the pigs?' [elicited]

(56)   ***Angos** (ndï) lamndu ndasap?*
       ***angos** (ndï) lamndu ndï=asa-p*
       what (3PL) pig   3PL=hit-PFV
       'What [= which (three or more) things] killed the pigs?' [elicited]

In content questions (i.e., *wh-* questions), the *wh-* word remains in situ; it is not preposed to the front of the clause as in English. Accordingly, when the 'who' or 'what' being asked about is not the grammatical subject, but rather the object of a verb, then the interrogative pronoun occurs in the typical object position (i.e., immediately before the verb), as in examples (57) through (60).

(57)   *U lïmndï **kwa** mala?*
       *u   lïmndï **kwa** ma=ala*
       2SG eye   one 3SG.OBJ=see
       'Whom did you see?' [elicited]

(58)   *Yata mï **kuma** ndasap?*
       *yata mï   **kuma** ndï=asa-p*
       man 3SG.SUBJ some 3PL=hit-PFV
       'Whom [= which people] did the man hit?' [elicited]

(59) *U **angos** matïn?*
    u   **angos** *ma=tï-n*
    2SG what   3SG.OBJ=take-PFV
    'What did you take?' [elicited]

(60) *Nungol mï **angos** minanglalop?*
    nungol mï   **angos** *min=angla-lo-p*
    child   3SG.SUBJ what   3DU=await-go-PFV
    'What [= which two things] did the boy look for?' [elicited]

When preceding an NP, the interrogative word *ango* 'which?' (compare *angos* 'what?') conveys the sense 'which [NP]?'. There is no distinction made based on animacy or number or grammatical relation (i.e., whether the questioned element is a subject or an object). Significantly, whereas modifiers of NPs such as adjectives or determiners follow their associated NPs (§11.1), the modifying element *ango* 'which?' precedes its NP. This could serve the functional means of differentiating between 'which [NP]?' and '[NP] NEG'.[4] Sentences (61) through (64) illustrate the use of *ango* 'which?'.

(61) ***Ango** tïn (mï) mïnda mamap?*
    ango *tïn (mï)*   *mïnda ma=ama-p*
    which dog (3SG.SUBJ) banana 3SG.OBJ=eat-PFV
    'Which dog ate the banana?' [elicited]

(62) *U **ango** mïnda (mï) mamap?*
    u   **ango** *mïnda (mï)*   *ma=ama-p*
    2SG which banana (3SG.SUBJ) 3SG.OBJ=eat-PFV
    'Which banana did you eat?' [elicited]

(63) ***Ango** nungolke nïnji yot matïn?*
    ango *nungolke nï-nji*   *yot*   *ma=tï-n*
    which child   1SG-POSS machete 3SG.OBJ=take-PFV
    'Which child took my machete?' [elicited]

(64) *U **ango** apa nditap?*
    u   **ango** *apa*   *ndï=ita-p*
    2SG which house 3PL=build-PFV
    'Which houses did you build?' [elicited]

---

[4]Cf. ***ango** tïn mamap* 'which dog ate it?' vs. ***tïn** ango mamap* 'the dog did not eat it'.

The interrogative pronoun 'whose?' takes the form *kwanji* 'whose [SG]' for singular possessors and *kumanji* 'whose [NSG]' for dual or plural possessors (no distinction is made here between the two), as may be seen in examples (65), (66), and (67). These forms are transparently derived from the words *kwa* 'one' or *kuma* 'some' plus *nji* 'thing' (cf. possessive pronouns, §8.2).

(65) **Kwanji** *nungol (mï) nïnji yot tïn?*
      kwa-nji *nungol (mï)*   *nï-nji*   *yot*   *tï-n*
      one-POSS child   (3SG.SUBJ) 1SG-POSS machete take-PFV
      'Whose child took my machete?' [elicited]

(66) *Anda* **kwanji** *mana?*
      anda   **kwa-nji** *mana*
      SG.DIST one-POSS spear
      'Whose spear is that?' [elicited]

(67) *U* **kumanji** *apa maytap?*
      u   **kuma-nji** *apa*   *ma=ita-p*
      2SG some-POSS house 3SG.OBJ=build-PFV
      'Whose [plural] house did you build?' [elicited]

8.6 Intensive pronouns

There are two basic sets of intensive pronouns in Ulwa. The members of one paradigm stress the fact that the referent(s) alone is/are the subject (or object). The members of the other paradigm stress the fact that the referent(s) – out of a group of potential referents – performed the action; these are called here partitive-intensive pronouns.

The suffix used to derive the set of (non-partitive) intensive pronouns is *-awa* 'INT' ('-self/-selves'). It may combine with any of the non-subject pronominal (or demonstrative) forms, generating the paradigm shown in Table 8.5. Throughout this grammar, intensive pronouns are treated orthographically as individual words; in the morphological glossing, however, they are broken into their composite morphemes.

Sentences (68), (69), and (70) illustrate the use of basic intensive pronouns to place emphasis on a subject.

Table 8.5: Intensive pronominal and demonstrative forms

	SG	DU	PL
1	*nawa*	*nganawa* [EXCL]	*anawa* [EXCL]
		ngunanawa [INCL]	*unanawa* [INCL]
2	*wawa*	*ngunawa*	*unawa*
3	*mawa*	*minawa*	*ndawa*
REFL	*ambawa*	*ambinawa*	*amblawa*
PROX	*ngawa*	*nginawa*	*ngalawa*
DIST	*andawa*	*andinawa*	*alawa*

(68) **Nawa** *lamndu masap.*
    nï-awa *lamndu ma=asa-p*
    1SG-INT pig   3SG.OBJ=hit-PFV
    'I myself killed the pig.' [elicited]

(69) *Kayta* **mawa** *lamndu masap.*
    Kayta **ma-awa** *lamndu ma=asa-p*
    [name] 3SG.OBJ-INT pig   3SG.OBJ=hit-PFV
    'Kayta himself killed the pig.' [elicited]

(70) **Wawa** *utam nduwanap.*
    u-awa *utam ndï=wana-p*
    2SG-INT yam 3PL=cook-PFV
    'You yourself cooked the yams.' [elicited]

The partitive-intensive pronominal suffix is *-we* 'PART.INT' ('-self/-selves [out of multiple]'). It may combine with any of the non-subject pronominal (or demonstrative) forms, generating the paradigm given in Table 8.6.

Sentences (71), (72), and (73) illustrate the use of partitive-intensive pronouns to emphasize sole participation of a referent (or group of referents).

(71) **Nuwe** *lamndu masap.*
    nï-we   *lamndu ma=asa-p*
    1SG-PART.INT pig   3SG.OBJ=hit-PFV
    'I myself [in the group] killed the pig.' [elicited]

Table 8.6: Partitive-intensive pronouns and demonstratives

	SG	DU	PL
1	*nuwe*	*nganwe* [EXCL]	*anwe* [EXCL]
		ngunanwe [INCL]	*unanwe* [INCL]
2	*uwe*	*ngunwe*	*unwe*
3	*mawe*	*minwe*	*nduwe*
REFL	*ambuwe*	*ambinwe*	*amblawe*
PROX	*ngawe*	*nginwe*	*ngalawe*
DIST	*andawe*	*andinwe*	*alawe*

(72) **Nduwe** *i.*
 ndï-we　　　*i*
 3PL-PART.INT go.PFV
 'They themselves [out of a group] went.' [elicited]

(73) *Kolpe Kongos* **ambinwe** *lamndu ndasape nakap.*
 Kolpe　Kongos **ambin-we**　　　*lamndu ndï=asa-p-e*　　*na-kï-p*
 [name] [name] DU.REFL-PART.INT pig　　3PL=hit-PFV-DEP DETR-say-PFV
 'Kolpe and Kongos said that they themselves [out of a group] killed the pigs.' [elicited]

Although both paradigms of intensive pronouns are written as sets of single lexemes, the composite morphemes of each putative word are quite clear and can, at times, occur separately, as in examples (74), (75), and (76), each of which contains both the partitive-intensive pronominal form (of the 3PL pronoun) and the basic intensive form (as a separate morpheme, without any person or number marking).

(74) **Nduwe** **awa** *nïmal ngayte mo liyen.*
 ndï-we　　　**awa** *nïmal nga=ita-e*　　　*ma=u*
 3PL-PART.INT INT　river　SG.PROX=build-IPFV 3SG.OBJ=from
 li-i-en
 down-go.PFV-NMLZ
 'They themselves alone were the ones who built [along] this river, having come down along it.' [ulwa002_02:47]

(75) *Manji nji ngala **nduwe awa**.*
      *ma-nji   nji   ngala **ndï-we**   **awa***
      3SG.OBJ-POSS thing PL.PROX 3PL-PART.INT INT
      'These things are his.' (Literally 'His things are them indeed [out of the group].') [ulwa014_05:28]

(76) ***Nduwe awa** man ne.*
      ***ndï-we**   **awa** ma=n   ni-e*
      3PL-PART.INT INT 3SG.OBJ=OBL act-IPFV
      'They themselves do it.' [ulwa032_25:42]

It is also possible for the form *we* 'alone' to occur as a separate morpheme, phonologically distinct from the preceding word (even if that word is a pronoun), as in (77) and (78).

(77) *Mangusuwa **we** i.*
      *ma-ngusuwa **we**   i*
      3SG.OBJ-poor alone go.PFV
      'The poor thing went alone.' [ulwa035_01:19]

(78) *Nï **we** alum ngol mbïka lowonda.*
      *nï **we**   alum nga=ul   mbï-ka   lo-wo-nda*
      1SG alone child SG.PROX=with here-thus IRR-sleep-IRR
      'I alone will sleep here with this child.' [ulwa011_01:46]

8.7 Emphatic pronouns

In addition to these intensive pronominal forms, there is a set of what are here called emphatic pronominal forms. While there may also exist a full paradigm for such forms in all persons and numbers, both for personal pronouns and for demonstratives (see §9.3), only four forms are attested in texts (79).

(79) Attested emphatic pronouns and demonstratives

      mïnam   'he/she/it is the one'
      ndïnam   'they are the ones'
      ngam   'this is it'
      andanam 'that is it'

Notably, these forms are based on the subject (and not object) forms of the pronouns (e.g., /mï-nam/ and not [†]/ma-nam/). They all appear to contain the emphatic suffix *-nam* 'EMPH'. The form [ngam] seems to have undergone a phonological reduction, assuming that it derives from *nga* 'SG.PROX' ('this') plus *-nam* 'EMPH'. The emphatic pronominal forms are illustrated by examples (80) through (83).

(80) **Mïnam** *amun masal Dumngul nungol ngawatawe.*
    *mï-**nam***   *amun ma=si-al*   *Dumngul nungol*
    3SG.SUBJ-EMPH now   3SG.OBJ=push-PFV [name]   child
    nga=wat-aw-e
    SG.PROX=atop-put.IPFV-DEP
    'Now he's the one – [they] call Dumngul's son after him.' (Literally 'are pushing it [= the name] onto this child [of] Dumngul') [ulwa014_45:50]

(81) *Inap ul iyen* **ndïnam**.
    ina-p   *u=ul*   *i-en*   *ndï-**nam***
    get-PFV 2SG=with go.PFV-NMLZ 3PL-EMPH
    'They were the ones who bore [you] and went with [you].' [ulwa014†]

(82) *A* **andanam**!
    a   *anda-**nam***
    ah SG.DIST-EMPH
    'Ah, that one!' [ulwa001_02:41]

(83) **Ngam** *u nïn lïmndï ngaka nase.*
    *nga-**nam***   *u*   *nï=n*   *lïmndï nga=ka*   *nï=asa-e*
    SG.PROX-EMPH 2SG 1SG=OBL eye   SG.PROX=in 1SG=hit-DEP
    'This is it – you shot me in my eye.' [ulwa006_08:08]

The emphatic marker *-nam* 'EMPH' perhaps also appears in the interjection *mawnam* 'that's it' (§10.3.3).

8.8 Topic-marker pronouns

There is another set of pronominal forms, which can be used to mark the topic of a sentence. They are formed by combining a pronoun, whether personal (§8.1) or demonstrative (§9.3), with the topic-marking form *-ambi* 'TOP', which may derive from a strengthened form of the reflexive marker *ambï=* 'SG.REFL' (cf. the

Table 8.7: Topic-marker pronominal and demonstrative forms

	SG	DU	PL
1	*nambi*	*nganambi* [EXCL] *ngunanambi* [INCL]	*anambi* [EXCL] *unanambi* [INCL]
2	*wambi*	*ngunambi*	*unambi*
3	*mambi*	*minambi*	*ndambi*
PROX	*ngambi*	*nginambi*	*ngalambi*
DIST	*andambi*	*andinambi*	*alambi*

adjective *ambi* 'big', which perhaps also derives from this intensive form). Topic-marker forms are presented in Table 8.7.

These topic-marking forms can be used to contrast one referent from another or to introduce a new referent after, say, a pause in the discourse. Some of their functions are illustrated by sentences (84) through (89).

(84) **Ngunanambi** *ango lïmndï manji pamili ndale.*
 ngunan-ambi *ango lïmndï ma-nji*   *pamili ndï=ala-e*
 1DU.INCL-TOP   NEG eye   3SG.OBJ-POSS family 3PL=see-DEP
 'As for us, we don't see his family.' (*pamili* = TP *famili*) [ulwa014_19:20]

(85) *Mï mïnjan* **nambi** *ango misimisi kalamp.*
 mï   *mïnja=n*   **nï-ambi** *ango misimisi kalam=p*
 3SG.SUBJ speech=OBL 1SG-TOP   NEG story   knowledge=COP
 'She said: "Me? I don't know stories."' [ulwa014_01:20]

(86) **Unanambi** *unanji wa ilum* **ngambi** *anma ndo.*
 unan-ambi *unan-nji*   *wa*   *ilum* **nga-ambi**   *anma anda=o*
 1PL.INCL-TOP 1PL.INCL-POSS village little SG.PROX-TOP good   SG.DIST=VOC
 'But us? As for this little village of ours, it's good.' [ulwa037_32:27]

(87) *Nogat Nomnga* **mambi** *kalam anda.*
 nogat Nomnga **ma-ambi**   *kalam*   *anda*
 no   [name] 3SG.OBJ-TOP knowledge SG.DIST
 'No, Nomnga knows [how to hunt].' (The speaker was asked whether she was referring to Nomnga as the person who does not know how to hunt.) (*nogat* = TP) [ulwa014_25:39]

(88)   **Nambi** *mandïm ma Wopata ma mapïna.*
    nï-ambi *ma=andïm   ma Wopata ma ma=p-na*
    1SG-TOP 3SG.OBJ=from go [place] go 3SG.OBJ=be-IRR
    'I for one will leave her behind and go and stay at Wopata.'
    [ulwa032_35:10]

(89)   *Tarambi* **mambi** *anmbï mbïpe.*
    Tarambi **ma-ambi**   *an-mbï mbï-p-e*
    [name] 3SG.OBJ-TOP out-here here-be-IPFV
    'As for Tarambi, he stays outside.' [ulwa014†]

The topic-marking pronominal forms are found almost exclusively in subject NPs. However, they appear as object-markers proclitics as part of irrealis or imperative expressions with the verb *ka-* 'let, leave, allow', thereby creating the idiomatic meaning 'forget (about) it/forget (about) them!'. This use is illustrated in examples (90) through (93).

(90)   **Mambilakan** *nï nakamp.*
    ma-ambi=la-ka-n   *nï na-kamb-p*
    3SG.OBJ-TOP=IRR-let-IMP 1SG DETR-shun-PFV
    'Forget it; I've had enough.' [ulwa032_47:46]

(91)   *Makape i mambi* **mambinalakata!**
    maka=p-e   i   ma-ambi   **ma-ambi**=na-la-ka-ta
    thus=COP-DEP way 3SG.OBJ-TOP 3SG.OBJ-TOP-DETR-IRR-let-COND
    'As for behavior like that – forget it!' [ulwa037_29:08]

(92)   *Nïnji uta la ko* **ndambilakata** *ndï nïn mapïn!*
    *nï-nji   uta ala   ko **ndï-ambi**=la-ka-ta   ndï nï=n*
    1SG-POSS bird PL.DIST just 3PL-TOP=IRR-let-COND 3PL 1SG=OBL
    ma=p-n
    3SG.OBJ=be-IMP
    'Those are my birds – just let them be there with me!' [ulwa037_47:32]

(93)   **Mambilakana!**
    ma-ambi=la-ka-na
    3SG.OBJ-TOP=IRR-let-IRR
    'Shocking!' [ulwa001_13:36]

8.9 Affective pronouns

Ulwa has a set of pronouns used to convey compassion toward a second person or third person referent. These affective (or commiserative) forms are transparently derived from the set of personal pronouns plus the adjective *ngusuwa* 'poor, pitiful'.[5] All the forms may be optionally elongated by the ending [-ta], which bears no clear semantic connection to the conditional suffix of the same form (§6.12). The forms of the affective pronouns are shown in Table 8.8.

Table 8.8: Affective pronouns

	SG	DU	PL
2	*ungusuwa ~* *ungusuwata*	*ngungusuwa ~* *ngungusuwata*	*ungusuwa ~* *ungusuwata*
3	*mangusuwa ~* *mangusuwata*	*mingusuwa ~* *mingusuwata*	*ndïngusuwa ~* *ndïngusuwa*

As an adjective, *ngusuwa* 'poor' has the same distribution to be expected of any (attributive) adjective in Ulwa (§7.1): it follows the nominal head of the NP and may precede a determiner. Its use as an adjective is illustrated by sentences (94) through (98).

(94) *Yawa **ngusuwa** nda ma unap mat iyap.*
      *yawa **ngusuwa** anda   ma u=nap ma=tï   i-ap*
      uncle poor   SG.DIST go 2SG=for 3SG.OBJ=take go.PFV-PFV
      'That poor uncle went and brought it for you.' [ulwa014†]

(95) *Moira numan **ngusuwa** mï ndala kuma nep.*
      *Moira   numan   **ngusuwa** mï   ndï=ala kuma ne-p*
      [name] husband poor   3SG.SUBJ 3PL=for some harvest-PFV
      'Moira's poor husband harvested some [betel nut] for them.'
      [ulwa014_16:22]

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[5]Notably, the 3SG affective pronoun derives from the object-marker pronominal form (i.e., from /ma=/), and not the subject pronominal form (i.e., not from †/mï/). There is no phonological difference between the 2SG and 2PL affective pronominal forms, as this historical difference has been neutralized by the place assimilation and quasi-degemination of the final /-n/ of *un* '2PL' before the immediately following /ng-/.

(96) *Paulus **ngusuwa** mï numbu ma nan nït.*
*Paulus **ngusuwa** mï   numbu ma   na=n   nï=ta*
[name] poor   3sg.subj garamut 3sg.obj talk=obl 1sg=say
'Poor Paulus told me about the ironwood tree.' [ulwa037_39:57]

(97) *Donna maka wombïn tï tawatïp **ngusuwa** lanane.*
*Donna maka wombïn tï   tawatïp **ngusuwa** ala=na-n-e*
[name] thus work   take child   poor   pl.dist=give-pfv-dep
'Donna, like, gave the work to those poor children.' [ulwa037_55:25]

(98) *Ngunanji itom **ngusuwa** minwe ya ndïn awe.*
*ngunan-nji   itom **ngusuwa** min-we   ya   ndï=n   aw-e*
1du.incl-poss father poor   3du-part.int coconut 3pl=obl put-ipfv
'Only our two poor fathers used to plant coconuts.' [ulwa014†]

The adjective seen in examples (94) through (98) may be contrasted with the pronominal forms, which never precede subject markers, object markers, or any other determiners belonging to the same phrase. The pronominal forms are also capable of being expanded with the ending [-ta], which is never seen in the adjective *ngusuwa* 'poor'. Sentences (99) through (106) illustrate the use of these affective pronouns.

(99) ***Mangusuwa** ya ndïn num up.*
***ma-ngusuwa** ya   ndï=n   num u-p*
3sg.obj-poor   coconut 3pl=obl canoe put-pfv
'The poor thing put coconuts in the canoe.' [ulwa014†]

(100) ***Mangusuwa** mbïpe salïn nïsap.*
***ma-ngusuwa** mbï-p-e   sal=ïn   nï=sa-p*
3sg.obj-poor   here-be-dep tear=obl 1sg=cry-pfv
'When the poor thing was here, [he] cried to me.' [ulwa014†]

(101) ***Mangusuwata** ngat iye.*
***ma-ngusuwata** nga=tï   i-e*
3sg.obj-poor   sg.prox=take go.pfv-dep
'The poor thing brought this.' [ulwa014†]

(102) ***Ungusuwa** mat ambul namana.*
***u-ngusuwa** ma=tï   ambï=ul   na-ma-na*
2sg-poor   3sg.obj=take sg.refl=with detr-go-irr
'You poor thing will bring it with yourself.' [ulwa041_00:45]

(103) **Ngungusuwa** *ango luwa u wambana ndïl?*
ngun-ngusuwa *ango   luwa u   wambana ndï=tï*
2DU-poor   which place from fish   3PL=take
'You two poor things, where did [you] get the fish?' [ulwa036_03:45]

(104) *Mat **ungusuwata**!*
*ma=ta   **un-ngusuwata***
3SG.OBJ=say 2PL-poor
'[I] said: "You poor things!"' [ulwa014_47:29]

(105) **Ndïngusuwa** *may we matïn mat mbi.*
ndï-ngusuwa *ma=i   we   ma=tï-n   ma=tï*
3PL-poor   3SG.OBJ=go.PFV sago 3SG.OBJ=take-PFV 3SG.OBJ=take
mbï-i
here-go.PFV
'The poor things went there, got sago starch, and brought it here.'
[ulwa037_62:09]

(106) **Ndïngusuwata** *mbïpe matane wapen.*
ndï-ngusuwata *mbï-p-e   ma=ta-n-e   wap-en*
3PL-poor   here-be-DEP 3SG.OBJ=say-IPFV-DEP be.PST-NMLZ
'When the poor things were here, [they] used to talk about it.'
[ulwa037_43:44]

9 Determiners

I include under the heading "determiners" a number of rather different word types (including clitics, as well as possibly affixes), that in some way indicate the definiteness or specificity of a referent, provide information that situates it in space, or identify its function within a clause. There are some syntactic commonalities among the various categories described in the following sections, although they do not necessarily constitute a single syntactically definable word class. One function of Ulwa determiners is to encode the number of a referent NP, which is otherwise unmarked for number. Thus, subject markers (§9.1), object markers (§9.2), and demonstratives (§9.3) may all be marked as singular, dual, or plural. This chapter also describes quantifiers (§9.4) and numerals (§9.5).

9.1 Subject markers

Ulwa makes frequent use of a class of what are termed here "subject markers". These are a set of postnominal determiners that occur in subject noun phrases. Though never obligatory, they are very common. When present, they always occur as the final element of their NP. The three basic subject markers have the same form as, and are clearly related to, the third person subject pronouns described in §8.1. The subject markers are given in (1).[1]

(1) Subject markers

mï   '3SG.SUBJ'
min '3DU'
ndï '3PL'

As described in §5.1, nouns in Ulwa are not marked in any way to reflect number. Subject markers, however, can indicate whether the NP to which they belong is singular, dual, or plural. Also, although they are phonologically mostly homophonous with their equivalents in the paradigm of object markers (§9.2),

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[1]The 3SG subject-marker form /mï/ is glossed as '3SG.SUBJ', since it is formally distinct from the 3SG object-marker form /ma=/, which is glossed as '3SG.OBJ'.

there is at least one formal difference in the 3sg forms; as such, subject markers may be said to indicate case as well, albeit in a rather marginal way.

The subject marker can occur with either animate or inanimate referents, as seen in examples (2) through (7). In these examples, each NP marked by a subject marker is translated with the English definite article 'the'. This reflects the fact that subject markers (as determiners) may function to signal definiteness (or specificity) in a referent. That said, it is often possible to translate NPs with subject markers with the English indefinite article 'a, an' or with no article at all. Indeed, the semantic range and discourse functions of these articles remain largely unknown to me.

(2) *Mana **mï** liyu.*
     *mana **mï**   li-u*
     spear 3sg.subj down-put
     'The spear fell.' [elicited]

(3) *Wot yana **mï** lïmndï mala.*
     *wot   yana   **mï**   lïmndï ma=ala*
     younger woman 3sg.subj eye   3sg.obj=see
     'The younger sister saw her.' [ulwa001_05:49]

(4) *Sokoy **mï** ango anmap tembi.*
     *sokoy   **mï**   ango anma=p   tembi*
     tobacco 3sg.subj NEG good=COP bad
     'The tobacco isn't good; [it's] bad.' [ulwa037_53:09]

(5) *Itom **ndï** isin ndïwanap.*
     *itom   **ndï** isi=n   ndï=wana-p*
     father 3PL soup=OBL 3PL=cook-PFV
     'The men cooked them in soup.' [ulwa014_67:13]

(6) *Alum **ndï** se.*
     *alum **ndï** sa-e*
     child 3PL cry-IPFV
     'The children were crying.' [ulwa032_33:34]

(7) *Tïn **min** mo maka lamndu kon anmbas.*
     *tïn **min** ma=u   maka lamndu ko=n   an-mbï-asa*
     dog 3DU 3sg.obj=from thus   pig   INDF=OBL out-here-hit
     'The two dogs thus chased a pig out from there.' [ulwa037_02:28]

These examples illustrate how subject markers can indicate whether a common noun subject is singular, as in (2), (3), and (4); plural, as in (5) and (6); or dual, as in (7). Subject markers can also be used with proper nouns, as in (8) and (9).

(8) *Tarambi **mï** ita nï asilaka man makïna.*
    *Tarambi **mï***   *i-ta*   *nï asi-la-ka*   *ma=n*
    [name] 3SG.SUBJ go.PFV-COND 1SG sit-IRR-let 3SG.OBJ=OBL
    ma=kï-na
    3SG.OBJ=say-IRR
    'When Tarambi comes, I will sit and tell him.' [ulwa014†]

(9) *Kumba **ndï** wolka anul anmbi.*
    *Kumba **ndï** wolka an=ul*   *an-mbï-i*
    Bun   3PL again 1PL.EXCL=with out-here-go.PFV
    'Again the [people from] Bun [village] came out with us.' [ulwa002_02:27]

Subject markers can also be used with recent loanwords, as in (10), which contains the Tok Pisin word *polis* 'police'.

(10) *Polis **ndï** ndiya ata ma keka namndu ndïwalinda.*
    polis   **ndï** *ndï=iya*   *ata ma keka*   *namndu ndï=wali-nda*
    police 3PL 3PL=toward up go completely pig   3PL=hit-IRR
    'The police will go up to them and completely kill the pigs.' (*polis* = TP)
    [ulwa014_27:29]

Throughout the examples in this grammar, subject markers are glossed with a '3' (for third person).[2] Subject markers never appear with personal pronouns.[3] Although apparently not obligatory, subject markers can be useful for clarifying meaning in certain circumstances. First, since adjectives (as well as possessive pronouns) may be used substantively, the presence of a subject marker may clarify that an adjective or other modifier is functioning as the subject of the sentence, as in (11) and (12).

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[2] This is done for two reasons: first, the forms of the subject markers are identical to those of the third person personal pronouns; second, subject markers can only appear with third person noun phrases. They never occur with first person or second person noun phrases. Thus, they do indeed index the third person.

[3] Thus, the following sequences are ungrammatical: **nï mï*, **ngunan min*, **min min*, **un ndï*, **ndï ndï*, and so on. However, subject markers may follow certain other pronominal forms, such as indefinite or interrogative pronouns, although some usages may be only marginally acceptable (see §8.4 and §8.5).

(11) ***Ambi mï** keka mat nin ndïl.*
 ambi mï   *keka*   *ma=tï*   *nin*   *ndï=lï*
 big   3SG.SUBJ completely 3SG.OBJ=take thorn 3PL=put
 'The big one [= a pig] completely got him and put [him] on thorns.'
 [ulwa020_01:37]

(12) ***Nïnji ndï** anma iye.*
 nï-nji   ***ndï*** *anma i-e*
 1SG-POSS 3PL good go.PFV-DEP
 'My [comrades] came [home] well.' [ulwa002_06:41]

Also, in equative or attributive sentences that lack any overt verb form (i.e., sentences that contain no overt copula, §12.1), the subject marker helps to break the clause into two halves: everything up to and including the subject marker is clearly the subject of the clause; everything following must be the predicate, as illustrated by sentences (13) through (16), in which square brackets enclose first the [subject] and then the [predicate].

(13) *Ulum **ndï** ndïnji alo.*
 *[ulum **ndï**] [ndï-nji*   *ala*   *wo]*
 [palm 3PL] [3PL-POSS PL.DIST own]
 'The sago palms are their very own.' [ulwa014_06:21]

(14) *Inom **ndï** wandam itom ala.*
 [inom   ***ndï**] [wandam itom*   *ala]*
 [mother 3PL] [jungle   father PL.DIST]
 'The mothers are the land owners.' [ulwa014_62:41]

(15) *Ya **ndï** ambi nji ala.*
 [ya   ***ndï**] [ambi nji*   *ala]*
 [coconut 3PL] [big   thing PL.DIST]
 'Coconuts are big things.' [ulwa014_08:06]

(16) *Supam Sinanam **min** atana wot.*
 [Supam   *Sinanam **min**] [atana*   *wot]*
 [[name] [name]   3DU] [older.sister younger]
 'Supam and Sinanam were sisters.' [ulwa001_00:14]

Example (16) further illustrates how coordinated subjects that lack any overt coordinator (§14.1) may be clarified as such by means of the subject marker. The

subject marker is all the more valuable in this regard when one or more of the members of the conjoined subject is left unexpressed. In example (17), the dual marker indicates that there are two subjects, even though only one is expressed.

(17)   ***Carobim min** wa mape.*
       ***Carobim min** wa   ma=p-e*
       [name]   3DU village 3SG.OBJ=be-IPFV
       'Carobim and he [= Danny] were in the village.' [ulwa037_37:41]

Thus, in addition to serving as an indicator of number, the subject marker can function as an associative plural marker (or associative dual marker) – that is, when following a noun, a subject marker can be used to give the interpretation of "that noun plus others associated with it". In this way, the dual subject marker indexes that exactly one associated referent is to be understood, whereas the plural subject marker indexes that two or more additional referents are to be understood. This associative plural function of subject markers (or object markers) is most commonly used with personal nouns. An example with a plural subject marker is given in (18).

(18)   ***Dorothy ndï** molop.*
       ***Dorothy ndï** ma=lo-p*
       [name]   3PL 3SG.OBJ=go-PFV
       'Dorothy and the others went there.' [ulwa042_04:10]

An example of an object marker (§9.3) functioning as an associative plural marker is given in (19).

(19)   ***Otto ndïkïna.***
       ***Otto**   **ndï**=kï-na*
       [name] 3PL=say-IRR
       '[We] will tell Otto and the others.' [ulwa038_04:08]

In other circumstances, the subject marker can help prevent a subject from being misinterpreted as being an object or oblique. Since it is common for subjects to be omitted, the absence of a subject marker could lead to such a miscue. The elicited sentence (20) is ambiguous, since *yeta nungol* 'boys' could be interpreted either as the subject (without a subject marker) or as the object (with a pro-dropped subject); in sentence (21), on the other hand, the subject is clearly defined because it contains the subject marker.

(20)   *Yeta nungol ndïnap le.*
    yeta nungol ndï=nap lo-e
    man child   3PL=for go-IPFV
    (a) 'The boys would go around on account of them [the girls].'
    (b) '[The girls] would go around on account of the boys.' [elicited]

(21)   ***Yeta nungol ndï*** *ndïnap le.*
    yeta nungol ndï *ndï=nap lo-e*
    man child   3PL 3PL=for go-IPFV
    'The boys would go around on account of them [= the girls].'
    [ulwa032_44:07]

Likewise the subject of sentence (22) is clear because it contains the subject marker. The subject of the elicited sentence (23), however, is ambiguous.

(22)   ***Inom mï*** *manji ay mamap.*
    inom   mï   *ma-nji   ay   ma=ama-p*
    mother 3SG.SUBJ 3SG.OBJ-POSS sago 3SG.OBJ=eat-PFV
    'Mother ate her sago.' [ulwa032_28:39]

(23)   *Inom manji ay mamap.*
    inom   ma-nji   ay   ma=ama-p
    mother 3SG.OBJ-POSS sago 3SG.OBJ=eat-PFV
    (a) 'Mother ate her sago.'
    (b) '[Someone] ate the mother's sago.' [elicited]

A similar situation can also be seen in the pair of sentences (24) and (25).

(24)   ***Nungol mï*** *ndala aw ndïnep.*
    nungol mï   *ndï=ala aw   ndï=ne-p*
    child   3SG.SUBJ 3PL=for betel.nut 3PL=harvest-PFV
    'The child harvested betel nut for them.' [ulwa014_15:50]

(25)   *Nungol ndala aw ndïnep.*
    nungol ndï=ala aw   ndï=ne-p
    child   3PL=for betel.nut 3PL=harvest-PFV
    (a) 'The child harvested betel nut for them.'
    (b) '[Someone] harvested betel nut for the children.' [elicited]

Although subject markers are used with great frequency and may be useful for marking number or clarifying the subject in ambiguous circumstances, they do not occur in every subject NP. Their absence may be a simple omission (the product of casual speech), or it may rather be that their use is optional. Often, no difference in meaning can be detected between when subject markers are present and when they are absent. That said, there do seem to be some patterns underlying their absence. For example, subject markers seem more likely to be omitted when the subject is a proper noun, as in examples (26) through (29).

(26) *Alkumot yana minkotïp.*
Alkumot yana   Ø   min=kot-p
[name]   woman (3SG.SUBJ) 3DU=break-PFV
'The woman Alkumot bore them.' [ulwa001_00:22]

(27) *Biwat atay.*
Biwat   Ø   ata-i
[place] (3PL) up-go.PFV
'The Biwat [people] went up.' [ulwa002_01:07]

(28) *Ambawanam Ngata i unip.*
Ambawanam Ngata Ø   i   uni-p
[name]   grand (3SG.SUBJ) go.PFV shout-PFV
'Ambawanam Ngata came and shouted.' [ulwa008_01:17]

(29) *Elias tïnanga.*
Elias   Ø   tïnanga
[name] (3SG.SUBJ) arise
'Elias got up.' [ulwa037_16:05]

Subject markers are perhaps also more likely to be omitted when the verb is intransitive. This is perhaps unsurprising, since the role of the single core NP (i.e., subject) is easily determined by default in an intransitive clause without needing any special marking. In other words, Ulwa appears to exhibit differential subject marking in this regard. Subject markers may also be omitted more frequently when the referent of the subject is less definite, although I have not found any strict rules for their omission. In sentences (30) and (31), the subjects are indefinite. The subject NPs do not have subject markers.

(30) *Lamndu keka ndamap ulwap.*
    lamndu Ø   *keka*   *ndï=ama-p ulwa=p*
    pig   (3SG.SUBJ) completely 3PL=eat-PFV nothing=COP
    'A pig completely ate them.' [ulwa032_22:12]

(31) *Ankam ulwap.*
    ankam Ø   *ulwa=p*
    person (3PL) nothing=COP
    'No one is left.' (Literally 'People are nothing.') [ulwa037_28:11]

It may be noteworthy that it is common not to include object markers in negative existential constructions, such as in (31). This may suggest something of the definiteness-indexing nature of these markers. However, although rare, there are examples of subject markers being used in such negative existential constructions (32).

(32) *Kumba mo iye na **ndï** nap.*
    Kumba ma=u   *i-e*   *na **ndï** ulwa*   *na-p*
    Bun   3SG.OBJ=from go.PFV-DEP talk 3PL nothing DETR-be
    'There are no [more] stories about [me] coming from Bun [village].'
    [ulwa032_10:52]

9.2 Object markers (non-subject markers)

Like the set of subject markers, the set of "object markers" consists of postnominal determiners that occur as the final element in their respective NPs. The forms of the object markers are identical to the forms in the set of third-singular objective personal pronouns (§8.1) – thus, they are mostly identical to the set of subject markers. The main exception, however, is found in the 3SG forms, which differ between the subject and object paradigms. Also, in certain phonological environments, the 3DU forms are likewise distinct. The object markers are given in (33).

(33) Object markers (non-subject markers)

    ma= ~ mo=   '3SG.OBJ'
    min= ~ mini= '3DU' ~ '3DU.OBJ'
    ndï=   '3PL'

The syntactic distinction between subject markers and object markers is that subject markers are restricted to NPs that are grammatical subjects, whereas object markers occur in NPs with all other grammatical roles. Indeed, it would be

more proper to refer to them as "non-subject makers", since they occur in NPs with oblique roles as well as in NPs with object roles, whether the object of a verb or the object of a postposition.

Phonologically, object markers are dependent on an immediately following verb, postposition, or oblique marker – that is, they are proclitics, and, as, such, are glossed with an equal sign '=', as opposed to the subject markers, which are glossed as unbound forms.[4]

Object markers may follow either common or proper nouns, and they may have either animate or inanimate referents. The object markers – whether 3sg (34), 3du (35), or 3pl (36) – cliticize to the following verb.

(34)   *Inom mï utam **mawanap**.*
       *inom   mï   utam **ma**=wana-p*
       mother 3sg.subj yam 3sg.obj=cook-pfv
       'Mother cooked the yam.' [elicited]

(35)   *Inom mï utam **minwanap**.*
       *inom   mï   utam **min**=wana-p*
       mother 3sg.subj yam 3du=cook-pfv
       'Mother cooked two yams.' [elicited]

(36)   *Inom mï utam **nduwanap**.*
       *inom   mï   utam **ndï**=wana-p*
       mother 3sg.subj yam 3pl=cook-pfv
       'Mother cooked the yams.' [elicited]

Example (36) illustrates the (optional) change of /ï/ to [u] before /w/ in the 3pl object marker (§4.5.6). When a verb stem begins with a vowel, it is possible to witness vowel elision in the object marker (§4.5.5), when it is 3sg (37) or 3pl (39), but not when it is 3du (38).

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[4]This phonological distinction may be a further way of differentiating the paradigm of subject markers from the paradigm of object markers, although the situation is hazier than the glossing might suggest. First, although subject markers need not cliticize to following words, it is very common for them in effect to do so. This is especially common for the forms ending with the high central vowel /ï/. For example, *nï amun* 'I … now' is most typically pronounced [namun]; *mï ango* 'he … not' is most typically pronounced [mango], and so on. Second, although object markers are consistently clitics when serving as markers of object or oblique NPs, they need not cliticize when serving as markers in possessor (genitive) NPs (§11.1.5). Although the phonological distinction between subject markers and object markers is not categorical, I propose that the object markers, which were probably originally free pronominal forms, have later undergone (or are currently undergoing) a grammatical change such that they are becoming bound morphemes.

(37) *Tïn ndï lamndu **masap**.*
      *tïn   ndï lamndu **ma**=asa-p*
      dog 3PL pig   3SG.OBJ=hit-PFV
      'The dogs killed the pig.' [elicited]

(38) *Tïn ndï lamndu **minasap**.*
      *tïn   ndï lamndu **min**=asa-p*
      dog 3PL pig   3DU=hit-PFV
      'The dogs killed two pigs.' [elicited]

(39) *Tïn ndï lamndu **ndasap**.*
      *tïn   ndï lamndu **ndï**=asa-p*
      dog 3PL pig   3PL=hit-PFV
      'The dogs killed the pigs.' [elicited]

In example (40), it is possible to see how [mo=], an allomorph of the 3SG object marker /ma=/, appears before a following /o/ in the verb stem (§4.5.7). No similar allomorphy occurs with 3DU (41) or 3PL (42) object markers when in the same environment.

(40) *Nï nïpïl **momoplïp**.*
      *nï   nïpïl **ma**=mop-lï-p*
      1SG vine 3SG.OBJ=tie-put-PFV
      'I tied the rope.' [elicited]

(41) *Nï nïpïl **minmoplïp**.*
      *nï   nïpïl **min**=mop-lï-p*
      1SG vine 3DU=tie-put-PFV
      'I tied two ropes.' [elicited]

(42) *Nï nïpïl **ndïmoplïp**.*
      *nï   nïpïl **ndï**=mop-lï-p*
      1SG vine 3PL=tie-put-PFV
      'I tied the ropes.' [elicited]

This form [mo=] only occurs as an allomorph of the object marker, never as an allomorph of the subject marker. Thus, whereas the 3SG form is realized as [mo=] when serving as an object of a verb beginning with /Co/, the 3SG form is never realized as †[mo] when serving as a subject that immediately precedes a verb beginning with /Co/. For example, whereas the verb phrase /ma=kot-p/ 'broke

it' is pronounced [**mo**kotïp], the clause /mï wo-p/ 'she slept' is pronounced [**mï** wop] (and not †[mo wop]).[5]

Object markers may occur with verbs marked for any TAM category, and there are no distinctions in the markers based on such TAM distinctions. Thus they occur in imperfective (43), perfective (44), and irrealis (45) verb phrases. Any transitive verb can be preceded by one of these object-marking proclitics.

(43) *Tïn mï mïnda **mame**.*
      tïn mï   mïnda **ma**=ama-e
      dog 3SG.SUBJ banana 3SG.OBJ=eat-IPFV
      'The dog is eating the banana.' [elicited]

(44) *Tïn mï mïnda **mamap**.*
      tïn mï   mïnda **ma**=ama-p
      dog 3SG.SUBJ banana 3SG.OBJ=eat-PFV
      'The dog ate the banana.' [elicited]

(45) *Tïn mï mïnda **malanda**.*
      tïn mï   mïnda **ma**=la-nda
      dog 3SG.SUBJ banana 3SG.OBJ=eat-IRR
      'The dog will eat the banana.' [elicited]

The 3DU object marker /min=/ has the allomorph [mini] when preceding a verb with stem beginning in /n/.[6] The allomorph *mini=* '3DU.OBJ' can thus be observed when the morpheme immediately precedes an initial /n/ of a verb stem (46), but not when it precedes other consonants (e.g., /l/) (47).

(46) *Itom mï inmi **mininkap**.*
      itom mï   inmi **mini**=nïkï-p
      father 3SG.SUBJ hole 3DU.OBJ=dig-PFV
      'Father dug two holes.' [elicited]

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[5]The difference in behavior between the object and subject forms could be explained by a phonological rule that affects /a/ but not /i/ in this environment, namely:

/a/ → [o] / C [+labial] _ C_0V [-high, +back].

[6]This allomorphy offers further support for the claim that the status of object markers is distinct from that of simple pronominal forms. Although it may be possible to explain the allomorph [mo=] (for *ma=* '3SG.OBJ') in terms of simple phonological conditioning (that is, without considering morphology, §4.5.7), the form *mini=* '3DU.OBJ' is clearly a morphologically conditioned change, since, elsewhere, consecutive consonants are simply degeminated. Thus, one should expect the allomorph, were it phonologically conditioned, to be †[mi=]. Indeed, the form *mini=* '3DU.OBJ' only appears before verbs, not even before postpositions, suggesting that object-marker clitics for verbs are somewhat more closely affiliated with their hosts than are object-marker clitics for postpositions.

(47) *Itom mï num **minlop**.*
      *itom   mï   num   **min**=lo-p*
      father 3SG.SUBJ canoe 3DU=cut-PFV
      'Father carved two canoes.' [elicited]

The fact that [†][mini] is not produced from /min/ in contexts other than those in which it directly precedes a verb can be illustrated by comparing two examples taken from texts: example (48) shows [mini] before a verb beginning with /n/, whereas (49) shows the pronominal form as a free subject marker [min] preceding a word beginning with /n/. Only example (48) exhibits the form [mini].

(48) *Wondi inom min ndï **mininke** isi up.*
      *wondi   inom   min ndï **mini**=nïkï-e   isi   u-p*
      bandicoot mother 3DU 3PL 3DU.OBJ=dig-DEP soup put-PFV
      'The two mother bandicoots – they cut them up into the soup.'
      [ulwa032_20:20]

(49) ***Min num** si nïn ata lïp.*
      ***min num** si   nï=n   ata lï-p*
      3DU canoe push 1SG=OBL up put-PFV
      'The two of them came ashore with me.' (Literally 'put the canoe up with me') [ulwa032_22:18]

Similarly, the form [†][mini] does not occur before postpositions that begin with /n/ (50).

(50) *Unji yenat ngin **minap** mana na.*
      *u-nji   yenat   ngin   **min**=nap ma-na   na[-kï-p]*
      2SG-POSS daughter DU.PROX 3DU=for   go-IRR DETR[-say-PFV]
      'These two daughters of yours – [I] wanted to go on account of them.'
      [ulwa037_49:28]

There are, however, admittedly few examples of [mini] in the Ulwa corpus of texts. This is not surprising, given the rarity both of dual referents and of verb stems beginning with /n/. Speakers do, however, consistently produce the form in elicitation.

Although helpful in designating the number of referents in an object NP, object markers, like subject markers (§9.1), are not always included in their respective NPs. Again, their absence may be a simple omission, the product of casual speech. Their omission does, however, seem to be more likely when the referent is less

definite, but no clear correlation has been found in the corpus. In other words, Ulwa may exhibit a form of differential object marking in addition to exhibiting differential subject marking (§9.1). The objects of examples (51) and (52) are both indefinite; in (51) the object receives the object marker (for each of two verbs), whereas in (52) it does not.

(51) *Yawa ndï anasa **maytape mat** mananda.*
 *yawa ndï anasa **ma**=ita-p-e   **ma**=tï   ma=na-nda*
 uncle 3PL pick.axe 3SG.OBJ=build-PFV-DEP 3SG.OBJ=take 3SG.OBJ=give-IRR
 'The uncles will make a pick-axe and give it to her.' [ulwa022_00:15]

(52) *Ndï tïmbïl itap.*
 ndï tïmbïl ita-p
 3PL fence build-PFV
 'They built a fence.' [ulwa014_44:09]

Another set of examples with indefinite object NPs contrasts the absence (53) and presence (54) of the object marker.

(53) *Un ay nïkap?*
 un ay nïkï-p
 2PL sago dig-PFV
 'Did you make sago?' [ulwa018_04:21]

(54) *Imba nape ay **ndïnkap ndïn** amblan up.*
 *imba na-p-e   ay **ndï**=nïkï-p **ndï**=n ambla=n   u-p*
 night DETR-be-DEP sago 3PL=dig-PFV 3PL=OBL PL.REFL=OBL put-PFV
 'At night [they] made sago [packets] and left them for themselves.'
 [ulwa014_49:20]

In addition to appearing as the final element in verbal object NPs (that is, immediately preceding verbs), object markers occur as the final elements of NPs that are the objects of postpositions, as in examples (55) through (59).

(55) *Kayngam i ya **maya** atay.*
 *Kayngam i   ya   **ma**=iya   ata-i*
 [name]   go.PFV coconut 3SG.OBJ=toward up-go.PFV
 'Kayngam went, climbed up a coconut tree.' [ulwa018_01:56]

(56) *Imba ꝑe nï wolka tawatïp **ndiya** i.*
    *imba ꝑ-e   nï wolka tawatïp **ndï**=iya   i*
    night be-DEP 1SG again child   3PL=toward go.PFV
    'That night, I again went to the young folks.' [ulwa037_06:33]

(57) *Tïlwa **mo** i wa mbi.*
    *tïlwa **ma**=u   i   wa   mbï-i*
    road 3SG.OBJ=from go.PFV village here-go.PFV
    '[We] came along the path here to the village.' [ulwa032_04:57]

(58) *Manji yawa **minul** i.*
    *ma-nji   yawa **min**=ul   i*
    3SG.OBJ-POSS uncle 3DU=with go.PFV
    '[He] went with his two uncles.' [ulwa014_49:50]

(59) *An wolka ngata **ndul** iye.*
    *an   wolka ngata **ndï**=ul   i-e*
    1PL.EXCL again grand 3PL=with go.PFV-DEP
    'We again went with the ancestors.' [ulwa002_03:40]

Object markers are also found in NPs marked with the oblique marker *=n* 'OBL', as in (60) and (61).

(60) *Ay **man** mïnanap.*
    *ay   **ma**=n   mï=na-na-p*
    sago 3SG.OBJ=OBL 3SG.SUBJ=DETR-feed-PFV
    '[They] fed him with the sago.' [ulwa011_01:23]

(61) *An mïnda **ndïn** malan up ndamap.*
    *an   mïnda **ndï**=n   manal   u-p   ndï=ama-p*
    1PL.EXCL banana 3PL=OBL hot.water put-PFV 3PL=eat-PFV
    'We boiled bananas and ate them.'[7] (Literally 'put bananas in hot water')
    [ulwa032_07:44]

In addition to the three object markers used for indexing what are usually definite referents (whether singular, dual, or plural), there is a (third-singular) indefinite marker, *ko=* 'INDF', clearly derived from the numeral *kwa ~ kwe* 'one'. I consider this form to be a sort of object marker, both because it tends to cliticize to

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[7]The speaker metathesizes the /n/ and /l/ in *manal* 'hot water' (here: [malan]).

the following verb, postposition, or oblique marker and because it never appears in subject NPs: only the forms /kwa/ or /kwe/ may appear in this position (and when they do they have definite reference, i.e., 'one'). Given that it is not found with nouns in subject NPs, but is rather thus restricted in use, the indefinite marker *ko=* 'INDF' is not considered to be an "indefinite article".[8] The indefinite object marker is illustrated by examples (62) through (66).

(62) *Ala nï nji **kosap**!*
    *ala   nï   nji   **ko**=asa-p*
    PL.DIST 1SG thing INDF=hit-PFV
    'Guys, I killed something!' [ulwa035_03:39]

(63) *Nï ango wolka nungolke **kotïn**.*
    *nï   ango wolka nungolke **ko**=tï-n*
    1SG NEG again child   INDF=take-PFV
    'I didn't have another child.' [ulwa036_00:24]

(64) *Kayngam Kayngam wam ngatï ma ya **koya** ma!*
    *Kayngam Kayngam wam nga=tï   ma ya   **ko**=iya   ma*
    [name] [name]   strap SG.PROX=take go coconut INDF=toward go
    'Kayngam, Kayngam, go get this tree-climbing strap and go up a coconut tree!' [ulwa018_01:30]

(65) *Plas mï ango ma in nji **kon** mbïlp.*
    *Plas   mï   ango ma   i=n   nji   **ko**=n   mbï-lï-p*
    [name] 3SG.SUBJ NEG 3SG.OBJ hand=OBL thing INDF=OBL here-put-PFV
    'Plas didn't plant anything here with his [own] hands.' [ulwa014†]

(66) *Ndï ango wondi **kotïn**.*
    *ndï ango wondi   **ko**=tï-n*
    3PL NEG bandicoot INDF=take-PFV
    'They didn't get a [single] bandicoot.' [ulwa032_25:28]

This marker is commonly used in demands or requests to be given something, such as the very common request to be passed betel nut (67).

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[8]Note, however, that the form [ko] can occur as a free morpheme. When it does, it is to be interpreted as the modal adverb *ko* 'just', not as the indefinite object marker *ko=* 'INDF', with which it is probably etymologically related. Perhaps another reason for not considering *ko=* 'INDF' to be an article is that it is never obligatory.

(67) *Aw **kot** nïnan!*
      *aw   **ko**=tï   nï=na-n*
      betel.nut INDF=take 1SG=give-IMP
      'Please pass the betel nut!' [elicited]

Sentence (68) likewise illustrates the use of the indefinite marker *ko=* 'INDF' in a demand to be given something.

(68) *Kaw nungol **kot** nïnata!*
      *kaw nungol **ko**=tï   nï=na-ta*
      cow child   INDF=take 1SG=give-COND
      'Give me a calf!' (*kaw* = TP *kau*) [ulwa014_09:19]

Although etymologically related to the form *kwa* 'one', the definite numerical sense of 'one' is generally not felt in the object marker. Rather, to give the sense of '(exactly) one', the numeral itself is used, followed by a 3SG marker, as in examples (69), (70), and (71).

(69) *Mï may ndimbam lop **kwa molop** lïp malep.*
      *mï   ma=i   ndï=imbam lo-p   **kwa ma**=lo-p*
      3SG.SUBJ 3SG.OBJ=go.PFV 3PL=under go-PFV one 3SG.OBJ=cut-PFV
      lï-p   ma=ale-p
      put-PFV 3SG.OBJ=scrape-PFV
      'She went there, went under them, cut one [= a palm] down, and scraped it.' [ulwa032_37:39]

(70) *Nï **kwa mol** ne*
      *nï   **kwa ma**=ul   ni-e*
      1SG one 3SG.OBJ=with act-IPFV
      'I was making one [= an armband].' [ulwa015_01:39]

(71) *Nïnji wot yana **kwa mï** nip.*
      *nï-nji   wot   yana   **kwa mï**   ni-p*
      1SG-POSS younger woman one 3SG.SUBJ die-PFV
      'One younger sister of mine has died.' [ulwa028_00:19]

Sometimes the only expressed element in an object NP (whether the direct object of a transitive verb or the object preceding a postposition or oblique marker) is an object marker. Since these are identical in form to third person non-subject personal pronominal forms and since first person and second person pronouns

may also occur in these positions, it is probably most parsimonious to view these all as pronouns. That is, when no nominal is expressed in an object NP consisting solely of the form *ma=* '3SG.OBJ', *min=* '3DU', or *ndï=* '3PL', these may be treated simply as object pronouns, as in examples (72) through (83).

(72) *Ndï **mayte**.*
    *ndï **ma**=ita-e*
    3PL 3SG.OBJ=build-IPFV
    'They were building it.' [ulwa032_09:27]

(73) *Unan **maya** mbiye.*
    *unan   **ma**=iya   mbï-i-e*
    1PL.INCL 3SG.OBJ=toward here-go.PFV-DEP
    'We came here to him.' [ulwa037_05:26]

(74) *Ndï nokoplïp lïmndï **mala**.*
    *ndï nokop-lï-p   lïmndï **ma**=ala*
    3PL hide-put-PFV eye   3SG.OBJ=see
    'They hid and saw her.' [ulwa020_00:16]

(75) *Nï man **mint**.*
    *nï   ma=n   **min**=ta*
    1SG 3SG.OBJ=OBL 3DU=say
    'I told them.' [ulwa014_72:19]

(76) *Nï ango **ndïtïn**.*
    *nï   ango **ndï**=tï-n*
    1SG NEG 3PL=take-PFV
    'I didn't get them.' [ulwa037_17:55]

(77) *Mï **nasape**.*
    *mï   **nï**=asa-p-e*
    3SG.SUBJ 1SG=hit-PFV-DEP
    'He hit me.' [ulwa014_26:00]

(78) *Nga mïnjikan **ngant**.*
    *nga   mïnjika=n **ngan**=ta*
    SG.PROX speech=OBL 1DU.EXCL=say
    'This one spoke to us.' [ulwa014_12:31]

(79)   *Wondi andat **ngunanata** ngunan matïm.*
       *wondi   anda=tï   **ngunan**=na-ta   ngunan   ma=atï-m*
       bandicoot SG.DIST=take 1DU.INCL=give-COND 1DU.INCL 3SG.OBJ=hit-IRR
       'When [he] gives us that bandicoot, we will kill it.' [ulwa029_05:33]

(80)   *Yalum un yanat un ango kïkal **anwana**.*
       *yalum   un yanat   un ango kïkal **an**=wana*
       grandchild 2PL daughter 2PL NEG ear   1PL.EXCL=feel
       'You granddaughters and you daughters don't listen to us.'
       [ulwa014_37:01]

(81)   *Ndï kïkal **unanwana** mïnja m!*
       *ndï kïkal **unan**=wana mïnja   m*
       3PL ear   1PL.INCL=feel speech hm
       'They will hear us and say: "Hm!"' [ulwa037_65:11]

(82)   *Ngan **nguniya** men iye.*
       *ngan   **ngun**=iya   ma=in   i-e*
       1DU.EXCL 2DU=toward 3SG.OBJ=in go.PFV-DEP
       'We came to you in it.' [ulwa014_15:31]

(83)   *Nï **unul** wa mana.*
       *nï **un**=ul wa   ma-na*
       1SG 2PL=with village go-IRR
       'I will go with you to the village.' [ulwa037_40:28]

Similarly, the set of reflexive (or reciprocal) forms, when cliticizing to verbs or postpositions (or when preceding oblique markers), may simply be considered to be pronouns (see examples in §8.3).

Subject markers and object markers in Ulwa are discussed in Barlow (2019a: 4–7). Similar NP-final determiners that are found elsewhere in the Keram-Ramu family are discussed in Killian & Barlow (2022: 51–54), where they are referred to broadly as "articles". In Ulwa at least, although these determiners may in some ways function to mark specificity or definiteness, they probably have more to do with indicating topic or focus, in addition to serving a number-indexing function. Thus, Ulwa may be said to lack both definite and indefinite articles.

9.3 Demonstratives

Ulwa makes a two-way deictic distinction within its set of demonstrative words: proximal referents (near the speaker) versus distal referents (not near the speaker). The Ulwa deictic system is thus egocentric. In this relatively simple near-versus-far contrast, deictic words do not encode other possible distinctions, such as those based on elevation or visibility. However, demonstratives in Ulwa also index number: singular, dual, or plural. There are thus six demonstrative determiners, as shown in Table 9.1.

Table 9.1: Demonstratives

	SG	DU	PL
PROX	*nga*	*ngin*	*ngala*
DIST	*anda*	*andin*	*ala*

As seen in Table 9.1, the proximal forms all contain the element /ng-/, which combines with /-a/ in the singular (cf. *ma=* '3SG.OBJ'), /-in/ in the dual (cf. *min=* '3DU'), and /-ala/ in the plural. This last form does not correspond to anything in the other sets of pronominal forms. The distal forms, on the other hand, contain the element /and-/, which – as in the proximal forms – combines with /-a/ in the singular and /-in/ in the dual. Demonstrative determiners do not co-occur with subject markers or with object markers.

These usually occur in the same spot that otherwise might contain subject markers (§9.1) or object markers (§9.2). The use of these demonstrative determiners instead of other markers may signal that a specific (as opposed to a generic) referent is being identified. In addition to functioning as determiners (i.e., as elements of NPs), the Ulwa demonstrative forms may also be used as pronouns. Of the six forms, the plural distal form *ala* 'PL.DIST' ('those') is most commonly used in this way, often functionally equivalent to 'they' or 'them'.

In examples (84) through (89), demonstrative determiners occur as the final elements of subject NPs. They all have spatial deictic force, pointing to referents either near or far. They may occur with either common or proper nouns. Although nouns are not marked in any way for number, adnominal demonstratives agree with their nouns' covert number: singular, dual, or plural.

(84) *Inom **nga** mawanape.*
    inom   **nga**   ma=wana-p-e
    mother SG.PROX 3SG.OBJ=cook-PFV-DEP
    'This woman cooked it.' (This was said of the woman in the house next to where the speaker was sitting.) [ulwa014_05:54]

(85) *Wandam **nga** ambi ngatap.*
    wandam **nga**   ambi ngata=p
    jungle   SG.PROX big   grand=COP
    'This garden is very big.' [ulwa042_03:25]

(86) *itom **ngin** li ngapen*
    itom   **ngin**   li   nga=p-en
    father DU.PROX down SG.PROX=be-NMLZ
    'these two men who live downstream' (spoken while downstream) [ulwa014†]

(87) *Wa mbï olsem nungolke **ngala** sikul pe.*
    wa   mbï olsem nungolke **ngala** sikul   p-e
    village here thus   child   PL.PROX school be-IPFV
    'Here in the village, like, these children are in school.' (*olsem* = TP; *sikul* < TP *skul* 'school') [ulwa027_00:19]

(88) *Wusim **anda** nïwalinda i nï masap.*
    wusim   **anda** nï=wali-nda i   nï ma=asa-p
    crocodile SG.DIST 1SG=hit-IRR PRED 1SG 3SG.OBJ=hit-PFV
    'That crocodile could have killed me, but I killed it.' (*i* = TP?) [ulwa035_03:41]

(89) *Awngala **la** kuk ato im andawatawe.*
    awngala   **ala**   kuk   ata-u   im anda=wat-aw-e
    bird.species PL.DIST gather up-from tree SG.DIST=atop-put-IPFV
    'Those birds are gathering up into that tree.' [ulwa037_47:12]

Demonstratives may function pronominally, as in (90) and (91),

(90) ***Anda** man ute: ...*
    anda   ma=n   u=ta-e
    SG.DIST 3SG.OBJ=OBL 2SG=say-DEP
    'That one told you: ...' [ulwa014_07:58]

(91) **Andin** *wot kokot nangani nalïp.*
andin *wot* *ko=kot* *nï=angani* *na-lï-p*
DU.DIST younger INDF=break 1SG=behind DETR-put-PFV
'Those two [= my parents] bore a younger sibling after me.'
[ulwa001_10:19]

As a spatial deictic word, *nga* 'SG.PROX' ('this') can mean 'here' (92).

(92) **Nga** *unji ani ngala ata* **ngap.**
nga *u-nji* *ani* *ngala* *ata* **nga=p**
SG.PROX 2SG-POSS bilum PL.PROX up SG.PROX=be
'Here, these *bilum* [= string bags] of yours are up here.' [ulwa001_04:55]

Example (92) also illustrates the common use of demonstrative determiners in possessive phrases, further illustrated by examples (93) through (96).

(93) **Nïnji** *nungol* **ngala** *mbïpe.*
nï-nji *nungol* **ngala** *mbï-p-e*
1SG-POSS child PL.PROX here-be-IPFV
'My children live here.' (Literally 'these children of mine') [ulwa014_05:16]

(94) **Nïnji** *inom* **anda** *kïkal wopa.*
nï-nji *inom* **anda** *kïkal wopa*
1SG-POSS mother SG.DIST ear all
'That mother of mine was deaf.' [ulwa014_02:18]

(95) **unji** *inom tembi* **nda**
u-nji *inom* *tembi* **anda**
2SG-POSS mother bad SG.DIST
'that poor mother of yours' [ulwa037_54:57]

(96) **Manji** *na* **ngala** *mï ndïtana.*
ma-nji *na* **ngala** *mï* *ndï=ta-na*
3SG.OBJ-POSS talk PL.PROX 3SG.SUBJ 3PL=say-IRR
'These stories of his – he will tell them.' [ulwa037_05:28]

Demonstrative determiners occur not only in subject NPs, but also in object or oblique phrases, as in examples (97) through (100).

(97) *Ndïn numïne **ndalumopta** ndï mïnapïna.*
      ndï=n   numïne **anda**=lumo-p-ta   ndï mï=na-p-na
      3PL=OBL ditch   SG.DIST=put-PFV-COND 3PL 3SG.SUBJ=DETR-be-IRR
      'Once [I] have planted them in that ditch, they will be there.'
      [ulwa014_73:33]

(98) *An tïn **andol** iye tïn **anda** lamndu nungol kosape.*
      an   tïn **anda**=ul   i-e   tïn **anda** lamndu nungol
      1PL.EXCL dog SG.DIST=with go.PFV-DEP dog SG.DIST pig   child
      ko=asa-p-e
      INDF=hit-PFV-DEP
      'When we went with that dog, that dog killed one small pig.'
      [ulwa037_61:53]

(99) *Mïkï itïm ambi ngata **lamana**.*
      mïkï   itïm ambi ngata **ala**=ma-na
      tree.species trash big   grand PL.DIST=go-IRR
      '[We] will go to those great big swamps.' [ulwa038_02:59]

(100) *Una ngusuwa **laya** wonlakan!*
       unan   ngusuwa **ala**=iya   won-la-ka-n
       1PL.INCL poor   PL.DIST=toward cut-IRR-let-IMP
       'Let's cross over [the river] to those poor folks [on the other side]!'
       [ulwa037_03:41]

Although the basic function of demonstrative determiners is taken to be a means of providing spatial deixis from the reference point of the speaker, the actual range of uses of demonstratives is much greater. First, it is not uncommon for a speaker to project a deictic center to a point other than the self. Thus, while demonstrative words in Ulwa are taken generally to be egocentric, a speaker may choose a reference point other than himself or herself in the moment of speech. This is common in recounted narratives (101).

(101) *Nï amun iwa **ngalan** mop mo kundan nïpat **ngatïn**.*
       nï amun iwa **ngala**=n   ma=u-p   ma=u   kundan
       1SG now   basket PL.PROX=OBL 3SG.OBJ=put-PFV 3SG.OBJ=from eel
       *nïpat **nga**=tï-n*
       huge SG.PROX=take-PFV
       'Now I put these fish trap baskets [down] there and got this huge eel from there.' [ulwa014_05:52]

In example (101), although the proximal deictic words (*ngala=* 'PL.PROX' and *nga=* 'SG.PROX') are indeed used with reference to the speaker, they are not used in reference to the speaker's location at the time of speaking, but rather to her location in the past, when the events being recounted occurred. Projected deixis can occur in narratives even when the actor of the clause is different from the narrator of the events, as, for example, in (102) and (103).

(102) *Mï i wolka i manji anaw **ngatïn** ...*
    mï   *i*   *wolka i*   *ma-nji*   *anaw*   **nga**=*tï-n*
    3SG.SUBJ go.PFV again go.PFV 3SG.OBJ-POSS paddle SG.PROX=take-PFV
    'He went, went back, got his motorboat ...' [ulwa035_04:06]

(103) *Anul men i wonmbi **ngintï** men i.*
    anul   *ma=in*   *i*   *wonmbi* **ngin**=*tï*   *ma=in*   *i*
    grassland 3SG.OBJ=in go.PFV tusk   DU.PROX=take 3SG.OBJ=in go.PFV
    '[He] went into the grass, got these two tusks, and went in.'
    [ulwa001_13:04]

This phenomenon of projection can further be illustrated with the locative adverb *mbï* 'here' (§10.2.2), which can signify space near the referent of the clause, even when this is not near the speaker in his or her current location, as in example (104).

(104) *Alum mokotïp an mol **mbïwap**.*
    alum ma=kot-p   *an*   *ma=ul*   **mbï**-*wap*
    child 3SG.OBJ=break-PFV 1PL.EXCL 3SG.OBJ=with here-be.PST
    'She bore a child, and we were there with her.' [ulwa014_38:44]

Demonstratives, although fundamentally spatial, may be extended in their use to have temporal deixis. Thus, proximal forms may be used to refer to times (metaphorically) close to the present, whereas distal forms signal more (metaphorically) distant time, as illustrated by examples (105) through (109).

(105) *Ipka **ndan** matmat mbu ulwape.*
    ipka   **anda**=*n*   *matmat*   *mbï-u*   *ulwa=p-e*
    before SG.DIST=OBL cemetery here-from nothing=COP-DEP
    'In the past, there was no cemetery here.' (*matmat* = TP)
    [ulwa028_04:26]

(106) *Amun **ngan** olsem matmat anda mbïpe.*
       *amun **nga**=n   olsem matmat   anda   mbï-p-e*
       now SG.PROX=OBL thus   cemetery SG.DIST here-be-IPFV
       'But at this time, like, there is that cemetery here.' (*olsem, matmat* = TP)
       [ulwa028_04:36]

(107) *Inim **ngan** maytap mat atal wap ma inim **andan** nï makïke lunda.*
       *inim **nga**=n   ma=ita-p   ma=tï   ata-lï wap   ma*
       water SG.PROX=OBL 3SG.OBJ=build-PFV 3SG.OBJ=take up-put be.PST go
       *inim **anda**=n   nï ma=kïke   lo-nda*
       water SG.DIST=OBL 1SG 3SG.OBJ=throw go-IRR
       'Having built it this year, and put it up, I'm going to sell it next year.'
       [ulwa042_01:11]

(108) *Ilom **andan** nï ango mbïpïna.*
       *ilom **anda**=n   nï ango mbï-p-na*
       day SG.DIST=OBL 1SG NEG here-be-IRR
       'On that day, I won't stay here.' [ulwa042_04:39]

(109) *Iwïl **andan** ma mapta apa ndaytana.*
       *iwïl **anda**=n   ma ma=p-ta   apa   anda=ita-na*
       moon SG.DIST=OBL go 3SG.OBJ=be-COND house SG.DIST=build-IRR
       'Next month [I] will go and build a house there.' [ulwa037_36:50]

Example (109) also illustrates how words like English 'this', 'these', 'that', and 'those' are often not ideal (or even possible) translations for the demonstrative markers. This is because, even though the Ulwa demonstratives serve some deictic function of pointing to a place or time, they do not necessarily have a definite referent. Thus, in example (109), the translation 'a house' is given, since this unbuilt house has no definite referent; the salient information, however, is that the house will be built 'there'.[9]

In addition to spatial and temporal deictic functions, the demonstrative words in Ulwa can serve discourse functions as well, pointing to speech itself, whether already spoken or not yet uttered (110).

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[9]Of course, it is possible that the 'house' in this sentence does indeed have a definite referent, just not a real-world one, and that the speaker and hearer can both be thinking of a specific yet-to-be-built house.

(110) *Oke li ngata ngusuwa **nga**: Kayta Amombi Yokombla Yaruwa Kayngam.*
       *oke li   ngata ngusuwa **nga**   Kayta   Amombi Yokombla Yaruwa*
       ok down grand poor   SG.PROX [name] [name] [name]   [name]
       Kayngam
       [name]
       'OK, the downstream ancestors, the poor things, were as follows: Kayta,
       Amombi, Yokombla, Yaruwa, and Kayngam.' (*oke* < TP *oke* 'OK')
       [ulwa013_09:00]

Demonstrative words may also be used, to similar effect, as determiners mod-
ifying the word *na* 'talk', as in examples (111), (112), and (113).

(111) *Ini na **nga** mï ambip.*
       *ini   na   **nga**   mï   ambi=p*
       ground talk SG.PROX 3SG.SUBJ big=COP
       'This talk about land is big – it [has gotten] big.' [ulwa037_39:04]

(112) *Mase na **nda** una asika matap.*
       *ma=asa-e   na   **anda**   unan   asi-ka ma=ta-p*
       3SG.OBJ=hit-DEP talk SG.DIST 1PL.INCL sit-let 3SG.OBJ=say-PFV
       'That talk of [them] killing her – we sat and discussed it.'
       [ulwa037_00:24]

(113) *Na anma **nda**.*
       *na   anma **anda***
       talk good SG.DIST
       'That's good talk.' (i.e., 'I agree with you.') [ulwa038_04:03]

Similarly, when a referent has been introduced, a speaker can refer again to
this referent with a deictic word. In the text from which examples (114) and (115)
are taken, the speaker introduces a subject with the subject marker *mï* '3SG.SUBJ'
(114), but shortly thereafter refers again to the same referent with the demonstra-
tive word *nga* 'SG.PROX' ('this') (115).

(114) *Inom **mï** anganika nganul i.*
       *inom   **mï**   anganika ngan=ul   i*
       mother 3SG.SUBJ after   1DU.EXCL=with go.PFV
       'Later, the mother came with the two of us.' [ulwa032_03:35]

(115) *Inom **nga** nan makïta …*
    *inom   **nga**   na=n   ma=kï-ta*
    mother SG.PROX talk=OBL 3SG.OBJ=say-COND
    'If this mother tells him …' [ulwa032_03:45]

Often, however, the deictic function of demonstrative words is not clear. The choice between *nga* 'SG.PROX' ('this') and *anda* 'SG.DIST' ('that'), for example, does not always seem to reflect proximity or distance, whether spatial, temporal, or narrative. Perhaps speakers make decisions based on desires to signal metaphorical proximity or distance to referents. This seems possible especially when referring to people in general terms – that is, people who are physically neither close nor far in the event encoded in the clause. Other times, however, it is not at all clear to me why these words are being used, and there could be some degree of free variation for speakers in certain circumstances. In sentences (116) through (120), the deictic function of the demonstrative words is unclear.

(116) *Anji ngata **ngalol** inde.*
    *an-nji   ngata **ngala**=ul   inda-e*
    1PL-POSS grand PL.PROX=with walk-IPFV
    '[We] walked around with our grandparents.' [ulwa013_04:25]

(117) *Anji ngata **la** ndït inde.*
    *an-nji   ngata **ala**   ndï=tï   inda-e*
    1PL.EXCL-POSS grand PL.DIST 3PL=take walk-IPFV
    'Our ancestors used to carry them around.' [ulwa015_01:28]

(118) *Maria **nga** nan ndït.*
    *Maria **nga**   na=n   ndï=ta*
    [name] SG.PROX talk=OBL 3PL=say
    'Maria told them.' [ulwa014_50:21]

(119) *A nïnji aweta **anda** ko matïna!*
    *a nï-nji   aweta **anda** ko ma=tï-na*
    ah 1SG-POSS friend SG.DIST just 3SG.OBJ=hit-IRR
    'Ah, that friend of mine will really hit her!' [ulwa020_00:40]

(120) *Nïnji yawa **nga** itom ndïnji tana mat nen.*
    *nï-nji   yawa **nga**   itom ndï-nji tana ma=tï   ni-en*
    1SG-POSS uncle SG.PROX father 3PL-POSS axe 3SG.OBJ=take act-NMLZ
    'This uncle of mine was one who got the forefathers' axe.'
    [ulwa037_44:58]

Reference to undoubtedly distant entities, such as the sun or the moon, for example, may be referred to with either proximal determiners, as in (121) and (122), or distal determiners, as in (123) and (124); they may alternatively be referred to with the subject marker *mï* '3sg' (125) or with no marker at all (126).

(121) *Ane **nga** sita …*
       *ane **nga**   si-ta*
       sun sg.prox push-cond
       'Whenever it was dry season …' [ulwa014†]

(122) *Ango li ma lïmndï ato ane **ngandïna**.*
       *ango li   ma lïmndï ata-u   ane **nga**=andï-na*
       neg down go eye   up-from sun sg.prox=see-irr
       '[She] won't go down and look up at the sun. ' [ulwa014_36:02]

(123) *A ane **nda** li namane.*
       *a   ane **anda**   li   na-ma-n-e*
       ah sun sg.dist down detr-go-ipfv-dep
       'Ah, the sun is setting.' [ulwa037_58:25]

(124) *Iwïl **anda** liye wa imba ɲe.*
       *iwïl   **anda**   li-i-e   wa   imba ɲ-e*
       moon sg.dist down-go.pfv-dep village night be-ipfv
       'The moon had set; the village was dark.' [ulwa032_25:02]

(125) *Anwe iwïl **mï** ata ne ne.*
       *an-we   iwïl **mï**   ata na-i   na-i*
       1pl.excl-part.int moon 3sg.subj up detr-go.pfv detr-go.pfv
       'We were alone; the moon rose and rose.' [ulwa037_07:00]

(126) *Ane namane.*
       ane na-ma-n-e
       sun detr-go-ipfv-dep
       'The sun is setting.' [ulwa037_47:10]

Although the Christian god is usually referred to with the proximal deictic word *nga* 'sg.prox' ('this') (i.e., *ambi nga* 'this big [man]'), it seems also possible to refer to him with the distal deictic word *anda* 'sg.dist' ('that'), as illustrated by examples (127) through (130).

(127) *Ambi **nganji** na nga unaniya mbi.*
　　　*ambi **nga-nji**　　　na　nga　　unan=iya　　　　mbï-i*
　　　big　SG.PROX-POSS talk SG.PROX 1PL.INCL=toward here-go.PFV
　　　'The word of God has come to us.' [ulwa037_25:12]

(128) *Ambi **ngawe** una ikali mas.*
　　　*ambi **nga-we**　　　　　unan　i-kali　　　ma=si*
　　　big　SG.PROX-PART.INT 1PL.EXCL hand-send 3SG.OBJ=push
　　　'God alone – we [must] hold onto him.' [ulwa037_08:55]

(129) *Wolka ambi **ngayinakawana**.*
　　　*wolka ambi **nga=ina-ka-wana***
　　　again　big　SG.PROX=liver-at-feel
　　　'[He] in turn was thinking of God.' [ulwa035_03:00]

(130) *Ambi **anda** mat anmbïnalp.*
　　　*ambi **anda**　　ma=tï　　　　an-mbï　na-lï-p*
　　　big　SG.DIST 3SG.OBJ=take out-here DETR-put-PFV
　　　'God has revealed him.' (Literally 'That big [man] has taken him and put
　　　[him] out.') [ulwa037_29:50]

As these examples illustrate, there is often much freedom in the use of subject markers, object markers, and demonstratives.

In addition to serving their prototypically deictic function, demonstratives in Ulwa may be used to indicate that an introduced NP is going to play a key role in the discourse to follow – that is, even though the NP presents new information (i.e., non-given information), a form like *anda* 'SG.DIST' ('that') may be used, as in (131), (132), and (133).

(131) *Awlu ato anmoka **anda** apïnal ando anmbi.*
　　　*awlu ata-u　　anmoka **anda**　apïnal anda=u　　　　an-mbï-i*
　　　step　up-from snake　　SG.DIST swamp SG.DIST=from out-here-go.PFV
　　　'When [the moon] appeared, a snake came out from the swamp.'
　　　[ulwa034_01:53]

(132) *Nambi wandam ambi **nda**.*
　　　*nï-ambi wandam ambi **anda***
　　　1SG-TOP jungle　big　SG.DIST
　　　'As for me, I have a big garden.' [ulwa042_04:20]

(133) *Mbalus **anda** ina mane.*
       *mbalus **anda** i-na   ma-n-e*
       airplane sg.dist come-irr go-ipfv-dep
       'An airplane was going to come.' (*mbalus* < TP *balus* 'dove, airplane')
       [ulwa014_49:15]

This use of demonstratives is especially common when recounting narratives in a vivid manner. This may be compared with similar uses of demonstratives in English (e.g., *so this guy came up to me at a party*). In Ulwa, however, the distal deictic word is used in such contexts, rather than the proximal.

Demonstratives may also occur in non-subject NPs – that is, in NPs encoding the objects of verbs, objects of postpositions, or oblique phrases. While often attaching phonologically to following words (especially verb stems), these demonstrative forms seem somehow less clitic-like than true object markers (§9.2). When the demonstrative forms appear (phonologically) to cliticize to host verbs, they are treated similarly to object markers and are glossed with a clitic boundary marker (=) following them. Generally, however, it may be said that there is no formal distinction between subject demonstratives and object demonstratives.

Sentences (134) through (139) exemplify the use of the demonstratives as object markers.

(134) *Lapun nga lamndu **ngas**!*
       *lapun   nga   lamndu **nga**=asa*
       old.person sg.prox pig   sg.prox=hit
       'This old man killed this pig!' (*lapun* = TP) [ulwa029_01:38]

(135) *Mï ya uta **nginanda**.*
       *mï   ya   uta   **ngin**=a-nda*
       3sg.subj coconut shell du.prox=break-irr
       'He will break these two coconut shells.' [elicited]

(136) *Wambana **ngalamoke**.*
       *wambana **ngala**=moko-e*
       fish   pl.prox=take-ipfv
       '[They] were catching fish.' [ulwa032_22:37]

(137) *Mota wulis **andaytap**.*
       *mota   wulis   **anda**=ita-p*
       bamboo.species platform sg.dist=build-pfv
       '[They] built that bamboo raft.' [ulwa002_00:14]

(138) *Sokoy **andin** lapap.*
       sokoy ***andin**=n*   *lapa-p*
       tobacco DU.DIST=OBL plant-PFV
       '[He] has planted those two tobacco plants.' [ulwa037_56:01]

(139) *Upan wambana **lawtata** ndul wa undana.*
       upan   *wambana **ala**=uta-ta*   *ndï=ul* *wa*   *unda-na*
       fish.species fish   PL.DIST=grind-COND 3PL=with village go-IRR
       'If [we] catch those fish, [we] will go home with them.' [ulwa038_00:16]

As mentioned, demonstrative forms can also function pronominally. They can have this pronominal function, whether serving as subjects, as in examples (140), (141), and (142); or serving as objects, as in examples (143) and (144). No distinction is made between animate and inanimate referents.

(140) ***Anda** nip.*
       ***anda**   ni-p*
       SG.DIST die-PFV
       'That [one] died.' [elicited]

(141) ***Ngin** liyu.*
       ***ngin**   li-u*
       DU.PROX down-put
       'These [two] fell.' [elicited]

(142) ***Ala** lamndu masap.*
       ala   *lamndu ma=asa-p*
       PL.DIST pig   3SG.OBJ=hit-PFV
       'Those [ones] killed the pig.' (often = 'They killed the pig.') [elicited]

(143) *Nï lïmndï **ngala**.*
       nï *lïmndï **nga**=ala*
       1SG eye   SG.PROX=see
       'I saw this [one].' [elicited]

(144) *Nï lïmndï **andinala**.*
       nï *lïmndï **andin**=ala*
       1SG eye   DU.DIST=see
       'I saw those [two].' [elicited]

These object-marker demonstrative pronouns may not always be clitics. Examples such as (145) and (146) illustrate a greater phonological separation between pronoun and verb – that is, the sequence in example (145) is pronounced [nga.la.i.ta.na] and not [†][nga.lay.ta.na]; and the sequence in example (146) is pronounced [a.nda.i] and not [†][a.nday].

(145)   *Apa **ngala itana** mane.*
        *apa   **ngala ita-na**   ma-n-e*
        house PL.PROX build-IRR go-IPFV-DEP
        '[They] were going to build these houses.' [ulwa028_02:57]

(146)   *Ndamape nï anmap nï i **anda i**.*
        *ndï=ama-p-e   nï anma=p nï i   **anda** i*
        3PL=eat-PFV-DEP 1SG good=COP 1SG go.PFV SG.DIST go.PFV
        'Having taken them, I got better, and I went, went there.'
        [ulwa026_00:22]

Demonstrative pronouns can be the subject of a clause that has a noun or adjective as the predicate complement. Here, their deictic function is quite clear, as seen in examples (147) through (152).

(147)   ***Nga** nïnji apa.*
        ***nga**   nï-nji   apa*
        SG.PROX 1SG-POSS house
        'This is my house.' [elicited]

(148)   ***Nga** wa anma.*
        ***nga**   wa   anma*
        SG.PROX village good
        'This is a good village.' [elicited]

(149)   ***Anda** ango nïnji apa.*
        ***anda**   ango nï-nji   apa*
        SG.DIST NEG 1SG-POSS house
        'That is not my house.' [elicited]

(150)   ***Ngin** manji itom inom.*
        ***ngin**   ma-nji   itom inom*
        DU.PROX 3SG.OBJ-POSS father mother
        'These are his parents.' [elicited]

(151) **Ngala** *ango ambip.*
       ngala   *ango ambi=p*
       PL.PROX NEG big=COP
       'These are not big.' [elicited]

(152) **Ala** *anmap.*
       ala   *anma=p*
       PL.DIST good=COP
       'Those are good.' [elicited]

Demonstrative pronouns are used to refer to human referents (as in 'this [one]', 'those [ones]', etc.) much more than is common in, say, English. In particular, the plural distal demonstrative pronoun *ala* 'PL.DIST' ('those') is often best translated simple as 'they' or 'people' (or sometimes as 'other people'), as in examples (153) through (156).

(153) **Ala** *natana.*
       ala   *na-ta-na*
       PL.DIST DETR-say-IRR
       'They were going to have a talk.' [ulwa032_32:36]

(154) **Ala** *angop tane.*
       ala   *ango=p   ta-n-e*
       PL.DIST NEG=COP say-IPFV-DEP
       'They tell lies.' [ulwa014_48:32]

(155) **Ala** *ta ando apïn tï lïp.*
       ala   *ta   anda=u   apïn tï lï-p*
       PL.DIST already SG.DIST=from fire   take put-PFV
       'People have already set fire there.' [ulwa038_03:27]

(156) **Ala** *ndute ndame mbïp.*
       ala   *ndï=uta-e   ndï=ama-e   mbï-p*
       PL.DIST 3PL=grind-IPFV 3PL=eat-IPFV here-be
       'People catch them and eat them here.' [ulwa041_02:37]

Furthermore the plural distal demonstrative *ala* 'PL.DIST' ('those') may be used instead of the second plural personal pronoun *un* '2PL', when addressing groups of people, as in examples (157) through (160).

(157) **Ala** *wokïn anda unalu mbiyen anda ango i?*
    ala   *wokïn*   *anda*   *unan=lu*   *mbï-i-en*   *anda*   *ango*
    PL.DIST big.man SG.DIST 1PL.INCL=with here-go-NMLZ SG.DIST which
    i
    go.PFV
    'You folks, that big man who came with us – where did that [man] go?'
    [ulwa001_13:15]

(158) **Ala** *una wandam ma mundu anglalunda mane.*
    ala   *unan*   *wandam ma mundu angla-lo-nda ma-n-e*
    PL.DIST 1PL.INCL jungle   go   food   await-go-IRR go-IPFV-DEP
    'Everyone, we're going to go to the jungle and look for food.'
    [ulwa030_01:10]

(159) **Ala** *ndï ta lop.*
    ala   *ndï ta*   *lo-p*
    PL.DIST 3PL already go-PFV
    'You all, have they already left?' [ulwa013_06:20]

(160) **Ala** *ndïn anjikake ndï se?*
    ala   *ndï=n*   *anjikaka-e ndï sa-e*
    PL.DIST 3PL=OBL how-DEP   3PL cry-IPFV
    'Folks, what have [you done] with them, such that they are crying?'
    [ulwa032_52:42]

In fact, combined with the form *-nji* 'thing', the demonstrative *ala* 'PL.DIST' ('those') can even be used in possessive constructions – that is, *alanji* 'PL.DIST-POSS' ('those [people]'s') in place of *ndïnji* '3PL-POSS' ('their'), often with the sense of 'other people's. This is illustrated by examples (161), (162), and (163).

(161) *Ambwat* **alanji** *Monde.*
    Ambwat **ala-nji**   *Monde*
    Kambot PL.DIST-POSS [name]
    'The Kambot people's [ancestor] was Monde.' [ulwa002_04:15]

(162) **Alanji** *wo ndï makape.*
    ala-nji   *wa*   *ndï maka=p-e*
    PL.DIST-POSS village 3PL thus=COP-DEP
    'Other people's villages are like that.' [ulwa037_32:25]

(163) **alanji** *amba nda*
    ala-nji   *amba*   *anda*
    PL.DIST-POSS mens.house SG.DIST
    'that magic of other people' [ulwa037_10:01]

In casual speech, the forms *anda* 'SG.DIST' ('that') and *ala* 'PL.DIST' ('those') are commonly shortened to [nda] and [la], respectively. This is especially common when following a vowel, but can occur in any environment.

9.4 Quantifiers

On semantic grounds, words that express concepts such as 'much', 'many', 'few', 'all', 'some', and so on may be considered quantifiers. The words that express these concepts in Ulwa mostly pattern syntactically with words in other classes, namely adjectives. There is at least one word, however, that warrants placement in a separate quantifier class, since it displays some unique syntactic properties. This word is *wopa* 'all'. The major quantity-denoting words are given in (164).

(164) Quantity-denoting words

    wopa   'all'
    nunu   'every'
    kuma   'some'
    ilum   'piece, little, few'
    kekaka 'one each, one by one, just a few'
    ambi   'big, much'
    tïngïn   'many'

The word *wopa* 'all' can function as an adjective, meaning 'whole', 'entire', or 'full'. Like all adjectives, its canonical position is immediately following the noun that it modifies (§7.1). If there is a subject marker, object marker, or other determiner present, then the adjective *wopa* 'all' precedes this word. In this usage, it has a singular (as opposed to plural) meaning – that is, it means something like 'all of something' or 'the whole'. Accordingly, as in examples (165), (166), and (167), NPs containing the attributive adjective *wopa* 'all' are followed by singular determiners (e.g., the subject marker *mï* '3SG.SUBJ' or the demonstrative object marker *anda=* 'SG.DIST').

(165) *Im **wopa** mï liyu.*
       *im   **wopa** mï   li-u*
       tree all   3SG.SUBJ down-put
       'The whole tree fell.' [elicited]

(166) *Utam **wopa** mï tembip.*
       *utam **wopa** mï   tembi=p*
       yam all   3SG.SUBJ bad=COP
       'The entire yam is rotten.' [elicited]

(167) *Ndï unan wat u apïn **wopa** ndatïne …*
       *ndï unan=n   wat u apïn **wopa** anda=tï-n-e*
       3PL 1PL.INCL=OBL atop from fire all   SG.DIST=take-PFV-DEP
       'And once they have gotten the full fire from above us …'
       [ulwa037_14:12]

Like all adjectives, *wopa* 'all' may also function as a substantive (§7.3). In example (168), *wopa* 'all' is followed by the plural subject marker *ndï* '3PL', because it is referring to multiple whole things (in this sentence, fish).

(168) ***Wopa** ndï ngamana.*
       ***wopa** ndï nga=ma-na*
       all   3PL SG.PROX=go-IRR
       'The whole [ones] will go here.' [ulwa014_68:54]

As a syntactically distinct quantifier, however, *wopa* 'all' refers to all members of a group or set of things. Thus it fills the function of a collective universal quantifier. Instead of preceding the subject marker (or subject pronoun), the quantifier follows it. If the quantifier *wopa* 'all' can be analyzed as belonging to the NP, then it is the only NP-internal element allowed to follow a subject marker (or object marker); however, it may be better to analyze the quantifier as sitting syntactically outside the NP. In sentences (169), (170), and (171), *wopa* 'all' follows the plural subject marker *ndï* '3PL'.

(169) *Im ndï **wopa** liyu.*
       *im ndï **wopa** li-u*
       tree 3PL all   down-put
       'All the trees fell.' [elicited]

(170) *Utam ndï **wopa** tembip.*
       *utam ndï **wopa** tembi=p*
       yam 3PL all   bad=COP
       'All the yams are rotten.' [elicited]

(171) *Nji ndï **wopa** men pe.*
       *nji   ndï **wopa** ma=in   p-e*
       thing 3PL all   3SG.OBJ=in be-IPFV
       'All [his] possessions are in it.' [ulwa014_31:41]

Examples (172), (173), and (174) illustrate that the quantifier *wopa* 'all' can appear after pronouns as well as after subject markers. Such pronouns are always plural.

(172) *Una **wopa** map.*
       *unan   **wopa** ma=p*
       1PL.INCL all   3SG.OBJ=be
       'We all stay there.' [ulwa014_06:11]

(173) *Ndï **wopa** wombïn ne.*
       *ndï **wopa** wombïn=n ni-e*
       3PL all   work=OBL act-IPFV
       (a) 'They are all working.'
       (b) 'All of them are working.' [elicited]

(174) *Ndambi **wopa** anala mbïp.*
       *ndï-ambi **wopa** an=ala   mbï-p*
       3PL-TOP all   1PL.EXCL=for here-be
       'As for them, they all stayed for our sake.' [ulwa032_25:21]

As a quantifier, *wopa* 'all' has a rigid post-NP position. Attempts to raise the quantifier overtly to a position within the NP (that is, between the noun and subject marker) result in an adjectival interpretation of the word (that is, 'whole', 'full', 'complete', etc.), as shown in (175) and (176).

(175) *Ankam ndï **wopa** wandam i.*
       *ankam ndï **wopa** wandam i*
       person 3PL all   jungle   go.PFV
       'All the people went to the jungle.' [elicited]

(176)   ? *Ankam **wopa** ndï wandam i.*
      *ankam **wopa** ndï wandam i*
      person all   3PL jungle go.PFV
      'The whole people went to the jungle.' (i.e., not just parts of their bodies went) [elicited]

Although the quantifier *wopa* 'all' must always follow the entire NP (including the subject marker), in negative clauses it may either precede (177) or follow (178) the negative marker *ango* 'NEG'. The fact that it may follow the negator is further indication that it does not properly belong within the NP syntactically, since the negator word does not belong syntactically to the NP.

(177)   *Ankam ndï **wopa** ango wandam i.*
      *ankam ndï **wopa** ango wandam i*
      person 3PL all   NEG jungle go.PFV
      'All the people did not go to the jungle.' [elicited]

(178)   *Ankam ndï ango **wopa** wandam i.*
      *ankam ndï ango **wopa** wandam i*
      person 3PL NEG all   jungle go.PFV
      'All the people did not go to the jungle.' [elicited]

Sentences (177) and (178) have the same meaning. Indeed, the scopal relationship between the negator and the quantifier is also the same – and, in both cases, ambivalent. That is, either may have scope over the other, producing either the possible interpretation that 'not all (i.e., some) people went to the jungle' or the other possible interpretation that 'no people went to the jungle'. In example (179), only context reveals that *ango wopa* 'not all' implies 'no one' as opposed to implying 'some'.

(179)   *Ndï **ango wopa** mol lop.*
      *ndï **ango wopa** ma=ul   lo-p*
      3PL NEG all   3SG.OBJ=with go-PFV
      'They all did not go with him.' (i.e., 'None of them went with him.' In other contexts, however, this same sentence could imply: 'Not all of them went with him.') [ulwa035_01:30]

At times, *wopa* 'all' may alternatively be translated as 'everything' or 'everyone'. In these instances, *wopa* 'all' also follows subject markers or pronouns (as when the word functions elsewhere as a quantifier), as in (180) and (181).

(180) *Nji ndï* **wopa** *liyu.*
 nji ndï **wopa** li-u
 thing 3PL all down-put
 'Everything fell.' (Literally 'All the things fell.') [elicited]

(181) *Ala* **wopa** *wandam i.*
 ala **wopa** wandam i
 PL.DIST all jungle go.PFV
 'Everyone went to the jungle.' (Literally 'Those all went to the jungle.')
 [elicited]

However, it may also function somewhat like a pronoun, forming its own NP
(182).

(182) **Wopa** *malanda.*
 wopa ma=la-nda
 all 3SG.OBJ=eat-IRR
 'All would eat it.' [ulwa014_65:08]

One of the most interesting aspects of the syntactic positioning of the quantifier *wopa* 'all', however, is the fact that it follows not only subject markers, but also object markers. It is thus the only element known to intercede between object-marker clitics and their associated verbs. Sentences (183) through (186) illustrate this unusual placement of *wopa* 'all'.

(183) *Inom mï mïnda* **nduwopa** *wananda.*
 inom mï mïnda ndï=**wopa** wana-nda
 mother 3SG.SUBJ banana 3PL=all cook-IRR
 'Mother will cook all the bananas.' [elicited]

(184) *Nï lamndu* **nduwopa** *asap.*
 nï lamndu ndï=**wopa** asa-p
 1SG pig 3PL=all hit-PFV
 'I killed all the pigs.' [elicited]

(185) *Nï lïmndï nji* **nduwopa** *ala.*
 nï lïmndï nji ndï=**wopa** ala
 1SG eye thing 3PL=all see
 'I saw everything.' [elicited]

(186) *Nï lïmndï **alawopa** ala.*
       *nï   lïmndï ala=**wopa** ala*
       1SG eye   PL.DIST=all see
       'I saw everyone.' [elicited]

When preceding the object marker, however, *wopa* 'all' can only have an adjectival interpretation (187).

(187) *Inom mï mïnda **wopa** nduwananda.*
       *inom   mï   mïnda **wopa** ndï=wana-nda*
       mother 3SG.SUBJ banana all   3PL=cook-IRR
       'Mother will cook the whole bananas.' (i.e., the uncut bananas) [elicited]

The unique positioning of *wopa* 'all' between object markers and their associated verbs is suggestive more than anything else that this word belongs to a syntactic class of its own. Caution is required here, however, since this evidence comes solely from elicitations; there are (perhaps surprisingly) no examples in the Ulwa corpus of texts of *wopa* 'all' occurring in non-subject NPs.

The collective universal quantifier *wopa* 'all' may be contrasted, both formally and syntactically, with the distributive universal quantifier *nunu* 'every'. Unlike other modifiers, such as adjectives (§7.1; cf. *tïngïn* 'many'), and unlike the quantifier *wopa* 'all', the quantifier *nunu* 'every' occurs before the noun it modifies. Thus, like *wopa* 'all', *nunu* 'every' may exist in a class of its own. The use of *nunu* 'every' is illustrated by examples (188), (189), and (190).

(188) ***Nunu** njin molnda mane.*
       ***nunu** nji=n   ma=lu-nda   ma-n-e*
       every thing=OBL 3SG.OBJ=put-IRR go-IPFV-DEP
       '[I] am going to plant everything there.' [ulwa042_04:23]

(189) *Wa **nunu** wa ule.*
       *wa **nunu** wa   u-lo-e*
       just every village from-go-IPFV
       '[They] just go around in every village.' [ulwa037_12:53]

(190) *A **nunu** wombïn tembi ndambilakan!*
       *a   **nunu** wombïn tembi ndï-ambi=la-ka-n*
       ah every work   bad   3PL-TOP=IRR-let-IMP
       'Ah, every bad job – forget about them!' [ulwa014_55:20]

Other semantically quantifier-like words do not occur between object markers and verbs, as *wopa* 'all' does; nor do they occur prenominally, as *nunu* 'every' does. Rather, they behave more like prototypical property-denoting words – that is, they follow the head noun of an NP and precede any subject marker or object marker. For example, when *kuma* 'some' modifies an object NP, it occurs before the object marker (when present), as in (191) and (192).

(191) *Nï lamndu **kuma** ndasap.*
       *nï   lamndu **kuma** ndï=asa-p*
       1SG pig   some 3PL=hit-PFV
       'I killed some pigs.' [elicited]

(192) *Nï lïmndï tïn **kuma** ndala.*
       *nï   lïmndï tïn   **kuma** ndï=ala*
       1SG eye   dog some 3PL=see
       'I saw some dogs.' [elicited]

In examples (191) and (192), *kuma* 'some' could also have the reading 'a few' (that is, 'some' as opposed to 'many'). For the sense 'some of' (that is, a partitive quantity), the postposition *ul* 'with' is employed, as in (193), (194), and (195).

(193) *Nï lïmndï tïn **ndul kuma** ndala.*
       *nï   lïmndï tïn   ndï=**ul**   **kuma** ndï=ala*
       1SG eye   dog 3PL=with some   3PL=see
       'I saw some of the dogs.' (Literally 'I saw some with the dogs.') [elicited]

(194) *Nï utam **ndul kuma** amap.*
       *nï   utam ndï=**ul**   **kuma** ama-p*
       1SG yam 3PL=with some   eat-PFV
       'I ate some of the yams.' [elicited]

(195) *An lamndu **ndul kuma** asap.*
       *an   lamndu ndï=**ul**   **kuma** asa-p*
       1PL.EXCL pig   3PL=with some   hit-PFV
       'We killed some of the pigs.' [elicited]

Like other modifiers, *kuma* 'some' can function as a substantive, whether in a subject NP, as in (196) and (197); in a direct object NP, as in (198) and (199); or in an oblique NP, as in (200).

(196) **Kuma** *la woyambïn alanji wandam ala nakap.*
 kuma *ala* *woyambïn* *ala-nji* *wandam* *ala* *na-kï-p*
 some PL.DIST pointlessly PL.DIST-POSS jungle PL.DIST DETR-say-PFV
 'Some people claimed absurdly that those are their jungles.' (Literally 'those some') [ulwa032_50:23]

(197) **Kuma** *mo ato anmbundata undana.*
 kuma *ma=u* *ata-u* *an-mbï-unda-ta* *unda-na*
 some 3SG.OBJ=from up-from out-here-go-COND go-IRR
 'If some go out from there, [they] will go.' [ulwa032_56:05]

(198) *Ndï* **kuma** *ndït nïnane nï wolka i.*
 ndï **kuma** *ndï=tï* *nï-na-n-e* *nï* *wolka* *i*
 3PL some 3PL=take 1SG=give-PFV-DEP 1SG again go.PFV
 'They gave me some and I in turn went.' [ulwa032_56:34]

(199) *Mï* **kuma** *ndïnkap niya i.*
 mï **kuma** *ndï=nïkï-p* *nï=iya* *i*
 3SG.SUBJ some 3PL=dig-PFV 1SG=toward go.PFV
 'She dug some out and came to me.' [ulwa042_03:22]

(200) *Min mape* **kuman** *upe.*
 min *ma=p-e* **kuma**=n *u-p-e*
 3DU 3SG.OBJ=be-DEP some=OBL put-PFV-DEP
 'The two are there and [they] planted some.' [ulwa037_56:11]

Note the use of subject markers and object markers. While *kuma* 'some' patterns mostly like other adjectives, there is at least one quirk in its syntactic patterning. To express a partitive sense in the first person or second person (i.e., 'some of us', 'some of you', etc.), *kuma* 'some' is placed after the relevant pronoun, as in (201) and (202).

(201) **Una kuma** *apa mawnde isal monombam awe.*
 unan **kuma** *apa* *ma=unda-e* *i-si-al* *monombam*
 1PL.INCL some house 3SG.OBJ=go-IPFV hand-push-PFV forehead
 aw-e
 put-IPFV
 'Some of us go to church and pray.' (Literally 'We some go to the house and push hands on foreheads.') [ulwa037_09:17]

(202)   ***Un kuma*** *anangani pe imot aye.*
       un   ***kuma*** *an=angani*   *p-e*   *imot a-e*
       2PL   some   1PL.EXCL=behind   be-DEP   log   break-IPFV
       'Some of you are behind us, breaking firewood.' [ulwa037_58:47]

Often, *kuma* 'some' is used in contrastive statements, providing a correlative structure (i.e., 'some … others …'), as in (203) and (204).

(203)   ***Kuma*** *matïna* ***kuma*** *manakam.*
       kuma *ma=tï-na*   ***kuma*** *ma=na-kamb*
       some   3SG.OBJ=take-IRR   some   3SG.OBJ=DETR-shun
       'Some wanted to get her; others didn't want it.' [ulwa032_10:24]

(204)   *An* ***kuma*** *matane* ***kuma*** *an mama u manke itïm awe.*
       an   ***kuma*** *ma=ta-n-e*   ***kuma*** *an*   *mama u*
       1PL.EXCL some   3SG.OBJ=say-IPFV-DEP   some   1PL.EXCL mouth from
       ma=nïkï-e   *itïm*   *aw-e*
       3SG.OBJ=dig-DEP trash   put-IPFV
       'Some of us are saying it; but others of us are cutting it [= this good message] out of [our] mouths and putting [it] into the trash.'
       [ulwa037_13:53]

In addition to *wopa* 'all', *nunu* 'every', and *kuma* 'some' – all of which, to varying degrees, behave unusually syntactically – there are several other words in Ulwa that have quantity-related meanings. First, the principal means of expressing a small amount or number is the word *ilum* 'piece', which I consider primarily to be a noun, but which can also function as a modifier along with other nouns in an NP. Its various uses are illustrated by examples (205) through (208).

(205)   *Nï ndïn u ma* ***ilum*** *kotïn.*
       nï   *ndï=n*   *u*   *ma*   ***ilum*** *ko=tï-n*
       1SG 3PL=OBL from 3SG.OBJ piece INDF=take-PFV
       'I got a piece of it [= tobacco] from them.' (Literally 'its piece')
       [ulwa037_51:51]

(206)   *An* ***ilum*** *mokop ndïnan.*
       an   ***ilum*** *moko-p*   *ndï=na-n*
       1PL.EXCL piece take-PFV 3PL=give-PFV
       'We gave them a little.' [ulwa036_03:57]

(207) *Inim **ilum** kuk nji up.*
       *inim **ilum** kuk   nji   u-p*
       water piece gather thing put-PFV
       '[They] got a little water into something.' [ulwa014_68:18]

(208) *Nï nji **ilumnï** molnda.*
       *nï nji   **ilum**=nï   ma=lu-nda*
       1SG thing piece=OBL 3SG.OBJ=put-IRR
       'I will plant a few things there.' [ulwa014_07:51]

The word *kekaka* 'one each' may also be used to express a limited number.[10]
The word seems to have derived as a calque from Tok Pisin *wanwan* 'one each'.
It behaves primarily like an adverb, as in (209) and (210).

(209) *An ango mïka **kekaka** inde.*
       *an   ango maka **kekaka** inda-e*
       1PL.EXCL NEG thus   one.each walk-IPFV
       'We wouldn't walk one by one.' (i.e., 'We wouldn't walk alone.')
       [ulwa013_04:11]

(210) *Ndï unanï **kekaka** inap.*
       *ndï unan=nï   **kekaka** ina-p*
       3PL 1PL.INCL=OBL one.each get-PFV
       'They had just a few of us.' (Literally 'They got one-each with us.' In
       other words, 'Our parents didn't have many children.') [ulwa014_46:36]

To express large non-countable quantities, adjectives such as *ambi* 'big' are
used, as in (211) and (212).

(211) *Inim **ambi** keka i.*
       *inim **ambi** keka   i*
       water big   completely go.PFV
       'A lot of water has gone.' [ulwa038_04:39]

(212) *Ango ndïn wombasa anga **ambi** moke.*
       *ango ndï=n   wombasa anga **ambi** moko-e*
       NEG 3PL=OBL clay.pot side big   take-IPFV
       '[They] don't get lots of money with them.' [ulwa032_58:18]

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[10]This word has the alternative form *kwekaka* 'one each'.

For large countable quantities, the word *tïngïn* 'many' is used. It patterns for the most part with other modifiers (i.e., adjectives). Namely, it can appear after nouns and precede subject markers or object markers. Like other modifiers, it can also serve as a substantive (i.e., as the head of a noun phrase). That said, there does seem to be a tendency for object markers to be omitted from NPs containing (or consisting exclusively of) *tïngïn* 'many'. Perhaps this suggests that *tïngïn* 'many' behaves differently from other modifiers. Alternatively it may simply support the idea that there is a correlation between lack of object markers and lack of definiteness (§9.2). Sentences (213) through (216) exemplify the use of *tïngïn* 'many'.

(213) *Ulum ndï ankam **tïngïn** ndame.*
       *ulum ndï ankam **tïngïn** ndï=ama-e*
       palm 3PL person many   3PL=eat-IPFV
       'The sago palms – many people are eating them.' [ulwa014_10:36]

(214) *Apa ango **tïngïn** ndï mape.*
       *apa   ango **tïngïn** ndï ma=p-e*
       house NEG many 3PL 3SG.OBJ=be-IPFV
       'There aren't many houses there.' [ulwa028_04:5]

(215) *Unanji yalum ngala ndï **tïngïnpe**.*
       *unan-nji   yalum   ngala   ndï **tïngïn**=p-e*
       1PL.INCL-POSS grandchild PL.PROX 3PL many=COP-DEP
       'We have many grandchildren.' (Literally 'These grandchildren of ours – they are many.') [ulwa037_42:14]

(216) *Anambi ango uta **tïngïn** asap.*
       *an-ambi   ango uta **tïngïn** asa-p*
       1PL.EXCL-TOP neg bird many   hit-PFV
       'As for us, we didn't kill many birds.' [ulwa032_54:11]

9.5 Numerals

Cardinal numerals in Ulwa may be characterized as constituting a quinary (base-5) numeral system. There are four distinct words used to refer to the numbers one through four, none of which has been derived from another numeral. The number 5 is used as a base for forming higher numerals: the numerals 6 through 9 are generally formed as [5(·1) + n], where "n" represents the numbers 1 through

4; multiples of 5 may be expressed as 5·2 (= 10), 5·3 (= 15), 5·4 (= 20), and 5·5 (=25). However, there does not seem to be strong conventionalization of numerals greater than 5 – that is, there are multiple ways that speakers may refer to these numbers. In practice, Ulwa numerals (especially higher numerals) occur only rarely in discourse.

There is an alternative decimal (base-10) numeral system that may be used to refer to multiples of 10. Instead of being a complex term formed by multiplication (i.e., 5·2), the alternative word for 10 is simplex (i.e., monomorphemic). Multiples of 10 can thus be expressed as 10·2 (= 20), 10·3 (= 30), 10·4 (= 40), and 10·5 (= 50).

There are no signs of any vigesimal (base-20) numeral system present in the Ulwa counting terms. Ulwa speakers also have no known cultural practice of body-part tallying, as has been documented in parts of New Guinea and Australia.

Cardinal numerals from 'one' through 'ten' are given in Table 9.2. While the forms of the numerals 'one' through 'five' are rather lexicalized, the higher numerals may be expressed in a variety of ways. The forms in Table 9.2 reflect the preferences of consultants who themselves may use other formulations as well.

Table 9.2: Cardinal numerals 1 through 10

	cardinal numeral	gloss	analysis
1	*kwe ~ kwa*	'one'	1
2	*nini*	'two'	2
3	*lele*	'three'	3
4	*watangïnila*	'four'	4
5	*angay ~ angay kwe*	'five'	5 ~ 5·1
6	*angay kwe kwe mowon ndïwatlïp*	'six'	5·1+1
7	*angay kwe nini minwon ndïwatlïp*	'seven'	5·1+2
8	*angay kwe lele ndïwon ndïwatlïp*	'eight'	5·1+3
9	*angay kwe watangïnila ndïwon ndïwatlïp*	'nine'	5·1+4
10	*angay nini ~ nali ~ nali kwe*	'ten'	5·2 ~ 10 ~ 10·1

The word for 'one', which may be pronounced either [kwe] or [kwa], is undoubtedly related to the indefinite object marker *ko=* 'INDF', as well as to the modal adverb *ko ~ kwa* 'just', the indefinite pronoun *kwa* 'someone', and the interrogative pronoun *kwa* 'who?'.

The word *nini* 'two' bears some resemblance to the dual forms *min* '3DU', *ngin* 'DU.PROX', and *andin* 'DU.DIST'. The [-in] endings of these dual forms likely reflect (a possibly metathesized form of) the word for 'two', which in Proto-Keram was

likely *ni. The Ulwa form *nini* 'two' may represent a form of iconic reduplication of Proto-Keram *ni 'two'.

Similarly, the word *lele* 'three' appears to contain reduplication. Of course, there is less logical justification for calling this iconic, but perhaps the form was derived by analogy to the preceding form in the series of numerals. This is, however, speculative.

The word *watangïnila* 'four' seems to be analyzable as: *watangïn* 'last, final' plus *ila* 'sago palm frond'. In traditional timekeeping, days can be marked by the breaking of one *ila* 'sago palm frond' each day. The word *watangïnila* 'four', thus seems to mean something like 'the last straw'.

The word *angay* 'five' is transparently derived from *anga* 'piece, side' plus *i* 'hand, arm'. Optionally, the word *kwe* 'one' may be added to this (i.e., *angay kwe* 'one five'). This reflects a digit-based system of counting that underlies the quinary numerical system – that is, people start to count objects using the fingers of one hand. When all fingers have been extended (that is, when the number 'five' has been reached), they have created a single outstretched palm (that is, one 'side' of 'hand').

The numerals 'six' through 'nine' usually contain verbal elements. Various periphrases are possible, but typically they express the notion that numbers (probably in origin palm fronds or other counters) have been 'cut' and 'added' to (or 'put atop') the number five. Thus, one verbal expression of the number six is literally analyzable as in (217).

(217) *angay kwe kwe mowon ndïwatlïp*
       anga-i   kwe kwe ma=won   ndï=wat-lï-p
       side-hand one one 3sg.obj=cut 3pl=atop-put-pfv
       'one side of hand [= five]; [someone] cut one and put [it] atop them' (= six) [elicited]

The expressions for the numbers seven (218), eight (219), and nine (220) may be analyzed similarly.

(218) *angay kwe nini minwon ndïwatlïp*
       anga-i   kwe nini min=won ndï=wat-lï-p
       side-hand one two 3du=cut 3pl=atop-put-pfv
       'one side of hand [= five]; [someone] cut two and put [them] atop them' (= seven) [elicited]

(219) *angay kwe lele ndïwon ndïwatlïp*
      anga-i   kwe lele   ndï=won ndï=wat-lï-p
      side-hand one three 3PL=cut 3PL=atop-put-PFV
      'one side of hand [= five]; [someone] cut three and put [them] atop
      them' (= eight) [elicited]

(220) *angay kwe watangïnila ndïwon ndïwatlïp*
      anga-i   kwe watangïnila ndï=won ndï=wat-lï-p
      side-hand one four   3PL=cut 3PL=atop-put-PFV
      'one side of hand [= five]; [someone] cut four and put [them] atop them'
      (= nine) [elicited]

Other periphrases are possible to express sums larger than five. In example
(221) the speaker uses forms similar to those in (217), but with the alternative form
of the word for 'one'; in example (222), however, instead of using the metaphor
of 'cutting', the speaker uses the metaphor of numbers being 'thrown' atop each
other (i.e., 'added').

(221) *Lucy mï manji **angay kwa kwe mowon ndïwatlïp**.*
      *Lucy   mï   ma-nji   **angay kwa kwe ma=won***
      [name] 3SG.SUBJ 3SG.OBJ-POSS five   one one 3SG.OBJ=cut
      ndï=wat-lï-p
      3PL=atop-put-PFV
      'Lucy has six [children].' [ulwa024_01:10]

(222) *Nï nïnji tawatïp **angay kwe nini top ndïwatlïp**.*
      *nï nï-nji   tawatïp **angay kwe nini top   ndï=wat-lï-p***
      1SG 1SG-POSS child   five   one two throw 3PL=atop-put-PFV
      'I have seven children.' [ulwa013_12:49]

The numeral 10 may be expressed as 'five (times) two'. An alternate form, *nali*
'ten', reflects the traditional system for counting larger numbers in Ulwa, as this
word also refers to the spines of sago fronds, which were used to mark units of
ten when counting larger sums.

The cardinal numerals from 'ten' through 'twenty' are given in Table 9.3. The
numeral 20 can be expressed either as 'five (times) four' or 'ten (times) two'. It can
also be denoted by the phrase *lamndu unduwan* 'pig('s) head', a term reflecting
modern Papua New Guinean currency, as the twenty-kina note has the picture
of a pig's head.

Table 9.3: Cardinal numerals 10 through 20

	cardinal numeral	gloss	analysis
10	*angay nini ~ nali ~ nali kwe*	'ten'	5·2 ~ 10 ~ 10·1
11	*angay nini kwe mowon ndïwatlïp ~ nali kwe kwe*	'eleven'	5·2+1 ~ 10·1+1
12	*angay nini nini minwon ndïwatlïp ~ nali kwe nini*	'twelve'	5·2+2 ~ 10·1+2
13	*angay nini lele ndïwon ndïwatlïp ~ nali kwe lele*	'thirteen'	5·2+3 ~ 10·1+3
14	*angay nini watangïnila ndïwon ndïwatlïp ~ nali kwe watangïnila*	'fourteen'	5·2+4 ~ 10·1+4
15	*angay lele*	'fifteen'	5·3
16	*angay lele kwe mowon ndïwatlïp*	'sixteen'	5·3+1
17	*angay lele nini minwon ndïwatlïp*	'seventeen'	5·3+2
18	*angay lele lele ndïwon ndïwatlïp*	'eighteen'	5·3+3
19	*angay lele watangïnila ndïwon ndïwatlïp*	'nineteen'	5·3+4
20	*angay watangïnila ~ nali nini ~ lamndu unduwan*	'twenty'	5·4 ~ 10·2 ~ 'pig head'

Higher-number counting was probably not a common practice among Ulwa speakers before the introduction of a cash economy. Similarly, the numeral 50 can be expressed either as 'ten (times) five' or as *ankam unduwan* 'person('s) head', this phrase likewise reflecting the fact that the fifty-kina note contains the image of a man's head (that of Prime Minister Michael Somare). Finally, the numeral 100 is expressed as *uta (kwe)* '(one) bird', similarly derived from the fact that the hundred-kina note contains the image of a "bird" (actually an airplane). Some higher cardinal numerals are given in Table 9.4.

When modifying noun phrases, cardinal numerals occur in the same position as (other) adjectives – that is, immediately following the noun phrase. Numerals can modify either subjects or objects; in subject NPs, the subject marker is somewhat unnecessary (at least in terms of it serving its common function of indexing number – singular, dual, or plural), and it is thus often omitted, as in (223) and (224).

Table 9.4: Some higher numerals

	cardinal numeral	gloss	analysis
25	*angay angay ~ nali nini angay*	'twenty-five'	5·5 ~ 10·2+5
30	*nali lele*	'thirty'	10·3
40	*nali watangïnila*	'forty'	10·4
50	*nali angay ~ ankam unduwan*	'fifty'	10·5 ~ 'person head'
60	*ankam unduwan nali ~ ankam unduwan nali kwe*	'sixty'	50+10 ~ 50+10·1
70	*ankam unduwan nali nini*	'seventy'	50+10·2
80	*ankam unduwan nali lele*	'eighty'	50+10·3
90	*ankam unduwan nali watangïnila*	'ninety'	50+10·4
100	*uta ~ uta kwe*	'hundred'	100 (= 'bird') ~ 100·1
200	*uta nini*	'two hundred'	100·2
300	*uta lele*	'three hundred'	100·3

(223) *Tïn **nini** utam mamap.*
  *tïn   **nini** utam ma=ama-p*
  dog two yam 3SG.OBJ=eat-PFV
  'Two dogs ate the yam.' [elicited]

(224) *Tïn **lele** utam mamap.*
  *tïn   **lele**   utam ma=ama-p*
  dog three yam 3SG.OBJ=eat-PFV
  'Three dogs ate the yam.' [elicited]

Numerals are not often used to indicate the number of referents in a subject, however. Indeed, the ubiquitous subject markers often offer clues to the quantity of multiple referents in a subject NP, especially when the number of referents is exactly two, as in example (225), which may be contrasted with example (226), in which the number of referents is more than two.

(225) *Tïn **min** awal wandam i.*
  *tïn   **min** awal   wandam i*
  dog 3DU yesterday jungle   go.PFV
  'Two dogs went to the jungle yesterday.' [elicited]

(226) *Tïn **ndï** awal wandam i.*
     *tïn **ndï** awal   wandam i*
     dog 3PL yesterday jungle   go.PFV
     '[Three or more] dogs went to the jungle yesterday.' [elicited]

Despite the redundancy, it is, however, possible for the dual subject marker to appear alongside the numeral *nini* 'two' (227).

(227) *Manji nungol **nini min** ndïlope.*
     *ma-nji   nungol **nini min** ndï=lo-p-e*
     3SG.OBJ-POSS child   two 3DU 3PL=go-PFV-DEP
     'His two sons went around in them [= jungle areas].' [ulwa035_01:27]

When modifying object NPs, the numeral (again, not commonly used in discourse), also appears immediately following the NP, as in (228) and (229).

(228) *Tïn mï mïnda (**nini**) minamap.*
     *tïn mï   mïnda (**nini**) min=ama-p*
     dog 3SG.SUBJ banana (two) 3DU=eat-PFV
     'The dog ate two bananas.' [elicited]

(229) *Tïn mï mïnda (**lele**) ndamap.*
     *tïn mï   mïnda (**lele**) ndï=ama-p*
     dog 3SG.SUBJ banana (three) 3PL=eat-PFV
     'The dog ate (three) bananas.' [elicited]

Thus object markers, which often identify the number of direct-object referents, also frequently render the use of cardinal numerals redundant. Of course, for numbers greater than two, numerals are useful for specifying exact quantities, as in (230).

(230) *Maple mï apa mo mïnda **lele** ndïtïna.*
     *Maple mï   apa ma=u   mïnda **lele** ndï=tï-na*
     [name] 3SG.SUBJ house 3SG.OBJ=from banana three 3PL=take-IRR
     'Maple will take three bananas from the house.' [elicited]

Similarly, the numeral *kwe ~ kwa* 'one' may be used to modify the object of a verb along with the object marker *ma=* '3SG.OBJ', as in (231). In such instances, the indefinite object marker *ko=* 'INDF' is not used (§9.2).

(231) **Kwe** *mat manane.*
       kwe *ma=tï   ma=na-n-e*
       one 3SG.OBJ=take 3SG.OBJ=give-PFV-DEP
       '[They] gave him one [= a fruit].' [ulwa001_11:09]

Thus, subject markers and object markers typically reflect the same number that is expressed by a numeral in the same NP. However, when numerals express higher numbers, which are periphrastic, a determiner can actually agree with the final component number, as in (232), where the dual object marker *min=* '3DU' agrees with just the final 'two' component of the phrase for 'ten'.

(232) *Angay* **nini minat**.
       angay **nini min**=atï
       five   two 3DU=hit
       'Ten [days] passed.' (Literally '[The days] hit ten.') [ulwa001_04:27]

It could be argued that the object marker in (232) should properly be *ndï=* '3PL' and not *min=* '3DU', since the object is a number greater than two ('ten days'). However, assuming that this sentence is grammatical, the use of the dual marker could be taken as evidence that numeral formulations such as *angay nini* 'ten' are not lexicalized, but rather are analyzable periphrases (e.g., this phrase has the literal meaning 'two fives').

As modifiers, numerals can also be predicate complements to subjects, serving as the verbal element of a clause. They can thus host the copular enclitic *=p* 'COP' (§12.2) or be followed by the suppletive past-tense locative verb *wap* 'be.PST' (§12.4). Existential constructions specifying a particular number of referents can take this form, as seen in (233), (234), and (235).

(233) *Tïn ndï* **lelep**.
       tïn   ndï **lele=p**
       dog 3PL three=COP
       'There are three dogs.' (Literally 'The dogs are three.') [elicited]

(234) *Tïn ndï* **lelepïna**.
       tïn   ndï **lele=p-na**
       dog 3PL three=COP-IRR
       'There will be three dogs.' (Literally 'The dogs will be three.') [elicited]

(235) *Tïn ndï ipka **lele wap**.*
      *tïn ndï ipka   **lele wap***
      dog 3PL before three be.PST
      'There were three dogs before.' (Literally 'The dogs were three before.')
      [elicited]

However, it should be noted that these examples come from direct elicitation and I do not have any corpus data of natural speech illustrating this usage.

There is no distinct set of ordinal numerals in Ulwa. The relative ordering of events must be accomplished with forms of the verbs *ip ka-* 'precede' or *angani ka-* 'follow' (§11.2.3). Forms of these verbs that are nominalized with the suffix *-en* 'NMLZ' (§5.2) can be paired in apposition with NPs, as in examples (236) and (237).

(236) *Nïnji **ipken** yana mï nip.*
      *nï-nji   **ip-ka-en**   yana mï   ni-p*
      1SG-POSS nose-let-NMLZ woman 3SG.SUBJ die-PFV
      'My first wife died.' (Literally 'My wife, the one preceding, died.')
      [elicited]

(237) *Nïnji **anganiken** yana mï nip.*
      *nï-nji   **angani-ka-en** yana mï   ni-p*
      1SG-POSS behind-let-NMLZ woman 3SG.SUBJ die-PFV
      'My second wife died.' (Literally 'My wife, the one following, died.')
      [elicited]

Consider the contrast between the adverbs *ipka* 'before, earlier, first' (238) or *anganika* 'after, later, soon' (240) with the related nominalized verb forms in examples (239) and (241), respectively.

(238) *Kapos mï **ipka** lamndu masap.*
      *Kapos mï   **ipka** lamndu ma=asa-p*
      [name] 3SG.SUBJ before pig   3SG.OBJ=hit-PFV
      'Kapos killed the pig first.' [elicited]

(239) *Kapos mï **ipken** lamndu masap.*
      *Kapos mï   **ip-ka-en**   lamndu ma=asa-p*
      [name] 3SG.SUBJ nose-let-NMLZ pig   3SG.OBJ=hit-PFV
      'Kapos killed the first pig.' [elicited]

(240) *Kapos mï **anganika** lamndu masap.*
 *Kapos   mï   **anganika** lamndu ma=asa-p*
 [name] 3sg.subj after   pig   3sg.obj=hit-pfv
 'Kapos killed the pig afterwards.' [elicited]

(241) *Nomnga mï **anganiken** lamndu masap.*
 *Nomnga mï   **angani-ka-en**   lamndu ma=asa-p*
 [name] 3sg.subj behind-let-nmlz pig   3sg.obj=hit-pfv
 'Nomnga killed the second pig.' [elicited]

The notion of 'third' may be denoted by the dual object marker *min=* '3du' cliticizing to the verb *angani ka-* 'follow' (242), whereas ordinal notions greater than 'third' would be suggested by the plural object marker *ndï=* '3pl' (243).

(242) *Yokombla mï **minanganiken** lamndu masap.*
 *Yokombla mï   **min=angani-ka-en** lamndu ma=asa-p*
 [name]   3sg.subj 3du=before-let-nmlz pig   3sg.obj=hit-pfv
 'Yokombla killed the third pig.' (Literally 'Yokombla killed the pig, the one following two.') [elicited]

(243) *Amiwa mï **ndanganiken** lamndu masap.*
 *Amiwa mï   **ndï=angani-ka-en** lamndu ma=asa-p*
 [name] 3sg.subj 3pl=before-let-nmlz pig   3sg.obj=hit-pfv
 'Amiwa killed the fourth pig.' (Literally 'Amiwa killed the pig, the one following them [more than two].') [elicited]

In (243), *ndanganiken* 'the one following them' could refer to any ordinal number fourth or greater (or third or greater, if plural marking may be allowed for dual referents, §11.1.2). Thus, there is no straightforward means of distinguishing ordinals in Ulwa beyond first-second-third.

10 Other word classes

In this chapter I discuss the function, structure, and distribution of various word types that do not fit neatly into other groupings. They are all relatively small, closed classes. On both semantic and morphosyntactic grounds, they are trickier to define than nouns or verbs. After discussing postpositions (§10.1) and adverbs (§10.2), I provide an overview of the remaining small classes: negators, question words, and interjections (§10.3).

10.1 Postpositions

The most frequent postpositions in Ulwa are listed in (1).

(1) Postpositions

ala	'for' (benefactive), 'from' (ablative)
andï ~ andïm ~ andïn	'for' (benefactive), 'from' (ablative)
andïla ~ angla	'waiting for, awaiting'
angani	'behind, after'
imbam	'under, below'
in	'in, into'
ipka	'before, in front of' (spatial or temporal)
iya	'to, toward'
ka	'at, in, on'
kana ~ kanam	'beside, near, next to'
moni	'between, among'
nakap ~ nap	'on account of, because of, for'
u	'from, in, at, around, along'
ul ~ lu	'with' (comitative)
wan	'over, above'
wat	'atop, onto'

Although considered a grammatical category in Ulwa, postpositions may function at times as verbs. Furthermore, there may not be a clear line between post-

positions and the oblique-marker enclitic *=n* 'OBL', which functions something like a case marker (§13.4).[1]

Sentences (2) through (21) illustrate various use of these postpositions. When an NP ends in (or consists entirely of) an object marker, this object marker cliticizes to the following postposition.

(2) **Mala** *ay mankap.*
    ma=**ala**   ay   ma=nïkï-p
    3SG.OBJ=for sago 3SG.OBJ=dig-PFV
    '[They] made sago for him.' [ulwa011_01:21]

(3) *Nï* **wala** *wa man.*
    nï   u=**ala**   wa   ma-n
    1SG 2SG=from village go-IPFV
    'I'm going from you to the village.' [ulwa040_01:56]

(4) **Mandï** *sakla itap matï mal unda mane.*
    ma=**andï**   sakla   ita-p   ma=tï   ma=lï   unda
    3SG.OBJ=for platform build-PFV 3SG.OBJ=take 3SG.OBJ=put go
    ma-n-e
    go-IPFV-DEP
    '[They] were going to build a stretcher for him, put [him] on it, and go.'
    [ulwa029_09:57]

(5) *Ndïlakan ndï* **ndandïla** *ndïpïn!*
    ndï=la-ka-n   ndï ndï=**andïla** ndï=p-n
    3PL=IRR-let-IMP 3PL 3PL=await   3PL=be-IMP
    'Let them be there waiting for them!' [ulwa032_50:02]

(6) *Kuman* **ndangla** *kontena menup.*
    kuma=n   ndï=**angla** kontena   ma=in-u-p
    some=OBL 3PL=await container 3SG.OBJ=in-put-PFV
    '[I] put some [bananas] in the container to wait for them.' (*kontena* = TP)
    [ulwa014_17:39]

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[1]This ambiguity is perhaps unsurprising given the crosslinguistically common diachronic relationship between postpositions and case-marking suffixes.

(7) *An luke **unangani** ata i.*
     *an   luke un=**angani** ata i*
     1PL.EXCL too 3PL=behind up go.PFV
     'We, too, came up behind you.' [ulwa037_26:33]

(8) *Namndu wa anmbi apa **imbam** iye.*
     *namndu wa an-mbï-i   apa **imbam** i-e*
     pig   just out-here-go.PFV house under go.PFV-DEP
     'The pigs have just come out and gone under the houses.' [ulwa037_43:23]

(9) *Sinokoynï **men** nïkïna mane.*
     *sinokoy=nï ma=**in**   nïkï-na ma-n-e*
     crop=OBL   3SG.OBJ=in dig-IRR go-IPFV-DEP
     '[I] am going to plant crops in it [= the garden].' [ulwa042_03:38]

(10) *U mat ma mat **nipka** malïta!*
     *u   ma=tï   ma ma=tï   nï=**ipka**   ma=lï-ta*
     2SG 3SG.OBJ=take go 3SG.OBJ=take 1SG=before 3SG.OBJ=put-COND
     'Take her, go, and put her ahead of me!' [ulwa032_18:39]

(11) *Ndï ndïtï ulum **ndiya** unde.*
     *ndï ndï=tï   ulum ndï=**iya**   unda-e*
     3PL 3PL=take palm 3PL=toward go-IPFV
     'They take them and go to the sago palms.' [ulwa014_56:33]

(12) *Samban **ka** ndïwanap.*
     *samban **ka** ndï=wana-p*
     pot   at 3PL=cook-PFV
     '[They] cooked them in the pot.' [ulwa037_44:54]

(13) *Min tane inmi **makanam** lïp.*
     *min tane   inmi ma=**kanam**   lï-p*
     3DU stand hole 3SG.OBJ=near put-PFV
     'The two were standing near the hole.' [ulwa001_05:26]

(14) *Nï matane ndïl **ndïmoni** lïp.*
     *nï   ma=tane   ndïl   ndï=**moni** lï-p*
     1SG 3SG.OBJ=stand pandanus 3PL=among put-PFV
     'I stood it among the pandanus.' [ulwa001_15:35]

(15) *Itom mï way **manakap** tïnanga se.*
    *itom   mï   way ma=**nakap** tïnanga sa-e*
    father 3sg.subj turtle 3sg.obj=for arise   cry-ipfv
    'The father got up and began to cry on account of the turtle.'
    [ulwa006_08:02]

(16) *Kalam nga ndï **manap** anwale.*
    *kalam   nga   ndï ma=**nap**   an=wali-e*
    knowledge sg.prox 3pl 3sg.obj=for 1pl.excl=hit-ipfv
    'This knowledge – they are killing us on account of it.' [ulwa014_28:58]

(17) *Mï tïlwa **mo** mat ine.*
    *mï   tïlwa ma=**u**   ma=tï   i-n-e*
    3sg.subj road 3sg.obj=from 3sg.obj=take come-pfv-dep
    'She carried her along the road.' [ulwa032_17:27]

(18) *Nï **mol** may mawap.*
    *nï ma=**ul**   ma=i   ma=wap*
    1sg 3sg.obj=with 3sg.obj=go.pfv 3sg.obj=be.pst
    'I went with him there and stayed there.' [ulwa027_00:05]

(19) *Ndï ipka man ango alum tïngïn **lu** inde.*
    *ndï ipka   ma=n   ango alum tïngïn **lu**   inda-e*
    3pl before 3sg.obj=obl neg child many with walk-ipfv
    'In the past, they wouldn't go around with lots of children.'
    [ulwa014_49:27]

(20) *Nï apïn malamap **mawan** utape …*
    *nï   apïn ma=la-ama-p   ma=**wan**   uta-p-e*
    1sg fire   3sg.obj=irr-eat-pfv 3sg.obj=above grind-pfv-dep
    'When I've burned it and cleared over it …' [ulwa037_49:51]

(21) *Ata ma mïka **ndawat** namana.*
    *ata ma mïka   anda=**wat**   na-ma-na*
    up go tree.species sg.dist=atop detr-go-irr
    '[He] will go up, go onto that tree.' [ulwa029_04:51]

Postpositions may be followed by the locative verb *p-* 'be at' (or its supple-tive past form *wap* 'be.pst') to encode predicative spatial meaning. When spatial postpositions can convey either stationary or directional meaning (e.g., *in* 'in,

into'), generally only the static sense is felt (e.g., *in p-* 'is in'), as in examples (22) through (27).

(22) *Yawat mï Sinda **kanam pe** ame.*
      *Yawat   mï   Sinda   **kanam p-e**   ama-e*
      [name] 3SG.SUBJ [name] beside   be-DEP eat-IPFV
      'The spear is next to the tree.' [elicited]

(23) *Mana mï im **makanam wap**.*
      *mana mï   im   ma=**kanam**   **wap***
      spear 3SG.SUBJ tree 3SG.OBJ=beside be.PST
      'The spear was next to the tree.' [elicited]

(24) *Nï manji ya **ngalaymbam pe**.*
      *nï ma-nji   ya   ngala=**imbam** **p**-e*
      1SG 3SG.OBJ-POSS coconut PL.PROX=under be-IPFV
      'I am under his coconut trees.' [ulwa013_11:55]

(25) *Ngata nda unde **ndïwat pe**.*
      *ngata anda   unda-e ndï=**wat** **p**-e*
      grand SG.DIST go-DEP 3PL=atop be-IPFV
      'Our ancestor used to go around over them.' [ulwa014_69:56]

(26) *Ngïm **nden pe** wa layte iye.*
      *ngïm anda=**in** **p**-e   wa   ala=ita-e   i-e*
      cloud SG.DIST=in be-DEP village PL.DIST=build-DEP go.PFV-DEP
      'Living in that cloud, [he] was building village after village.'
      [ulwa009_00:06]

(27) *Inom ndï umbe nungol **ndul pïna**.*
      *inom   ndï umbe   nungol ndï=**ul**   **p**-na*
      mother 3PL tomorrow child   3PL=with be-IRR
      'The mothers will be with the children tomorrow.' [elicited]

These verb phrases headed by locative verbs and containing postpositional phrases can further take the nominalizing suffix *-en* 'NMLZ' (§5.2), as in (28) and (29).

(28) *ngunan ato inkaw **ngawat pen** ngala*
      *ngunan=n   ata-u   inkaw   nga=**wat**   **p**-en   ngala*
      1DU.INCL=OBL up-from mountain SG.PROX=atop be-NMLZ PL.PROX
      'these [people] who live atop the mountains above us' [ulwa014_59:55]

(29)   *sïtik mï kïka tïlwa **men pen***
      *sïtik   mï   kïka   tïlwa ma=**in**   **p-en***
      stick 3sg.subj white.ant road 3sg.obj=in be-nmlz
      'the stick that is in the white ant track' (*sïtik* = TP *stik*) [ulwa029_05:18]

Like verbs (and unlike nominal elements, adjectives, and so on), postpositions do not permit the oblique marker *=n* 'obl' (§13.4.1).

Some postpositions seem to function like verbs even without being followed by a locative verb form. When such forms occur clause-finally and express the action or event of the predicate, they may be considered to be verbs (albeit somewhat defective ones). Indeed, they are likely verbs in origin, having begun a process of grammaticalization, losing their verbal morphology as they come to function more as postpositions. This seems to be the case with the suppletive verb *ala ~ andï(m/n)* 'see', both stems of which are used as postpositions with the meaning 'for' or 'from'. However, as separable verbs (§11.2.1), these forms – along with the nominal adjunct *lïmndï* 'eye' – convey the verbal meaning 'see', as in (30).

(30)   *Unan amun lïmndï makape i **mandïm**.*
      *unan   amun lïmndï maka=p-e   i   ma=**andï-m***
      1pl.incl now   eye   thus=cop-dep way 3sg.obj=see-pfv
      'We have now seen this kind of behavior.' [ulwa037_64:29]

Indeed, even when functioning as a verb, *ala ~ andï(m/n)* 'see' generally does not take any TAM suffixation (31). It can, however, receive a dependent marker (32).

(31)   *Nïnji itom mï lïmndï **nala**.*
      *nï-nji   itom   mï   lïmndï nï=**ala***
      1sg-poss father 3sg.subj eye   1sg=see
      'My father saw me.' [ulwa013_01:10]

(32)   *Ndï wa i lïmndï wa **male**.*
      *ndï wa   i   lïmndï wa   ma=**ala-e***
      3pl village go.pfv eye   village 3sg.obj=see-dep
      'They went home and saw the village.' [ulwa001_17:53]

The stem *andï-* 'see' does, however, permit at least one TAM suffix, the irrealis suffix *-na* 'irr', as in (33).

(33) *Ankam moweka ango lïmndï **mandïna**.*
      *ankam moweka ango lïmndï ma=**andï-na***
      person also   NEG   eye   3SG.OBJ=see-IRR
      'Nor would people see it.' [ulwa014_42:27]

Postpositions may also be used as elements in compound verbs. See §6.14, however, for problems surrounding this issue.

10.2 Adverbs

Adverbs often provide additional information on the manner in which an action occurs or situate an event in time or space. They are never required by the argument structure of a verb. In terms of distribution, adverbs can be defined by their unique ability to precede subjects. Although the canonical placement of adverbs is following subjects and preceding objects (that is, in the position of obliques, i.e., SXOV, §13.4), it is possible for adverbs to come first in a given clause. In terms of structure, adverbs may be defined by their inability to take TAM suffixes (as verbs do) and their inability to take oblique marking (as nouns do). The following subsections describe the major subclasses of adverbs.

10.2.1 Temporal adverbs

The most frequent temporal adverbs are given in (34).

(34) Temporal adverbs

      amun   'now, today, nowadays, recently, still'
      awal   'yesterday'
      umbe   'tomorrow'
      ta   'already'
      ipka   'before, beforehand, earlier, first'
      anganika   'after, afterwards, later, soon'

Sentences (35) through (41) illustrate some uses of these temporal adverbs.

(35) *Una **amun** mbi.*
      *unan   **amun** mbï-i*
      1PL.INCL now   here-go.PFV
      'We've now come here.' [ulwa037_21:19]

(36) ***Amun*** *una kalam.*
   amun *unan   kalam*
   now   1PL.INCL knowledge
   'Now we know.' [ulwa014_57:35]

(37) *Nï **amun** anmbi wema weyunda.*
   *nï **amun** an-mbï-i   wema   we-u-nda*
   1SG now   out-here-go.PFV pangal cut-put-IRR
   'I came out recently to cut *pangal* [= palm fronds].' [ulwa038_04:55]

(38) *U **awal** mawap.*
   *u   **awal**   ma=wap*
   2SG yesterday 3SG.OBJ=be.PST
   'You were there yesterday.' [ulwa040_00:04]

(39) ***Awal*** *anambi keka we ulwap.*
   awal   *an-ambi   keka   we   ulwa=p*
   yesterday 1PL.EXCL-TOP completely sago nothing=COP
   'As for us, we were completely out of sago yesterday.' [ulwa037_60:18]

(40) *Una **umbe** wolka ina.*
   *unan   **umbe**   wolka i-na*
   1PL.INCL tomorrow again come-IRR
   'We'll come again tomorrow.' [ulwa030_04:12]

(41) ***Umbe*** *una angos wombïn ninda?*
   umbe   *unan   angos wombïn=n ni-nda*
   tomorrow 1PL.INCL what work=OBL act-IRR
   'What [sort of] work will we do tomorrow?' [ulwa030_01:43]

   Although the three basic temporal adverbs (*amun* 'now', *awal* 'yesterday', and *umbe* 'tomorrow') generally occur immediately after the subject (when it is expressed), they may alternatively occur before the subject (i.e., clause-initially), as in (36), (39), and (41). There is a tendency to place the temporal adverb before postpositional phrases, as in (42) and (43).

(42) *Nï **umbe** mol mana.*
   *nï **umbe**   ma=ul   ma-na*
   1SG tomorrow 3SG.OBJ=with go-IRR
   'I would go with her tomorrow.' [ulwa040_02:21]

(43) *Nï **amun** wiya may wap.*
      nï ***amun*** *u=iya*   *ma=i*   *wap*
      1SG now   2SG=toward 3SG.OBJ=go.PFV be.PST
      'I went there to you today.' [ulwa014_53:04]

Similarly, temporal adverbs tend to precede oblique-marked NPs, as in (44).

(44) *Nï **amun** man ndït.*
      nï ***amun*** *ma=n*   *ndï=ta*
      1SG now   3SG.OBJ=OBL 3PL=say
      'I just recently told them.' [ulwa014_04:36]

When temporal adverbs occur with other adverbs, however, the order seems rather flexible. In example (40), the adverb *wolka* 'again' follows the temporal adverb *umbe* 'tomorrow'. It is possible, however, for this adverb to precede the temporal adverb as well. The variability in ordering of adverbs may be seen in (45) and (46).

(45) *Ngan ango **amun wolka** maye.*
      ngan   *ango* ***amun wolka*** *ma=i-e*
      1DU.EXCL NEG now   again 3SG.OBJ=go.PFV-DEP
      'We have not gone there again lately.' [ulwa027_00:16]

(46) *Nï ango **wolka amun** may.*
      nï *ango* ***wolka amun*** *ma=i*
      1SG NEG again now   3SG.OBJ=go.PFV
      'I have not gone there again lately.' [ulwa027_00:11]

As in example (39), there may also be a preference among some speakers to place the temporal adverb before the subject in clauses containing multiple oblique expressions, such as adverbs. In example (47), the sentence contains the adverbs *amun* 'now' and *wolka* 'again', the former occurring clause-initially.

(47) ***Amun** yalum ngala wolka mbulop.*
      amun *yalum*   *ngala*   *wolka mbï-u-lo-p*
      now   grandchild PL.PROX again here-from-go-PFV
      'Now these grandsons came around here again.' [ulwa014†]

Similarly, modal adverbs such as *wa* 'just' may either follow (48) or precede (49) temporal adverbs.

(48) *Ndï **amun wa** ndale.*
    *ndï **amun wa** ndï=ale-e*
    3PL now   just 3PL=scrape-IPFV
    'Nowadays they just scrape them.' [ulwa014_59:36]

(49) *Ndï **wa amun** kuli atap.*
    *ndï **wa amun** kuli   ata [na]-p*
    3PL just now   throw up [DETR]-be
    'Now they are just coming up well.' [ulwa037_42:51]

Although one of the defining characteristics of the class of adverbs is that its members do not permit any nominal or verbal morphology, this claim is confounded by the fact that words such as *amun* 'today', *awal* 'yesterday', and *umbe* 'tomorrow' may also function as nouns, as illustrated in (50) and (51), where the temporal words appear to be heading subject NPs.

(50) *Ay ngam **amun** Prayde.*
    *ay nga-nam   **amun** Prayde*
    ay SG.PROX-EMPH now   Friday
    'Ay, that's it, today is Friday.' (*Prayde* = TP *Fraide*) [ulwa014_27:20]

(51) ***Umbe** anmbi angos mundu mï anmapïta u malanda?*
    ***umbe**   an-mbï-i   angos mundu mï   anma=p-ta   u*
    tomorrow out-here-go.PFV what food   3SG.SUBJ good=COP-COND 2SG
    ma=la-nda
    3SG.OBJ=eat-IRR
    'When tomorrow comes what food will be good for you to eat?'
    [ulwa014_64:31]

These nominal forms may receive the copular enclitic. When occurring with the word *amun* 'today', this marker can give the sense of 'still' (or, in negative polarity, 'yet'), as illustrated by examples (52) through (56).

(52) *Unji nungol ngala **amunpe** kalam ngol mane.*
    *u-nji   nungol ngala   **amun=p-e**   kalam   nga=ul*
    2SG-POSS child   PL.PROX now=COP-DEP knowledge SG.PROX=with
    ma-n-e
    go-IPFV-DEP
    'Your children are still in school.' (Literally 'going with this knowledge')
    [ulwa014_09:31]

(53) *Olsem nï **amunpe** njukutape …*
*olsem nï **amun=p**-e njukuta=p-e*
thus 1SG now=COP-DEP small=COP-DEP
'Like, when I was still small …' (*olsem* = TP) [ulwa029_00:01]

(54) *Wowal **amunpïta** ata pïta una ko nol!*
*wowal **amun=p**-ta ata p-ta unan ko na-lo*
chicken now=COP-COND up be-COND 1PL.INCL just DETR-go
'When the chickens are still up [in the trees], let's just go!'
[ulwa031_03:31]

(55) *Ango **amunpe** atay matïna.*
*ango **amun=p**-e ata i ma=tï-na*
NEG now=COP-DEP up go.PFV 3SG.OBJ=take-IRR
'[It] wouldn't go up and get him immediately.' [ulwa006_02:32]

(56) *U **amunpe** wol ulwap.*
*u **amun=p**-e wol ulwa=p*
2SG now=COP-DEP breast nothing=COP
'You don't have breasts yet.' [ulwa011_01:12]

When *awal* 'yesterday' is followed by [p], however, it generally has the sense of 'afternoon', as in (57) and (58). This, rather, seems to be an instantiation of the locative verb *p-* 'be at', here being metaphorically extended to temporal meaning. Something similar seems to occurs with the noun *imba* 'night', in phrases such as *imba pe* 'at night'.[2]

(57) ***Awal pe** inim ndïn apïn up ay ndïnkap.*
***awal** p-e inim ndï=n apïn u-p ay ndï=nïkï-p*
afternoon be-DEP water 3PL=OBL fire put-PFV sago 3PL=dig-PFV
'In the afternoon, [we] put water on the fire and made sago.'
[ulwa031_03:17]

(58) *Mundu anglaluta mawap **awal pïta**.*
*mundu angla-lo-ta ma=wap **awal** p-ta*
food await-go-COND 3SG.OBJ=be.PST afternoon be-COND
'If [they] were hunting for food, [they] would stay until afternoon.'
[ulwa029_07:20]

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[2]There are no attested uses of *umbe* 'tomorrow' with copular or locative marking.

The other temporal adverbs, which never take either nominal or verbal morphology, are perhaps better exemplars of adverbs. Like the three adverbs already described, they may appear either before (59) or after (60) subject NPs.

(59) ***Ipka** ankam ango ulum alepen.*
      ***ipka**   ankam ango ulum ale-p-en*
      before person NEG palm scrape-PFV-NML
      'Before, people didn't use to scrape sago palms.' [ulwa008_00:25]

(60) *Nï **ipka** alan malan upe.*
      *nï   **ipka** ala=n   malan   u-p-e*
      1SG before PL.DIST=OBL hot.water put-PFV-DEP
      'I boiled those first.' [ulwa032_24:31]

Whereas *ta* 'already' is clearly monomorphemic, *ipka* 'before' and *anganika* 'after' are each apparently derived from multiple morphemes: the former consisting of the noun *ip* 'nose' and the postposition *ka* 'at, in, on', the latter consisting of the noun *angani* 'rear' and the postposition *ka* 'at, in, on'. While *ipka* 'before' is derived from a crosslinguistically common body-part metaphor, *anganika* 'after' (often shortened to [naka]) is not necessarily so, since *angani* 'rear' is not typically used to refer to any part of the human body (cf. *mutam* 'back' and *unmbï* 'buttocks'). Sentences (61) through (64) illustrate the adverbial use of *ipka* 'before' and *anganika* 'after'.

(61) *Nïnji inom mï **ipka** apa mo li.*
      *nï-nji   inom   mï   **ipka** apa   ma=u   li-i*
      1SG-POSS mother 3SG.SUBJ before house 3SG.OBJ=from down-go.PFV
      'My mother went down around the house first.' [ulwa004_03:10]

(62) *Nï **anganika** ma wanam mana.*
      *nï   **anganika** ma   wanam ma-na*
      1SG after   3SG.OBJ side   go-IRR
      'I will go alongside her later.' (Literally 'go to her side') [ulwa032_18:41]

(63) *Yaka **anganika** li.*
      *Yaka   **anganika** li-i*
      [name] after   down-go.PFV
      'Yaka came down after.' [ulwa004_03:12]

(64) *U **anganika** ndïtana!*
      u   **anganika** ndï=ta-na
      2SG after   3PL=say-IRR
      'Tell them later!' [ulwa014†]

Whereas *anganika* 'after' is viewed here as a single adverb (that is, not composed of [angani] and [ka], at least not synchronically) and thus should not accept any morphological inflection, the postposition *angani* 'behind' (as a postposition) can indeed have an object-marker clitic, as in (65) and (66).

(65) *Anambi itom **alangani** i.*
      an-ambi   itom **ala=angani**   i
      1PL.EXCL-TOP father PL.DIST=behind go.PFV
      'As for us, we came after [our] fathers.' [ulwa037_15:43]

(66) *Nïnji aweta nda **nangani** wonp!*
      nï-nji   aweta anda **nï=angani** won-p
      1SG-POSS friend SG.DIST 1SG=behind cut-PFV
      'That friend of mine has gone behind my back!' (Literally 'That friend of mine has cut behind me.') [ulwa020_01:49]

More troubling for this analysis of *ipka* 'before' and *anganika* 'after' as adverbs, however, is the occasional use of *ipka* 'before' as a postposition as well, as seen in (67) and (68).[3]

(67) *E an tïn alol **unipka** mbiye!*
      e an   tïn ala=ul   **un=ipka**   mbï-i-e
      hey 1PL.EXCL dog PL.DIST=with 2PL=before here-go.PFV-DEP
      'Hey, we came here with those dogs before you!' [ulwa031_03:47]

(68) *Ngan **ndipka** iyen.*
      ngan   **ndï=ipka** i-en
      1DU.EXCL 3PL=before go.PFV-NMLZ
      'We two went ahead of them.' [ulwa032_29:02]

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[3]It could be, however, that in such instances the postpositional force of *ka* 'at, in, on' is still felt, creating a postpositional phrase that means something along the lines of 'at the nose of'. An additional complication is the clear relationship between the adverbs *ipka* 'before' and *anganika* 'after' and the verbs *ip ka-* 'precede' and *angani ka-* 'follow', respectively (§11.2.3). These putative verbs are found in ordinal constructions with nominalizing morphology (§9.5).

Thus, perhaps *ta* 'already', which permits no verbal TAM suffixation, nominal-ized forms, or object-marker clitics, and which is able to occur either before or after the subject, is the most prototypical temporal adverb in Ulwa. The use of *ta* 'already' is illustrated in (69), (70), and (71).

(69) *U **ta** kalampe.*
      u   **ta**   kalam=p-e
      2SG already knowledge=COP-DEP
      'You already know.' [ulwa014†]

(70) *E mï **ta** keka wapatap.*
      e   mï   **ta**   keka   wapata=p
      hey 3SG.SUBJ already completely dry=COP
      'Hey! It's already completely dry.' [ulwa038_04:59]

(71) ***Ta** unji anapa ndï u inim nïkape.*
      ta   u-nji   anapa ndï u   inim nïkï-p-e
      already 2SG-POSS sister 3PL 2SG water dig-PFV-DEP
      'Already, your sisters have celebrated you.' (Literally 'have cut your water') [ulwa014_62:29]

10.2.2 Locative adverbs

There is a small set of locative adverbs in Ulwa, which are used to indicate posi-tion or direction (72).

(72) Locative adverbs
      ata   'up, upward, upstream'
      li   'down, downward, downstream'
      mbï   'here, to here, hither'
      mbu   'here, from here, hence'
      anda   'there, to there, thither'
      ando   'there, from there, thence'
      nu   'near'
      ngaya 'far'
      wala   'far, far-off'

The adverbs *ata* 'up' and *li* 'down' may refer either to literal vertical-axis lo-cations and directions or to relative locations and directions along the river – that is, 'upstream' and 'downstream', respectively. In (73) and (74), *ata* 'up' and *li* 'down' are being used to refer to vertical-axis directions.

(73) *Ulum maya **ata** i.*
      *ulum ma=iya   **ata** i*
      palm 3SG.OBJ=toward up   go.PFV
      '[It] went up the sago palm.' [ulwa006_03:12]

(74) *Nungolke ngala kuli **li** malp.*
      *nungolke ngala   kuli   **li**   ma=lï-p*
      child   PL.PROX throw down 3SG.OBJ=put-PFV
      'These children have thrown [themselves] down there [= the water].'
      [ulwa038_01:24]

In (75) and (76), *ata* 'up' refers to locations or directions upstream from a point
of reference. In (77), *li* 'down' refers to a location or direction downstream from
the point of reference.

(75) *Wot ngo **ata** mane.*
      *wot   nga=u   **ata** ma-n-e*
      younger SG.PROX=from up   go-IPFV-DEP
      '[They] were going upstream from this younger [village].'
      [ulwa002_05:04]

(76) *Nï mat **ata** ndo i.*
      *nï   ma=tï   **ata** anda=u   i*
      1SG 3SG.OBJ=take up   SG.DIST=from go.PFV
      'I brought it from up there [i.e., from upstream].' [ulwa037_34:26]

(77) *Ndïmepe ndït **li** may.*
      *ndï=me-p-e   ndï=tï   **li**   ma=i*
      3PL=sew-PFV-DEP 3PL=take down 3SG.OBJ=go.PFV
      'He sewed them and brought them down there [i.e., downstream].'
      [ulwa037_35:48]

Example (78) contains both *li* 'down' and *ata* 'up'. Here, *li* 'down' occurs within
a relative clause meaning something like 'these who stay there downstream'.

(78) ***Li** mape ngala ngalaya **ata** mbi.*
      ***li**   ma=p-e   ngala ngala=iya   **ata** mbï-i*
      down 3SG.OBJ=be-DEP PL.PROX PL.PROX=toward up   here-go.PFV
      'These people from downstream came upstream here to these people.'
      [ulwa032_43:44]

Furthermore, upward motion and downward motion are often synonymous in Ulwa with entering and exiting houses, respectively. Since houses are elevated on stilts, one must physically move along the vertical axis in order to enter or exit one. In (79), *ata* 'up' is being used to refer to entering a house. In (80) and (81), *li* 'down' connotes exiting a house.

(79)   *Mat i **ata** apa may.*
       *ma=tï   i   **ata** apa   ma=i*
       3SG.OBJ=take go.PFV up   house 3SG.OBJ=go.PFV
       '[It] brought him up to the house and went with him.' [ulwa006_03:51]

(80)   *Yana mï **li** membam i atwana mat.*
       *yana   mï   **li**   ma=imbam   i   atwana ma=ta*
       woman 3SG.SUBJ down 3SG.OBJ=under go.PFV question 3SG.OBJ=say
       '[His] wife came down under him and asked him a question.' (The man in the story is up in a house.) [ulwa001_15:10]

(81)   *Anda ngunaya **li** nayn.*
       *anda   ngunan=iya   **li**   na-i-n*
       SG.DIST 1DU.INCL=toward down DETR-come-PFV
       'That one has come down to us [from the house].' [ulwa014†]

The locative adverb *mbï* 'here' may be used to indicate direction toward the speaker (i.e., 'hither') (82).

(82)   *Na manji yalum ngala **mbï** indap.*
       *na ma-nji   yalum   ngala   **mbï** inda-p*
       and 3SG.OBJ-POSS grandchild PL.PROX here walk-PFV
       'And his grandchildren walked here.' (*na* < TP *na* 'and') [ulwa014†]

Often, as in (82), the adverb *mbï* 'here' occurs as the first member of a compound verb. The second member is usually a motion verb, such as *ma- ~ i-* 'go', and the compound has the sense 'come (here)' as seen in (83).

(83)   *Atuma numan anda mï **mbi**.*
       *Atuma numan anda   mï   **mbï-i***
       [name] husband SG.DIST 3SG.SUBJ here-go.PFV
       'Atuma's husband – he came.' [ulwa014†]

(84) *Ngata la Wopata ndo **mbi**.*
　　 *ngata　　　　ala　　　Wopata anda=u　　　**mbï-i***
　　 grandparent PL.DIST [place] SG.DIST=from here-go.PFV
　　 'The ancestors came here from Wopata.' [ulwa037_10:55]

Although such adverbs may form compounds with verbs, I do not think it would be correct to say that there exists any locative or directional morphological marking on verbs in the language.

Compounds formed with *mbï* 'here' and other verbs are possible as well, as in (85), where the compound is headed by the verb *lï-* 'put'. In the verb in this example, the adverb *mbï* 'here' combines with *an* 'out', which is not known to occur independently as an adverb.

(85) *Ndï ndït **anmbïlïp** ndïmoke amblanane.*
　　 *ndï ndï=tï　**an-mbï-li-p**　　ndï=moko-e　　ambla-na-n-e*
　　 3PL 3PL=take out-here-put-PFV 3PL=take-DEP PL.REFL=give-PFV-DEP
　　 'They got them out and shared them among themselves.' [ulwa014_29:46]

With motion verbs such as *ma- ~ i-* 'go', compounds containing the components *an* 'out' and *mbï* 'here' give the sense of going outside or coming outside (from being within a house, jungle region, etc.), as in (86) and (87).

(86) *Ndï wolka **anmbi**.*
　　 *ndï wolka **an-mbï-i***
　　 3PL again out-here-go.PFV
　　 'They went out again.' [ulwa014_16:59]

(87) *Wolka maya **anmbi** mol natana.*
　　 *wolka ma=iya　　**an-mbï-i**　　　ma=ul　　　na-ta-na*
　　 again 3SG.OBJ=toward out-here-go.PFV 3SG.OBJ=with DETR-say-IRR
　　 'Having come out to him, [we] will talk with him again.' [ulwa037_59:34]

To indicate direction away from the speaker (i.e., 'hence'), the adverb *mbï* 'here' may be combined with the postposition *u* 'from, in, at, around, along' (88).

(88) *Ngo Ganmalin u **mbu** matïn mana.*
　　 *nga=u　　　Ganmali=n　u　**mbï-u**　　ma=tï-n　　　　ma-na*
　　 SG.PROX=from [name]=OBL from here-from 3SG.OBJ=take-PFV go-IRR
　　 'From this [place], having gotten it from here, from Ganmali, [they] will go.' [ulwa014_33:13]

The same compound *mbu* 'from here, hence' (< *mbï-u*) can have not only abla-tive, but also locative sense (i.e., '[at] here' in addition to 'from here'), as in (89) and (90).

(89) *Ndïn **mbu** inum awe.*
      ndï=n   ***mbï-u***   *inum*   *aw-e*
      3PL=OBL here-from ground put.IPFV-DEP
      '[They] bury them here.' [ulwa028_04:39]

(90) *Una we apa **mbu** ulwap.*
      unan   *we*   *apa*   ***mbï-u***   *ulwa=p*
      1PL.INCL sago house here-from nothing=COP
      'We don't have any sago here at home.' [ulwa037_60:47]

Especially when occurring with the locative verb *p-* 'be at', *mbï* 'here' can serve more of a nominal function – that is, 'here' in the sense of 'this place' (91).

(91) *Owet yena ngusuwa anda **mbïpe**.*
      Owet   *yena*   *ngusuwa*   *anda*   ***mbï-p-e***
      [name] woman poor   SG.DIST here-be-IPFV
      'Owet's wife, the poor thing, was here.' [ulwa014_38:42]

Like other deictic words, *mbï* 'here' can also be used by speakers to project a deictic center to a point other than the ego (§9.3), as in (92), where it is translated in English as 'there'.

(92) *Alum mokotïp an mol **mbïwap**.*
      alum   *ma=kot-p*   *an*   *ma=ul*   ***mbï-wap***
      child 3SG.OBJ=break-PFV 1PL.EXCL 3SG.OBJ=with here-be.PST
      'She bore a child, and we were there with her.' [ulwa014_38:44]

The locative word *ando* 'there, thence' is a compound, composed of the deictic word *anda* 'that' and the postposition *u* 'from, in, at, around, along'. Examples (93), (94), and (95) illustrate its use. See also example (155) in §9.3 and example (1) in §12.1.

(93) ***Ando** una mape.*
      anda=u   *unan*   *ma=p-e*
      SG.DIST=from 1PL.INCL 3SG.OBJ=be-IPFV
      'We are there.' [ulwa042_06:22]

(94) *Nga nganji pul **ando**.*
*nga   nga-nji   pul   **anda=u***
SG.PROX SG.PROX-POSS piece SG.DIST=from
'This is this one's piece [of the river] over there.' [ulwa014_66:29]

(95) *Tïlwa mï **ando** i.*
*tïlwa mï   **anda=u**   i*
road 3SG.SUBJ SG.DIST=from go.PFV
'The track went from there.' [ulwa029_07:03]

The locative words *nu* 'near', *ngaya* 'far', and *wala* 'far, far-off' generally function as adjectives (§7.4), but they do contain some curious distributional properties, such as variable word order with respect to other constituents. This makes them seem somewhat adverb-like. Moreover, since their etymologies seem to reflect origins as postpositional phrases, it should not be surprising that they behave more like obliques than like prototypical adjectives (§13.4). I propose etymologies for these three words in (96).

(96)   Possible etymologies of some locative words
       nu   'near'   < *nï* '1SG' + *u* 'from, around'   = 'around me'
       ngaya 'far'   < *nga* 'SG.PROX' + *iya* 'toward' = 'toward this (place)'
       wala   'far(-off)' < *u* '2SG' + *ala* 'for, from'   = '(away) from you'

In (97), *nu* 'near' is modifying a verb – that is, it is functioning as an adverb.

(97) *Iwïl nga **nu** kukawe.*
*iwïl   nga   **nu** kuk-aw-e*
moon SG.PROX near gather-put.IPFV-DEP
'[The end of] this month is drawing near.' [ulwa037_59:15]

Likewise, (98) illustrates the adverbial use of *ngaya* 'far', which can also be seen in example (43) in §15.1.2 and example (110) in §15.2.4.

(98) *Nï ndul **ngaya** mana awlop.*
*nï   ndï=ul   **ngaya** ma-na awlop*
1SG 3PL=with far   go-IRR in.vain
'I want to go far with them but can't.' [ulwa032_49:20]

There are no instances in the Ulwa corpus of texts in which *wala* 'far(-off)' functions as an adverb. It always precedes the noun *luwa* 'place', which it modifies; thus, it may be most parsimonious to analyze *wala luwa* 'far-off place' as a single compound noun, one which follows the general trend in Ulwa of the head of the endocentric compound occurring as the final member (§5.3).

10.2.3 Adverbs of manner

Adverbs of manner modify sentences by providing additional information on the way in which an event occurs or a state exists. Although this information is often conveyed through other means (e.g., adjectives, postpositional phrases, or even whole clauses), there is a small set of manner adverbs, the most frequent of which are given in (99).

(99) Manner adverbs

apka	'very'
keka ~ kaka	'completely'
maka	'thus, in this manner, in that manner'
wolka	'again, in turn'
maweka ~ moweka	'also, moreover'
luke	'also, too'

One readily apparent formal trait shared by all these words is their ending in [ka], which, in these words, is taken to be a formative meaning something like 'thus, in this manner, in that manner'.[4] These adverbs of manner seem much less amenable to pre-subject position than the temporal adverbs are, and their inclusion within the larger class of adverbs is, admittedly, largely based on semantic grounds. Sentences (100) through (112) illustrate their use.

(100) *Woni mï **apka** wutota.*
       *Woni   mï   **apka** wutota*
       [name] 3SG.SUBJ very   tall
       'Woni is very tall.' [elicited]

(101) *Amun ane ngo **apka** nïpat awlu ato!*
       *amun ane nga=o   **apka** nïpat awlu ata-u*
       now   sun SG.PROX=VOC very   giant step up-from
       'Now, this sun has really come out very strong!' [ulwa038_00:05]

(102) *Ango **apka** nu luwa me.*
       *ango **apka** nu   luwa me*
       NEG   very   close place NEG
       '[It] wasn't a close place.' [ulwa029_10:01]

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[4]The form *luke* 'also, too' may derive from *ul ~ lu* 'with' + *ka* 'thus' + *-e* 'DEP' – that is, the form [ka] is probably present in this adverb as well, at least diachronically.

(103)   *Apïn **keka** ndïn mol amap.*
       apïn   **keka**   ndï=n   ma=ul   ama-p
       fire   completely 3PL=OBL 3SG.OBJ=with eat-PFV
       'They [= saucepans] were totally burned with it [= the house].' (Literally
       'Fire completely ate with them along with it.') [ulwa014_32:40]

(104)   *Ala **keka** tïlwa le.*
       ala   **keka**   tïlwa lo-e
       PL.DIST completely road go-IPFV
       'Those [children] make tracks all around.' [ulwa032_13:09]

(105)   *Mï **keka** nungunup.*
       mï   **keka**   nungun-u-p
       3SG.SUBJ completely break-put-PFV
       'It broke completely.' [ulwa037_01:21]

(106)   *Nï **maka** man ndït.*
       nï   **maka** ma=n   ndï=ta
       1SG thus   3SG.OBJ=OBL 3PL=say
       'I told them like this.' [ulwa014_72:29]

(107)   *Ndï **maka** i.*
       ndï   **maka** i
       3PL thus   go.PFV
       'They went like this.' [ulwa032_13:15]

(108)   *Mbiyen **maka** nï kaka mbïpe.*
       mbï-i-en   **maka** nï   kaka   mbï-p-e
       here-go.PFV-NMLZ thus   1SG completely here-be-IPFV
       'Having come here, I have thus always stayed here.' [ulwa027_00:09]

(109)   *Mï **wolka** impul matïn.*
       mï   **wolka** im-pul   ma=tï-n
       3SG.SUBJ again   wood-piece 3SG.OBJ=take-PFV
       'It again got a piece of wood.' [ulwa006_03:08]

(110)   *Nï **wolka** man mat: …*
       nï   **wolka** ma=n   ma=ta
       1SG again   3SG.OBJ=OBL 3SG.OBJ=say
       'I in turn said to her: …' [ulwa014_20:49]

(111) *Ngata ngusuwa nga **moweka** wa i.*
ngata ngusuwa nga   **moweka** wa   i
grand poor   SG.PROX also   village go.PFV
'This poor grandfather also came home.' [ulwa014_72:24]

(112) *Inom ndï **moweka** ango unan tïngïn inap.*
inom   ndï **moweka** ango unan   tïngïn ina-p
mother 3PL also   NEG 1PL.INCL many get-PFV
'And another thing: [our] mothers didn't have many of us.'
[ulwa014_46:29]

The adverb *luke* 'also, too' can be found in examples (53) in §6.8, (68) in §6.9, (7) in §10.1, (1) in §14.1.1, (97) in §14.3, and (175) in §15.3.4.

In addition to these, there is another adverb of manner, one which seems to be permitted only in negative polarity, and which is in some ways the negative counterpart to *wolka* 'again'. This adverb, *tïki* '(ever) again, anymore, else', may be seen in negative sentences, such as (113) and (114).

(113) *Ndï **ango tïki** itom luwa ndule.*
ndï **ango tïki**   itom   luwa ndï=u-lo-e
3PL NEG   again father place 3PL=from-go-IPFV
'They don't go around in [their] father's places anymore.'
[ulwa032_12:41]

(114) *Nï **ango tïki** ikali usina.*
nï   **ango tïki**   i-kali   u=si-na
1SG NEG   again hand-send 2SG=push-IRR
'I won't hold you again.' [ulwa032_18:18]

Notably, *tïki* '(ever) again, anymore, else' is permitted in questions as well, which, at least historically, seem to have derived from clauses of negative polarity (§15.1.2). Questions (115) and (116) both contain *tïki* '(ever) again, anymore, else'.

(115) ***Ango** luwa **tïki** ko nji kuma ndïtïna?*
ango luwa **tïki**   ko   nji   kuma ndï=tï-na
which place more just thing some   3PL=take-IRR
'Where else could [we] get some things?' [ulwa032_20:45]

(116) ***Tïki** unan **angos** natana?*
tïki   unan   **angos** na-ta-na
again 1PL.INCL what   DETR-say-IRR
'What else should we say?' [ulwa037_34:10]

The adverb *maka* 'thus', unlike most other adverbs, somewhat commonly occurs with the copular enclitic *=p* 'COP'. The effectively verbalized form [makap] has the meaning 'be like', as in (117).

(117) *Kalim mï **makap**.*
       kalim   mï   **maka=p**
       cassowary 3SG.SUBJ thus=COP
       'The cassowary is like that.' [ulwa014_46:59]

In (118), the form [makap] 'be like' is further marked with the dependent marker *-e* 'DEP'.

(118) *Amun una keka **makape**.*
       amun unan   keka   **maka=p-e**
       now 1PL.INCL completely thus=COP-DEP
       'But nowadays we are completely like this.' [ulwa014_39:46]

This verbalized form of *maka* 'thus' can even, in turn, be nominalized, as in (119).

(119) ***Makapen** mï nay.*
       maka=p-en   mï   na-i
       thus=COP-NMLZ 3SG.SUBJ DETR-go.PFV
       'That way has gone.' [ulwa014_62:56]

This verbalized form of *maka* 'thus' is often used in relative clauses (§14.3), as in (120) and (121).

(120) *Yetani lan u **makape** ambet matïn.*
       Yetani ala=n   u   [**maka=p-e**]   ambet ma=tï-n
       Yamen PL.DIST=OBL from [thus=COP-DEP] magic 3SG.OBJ=take-PFV
       '[They] got magic like this from the Yamen people.' [ulwa037_11:02]

(121) *U **makape** nji ulwata u awlop!*
       u   [**maka-p-e**   nji]   ulwa-ta   u   awlop
       2SG [thus=COP-DEP thing] nothing-COND 2SG in.vain
       'If you don't have things like this, you're lost!' [ulwa032_58:53]

Often the embedded clause formed with [makape] has a similar grammatical function to the plain adverb *maka* 'thus' (122).

(122) *Un **makape** imba wombam niya ita …*
    *un [**maka=p-e**]*   *imba wombam nï=iya*   *i-ta*
    2PL [thus=COP-DEP] night middle   1SG=toward go.PFV-COND
    'If you come to me like this in the middle of the night …' [ulwa014_40:16]

In addition to its use as an adverb, *maka* 'thus' is very frequently used as a filler word (cf. Tok Pisin *olsem* 'thus', German *also* 'thus', etc.). When used as such, it is generally translated as 'like', following contemporary English idiom (123). As a filler word, *maka* 'thus' can occur in any position in a sentence, even within NPs, as in (124).

(123) *Wusimali **maka** in tï Kayta nane.*
    *Wusimali **maka** in* *tï*   *Kayta*   *na-n-e*
    [name]   thus   get take [name] give-PFV-DEP
    'Wusimali, like, bought [an axe] and gave [it] to Kayta.' [ulwa014_53:34]

(124) *Anji **maka** ngata ndï ndul iyen.*
    an-nji   ***maka** ngata ndï ndï=ul*   *i-en*
    1PL.EXCL-POSS thus   grand 3PL 3PL=with go.PFV-NMLZ
    'Our, like, ancestors were the ones who went with them.'
    [ulwa002_04:09]

10.2.4 The epistemic adverb *tap* 'maybe'

The adverb *tap* 'maybe' is used to show the possibility of an event's occurrence, whether present, past, or future. Fittingly, since its use signals speculation on the part of the speaker, it often accompanies a verb with the speculative suffix *-t* 'SPEC' (§6.11). Like other adverbs, it often occurs immediately after the subject, when expressed. It tends to precede temporal adverbs, when these occur in the same clause. It does not permit any form of inflection. Sentences (125), (126), and (127) illustrate the use of the epistemic adverb *tap* 'maybe'.

(125) *Mï **tap** amun ina.*
    mï   ***tap***   *amun i-na*
    3SG.SUBJ maybe now   come-IRR
    'He might come today.' [ulwa032_03:44]

(126) ***Tap** umbe Kumba mana.*
    tap   *umbe*   *Kumba ma-na*
    maybe tomorrow Bun   go-IRR
    'Maybe tomorrow [I] will go to Bun [village].' [ulwa037_48:48]

(127) ***Tap** manji yawa ngawl i.*
       tap   *ma-nji*   *yawa nga=ul*   *i*
       maybe 3SG.OBJ-POSS uncle SG.PROX=with go.PFV
       '[He] might have gone with [his] uncle.' [ulwa014_33:07]

The adverb *tap* 'maybe' is homophonous with the perfective form of the verb *ta-* 'say', and the adverb very well may derive from this form – after all, that which has merely been 'said' – but which is not known to be true – can easily be taken to be speculative.

10.2.5 Other modal and discourse adverbs

The most frequent discourse adverbs are given in (128). It is notoriously difficult to provide accurate translations of words that serve modal or discourse functions. The glosses provided here represent my best approximation of their meaning and function.

(128) Discourse adverbs

       kop   'please'
       kwa ~ ko ~ wa   'just'
       lolop   'just'
       woyambïn   'pointlessly, fruitlessly'

The adverb *kop* 'please' is often used to soften commands – that is, to make polite requests (129).

(129) ***Kop** nambï wiwila lakana!*
       kop   *nambï wiwila la-ka-na*
       please skin   light   IRR-let-IRR
       'Let [your] body [become] light!' (i.e., wait until you are no longer pregnant [before attempting to play sports]) [ulwa032_34:43]

More examples and details relating to this use of *kop* 'please' may be found in the section on commands and requests (§15.2.2). As an adverb, *kop* 'please' can also be used in statements. Here it can convey a sense of care or patience (130).

(130) *Mï **kop** lïmndï anul pe.*
       mï   **kop**   *lïmndï an=ul*   *p-e*
       3SG.SUBJ please eye   1PL.EXCL=with be-IPFV
       'She stays with us, watching [us] patiently.' [ulwa013_00:42]

Three forms that are frequently used in discourse are *kwa ~ ko ~ wa* 'just', the first of which is identical to the numeral *kwa* 'one', and the second of which is clearly derived from the first.[5] All three forms share essentially the same set of functions. Often translated as 'just', they add a degree of casualness to a statement. Sometimes they convey a sense of 'simply', other times a mildly negative sense of 'without care' or 'without reason'. Very often, however, it is hard for me to ascribe any clear meaning to them (at least in the English translation). These three forms – *kwa ~ ko ~ wa* 'just' – are illustrated by examples (131), (132), and (133), respectively.

(131) *Ay nï **kwa** apa mbïpe mane?*
     ay nï **kwa** *apa*   *mbï-p-e*   *ma-n-e*
     ay 1SG just house here-be-DEP go-IPFV-DEP
     'Ay, am I just going to stay here?' [ulwa014_60:53]

(132) *Lamndu **ko** minamap.*
     lamndu **ko**   *min=ama-p*
     pig   just 3DU=eat-PFV
     'A pig ate them.' [ulwa032_22:11]

(133) ***Wa** inde le.*
     wa *inda-e*   *lo-e*
     just walk-DEP go-IPFV
     '[We] would just walk around.' [ulwa013_03:30]

Serving the same function as *kwa ~ ko ~ wa* 'just' is the adverb *lolop* 'just', which has been borrowed from the neighboring language Ap Ma. It often occurs immediately following *wa* 'just', but may occur independently as well. In examples (134), (135), and (136), it has a frustrative sense.

(134) *Nï wa **lolop** i mangusuwa nji molop lïp.*
     nï *wa* **lolop** *i*   *ma-ngusuwa nji*   *ma=lo-p*   *lï-p*
     1SG just just go.PFV 3SG.OBJ-poor thing 3SG.OBJ=cut-PFV put-PFV
     'Frustratedly, I just went and cut the poor thing's thing [= sago palm jungle].' [ulwa014_06:37]

(135) *Una wa **lolop** wa pe.*
     unan   *wa* **lolop** *wa*   *p-e*
     1PL.EXCL just just   village be-IPFV
     'We are just [hanging around] in the village.' [ulwa037_09:40]

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[5]The form *wa* 'just' may also be related to *kwa* 'one', although its derivation is less clear.

(136) *Nambi tembi nape nï wa **lolop** indana.*
       *nï-ambi tembi na-p-e   nï   wa   **lolop** inda-na*
       1SG-TOP bad   DETR-be-DEP 1SG just just   walk-IRR
       'As for me, I'm becoming unfit, so I'll just go around [without worrying about other people].' [ulwa032_47:49]

Similar in function to *kwa ~ ko ~ wa* 'just' and *lolop* 'just' is the word *woyambïn* 'pointlessly, fruitlessly', which has a much more negative connotation. This word looks very much like it has derived from other words, in part because of the unusual diphthong [oy] (§4.1.7). It may derive from /wa-i-ambï=n/ 'just-go.PFV-SG.REFL=OBL' – that is, a phrase having meant something like 'just went with himself/herself/itself'. This is only speculative. Examples (137) and (138) illustrate the use of *woyambïn* 'pointlessly, fruitlessly'.

(137) *Nï **woyambïn** ndul ndïnanape.*
       *nï   **woyambïn** ndï=ul   ndï=na-na-p-e*
       1SG pointlessly 3PL=with 3PL=DETR-feed-PFV-DEP
       'I fed them along with them [= my biological children] for nothing.' (said in reference to ungrateful foster children) [ulwa032_47:28]

(138) *Na **woyambïn** matane.*
       *na   **woyambïn** ma=ta-n-e*
       and pointlessly 3SG.OBJ=say-IPFV-DEP
       'But [we] are just wasting time talking about it.' (*na* < TP *na* 'and') [ulwa037_07:36]

Some of the adverbs described in §10.2.3 also seem to behave at times much like modal or discourse adverbs, carrying subtle connotations or serving various discourse functions. The adverb *wolka* 'again, in turn' may be used in narratives to tie together events in series, especially when they are somewhat repetitive. It may thus often be translated with the English expression 'and then …'. In (139), the narrator recounts a narrative of people traveling frome one place to another, using *wolka* 'again, in turn' as a linking element.

(139) *Biwat inim menklop i atay. Ataye **wolka** ngo nay. **Wolka** ngo anji*
wandam ngayte i.
*Biwat inim ma=in-klop   i   ata-i   ata-i-e   **wolka***
[place] water 3SG.OBJ=in-cross go.PFV up-go.PFV up-go.PFV-DEP again
*nga=u   na-i   **wolka** nga=u   an-nji*
SG.PROX=from DETR-go.PFV again   SG.PROX=from 1PL.EXCL-POSS
wandam nga=ita-e   i
jungle   SG.PROX=build-DEP go.PFV
'[They] went following the Biwat river, went up. Having gone up, [they]
came this way. And then from here, [they] came and built our jungle
[area].' [ulwa002_01:08]

The adverb *maweka ~ moweka* 'also, moreover' also seems at times to serve
modal functions. Its usage here seems parallel to modal uses of Tok Pisin *tu* 'also,
too', and it is possibly a calque of that word (cf. similar phenomena in Chapter 17).
It can be used to add a degree of incredulity, to strengthen a request for confirma-
tion in a question, or to add a sense of wonder to a statement. Its use is illustrated
by examples (140) and (141).

(140) *Nambi **maweka** nïnji ala wala luwa ndap.*
*nï-ambi **maweka** nï-nji   ala   wala luwa anda=p*
1SG-TOP also   1SG-POSS PL.DIST far.off place SG.DIST=be
'As for me, those [relatives] of mine are in a far-off place.'
[ulwa014_72:14]

(141) *Kanangula **moweka** ango wa mbïwap.*
*Kanangula **moweka** ango wa   mbï-wap*
[name]   also   NEG village here-be.PST
'Kanangula did not [even bother to] stay in the village.' [ulwa014_42:48]

It has already been shown how the adverb *maka* 'thus' can also function as a
filler word (§10.2.3). In a somewhat similar fashion, the placeholder word
mïngamata 'whatchamacallit' can be used when a speaker is trying to retrieve a
word, as in (142) and (143).

(142) *Kolpe manji **mïngamata** wonmi ndïwonpop.*
*Kolpe   ma-nji   **mïngamata**   wonmi ndï=won-p-op*
[name] 3SG.OBJ-POSS whatchamacallit hair   3PL=cut-PFV-PFV
'Kolpe had cut his – what's it? – hair.' [ulwa014_13:51]

(143) *Ndul i **mïngamata** Yalamba may.*

    *ndï=ul   i   **mïngamata**   Yalamba ma=i*

    3PL=with go.PFV whatchamacallit Korokopa 3SG.OBJ=go.PFV

    '[We] went with them, went to – what's it? – Korokopa [village].'
    [ulwa002_03:48]

10.2.6 Functional equivalents of adverbial constructions

Finally, to conclude this overview of adverbs, it may be shown how concepts that are sometimes conveyed with adverbs in other languages can be expressed in different ways in Ulwa.

First, it is possible to use dependent clauses to express adverbial notions. Such clauses typically contain verbalized forms of adjectives or nouns that express properties (144).

(144) ***Andïlpe** ndïmisisinap.*

    ***andïl=p-e**   ndï=misisina-p*

    careful=COP-DEP 3PL=arrange-PFV

    '[They] carefully arranged them.' (Literally 'Being careful, [they] arranged them.') [ulwa014_68:39]

Additionally, adverb-like notions can be expressed with postpositional phrases or oblique-marked NPs; these usages are often metaphorical, as in (145) and (146).

(145) ***Nambli lu** manen.*

    ***nambli lu**   ma-n-en*

    feather with go-IPFV-NMLZ

    '[The water] is going quickly.' (Literally 'going with feather')
    [ulwa038_04:40]

(146) ***Apïnï** mowonlïp.*

    ***apïn=nï** ma=won-lï-p*

    fire=OBL 3SG.OBJ=cut-put-PFV

    '[He] cut it down quickly.' (Literally 'cut it down with fire')
    [ulwa013_08:17]

Of particular interest, however, is Ulwa's method of placing adjectives in object positions to be used adverbially. When this occurs with transitive verbs, the putative direct object of the verb is demoted to an oblique and is marked by the oblique marker *=n* 'OBL'. See §13.4.1 for examples of this phenomenon.

10.3 Other small classes

Finally, in this chapter I consider a few other small closed classes, namely negators (§10.3.1), interrogative words (§10.3.2), and interjections (§10.3.3).

10.3.1 Negators

There is in Ulwa a small set of negators, words that indicate that the polarity of a sentence is negative as opposed to positive, which is taken to be the unspecified, default polarity. The basic negative marker used in verbal negation is *ango* 'NEG' (§15.3.1). To express non-verbal negation, one of two clause-final negators is often used, sometimes co-occurring with *ango* 'NEG'. These are *me* 'NEG' and *kom ~ kome* 'NEG' (§15.3.2). In negative commands, the prohibitive marker *wana ~ wanap* 'PROH' is used (§15.3.3). The interjection *ase* 'no' is used to respond negatively to questions (§10.3.3, §15.3.5). The negators are summarized in (147).

(147)   Negators

ango	NEG ('not', verbal negator)
wana ~ wanap	PROH ('don't!')
me	NEG ('no, not', non-verbal negator)
kom ~ kome	NEG ('no, not', non-verbal negator)
ase	INTERJ ('no', negative response word)

In addition to these, the word *ulwa* 'nothing' has a negative meaning. It may also occur clause-finally, either as an interjection or as a verbalized element with the copular enclitic *=p* (§12.2) (with the meaning 'there is nothing' or 'there was nothing'). Either way, it often carries emphatic meaning when used clause-finally. This same word *ulwa* 'nothing' may also function as a negative response word (§15.3.5), in particular when someone is being asked for something (e.g., a request for betel nut could be met with *ulwa* 'nothing', i.e., 'I do not have any.').

10.3.2 Interrogative words

There is also in Ulwa a small set of interrogative words, which are used in *wh*-questions (i.e., content questions). Their forms and functions are described more fully in §15.1, but they may be presented together here in terms of their word class membership. They are all functionally similar in that they help form interrogative sentences. However, they are likely not a morphosyntactically distinct class, but rather a group composed of different grammatical categories. These interrogative words are given in (148).

(148)   Interrogative words and their possible etymologies

kwa	'who? [SG]'	< cardinal numeral 'one' (§9.4)
kuma	'who? [NSG]'	< modifier/quantifier 'some' (§9.2)
kwanji	'whose? [SG]'	< *kwa* 'who? [SG]' + *-nji* 'POSS' (§8.2)
kumanji	'whose? [NSG]'	< *kuma* 'who? [NSG]' + *-nji* 'POSS' (§8.2)
ango	'which?'	< negator 'not' (§10.3.1)
angos	'what?'	< *ango* 'which?' + *s* (?)[6]
ango luwa	'where?'	< *ango* 'which?' + *luwa* 'place'
ango tem	'when?'	< *ango* 'which?' + *tem* 'time'[7]
angwena	'why?'	< *ango* 'which?' + *na* 'talk, reason, cause'
anjika	'how many?'	< *an-nji* '1PL.EXCL-POSS' + *ka* 'thus' (?)
anjikaka	'how?'	< *anjika* 'how many' + *ka-* 'let' (?)

The etymologies of these question words are discussed in §15.1.2. In addition to these interrogative words, the interjections *a* 'eh?' or *e* 'eh?' may be used at the end of interrogative sentences as tag words (§15.1.1).

10.3.3 Interjections

Finally, there are in Ulwa a number of interjections, usually short words used to express a variety of thoughts or emotions. The words equivalent to 'yes', 'no', and 'OK' are considered here as well. In the list of interjections given in (149), the exclamation point (!) indicates emphatic pronunciation, the question mark (?) indicates rising intonation, and the triangular colon (:) indicates extended vowel length. Note also that the interjection *mm* 'uh-uh' is pronounced as two syllabic nasals separated by a glottal stop (i.e., [mʔm]).

In this grammar, interjections are sometimes glossed with translations like those in (149), and at other times they are glossed with the abbreviation 'INTERJ', depending on what is clearer. The two forms on this list that deserve the most comment are *=o* 'VOC' and *mawnam* 'that's it', the former since it seems limited to use as an enclitic, and the latter because it seems to be polymorphemic, at least historically.

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[6]The origin of this [s] element is unclear. It possibly derives from Proto-Keram *si 'things'.

[7]The word *tem* 'time' is a loanword; it comes from Tok Pisin *taim* 'time'.

(149) Interjections

iyo	'yes' (expresses affirmation)
iya	'yeah' (expresses affirmation)
ase	'no' (expresses denial)
asa	'nah' (expresses denial)
ande	'OK' (expresses agreement, etc.)
andi	'OK' (expresses agreement, etc.)
a!	'ah!' (expresses shock or disbelief)[8]
a:	'uh …' (filler interjection)
a?	'eh?' (tag question interjection) (also *e?*)
ay	'ow' (expresses pain or shock)
aya	'ah me' (expresses compassion)
e!	'hey!' (expresses excitement, either positive or negative)
e?	'eh?' (tag question interjection) (also *a?*)
i	'alas; yay!' (expresses dejection or joy)
u	'ooh' (expresses amazement)
m!	'hm!' (expressed disapproval)
m	'mhm' (signals agreement)
mm	'uh-uh' (signals disagreement)
=o	'hey!' (vocative form / intensifier, as enclitic)
mawnam	'that's it!'

The interjection *=o* 'voc' is possibly a loan from Tok Pisin.[9] Examples (150) through (154) illustrate the use of *=o* 'voc', both as an interjection of emphasis and as a vocative form used when calling to people.

(150) *Mawanat **Supamo**!*
    ma=wana-ta   Supam=**o**
    3sg.obj=feel-say [name]=voc
    '[They] called to her: "Supam!"' [ulwa001_07:52]

(151) *Ndï ndïwanate wot **alo**!*
    ndï ndï=wana-ta-e   wot   ala=**o**
    3pl 3pl=feel-say-dep younger pl.dist=voc
    'They called to them: "Younger brothers!"' [ulwa002_05:05]

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[8]This interjection is often used to introduce quoted speech (§15.4.4).

[9]Ulwa has no native words that begin with mid vowels /e/ or /o/. If not a loan from Tok Pisin, then the form [=o] may at least be influenced by Tok Pisin pronunciation. This vocative interjection has an allomorph *=wo* 'voc', which may represent an indigenous interjection.

(152)   **Alo un ino!**
        ala=**o**   un i-n=**o**
        PL.DIST=VOC 2PL come-IRR=VOC
        'You all, come!' [ulwa013_03:45]

(153)   **Tembiwo!**
        tembi=**o**
        bad=VOC
        'It's bad!' [ulwa037_26:53]

(154)   *Alanji amba* **ndo!**
        ala-nji   amba   anda=**o**
        PL.DIST-POSS mens.house SG.DIST=VOC
        'Over there they have magic!' [ulwa037_21:10]

The interjection *mawnam* 'that's it' is used to signal the emphatic identification of a referent or to show approval of a thought or action.[10] The word may contain the word *maw* 'correct', although I consider it also possible that this shorter word is itself a backformation from *mawnam* 'that's it'. The [-nam] ending suggests a pronominal origin of this word (cf. the emphatic suffix *-nam* 'EMPH', §8.7). Perhaps it is an elaboration of the form *mï-nam* '3SG.SUBJ-EMPH'. The form *mawnam* 'that's it' may take the ending [-e]. It is unclear whether this is the dependent marker *-e* 'DEP' (§14.2.1) or simply a further emphatic syllable. Sentences (155) through (158) exemplify the use of *mawnam* 'that's it'.

(155)   *Makape i* **mawnam.**
        maka=p-e   i   **mawnam**
        thus=COP-DEP way thats.it
        'Behavior like that – that's it.' [ulwa037_31:35]

(156)   **Mawname** *mï kalam.*
        mawnam-e mï   kalam
        thats.it-DEP? 3SG.SUBJ knowledge
        'That's it, he knows.' [ulwa014_07:56]

(157)   **Mawnam.**
        mawnam
        thats.it
        'That's it.' [ulwa011_03:15]

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[10]Cf. Tok Pisin *em nau* 'it now', used as an interjection to mean 'that's it'.

(158)   ***Mawname.***
       mawnam-e
       thats.it-DEP?
       'That's right.' [ulwa037_33:13]

11 Phrase-level syntax

This chapter is dedicated to the description of phrase-level syntax. Although a phrase may consist of a single word, the following sections will mostly be concerned with multi-word phrases, as the point of interest here is how words interact with one other within a single phrase.

11.1 Noun phrases

A noun phrase (NP) consists minimally of a noun or a pronoun, but may contain additional elements, such as possessive markers, adjectives, numerals, or determiners. The canonical order of elements in an Ulwa NP is given in (1).

(1)   The Ulwa noun phrase
      ([possessor]) [noun] ([adjective(s)]) ([numeral]) ([determiner])

The noun phrase given in (2) illustrates all these elements occurring together. The head noun is indicated in **bold**.

(2)   *nïnji **lamndu** ambi kwe anda*
      *nï-nji   **lamndu** ambi kwe anda*
      1SG-POSS pig   big   one SG.DIST
      'that one big pig of mine' [elicited]

NPs headed by nouns may have a phrase-final determiner (subject marker, object marker, or demonstrative determiner). NPs headed by pronouns do not permit subject markers or object markers but may have demonstratives.[1] The canonical position for adjectives in NPs is following the noun and preceding the determiner (if present); there are, however, examples of adjectives preceding nouns (§7.1).[2] Numerals also follow nouns (and adjectives, if present) (§9.5).

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[1]In instances in which an object marker immediately follows a personal pronoun, the two are taken to be in apposition to each other, not part of the same NP. There should be a prosodic break signaling this phrasal separation.

[2]This may be due to influence from the word order of Tok Pisin; indeed, some speakers consider the order adjective-noun to be ungrammatical.

Numerals, too, precede determiners such as subject markers (§9.1), object markers (§9.2), or demonstratives (§9.3), when present. NPs also permit possessive markers (§8.2, §11.1.5). These precede nouns and, thus, when present, are the first elements in their respective NPs.[3]

11.1.1 The head of the noun phrase

The head of a noun phrase need not be a prototypical noun. It may, instead, be an adjective functioning as a noun (3) (see §7.3 on substantive uses of adjectives). Similarly, like personal pronouns, possessive pronouns (§8.2) may also function as the head of an NP (4).

(3) ***Ambi anda** wa lolop man.*
     ambi *anda*   *wa lolop ma-n*
     big   SG.DIST just just go-IPFV
     'That big [man] just goes around.' [ulwa014_04:51]

(4) *Nï **nïnji ngalat** unanda.*
     nï **nï-nji** *ngala=tï*   *u=na-nda*
     1SG 1SG-POSS PL.PROX=take 2SG=give-IRR
     'I will give mine to you.' [ulwa029_09:27]

The head of an NP can also be a noun derived from a verb that has been nominalized with the suffix *-en* 'NMLZ' (see §5.2 for examples).

11.1.2 Plural for dual

As discussed in §9.1 and §9.2, subject markers and object markers do not always occur in NPs that function as subjects or as objects. When they do occur, however, they mark their respective NPs for number. The three number categories in Ulwa are singular, dual, and plural (§9.1–§9.3). Whereas the category of dual is never employed when there are three or more referents, the category of plural is sometimes found even when there are exactly two referents, as in (5).

(5) *Wonmbi **ndïtumulka**.*
     *wonmbi **ndï**=tumul-ka*
     tusk   3PL=bend-let
     '[They] bent the tusks.' (This refers to a pair of tusks belonging to a single boar.) [ulw001_12:30]

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[3]The issue of the peculiar placement – outside the NP – of the universal quantifier *wopa* 'all' is addressed in §9.4.

11.1.3 Multiple adjectives

Multiple adjectives may occur within a single NP. When there are multiple adjectives, they simply stack up after the head noun (and before any determiners), as seen in (6) and (7).

(6) *Wapa **ambi tembi** ndawe nï mat inde.*
   *wapa **ambi tembi** anda-we   nï   ma=tï   inda-e*
   leaf big   bad   SG.DIST-PART.INT 1SG 3SG.OBJ=take walk-IPFV
   'That big, bad leaf alone – I'm taking it.' [ulwa037_55:10]

(7) *Tïmbïl **ambi nïpat ngata** maytana mane.*
   *tïmbïl **ambi nïpat ngata** ma-ita-na   ma-n-e*
   fence big   giant grand 3SG.OBJ=build-IRR go-IPFV-DEP
   '[You] are going to build a big, huge, giant fence.' [ulwa042_00:48]

11.1.4 Apposition

Two noun phrases may be in apposition to each other, as in (8). Here, the two NPs in apposition are the compound noun *wot yana* 'younger sister' and the proper noun *Sinanam*, a woman's name. Each NP serves as the singular grammatical object of the verb *na-* 'give'.

(8) ***Wot yana Sinanam** manana.*
   ***wot   yana   Sinanam** ma=na-na*
   younger woman [name] 3SG.OBJ=give-PFV
   '[He] gave it to the younger sister Sinanam.' [ulwa001_08:15]

11.1.5 Ways of indicating possession

Nominal possession may be indicated in one of three basic ways: with a pronominal form with the possessive suffix *-nji* 'POSS' (§8.2), with the oblique-marker enclitic *=n* 'OBL' (§13.4), or with a non-subject marker, such as *ma* '3SG.OBJ' (§9.3).[4] Regardless of the marking, the order of elements is always the same: the possessor argument (i.e., the genitive) precedes the possessed argument (i.e., the possessum).[5]

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[4]Possessive predicates are discussed in §12.2 and §12.3.

[5]Occasionally (and more commonly for proper noun possessors), possession can be indicated by juxtaposition alone, without any special marking: the possessor simply immediately precedes the possessum.

The possessive suffix *-nji* 'POSS' affixes to pronouns and determiners to create possessive pronouns and possessive demonstratives §8.2. These so-formed possessive pronouns may in turn occur in NPs (following the possessor argument) to indicate possession. Sentences (9) through (12) illustrate possession marked on full NPs. The possessor is indicated in **bold**.

(9)   ***Itom manji*** *lamndu mï nip.*
     itom ***ma-nji***   *lamndu mï*   *ni-p*
     father 3SG.OBJ-POSS pig   3SG.SUBJ die-PFV
     'Father's pig died.' [elicited]

(10)   *Tïn ndï* ***itom manji*** *lamndu masap.*
     tïn   *ndï* ***itom*** ***ma-nji***   *lamndu ma=asa-p*
     dog 3PL father 3SG.OBJ-POSS pig   3SG.OBJ=hit-PFV
     'The dogs killed father's pig.' [elicited]

(11)   ***Manama manji*** *wot mï mana motoplïp.*
     Manama ma-nji   *wot*   *mï*   *mana ma=top-lï-p*
     [name]   3SG.OBJ-POSS younger 3SG.SUBJ spear 3SG.OBJ=throw-put-PFV
     'Manama's younger brother threw the spear.' [elicited]

(12)   ***Nïnji atuma manji*** *aweta mï tembip.*
     nï-nji ***atuma***   ***ma-nji***   *aweta mï*   *tembi=p*
     1SG-POSS older.brother 3SG.OBJ-POSS friend 3SG.SUBJ bad=COP
     'My older brother's friend is sick.' [elicited]

To intensify possessor NPs that contain possessive pronouns, the modifier *wo* 'very own' may be added. Whereas the possessive pronoun precedes the head noun, the emphatic modifier *wo* 'very own' follows it, as in examples (13) through (16).

(13)   ***Manji*** *tïn* **wo** *lamndu masap.*
     ma-nji   *tïn*   **wo** *lamndu ma=asa-p*
     3SG.OBJ-POSS dog own pig   3SG.OBJ=hit-PFV
     'His very own dog killed the pig.' [elicited]

(14)   ***nïnji*** *na* **wo**
     nï-nji   *na*   **wo**
     1SG-POSS talk own
     'my very own story' [ulwa013_00:10]

(15) ***Anji** wi **wo**.*
      an-nji   *wi*   **wo**
      1PL.EXCL-POSS name own
      'It's really our name.' [ulwa002_01:42]

(16) *Yetani **lanji wo**.*
      Yetani **ala-nji**   **wo**
      Yamen PL.DIST-POSS own
      '[He was] the Yamen people's very own [ancestor].' [ulwa002_03:19]

Another means of signaling that an NP has a possessor role is the oblique-marker enclitic *=n* 'OBL' (§13.4.1). This strategy is mainly limited to pronominal possessors. In such constructions, the pronoun or demonstrative marked with *=n* 'OBL' is the possessor of the NP that immediately follows, as in examples (17) through (20).

(17) *Upan nungol ndïn **nïn** ani up.*
      upan   *nungol ndï=**n***   *nï=n*   *ani*   *u-p*
      fish.species child   3PL=OBL 1SG=OBL bilum put-PFV
      '[She] put some small fish in my *bilum* [= string bag].' [ulwa014_29:32]

(18) *Mawl i **man** wandam malïp.*
      ma=ul   *i*   *ma=**n***   *wandam ma=lï-p*
      3SG.OBJ=with go.PFV 3SG.OBJ=OBL jungle   3SG.OBJ=put-PFV
      '[He] went with her and put her in his jungle [home].' [ulwa001_03:30]

(19) *Way mï asi **man** wat wan make.*
      way   *mï*   *asi ma=**n***   *wat*   *wan*   *ma=ka-e*
      turtle 3SG.SUBJ sit 3SG.OBJ=OBL ladder above 3SG.OBJ=let-IPFV
      'The turtle was sitting at the top of his ladder.' [ulwa006_04:05]

(20) *Atana mï liyu matïn mat **ambïn** ame menlïp.*
      atana   *mï*   *li-u*   *ma=tï-n*   *ma=tï*
      older.sister 3SG.SUBJ down-from 3SG.OBJ=take-PFV 3SG.OBJ=take
      *ambï=**n***   *ame*   *ma=in-lï-p*
      SG.REFL=OBL basket 3SG.OBJ=in-put-PFV
      'The older sister got him down and put him in her basket.' [ulwa011_01:15]

See §13.4.2 for other case-like uses of the oblique marker. It may be noted here that there is some overlap in function between the oblique marker and the

possessive marker. Just as the oblique marker *=n* 'OBL' can function very much like a possessive marker, possessive pronouns marked with *-nji* 'POSS' can serve oblique-like functions – namely, they may indicate a beneficiary, as in sentences (21), (22), and (23).

(21) *Nï i **ngunji** mundu ilum kuma wananda.*
    *nï i   ngun-**nji** mundu ilum kuma wana-nda*
    1SG go.PFV 2DU-POSS food   little some cook-IRR
    'I will come and cook some food for you.' (Literally 'cook some little food of yours') [ulwa014_15:27]

(22) ***Ndïnji** na tïna mbïlop.*
    *ndï-**nji**   na tï-na   mbï-lo-p*
    3PL-POSS talk take-IRR here-go-PFV
    '[They] came here to have a talk for them [= their children].' [ulwa032_32:54]

(23) *Nï **manji** ana mat manana.*
    *nï ma-**nji**   ana   ma=tï   ma=na-na*
    1SG 3SG.OBJ-POSS grass.skirt 3SG.OBJ=take 3SG.OBJ=give-PFV
    'I gave her a grass skirt.' [ulwa014_11:29]

Possession can also be indicated with a non-subject marker (§9.3), without any additional possessive or oblique marking. In such instances, these "object markers" do not seem to be clitics: they are not necessarily phonologically dependent on the following word. Like the oblique-marker strategy, this strategy is mainly limited to pronominal possessors, as in examples (24) through (28).

(24) ***Ma** yawa mï i makalilïpe.*
    ***ma**   yawa mï   i   ma=kali-lï-p-e*
    3SG.OBJ uncle 3SG.SUBJ go.PFV 3SG.OBJ=send-put-PFV-DEP
    'Her uncle went and sent her.' [ulwa014_11:17]

(25) *Mï **ma** inim ame.*
    *mï   **ma**   inim ama-e*
    3SG.SUBJ 3SG.OBJ water eat-IPFV
    'He was drinking its nectar.' [ulwa001_11:10]

(26) *May lïmndï **ndï** we imbïn ndutap.*
    *ma=i   lïmndï **ndï**   we   imbïn ndï=uta-p*
    3SG.OBJ=go.PFV eye   3SG.OBJ sago refuse 3PL=grind-PFV
    '[I] went and saw their sago refuse.' (i.e., the water run-off from strained
    sago; literally 'eye-ground' for 'saw') [ulwa037_63:43]

(27) ***Ndï** ini nda.*
    ***ndï** ini   anda*
    3PL ground SG.DIST
    'That's their land.' [ulwa032_37:53]

(28) *I lïmndï **min** luwa ala.*
    *i   lïmndï **min** luwa ala*
    go.PFV eye   3DU place for
    '[He] went and saw their place.'[6] [ulwa001_10:15]

Occasionally, possession is indicated without any marking. Rather, the possessum simply follows the possessor. This strategy is mainly restricted to phrases with proper noun possessors, but there are a few known examples with common noun possessors as well (all are kinship terms). Sentences (29) through (34) illustrate this juxtaposition method.

(29) ***Yawana** numan ngusuwa nda*
    ***Yawana** numan   ngusuwa anda*
    [name]   husband poor   SG.DIST
    'Yawana's poor husband' [ulwa014†]

(30) ***Samuel** yena nda sokoy mu ndïkuklïp.*
    ***Samuel** yena anda   sokoy   mu ndï=kuk-lï-p*
    [name] wife SG.DIST tobacco seed 3PL=gather-put.PFV
    'Samuel's wife gathered the tobacco seeds.' [ulwa037_54:17]

(31) *Nï wa man mïka **Manama** nungol ngalat: …*
    *nï wa ma=n   mïka **Manama** nungol ngala=ta*
    1SG just 3SG.OBJ=OBL thus [name]   child   PL.PROX=say
    'I just, like, told Manama's children: …' [ulwa014_70:12]

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[6]It is possible that the oblique-marking strategy is being used here, but that a sequence of /nn/ resulting from the final /n/ of the dual pronominal form and the /=n/ that is the oblique marker has degeminated.

(32) *Aya nï **Kayta** yanat anda.*
    *aya   nï **Kayta** yanat   anda*
    INTERJ 1SG [name] daughter SG.DIST
    'Aya, I am Kayta's daughter.' [ulwa014†]

(33) *Nï ma **Eltik** wandam ma.*
    *nï ma **Eltik**   wandam ma*
    1SG go [name] jungle   go
    'I will go, go to Eltik's garden.' [ulwa014_07:50]

(34) *Nï ango wa i **nïnji itom** wandam alo lop.*
    *nï ango wa   i   **nï-nji** **itom** wandam ala=u   lo-p*
    1SG NEG village go.PFV 1SG-POSS father jungle   PL.DIST=from go-PFV
    'I haven't gone to the village, gone around in my father's jungles.'
    [ulwa032_49:28]

In such constructions it appears to be common for the possessed phrase to contain a postnominal demonstrative – for example, 'these children of Manama' in (31) – although this is not mandatory.

In addition to these methods of indicating possession with noun phrases, it is possible to indicate possession with verb phrases. These verb phrases function in such instances as relative clauses (§14.3), as in (35).

(35) ***Kaytape** anapa mï*
    *[**Kayta=p-e**]   anapa mï*
    [[name]=COP-DEP] sister 3SG.SUBJ
    'Kayta's sister' (Literally 'the sister that is [of] Kayta') [ulwa014_21:14]

These verb phrases may in turn be nominalized, as in examples (36) and (37).

(36) ***Lucypen** anda.*
    Lucy=p-en   *anda*
    [name]=COP-NMLZ SG.DIST
    'That [pot] is Lucy's.' (Literally 'The one that is [of] Lucy [is] that [one].')
    [ulwa014_17:38]

(37) ***Albertpen** maka yena inom mï maka mu kumat nïnana.*
    Albert=p-en   *maka yena   inom   mï   maka mu kuma=tï*
    [name]=COP-NMLZ thus woman mother 3SG.SUBJ thus seed some=take
    nï=na-na
    1SG=give-PFV
    'Albert's wife's mother, like, gave me some seeds.' [ulwa037_56:43]

11.1.6 Noun phrases as clauses

Noun phrases may serve a number of grammatical functions within a clause: the subject, the object of a verb, the object of a postposition, or part of an oblique phrase marked by the oblique marker *=n* 'OBL' (Chapter 13). In addition to these clause-internal functions, noun phrases may occasionally stand alone as entire clauses. In this use, the grandeur of an event is stressed, the predicate itself being merely implied, as in (38) and (39).

(38) *Min map. **Mïnda wandam!***
     *min ma=p   **mïnda wandam***
     3DU 3SG.OBJ=be banana jungle

     'The two were staying there. Banana garden!' (i.e., 'Oh what a banana garden they made there!') [ulwa001_06:39]

(39) *Ndï apïn anul ndame. **Namndu!***
     *ndï apïn=n   anul   ndï=ama-e   **namndu***
     3PL fire=OBL grassland 3PL=eat-IPFV pig

     'They were burning the grassland. Pigs!'[7] (i.e., 'Oh how many pigs they killed!') [ulwa001_12:22]

11.2 Verb phrases

A verb phrase (VP) consists minimally of a verb, a non-verbal element with copular enclitic (§12.2), or a postposition functioning as a verb (§10.2). In some instances, a VP may also contain a noun phrase (NP) or a postpositional phrases (PP). The order of potential elements of the Ulwa VP is given in (40).

(40) The Ulwa verb phrase
     ([PP]) ([NP]) [verb]

The verb (or verbal element) is always the final element in the VP. If the verb is transitive and contains an overt object, then this object noun phrase occurs before the verb. This NP may be marked with an object marker, which cliticizes to the verb. Other determiners, such as demonstratives, potentially cliticize as well (§9.3).[8] In addition to NPs, postpositional phrases (PPs) may also be considered

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[7]Setting fire to the grassland is a strategy for chasing out pigs to hunt.

[8]The fact that object markers are phonologically closely connected with their verbs makes it difficult to assign them to positions within NPs, insofar as they resemble agreement-marking

constituents of VPs. When present, they always occur before the verb (and before the direct object, if the verb is transitive).

The phrases in (41) and (42) are both intransitive, whereas those in (43) and (44) are both transitive. The phrases in (42) and (44) both contain postpositional phrases, whereas those in (41) and (43) do not.

(41)   *man*
       ma-n
       go-IPFV
       'is going' [elicited]

(42)   *im maya man*
       im   ma=iya   ma-n
       tree 3SG.OBJ=toward go-IPFV
       'is going toward the tree' [elicited]

(43)   *utam mawanap*
       utam ma=wana-p
       yam 3SG.OBJ=cook-PFV
       'cooked the yam' [elicited]

(44)   *apïn mawat mawanap*
       apïn ma=wat   ma=wana-p
       fire 3SG.OBJ=atop 3SG.OBJ=cook-PFV
       'cooked the yam on the fire' [elicited]

The order and relation of elements within NPs is discussed in §11.1. The order and relation of elements within PPs is discussed §11.3.

11.2.1 Separable verbs

In §6.14 it was shown that compound verb forms can be constructed with postpositional or nominal elements (in additional to at least one verbal component). Some compound verbs containing nominal elements can actually be discontinuous – that is, words may intervene between the nominal component and the verbal component, as illustrated by (45).

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verbal prefixes. Nevertheless, largely by analogy to their subject marker equivalents, they are considered to be syntactic constituents of NPs, albeit NPs that are themselves constituents of verb phrases.

(45) *An **kïkal** inom itom **ndïwana**.*
      *an   **kïkal** inom   itom   ndï=**wana***
      1PL.EXCL ear   mother father 3PL=feel
      'We listened to our parents.' [ulwa013_03:52]

In (45), the verb *wana-* 'feel, taste, sense, think' combines with *kïkal* 'ear' to form the the compound *kïkalwana-* 'hear', which thus consists of two separable parts. The object of the verb occurs between the two elements *kïkal* 'ear' and *wana-* 'feel'.

It may first be demonstrated how *wana-* 'feel' can function as a verb on its own, with a variety of related meanings, as in (46), (47), and (48).

(46) *Nï **wana** Raten ndï ita.*
      *nï   **wana** Raten   ndï i-ta*
      1SG feel   [place] 3PL go.PFV-COND
      'I thought that the Raten people would come.' [ulwa014_29:48]

(47) *Ankam **mawane** mambi …*
      *ankam ma=**wana**-e   ma-ambi*
      person 3SG.OBJ=feel-DEP 3SG.OBJ-TOP
      'As for the person who tastes it …' [ulwa037_52:11]

(48) ***Mawana**.*
      *ma=**wana***
      3SG.OBJ=feel
      '[She] smelled it.' [ulwa037_53:08]

Thus, *wana-* 'feel' can function either as an intransitive verb introducing a clausal complement (46) or as a transitive verb, as in (47) and (48). The form *wana-* 'feel', however, can combine with a nominal element to create a new meaning. For example, sentence (49) illustrates the noun-plus-verb compound *nambïtwana-* 'smell', which here takes as its direct object the pronoun *nï=* '1SG'.[9]

(49) *Mï **nïnambïtwana** ko anmbu i.*
      *mï   nï=**nambït**-**wana** ko   an-mbï-u   i*
      3SG.SUBJ 1SG=odor-feel   just out-here-from go.PFV
      'It smelled me and just went out from there.' [ulwa037_03:23]

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[9]The compound *nambïtwana-* 'smell (transitive)' consists of *nambït* 'odor' and *wana-* 'sense' (i.e., 'sense odor').

The verb *inakawana-* 'think' is a compound that contains an entire postpositional phrase (including a noun).[10] Its use is illustrated by examples (50) and (51).

(50) *Mï i atay mawap **inakawanap**.*
     *mï   i   ata-i   ma=wap   **ina-ka-wana**-p*
     3SG.SUBJ go.PFV up-go.PFV 3SG.OBJ=be.PST liver-at-feel-PFV
     'He went, went up, stayed there, and thought.' [ulwa035_02:57]

(51) *Nï **inakawana** nï unul mbïpïta ...*
     *nï   **ina-ka-wana** nï   un=ul   mbï-p-ta*
     1SG liver-at-feel   1SG 2PL=with here-be-COND
     'So I thought: if I stay here with you ...' [ulwa037_40:46]

The verb *inakawana-* 'think' may take as an object the topic about which one thinks (52). Here, the object occurs before the entire compound (i.e., this is not a separable verb).

(52) *Atana nda nipe ndï ango **ninakawan**.*
     *atana   anda   ni-p-e   ndï ango nï=**ina-ka-wana***
     older.sister SG.DIST die-PFV-DEP 3PL NEG 1SG=liver-at-feel
     'When that older sister died, they didn't think of me.' [ulwa014†]

The compound *kïkalwana-* 'hear', on the other hand, can be separated when it has an object. First, it may be seen that, when there is no object, the nominal element *kïkal* 'ear' occurs immediately before the verbal element. Examples (53) and (54) illustrate *kïkalwana-* 'hear' functioning as an intransitive verb (meaning something like 'listen').

(53) *Ndï **kïkalwana** ngunaniya ita.*
     *ndï **kïkal-wana** ngunan=iya   i-ta*
     3PL ear-feel   1DU.INCL=toward go.PFV-COND
     'If only they would listen and come to us.' [ulwa037_21:56]

(54) *Ango **kïkalwana**.*
     *ango **kïkal-wana***
     NEG ear-feel
     '[They] don't listen.' [ulwa014_37:03]

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[10]The compound *inakawana-* 'think' consists of *ina* 'liver [the seat of reason]', *ka* 'at, in, on', and *wana-* 'feel', (i.e., 'feel in [one's] mind').

However, when *kïkalwana-* 'hear' is transitive, we see that its component parts are separable. The nominal element *kïkal* 'ear' is separate from the verb stem *wana-* 'feel', with the object of the verb occurring between these two parts, as in examples (55) and (56).

(55) *Ndï mbi nïmal mbïpen ndï **kïkal** na **mawana**.*
      *ndï mbï-i   nïmal mbï-p-en   ndï **kïkal** na ma=**wana***
      3PL here-go.PFV river here-be-NMLZ 3PL ear   talk 3SG.OBJ=feel
      'Those who came here and stay here at the river would hear the message.'
      [ulwa028_01:44]

(56) *U **kïkal mawane**.*
      *u   **kïkal** ma=**wana**-e*
      2SG ear   3SG.OBJ=feel-DEP
      'You heard it.' [ulwa037_00:29]

Viewed from an alternative perspective, such verbal constructions can be said to be lacking "incorporation" rather than exhibiting "separation". In this view, sentences such as (55) and (56) would be said to have "unincorporated" verbal structures.

In constructions with separable verbs, the first element always appears at the absolute beginning of the verb phrase. Postpositions, which are also properly constituents of VPs, appear after the first element, as in (57), where *kïkal* 'ear' is the first element in the separable verb construction.

(57) *Ango yeta ndï **kïkal** nïn u na **ngalawan**.*
      *ango yeta ndï **kïkal** nï=n   u   na   ngala=**wana***
      NEG man 3PL ear   1SG=OBL from talk PL.PROX=feel
      'No men hear these stories from me.' [ulwa014_48:48]

Such separable verb constructions are especially common with verbs of perception. Thus, verbs of seeing function similarly to this verb of hearing. Such 'seeing' constructions combine the word *lïmndï* 'eye' with the irregular suppletive verb *ala- ~ andï-* 'see'. If there is an expressed object, it occurs between these two elements. Example (58) demonstrates an intransitive use of this verb.

(58) *An ambi nape **lïmndï ala**.*
      *an   ambi na-p-e   **lïmndï ala***
      1PL.EXCL big DETR-be-DEP eye   see
      'When we had gotten big, [we] looked around.' [ulwa013_04:46]

Examples (59) through (63), on the other hand, are transitive sentences, which illustrate the separable element *lïmndï* 'eye' occurring before the direct object of the verb.

(59) *Unan ango **lïmndï** ankam **ala**.*
    *unan   ango **lïmndï** ankam **ala***
    1PL.INCL NEG eye   person see
    'We haven't seen anyone.' [ulwa037_07:11]

(60) *Mï wa i **lïmndï** minala.*
    *mï   wa   i   **lïmndï** min=**ala***
    3SG.SUBJ village go.PFV eye   3DU=see
    'She came home and saw the two.' [ulwa001_00:52]

(61) *U amun **lïmndï** unji atuma **ngal**!*
    *u   amun **lïmndï** u-nji   atuma   nga=**al***
    2SG now   eye   2SG-POSS older.brother SG.PROX=see
    'Now look at your older brother!' [ulwa014†]

(62) *U amun **lïmndï** Gambri **andï**!*
    *u   amun lïmndï Gambri **andï***
    2SG now   eye   [name] see
    'Now, take a look at Gambri!' [ulwa014_13:42]

(63) *Una **lïmndï** mangusuwa **andïna**.*
    *unan   **lïmndï** ma-ngusuwa **andï-na***
    1PL.INCL eye   3SG.OBJ-poor see-IRR
    'We will see the poor thing.' [ulwa037_46:49]

In (64), the first element *lïmndï* 'eye' precedes a direct object NP that itself contains a VP.

(64) *Una **lïmndï** makape i **mandïm**.*
    *unan   **lïmndï** [maka=p-e]   i   ma=**andï-m***
    1PL.INCL eye   [thus=COP-DEP] way 3SG.OBJ=see-PFV
    'We've seen this kind of behavior.' [ulwa037_10:23]

Crucial for the argument that the nouns *kïkal* 'ear' and *lïmndï* 'eye' are truly (separable) parts of compound verbs is the fact that they never receive postpositions or oblique markers in these constructions. That is, they cannot be interpreted as belonging to other phrases. For example, constructions such as (65) are never found.

(65) * ***kïkaln(ï)*** *mawana*
kïkal=***n(ï)*** ma=wana
ear=OBL   3SG.OBJ=feel
'sense with ear' (i.e., 'hear') [elicited]

Expressions of visual perception can also be formed with other verbs , such as *lï-* 'put' and *uta-* 'grind'. In all instances, the nominal element *lïmndï* 'eye' behaves the same – that is, it never receives any oblique marking, as illustrated by (66), (67), and (68).

(66) *Mï **lïmndï malïp**.*
mï   ***lïmndï** ma=**lï**-p*
3SG.SUBJ eye   3SG.OBJ=put-PFV
'She watched it.' [elicited]

(67) *Mï ndala wonka **lïmndï** manji asiya **ndute**.*
mï   ndï=ala   won-ka **lïmndï** ma-nji   asiya ndï=**uta**-e
3SG.SUBJ 3PL=from cut-let eye   3SG.OBJ-POSS string 3PL=grind-IPFV
'He left them and crossed [the river] and was checking his string traps.'
[ulwa032_30:27]

(68) *Una **lïmndï ndutape**.*
unan   ***lïmndï** ndï=**uta**-p-e*
1PL.INCL eye   3PL=grind-PFV-DEP
'We've examined them.' [ulwa037_31:38]

While verbs of perception constitute one of the most common subclasses of verbs that exhibit the separable structure, other compound verb forms behave similarly. The verb 'ask' is composed of the word *atwana* 'question' and some form of a verb of speaking (e.g., *ta-* 'say' or *kï-* 'say') as discontinuous elements, with no oblique marking on the nominal component *atwana* 'question', as in (69) and (70).[11]

(69) *Mï li **atwana** manji yana **mat**.*
mï   li-i   ***atwana** ma-nji   yana   ma=**ta**
3SG.SUBJ down-go.PFV question 3SG.OBJ-POSS woman 3SG.OBJ=say
'He went down and asked his wife.' [ulwa001_13:59]

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[11]More information on reported speech with *na* 'talk' as a nominal component is provided in §15.4.

(70)   *Dumngul imba pe i **atwana ankap**.*
       *Dumngul imba p-e   i   **atwana** an=**kï-p***
       [name]   night be-DEP go.PFV question 1PL.EXCL=say-PFV
       'Dumngul came at night and asked us.' [ulwa032_19:37]

In a somewhat more complicated fashion, the verb 'catch, grab, hold' is formed with the irregular verb *si-* 'push', which follows the discontinuous element [ikali], which is itself composed of *i* 'hand' and *kali* 'send', and may thus not so clearly be labeled a nominal element. Sentences (71) and (72) exemplify this structure.

(71)   *Una **ikali ndïsina**.*
       *unan   **i-kali**   ndï=**si**-na*
       1PL.INCL hand-send 3PL=push-IRR
       'We can grab them.' [ulwa037_08:01]

(72)   *Ngunan ango **ikali** ndïn u ani **kos**.*
       *ngunan ango **i-kali**   ndï=n   u   ani   ko=**si***
       1DU.INCL NEG hand-send 3PL=OBL from bilum INDF=push
       'We haven't gotten a single *bilum* [= string bag] from them.'
       [ulwa037_16:44]

The use of light verbs (such as *wana-* 'feel', *ta-* 'say', *kï-* 'say', and *si-* 'push') to generate a larger semantic range than would otherwise be possible within Ulwa's small set of verbs is reminiscent of many languages of New Guinea. Indeed, this resembles the common adjunct-plus-verb construction (Foley 1986: 117–128), in which an adjunct nominal combines with a generic verb to make the meaning of the generic verb more specific. One notable feature of these Ulwa constructions, however, is that the adjunct nominal component is often morphologically very much like a verb – that is, it can take verbal morphology. This feature is described further in §11.2.2 and §11.2.3. For the role of the verb *tï-* 'take' in similar bipartite constructions, see the discussion in §13.3 of possible serial verb constructions.

11.2.2 The verbs *u-* 'put', *lï-* 'put', and *lumo-* 'put'

This section covers a small subclass of separable verbs involving words with meanings somewhat like English *put*. I say "somewhat like" since there are two important semantic distinctions. First, these Ulwa verbs select only two arguments – that is, they are not three-place predicates. Indeed, they may even be able to function intransitively as well. Second, the object of these Ulwa verbs is not a theme argument, but rather a goal, the place to which a theme is put. If a

theme argument is expressed in a clause, it occurs in an oblique phrase. One such verb is *u-* 'put', which, as in (73) and (74), takes a goal as its object argument.

(73) *Inom mï wa unde iwa lan **inim andawe**.*
　　*inom　mï　　wa unda-e iwa　　ala=n　　　**inim***
　　mother 3sg.subj just go-dep basket pl.dist=obl water
　　anda=aw-e
　　sg.dist=put.ipfv-dep
　　'A woman used to just go around, setting fish traps in the water.'
　　[ulwa006_00:08]

(74) *Wen **ndawe**.*
　　*we=n　　**ndï=aw-e***
　　sago=obl 3pl=put.ipfv-dep
　　'[They] used to put sago starch in them.' [ulwa014_34:38]

Another major 'put' verb is *lï-* 'put', which also takes a goal as its direct object (and may include a theme argument as an oblique phrase), as in (75).

(75) ***Al malpe** mï i.*
　　al　ma=lï-p-e　　　　*mï　　i*
　　net 3sg.obj=put-pfv-dep 3sg.subj go.pfv
　　'Having put [the baby] in the mosquito net, she went.' [ulwa001_00:40]

In addition to these two verbs, there is the defective stem *lumo-* 'put', which seems only to occur in the perfective form [lumop] and in conditional forms [lumota] and [lumopta]; sometimes, in casual speech, the initial [l-] is lost (i.e., the stem may be apheresized to [umo-]). It is shown in (76).

(76) *Ndï malimap ndïn **ame ndïlumop**.*
　　*ndï ma=alima-p　　ndï-n　　**ame　ndï=lumo-p***
　　3pl 3sg.obj=beat-pfv 3pl=obl basket 3pl=put-pfv
　　'They beat it [= the sago] and put them [= the starch] in the baskets.'
　　[ulwa014†]

These 'put' verbs may combine with other elements in separable verb constructions. When they do so, the first element resembles verbs in one crucial way: it permits an object marker. For example, the (unseparated) verb *kalilï-* 'send' takes as its object that which is sent (i.e., a theme argument) (77); however, as a discontinuous verb, the first element *kali* 'send' takes this theme argument as its object, whereas the second element *lï-* 'put' takes as its object the place to which someone or something is sent (i.e., a goal argument) (78).

(77)   *Wot **makalilïpe**.*
       wot   ma=**kali-lï-p-e**
       younger 3SG.OBJ=send-put-PFV-DEP
       '[They] sent the younger brother.' [ulwa001_13:58]

(78)   ***Makali** Nanïmwat **malp**.*
       ma=**kali**   Nanïmwat ma=**lï-p**
       3SG.OBJ=send [place]   3SG.OBJ=put-PFV
       '[They] sent him to Nanïmwat [village].'[12] [ulwa002_03:34]

Similarly, the form *kuk* 'gather' may take an object marker when appearing with a separable 'put' verb. This form mostly appears with the verb *u-* 'put', but may alternatively appear with a blended version containing the element /l/. Examples (79) and (80) show an intransitive use of the verb.[13] Example (79) lacks the detransitivizing marker *na-* 'DETR', whereas (80) includes it (§15.8.2).

(79)   *Kuma **kukup**.*
       kuma **kuk-u-p**
       some gather-put-PFV
       'Some gathered.' [ulwa032_43:36]

(80)   *An **nakukunda**.*
       an   na-**kuk-u-nda**
       1PL.EXCL DETR-gather-put-IRR
       'We would gather.' (i.e., 'gather together, assemble') [ulwa013_05:53]

As a transitive verb, however, *kuk u-* 'gather' has as its object that which is 'gathered' (or 'piled up', etc.), and this argument may be indexed by an object marker preceding the form *kuk* 'gather'. The place in(to) which things are being gathered or piled is, in turn, the object of the verb 'put', and thus occurs as an NP between the separable form *kuk* 'gather' and the verb stem *u-* 'put', as in examples (81) and (82).

(81)   *Siwi **kuk** wa **nolnda**.*
       siwi   **kuk**   wa   na-**lu**-nda
       grub.species gather village DETR-put-IRR
       '[We] will gather grubs home.'[14] [ulwa038_03:35]

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[12]This example illustrates yet another peculiarity of the verb *lï-* 'put': the common elision of its only vowel (§4.5.9).

[13]According to some terminology, this usage may be considered "middle voice".

[14]Note the metathesis of the alternate form [lu-] of the verb stem *lï-* 'put' (§4.5.9), which enables the formation of the monophthong [o] (from /au/) (§4.5.2).

(82) *Mï **ndïkuk** nïn ani **mope**.*
mï ndï=**kuk** nï=n ani ma=**u**-p-e
3SG.SUBJ 3PL=gather 1SG=OBL bilum 3SG.OBJ=put-PFV-DEP
'She piled them into my *bilum* [= string bag].' [ulwa037_04:03]

As a phonotactically prohibited word-final consonant (§4.1.1), the final [k] in
kuk 'gather' may be deleted when this word occurs as a separate form (83).[15]

(83) *Nïpïl ndïwale **ndïku** inim **awe**.*
nïpïl ndï=wali-e ndï=**kuk** inim **aw**-e
vine 3PL=hit-IPFV 3PL=gather water put.IPFV-DEP
'[We] used to break vines and gather them into the water.'
[ulwa036_01:02]

Other separable verbs with stems meaning 'put' have as their first elements
words that seem less likely to permit object markers. For example, *tane* 'stand'
has as its object the place where one stands, and this is marked on the 'put' verb,
rather than on the form *tane* 'stand'. In (84), this locative argument is expressed
by the object-marker proclitic *ma=* '3SG.OBJ', which in this phrase has the sense
'there'.

(84) *Ngala imba pe **tane malpe**.*
ngala imba p-e **tane** ma=**lï**-p-e
PL.PROX night be-DEP stand 3SG.OBJ=put-PFV-DEP
'These people stand there at night.' [ulwa032_15:35]

That said, this verb can at times permit two objects – that is, the first element
may permit as an object that which is stood (i.e., erected, positioned, etc.), as in
(85).

(85) *I apa kongomlïp mat i **matanelïp**.*
i apa ko=angom-lï-p ma=tï i
go.PFV house INDF=pull.out-put-PFV 3SG.OBJ=take go.PFV
*ma=**tane**-lï-p*
3SG.OBJ=stand-put-PFV
'[It] went and pulled out a house, brought it, and stood it up.'
[ulwa006_02:43]

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[15]The nominal adjuncts in separable verb constructions such as this one may be forms that occur
only in verbal compounds – that is, unlike *lïmndï* 'eye', which occurs frequently as a noun in
its own right (e.g., *mï nïnji lïmndï masap* 'he hit my eye'), there is no indication that forms like
kuk 'gather' (or 'gathering'?), ever appear on their own without such verbs.

There are some other verbs that appear on morphological grounds to belong to this class of separable 'put' verbs, but which never seem to occur as discontinuous elements. This could simply be due to their semantics. For example, the object of a verb such as *mïmïlu-* 'wring, strain' is more likely to be a theme argument than a goal argument. This verb may be seen in sentences (86) and (87).[16]

(86)   *Ulum tamndï mawa **ndïmïmïlunda**.*
        *ulum tamndï ma-awa   ndï=**mïmïl-u**-nda*
        palm owner 3SG.OBJ-INT 3PL=wring-put-IRR
        'The owner of the sago palms herself will wring them.' [ulwa014_59:45]

(87)   *Ndï **ndïmïmïlawe**.*
        *ndï ndï=**mïmïl-aw**-e*
        3PL 3PL=wring-put.IPFV-DEP
        'They would be wringing them.' [ulwa014_34:21]

The semantic origins of 'put' verbs being used as the second component in such separable verbs may be as follows: verbs like 'throw', 'break', and so on, could derive from phrases such as 'put a throw', 'put a break', and so on, where the first element in each phrase is in origin an abstract noun.

Table 11.1 presents separable verbs that most commonly use the main verb form *u-* 'put'. Table 11.2 presents separable verbs that most commonly use the main verb form *lï-* 'put'.

The two paradigms, however, are not completely distinct – that is, although separable 'put' verbs mostly contain either one set of endings or the other set of endings, sometimes speakers mix forms, producing, for example, [tane-yu-p] 'stand [PFV]' (for /tane-lï-p/) or [kuk-lï-p] 'gather [PFV]' (for /kuk-u-p/). Generally, the verbs based on the stem *lï-* 'put' lack imperfective forms. If needed, however, they seem capable of adopting the [-awe] ending from the other 'put' verb paradigm.

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[16]The fact that 'put' verbs can, however, so commonly permit separable constructions has a certain rationale to it, especially considering that the object of these verbs glossed as 'put' is always the goal and not the theme, which, when overt, is expressed as an oblique phrase. Thus, in expressions like 'send to a place' or 'gather/pile up to a place', it is appropriate that the object of the second element in the separable verb (i.e., the 'put' verb) is a destination.

Table 11.1: Separable 'put' verbs with verb stem *u-*

gloss	imperfective	perfective	irrealis
'throw'	*kïkeyawe*	*kïkeyup*	*kïkeyunda*
'gather'	*kukawe*	*kukup*	*kukunda*
'wring'	*mïmïlawe*	*mïmïlup*	*mïmïlunda*
'die.PL'	*nipinpawe*	*nipinpup*	*nipinpunda*
'vomit'	*nonganawe*	*nonganup*	*nonganunda*
'crush'	*nopalawe*	*nopalup*	*nopalunda*
'break'	*nungunawe*	*nungunup*	*nungununda*
'pour'	*tomalawe*	*tomalup*	*tomalunda*
'cut'	*weyawe*	*weyup*	*weyunda*

Table 11.2: Separable 'put' verbs with verb stem *lï-*

gloss	imperfective	perfective	irrealis
'pull'	–	*angomlïp*	*angomlïnda*
'send'	–	*kalilïp*	*kalilïnda*
'throw'	–	*kulilïp*	*kulilïnda*
'tie'	–	*moplïp*	*moplïnda*
'hide'	–	*nokoplïp*	*nokoplïnda*
'spit'	–	*ngomlïp*	*ngomlïnda*
'stand'	–	*tanelïp*	*tanelïnda*
'throw'	–	*toplïp*	*toplïnda*
'jump'	–	*uleplïp*	*uleplïnda*

11.2.3 The verb *ka-* 'let'

The verb *ka-* 'let, leave, allow' is another verb that is frequently used in separable verb constructions. As a verb with telic Aktionsart, there is no distinction made between perfective and imperfective aspect: both aspects are encoded with the uninflected form of the verb [ka].[17]

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[17]This form is homophonous with the adverb *ka* 'thus, in this manner, in that manner' as well as with the postposition *ka* 'at, in, on'. The irrealis form [lakana] exhibits what appears to be circumfixation, *la- ... -na* (§6.3). The final [-na] of *lakana* 'let [IRR]' is often elided. For the use of this verb in permissive constructions, see §15.9.4.

Members of the class of *ka-* 'let' separable verbs tend to be intransitive. When they do take objects, however, these are goal arguments, much like their counterparts in 'put' separable verbs (§11.2.2). These objects occur between the first element and the verb stem. Examples (88) through (93) illustrate some uses of verb phrases formed with *ka-* 'let'.

(88) *Nawa ndul **asike** ndï matap.*
*nï-awa ndï=ul **asi-ka**-e ndï ma=ta-p*
1SG-INT 3PL=with sit-let-DEP 3PL 3SG.OBJ=say-PFV
'I myself sat with them, and they talked about it.' [ulwa014_29:14]

(89) *Nï wa ndul **asi maka.***
*nï wa ndï=ul **asi** ma=**ka***
1SG just 3PL=with sit 3SG.OBJ=let
'I just sat there with them.' [ulwa032_18:56]

(90) *Nï ma **loplakana.***
*nï ma **lop**-la-**ka**-na*
1SG go lie-IRR-let-IRR
'I will go and rest.' [ulwa032_18:21]

(91) ***Lop** wulis **maka.***
lop** wulis ma=**ka
lie platform 3SG.OBJ=let
'[I] lay on the platform.' [ulwa037_62:39]

(92) *Ngan wolka **tïklika** mbi.*
*ngan wolka **tïkli-ka** mbï-i*
1DU.EXCL again turn-let here-go.PFV
'The two of us turned again and came here.' [ulwa037_01:43]

(93) *Una **tïkli amblalaka** wolka amblawalinda man.*
*unan **tïkli** ambla=la-**ka** wolka ambla=wali-nda ma-n*
1PL.INCL turn PL.REFL=IRR-let again PL.REFL=hit-IRR go-IPFV
'We're going to turn on one another and fight one another again.'
[ulwa037_08:46]

Often, however, instead of being expressed as the direct object of the verb, the goal argument in such constructions is expressed in a postpositional phrase. Still, these phrases occur between the first element of the separable verb and the verb stem, as in (94), (95), and (96).

(94) *Nï **asi** unji komblam mayn **ka**.*
      nï **asi** u-nji   komblam ma=in   **ka**
      1SG sit 2SG-POSS chair   3SG.OBJ=in let
      'I sat in your chair.' [elicited]

(95) *Wa **asi** nïmal kanam **ka**.*
      wa **asi** nïmal kanam **ka**
      just sit river beside let
      '[They] just sit beside the river.' [ulwa037_45:28]

(96) ***Lop** ndïkana **ka** ko nip.*
      lop ndï=kana   **ka** ko ni-p
      lie 3PL=beside let just die-PFV
      '[She] lay beside them and just died.' [ulwa014†]

Table 11.3 provides a list of some separable *ka-* 'let' verbs, showing their form in the imperfective/perfective and in the irrealis.

Table 11.3: Separable *ka-* 'let' verbs

gloss	imperfective/perfective	irrealis
'sit'	*asika*	*asilakana*
'lie (down)'	*lopka*	*loplakana*
'turn (around)'	*tïklika*	*tïklilakana*
'bend'	*tumulka*	*tumulakana*
'cut'	*wonka*	*wonlaka*

Note the degemination (§4.5.8) that occurs in the irrealis form /tumul-la-ka-na/ 'bend [IRR]'). Also note that *won-* 'cut' can alternatively take a set of regular TAM endings (e.g., *wonp* 'cut [PFV]', *wonda* 'cut [IRR]'). The temporal verbs *ip ka-* 'precede' (literally 'let nose' or 'let front') and *angani ka-* 'follow' (literally 'let rear'), which are homophonous with (and clearly related to) the adverbs *ipka* 'before' and *anganika* 'after', also belong to this class of separable verbs (see §9.5 for their use in ordinal number expressions).

11.3 Other phrasal constructions

Besides noun phrases and verb phrases, the most important phrasal constituents of clauses are postpositional phrases (PPs). After describing PPs in Ulwa (§11.3.1), I consider the utility of describing adjectival phrases and adverbial phrases in the language (§11.3.2).

11.3.1 Postpositional phrases

A postpositional phrase (PP) consists minimally of a postposition and the object of the postposition, which always immediately precedes it. The object of the postposition may consist of a full NP, whether with or without an object marker, or it may consist only of an object-marker proclitic. A number of examples of postpositions are provided in §10.1.

Most postpositional phrases consist of just a single postposition. However, it is also possible for multiple postpositions to occur within a single phrase, sharing a single object. This use of multiple postpositions often conveys a specific (usually spatial) relationship between two NPs. A common component of such complex postpositional phrases is *u* 'from, in, at, around, along', which, when following another postposition, may add to it an ablative sense, as in examples (97) through (100).[18]

(97) *Nï **aplatam mawat u** ani matïn.*
      nï **aplatam ma=wat**   **u**   ani   ma=tï-n
      1SG table   3SG.OBJ=atop from bilum 3SG.OBJ=take-PFV
      'I took the *bilum* [= string bag] from atop the table.' [elicited]

(98) *Lïwa ta **nïwat u** anmbi.*
      lïwa ta   **nï=wat** **u**   an-mbï-i
      dawn already 1SG=atop from out-here-go.PFV
      'Dawn already came out upon me.' [ulwa041_01:39]

(99) *Ndï **wimbam u** inim ma.*
      ndï **u=imbam** **u**   inim   ma
      3PL 2SG=under 2SG water go
      'They go from under you to the water.' (i.e., people go under your legs to lift you up and take you to the water) [ulwa014_00:35]

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[18]An alternative analysis might be that at least some of these putative postpositions are (or can function as) nouns. Thus, what is translated as 'from atop the table' in (97) may perhaps be better translated as 'from the table's top'.

(100)   **Ndin u** *siwi lomoke.*

    ndï=in u   *siwi*   *ala=moko-e*

    3PL=in from grub.species PL.DIST=take-IPFV

    '[He] would get grubs from within them.' [ulwa004_02:41]

Sometimes, however, two postpositions may occur in a single phrase without any sense of motion. In (101), the two postpositions *wan* 'over, above' and *wat* 'atop, onto' combine to give the sense of something hovering above something else.

(101)   *Yangun mï* **aplatam mawan wat** *wap.*

    yangun   *mï*   **aplatam ma=wan**   **wat** *wap*

    mosquito 3SG.SUBJ table   3SG.OBJ=above atop be.PST

    'The mosquito was above the table.' [elicited]

It is even possible for three postpositions to occur within a single phrase, as demonstrated by examples (102) and (103).

(102)   *Yangun mï* **aplatam mawan wat u** *mbi.*

    yangun   *mï*   **aplatam ma=wan**   **wat u**   *mbï-i*

    mosquito 3SG.SUBJ table   3SG.OBJ=above atop from here-go.PFV

    'The mosquito came from above the table.' [elicited]

(103)   *Nongami* **mawan wat u** *molop.*

    Nongami **ma=wan**   **wat u**   *ma=lo-p*

    [name]   3SG.OBJ=above atop from 3SG.OBJ=cut-PFV

    'Nongami cut it from above it.' (i.e., he cut a sago palm by positioning himself above the palm) [ulwa014_72:44]

These PPs consisting of multiple postpositions should not be confused with series of multiple PPs occurring within a single clause. The latter construction type always contains multiple objects (one per head postposition in each PP), as in (104) and (105).

(104)   **Maya** *al* **men** *i.*

    ma=iya   *al* *ma=in*   *i*

    3SG.OBJ=toward net 3SG.OBJ=in go.PFV

    '[It] went to him into [his] mosquito net.' [ulwa006_05:07]

(105)   *Min* **mawl mawat** *wap.*

    min **ma=ul**   **ma=wat**   *wap*

    3DU 3SG.OBJ=with 3SG.OBJ=atop be.PST

    'The two stayed with her on top of it.' [ulwa019_00:33]

11.3.2 Adjectival or adverbial phrases?

This chapter may be concluded with a consideration of other possible phrasal units. Although constituents such as adjectival phrases and adverbial phrases are sometimes described for languages, there does not seem to be much utility in doing so for Ulwa. When multiple adjectives occur in sequence, either:

(i)   they are all in the same NP, together modifying the same head noun; or

(ii)   they are in the same predicate, being predicated of the same subject; or

(iii) at least one is a substantive, with the other(s) modifying it or being predicated of it.

First, when multiple adjectives modify the same head noun, it is not clear whether one or another adjective has a closer affinity to the head noun. In other words, it is not clear what the constituent structure is. An example of a noun being modified by multiple adjectives is given in (106).

(106)   *lamndu ambi anma mï*
         lamndu ambi anma mï
         pig   big   good 3SG.SUBJ
         (a) 'the big [good pig]' (?)
         (b) 'the good [big pig]' (?)
         (c) 'the [big (and) good pig]' (?) [elicited]

Second, when an NP has multiple predicate adjectives, it may be most parsimonious to analyze them as coordinated paratactically, since Ulwa does not contain overt coordinators (§14.1). Such an analysis is employed for sentences such as (107).

(107)   *Lamndu mï ambi anma.*
         lamndu mï   ambi anma
         pig   3SG.SUBJ big   good
         'The pig is big [and] good.' [elicited]

Third, when one adjective in a series is functioning as a substantive, it may indeed be the head of a phrase – but this phrase in question is a noun phrase, not an adjectival phrase, as illustrated by (108) and (109).

(108)   *ambi anma mï*
        ambi anma mï
        big   good 3SG.SUBJ
        'the good big [one]' [elicited]

(109)   *Ambi (mï) anma.*
        ambi (mï)   anma
        big   (3SG.SUBJ) good
        'The big [one] is good.' [elicited]

Nor does there seem to be much value in analyzing a set of adverbial phrases. The class of adverbs in Ulwa consists of modifiers that are mostly all considered to be sentential – that is, insofar as they are modifiers, they modify on the level of the sentence or clause, and do not modifier smaller constituents, such as verbs or adjectives. Thus, they are generally not themselves constituents of larger phrases. Furthermore, when multiple adverbs occur in the same clause, they each, independently, modify this clause. Therefore, they do not seem to belong to any multi-word constituent unit smaller than the clause or sentence.

12 Predicates

In this chapter I describe how different types of predicates are formed. I begin by discussing locational predication (§12.1) before turning to types of non-verbal predication, whether accomplished without any overt predicative marking (§12.2), accomplished with a copular clitic (§12.3), or accomplished with a special past-tense verb form (§12.4). I conclude with a discussion of a limited number of complex predicates involving auxiliary verbs (§12.5).

12.1 Locational predication

Locative clauses are indicated with the locative verb *p-* 'be, be at (be located at)' (§6.3). The verb *p-* 'be' may be used to express location at a place, whether permanent or temporary. The locative verb *p-* 'be' can follow either proper place names (1) or common noun locations (2).

(1) *Tumbuna la mbïpe **Wopata pe** ala ando.*
     *tumbuna   ala   mbï-p-e   **Wopata p-e**   ala   anda=u*
     grandparent PL.DIST here-be-DEP [place]   be-DEP PL.DIST SG.DIST=from
     'When the grandparents were here at Wopata they [went] from there.'
     (*tumbuna* = TP) [ulwa029_07:01]

(2) *Alum ala ndï wa lolop ala **wandam pe** mundu ame.*
     *alum ala   ndï wa lolop ala   **wandam p-e**   mundu ama-e*
     child PL.DIST 3PL just just PL.DIST jungle   be-DEP food   eat-IPFV
     'Those children – they just, they're just in the jungle eating food.'
     [ulwa032_12:50]

This verb is irregular in both form and function. First, it is defective in that it lacks a perfective form.[1] Also, given the function of the verb – often used along

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[1]This is perhaps unsurprising, given both the semantic properties of the verb and the fact that a perfective form like [†]/pp/ very well might just degeminate to [p] anyway. On the other hand, double perfective forms such as [p-ap], [p-op], and [p-ïp], manage to solve this problem by means of vowel insertion (§6.8).

with other, non-locative verbs – it is often difficult to interpret the ending [-e] as being either imperfective marking or dependent marking. The irrealis form of the verb, however, is rather simple to analyze: it takes the form [pïna] – that is, the stem *p-* 'be' plus the regular irrealis suffix *-na* 'ɪʀʀ', with an epenthetic [ï] to break up the underlying consonant cluster. The forms of *p-* 'be' are given in (3).

(3)   The locative verb *p-* 'be, be at (be located at)'

   p   'be' (unmarked for tense or aspect)
   p-e   'be (ɪᴘꜰᴠ?) (ᴅᴇᴘ?)'
   p-na   'be (ɪʀʀ)' [pïna]
   wap   'be (ᴘꜱᴛ)'

Although there are no aspectual distinctions overtly encoded for this verb, there is a sort of tense distinction that can be made, by means of the weakly suppletive form *wap* 'be.ᴘꜱᴛ', which may be used to make explicit reference to past time. This form, itself perhaps derived from *p-* 'be', is discussed further in §12.4. The verb *p-* 'be' is almost certainly the source of the copular clitic *=p* 'ᴄᴏᴘ', which is discussed in §12.3.

The uninflected form [p] may refer either to past time or to present time. With reference to location in the future, however, the locative verb, as other verbs, typically receives the irrealis suffix *-na* 'ɪʀʀ' (4).

(4)   *Uta nungol kwa **wandam pïna**.*
      uta   nungol kwa **wandam p-na**
      bird child   one jungle   be-ɪʀʀ
      '[Not] one little bird will be [left] in the jungle!' [ulwa032_53:17]

As with other verbs, the irrealis suffix encodes not only future time for the verb *p-* 'be', but also other non-real modalities, such as counterfactuals (5).

(5)   *Ango kwe kuma wa **mapïna**.*
      ango kwe kuma wa ma=**p-na**
      ɴᴇɢ one some just 3ꜱɢ.ᴏʙᴊ=be-ɪʀʀ
      'Not just one or a few would be staying there.' [ulwa014_65:18]

Sentence (5) further illustrates how the locative verb *p-* 'be' can be indexed with proclitic object markers or deictic forms. In some instances, it may perhaps even be considered a transitive verb, taking as its object the place at which something is or was located. In such situations, the verb can be translated as 'be located at', 'stay at', 'live at', 'reside at', and so on. This function is illustrated by sentences (6) through (13).

(6) *Mï **wa mape**.*
     mï   wa   ma=p-e
     3SG.SUBJ village 3SG.OBJ=be-IPFV
     'She stayed in the village.' [ulwa020_00:09]

(7) *Ndï maka **ndïnji wa mape**.*
     *ndï maka **ndï-nji   wa   ma=p-e***
     3PL thus   3PL-POSS village 3SG.OBJ=be-IPFV
     'They thus stayed in their village.' [ulwa018_06:04]

(8) *Ambi ngata nduwe ndï **amba mape**.*
     *ambi ngata ndï-we   ndï **amba   ma=p-e***
     big   grand 3PL-PART.INT 3PL mens.house 3SG.OBJ=be-IPFV
     'Only the big grandparents – they stayed in the men's house.'
     [ulwa018_04:55]

(9) *Inom manji mï **ata ngap**.*
     *inom   ma-nji   mï   **ata nga=p***
     mother 3SG.OBJ-POSS 3SG.SUBJ up SG.PROX=be
     'The mother's [garden] was upstream.' [ulwa001_06:54]

(10) *Nga **Tïwen ngape**.*
      *nga   **Tïwen nga=p-e***
      SG.PROX [place] SG.PROX=be-IPFV
      'Here – [they] stayed here in Tïwen.' [ulwa014_23:57]

(11) *Mï amunpe **andape**.*
      *mï   amun=p-e   **anda=p-e***
      3SG.SUBJ now=COP-DEP SG.DIST=be-IPFV
      'He is still there.' [ulwa014_08:14]

(12) *An wa ndimbam li **apembam ndape**.*
      *an   wa ndï=imbam li   **apembam anda=p-e***
      1PL.EXCL just 3PL=under down area.beneath.house   SG.DIST=be-IPFV
      'We were just staying in the area beneath the house down underneath
      them.' [ulwa018_04:47]

(13) *Ase itom ala mïka **apa ndape**.*
      *ase itom   ala   mïka **apa   anda=p-e***
      no father PL.DIST thus house SG.DIST=be-IPFV
      'No, the fathers are in the house.' [ulwa018_05:12]

The locative verb *p-* 'be' can take other verbal affixation, such as the dependent marker *-e* 'DEP', as exemplified in examples (1) and (2). Examples (14) and (15) show *p-* 'be' with the conditional marker *-ta* 'COND'.

(14)   *Ndï wa **pita***
       *ndï wa   p-**ta***
       3PL village be-COND
       'If they were home …' [ulwa033_01:07]

(15)   *… maka amba **ngapta** ndïlanda man.*
       *maka amba   nga=p-**ta***   *ndï=la-nda   ma-n*
       thus   mens.house SG.PROX=be-COND 3PL=eat-IRR go-IPFV
       '… if [we] stay like this in the men's house, then [we] are going to eat them.' [ulwa018_01:23]

It is also possible for *p-* 'be' to take the nominalizing suffix *-en* 'NMLZ'. The force of the nominalization is not always felt (16).

(16)   *A nïplopa im in pe wandam **pen**.*
       *a   nïplopa   im   in p-e   wandam p-**en***
       INTERJ flying.fox tree in be-DEP jungle   be-NMLZ
       'Ah, there are [still] flying foxes in the trees in the jungle.'
       [ulwa032_57:17]

Example (16) further illustrates the use of the locative verb in combination with a postpositional phrase (here, with the postposition *in* 'in'). Further examples of locative predication with spatial postpositions are given in (17), (18), and (19).

(17)   *Nïtet nïmal **kanam mapen** ndï manji wo.*
       *Nïtet   nïmal **kanam ma=p-en***   *ndï ma-nji   wo*
       [place] river beside 3SG.OBJ=be-NMLZ 3PL 3SG.OBJ-POSS own
       'Those [palms] that are next to Nïtet river are her very own.'[2]
       [ulwa037_42:24]

(18)   *Way mï minïn twa **kana map**.*
       *way mï   min=n   twa   **kana ma=p***
       turtle 3SG.SUBJ 3DU=OBL hearth beside 3SG.OBJ=be
       'The turtle stayed there with them next to the hearth.'[3] [ulwa006_06:09]

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[2]This example additionally illustrates the use of the nominalizing suffix *-en* 'NMLZ'.

[3]Sentences such as (17) and (18), which contain the object marker *ma=* '3SG.OBJ' following the postposition *kana ~ kanam* 'beside', are perhaps better translated as 'there beside …' or 'there next to …'.

(19) *Nï ango unul ini **ngawat pïna**.*
    *nï ango un=ul   ini   nga=**wat**   **p**-na*
    1SG NEG 2PL=with ground this.SG=atop be-IRR
    'I will not live on this land with you.' [ulwa014_03:42]

The distinction between locative predication and existential predication is often not clear in Ulwa, since there are no formal distinctions between the two constructions. Like locative predication, existential predication can be expressed with the locative verb *p-* 'be', as in (20), (21), and (22).

(20) *Anmoka ndï wandam **map***
    *anmoka ndï wandam ma=**p***
    snake   3PL jungle   3SG.OBJ=be
    'There are snakes in the jungle.' [elicited]

(21) *Inim mï ini mawat **pe**.*
    *inim mï   ini   ma=wat   **p**-e*
    water 3SG.SUBJ ground 3SG.OBJ=atop be-IPFV
    'There is water on the ground.' [elicited]

(22) *Wanmbi ani **mapta** u mat nïnata nï ansi lan.*
    *wanmbi ani   ma=**p**-ta   u   ma=tï   nï=na-ta   nï*
    daka   bilum 3SG.OBJ=be-COND 2SG 3SG.OBJ=TAKE 1SG=give-COND 1SG
    ansi   la-n[da]
    red.buai eat-IRR
    'If there is *daka* [= betel pepper] in [your] *bilum* [= string bag], [then] give it to me so I can chew *red buai* [= betel nut].' [ulwa037_34:22]

Often context alone can determine whether a copular suffix is being used in an existential construction or a locative construction. Thus, for example, a sentence such as (21) could be interpreted as meaning 'the water is on the ground' as well as 'there is water on the ground'.

The verb *p-* 'be' (or the copular enclitic *=p* 'COP') may be used with temporal adverbs or nouns as well, here having a temporal, rather than a spatial meaning, as in the expression *amunpe* 'still' in (11). This can be understood as having the literal meaning 'being at now'. See §10.2.1 for more examples of temporal expressions. The special past-tense form of the locative verb (*wap* 'be.PST') is discussed in §12.4.

12.2 Non-verbal predication

Aside from locational predication, which requires the locative verb *p- ~ wap* 'be', non-verbal predication (as well as other non-verbal clause constructions) can be expressed without any overt verbal marking. Thus, Ulwa can be said to allow zero copula constructions (see §12.3, however, for the use of a copular enclitic). For example, classificational, identificational, or equational (or equative) clauses may all be expressed by simply juxtaposing two NPs without any marking, as in examples (23) through (28). See also example (161) in §9.3.

(23) *Mongima mï **yata**.*
    Mongima mï   yata
    [name]   3SG.SUBJ man
    'Mongima is a man.' [elicited]

(24) *Mongima mï **ankam anma**.*
    Mongima mï ankam anma
    [name]   3SG person good
    'Mongima is a good person.' [elicited]

(25) *Kowe mï **nïnji atuma**.*
    Kowe   mï   nï-nji   atuma
    [name] 3SG.SUBJ 1SG-POSS older.brother
    'Kowe is my older brother.' [elicited]

(26) *Kowe Mongima min **nïnji atuma wot**.*
    *Kowe   Mongima min **nï-nji   atuma   wot***
    [name] [name]   3DU 1SG-POSS older.brother younger
    'Kowe and Mongima are my brothers.'[4] [elicited]

(27) *Kowe mï **atuma**.*
    Kowe   mï   atuma
    [name] 3SG.SUBJ older.brother
    'Kowe is an older brother.' (i.e., he is an older brother to some unspecified person) [elicited]

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[4]The combination of 'older brother' and 'younger [brother]' can be used to refer to multiple male siblings, unspecified for relative age.

(28) *Ngata yeta mï **Suwol**.*
    ngata yeta mï   **Suwol**
    grand man 3SG.SUBJ [name]
    'The male ancestor was Suwol.' [ulwa002_03:19]

Similarly, attributive clauses (or attributional clauses) can be formed by placing the property-denoting phrase (i.e., the predicate adjective) immediately after the subject NP, without any special marking, as in (29) and (30).

(29) *Kowe mï **wutota**.*
    Kowe   mï   **wutota**
    [name] 3SG.SUBJ tall
    'Kowe is tall.' [elicited]

(30) *Kowe mï **apka wutota**.*
    Kowe   mï   **apka wutota**
    [name] 3SG.SUBJ very   tall
    'Kowe is very tall.' [elicited]

Possessive predicates can likewise be expressed without any marking. There is no verb like the English verb *have* in Ulwa. Rather, the possessed item is simply predicated of the person who possesses it. The possessor is indicated by the possessive pronoun. Thus, predicative possession is expressed with the possessum as the single argument of a monotransitive clause; the possessor is treated just like any adnominal possessor in a possessive NP (i.e., it precedes the head noun, §11.1.5). In examples (31) through (34), the possessum is indicated in **bold**.

(31) *Alimban manji **yeta watangïnila**.*
    Alimban ma-nji   **yeta watangïnila**
    [name]   3SG.OBJ-POSS man four
    'Alimban has four sons.' [ulwa024_01:39]

(32) *Nï amun nïnji **palapal min nga**.*
    nï amun nï-nji   **palapal**   **min nga**
    1SG now   1SG-POSS decoration? band SG.PROX
    'Now I have this shell armband.' (*palapal* < TP *balbal ~ palpal* 'Indian coral tree'?) [ulwa015_02:21]

(33) *Depina manji **samban andawa**.*
    Depina ma-nji   **samban anda-awa**
    [name] 3SG.OBJ-POSS pot   SG.DIST-INT
    'Depina had her own pot.' [ulwa032_23:29]

(34) *Leobaha min minji **samban andawa**.*
      *Leobaha min min-nji   **samban anda-awa***
      [name] 3DU 3DU-POSS pot   SG.DIST-INT
      'Leobaha [and another child] had their own pots.' [ulwa032_23:34]

Negation of non-verbal clauses is discussed in §15.3.2.

12.3 The enclitic copula *=p* 'COP'

Although non-verbal clauses can be formed without any overt verb phrase (§12.2), it is also possible for a copular enclitic *=p* 'COP' to be to be added to a noun, adjective, or other parts of speech to create a predicate. Although clearly derived historically from the locative verb *p-* 'be at' (< Proto-Keram *ip), the copular enclitic is not used for locational predication. Rather, it is used – always optionally – for other kinds of non-verbal clauses. For example, classificational, identificational, or existential clauses may include the clitic *=p* 'COP' at the end of the second NP, as in (35), (36), and (37).

(35) *Kowe mï **atumap**.*
      *Kowe   mï   **atuma=p***
      [name] 3SG.SUBJ older.brother=COP
      'Kowe is an older brother.' [elicited]

(36) *Mï **wandampe** mï wolka molop.*
      *mï   **wandam-p-e**   mï   wolka ma=lo-p*
      3SG.SUBJ jungle=COP-DEP 3SG.SUBJ again 3SG.OBJ=cut-PFV
      'It was a jungle; but he cleared it again.' [ulwa014_55:13]

(37) *Wondi **ulwap**.*
      *wondi   ulwa=**p***
      bandicoot nothing=COP
      'There were no bandicoots.' (Literally 'Bandicoots are/were nothing.')
      [ulwa032_25:29]

No tense or aspect distinction is made with this clitic. However, the irrealis suffix *-na* 'IRR' is generally added for irrealis clauses, and other verbal suffixation may be added as well, such as the dependent marker *-e* 'DEP' in (36). The copular enclitic can, in effect, function as a verbalizing morpheme. In (38) the irrealis suffix attaches to the copula.

(38) *Kowe mï **atumapïna**.*
      *Kowe   mï   atuma=**p**-**na***
      [name] 3SG.SUBJ older.brother=COP-IRR
      'Kowe will be an older brother.' [elicited]

Likewise, attributive clauses (or attributional clauses) receive the copular enclitic after the phrase containing the property word, as illustrated by examples (39) through (42).

(39) *Itom mï **ambip**.*
      *itom   mï   ambi=**p***
      father 3SG.SUBJ big=COP
      'Father is big.' [elicited]

(40) *Itom mï **ambipïna**.*
      *itom   mï   ambi=**p**-na*
      father 3SG.SUBJ big=COP-IRR
      'Father will be big.' [elicited]

(41) *Na mï ango **anmape**.*
      *na   mï   ango anma=**p**-e*
      talk 3SG.SUBJ NEG good=COP-DEP
      'The talk wasn't good.' [ulwa037_00:39]

(42) *Un ndïlakata kuma **wapatapïta**!*
      *un ndï=la-ka-ta   kuma wapata=**p**-ta*
      2PL 3PL=IRR-let-COND some dry=COP-COND
      'Let some of them dry!' (Literally 'If you let them, some will be dry.')
      [ulwa014_54:34]

It may be possible to use the copular enclitic to indicate possessive predication, although I have not found any clear examples of this. Sentence (43), for example, may rather represent the use of the locative verb *p-* 'be' (i.e., 'My big one is located there.').

(43) *Nïnji ambi **kwe mape**.*
      *nï-nji   ambi kwe ma=**p**-e*
      1SG-POSS big one 3SG.OBJ=COP?-DEP
      'I have one big one there.' [ulwa042_01:33]

Example (44), which uses a nominalizing suffix after the copular clitic, is perhaps better analyzed as classificatory or attributive predication (i.e., 'His land is nothing/nonexistent.').

(44) *Manji ini **ulwapen**.*
      *ma-nji   ini   **ulwa=p-en***
      3SG.OBJ-POSS ground nothing=COP-NMLZ
      'He doesn't have land.' [ulwa014†]

12.4 The past-tense locative verb *wap* 'be.PST'

Although the locative verb *p-* 'be' is unmarked for tense and, as such, may be used to refer to either past or present time, there is a weakly suppletive form *wap* 'be.PST', which may be used to make explicit reference to locations in past time. Its use in locative predicates is illustrated by sentences (45), (46), and (47).

(45) *Amombi maka **Rabaul wap**.*
      *Amombi maka **Rabaul wap***
      [name] thus [place] be.PST
      'Amombi was, like, in Rabaul.' [ulwa037_24:55]

(46) *Ngay mawap Ramu i **mawap**.*
      *nga=i   ma=wap   Ramu i   **ma=wap***
      SG.PROX=go.PFV 3SG.OBJ=be.PST [place] go.PFV 3SG.OBJ=be.PST
      '[He] went there, stayed there, went to the Ramu area and stayed there.'
      [ulwa037_45:51]

(47) *Kambaramba wa ambi maytap **mawap**. **Mawape** wusim anden pe*
      amblasap.
      *Kambaramba wa   ambi ma=ita-p   **ma=wap***
      [place]   village big   3SG.OBJ=build-PFV 3SG.OBJ=be.PST
      ***ma=wap**-e   wusim   anda=in   p-e   ambla=asa-p*
      3SG.OBJ=be.PST-DEP crocodile SG.DIST=in be-DEP PL.REFL=hit-PFV
      '[They] built the big village Kambaramba and stayed there. While staying there, they fought one another over the crocodile.' [ulwa002_00:46]

As with the form *p-* 'be', the use of the form *wap* 'be.PST' may at times be ambiguous between locative predication and existential predication, as in (48) and (49).

(48) *Anmoka mï apa **mawap** i.*
    *anmoka mï   apa   **ma=wap**   i*
    snake   3SG.SUBJ house 3SG.OBJ=be.PST go.PFV
    'There was a snake in the house, [but it] left.' [elicited]

(49) *Inim mï awal ini mawat **wap**.*
    *inim mï   awal   ini   ma=wat   **wap***
    water 3SG.SUBJ yesterday ground 3SG.OBJ=atop be.PST
    'There was water on the ground yesterday.' [elicited]

It is perhaps possible for the past-tense locative verb form *wap* 'be.PST' to be used as a copular verb (i.e., for non-locative predication, such as classificatory, equative, or attributive predication), but the only examples of this that I have seen come from targeted elicitation and may not be representative of traditional or naturalistic speech. Sentences (50), (51), and (52) provide examples of copular uses of *wap* 'be.PST'.

(50) *Kowe mï **atuma wap**.*
    *Kowe   mï   atuma   **wap***
    [name] 3SG.SUBJ older.brother be.PST
    'Kowe was an older brother.' [elicited]

(51) *Itom mï **ambi wap**.*
    *itom   mï   ambi **wap***
    father 3SG.SUBJ big   be.PST
    'Father was big.' [elicited]

(52) *Banjiwa mï **ankam anma wap** amun tembip.*
    *Banjiwa mï   ankam anma **wap**   amun tembi=p*
    [name] 3SG.SUBJ person good be.PST now   bad=COP
    'Banjiwa was a good person, but now he is bad.' [elicited]

12.5 Complex predicates

There are two relatively common auxiliary-verb constructions in Ulwa, both of which appear to be relatively recently innovated. One of these constructions, which uses the verb 'go' as an auxiliary to signal future time, parallels similar developments of motion verbs in other languages, such as several European languages. The other construction, which involves the locative/copular form *wap* 'be.PST' is suspected to be a more recent contact-induced innovation.

The imperfective or irrealis form of *ma-* 'go' may be used as an auxiliary verb along with an irrealis form of a main verb to signal the future, nearly paralleling the English periphrastic future construction with *going to* and an infinitive. These Ulwa future constructions are illustrated in examples (53) through (57).

(53) *Nï ma na **tana man**.*
    *nï ma   na **ta-na ma-n***
    1SG 3SG.OBJ talk say-IRR go-IPFV
    'I am going to tell its story.' [ulwa015_00:10]

(54) *Un **maytana man**.*
    *un ma=**ita-na**   **ma-n***
    2PL 3SG.OBJ=build-IRR go-IPFV
    'You are going to build it.' [ulwa014_71:48]

(55) *Wombïn ambi nga **ina mane**.*
    *wombïn ambi nga   **i-na**   **ma-n-e***
    work   big   SG.PROX come-IRR go-IPFV-DEP
    'This big work is going to come.' [ulwa014_10:52]

(56) *Ndï men **pïna mane**.*
    *ndï ma=in   **p-na** **ma-n-e***
    3PL 3SG.OBJ=in be-IRR go-IPFV-DEP
    'They are going to stay inside it.' [ulwa032_55:38]

(57) *Apwanam ita wa **mapïna mane**.*
    *apwanam   i-ta   wa ma=**p-na**   **ma-n-e***
    side.of.house go.PFV-COND just 3SG.OBJ=be-IRR go-IPFV-DEP
    'If [you] go to the side of the house, [you] are just going to stay there.'
    [ulwa014_36:15]

Examples such as (56) and (57), in which the main verb is the static locative verb *p-* 'be', illustrate the purely temporal or modal use of this verb *ma-* 'go' – that is, a use without any sense of motion. While the imperfective form of *ma-* 'go' is most often used in these constructions, it is alternatively possible to use an irrealis (or even conditional) form of the verb, as shown by (58) and (59).

(58) *U angos **tïna mana**?*
    *u   angos **tï-na**   **ma-na***
    2SG what take-IRR go-IRR
    'What could you be going to get?' [ulwa032_00:32]

(59) *Una tïmbïl men **pïta manata** …*
      unan   tïmbïl ma=in   **p-ta**   **ma-na-ta**
      1PL.INCL fence 3SG.OBJ=in be-COND go-IRR-COND
      'If we are going to be within the fence …' [ulwa037_22:31]

While it is theoretically possible that perfective forms of the verb may be used
in such constructions as well (i.e., the suppletive form *i* 'go.PFV'), I do not have
clear examples of this. Some apparent examples of periphrastic future construc-
tions with *i* 'go.PFV' are in fact constructions with purpose clauses, which also
contain irrealis verb forms. For example, sentences (60) and (61) are not analyzed
as periphrastic future constructions, but rather as purpose constructions.

(60) *Ala **unanwalinda** i.*
      ala   **unan=wali-nda** i
      PL.DIST 1PL.INCL=hit-IRR go.PFV
      'Those people have come to fight us.' [ulwa014_03:08]

(61) *Min tïlwanï wandam **kolnda** iye.*
      min tïlwa=nï   wandam **kol-nda** i-e
      3DU road=OBL jungle   split-IRR go.PFV-DEP
      'The two went to split the jungle from the path.' (i.e., to clear a trail)
      [ulwa014_33:09]

Indeed, it is often difficult to determine whether a 'going' verb is marking futu-
rity or purpose. This is perhaps unsurprising, if one assumes the likely historical
change of: verb of motion > purpose > future. In examples (62) and (63), the
English translations capture the ambiguity well. In (62), a reading in which the
'going' verb marks futurity would suggest that the first clause is counterfactual.

(62) *Ndï apïn anul **landa mane** mï ipka i.*
      ndï apïn=n anul   **la-nda ma-n-e**   mï   ipka   i
      3PL fire=OBL grassland eat-IRR go-IPFV-DEP 3SG.SUBJ before go.PFV
      'They were going to burn the grassland, but he went ahead [of them].'
      [ulwa001_13:01]

(63) *Magendo lol **amblawalinda** mane.*
      *Magendo ala=ul   **ambla=wali-nda** ma-n-e*
      [place] PL.DIST=with PL.REFL=hit-IRR go-IPFV-DEP
      '[They] were going to fight with the people from Magendo [village].'
      [ulwa002_05:11]

Whereas only *ma-* 'go' seems to be permitted in periphrastic future construc-
tions, it is possible for other motion verbs to indicate purpose as well, such as
the verb *lo-* 'cut, go' and *in-* 'come', as seen in (64) and (65).[5]

(64) *Wongïta man **matïna lope**.*
      wongïta ma=n   **ma=atï-na**   **lo-p-e**
      bow   3SG.OBJ=OBL 3SG.OBJ=take-IRR go-PFV-DEP
      '[I] went to hit it with [my] bow.' [ulwa037_03:16]

(65) *Ndït **ndïnanda** ndïnap **ine**.*
      ndï=tï   **ndï=na-nda** ndï=nap **i-n-e**
      3PL=take 3PL=give-IRR 3PL=for come-PFV-DEP
      '[They] came for their sake to give them [= fish] to them [= their people].'
      [ulwa032_48:36]

The other major auxiliary-verb construction in Ulwa employs the locative verb
wap 'be.PST' (§12.4) as the auxiliary verb (perhaps better considered an auxiliary
particle, since it does not inflect). This construction is discussed in §17.3.

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[5]It should be noted, however, that the exact syntactic nature of these purpose constructions is
not entirely clear. It seems that only motion verbs permit this embedded clause structure to
express purpose. Elsewhere, the clause indicating purpose simply follows the clause detailing
the action performed for that purpose (see §6.6).

13 Clause-level syntax

This chapter provides an overview of the syntax of Ulwa at the level of the single clause. The interaction of multiple clauses is the focus of Chapter 14.

13.1 Basic constituent order

The minimal constituents of an intransitive clause are a subject (S) and a verb (V); a transitive clause consists of these two elements as well as an object (O). Stated in terms more agnostic with respect to notions of subjecthood and objecthood, an intransitive clause consists of a single argument (S) and a verb (V), whereas a transitive clause consists of a more agent-like argument (A), a more patient-like argument (P), and a verb (V). The basic ordering of these elements is given in (1).

(1) Basic constituent order
     Intransitive clauses: SV
     Transitive clauses: SOV   (APV)

Although various pragmatic factors may affect the ordering (or overt expression) of elements in a clause, Ulwa nevertheless has a fairly rigid ordering of constituents. The order presented in (1) is used for essentially all active-voice clauses. In the intransitive clauses presented in (2) through (6), the subject is in **bold**. The verb is always the final element of the clause.

(2) ***Alum mï*** *sap.*
     alum mï   *sa-p*
     child 3SG.SUBJ cry-PFV
     'The baby cried.' [elicited]

(3) ***Anmoka*** *i.*
     anmoka *i*
     snake   go.PFV
     'The snake left.' [elicited]

(4) **Ndï** *wowe.*
     ndï *wow-e*
     3PL sleep-IPFV
     'They are sleeping.' [elicited]

(5) **Jukan mï** *mbïp.*
     Jukan mï *mbï-p*
     [name] 3SG.SUBJ here-be
     'Jukan is here.' [elicited]

(6) **Alum** *uleplïnda.*
     alum *ulep-lï-nda*
     child jump-put-IRR
     'The child will jump.' [elicited]

In the transitive clauses given in (7), (8), and (9), the subject (or more agentive participant) is in **bold**, and the object (or more patientive participant) is underlined. The verb is always the final element of the clause.[1]

(7) **Itom mï** <u>*uta*</u> *walinda.*
     itom mï <u>*uta*</u> *wali-nda*
     father 3SG.SUBJ bird hit-IRR
     'Father will shoot a bird.' [elicited]

(8) **Alimban mï** <u>*apa mayte.*</u>
     Alimban mï <u>*apa*</u> <u>*ma=ita-e*</u>
     [name]   3SG.SUBJ <u>house</u> 3SG.OBJ=build-IPFV
     'Alimban is building the house.' [elicited]

(9) **Apa mï** <u>*alum masap.*</u>
     apa   mï <u>*alum*</u> <u>*ma=asa-p*</u>
     house 3SG.SUBJ child 3SG.OBJ=hit-PFV
     'The house killed the child.' (e.g., by falling on him) [elicited]

As is suggested by example (9), in which the subject/agent is inanimate and the object/patient is animate, notions of agentivity or patientivity are not intrinsic

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[1]Note that object-marker clitics have been underlined in examples (8) and (9), although they cliticize to the following verb. See §9.2 for more on object markers and §11.2 for a discussion of their syntactic place within the verb phrase.

to NPs based on their referents. That is, principles such as the animacy hierarchy (Silverstein 1976) play no role in determining constituent order (or core argument alignment, §13.2) in Ulwa.

This S(O)V order is rigid for most clause types. However, it is possible for the subject (S) constituent to be omitted when its referent is clear from context. Ulwa may thus be considered a pro-drop language. However, while subjects may be omitted, it is not common for objects to be omitted: a transitive clause generally must, at the very least, contain an object marker proclitic. Sentences (10) through (20) illustrate sentences with unexpressed subjects.

(10)   *Wop.*
     wo-p
     sleep-PFV
     '[He] slept.' [ulwa001_10:46]

(11)   *Yawe mankap.*
     ya-we   ma=nïkï-p
     coconut-sago 3SG.OBJ=dig-PFV
     '[He] made the coconut-sago pancake.' [ulwa001_10:44]

(12)   *Lïmndï wapa ngalala.*
     lïmndï wapa ngala=ala
     eye   leaf PL.PROX=see
     '[He] saw these leaves.' [ulwa001_10:16]

(13)   *Wombasame maya iye.*
     Wombasame ma=iya   i-e
     [name]   3SG.OBJ=toward go.PFV-DEP
     '[She] went to Wombasame.' [ulwa001_15:30]

(14)   *Wolka manji numan andanap i.*
     wolka ma-nji   numan anda=nap i
     again 3SG.OBJ-POSS husband SG.DIST=for go.PFV
     '[She] went [home] again for the sake of her husband.' [ulwa032_11:03]

(15)   *Wambana ndïmokop.*
     wambana ndï=moko-p
     fish   3PL=take-PFV
     '[They] caught fish.' [ulwa001_07:01]

(16) *Mol mbiye.*
　　ma=ul 　　　*mbï-i-e*
　　3SG.OBJ=with here-go.PFV-DEP
　　'[They] came with her.' [ulwa014_16:01]

(17) *Manji inom ambi manji wandam may.*
　　ma-nji 　　　*inom* 　*ambi ma-nji* 　　　*wandam ma=i*
　　3SG.OBJ-POSS mother big 　3SG.OBJ-POSS jungle 　3SG.OBJ=go.PFV
　　'[We] went to her aunt's garden.' [ulwa032_21:50]

(18) *We ndït akïnakape.*
　　we 　*ndï=tï* 　*akïnaka=p-e*
　　sago 3PL=take young=COP-DEP
　　'[We] took the sago starch when [we] were young.' [ulwa014_00:13]

(19) *Manji alum mat inde.*
　　ma-nji 　　　*alum ma=tï* 　　*inda-e*
　　3SG.OBJ-POSS child 3SG.OBJ=take walk-IPFV
　　'[I] carried her child around.' [ulwa032_16:32]

(20) *Ko angwena man inim atïna ne?*
　　ko 　*angwena ma=n* 　　　*inim atï-na na-i*
　　just why 　3SG.OBJ=OBL water hit-IRR DETR-go.PFV
　　'Why did [you] just go to throw it in the water?' [ulwa032_28:44]

Sometimes, in transitive clauses, emphasis can be placed on an object by fronting it to the beginning of the clause. Even in such instances, however, the order of the clause (following this arguably preclausal element) is usually still SOV, since the referent of the fronted object invariably appears again in the clause, marked by an agreement marker immediately preceding the verb, as in examples (21) through (24).

(21) **Nïnji alum ndï** *nï Wopata ndape* **ndinap.**
　　nï-nji 　　*alum ndï* *nï* *Wopata anda=p-e* 　　　**ndï=ina-p**
　　1SG-POSS child 3PL 1SG [place] SG.DIST=be-DEP 3PL=get-PFV
　　'My children – I had them when I was there at Wopata.' [ulwa014_02:23]

(22) **Talamba ulum ala** *ndï* **ndïnap** *amblawale.*
　　Talamba ulum ala 　　*ndï* **ndï=nap** *ambla=wali-e*
　　[place] 　palm PL.DIST 3PL 3PL=for 　PL.REFL=hit-IPFV
　　'Those palms at Talamba – they were fighting on account of them.'
　　[ulwa034_00:03]

(23) ***Nïpïl ala*** *ala* ***ndïwale.***
      nïpïl ala   *ala*   ***ndï=wali-e***
      vine   PL.DIST PL.DIST 3PL=hit-IPFV
      'Those vines – people used to beat them.' [ulwa036_01:23]

(24) ***Nïnji yenat ngala*** *nï nan* ***ndït:*** ...
      nï-nji ***yenat*** ***ngala*** *nï* *na=n* ***ndï=ta***
      1SG-POSS daughter PL.PROX 1SG talk=OBL 3PL=say
      'My daughters – I told them: ...' [ulwa037_40:26]

Thus Ulwa maintains a fairly rigid SOV order. This rigidity is not surprising, considering the absence of verbal subject agreement, core argument case morphology, and other clues as to the grammatical relations of NPs – that is, whether they are subjects or objects. Thus, almost every indicative main clause with overtly expressed NPs follows this pattern, as do other clause types, such as interrogative sentences[2] (§15.1) and imperative sentences[3] (§15.2). The most notable divergences from this pattern occur in passive constructions. In passive constructions, the basic constituent order is VS (see §15.7).

13.2 Core argument alignment

The three basic core arguments of all clause types may be considered to be S, A, and P (25).[4]

(25) The three basic core arguments
      S: the single argument of an intransitive clause
      A: the more agent-like argument of a transitive clause
      P: the more patient-like argument of a transitive clause

In Ulwa, the S and A arguments pattern alike in every way – syntactically, morphologically, and phonologically. Moreover, TAM distinctions have no effect on the marking strategies of core arguments. Nor are arguments marked differently based on different verb classes. Ulwa may thus be considered to exhibit nominative-accusative alignment. It is therefore convenient and unproblematic to use terms like "subject" and "object" to refer to various NPs in Ulwa.

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[2]In other words, there is no *wh*-movement for content questions or inverted word order for polar questions.

[3]The subject need not be expressed in second person imperatives, but – when present – it always precedes the object and verb

[4]P is also sometimes identified as O in the literature.

S and A occur in the same position in the clause (namely, clause-initially), whereas P occurs after S and before the verb. Since there is no core-argument case morphology in Ulwa, it is generally fruitless to talk about "nominative" and "accusative" or "ergative" and "absolutive" NPs in Ulwa (at least in terms of morphological marking). There is, however, one important distinction found in 3sg pronouns and determiners (i.e., subject markers and object markers). Whereas the 3sg subject form is /mï/, the 3sg object form is /ma=/ (26). The fact that third-singular S and A NPs are both marked with *mï* '3sg.subj', whereas third-singular P NPs are marked with *ma=* '3sg.obj' is further indication of accusative alignment.

(26) The form of 3sg pronouns/determiners
      S: *mï*
      A: *mï*
      P: *ma=*

Since this nominative/accusative morphological contrast is only apparent with 3sg forms (whether pronouns or NPs marked with these postnominal determiners), we can say that Ulwa exhibits neutral alignment through most of its argument flagging: 1st and 2nd person pronouns, non-singular 3rd person pronouns, and non-singular NPs do not exhibit morphological differences based on their roles as S, A, or P arguments.

Finally, there is no evidence of Ulwa exhibiting syntactic ergativity (Dixon 1979: 62–63). Thus, for example, in coordinate constructions (§14.1), coreference is possible between S and A but not between S and P. In (27), the omitted S argument of the second clause must be understood to refer to the stated A argument (*yana* 'woman') of the first clause.

(27) *Yana mï yata masap i.*
      yana   mï   yata ma=asa-p   i
      woman 3sg.subj man 3sg.obj=hit-pfv go.pfv
      'The woman hit the man [and] [the woman/*the man] left.' [elicited]

Similarly, in sentence (28), the A argument Kolpe must be understood to be the omitted S argument of the second clause, and it would be impossible for the P argument *mana* 'spear' to be understood as such.

(28) *Kolpe mana motoplïp liyu.*
      Kolpe   mana ma=top-lï-p   li-u
      [name] spear 3sg.obj=throw-put-pfv down-put
      'Kolpe threw the spear [but] [Kolpe/*the spear] fell.' [elicited]

There is also no indication of split-intransitivity or related alignment types in the language (i.e., there is no active-stative/semantic/fluid alignment in Ulwa), nor is there any sign of direct-inverse alignment based on animacy or any other hierarchy. That is, all types of S arguments pattern more closely with A arguments than with P arguments, regardless of semantics or other criteria. Thus, S arguments of clauses are alike both syntactically and morphologically, irrespective of whether they are more agentive (i.e., unergative) (29) or more patientive (i.e., unaccusative) (30).

(29) *Alum mï uleplïp.*
    alum mï   ulep-lï-p
    child 3SG.SUBJ jump-put-PFV
    'The child jumped.' [elicited]

(30) *Alum mï liyu.*
    alum mï   li-u
    child 3SG.SUBJ down-put
    'The child fell.' [elicited]

This universal treatment of S arguments holds for all NPs, whether full NPs, as in (29) and (30), or pronominal NPs, as in (31) and (32).

(31) *Nï amun natan.*
    nï   amun na-ta-n
    1SG now   DETR-say-IPFV
    'I am speaking now.' [elicited]

(32) *Nï amun kïkalwana.*
    nï   amun kïkal-wana
    1SG now   ear-feel
    'I am listening now.' [elicited]

Finally, S and A arguments are also alike in that both S and A arguments can be relativized, whereas P arguments cannot be relativized (§14.3). Neither S nor A arguments can be passivized, whereas P arguments can be passivized (§15.7).

13.3 Ditransitive alignment

As well as considering the morphosyntactic patterning of S, A, and P arguments, some typologists analyze the relationships among arguments in ditransitive constructions. Typological endeavors such as Malchukov et al. (2010) have largely

focused on dative constructions – that is, constructions in which something is given from one participant to another. In some languages, these constructions make use of ditransitive verbs, which take three arguments: A, R, and T (33). The question of interest is whether the P argument of a monotransitive verb patterns more like the R argument or the T argument of a ditransitive verb (it is not ever known to pattern like the A argument).

(33)   The three basic arguments associated with 'giving' events
       A: agent (the giver)
       R: recipient (the receiver)
       T: theme (the gift)

In Ulwa, however, there are no ditransitive verbs. In short, there is no word 'give' in the sense of English *give*, which may, in some uses, be considered ditransitive (as in sentences such as *John gave Mary a rose*). To express 'giving' events in Ulwa, two verbs are needed: one verb generally has the meaning 'take', and has as its object an NP with a theme role (the 'gift'); the other verb is usually *na-* 'give',[5] which has as its object an NP with a recipient role (the receiver). Sentence (33) refers to a 'giving' event.

(34)   *Yata mï awal ya **mat** yananu **manana**.*
       *yata mï   awal   ya   ma=**tï**   yananu ma=**na**-na*
       man 3SG.SUBJ yesterday coconut 3SG.OBJ=take woman 3SG.OBJ=give-PFV
       'Yesterday the man gave the woman a coconut.' [elicited]

Given the nature of real-world scenarios involved in the act of giving, it is common for sentences referring to 'giving' events to include three participants: giver (agent), recipient (benefactive), and gift (theme). As such, these three participants are often all expressed in Ulwa 'giving' constructions, generally through the use of at least two verbs. It is, however, possible for the verb *na-* 'give' to occur without any other verb encoding the theme argument; in such instances, the only two roles expressed (as determined by the verb's argument structure) are the giver (the grammatical subject) and the recipient (the grammatical object), as in (35) and (36).

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[5]It should be noted that the fact that the (monotransitive) verb glossed as 'give' has as its (sole) object a recipient does not imply any sort of ditransitive alignment between R and P arguments. The verb *na-* 'give', despite being glossed for convenience as 'give', is not equivalent to the English word *give*. There is, however, unfortunately, no basic monotransitive English word with which to gloss this monotransitive Ulwa word, which means something more like 'endow' (although even this English gloss is not a very good match, since it can have as its object NP either a recipient or a theme).

(35) **Manata** *we mï man ulum ndïnalin.*
ma=na-ta   *we mï*   *ma=n*   *ulum ndï=n*   *ali-n[da]*
3SG.OBJ=give-COND then 3SG.SUBJ 3SG.OBJ=OBL palm 3PL=OBL scrape-IRR
'If [they] give her [it], then she will scrape sago palms with it.'
[ulwa022_00:18]

(36) **Ndïnane** *mane ndï ndame.*
ndï=na-n-e   *ma-n-e*   *ndï ndï=ama-e*
3PL=give-PFV-DEP go-IPFV-DEP 3PL 3PL=eat-IPFV
'Going and giving them, they would eat them.' [ulwa018_03:20]

When the theme (gift) is also overtly expressed, it is necessary to use another
verb. The verb that is most commonly used along with *na-* 'give' in these con-
structions is the verb *tï-* 'take' (see §6.3). This first verb, *tï-* 'take', has as its object
the theme (that which is given), whereas the second verb, *na-* 'give', has as its
object the beneficiary (to whom something is given), as in examples (37) through
(44).

(37) *Alma mï lamndu* **matï** *Kongos* **manan**.
*Alma   mï   lamndu ma=**tï***   *Kongos ma=**na**-n*
[name] 3SG.SUBJ pig   3SG.OBJ=take [name] 3SG.OBJ=give-PFV
'Alma gave a pig to Kongos.' (Literally 'Alma took a pig; [Alma] gave
Kongos.') [elicited]

(38) *Ndït wa ne* **ndït** *nïnji inom* **manana**.
ndï=tï   wa   na-i   *ndï=**tï**   nï-nji   inom*
3PL=take village DETR-go.PFV 3PL=take 1SG-POSS mother
*ma=**na**-na*
3SG.OBJ=give-PFV
'[He] brought them home and gave them to my mother.' (Literally 'took
them; gave my mother') [ulwa013_01:22]

(39) *Ngan tana* **mat manan**.
*ngan   tana ma=**tï***   *ma=**na**-n*
1DU.EXCL axe 3SG.OBJ=take 3SG.OBJ=give-PFV
'We gave him the axe.' (Literally 'We took the axe; [we] gave him.')
[ulwa014†]

(40)   *Wawana mu **kot manane**.*
       wawana   mu ko=tï   ma=na-n-e
       plant.species fruit INDF=take 3SG.OBJ=give-PFV-DEP
       '[They] gave him a fruit.' [ulwa020_02:01]

(41)   *Imba pïta wondi **andat unananda**.*
       imba p-ta   wondi   anda=tï   unan=na-nda
       night be-COND bandicoot SG.DIST=take 1PL.INCL=give-IRR
       'When night comes, [he] will give us that bandicoot.' [ulwa029_05:31]

(42)   *An ango **kumat unanda**!*
       an   ango kuma=tï   u=na-nda
       1PL.EXCL NEG some=take 2SG=give-IRR
       'We won't give you any!' [ulwa032_56:30]

(43)   *Mu **kumatï nïnan**!*
       mu   kuma=tï   nï=na-n
       seed some=take 1SG=give-IMP
       'Give some seeds to me!' [ulwa037_55:02]

(44)   *Ndï yena **ndït ndïnane** ndï ndul wop.*
       ndï yena   ndï=tï   ndï=na-n-e   ndï ndï=ul   wo-p
       3PL woman 3PL=take 3PL=give-PFV-DEP 3PL 3PL=with sleep-PFV
       'They gave the women to them and they slept with them.'
       [ulwa002_06:08]

Since the verb *tï-* 'take' is often defective, as in most of examples (37) through
(44), it looks very much like these are separable verb constructions (§11.2.1). How-
ever, given the verbal nature of *tï-* 'take', these 'giving' constructions can instead
be described as a modest form of serial verb constructions.[6] Even if we are to con-
sider these 'giving' constructions to be instances of serial verb constructions in
Ulwa, then verb serialization is certainly not a productive syntactic construction
– if it indeed exists in the language, then it is restricted to encoding what might
be considered "ditransitive events".

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[6]Although not quite fitting some stricter criteria for serial verb constructions (Aikhenvald 2006:
8), since (as a defective verb) *tï-* 'take' does not match *na-* 'give' in its TAM marking, these Ulwa
'giving' constructions qualify as such under definitions such as Haspelmath's (2016: 296): "a
monoclausal construction consisting of multiple independent verbs with no element linking
them and with no predicate-argument relation between the verbs". That said, when it lacks
TAM marking, *tï-* 'take' is not clearly finite.

Furthermore, there are some instances in which it seems best to analyze Ulwa 'giving' constructions as consisting of two separate clauses. When the first verb *tï-* 'take' is marked for TAM, it must also receive the dependent marker *-e* 'DEP' (§14.2.1), proving, as it were, that this verb belongs to a separate clause. This may be seen in sentence (45).

(45) *Uma **ndïtïne** Wombasame **manane** mï ndïn ne.*
      uma   ndï=**tï-n**-e   Wombasame ma=**na-n**-e   mï
      bone 3PL=take-PFV-DEP [name]   3SG.OBJ=give-PFV-DEP 3SG.SUBJ
      ndï=n   ni-e
      3PL=OBL act-IPFV
      '[They] gave the bones to Wombasame, and he began playing with them.'
      [ulwa001_00:47]

Sentence (45) may be rendered more literally as: 'After [they] took the bones, and after [they] gave Wombasame, he was acting with them.' Finally, it should be said that the instances in which *tï-* 'take' does not receive any TAM marking could be considered a very modest form of clause chaining, although, if so, then there would be only one medial clause involved (see §14.4 for more on possible clause-chaining structures in Ulwa). Furthermore, the fact the *tï-* 'take' is so often defective even in monoverbal, monoclausal sentences makes its putative dependence on the "final verb" less diagnostic.

It is possible to form other (multi-verb) 'giving' constructions in Ulwa with other (inflected) verbs that mean 'take'. In sentences (46) and (47), the verb *moko-* 'take', which often has the sense 'take one by one', is used along with the verb *na-* 'give'.

(46) *Mï ani **ndïmokop ndïnana**.*
      mï   ani   ndï=**moko-p** ndï=**na-na**
      3SG.SUBJ bilum 3PL=take-PFV 3PL=give-PFV
      'He gave them the *bilum* [= string bags] [one by one].' [ulwa001_04:59]

(47) *Ndït wa i ndïweyawe **ndïmoke** lapun **ndïnane**.*
      ndï=tï   wa   i   ndï=we-aw-e   ndï=**moko**-e lapun
      3PL=take village go.PFV 3PL=cut-put.IPFV-DEP 3PL=take-DEP old
      *ndï=**na**-n-e*
      3PL=give-PFV-DEP
      '[They] used to bring them home, cut them, and give them out to the old people.' (*lapun* = TP) [ulwa029_01:46]

Example (46) could be analyzed as a serial verb construction if it is assumed that the two verbs belong to a single clause. Indeed, they even match in terms of TAM marking. In example (47), however, the verb *moko-* 'take' is marked as belonging to a different clause. Moreover, it does not share TAM marking with *na-* 'give', suggesting that this is not a serial verb construction.

The combination of *moko-* 'take' and *na-* 'give' is often used to describe the distribution or sharing of items, typically with a reflexive object form preceding the verb *na-* 'give', as in (48), (49), and (50).

(48) *Ndï ndït anmbïlïp **ndïmoke amblanane**.*
　　 ndï ndï=tï 　 an-mbï-li-p 　　 ndï=moko-e **ambla**=na-n-e
　　 3PL 3PL=take out-here-put-PFV 3PL=take-DEP PL.REFL=give-PFV-DEP
　　 'They got them out and were sharing them among themselves.'
　　 [ulwa014_29:45]

(49) *Ndï ilum **moke amblanane**.*
　　 ndï ilum moko-e 　 **ambla**=na-n-e
　　 3PL little take-DEP PL.REFL=give-PFV-DEP
　　 'They would share little [pieces] with each other.' [ulwa029_02:35]

(50) 　 *Ndï atuma wot ala mundu **moke amblanane**.*
　　 ndï atuma 　　　 wot 　 ala 　　 mundu moko-e **ambla**=na-n-e
　　 3PL older.brother younger PL.DIST food 　 take-DEP PL.REFL=give-PFV-DEP
　　 'They, those brothers, shared the food.' [ulwa033_01:03]

Also, although not necessarily common, it is possible for *na-* 'give' to follow a verb in the preceding clause that means something other than 'take'. For example, the verb *na-* 'give' may follow the verbs *wana-* 'cook' (51) or *nïkï-* 'dig, cut' (52).

(51) *Ma isi **wanap** yawa **lananda**.*
　　 ma 　 isi 　 **wana**-p yawa ala=**na**-nda
　　 3SG.OBJ soup cook-PFV uncle PL.DIST=give-IRR
　　 '[They] will cook her soup and give [it] to the uncles.' [ulwa014_38:05]

(52) *An keka **mankap ndïnan**.*
　　 an 　　 keka 　 ma=**nïkï**-p 　 ndï=**na**-n
　　 1PL.EXCL completely 3SG.OBJ=dig-PFV 3PL=give-PFV
　　 'We butchered it and gave it out completely to them.' [ulwa014_47:37]

While 'giving' is the prototypical event to be encoded by ditransitive construc-
tions (in languages that exhibit them), there are other verbs that are likely to
function similarly crosslinguistically. In the remainder of this section I describe
how 'showing' events are encoded in Ulwa. Whereas 'giving' events in Ulwa are
encoded with two transitive verbs (typically *tï-* 'take' and *na-* 'give'), 'showing'
events are encoded with a single intransitive verb (*si-* 'push'). In other contexts,
this verb is used transitively (53), often in conjunction with the verb *lï-* 'put', to
covey the sense of something being pushed upon something else, as in (54) and
(55), or in conjunction with the preverbal form [ikali] (literally 'hand-send') to
convey the act of grabbing, holding, or catching, as in (56) and (57).[7]

(53)   *Ndin u itïtïl **ndïse**.*
       *ndï=in u   itïtïl ndï=**si**-e*
       3PL=in from dust 3PL=push-IPFV
       '[I] was pushing the dust out from them.' (i.e., shaking out the dust)
       [ulwa037_57:21]

(54)   *Unap **ndïs** apïn **lïp**.*
       *u=nap   ndï=**si**   apïn **lï**-p*
       2SG=for 3PL=push fire   put-PFV
       '[They] put them on the fire for you.' [ulwa014_36:41]

(55)   *Nawoli mangusuwa imbake apa i wutï **si nimbamlïp**.*
       *Nawoli ma-ngusuwa imba-ka-e   apa   i   wutï **si***
       [name] 3SG.OBJ-poor night-at-DEP house go.PFV leg   push
       *nï=imbam-**lï**-p*
       1SG=under-put-PFV
       'Nawoli, the poor thing, came to [my] house at night and put [his] legs
       under me.' [ulwa014_22:02]

(56)   *Nungol mï **ikali mas**.*
       *nungol mï   **i-kali**   ma=**si***
       child   3SG.SUBJ hand-send 3SG.OBJ=push
       'The son grabbed it.' [ulwa006_00:47]

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[7]Like *tï-* 'take', *si-* 'push' is often defective in that it commonly lacks perfective or imperfective
   aspect marking.

(57) *U wa li mama **ikali masina**?*
  u   wa   li   ma=ma   **i-kali**   ma=**si**-na
  2SG just down 3SG.OBJ=go hand-send 3SG.OBJ=push-IRR
  'You'll just go down there and grab it?' [ulwa014_64:44]

When used to encode a 'showing' event, however, the verb *si-* 'push' is intransitive: the agent (the one showing) is the subject of the verb; the theme (that which is shown) is marked by the oblique marker *=n* 'OBL'; and the experiencer (the one to whom something is shown) is the object of the postposition *ul* 'with'. The preferred order of these two non-core arguments is for the oblique-marked noun phrase to precede the postpositional phrase. Literally such sentences may be rendered as '[agent] pushes with [theme] (along) with [experiencer]'. They may be seen in examples (58) through (62).

(58) *Gwam mï tawa **man** Mapana **mol si**.*
  Gwam   mï   tawa   ma=**n**   Mapana   ma=**ul**   si
  [name] 3SG.SUBJ wound 3SG.OBJ=OBL [name] 3SG.OBJ=with push
  'Gwam showed her wound to Mapana.' [elicited]

(59) *Gwam mï tawa **ndïn** yena **minul sina**.*
  Gwam   mï   tawa   ndï=**n**   yena   min=**ul**   si-na
  [name] 3SG.SUBJ wound 3PL=OBL mother 3DU=with push-IRR
  'Gwam will show her wounds to the two women.' [elicited]

(60) *Gwam mï tawa **ndïn** ndï wopa **lu se**.*
  Gwam   mï   tawa   ndï=**n**   ndï wopa **lu**   si-e
  [name] 3SG.SUBJ wound 3PL=OBL 3PL all   with push-IPFV
  'Gwam is showing her wounds to everyone.' [elicited]

(61) *Maya apa i lïmndï **man mol si**.*
  ma=iya   apa   i   lïmndï ma=**n**   ma=**ul**   si
  3SG.OBJ=toward house go.PFV eye   3SG.OBJ=OBL 3SG.OBJ=with push
  '[It] went to him in the house, and showed him [its] eye.' [ulwa006_08:05]

(62) ***Man ndul si**.*
  ma=**n**   ndï=**ul**   si
  3SG.OBJ=OBL 3PL=with push
  '[He] showed it to them.' [ulwa037_25:03]

13.4 Obliques

Following from the discussion on possible ditransitive alignment (§13.3), there is no language-internal reason to refer to any arguments as indirect objects in Ulwa. The canonical placement of subjects is at the beginning of clauses, and the canonical placement of (direct) objects is immediately preceding verbs (which are typically clause-final). All other non-verbal elements in a clause (i.e., noun phrases that are neither subjects nor objects, plus adverbs and adpositional phrases) may be referred to as obliques. In Ulwa, obliques typically follow subjects and precede verbs (in intransitive clauses) or follow subjects and precede objects (in transitive clauses).

13.4.1 The oblique marker *=n* 'OBL'

The clearest illustrations of the position and function of obliques in Ulwa are NPs that contain the enclitic form *=n* 'OBL', which may be considered an oblique marker. When following a noun phrase, this oblique-marker enclitic *=n* 'OBL' can be described as something like a non-core case marker. It often encodes instrumental functions, and may, in origin, be an instrumental marker. Synchronically, however, it can serve other semantic and grammatical functions, none of which relates to indicating a core argument. The oblique marker is realized by a set of similar allomorphs, which are mostly in free variation (63).

(63)   The oblique-marker enclitic

    =n   'OBL'
    =nï   'OBL'
    =ïn   'OBL'

    In examples (64) through (69), the oblique NP marked by *=n* 'OBL' appears after the subject (if expressed) and before the object of the verb.

(64)   *Itom **napnï** uta masap.*
    itom   *nap=**nï***   *uta* *ma=asa-p*
    father arrow=OBL bird 3SG.OBJ=hit-PFV
    'Father shot the bird with an arrow.' [elicited]

(65)   *Mï **manji sina man** mundu maweyup.*
    mï   *ma-nji*   *sina* *ma=**n***   *mundu* *ma=we-u-p*
    3SG.SUBJ 3SG.OBJ-POSS knife 3SG.OBJ=OBL food   3SG.OBJ=cut-put-PFV
    'He cut the food with his knife.' [elicited]

(66) *Anton mangusuwata **inimnï** ananap.*
     *Anton   ma-ngusuwata inim=**nï**   an=ana-p*
     [name] 3SG.OBJ-poor   water=OBL 1PL.EXCL=scrub-PFV
     'Anton, the poor thing, baptized us.' (Literally 'scrubbed us with water')
     [ulwa014_50:58]

(67) *Nï **anamnï** ndatïna.*
     *nï   anam=**nï**   ndï=atï-na*
     1SG lightning=OBL 3PL=hit-IRR
     'I will strike them with lightning.' [ulwa014†]

(68) *Mï **yotnï** masap.*
     *mï   yot=**nï**   ma=asa-p*
     3SG.SUBJ machete=OBL 3SG.OBJ=hit-PFV
     'He hit it with [his] machete.' [ulwa035_02:25]

(69) *Nïnji apa may nji **ndïn** apa up.*
     *nï-nji   apa   ma=i   nji   ndï=**n**   apa   u-p*
     1SG-POSS house 3SG.OBJ=go.PFV thing 3PL=OBL house put-PFV
     '[I] went to my house and put things in the house.' [ulwa040_00:17]

Note the argument structure of the word glossed as 'put' in (69): the object of
the verb is the place where the item is put; the theme is expressed in the oblique
phrase (cf. the argument structure of the English verb *load*). Similarly, the word
glossed as 'tie' in (70) takes as object the thing to which something is tied; that
which is tied is encoded in the oblique phrase.

(70) *Lamndu nungol kosape an **man** im itap.*
     *lamndu nungol ko=asa-p-e   an   ma=**n**   im ita-p*
     pig   child   INDF=hit-PFV-DEP 1PL.EXCL 3SG.OBJ=OBL tree tie-PFV
     '[They] killed a small pig and we tied it to stick.' [ulwa031_03:51]

Obliques may occur within compound verb phrases or between verbs func-
tioning together in complex verb phrases. Examples (71) and (72) illustrate non-
instrumental uses of the oblique marker: in (71) it has more of a comitative mean-
ing, whereas in (72) it has more of a benefactive meaning (see §13.4.2).

(71) *Wa ala lïmndï **unanï** mbu mawte.*
     *wa   ala   lïmndï unan=**nï**   mbï-u   ma=uta-e*
     village PL.DIST eye   1PL.INCL=OBL here-from 3SG.OBJ=grind-IPFV
     'Those [people from other] villages see it here among us.'
     [ulwa037_23:05]

(72) *Mint **ambïn** ani menlïp.*
    *min=tï   ambï=**n**   ani   ma=in-lï-p*
    3DU=take sg.REFL=OBL bilum 3SG.OBJ=in-put-PFV
    '[I] put them into the *bilum* [= string bag] for myself.' [ulwa037_01:57]

The oblique-marked NP may occur alongside other non-core elements in a clause, such as postpositional phrases. Postpositional phrases may either precede oblique-marked NPs – as in (73) and (74) – or follow them – as in (75) and (76) – but they always occur between subjects and objects.

(73) *Nï **mol apïnï** mame.*
    *nï   **ma=ul**   **apïn=nï** ma=ama-e*
    1SG 3SG.OBJ=with fire=OBL 3SG.OBJ=eat-IPFV
    'I burn it with him.' (Literally 'I eat it with [= by means of] fire with [= along with] him.') [ulwa014_13:05]

(74) *Nï **mawl ndïn** mbup.*
    *nï   **ma=ul**   **ndï=n**   mbï-u-p*
    1SG 3SG.OBJ=with 3PL=OBL here-put-PFV
    'I planted them here with him.' [ulwa014_54:28]

(75) ***Ndïn** maka **ya** ndiya ata unde.*
    ***ndï=n**   maka **ya**   **ndï=iya**   ata unda-e*
    3PL=OBL thus   coconut 3PL=toward up go-IPFV
    'With them [= straps around their feet] [they] would go up coconut trees like that.' [ulwa018_01:05]

(76) *Ala **nïn amba ngo** numbu lïp itana man.*
    *ala   **nï=n**   **amba**   **nga=u**   numbu lï-p   it-ana*
    PL.DIST 1SG=OBL mens.house sg.PROX=from post   put-PFV build-IRR
    ma-n
    go-IPFV
    'They are going to tie me to a post in this men's house.' [ulwa001_14:14]

The negator *ango* 'NEG' typically follows subjects (when expressed), but precedes any oblique NPs, as in (77), (78), and (79).

(77) *U **ango inambanï** ini men.*
    *u   **ango inamba=nï** ini   ma=in*
    2SG NEG   money=OBL ground 3SG.OBJ=get
    'You did not buy the land.' (Literally 'get the land with money')
    [ulwa014_27:11]

(78)   ***Ango*** *maka **nginï** ute.*
       ango *maka **ngin=nï** uta-e*
       NEG   thus   net=OBL   grind-IPFV
       '[They] didn't catch [fish] with the nets.' [ulwa036_02:24]

(79)   ***Ango man*** *ambi itanate.*
       ango ma=n   *ambi ita-na-t-e*
       NEG   3SG.OBJ=OBL   big   build-IRR-SPEC-DEP
       '[I] won't build it [too] big.' [ulwa042_05:46]

Example (79) also illustrates the preverbal placement of an adjective when functioning adverbially (§10.2.6) and the effect of this on the semantic object of the verb: it is demoted to an oblique, being marked by the oblique marker *=n* 'OBL'. This phenomenon also occurs in (80), (81), and (82).

(80)   *Ndï ango **ndïn** anma asap.*
       *ndï ango **ndï=n**   anma asa-p*
       3PL   NEG   3PL=OBL   good   hit-PFV
       'They did not kill them well.' [ulwa032_54:25]

(81)   *U mat inde **man** anma tï inde.*
       *u   ma=tï   inda-e   **ma=n**   anma tï   inda-e*
       2SG 3SG.OBJ=take walk-DEP 3SG.OBJ=OBL good   take walk-DEP
       'You carry her, carry her well.' [ulwa032_35:58]

(82)   *Apa mï ndï **man tembi** itap.*
       *apa   mï   ndï   **ma=n**   **tembi** ita-p*
       house 3SG.SUBJ 3PL 3SG.OBJ=OBL bad   build-PFV
       'The house – they built it poorly.' [ulwa014_31:08]

The same demotion that occurs with adjectives functioning adverbially also occurs when there is an intervening adpositional phrase (see §15.8.9 for examples).

13.4.2 The oblique marker as case marker

As described in §13.4.1, the primary function of the oblique-marker enclitic *=n* 'OBL' is to encode non-core NPs. These oblique-marked NPs may serve a number of functions in a clause, many of which are reminiscent of case-marked NPs in languages that employ grammatical case. Specifically, the marker *=n* 'OBL' has

certain functions that resemble those of dative markers found in other languages (although, importantly, it does not mark the recipient in 'giving' constructions, §13.3). Three such dative-like uses of *=n* 'OBL' are listed in (83).

(83)   Dative-like uses of *=n* 'OBL'
        - indicate possessors
        - indicate agents
        - indicate those to whose disadvantage something is done

The use of the enclitic *=n* 'OBL' to encode possessors is discussed in §11.1.5.[8] For the role of the enclitic *=n* 'OBL' in marking agents in passive constructions, see §15.7.[9] In examples (84), (85), and (86), the oblique marker indicates disadvantage.[10]

(84)   *Mï **unan** mawat pe wombïn ne.*
       *mï   unan=**n**   ma=wat   p-e   wombïn=n ni-e*
       3SG.SUBJ 1PL.INCL=OBL 3SG.OBJ=atop be-DEP work=OBL act-IPFV
       'He is hurting us by doing work during it [= this period of mourning].'
       [ulwa030_05:00]

(85)   *Tembi nji ngala apan **ndïn** mbïlïp.*
       *tembi nji   ngala   apa=n   ndï=**n**   mbï-lï-p*
       bad   thing PL.PROX house=OBL 3PL=OBL here-put-PFV
       'These bad things [= flies] have put [their] house [i.e., nest] here to their disadvantage.' [ulwa032_30:19]

(86)   *Ndï mokum **anïn** wandam pe ndam!*
       *ndï mokum an=**ïn**   wandam p-e   ndï=ama*
       3PL stealth 1PL.EXCL=OBL jungle   be-DEP 3PL=eat
       'They are stealthily in [our] jungles, eating them [= our crops]!'
       [ulwa032_38:45]

Sometimes, as in example (86), it is not clear whether the oblique marker is encoding a possessor or the experiencer of some disadvantage. In (87), the oblique-marked NP indicating disadvantage stands in its own embedded clause, taking as its predicate the locative verb *p-* 'be'.

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[8]Cf. the dative of possession in classical Latin.
[9]Cf. the dative of the agent in ancient Greek.
[10]Cf. the dative of disadvantage in Latin, Greek, German, etc.

(87) *Ala **anïn pe** ndïwale.*
    *ala   an=**ïn**   p-e   ndï=wali-e*
    PL.DIST 1PL.EXCL=OBL be-DEP 3PL=hit-IPFV

    'People were killing them [= our dogs], while we were there suffering for it.' [ulwa032_11:43]

In (88), the dative of disadvantage usage of the oblique marker has an almost predicative sense.

(88) *Nïpokonampïta **un** mapïna.*
    *nïpokonam=p-ta u=**n**   ma=p-na*
    hard=COP-COND 2SG=OBL 3SG.OBJ=be-IRR

    'If [the soil] is hard, [it] will be no good for you.' (Literally 'If hard, [it] will be there to your disadvantage.') [ulwa037_50:58]

Some of the various uses of the oblique marker *n as found in different Keram-Ramu languages is provided in Killian & Barlow (2022: 54–55).

13.4.3 Other oblique arguments

Other non-core elements (namely, adverbs and adpositional phrases) also typically occur between subjects and objects. For examples of this SXOV word order, see §10.1 (on postpositions) and §10.2 (on adverbs). When a clause contains both an adverb and an adpositional phrase, the adverb typically precedes the adpositional phrase, as in (89).

(89) *Mï **awal wandam mo** lop.*
    *mï   **awal**   **wandam ma=u**   lo-p*
    3SG.SUBJ yesterday jungle   3SG.OBJ=from go-PFV

    'Yesterday, he went around in jungle.' [ulwa014_10:31]

It is possible for several obliques to occur in succession, as in (90), which contains a temporal adverb, an oblique-marked NP, a postposition, and a modal adverb.

(90) *Un **amun man u maka** wombïn ngamokop.*
    *un **amun ma=n**   **u**   **maka** wombïn nga=moko-p*
    2PL now 3SG.OBJ=OBL from thus   work   SG.PROX=take-PFV

    'You recently got this work from him.' [ulwa037_19:23]

13.5 Non-canonical argument structures

While Ulwa generally maintains a fairly rigid and unified distinction between S/A arguments and P arguments, there is one known construction that exhibits an unusual argument structure. In expressions of experiencing hunger, the experiencer role is not the grammatical subject but is rather the object of the verb, whereas 'hunger' itself is the grammatical subject. In other words, there is a special case frame for expressing the experience of hunger, which takes the form of 'hunger hits someone' (as opposed to, say, 'someone is hungry' or 'someone has hunger'). This is illustrated by examples (91), (92), and (93).[11]

(91) ***Mundu unanas***.
    mundu *unan=**asa***
    hunger 1PL.INCL=hit
    'We're hungry.' [ulwa030_06:13]

(92) *An mbïlop wop **mundu anase**.*
    *an   mbï-lo-p   wo-p   **mundu** an-**asa**-e*
    1PL.EXCL here-go-PFV sleep-PFV hunger 1PL.EXCL-hit-IPFV
    'We came here, spent the night, and we were hungry.' [ulwa032_07:38]

(93) ***Mundu watïna***.
    mundu *u=**atï**-na*
    hunger 2SG=hit-IRR
    'You will be hungry.' [ulwa037_44:21]

Although the experiencer is always encoded as the object of the verb, it is common for it also to be included as an additional subject argument, as in (94) and (95).

(94) ***Nï** ango mundu **nïwale**.*
    nï *ango mundu **nï**=wali-e*
    1SG NEG hunger 1SG=hit-IPFV
    'I wasn't hungry.' [ulwa014†]

(95) *Nï ndïn ka mata **ndï** mundu **ndatïna**.*
    *nï ndï=n   ka ma-ta   **ndï** mundu **ndi**=atï-na*
    1SG 3PL=OBL let go-COND 3PL hunger 3PL=hit-IRR
    'If I leave them and go, they will be hungry.' [ulwa027_00:49]

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[11]It should be noted that the form *mundu* 'hunger' also means 'food' or 'animal'.

When the experiencer is a full NP, it is common to include this argument in subject position – that is, before the grammatical subject of the verb 'hit' (i.e., before the noun *mundu* 'hunger'). The object marker, however, which refers to the experiencer argument, occurs in object position, cliticizing to the verb, as in (96).

(96) ***Nïnji nungolke ngala** mundu **ndasape**.*
      *nï-nji   nungolke ngala   mundu **ndï**=asa-p-e*
      1SG-POSS child   PL.PROX hunger 3PL=hit-PFV-DEP
      'My children were hungry.' [ulwa032_22:53]

Occasionally a verb other than 'hit' is used in expressing hunger, as in (97), which uses the verb *a-* 'break' (i.e., 'hunger is breaking us').

(97) *Unan mbïpe mane **mundu unanay**.*
      *unan   mbï-p-e   ma-n-e   **mundu** unan=a-e*
      1PL.INCL here-be-DEP go-IPFV-DEP hunger 1PL.INCL-break-IPFV
      'But we are going around here and hunger is breaking us.'
      [ulwa037_44:32]

It is relevant to note that, although the noun *mundu* 'hunger' is the grammatical subject in these constructions, it almost never receives a subject-marker determiner, perhaps because of its low level of specificity or definiteness (see §9.2).

Aside from this one hunger construction, there does not seem to be a robust morphosyntactic distinction made in Ulwa between predicates expressing controlled events and predicates expressing uncontrolled events or states. Other expressions of physical or emotional states, such as pain, sickness, anger, and sadness, are not expressed with the experiencer as the grammatical object, as is done for expressions of hunger. For example, pain is usually expressed by predicating *apïn* 'pain' (literally 'fire') of the person or body part that is experiencing pain (98).

(98) *Nïnji uma ngala **apïnpe**.*
      *nï-nji   uma ngala   **apïn**=p-e*
      1SG-POSS bone PL.PROX fire=COP-DEP
      'These bones of mine were hurting.' [ulwa032_18:52]

Anger may be expressed by predicating the adjective *matamal* 'sharp; difficult, angry' of the person experiencing anger (99).

(99)   *Itom mï **matamalp**.*
       itom   mï   **matamal**=p
       father 3SG.SUBJ sharp=COP
       'Father is angry.' [elicited]

More commonly, however, anger is expressed by means of a verbal expression with *uni-* 'shout'. In (100), the literal expression 'shout for [something]' or 'shout on account of [something]' conveys the meaning 'be angry about [something]'. In (101), the literal expression 'shout with [someone]' conveys the meaning 'be angry with [someone]'.

(100)   *Mï ndïnap **unipe**.*
        mï   ndï=nap **uni**-p-e
        3SG.SUBJ 3PL=for shout-PFV-DEP
        'She was angry about them [= seeds].' [ulwa014_12:24]

(101)   *We nï mol **une**.*
        we   nï   ma=ul   **uni**-e
        then 1SG 3SG.OBJ=with shout-IPFV
        'Then I got angry with her.' [ulwa032_02:13]

See §7.4 for other expressions of emotional and physical states.

13.6 Monoclausal sentences (simple sentences)

A simple sentence in Ulwa thus consists minimally of one subject and one predicate. Since subjects may be pronominal and since subject pronouns may be omitted, it is possible for only the predicate to be overt in the clause.

The predicate consists minimally of a verb, whether transitive or intransitive. A transitive verb has an object within its phrase and may have object markers preceding it. TAM suffixation may appear on the verb. A predicate may contain more than one verb. There are also a number of compound verbs consisting of discontinuous elements, between which objects may occur.

The subject, too, when overt, may consist of multiple elements; these typically comprise noun phrases. Subjects often contain subject markers following the head of the NP. Other determiners – that is, in addition to subject markers and object markers – are possible as well, whether as part of the subject or as part of the object in a transitive verb phrase.

In addition to the basic elements of the subject and the verb phrase (which, if transitive, also contains an object), the monoclausal sentence may contain obliques. These typically occur between the subject and object, yielding a canonical word order of SXOV.

14 Complex sentences

In this chapter I examine how clauses are combined in Ulwa to form complex sentences. The combination of clauses of equal grammatical status (coordination) is discussed in §14.1. Then, in §14.2, I consider Ulwa's means for showing the dependence of one clause on another (subordination). One special subtype of subordinate clause (the relative clause) is investigated in §14.3. A very restricted form of clause chaining is discussed in §14.4.

14.1 Coordination

There is no lexical class ofcoordinators or coordinating conjunctions in Ulwa – that is, there are, generally speaking, no words equivalent to the English word *and* used to connect elements of equal grammatical status, whether to link words within a phrase, phrases within a clause, or clauses within a sentence. Coordination (at all syntactic levels) is accomplished through parataxis – coordinate elements are presented one after the other without any morphological connector, whether bound morpheme or independent word.[1]

14.1.1 Coordination within phrases

Before examining coordination between clauses, I consider how elements within phrases may be coordinated, starting with nouns within a noun phrase. Nouns are coordinated within a noun phrases without any overt conjunction or morphosyntactic marking to indicate conjunction. When the total number of referents among the coordinated nouns in the NP equals two, then the entire NP may receive dual subject marking or object marking. When the total number of referents is more than two, then the NP may receive plural subject marking or object marking. Examples (1) through (5) illustrate NPs in which two nouns are coordinated.

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[1]There are, however, some possible exceptions to this generalization: speakers commonly borrow Tok Pisin conjunctions while speaking Ulwa; and there is also a rather infrequently used word *ma* 'and', which I suspect to be a recent innovation (§14.1.3.)

(1) ***Dimes Susan min*** *luke i mapta minji itana mane.*
Dimes Susan min *luke i   ma=p-ta   min-nji ita-na*
[name] [name] 3DU too go.PFV 3SG.OBJ=be-COND 3DU-POSS build-IRR
ma-n-e
go-IPFV-DEP
'If Dimes and Susan go there, too, [then they] are going to build their
[house there].' [ulwa042_06:08]

(2) ***Imnde ame latï*** *inde.*
imnde ame ***ala=tï***   *inda-e*
basket basket PL.DIST=take walk-IPFV
'[They] carried around baskets.' [ulwa014_67:27]

(3) ***Yeta yena la*** *nakuklunda.*
yeta yena ***ala***   *na-kuk-lu-nda*
man woman PL.DIST DETR-gather-put-IRR
'The boys and girls would gather.' [ulwa032_43:37]

(4) *Manji* ***atana atuma ndiya*** *wa i.*
ma-nji   ***atana***   ***atuma***   ***ndï=iya***   *wa*   *i*
3SG.OBJ-POSS older.sister older.brother 3PL=toward village go.PFV
'[He] went to his older brothers and sisters in the village.'
[ulwa001_03:35]

(5) *Nïtïne nïnji* ***wutï i*** *tembipe.*
nï=tï-n-e   *nï-nji* ***wutï i***   *tembi=p-e*
1SG=take-PFV-DEP 1SG-POSS leg   hand bad=COP-DEP
'When it got me, my legs and arms were injured.' [ulwa026_00:15]

Although the noun phrase in (6) has exactly two referents, the plural subject
marker *ndï* '3PL' is used (§11.1.2).

(6) ***Bill Elvis ndï*** *molop.*
Bill   ***Elvis***   ***ndï*** *ma=lo-p*
[name] [name] 3PL 3SG.OBJ=go-PFV
'Bill and Elvis went there.' [ulwa037_47:30]

Sentences (7) and (8) provide examples of more than two nouns being coordi-
nated within a single NP.

(7) ***Awaka Mukamba Kawat ndï*** *mol i.*
Awaka Mukamba Kawat ndï *ma=ul*   *i*
[name] [name]   [name] 3PL 3SG.OBJ=with go.PFV
'Awaka, Mukamba, and Kawat came with him.' [ulwa002_03:27]

(8) ***Anapa yawa ngata ndunduma ndï*** *wopa malanda.*
anapa yawa ngata ndunduma   ***ndï*** *wopa ma=la-nda*
sister   uncle grand great-grandparent 3PL all   3SG.OBJ=eat-IRR
'Sisters, uncles, grandparents, and great-grandparents would all eat it.'
[ulwa014_65:02]

Pronouns may also signal coordination, namely, in inclusory constructions, whereby a non-singular referent is signaled by the juxtaposition of one or more referents with either a dual or plural pronoun immediately following it. In (9), the pronoun *an* '1PL.EXCL' signals the inclusion of the speaker in the set of 'we'.

(9) ***Ganmali Dumngul an*** *molop lilïp.*
Ganmali Dumngul an   *ma=lo-p*   *li-lï-p*
[name]   [name]   1PL.EXCL 3SG.OBJ=cut-PFV down-put-PFV
'Ganmali, Dumngul, and I cut it down.' [ulwa032_55:45]

Sentences (10) and (11) exemplify the use of dual inclusory pronouns.

(10) ***Manama ngant:* ...**
Manama ngan=ta
[name]   1DU.EXCL=say
'[He] told Manama and me: ...' [ulwa014_22:14]

(11) ***Awandana nganwe*** *indape ngan iwa tï ndïnambïlïp indap.*
Awandana ngan-we   *inda-p-e*   *ngan*   *iwa*   *tï*
[name]   1DU.EXCL-PART.INT walk-PFV-DEP 1DU.EXCL basket take
ndï=nambï-lï-p   *inda-p*
3PL=skin-put-PFV walk-PFV
'When Awandana and I alone went, we two got the fish trap, blocked them, and went.' [ulwa036_03:23]

Inclusory constructions are probably not structurally distinct from associative plural constructions (§9.1).

Adjectives may also be coordinated. In example (12), two adjectives that are functioning as nouns are coordinated in the same NP.

(12)　**Njukuta ambi** *nen.*
　　　njukuta ambi *na-i-n*
　　　small　　big　　DETR-come-PFV
　　　'Both big and small [people] came.' [ulwa029_03:52]

Adjectives may also be coordinated within a single noun phrase headed by a single noun. Multiple adnominal adjectives can be coordinated within subject NPs, as in (13), as well as within object NPs, as in (14) and (15), or in isolated noun phrases, as in (16).

(13)　*Tïn* **mbunmana ambi** *mï unip.*
　　　tïn **mbunmana ambi** *mï* 　　*uni-p*
　　　dog black　　big　　3SG.SUBJ shout-PFV
　　　'The big, black dog barked.' [elicited]

(14)　*Nï lïmndï wambana* **ambi anma** *mala.*
　　　nï 　*lïmndï wambana* **ambi anma** *ma=ala*
　　　1SG eye　　fish　　big　　good　3SG.OBJ=see
　　　'I saw a nice, big fish.' [elicited]

(15)　*Tïmbïl* **ambi nïpat ngata** *ndaytana.*
　　　tïmbïl **ambi nïpat ngata** *anda=ita-na*
　　　fence big　　giant grant　SG.DIST=build-IRR
　　　'[You] will build that big, huge, giant fence.' [ulwa042_00:43]

(16)　*Tokples* **njukuta ilum** *wa ndïtane.*
　　　tokples **njukuta ilum** *wa* 　*ndï=ta-n-e*
　　　tokples small　　little　just 3PL=say-IPFV-DEP
　　　'Little, short *tokples* [= vernacular] stories – [I] am just telling them.'
　　　(*tokples* = TP) [ulwa032_14:59]

Example (17) illustrates coordinated predicative adjectives.

(17)　*Namndu mï* **ambi ngatape.**
　　　namndu mï 　　**ambi ngata=p-e**
　　　pig　　3SG.SUBJ big　　grand=COP-DEP
　　　'The pig was really big.' [ulwa037_03:21]

Verb phrases may also be coordinated. When multiple verbs are truly coordinated in the same verb phrase, then the TAM marking should match on all the verbs, as in (18) and (19).

(18) *Alimban mï lamndu **masap mamap**.*
*Alimban mï   lamndu **ma=asa-p   ma=ama-p***
[name] 3SG.SUBJ pig   3SG.OBJ=hit-PFV 3SG.OBJ=eat-PFV
'Alimban killed and ate the pig.' [elicited]

(19) *Yawana mï utam **mawanap mamap**.*
*Yawana mï   utam **ma=wana-p   ma=ama-p***
[name] 3SG.SUBJ yam 3SG.OBJ=cook-PFV 3SG.OBJ=eat-PFV
'Yawana cooked and ate the yam.' [elicited]

The first verb may be unmarked, however, especially if it is an occasionally defective verb (§6.3), as in (20) and (21).

(20) *Min ko **mas mamap**.*
*min ko **ma=asa   ma=ama-p***
3DU just 3SG.OBJ=hit 3SG.OBJ=eat-PFV
'The two killed and ate it.' [ulwa001_00:44]

(21) *Guren mï lïmndï lamndu **mala masap**.*
*Guren mï   lïmndï lamndu **ma=ala   ma=asa-p***
[name] 3SG.SUBJ eye   pig   3SG.OBJ=see 3SG.OBJ=hit-PFV
'Guren saw and killed the pig.' [elicited]

Moreover, there should be no dependent marking (§14.2) on anything other than the final verb in the phrase. Of course, given the homophony of the imperfective and dependent forms (/-e/), it is sometimes difficult to determine whether a verb is receiving imperfective marking (§6.4), dependent marking (§14.2.1), or both. In (22), I analyze *wali-* 'hit' as taking the imperfective suffix *-e* 'IPFV'.

(22) *Lamndu **wale ndame**.*
*lamndu **wali-e   ndï=ama-e***
pig   hit-IPFV 3PL=eat-IPFV
'[They] would kill and eat pigs.' [ulwa014_62:54]

Although it is common for both verbs in a coordinated phrase to receive object marking, this is not mandatory: in example (22), only the second of the two coordinated verbs takes the object marker.

14.1.2 Coordination of clauses

If a sentence contains two verbs that have different objects, then it is assumed that the coordination occurs not between two verbs within a single verb phrase but rather between two verb phrases. However, it is not always clear whether there are two verb phrases being coordinated within a single clause or there are two clauses being coordinated within a larger sentence. This is because it is common in Ulwa to omit subjects (§13.1). Thus, although example (23) is translated as though the coordination occurs within a single clause, it could alternatively be the case that there are two full clauses being coordinated, but that the subject in the second clause is omitted (i.e., 'Alimban killed the pig and [he] cooked the meat').

(23)   *Alimban mï **lamndu masap mundu nduwanap**.*
       *Alimban mï   lamndu ma=**asa**-p   mundu ndï=**wana**-p*
       [name] 3SG.SUBJ pig   3SG.OBJ=hit-PFV food   3PL=cook-PFV
       'Alimban killed the pig and cooked the meat.' [elicited]

This point leads to the focus of this section: the coordination of clauses in Ulwa. When two clauses are presented on equal grammatical footing, there is no distinction made between the two. They are presented paratactically, one after the other, without any dependent marking – that is, Ulwa employs asyndetic coordination, as illustrated by sentences (24), (25), and (26).

(24)   *Mangusuwa as mï nip.*
       [ma-ngusuwa asa] [mï   ni-p]
       [3SG.OBJ-poor hit] [3SG.SUBJ die-PFV]
       '[They] struck the poor thing and he died.' [ulwa037_30:42]

(25)   *Nï mbïwap mokotïp.*
       [nï   mbï-wap]   [ma=kot-p]
       [1SG here-be.PST] [3SG.OBJ=break-PFV]
       'I stayed here and [I] bore her.' [ulwa014†]

(26)   *Mangusuwa mbïwap mï amun naman.*
       [ma-ngusuwa mbï-wap]   [mï   amun na-ma-n]
       [3SG.OBJ-poor here-be.PST] [3SG.SUBJ now   DETR-go-IPFV]
       'The poor thing stayed here and today she's leaving.' [ulwa032_06:25]

Sentences (24), (25), and (26) are all translated with 'and'. Coordinated clauses can have concessive (i.e., 'but') senses as well. Again, this is achieved without any overt coordinating conjunction (27).

(27) *Mï ango maka Nïmalnu wa map mï nay.*
    [mï   ango maka Nïmalnu wa   ma=p]   [mï
    [3SG.SUBJ NEG thus Manu   village 3SG.OBJ=be] [3SG.SUBJ
    na-i]
    DETR-go.PFV]
    'He didn't stay in Manu village, but he went.' [ulwa023_00:32]

Coordination of clauses is not, however, especially common: speakers gener-ally prefer to mark one or more clauses as dependent (§14.2).

14.1.3 Other means of coordination

It is common for speakers to borrow words from Tok Pisin when coordinated structures are desired, especially when they are disjunctive (i.e., 'or') structures, as in sentences (28), (29), and (30), which borrow Tok Pisin *o* 'or'.

(28) *U wandam mana **o** nï wandam mana.*
    *u   wandam ma-na **o** nï   wandam ma-na*
    2SG jungle   go-IRR or 2SG jungle   go-IRR
    'Either you will go to the jungle or I will go to the jungle.' (*o* < TP *o* 'or')
    [elicited]

(29) *Wambana tïn malanda **o** an ma wanwane angop i ndïwanap ndïlanda.*
    *wambana tï-n   ma=la-nda   **o** an   ma wanwane*
    fish   take-PFV 3SG.OBJ=eat-IRR or 1PL.EXCL go mushroom
    ango-p   i   ndï=wana-p   ndï=la-nda
    pull.out-PFV go.PFV 3PL=cook-PFV 3PL=eat-IRR
    'Either [they] would catch a fish and [we] would eat it or we would go, pick mushrooms, go cook them, and eat them.' (*o* < TP *o* 'or')
    [ulwa032_01:53]

(30) *Nï mana **o** nï mbïpïna nï ango kalam.*
    *nï ma-na **o** nï mbï-p-na   nï ango kalam*
    1SG go-IRR or 1SG here-be-IRR 1SG NEG knowledge
    'Should I go or should I stay? I don't know.' (*o* < TP *o* 'or')
    [ulwa037_49:07]

This Tok Pisin loanword *o* 'or' is used not only to connect clauses, but also to connect elements within phrases, as in (31), (32), and (33).

(31) *Kawana mï mïnda **o** utam amap.*
*Kawana mï   mïnda **o** utam ama-p*
[name] 3SG.SUBJ banana or yam eat-PFV
'Kawana ate either a banana or a yam.' (*o* < TP *o* 'or') [elicited]

(32) *U **o** nï wandam mana.*
*u **o** nï wandam ma-na*
2SG or 1SG jungle   go-IRR
'Either you or I will go to the jungle.' (*o* < TP *o* 'or') [elicited]

(33) *Mïnal **o** mil **o** utam **o** nongontam mï keka ndïn up.*
*mïnal **o** mil   **o** utam **o** nongontam mï   keka   ndï=n*
taro or sugarcane or yam or kaukau   3SG.SUBJ completely 3PL=OBL
u-p
put-PFV
'[Whether it be] taro or sugarcane or yam or *kaukau* [= sweet potato], he planted them all.' (*o* < TP *o* 'or') [ulwa006_02:53]

The Tok Pisin loanword *na* 'and' is also used in discourse to coordinate elements, whether words within a phrase (34), phrases within a clause, or clauses within a sentence (35).

(34) *Bopten **na** Yar ngusuwa ndï wome mat ndïnane.*
*Bopten **na** Yar   ngusuwa ndï wome ma=tï   ndï=na-n-e*
[place] and [place] poor   3PL middle 3PL=take 3PL=give-PFV-DEP
'The poor [people from] Bopten and Yar gave them the middle [piece of land between Bopten and Yar villages].' (*na* < TP *na* 'and') [ulwa014_17:02]

(35) *Tïklika **na** anmbi.*
*tïkli-ka **na** an-mbï-i*
turn-let and out-here-go.PFV
'[I] turned and came out.' (*na* < TP *na* 'and') [ulwa040_00:32]

The borrowing of Tok Pisin loans for grammatical functions such as coordination is further described in Chapter 17.

Some speakers use *ma* 'and' in certain coordinate structures. This seems more frequent among younger speakers and is perhaps a recent innovation. It bears a superficial resemblance to Tok Pisin *na* 'and', but could instead be derived from

the object marker *ma=* '3sg.obj' or the subject marker *mï* '3sg.subj'.[2] Regardless
of its origins, as a connector within noun phrases, *ma* 'and' is limited in its usage,
appearing almost exclusively after proper names, as in sentences (36) through
(39).

(36) *Nicko **ma** Danny min niya i.*
    Nicko   **ma** *Danny* *min* *nï=iya*   *i*
    [name] and [name] 3du 1sg=toward go.pfv
    'Nicko and Danny came to me.' [ulwa014_40:02]

(37) *Pisuwa **ma** Yaluwa minul le.*
    Pisuwa **ma** *Yaluwa* *min=ul*   *lo-e*
    [name] and [name] 3du=with go-ipfv
    '[He] was following Pisuwa and Yaluwa.' [ulwa014_49:53]

(38) *Tupuk **ma** Bay min man mat.*
    Tupuk   **ma** *Bay*   *min* *ma=n*   *ma=ta*
    [name] and [name] 3du 3sg.obj=obl 3sg.obj=say
    'Tupuk and Bay told her.' [ulwa014†]

(39) *Nambul **ma** Wangasa min mawat pe ambinasap.*
    Nambul **ma** *Wangasa* *min* *ma=wat*   *p-e*   *ambin=asa-p*
    [name] and [name]   3du 3sg.obj=atop be-dep du.refl=hit-pfv
    'Nambul and Wangasa fought over it.' [ulwa014†]

The connector *ma* 'and' may be used to connect more than two proper noun
NPs, as in (40).

(40) *Lïmndï Ambayam **ma** Josephine **ma** Susan ndala.*
    lïmndï *Ambayam* **ma** *Josephine* **ma** *Susan*   *ndï=ala*
    eye   [name]   and [name]   and [name] 3pl=see
    '[I] saw Ambayam, Josephine, and Susan.' [ulwa037_02:03]

As a connector of NPs, *ma* 'and' may follow a proper noun even when the
other NP is a pronoun (41).

(41) *Donna **ma** ndï molop.*
    Donna   **ma** *ndï* *ma=lo-p*
    [name] and 3pl 3sg.obj=go-pfv
    'Donna and they went there.' [ulwa042_04:04]

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[2]This coordinator is sometimes pronounced in a seemingly reduced way as [mï].

As a clausal coordinator, *ma* 'and' may even be derived from *ma* 'go', perhaps calqued from Tok Pisin uses of *go* 'go' as a discourse connector. Sentence (42) suggests the ambiguity of the form [ma], which as a connector here could mean either 'go' or 'and'.

(42) *Ay nïkap **ma** ndïmokota ndïnata mana.*
      ay   nïkï-p   **ma**   ndï=moko-ta   ndï=na-ta   ma-na
      sago dig-PFV   and   3PL=take-COND   3PL=give-COND   go-IRR
      '[I] have made sago and will go and give them [= servings of sago] to
      them.' [ulwa013_01:03]

14.2 Subordination

Ulwa makes prolific use of clause-linking, connecting dependent clauses to fol-
lowing independent clauses (or to further dependent clauses) with the verbal
suffix *-e* 'DEP', which is glossed here as "dependent". The order of constituents in
a subordinate clause is the same as is found in main clauses (i.e., SOV). Comple-
ment clauses (i.e., clausal objects) occur in the same position as nominal objects
(i.e., between the subject and the verb of the matrix clause). There are no com-
plementizers in Ulwa.

14.2.1 The dependent marker *-e* 'DEP'

The dependent marker *-e* 'DEP' is a suffix that can affix to fully inflected verb
forms (that is, to verbs with TAM suffix marking).[3] The use of the dependent
marker in Ulwa is not considered an indication of the prototypical clause chain-
ing (or medial clauses) found in many languages of New Guinea, since the de-
pendent-marked verbs in these clauses do not have "more restricted structures",
nor do they indicate "switch reference" (Longacre 2007: 399). This is, neverthe-
less, clearly a kindred phenomenon. See §14.4 for what may be a better candidate
of clause chaining in Ulwa.

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[3]Whether the dependent marker *-e* 'DEP' affixes to the imperfective suffix *-e* 'IPFV' is, however,
an insoluble question, since a posited underlying form of /-e-e/ would reduce to [e]. In this
grammar, verbs with the form [stem][e] are glossed sometimes as '[stem]-IPFV' and sometimes
as '[stem]-DEP', according to context. At times the decision is arbitrary. The glossing should
never be taken to be a definitive statement on which of the two homophonous forms is being
used. Moreover, in many instances it is possible that both forms are underlyingly present in
the same verb form.

As just implied, the subject of the dependent clause may be the same as or different from the subject of a subsequent independent clause without any morphological indication one way or the other. When one clause is subordinated to another, it almost always precedes it. A subordinate clause marked by the dependent marker *-e* 'DEP' may bear one of a few semantic relations to the main clause on which it depends: causal (§14.2.2), concessive (§14.2.3), temporal (§14.2.4), and so on.[4]

14.2.2 Causal subordinate clauses

Sentences (43) through (48) contain dependent clauses that bear causal relations to their respective independent clauses.

(43) **Nïnji yanat mï tembipe** *nonganup.*
nï-nji   yanat   mï   tembi=p-e   *nongan-u-p*
1SG-POSS daughter 3SG.SUBJ bad=COP-DEP vomit-put-PFV
'My daughter vomited because she was sick.' (Literally 'Since my daughter was sick, she vomited.') [elicited]

(44) **Itom mundu mase** *utam mamap.*
itom   mundu ma=asa-e   *utam ma=ama-p*
father hunger 3SG.OBJ=hit-DEP yam 3SG.OBJ=eat-PFV
'Father ate the yam because he was hungry.' (Literally 'Since father was hungry, he ate the yam.') [elicited]

(45) **Nu pe** *Kumba la unanlu amblawale.*
nu   p-e   *Kumba ala   unan=lu   ambla=wali-e*
near be-DEP Bun   PL.DIST 1PL.INCL=with PL.REFL=hit-IPFV
'Since [Bun village] is close, the Bun people fight with us.' [ulwa014_24:48]

(46) **Nipe** *nganwe nini ngan mbïp.*
ni-p-e   *ngan-we   nini ngan   mbï-p*
die-PFV-DEP 1DU.EXCL-PART.INT two 1DU.EXCL here-be
'Since [our two siblings] have died, we two alone – we stay here.' [ulwa028_00:21]

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[4]Proto-Keram probably contrasted two dependent markers: *-a, which would have marked a sequential relationship to the following clause, and *-e, which would have marked a simultaneous relationship to the following clause. The Keram language Ambakich still retains the distinction (Barlow 2021: 74). In Ulwa, however, this contrast has been lost: the sole dependent marker *-e* 'DEP' can indicate either a sequential or a simultaneous temporal relationship, as well as other logical relationships between clauses.

(47) ***Ya ulwape*** *an wa inimnï ndïwane.*
ya **ulwa=p-e** *an* *wa inim=nï* *ndï=wana-e*
coconut nothing=COP-DEP 1PL.EXCL just water=OBL 3PL=cook-DEP
'Since there were no coconuts, we just cooked them in water.'
[ulwa032_01:25]

(48) ***Wanmbi ulwape*** *nï wa aw ngan wa akïnaka landa man.*
wanmbi ulwa=p-e *nï wa aw* *nga=n* *wa akïnaka*
daka nothing=COP-DEP 1SG just betel.nut SG.PROX=OBL just new
la-nda ma-n
eat-IRR go-IPFV
'Since there's no *daka* [= betel pepper], I'm just going to chew this betel
nut fresh.' (i.e., without *daka* pepper or lime) [ulwa037_35:03]

Instead of the dependent marker *-e* 'DEP', the conditional suffix *-ta* 'COND'
(§6.12, §15.5) may be affixed to the final verb in a dependent clause, providing
a similar causal function as the dependent marker *-e* 'DEP' (49).

(49) ***Unanji ngata lanji luwa lawapta*** *maka apa ndaytana.*
unan-nji *ngata ala-nji* *luwa ala=wap-**ta*** *maka*
1PL.INCL-POSS grand PL.DIST-POSS place PL.DIST=be.PST-COND thus
apa *anda=ita-na*
house SG.DIST=build-IRR
'Since those were our ancestors' lands, [we] will thus build that house.'
[ulwa037_38:58]

The conditional suffix *-ta* 'COND' is not known to co-occur with the dependent
marker *-e* 'DEP' (i.e., †/-ta-e/ 'COND-DEP' is unattested).

14.2.3 Concessive subordinate clauses

In sentences (50) and (51), the dependent clauses bear a concessive relation to
their associated independent clauses.

(50) ***Ndï ndïl kumat ine*** *kuma wa mïnwata wandam lïp.*
ndï ndï=lï kuma=tï i-n-e *kuma wa mïnwata wandam*
3PL 3PL=put some=take come-PFV-DEP some just rotting jungle
lï-p
put-PFV
'Although they have brought some of them [home], [they] have left
others just rotting in the jungle.' [ulwa032_54:29]

(51) ***Wot mï maka lïmndï matïne*** *atuma mï nupu matïn.*
wot   mï   maka lïmndï ma=tï-n-e   atuma
younger 3SG.SUBJ thus   eye   3SG.OBJ=take-PFV-DEP older.brother
mï   nupu ma=tï-n
3SG.SUBJ base 3SG.OBJ=take-PFV
'Whereas the younger [brother] got the eye [side of the coconut], the
older brother got the base [side of the coconut].' [ulwa010_01:22]

Much like causal subordinate clauses (§14.2.2), concessive subordinate clauses
may on occasion employ conditional suffixes in place of the dependent marker,
as in (52).

(52) ***Wa mïnomapïta ndin pïta*** *tem mat an mokolpe mï wa nambïtïn ninda!*
wa mïnoma=p-*ta*   ndï=in p-*ta*   tem ma=tï   an
just cold=COP-COND 3PL=in be-COND time 3SG.OBJ=take out
ma=kol-p-e   mï   wa nambït=ïn ni-nda
3SG.OBJ=break-PFV-DEP 3SG.SUBJ just smell=OBL act-IRR
'Even though [the meat] will get cold in them [= pots], when [you] have
taken it out and broken it, it will just smell [good]!' (*tem* < TP *taim* 'time')
[ulwa014_64:11]

Example (52) actually illustrates two dependent clauses in succession: the first,
a concessive clause, is marked by the conditional suffix *-ta* 'COND'; the second,
a temporal clause, is marked by the dependent marker *-e* 'DEP'. This temporal
clause contains the Tok Pisin loanword *taim* 'time' (> Ulwa *tem* 'time, when'),
here functioning as a subordinator. This loanword, however, is not needed to
form temporal subordinate clauses, as shown in §14.2.4.

14.2.4 Temporal subordinate clauses

In sentence (53), the dependent marker helps signal that the event referred to
in the dependent clause occurred simultaneously to the action of the associated
independent clause (i.e., signaling the sense of 'while').

(53) ***Plas mambi ango mbïpe*** *nji tïngïn up.*
Plas   ma-ambi   ango mbï-p-e   nji   tïngïn=n   u-p
[name] 3SG.OBJ-TOP NEG   here-be-DEP thing many=OBL put-PFV
'As for Plas, he didn't plant many things while he was here.' [ulwa014†]

This temporal sense is sometimes translated with 'when' in English (54).

(54) **An njukutape** *ndul inde.*
an **njukuta=p-e** *ndï=ul* *inda-e*
1PL.EXCL small=COP-DEP 3PL=with walk-IPFV
'When we were small, we went with them.' [ulwa029_00:56]

As with other subordinate clause types, it is possible in temporal constructions for the conditional suffix *-ta* 'COND' to occur at the end of the subordinate clause instead of the dependent marker *-e* 'DEP' (55).

(55) **Ala ndandïla mapta** *suwan ndïnap nawlunda mane.*
ala *ndï=andïla ma=p-**ta*** *suwan ndï=nap na-u-lo-nda*
PL.DIST 3PL=await 3SG.OBJ=be-COND rack 3PL=for DETR-from-cut-IRR
ma-n-e
go-IPFV-DEP
'So, while they are there waiting for them, [they] are going to cut [things] for the mesh racks.' [ulwa014_67:53]

Dependent marking can also be used when the action of the main clause occurred at a particular point in time simultaneous with that of the dependent clause, generally yielding an English translation with 'when', as in (56) and (57).

(56) **Nï tembipe** *u malasin alakali nïn anmbï lïp.*
nï **tembi=p-e** *u* *malasin ala=kali* *nï=n* *an-mbï* *lï-p*
1SG bad=COP-DEP 2SG medicine PL.DIST=send 1SG=OBL out-here put-PFV
'When I was sick, you sent medicine to me.' (*malasin* = TP *marasin*)
[ulwa026_00:03]

(57) **Anmbi atwana te** *ndï man nït.*
an-mbï-i *atwana ta-e* *ndï ma=n* *nï=ta*
out-here-go.PFV question say-DEP 3PL 3SG.OBJ=OBL 1SG=say
'When [I] came out and asked, they told me.' [ulwa037_39:36]

Very commonly, there is a simple sequential temporal relationship between a subordinate clause and the clause that follows it. That is, the dependent marker on the subordinate clause marks the event described within it as occurring before the event described in the associated independent clause, as in examples (58) through (64).

(58) ***Ala apïn mamape*** *nï wa mbi ndïmoni pe.*
ala   apïn=n ma=ama-p-e   nï wa mbï-i   ndï=moni
PL.DIST fire=OBL 3SG.OBJ=eat-PFV-DEP 1SG just here-go.PFV 3PL=between
p-e
be-IPFV
'After they burned it, I just came to this place and live among them.'
[ulwa014_22:24]

(59) ***Mï mawap liye*** *na ndïtïna.*
mï   ma=wap   li-i-e   na   ndï=tï-na
3SG.SUBJ 3SG.OBJ=be.PST down-go.PFV-DEP talk 3PL=take-IRR
'After he's stayed there and [then] come down, [he] will get the
conversations.' [ulwa014_33:58]

(60) ***Ndï ndamap inim lopop ataye*** *an anmbi uniya wa molop.*
ndï ndï=ama-p inim lopo-p   ata-i-e   an
3PL 3PL=eat-PFV water wash-PFV up-go.PFV-DEP 1PL.EXCL
an-mbï-i   un=iya   wa   ma=lo-p
out-here-go.PFV 2PL=toward village 3SG.OBJ=go-PFV
'After they ate them, washed and came up, we came out to you in the
village.' [ulwa032_24:43]

(61) ***Mï mankape*** *ndï moko amblanan.*
mï   ma=nïkï-p-e   ndï moko ambla=na-n
3SG.SUBJ 3SG.OBJ=dig-PFV-DEP 3PL take PL.REFL=give-PFV
'After he butchered it, they shared [it] among themselves.'
[ulwa035_05:29]

(62) ***Mbi wa mbï itape*** *ndï Yetani lan u matïn.*
mbï-i   wa   mbï ita-p-e   ndï Yetani ala=n   u
here-go.PFV village here build-PFV-DEP 3PL Yamen PL.DIST=OBL from
ma=tï-n
3SG.OBJ=take-PFV
'After [they] came here and made this village, they got it [= sorcery] from
the Yamen people.' [ulwa037_10:59]

(63) ***Nï inim lopope*** *nï mana.*
nï inim lopo-p-e   nï ma-na
1SG water wash-PFV-DEP 1SG go-IRR
'After I've bathed, then I will go.' [ulwa040_01:46]

(64) *Min anmbï naye an mïnanamape an tawnam nolop.*
      min an-mbï na-i-e   an
      3DU out-here DETR-go.PFV-DEP 1PL.EXCL

      mï=na-na-ama-p-e   an   tawnam na-u-lo-p
      3SG.SUBJ=DETR-DETR-eat-PFV-DEP 1PL.EXCL net   DETR-from-go-PFV

      'After the two came out, we ate, and then we went to [our] mosquito nets.'
      (*tawnam* = TP *taunam*) [ulwa041_01:20]

As example (64) illustrates, multiple dependent clauses may be strung together in succession.

It is never the case that a dependent-marked clause signals a time after the time of the independent clause. In other words, a dependent-marked clause will never be translated as 'before …'.

14.2.5 Tail-head linkage

Subordinate clauses marked with the dependent marker *-e* 'DEP' are used extensively in the rhetorical structure known as tail-head linkage, whereby the final clause of one sentence is more or less repeated at the start of the following sentence. In these structures, the final verb of the first sentence is fully repeated somewhere in the first clause of the second sentence (i.e., it has the same exact object marker and TAM suffix); the addition of the dependent marker *-e* 'DEP', however, allows the clause with the repeated verb to serve as a transition into a new independent clause. In tail-head linkage constructions, it is possible for the entire pivot to be repeated exactly, as in (65).

(65) *Min nay wambana ndutap. Min nay wambana ndutape wa namane.*
      min na-i   wambana ndï=uta-p   min na-i   wambana
      3DU DETR-go.PFV fish   3PL=grind-PFV 3DU DETR-go.PFV fish

      ndï=uta-p-e   wa   na-ma-n-e
      3PL=grind-PFV-DEP village DETR-go-IPFV-DEP

      'The two went and caught fish. After the two went and caught fish, [they] headed home.' [ulwa011_00:34]

It is more common, however, for the recapitulatory clause to be a reduced form of its model, eliding, for example, the subject or one or more coordinated verb phrases. Such reductions in tail-head linkage constructions may be seen in examples (66) through (70).

(66) *Mï **wolka nawow**. **Wolka nawowe** mï mala yana angla nol.*
  mï **wolka na-wow** **wolka na-wow-e** *mï*
  3sg.subj again detr-sleep.ipfv again detr-sleep.ipfv-dep 3sg.subj
  ma=ala *yana* *angla na-lo*
  3sg.obj=for woman await detr-go
  'Again it fell asleep. After again sleeping, it went searching for a wife for
  him.' [ulwa006_04:35]

(67) *Mï **mol wop**. **Mol wope** yana mï tïnanga lïmndï wa mala.*
  mï **ma=ul** **wo-p** **ma=ul** **wo-p-e** *yana*
  3sg.subj 3sg.obj=with sleep-pfv 3sg.obj=with sleep-pfv-dep woman
  mï *tïnanga lïmndï wa* *ma=ala*
  3sg.subj arise eye just 3sg.obj=see
  'She slept with him. Having slept with him, the woman got up and
  noticed him.' [ulwa006_05:09]

(68) *Mat i **matï nowe ndo malïp**. **Matï nowe ndo malïpe** mï mawat ɖe.*
  ma-tï *i* **ma=tï** **nowe** **anda=u**
  3sg.obj=take go.pfv 3sg.obj=take sago.species sg.dist=from
  ma=lï-p **ma=tï** **nowe** **anda=u**
  3sg.obj=put-pfv 3sg.obj=take sago.species sg.dist=from
  ma=lï-p-e *mï* *ma=wat* *ɖ-e*
  3sg.obj=put-pfv-dep 3sg.subj 3sg.obj=atop be-ipfv
  '[It] brought him and put him on a sago palm. Having put him on the
  sago palm, he stayed atop it.' [ulwa006_01:26]

(69) *Kowe mol anmbi **nïmal mbi**. **Nïmal mbiye** anmbïwap.*
  Kowe *ma=ul* *an-mbï-i* **nïmal mbï-i** *nïmal*
  [name] 3sg.obj=with out-here-go.pfv river here-go.pfv river
  mbï-i-e *an-mbï-wap*
  here-go.pfv-dep out-here-be.pst
  '[We] came out with Kowe, came here to the river. After coming here to
  the river, [we] stayed here.' [ulwa013_11:05]

(70) *Alkumot yana mï alum mokotïp mat **al malp. Al malpe** mï i.*
      *Alkumot yana   mï   alum ma=kot-p   ma=tï   **al***
      [name]   woman 3SG.SUBJ child 3SG.OBJ=break-PFV 3SG.OBJ=take net
      ma=lï-p   *al **ma=lï-p-e***   *mï   i*
      3SG.OBJ=put-PFV net 3SG.OBJ=put-PFV-DEP 3SG.SUBJ go.PFV
      'The woman Alkumot bore the child and put it in a mosquito net. Having
      put it in the mosquito net, she went.' [ulwa001_00:36]

It is also possible for multiple verbs in a single verb phrase to be repeated in
tail-head linkage patterns, as in (71).

(71) *Wondi mï i mawat **inmi may. Inmi maye** mï mïnda mokotïp **mat li lïp.**
      Mat li lïpe mï inmi mawap.*
      *wondi   mï   i   ma=wa   **inmi ma=i***   ***inmi***
      bandicoot 3SG.SUBJ go.PFV 3SG.OBJ=atop hole   3SG.OBJ=go.PFV hole
      ma=i-e   *mï   mïnda ma=kot-p   **ma=tï***
      3SG.OBJ=go.PFV-DEP 3SG.SUBJ banana 3SG.OBJ=break-PFV 3SG.OBJ=take
      li   lï-p   ma=tï   li   lï-p-e   *mï   inmi*
      down put-PFV 3SG.OBJ=take down put-PFV-DEP 3SG.SUBJ hole
      ma=wap
      3SG.OBJ=be.PST
      'The bandicoot went onto her in the hole. [After it] went into the hole, he
      cut the banana tree and put it down. When [he] put it down, she was
      [still] in the hole.' [ulwa001_02:17]

As example (71) illustrates, it is possible for such chains of dependent and in-
dependent clauses to continue for linkages of longer than two sentences.

14.2.6 Dependent markers for floor-holding

It is also common for seemingly independent clauses to receive the dependent
marker *-e* 'DEP'. In this way, when added almost as an afterthought, this suffix
can serve a sort of coordinating function, equivalent almost to a conjunction
'and' in use. By affixing *-e* 'DEP' to the end of a clause (and in so doing signaling
that another clause is to follow), a speaker may have a better chance at holding
the floor. Indeed, some speakers commonly insert the sound [-e] in the silence
following a clause to signal that they are not yet done talking, as in examples
(72), (73), and (74).

(72) *Rays muku kot nïn ani lïp. **E** Dora lïmndï nala.*
      *rays muku   ko=tï   nï=n   ani lï-p   **e** Dora lïmndï*
      rice package INDF=take 1SG=OBL bilum put-PFV DEP [name] eye
      nï=ala
      1SG=see
      '[He] put a package of rice into my *bilum* [= string bag]. And Dora saw
      me.' (*rays* = TP *rais*) [ulwa014_29:27]

(73) *Min mat i pul ko i matlïp wulïnup. **E** wolka tïnanga matïn mat.*
      min ma=tï   i   pul ko i   ma=tï   lï-p
      3DU 3SG.OBJ=take go.PFV piece one go.PFV 3SG.OBJ=take put-PFV
      *wulïn-u-p   **e** wolka tïnanga ma=tï-n   ma=tï*
      rest-put-PFV DEP again arise   3SG.OBJ=take-PFV 3SG.OBJ=take
      'The two brought it, went to a place, put it down, and rested. And then
      [they] got up again, got it, were getting it.'[5] [ulwa035_04:20]

(74) *Ndï maka lop. **E** ndï we ndïmokop. **E** ndï mbïlop.*
      *ndï maka lo-p   **e** ndï we ndï=moko-p   **e** ndï mbï-lo-p*
      3PL thus go-PFV DEP 3PL sago 3PL=take-PFV DEP 3PL here-go-PFV
      'They went like that. And then they got the sago starch. And then they
      came here.' [ulwa037_63:29]

In similar fashion, the form [pe] is sometimes used. I take this to be the loca-
tive verb *p-* 'be' plus the dependent marker *-e* 'DEP'. Thus this structure roughly
means something like 'that being [the case]' and can, accordingly, function as a
connector between clauses or as a floor-holding particle. Its use is illustrated in
(75), (76), and (77).

(75) *We ndït anmbï mbi Taw mbi. **Pe** Brian manji inom mï wolka tïklika lïmndï
      tïn mala.*
      *we ndï=tï   an-mbï   mbï-i   Taw   mbï-i   **p-e**   Brian*
      sago 3PL=take out-here here-go.PFV [place] here-go.PFV be-DEP [name]
      ma-nji   inom mï   wolka tïkli-ka lïmndï tïn ma=ala
      3SG.OBJ-POSS mother 3SG.SUBJ again turn-let eye   dog 3SG.OBJ=see
      '[They] brought sago starch out there, went there to Taw. And [after they
      had gone] Brian's mother turned back and saw the dog.' [ulwa037_61:14]

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[5]The use of the noun *pul* 'piece' to mean 'place' may be calqued from TP *hap* 'piece, place'.

(76)   *Ndï mape malep amun wa mbïlop. **Pe** nï tïnanga anmbï mbi.*
     ndï ma=p-e   ma=ale-p   amun wa   mbï-lo-p
     3PL 3SG.OBJ=be-DEP 3SG.OBJ=scrape-PFV now   village here-go-PFV

     p-e   *nï tïnanga an-mbï mbï-i*
     be-DEP 1SG arise   out-here here-go-PFV

     'They were there scraping it and now came home. And then I got up and came out here.' [ulwa040_01:29]

(77)   *Ndï ango anmap tembip. **Pe** ndï nena.*
     *ndï ango anma=p   tembi=p **p-e**   ndï na-i-na*
     3PL NEG good=COP bad=COP be-DEP 3PL DETR-come-IRR
     'They were not healthy, but sick. And [when they were sick] they would come.' [ulwa029_09:34]

14.2.7 Other means of subordination

In addition to the dependent-marker suffix *-e* 'DEP' and the afterthought-like forms [e] and [pe], there is a form *we* '(and) then', which can connect clauses. It is often used in conditional statements, occurring between the verb of the apodosis (marked by the conditional suffix *-ta* 'COND') and the start of the protasis (78). Phonologically (i.e., in terms of prosodic units), this word *we* 'then' belongs to the apodosis.

(78)   *Ndï ita **we** unan matïna.*
     *ndï i-ta   **we** unan   ma=atï-na*
     3PL go.PFV-COND then 1PL.INCL 3SG.OBJ=hit-IRR
     'If they come, then we will kill him.' [ulwa001_15:24]

This form may occur in other sentence types besides just conditional sentences, however. Sometimes it is not perfectly clear whether it is a separate lexeme (i.e., *we* 'then') or an elongated version of the dependent marker *-e* 'DEP'.

The word *we* '(and) then' also functions like a coordinator. It may be used to connect sentences in discourse, helping the speaker to hold the floor. Examples (79) and (80) illustrate the use of *we* 'then' in connecting independent clauses.

(79)   *Utam ndïn mankap **we** Kowe mangusuwa amun ngolop.*
      *utam ndï=n   ma=nïkï-p   **we** Kowe   ma-ngusuwa amun*
      yam   3PL=OBL 3SG.OBJ=dig-PFV then [name] 3SG.OBJ-poor now
      nga=u-lo-p
      SG.PROX=from-cut-PFV
      '[I] planted yams there and then Kowe, the poor thing, only recently
      cleared this place.' [ulwa014_53:05]

(80)   *Mundu wanata ndangla lumop ndï anmbi **we** nalanda.*
      *mundu wana-ta   ndï=angla lumo-p ndï an-mbï-i   **we***
      food   cook-COND 3PL=await put-PFV 3PL out-here-go.PFV then
      na-la-nda
      DETR-eat-IRR
      'Once [you] have cooked food and put it [there] for them, they will come
      out and then eat.' [ulwa030_00:39]

14.3 Relative clauses

In Ulwa, there is no overt morphological marker for relative clauses – that is,
there are no relative pronouns or relativizers, nor are there resumptive pronouns
or other means of overtly coreferencing an argument in the relative clause with
an argument in the matrix clause. A relative clause immediately precedes the
head noun of the matrix clause, and the verb in the relative clause is marked for
TAM as any finite verb in a clause would be. Thus I analyze relative clauses as
prenominal dependent clauses with unexpressed subjects.[6] The basic structure
of Ulwa relative clauses is outlined in (81).

   As an argument in the matrix clause, the head noun of the matrix clause may
fulfill any grammatical relation – that is, it may be a subject, an object, or an
oblique. The noun phrase in the relative clause that refers to this antecedent,
however, must be the grammatical subject of the clause. Thus, viewed crosslin-
guistically in terms of the accessibility hierarchy (Keenan & Comrie 1977), Ulwa
has a rather limited set of grammatically possible relative clause constructions,
as only subjects can be relativized.

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[6]Relative clauses in Ulwa may thus be said to employ the gap strategy, since the syntactic spot
   where the head noun of the antecedent clause should be found in the relative clause (i.e., before
   the verb) is empty (i.e., there is no overt phonological form).

(81) The structure of relative clauses

    relative clause modifying the subject of an intransitive clause:
        intransitive relative clause: [V]SV
        transitive relative clause: [OV]SV
    relative clause modifying an oblique argument in an intransitive clause:
        intransitive relative clause: S[V]XV
        transitive relative clause: S[OV]XV
    relative clause modifying the subject of a transitive clause:
        intransitive relative clause: [V]SOV
        transitive relative clause: [OV]SOV
    relative clause modifying the object of a transitive clause:
        intransitive relative clause: S[V]OV
        transitive relative clause: S[OV]OV
    relative clause modifying an oblique argument in a transitive clause:
        intransitive relative clause: S[V]XOV
        transitive relative clause: S[OV]XOV

There are no correlative relative clauses in Ulwa, nor are there adjoined relative clauses (i.e., non-adjacent relative clauses).[7]

Example (82) consists of a simple intransitive sentence. The word order is the canonical SV.

(82)   *Itom ngata mï nip.*
     itom   ngata mï   ni-p
     father grand 3SG.SUBJ die-PFV
     'The old man died.' [elicited]

Example (83) shows how the sentence given in (82) might appear in a relative clause. Here, *itom ngata* 'old man' is both the subject of the relative clause and

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[7]In an alternative analysis relative clauses in Ulwa may be considered head-internal, with the head being expressed as a full NP only within the relative clause, namely postverbally. A schematization of the head-internal analysis is given in (280) in §15.7. In this analysis, relative clauses would exhibit a different word order from that found in most Ulwa clauses: whereas the word order of pragmatically neutral active clauses is S(O)V (§13.1), the word order of relative clauses would be (O)VS. While this analysis seems typologically unusual, it perhaps has some support when considered alongside Ulwa's passive constructions (§15.7). However, it does not seem best to analyze the head as being internal, since it takes grammatical marking according to its role in the matrix clause, not according to what its role would be within the embedded clause. For example, we find the object marker *ma=* '3SG.OBJ' as opposed to the subject marker *mï* '3SG.SUBJ' in sentences such as (83). Thus, it seems best to me to analyze relative clauses, like other subordinate clauses, as maintaining canonical S(O)V order and employing a gap strategy.

the object of the matrix clause. The brackets in (83) enclose the relative clause. Thus, sentence (83) is considered to contain a noun-modifying clause, the verb *nipe* 'died' thus constituting the entire relative clause, with a gap for the subject occurring immediately before the verb.

(83) *Nï nipe itom ngata makamp.*
      nï   [ni-p-e]   itom   ngata ma=kamb-p
      1SG [die-PFV-DEP] father grand 3SG.OBJ=shun-PFV
      'I avoided the old man who died.' [elicited]

Note also that the dependent marker *-e* 'DEP' is employed on the verb in the dependent relative clause (§14.2.1). This lends further support to the idea that the structure in question is indeed a clause.

A relative clause can also serve as the subject of a matrix clause, as in (84).

(84) *Nipe itom ngata mï ankam anma.*
      [ni-p-e]   itom   ngata mï   ankam anma
      [die-PFV-DEP] father grand 3SG.SUBJ person good
      'The old man who died is a good person.' [elicited]

Note that verb phrases that consist of discontinuous elements (i.e., separable verbs, §11.2.1) will surround the relative clause if the relative clause is the object of the verb phrase (85).

(85) *Ndï **lïmndï** nipe **itom ngata mala.***
      ndï **lïmndï** [ni-p-e]   **itom   ngata ma=ala**
      3PL eye   [die-PFV-DEP] father grand 3SG.OBJ=see
      'They saw the old man who died.' [elicited]

Finally, it may be shown that, in addition to subjects and objects, relative clauses may function as oblique arguments within matrix clauses, such as objects of postpositions, as in (86).

(86) *Damnda mï nipe itom ngata maya i.*
      Damnda mï   [ni-p-e]   itom   ngata ma=iya   i
      [name] 3SG.SUBJ [die-PFV-DEP] father grand 3SG.OBJ=toward go.PFV
      'Damnda went to the old man who died.' [elicited]

Just like intransitive clauses, transitive clauses may function as relative clauses. Example (87) illustrates a simple transitive sentence. The word order is SOV.

(87) *Ankam mï lamndu masap.*
      ankam mï   lamndu ma=asa-p
      person 3sg.subj pig   3sg.obj=hit-pfv
      'The person killed the pig.' [elicited]

This transitive-verb sentence may serve as the object of a verb in a matrix clause, as in sentence (88), which has a relative clause exhibiting the word order [S]OV (where "[S]" represents a gap in the clause).

(88) *Damnda mï lïmndï lamndu masape ankam mala.*
      Damnda mï   lïmndï [lamndu ma=asa-p-e]   ankam
      [name] 3sg.subj eye   [pig   3sg.obj=hit-pfv-dep] person
      ma=ala
      3sg.obj=see
      'Damnda saw the person who killed the pig.' [elicited]

Again note the use of the dependent marker *-e* 'dep' suffixed to the verb in the relative clause.

Sentence (89) is an example of a transitive-verb relative clause serving as the subject of a matrix clause. Note the use of the subject marker *mï* '3sg.subj'.

(89) *Lamndu masape ankam mï wandam may.*
      [lamndu ma=asa-p-e]   mï   wandam ma=i
      [pig   3sg.obj=hit-pfv-dep] 3sg.subj jungle 3sg.obj=go.pfv
      'The person who killed the pig went to the jungle.' [elicited]

Sentence (90) is an example of a transitive-verb relative clause serving as an oblique argument within the matrix clause.

(90) *Sinda mï lamndu masape ankam maya i.*
      Sinda   mï   [lamndu ma=asa-p-e]   ankam ma=iya
      [name] 3sg.subj [pig   3sg.obj=hit-pfv-dep] person 3sg.obj=toward
      i
      go.pfv
      'Sinda went to the person who killed the pig.' [elicited]

It is possible for obliques to occur within the dependent relative clauses as well, whether they contain a transitive verb (91) or an intransitive verb (92).

(91) *Mï lïmndï **mananï** lamndu masape ankam mala.*
    mï   *lïmndï* [***mana=nï*** *lamndu ma=asa-p-e*]   *ankam*
    3SG.SUBJ eye   [spear=OBL pig   3SG.OBJ=hit-PFV-DEP] person
    ma=ala
    3SG.OBJ=see
    'She saw the man who stabbed the pig with the spear.' [elicited]

(92) *Mï lïmndï **ankam ul** natane yana mala.*
    mï   *lïmndï* [***ankam ul*** *na-ta-n-e*]   *yana*   *ma=ala*
    3SG.SUBJ eye   [person with DETR-say-IPFV-DEP] woman 3SG.OBJ=see
    'She saw the woman who is talking with the man.' [elicited]

Relative clauses occur rarely in discourse, and some speakers (especially the younger ones) probably never employ them. It could the case that these fairly complex syntactic structures are being lost as the language experiences grammatical attrition due to rapid replacement by Tok Pisin, a language that also – for many speakers – has no formal structures for relativization (see Chapter 17). Nevertheless, relative clauses do occasionally occur in the speech of some older speakers. Sentences (93) through (97) provide examples of relative clauses taken from texts.

(93) *Ndï manji mawl anmbiye ndï kwa masap.*
    ndï [*ma-nji*   *ma=ul*   *an-mbï-i-e*]   *ndï kwa*
    3PL [3SG.OBJ-POSS 3SG.OBJ=with out-here-go.PFV-DEP] 3PL one
    ma=asa-p
    3SG.OBJ=hit-PFV
    'They killed one [of] his [brothers] who came along with him.'
    [ulwa001_12:39]

(94) *Awal men pe nji ndïkuklïp.*
    awal   [*ma=in*   *p-e*]   *nji*   *ndï=kuk-lï-p*
    yesterday [3SG.OBJ=in be-DEP] thing 3PL=gather-put-PFV
    'Yesterday [we] gathered [our] things that were in it [= the house].'
    [ulwa042_05:16]

(95) *Anga mape numïni mï angani mape.*
    [*anga ma=p-e*]   *numïni mï*   *angani ma=p-e*
    [side 3SG.OBJ=be-DEP] ditch   3SG.SUBJ behind 3SG.OBJ=be-IPFV
    'The ditch that is on the other side [of the river] is behind it.' [ulwa014†]

(96) *Nul mbiye yanat mambi umbenam nay.*
      [nï=ul   mbï-i-e]   yanat   ma-ambi   umbenam
      [1SG=with here-go.PFV-DEP] daughter 3SG.OBJ-TOP morning
      na-i
      DETR-go.PFV
      'As for the daughter who came with me, she left this morning.'
      [ulwa032_11:01]

(97) *Apa mbïpe itom inom min luke nji ulwap.*
      [apa   mbï-p-e]   itom inom   min luke nji   ulwa=p
      [house here-be-DEP] father mother 3DU too thing nothing=COP
      'The two home-owners have nothing either.' (Literally 'The father and
      mother who are in the house here, too, have no things.') [ulwa032_20:01]

One possible reason for the relative rarity of these constructions in discourse
is that fact that the pragmatic function of relative clauses can be assumed by
nominalization (§14.3.1), of which speakers tend to make more frequent use.[8]
Furthermore, speakers may employ paratactic relative clauses as an alternative
to this more complicated syntactic structure (§14.3.2).

14.3.1 Nominalized verb phrases

Nominalized verb phrases may serve the pragmatic function of relative clauses.
Examples such as (18) and (19) in §5.2 illustrate how nominalized verb phrases
may function similarly to relative clauses. Often, these nominalized forms are
used with locative verbs, as in (98).

(98) **Wandam wapen** *ndï wa nen.*
      *[wandam wap-**en**]   ndï wa   na-i-n*
      [jungle   be.PST-NMLZ] 3PL village DETR-come-PFV
      'Those who were in the jungle came home.' (Literally 'the
      having-been-in-the-jungle [people] …') [ulwa018_04:09]

The verb phrase that is nominalized may consist of more than one verb (99).
Only the final verb receives the nominalizing morphology.

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[8]Relative clauses may have their historical origins in nominalized verb phrases. The formal
distinction between the two is slight, basically hinging on the presence (in nominalization)
versus the absence (in relativization) of a final /-n/. It is thus possible that in some examples
the sound has simply been elided. Still, based on speaker perceptions and on the careful pro-
nunciations of elicited sentences, these are treated (at least synchronically) as two separate
structures: nominalized verb phrases and relative clauses.

(99) ***Ata ngape wowen*** *anda mo anmbunde.*
    *[ata nga=p-e   wow-**en**]   anda   ma=u*
    [up sg.prox=be-dep sleep.ipfv-nmlz] sg.dist 3sg.obj=from
    an-mbï-unda-e
    out-here-go-ipfv
    'That one who lives upstream is coming around here from there.'
    (Literally 'that sleeping-up-(in)-this-(place) [person] …') [ulwa032_15:13]

The nominalized phrase may have its own object NP, as exemplified by (100).

(100) ***Tïrïngïn inen*** *i man nït.*
    *[Tïrïngïn ina-**en**]   i   ma=n   nï=ta*
    [[name] get-nmlz] go.pfv 3sg.obj=obl 1sg=say
    'The one who married Tïrïngïn came and told me.' (Literally 'the
    Tïrïngïn-getting [one]') [ulwa014_21:16]

14.3.2 Paratactic relative clauses

There is yet another means of accomplishing the pragmatic task of narrowing the
reference of a noun. In addition to relative clauses (§14.3) and nominalized verb
phrases (§14.3.1), speakers of Ulwa can make use of paratactic relative clauses
(Comrie & Kuteva 2013). In these constructions, there is no formal morphological
or syntactic relativization; rather, what could otherwise be expressed as matrix
clauses with embedded relative clauses are here expressed by sets of two parat-
actically juxtaposed clauses. Sentences (101) through (104) provide examples of
paratactic relative clauses. The clauses in each example are enclosed in brackets.

(101) *Tembi la ndï wa mbïp.*
    [tembi ala]   [ndï wa   mbï-p]
    [bad   pl.dist] [3pl village here-be]
    'Those people here in the village are bad.' (Literally 'Those [people] are
    bad; they are here in the village.') [ulwa032_47:06]

(102) *Ango mundu kom un mat nïnan!*
    [ango mundu kom] [un   ma=tï   nï=na-n]
    [neg food   neg] [2pl 3sg.obj=take 1sg=give-pfv]
    'That's not food you gave me!' (Literally 'Not food; you gave it to me.')
    [ulwa020_02:04]

(103) *Anda nji tembi wa mï unaniya wa ine.*
       [anda   nji   tembi wa] [mï   unan=iya   wa
       [SG.DIST thing bad   just] [3SG.SUBJ 1PL.INCL=toward village
       i-n-e]
       come-PFV-DEP]
       'That's a bad thing that's come to our village.' (Literally 'That is a bad
       thing; it has come to us, to the village.' There is no prosodic break
       between the clauses.) [ulwa037_20:57]

(104) *Numbu anma nda u mole.*
       [numbu   anma   anda]   [u   ma=lo-e]
       [garamut good   SG.DIST] [2SG 3SG.OBJ=cut-IPFV]
       'That's a good *garamut* drum that you're carving.' (Literally 'That is a
       good *garamut*; you are carving it.') [ulwa009_02:08]

These paratactic relative clauses are, for some speakers, the exclusive means
of creating relative-clause-like structures – that is, they lack the formal relative
clauses described in §14.3. It is possible that paratactic relative clauses are a rela-
tively recent syntactic innovation, having emerged as the formal relative clause
structures have become obscure to younger speakers (see Chapter 17).

14.4 Clause chaining?

Whereas dependent-marked clauses do not participate in prototypical clause-
chaining structures, there is one verb, *tï-* 'take', which does appear to behave
as a medial verb, albeit in a very restricted way. It may occur as the first of two
verbs within a series of two clauses, taking its own object argument, but lacking
TAM marking, as in (105).

(105) *Un ango ame **tï inde**.*
       *un ango ame   **tï   inda-e***
       2PL NEG basket take walk-IPFV
       'You don't carry baskets around.' [ulwa014_34:31]

It is rare for *tï-* 'take' to occur with other medial verbs (if it itself may be
considered to be a medial verb); rather, such "clause chains" formed with *tï-* 'take'
are generally restricted to this verb plus one verb in an immediately following
final clause.[9] The most common medial-clause use of *tï-* 'take' is found in 'giving'

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[9]Often, *tï-* 'take' is phonologically reduced to [t] in such constructions. The verb is perhaps in
the diachronic process of grammaticalizing to become a postposition.

constructions, which typically use *na-* 'give' as the verb in the final clause (see §13.3 for examples as well as further discussion on other possible "ditransitive" constructions in the language). It may also be used with a motion verb (typically *inda-* 'walk') as the final verb, giving the meaning 'carry', as in (105), and further illustrated by (106) and (107).

(106) *Nï ul unji alum nïpat **ngat indape**.*
       nï   u-lo   un-nji   alum nïpat **nga=tï**   inda-p-e
       1SG from-go 2SG-POSS child giant SG.PROX=take walk-PFV-DEP
       'I carried that giant daughter of yours around.' [ulwa032_17:07]

(107) *Apïn ngïl tembi nji ngala ndï **ndït inde**.*
       apïn ngïn   tembi nji   ngala   ndï **ndï=tï**   **inda-e**
       fire   cloud bad   thing PL.PROX 3PL 3PL=take walk-IPFV
       'These marijuana cigarettes – they carry them around.'[10] (Literally 'these bad smoke things') [ulwa037_21:52]

The medial verb *tï-* 'take' can also be used with a motion verb (typically *ma- ~ i-* 'go') as the final verb to give the meaning 'bring', as in examples (108), (109), and (110).

(108) *Nï **ndït i**.*
       nï   **ndï=tï**   i
       1SG 3PL=take go.PFV
       'I brought them.' [ulwa014_12:06]

(109) *Nï upin **mat anmbi** mat manane.*
       nï   upin   **ma=tï**   **an-mbï-i**   ma=tï
       1SG crowned.pigeon 3SG.OBJ=take out-here-go.PFV 3SG.OBJ=take
       ma=na-n-e
       3SG.OBJ=give-PFV-DEP
       'I brought the crowned pigeon out here and gave it to her.' [ulwa037_03:51]

(110) *Uma **ndït** li **unde**.*
       uma **ndï=tï**   li   **unda-e**
       bone 3PL=take down go-IPFV
       '[She] would bring [their] bones down.' [ulwa020_00:13]

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[10]The speaker here pronounces *apïn ngïn* 'smoke' with a final [l], presumably a speech error.

If the goal argument (the location to which something is brought) is encoded, then it is typically done so as the argument of a subsequent clause – that is, not within a chained clause, but rather within another final clause following the chained group of medial clause and final clause, as in (111).

(111) *Ndït i **Wopata may**.*
       *ndï=tï   i   **Wopata ma=i***
       3PL=take go.PFV [place]   3SG.OBJ=go.PFV
       'I brought them [= fish] to Wopata.' (Literally 'I brought them [and I] went to Wopata.') [ulwa014_29:41]

When the goal is functioning rather more adverbially, as in (110) (i.e., *li* 'down') or in (112) (i.e., *wa* 'village'), then it may be included once within a clause chain consisting of a medial clause and a final clause.

(112) *Mat **wa** ita una malan!*
       *ma=tï   **wa** i-ta   unan   ma=la-n*
       3SG.OBJ=take village go.PFV-COND 1PL.INCL 3SG.OBJ=eat-IMP
       'If [we] bring it [= a crocodile] home, we'll eat it!' [ulwa038_04:29]

The recipient argument (the person to whom something is brought) can be encoded in a postpositional phrase, either with a directional postposition such as *iya* 'toward', as in (113) and (114), or with a benefactive postposition such as *ala* 'for' (115) or *nap* 'for' (116).

(113) *Inga la mat **aniya** i.*
       *inga ala   ma=tï   an=**iya**   i*
       affine PL.DIST 3SG.OBJ=take 1PL.EXCL=toward go.PFV
       '[My] in-laws brought it to us.' [ulwa037_36:56]

(114) *Ndïtï **wiya** mana.*
       *ndï=tï   u=**iya**   ma-na*
       3PL=take 2SG=toward go-IRR
       '[They] would bring them to you.' [ulwa014_36:45]

(115) ***Mala** numan kot i.*
       *ma=**ala**   numan ko=tï   i*
       3SG.OBJ=for husband INDF=take go.PFV
       '[They] brought a husband for her.' [ulwa019_00:53]

(116) *Ndï ndinap ndït **nïnap** iye.*
       *ndï ndï=ina-p   ndï=tï   nï=**nap** i-e*
       3PL 3PL=get-PFV 3PL=take 1SG=for go.PFV-DEP
       'They got them and brought them for me.' [ulwa014_47:24]

15 Additional topics in syntax

This chapter covers an assortment of syntactic constructions, organized rather more by functional concerns than by syntactically motivated principles. Thus this chapter explains how a speaker of Ulwa may accomplish certain communicative goals, such as formulating questions, issuing commands, negating propositions, and reporting on the speech of others.

15.1 Questions

There are, as in most languages, two basic types of questions in Ulwa: polar questions ('yes/no' questions) (§15.1.1) and content questions (*wh-* questions) (§15.1.2).

15.1.1 Polar questions ('yes/no' questions)

Polar questions in Ulwa are identical in form to their declarative counterparts. They are recognizable, however, through pragmatic factors and through phonology (intonation). First, context often makes it apparent that a question, rather than a statement, is being formed by the speaker. Second, polar questions are identifiable through a rising intonation. The questions presented in (1) through (4), if given the right context and said without a rising intonation, could all also function as statements.

(1) *Itom mï awal tembi wap.*
     itom   mï   awal   tembi wap
     father 3SG.SUBJ yesterday bad   be.PST
     (a) 'Was father sick yesterday?'
     (b) 'Father was sick yesterday.' [elicited]

(2) *U namap.*
     u   na-ama-p
     2SG DETR-eat-PFV
     (a) 'Have you eaten?'
     (b) 'You've already eaten.' [elicited]

(3)   *Inom mï amun ya ute.*

    inom   *mï*   *amun ya*   *uta-e*

    mother 3SG.SUBJ now   coconut grind-IPFV

    (a) 'Is mother grinding coconut now?'

    (b) 'Mother is grinding coconut now.' [elicited]

(4)   *Alum mï ikali ya ndïsina.*

    alum mï   *i-kali*   *ya*   *ndï=si-na*

    child 3SG.SUBJ hand-send coconut 3PL=push-IRR

    (a) 'Can the child catch the coconuts?'

    (b) 'The child can catch the coconuts.' [elicited]

Perhaps especially in leading questions, Ulwa can employ the interjections *a* 'eh?' or *e* 'eh?' as a tag word at the end of the interrogative sentence. These forms are common also in Tok Pisin, which possibly played a role in their use in Ulwa. These tag words serve as an additional means of indicating that a sentence is a question, as seen in (5), (6), and (7).

(5)   *Alo un apa map **a**?*

    ala=o   *un apa* *ma=p*   **a**

    PL.DIST=VOC 2PL house 3SG.OBJ=be INTERJ

    'Hey, you all – are you home?' [ulwa018_01:37]

(6)   *Ngun andin ngun mundu ngunas **a**?*

    ngun andin   *ngun mundu ngun=asa* **a**

    2DU DU.DIST 2DU hunger 2DU=hit INTERJ

    'You two, you two over there – you're hungry, yeah?' [ulwa041_01:09]

(7)   *U ango anmbï mbi **e**?*

    u   *ango an-mbï* *mbï-i*   **e**

    2SG NEG out-here out-go.PFV INTERJ

    'You didn't come out, eh?' [ulwa040_00:06]

There are not many examples of these tag interjections in my corpus. Although examples (5) through (7) might suggest a contrast in polarity between the interjections *a* 'eh?' and *e* 'eh?', I do not suspect that such a contrast exists.

Polar questions may be answered with full sentences, with paralinguistic gestures, with general-purpose exclamatory interjections (such as *m* 'mhm'), or with the designated response interjections 'yes' or 'no'. The word *iyo* 'yes' (with the alternate form *iya* 'yeah') is used for the affirmative, and the word *ase* 'no' (with

the alternate form *asa* 'nah') is used for the negative. To disagree with a negative proposition in a question, a speaker may answer 'yes'. Thus, for example, the answer to (7) is provided in (8).

(8) **Iya** *nï awal mbi lïmndï tawatïp ndale.*
     iya *nï   awal   mbï-i   lïmndï tawatïp ndï=ala-e*
     yes 1SG yesterday here-go.PFV eye   child   3PL=see-DEP
     'Yes, I came out yesterday and watched the children.' [ulwa040_00:08]

Here the responder answers 'yes' to mean: 'No, I did come out.'

15.1.2 Content questions (*wh-* questions)

Content questions in Ulwa rely on several different *wh-* words, which are presented in (9). For more on interrogative pronouns, see §8.5. There are no interrogative verbs in Ulwa.

(9) Interrogative words
kwa	'who? [SG]'
kuma	'who? [NSG]'
kwanji	'whose? [SG]'
kumanji	'whose? [NSG]'
angos	'what?'
ango	'which?'
ango (luwa)	'where?'
ango tem	'when?'
angwena	'why?'
anjika	'how many?'
anjikaka	'how?'

The interrogative pronoun *angos* 'what?' is discussed in §8.5. Examples (10) and (11) demonstrate its use in texts.

(10) *A nïnji nungol ala **angos** landa?*
     *a   nï-nji   nungol ala   **angos** la-nda*
     ah 1SG-POSS child   PL.DIST what   eat-IRR
     'Ah, what will my children eat?' [ulwa014_64:56]

(11) *U **angos** natan?*
     *u   **angos** na-ta-n*
     2SG what   DETR-say-IPFV
     'What are you saying?' [ulwa014†]

As mentioned in §10.3.2, the question words *angos* 'what?' and *ango* 'which?' likely derive from the negation marker *ango* 'NEG'. This may suggest that content questions in general may derive from polar questions (e.g., a question like 'what will my children eat?' in (10) would have its origin in something like 'will my children not eat?').[1]

Sentences (12) and (13) provide examples of *kwa* 'who? [SG]' (further discussed in §8.5). This form is often shortened to [ko]. Whereas the form *kwa* 'who? [SG]' refers to exactly one referent, the form *kuma* 'who? [NSG]' refers to two or more referents.[2]

(12) **Kwa** *tïki man tïnangana?*
      kwa *tïki ma=n   tïnanga-na*
      one again 3SG.OBJ=OBL arise-IRR
      'Who will get it [= the school] up again?' [ulwa014_54:01]

(13) **Ko** *mat inde?*
      ko *ma=tï   inda-e*
      one 3SG.OBJ=take walk-IPFV
      'Who is carrying it around?' [ulwa037_17:22]

As mentioned in §13.1, there is no so-called *wh*-movement in Ulwa; all content questions are asked in-situ – that is, with the questioned element occurring in the same place where it would occur in an equivalent declarative sentence. Thus, *kwa ~ kuma* 'who?' or *angos* 'what?' occur in the subject position when the questioned element is the subject of a clause, and they occur in the object position when the questioned element is an object. Likewise, *kwanji ~ kumanji* 'whose?' occurs immediately before the possessed NP, just as would any possessive pronominal marker. Thus, for example, in (14), the 'who(m)?' element occurs in the position typically held by objects.

(14) *U man* **ko** *lïp sina?*
      *u   ma=n   **ko** lï-p   si-na*
      2SG 3SG.OBJ=OBL one put-PFV push-IRR
      'Whom will you blame?' (Literally 'Onto whom will you push with it?')
      [ulwa014†]

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[1]Similarly, interrogative pronouns like *kwa* 'who? [SG]' and *kuma* 'who? [NSG]' are colexified with indefinite pronouns. Thus, content questions such as the one in (13) may thus derive from polar questions (i.e., 'who is carrying it?' < 'is someone carrying it?').

[2]Thus the number distinction made in the words meaning 'who?' (or 'whose?') is a binary distinction of singular versus non-singular, as opposed to the three-way contrast of singular, dual, and plural that runs throughout many other paradigms in the language.

In questions of countable quantity, the question word *anjika* 'how many?' appears after the noun phrase whose quantity is the topic of questioning. This could be either a subject or an object (or even an oblique phrase). The word *anjika* 'how many?' is thus syntactically identical to any modifying adjective and – in particular – to numerals, which immediately follow the enumerated NP. Its use is exemplified in (15) and (16).

(15)   *Wambana **anjika** inim mo man?*
       *wambana **anjika**   inim   ma=u   ma-n*
       fish   how.many water 3sg.obj=from go-ipfv
       'How many fish are swimming?' [elicited]

(16)   *U wambana **anjika** tïn?*
       *U   wambana **anjika**   tï-n*
       2sg fish   how.many take-pfv
       'How many fish did you catch?' [elicited]

It should be noted that questions of non-countable quantity – that is, questions about mass nouns (i.e., 'how much?') – are not asked with *anjika* 'how many?'. Rather, such interrogatives can only be formed as 'yes/no' questions, in which an inquiry is made whether the amount in question is 'big' or 'little', as seen in examples (17), (18), and (19).

(17)   *U inim **ambi** amap?*
       *u   inim   **ambi** ama-p*
       2sg water big   eat-pfv
       'How much water did you drink?' (Literally 'Did you drink big [i.e., much] water?') [elicited]

(18)   *U inim **ilum** amap?*
       *u   inim   **ilum** ama-p*
       2sg water little eat-pfv
       'How much water did you drink?' (Literally 'Did you drink little water?') [elicited]

(19)   *Nungol mï inim **ambi** ame?*
       *nungol mï   inim   **ambi** ama-e*
       child   3sg.subj water big   eat-ipfv
       'How much water does the child drink?' (Literally 'Does the child drink big [i.e., much] water?') [elicited]

Other question words, such as *anjikaka* 'how?' and *angwena* 'why?' cannot serve as either subject or object of a predicate. Accordingly, they may be considered obliques. Their position in a clause is thus akin to the positioning of adverbs – that is, following the subject (when expressed) and preceding the entire verb phrase, including the object of the verb if the verb is transitive, as seen with the form *anjikaka* 'how?' in (20) and (21).

(20) *U **anjikaka** apa maytap?*
      *u   **anjikaka** apa   ma=ita-p*
      2SG how   house 3SG.OBJ=build-PFV
      'How did you build the house?' [elicited]

(21) *Alimban mï **anjikaka** lamndu masap?*
      *Alimban mï   **anjikaka** lamndu ma=asa-p*
      [name] 3SG.SUBJ how   pig   3SG.OBJ=hit-PFV
      'How did Alimban kill the pig?' [elicited]

This is the same position as other obliques, such as postpositional phrases, as illustrated by (22), or oblique-marked NPs, as illustrated by (23) (§13.4).

(22) *Alimban mï **tïn mol** lamndu masap.*
      *Alimban mï   **tïn ma=ul**   lamndu ma=asa-p*
      [name] 3SG.SUBJ dog 3SG=with pig   3SG.OBJ=hit-PFV
      'Alimban killed the pig with the dog.' [elicited]

(23) *Alimban mï **mananï** lamndu masap.*
      *Alimban mï   **mana=nï** lamndu ma=asa-p*
      [name] 3SG.SUBJ spear=OBL pig   3SG.OBJ=hit-PFV
      'Alimban killed the pig with the spear.' [elicited]

Although glossed in (20) and (21) as a monomorphemic word, *anjikaka* 'how?' is actually analyzable as *anjika-ka* 'how.many-let'.[3] In other words, the final element is taken to be the perfective/imperfective form of the irregular verb *ka-* 'let, leave, allow' (§11.2.3). Though perhaps having undergone a process of grammaticalization and now often analyzed simply as 'how?', the word's verbal morphology is apparent in sentences such as (24) through (29), which reflect the irrealis form *laka(na)* 'let [IRR]' of the verb.

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[3]It may even be analyzable further (cf. the possible etymology of *anjika* 'how many?' presented in (148) in §10.3.2).

(24) *Itom mï **anjikalaka** apa maytana?*
     itom   mï   anjika-***la*-*ka*** apa   ma=ita-na
     father 3SG.SUBJ how.many-IRR-let house 3SG.OBJ=build-IRR
     'How will father build the house?' [elicited]

(25) *Nungol ndï **anjikalaka** wambana ndutana?*
     nungol ndï anjika-***la*-*ka***   wambana ndï=uta-na
     child 3PL how.many-IRR-let fish   3PL=grind-IRR
     'How will the boys catch the fish?' [elicited]

(26) *Nga kwa **anjikalakana** mane?*
     nga   kwa anjika-***la*-*ka*-*na*** ma-n-e
     SG.PROX one how.many-IRR-let-IRR go-IPFV-DEP
     'What is this one going to do?' [ulwa001_05:53]

(27) *U manï **anjikalakana**?*
     u   ma=nï   anjika-***la*-*ka*-*na***
     2SG 3SG.OBJ=OBL how.many-IRR-let-IRR
     'What will you do with it?' [elicited]

(28) *Itom mï mana manï **anjikalakana**?*
     itom   mï   mana ma=nï   anjika-***la*-*ka*-*na***
     father 3SG.SUBJ spear 3SG.OBJ=OBL how.many-IRR-let-IRR
     'What is father going to do with the spear?' [elicited]

(29) *U ndït indata ndïn **anjikalakana**?*
     u   ndï=tï   inda-ta   ndï=n   anjika-***la*-*ka*-*na***
     2SG 3PL=take walk-COND 3PL=OBL how.many-IRR-let-IRR
     'What will you do with them if you carry them around?' [ulwa014_14:06]

Note that these irrealis-marked forms of this question word often convey a
sense other than strictly 'how?', as examples (26) through (29), which are trans-
lated as 'what will [someone] do?'. The irrealis examples notwithstanding, else-
where throughout this grammar the form *anjikaka* 'how?' is glossed simply as
'how?', without being analyzed as being polymorphemic.

Idiomatically, *anjika* 'how many?' can also be used to ask a question somewhat
akin to English 'what happened to [someone]?', or 'what's up with [someone]?',
as seen in (30).

(30) *Mï nan mat a u **anjika?***
    *mï   na=n   ma=ta   a u   **anjika***
    3SG.SUBJ talk=OBL 3SG.OBJ=say ay 2SG how.many
    'He said to her: "Ay, what happened to you?"' [ulwa001_15:48]

As mentioned in the discussion of interrogative pronouns (§8.5), questions of 'which?' are formed with *ango* 'which?', homophonous with the negative marker and likely derived from it. The two differ, however, in terms of syntactic position: whereas the negative marker typically follows the grammatical subject, the question word 'which?' precedes the NP it modifies (whether subject, object, or oblique). Sentences (31), (32), and (33) provide additional examples of *ango* 'which?' as it is used in questions.

(31) ***Ango** wa makape wombïn?*
    ***ango** wa   maka=p-e   wombïn*
    which village thus=COP-DEP work
    'Which village has work like this?' [ulwa014_61:04]

(32) *U **ango** tïlwa u mbi?*
    *u   **ango** tïlwa u   mbï-i*
    2SG which road from here-go.PFV
    'Along which road have you come here?' [ulwa037_29:44]

(33) *Mbïpïta **ango** ini mawat pïta?*
    *mbï-p-ta   **ango** ini   ma=wat   p-ta*
    here-be-COND which ground 3SG.OBJ=atop be-COND
    'If [they] stay, which ground will they live on?' [ulwa014_21:01]

The interrogative word *angos* 'what?' may be used in a similar fashion, modifying an NP (by preceding it) to ask 'what kind of?' or 'what sort of?', as in (34) and (35).

(34) *Ayndin nï **angos** na ukïna?*
    *Ayndin nï   **angos** na   u=kï-na*
    [name] 1SG what   talk 2SG=say-IRR
    'Ayndin, what should I say to you?' (Literally 'what talk?')
    [ulwa037_00:01]

(35) *Una wandam mawap **angos** wombïn ninda?*
      unan   wandam ma=wap   **angos** wombïn=n ni-nda
      1SG.INCL jungle   3SG.OBJ=be.PST what   work=OBL act-IRR
      '[When] we are in the jungle, what [sort of] work will [we] do?'
      [ulwa030_01:08]

Questions of time are asked by combining *ango* 'which?' with *tem* 'time', the latter word borrowed from Tok Pisin *taim* 'time, when'. Thus, quite transparently, temporal questions in Ulwa are rooted in a phrase meaning 'which time?'. This phrase occurs in the canonical position for temporal adverbs (e.g., *umbe* 'tomorrow', *amun* 'now', etc.). In other words, *ango tem* 'when?' occurs immediately following the subject NP, as illustrated by (36), whose answer is given in (37).

(36) *Kapos mï **ango tem** lamndu masap?*
      Kapos   mï   **ango tem** lamndu ma=asa-p
      [name] 3SG.SUBJ which time pig   3SG.OBJ=hit-PFV
      'When did Kapos kill the pig?' (*tem* < TP *taim* 'time') [elicited]

(37) *Kapos mï **awal** lamndu masap.*
      Kapos   mï   **awal**   lamndu ma=asa-p
      [name] 3SG.SUBJ yesterday pig   3SG.OBJ=hit-PFV
      'Kapos killed the pig yesterday.' [elicited]

Sentence (38) and (39) provide additional examples of *ango tem* 'when?'.

(38) *Itom mï **ango tem** utam mamap?*
      itom   mï   **ango tem** utam ma=ama-p
      father 3SG.SUBJ which time yam 3SG.OBJ=eat-PFV
      'When did father eat the yam?' (*tem* < TP *taim* 'time') [elicited]

(39) ***Ango tem** man ninda?*
      ango tem ma=n   ni-nda
      which time 3SG.OBJ=OBL act-IRR
      'When will [we] do it?' (*tem* < TP *taim* 'time') [ulwa031_01:27]

Alternatively, the phrase *ango tem* 'which time?' (i.e., 'when?') can take the oblique marker *=n* 'OBL', thus forming a phase meaning 'with which time?' (i.e., 'at which time?'), as in (40) and (41).

(40) *Kapos mï **ango temnï** lamndu masap?*
     *Kapos   mï   **ango tem=nï**   lamndu   ma=asa-p*
     [name] 3sg.subj which time=obl pig   3sg.obj=hit-pfv
     'When did Kapos kill the pig?' (*tem* < TP *taim* 'time') [elicited]

(41) ***Ango temnï** natana?*
     ***ango tem=nï**   na-ta-na*
     which time=obl detr-say-irr
     'When will the meeting start?' (Literally '[They] will at which time talk?')
     (*tem* < TP *taim* 'time') [elicited]

Spatial questions are also formed with the question word *ango* 'which?'. Unlike temporal questions, however, *ango* 'which?' usually occurs without overtly modifying any noun, such as, for example, a word meaning 'place'. That is, when taken alone, *ango* 'which?' is understood to mean 'which location?'. Again, the spatial question word (or, possibly, abbreviated phrase) occurs in the same position as spatial modifiers in indicative clauses, as illustrated by the pair of examples (42) and (43).

(42) *Ankam mï **ango** i?*
     *ankam mï   **ango** i*
     person 3sg.subj which go.pfv
     'Where did the person go?' [elicited]

(43) *Ankam mï **ngaya** i.*
     *ankam mï   **ngaya** i*
     person 3sg.subj far   go.pfv
     'The person went far away.' [elicited]

Motion verbs in Ulwa can be transitive, taking a goal argument as their direct object. Thus, in questions of 'where to?' or 'whither?', the question word *ango* 'which?' occurs in object position, as illustrated by the pair of examples (44) and (45).

(44) *Tangin mï **ango** i?*
     *Tangin mï   **ango** i*
     [name] 3sg.subj which go.pfv
     'Where did Tangin go?' [elicited]

(45) *Tangin mï **wa** may.*
      *Tangin mï   **wa**   ma=i*
      [name] 3SG.SUBJ village 3SG.OBJ==go.PFV
      'Tangin went to the village.' [elicited]

As the object of the verb *i* 'go.PFV', the noun *wa* 'village' can be indexed with the object marker *ma=* '3SG.OBJ' in (45). Critically, however, the object marker is not permitted in questions such as in (44). Its inclusion would render an interpretation of [ango] as 'NEG' rather than as 'which?', as illustrated by (46).

(46) *Tangin mï **ango** may.*
      *Tangin mï   **ango** ma=i*
      [name] 3SG.SUBJ NEG   3SG.OBJ=go.PFV
      (a) 'Tangin did not go [there].'
      (b) * 'Where did Tangin go?' [elicited]

The source of motion (i.e., origin), on the other hand, can be indicated as the object of the postposition *u* 'from'. Thus, in questions of 'where from?' or 'whence?', the question word *ango* 'which?' occurs as the object of the postposition *u* 'from', as seen in the pair of sentences (47) and (48).

(47) *U **ango u** mbi?*
      *u   **ango u**   mbï-i*
      2SG which from here-go.PFV
      'Where did you come from?' [elicited]

(48) *Nï **wandam u** mbi.*
      *nï **wandam u**   mbï-i*
      1SG jungle   from here-go.PFV
      'I came from the jungle.' [elicited]

Indications that *ango* 'where?' is elliptical for 'which place?' come from sentences such as (49), which contains the entire phrase *ango luwa* 'which place?'. This lengthier method of asking 'where?', however, seems to be relatively uncommon.

(49) *Popo ndï un **ango luwa** pe.*
      *popo   ndï u=n   **ango luwa** p-e*
      papaya 3PL 2SG=OBL which place be-IPFV
      'Where are your papayas?' (Literally 'The papayas for you are at which place?'; *popo* < TP *popo* 'papaya') [ulwa014_07:36]

It may be noted that something of the negative sense of [ango] is perhaps preserved in example (49), since this is a rhetorical question meant to imply 'you have no papayas'. Sentence (50) is another example in which the full phrase *ango luwa* 'which place?' occurs.

(50)　*Ngun **ango luwa** wap?*
　　　ngun **ango　luwa** wap
　　　2DU　which place be.PST
　　　'Where were you?' (Literally 'You were at which place?') [ulwa014_40:07]

As a modifying element, the *ango* 'which?' component of the abbreviated phrase 'which place?' can receive the copular enclitic or be followed by a locative verb, thereby serving as the predicate of its own clause, as in examples (51), (52), and (53).

(51)　*Unan **angop**?*
　　　unan　　**ango=p**
　　　1PL.INCL which=COP
　　　'Where are we?' (Literally 'We are [at] which [place]?') [elicited]

(52)　*U **ango wap**?*
　　　u　ango　**wap**
　　　2SG which be.PST
　　　'Where were you?' [elicited]

(53)　*Yanapi mï **angopïna**?*
　　　Yanapi　mï　　　**ango=p-na**
　　　[name] 3SG.SUBJ which=COP-IRR
　　　'Where will Yanapi be?' [elicited]

Such clauses with verbalized 'where?' constructions can combine with other clauses, as in the question in (54).

(54)　*Itom mï **angope** lamndu masap?*
　　　itom　mï　　　　**ango=p-e**　　lamndu ma=asa-p
　　　father 3SG.SUBJ which=COP-DEP pig　　　3SG.OBJ=hit-PFV
　　　'Where did father kill the pig?'[4] (Literally something like 'Father killed the pig, having been where?') [elicited]

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[4]Note that the verbalized *ango* 'which?' now functions as the linking element between two clauses, and accordingly receives both the copular enclitic *=p* 'COP' and the dependent marker *-e* 'DEP'.

In a similar sentence, but with irrealis modality, the verb in each of the two clauses would be marked for irrealis or conditional mood (55).

(55) *Itom mï **angopïta** lamndu mawalinda?*
      *itom   mï   ango=**p-ta**   lamndu   ma=wali-nda*
      father 3sg.subj which=cop-cond pig   3sg.obj=hit-irr
      'Where will father kill the pig?' (Literally 'Father will kill the pig if [he] is where?') [elicited]

Finally, 'why' questions are formed with the question word *angwena* 'why?'. Although this is pronounced as a single word, it, too, likely derives from a phrase containing *ango* 'which?'. The second element probably derives from *na* 'talk, speech, story, message, thought, reason, language', here having the sense of 'reason' (i.e., '[for] what reason?').[5] The questions in (56) through (59) all contain *angwena* 'why?'.

(56) *U **angwena** mbi?*
      *u   **angwena** mbï-i*
      2sg why   here-go.pfv
      'Why did you come here?' [elicited]

(57) *Itom mï **angwena** apa maytap?*
      *itom   mï   **angwena** apa   ma=ita-p*
      father 3sg.subj why   house 3sg.obj=build-pfv
      'Why did father build the house?' [elicited]

(58) *Mï ndïn **angwena** ndït inde?*
      *mï   ndï=n   **angwena** ndï=tï   inda-e*
      3sg.subj 3pl=obl why   3pl=take walk-ipfv
      'Why is he walking around with them?' [ulwa014_14:02]

(59) *Un **angwena** mawat pe ne?*
      *un **angwena** ma=wat   p-e   ni-e*
      2pl why   3sg.obj=atop be-dep act-ipfv
      'Why are you doing [things] during it [= this period of mourning]?' [ulwa032_03:15]

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[5]It is unclear why the form is pronounced as [angwena] as opposed to the expected †[angona], but the pronunciation may have changed due to a folk etymological association with *ina* 'liver', the seat of reasoning and emotion in the Ulwa conception of the human body. This form also appears in words such as *inakawana-* 'think' (see §11.2.1 for a proposed etymology). Laycock's (1971a: 3260) field notes seem to indicate that the Yaul dialect form is *angola* 'why?' (Appendix F), thereby supporting the etymology of *ango 'which?' + *la 'talk, reason'.

15.1.3 Multiple questions

Ulwa interrogative constructions have the productive ability to question multiple things simultaneously. Like English constructions such as *who gave what to whom?*, Ulwa constructions may inquire into multiple unknowns. An example of an Ulwa multiple-question construction is given in (60).

(60)　***Ango** luwa **angos** nji ndïlanda?*
　　　ango　luwa　angos nji　　ndï=la-nda
　　　which place what　thing 3PL=eat-IRR
　　　'Where will [we] find something to eat?' (Literally '[We] will eat what things [at] which place?') [ulwa032_07:52]

Whereas English constructions like *who gave what to whom?* are mostly limited to situations in which it is assumed by the asker that each question component has a known referent, Ulwa multiple-question constructions are more flexible. Thus, for example, the two questions 'where will we find food?' and 'what food will we find?' may be combined into something like 'where will we find what food?', a sentence that would stretch the capacities of English multiple-question constructions. Examples (61),[6] (62), and (63) illustrate more multiple-question constructions of this type.

(61)　*U **ango** luwa **angos** matïn?*
　　　u　　ango　luwa　angos ma=tï-na
　　　2SG which place what　3SG.OBJ=take-IRR
　　　'Where will you get something?' [ulwa032_12:10]

(62)　*Ngan ndandï **ango** luwa u **angos** tïna?*
　　　*ngan　　ndï=andï **ango** luwa u　　angos tï-na*
　　　1DU.EXCL 3PL=for　which place from what　take-IRR
　　　'From which place can we two get what for them?' [ulwa032_19:58]

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[6]Admittedly, this sample sentence is not a prototypical multiple-question construction, since one of the two questioned elements is perhaps more properly considered an indefinite pronoun (§8.4) as opposed to a *wh-* word. An alternative analysis of these multiple questions would be that these are sets of conjoined phrases with no overt conjunction (e.g., 'at what place and what thing will we eat?', 'from which place and what thing can we two get for them?', etc.).

(63) *E ngusuwa ko **angwena angos** mundu wananda nat?*
     *e   ngusuwa ko   **angwena angos** mundu wana-nda na-ta*
     ay poor   just why   what food   cook-IRR DETR-say
     'Ay, why did that poor thing say that he would cook whatever kind of
     food?' (Literally 'Why did the poor thing say that [he] would cook what
     food?') [ulwa014_15:28]

Multiple questions can also be expressed in what are clearly multiple clauses.
In (64), the conditional form *-ta* 'COND' marks the end of the first clause – that is,
the protasis.

(64) *Ndï **ango** luwa wandam luta **angos** mundu malan?*
     *ndï **ango** luwa wandam lo-ta   **angos** mundu ma=la-n[da]*
     3PL which place jungle   go-COND what   food 3SG.OBJ=eat-IRR
     'Where will they go and what will they eat?' (Literally 'If they go to
     which jungles, what food will [they] eat?') [ulwa032_14:00]

15.1.4 Rhetorical questions

Questions often serve rhetorical purposes – that is, a speaker may not be actually
requesting information, but rather may be making an argument (usually antic-
ipating a negative response to the rhetorical question). Example (65) illustrates
how these may be made in Ulwa.

(65) *Ndï nji ndïwatlunda?*
     ndï nji   ndï=wat-lo-nda
     3PL thing 3PL=atop-cut-IRR
     'Will they clear the things?' (The anticipated response is: 'No, they will
     not.') [ulwa014_53:02]

Rhetorical questions can be either polar questions or content questions. In
polar rhetorical questions, the anticipated response is 'no'; in content rhetorical
questions, the anticipated response is 'nothing', 'nowhere', 'nobody', and so on.
Example (66) contains first a polar question, and then a content question.

(66) *U ko wandam nji ndï **ango luwa** pe? U ko lïmndï ndala?*
     *u   ko wandam nji   ndï **ango luwa** p-e   u   ko lïmndï ndï=ala*
     2SG just jungle   thing 3PL which place be-DEP 2SG just eye   3PL=see
     'Where are your jungle properties? Do you see them?' [ulwa032_39:45]

The first question is literally 'Your jungle things have which place?' The anticipated response to it is: 'No place'. The anticipated response to the second question is: 'No'. Example (66) also illustrates the use of the modal adverb *ko* 'just', which may be used for emphasis in rhetorical questions.

15.2 Commands and requests

Commands (or requests) are, generally, built around an imperative form of a verb (§6.7). Imperative sentences may contain an expressed subject (typically a second person pronoun), but, as in all sentence types, it is possible for the subject to be omitted. Examples (67) through (71) illustrate how second person pronouns may be included in imperative sentences.

(67) *U nul **man**!*
      u *nï=ul*   *ma-**n***
      2sg 1sg=with go-imp
      'Go with me!' (said to one person) [ulwa014_70:49]

(68) ***Ngun naman**!*
      ngun *na-ma-**n***
      2du   detr-go-imp
      'Go!' (said to two people) [ulwa001_09:46]

(69) *U ikali **ngasin**!*
      u *i-kali*   *nga=si-**n***
      2sg hand-send sg.prox=push-imp
      'Hold this!' (said to one person) [ulwa014_62:22]

(70) *U manji ndï nan **makïn**!*
      u *ma-nji*   *ndï na=n*   *ma=kï-**n***
      2sg 3sg.obj-poss 3pl talk=obl 3sg.obj=say-imp
      'Tell her about her [sago palms]!' (said to one person) [ulwa037_42:10]

(71) ***Un** maya wa **nayn**!*
      un *ma=iya*   *wa*   *na-i-**n***
      2pl 3sg.obj=toward village detr-come-imp
      'Come home to her!' (said to multiple people) [ulwa032_04:30]

In the imperative sentences shown in (72), (73), and (74), the second person subject is not expressed.

(72) *Amun **man**!*
      *amun ma-**n***
      now   go-IMP
      'Go now!' [elicited]

(73) *Unji mat **indan**!*
      *u-nji   ma=tï   inda-**n***
      2SG-POSS 3SG.OBJ=take walk-IMP
      'Carry your [child] around!' [ulwa032_17:15]

(74) *Unji al kwa ndawa ka **lowon**!*
      *u-nji   al kwa anda-awa   ka lo-wo-**n***
      2SG-POSS net one SG.DIST-INT in IRR-sleep-IMP
      'Sleep in that other mosquito net of yours!' [ulwa011_01:42]

Third person imperatives (or jussives) are also possible. These are no different from prototypical second person imperatives: they, too, contain a verb with the imperative suffix; the only difference is that the command is issued to a third person referent. Sentences (75), (76), and (77) are examples of third person imperatives in Ulwa.

(75) *Mï **lan**!*
      *mï   la-**n***
      3SG.SUBJ eat-IMP
      'Let him eat!' [elicited]

(76) *Ndï **wutïnin**!*
      *ndï wutï-ni-**n***
      3PL leg-beat-IMP
      'Let them dance!' [elicited]

(77) *Kalingana kalilïta mï **man**!*
      *Kalingana kali-lï-ta   mï   ma-**n***
      [name]   send-put-COND 3SG.SUBJ go-IMP
      'Send Kalingana and he'll go!' (Literally 'If [you] send Kalingana, let him go!') [ulwa018_01:00]

First person imperatives (or hortatives) are possible as well, but only for non-singular inclusive forms. That is, at least one addressee must be included in the exhortation. Sentences (78), (79), and (80) are examples of first person imperatives in Ulwa.

(78) *Ngunan **lan**!*
      ngunan   la-**n**
      1DU.INCL eat-IMP
      'Let's eat!' [elicited]

(79) *Unan **ndïlan**!*
      unan   ndï=la-**n**
      1PL.INCL 3PL=eat-IMP
      'Let's eat them!' [ulwa037_45:40]

(80) *Una **man**!*
      unan   ma-**n**
      1PL.INCL go-IMP
      'Let's go!' [ulwa014_66:54]

Indeed, the only referents that cannot be the subjects of imperatives are first person non-inclusive forms – that is, first person singular, first person dual exclusive, and first person plural exclusive, as illustrated by the ungrammatical sentences (81) and (82). Similar constructions containing these pronominal forms, however, can be created with the irrealis suffix, as illustrated by sentences (83) and (84).

(81) * *Nï **lan**!*
        nï   la-**n**
        1SG eat-IMP
        'Let me eat!' [elicited]

(82) * *An **lan**!*
        an   la-**n**
        1PL.EXCL eat-IMP
        'Let's eat!' [elicited]

(83) *Nï **landa**.*
      nï   la-**nda**
      1SG eat-IRR
      'I should eat.' [elicited]

(84) *An **landa**.*
      an   la-**nda**
      1PL.EXCL eat-IRR
      'We should eat.' [elicited]

The issue is, however, complicated, since, in casual speech, speakers commonly drop verbal endings, especially of irrealis verb forms. Thus, among the collected texts there are examples of irrealis clauses with, for example, 1sg subjects that do appear to employ the imperative suffix *-n* 'imp', as in (85). I consider it more likely, however, that this alveolar nasal represents an abbreviated form of the irrealis suffix *-na ~ -nda* 'irr'.

(85)   *Nï ma ndïn **lun**.*
       *nï   ma ndï=n   lo-**n[da]***
       1sg go 3pl=obl cut-irr
       'I will go and plant them.' [ulwa014_08:10]

Prohibitions (i.e., negative commands) are treated separately from true imperatives, not only since they require a special word, *wana ~ wanap* 'proh', but also because they do not permit the imperative suffix. Prohibitions may be issued to any referent, including first person non-inclusive forms (see §15.2.4 for examples).

15.2.1 Irrealis for imperative

The fact that the irrealis suffix can encode deontic modality (§6.6) – and, specifically, a directive mood – means that it may function very much like an imperative suffix. Indeed, it is possible that the imperative suffix derives historically from the irrealis suffix – that is, as an apocopated version, which could be expected to occur in emphatic direct address.

Thus, some clauses containing irrealis verbs may be functionally equivalent to imperatives, and they may therefore be translated as such in English, as in the first translation of examples (86), (87), and (88).

(86)   *U **landa**!*
       *u   la-**nda***
       2sg eat-irr
       (a) 'Eat!'
       (b) 'You must eat.' [elicited]

(87)   *Asa u mat **nïnanda**!*
       *asa u   ma=tï   nï=na-**nda***
       no 2sg 3sg.obj=take 1sg=give-irr
       (a) 'No, give it to me!'
       (b) 'No, you should give it to me.' [ulwa032_28:41]

(88)   *Kïkal misimisi **ngawananda!***
       *kïkal misimisi nga=wana-**nda***
       ear   story   SG.PROX=feel-IRR
       (a) 'Listen to this story!'
       (b) '[You] must/should listen to this story.'
       (c) 'Would that [you] were listening to this story!' [elicited]

This use of the irrealis suffix also applies to third person imperatives (89) and first person imperatives, whether dual (90) or plural (91).

(89)   *Mï **landa!***
       *mï   la-**nda***
       3SG.SUBJ eat-IRR
       (a) 'Let him eat!'
       (b) 'He must eat.'
       (c) 'Oh that he would eat!' [elicited]

(90)   *Ngunan **mana!***
       *ngunan ma-**na***
       1DU.INCL go-IRR
       (a) 'We shall go.'
       (b) 'Let's go!' [ulwa001_03:28]

(91)   *Una **mana!***
       *unan   ma-**na***
       1PL.INCL go-IRR
       (a) 'We must go.'
       (b) 'Let's go!' [ulwa014_24:41]

15.2.2 The modal adverb *kop* 'please'

Generally, no distinction is made between commands and requests – that is, there is no common formulaic question form (as in, for example, English *can you please pass the salt?*) to signal a gentle request as opposed to a stern command. Typically, intonation and context alone define an imperative form as serving the pragmatic functions of either command or request. There are, however, two other formal devices for indicating requests as opposed to commands: the adverb *kop* 'please' and the conditional suffix *-ta* 'COND' (§15.2.3). Since these devices are softer than commands made with only the imperative verb form, they may be considered akin to requests.

The modal adverb *kop* 'please' (§10.2.5) may be used to soften a command, as seen in sentences (92) and (93), which contain imperative verb forms (§6.7).

(92)   *I apa i **kop** lamap we un **man**!*
     *i   apa   i   **kop**   la-ama-p   we un ma-**n***
     go.PFV house go.PFV please IRR-eat-PFV then 2PL go-IMP
     'Come, come to the house, eat, and then go!' [ulwa013_03:47]

(93)   ***Kop malakan**!*
     kop**   ma=la-ka-**n
     please 3PL=IRR-let-IMP
     'Just leave him!' [ulwa014_08:15]

15.2.3 Conditionals used for requests

Another method of softening a command is using a conditional verb form – that is, one with the ending *-ta* 'COND' (§6.12, §15.5), as illustrated by (94).

(94)   *Nï umbe Supam ul **mata** mï maya ata mana.*
     *nï umbe   Supam ul   ma-**ta**   mï   ma=iya   ata ma-na*
     1SG tomorrow [name] with go-COND 3SG.SUBJ 3SG.OBJ=toward up go-IRR
     'I'll go with Supam tomorrow and she'll climb it [= a tree].'
     [ulwa001_01:14]

In the story from which sentence (94) is taken, a mother is addressing her children, including Supam. While the literal meaning of the first clause is 'if I go with Supam ...', it has the pragmatic value of 'Supam, you shall go with me ...!' This imperative use of a typically dependent conditional clause may thus be taken as an example of insubordination (Evans 2007). Further examples of conditional sentences functioning as softened commands are given in (95), (96), and (97).

(95)   ***Nïlakata** nï mawl malanda!*
     *nï=la-ka-**ta**   nï ma=ul   ma=la-nda*
     1SG=IRR-let-COND 1SG 3SG.OBJ=with 3SG.OBJ=eat-IRR
     'Let me eat with him!' (Literally 'If [you] let me, I will eat with him.')
     [ulwa001_06:11]

(96)　*Yena ngalat **ndïnata** ndï ndul lowope lunda!*
　　　*yena　　ngala=tï　　　ndï=na-**ta**　　　ndï ndï=ul　　lo-wo-p-e*
　　　woman PL.PROX=take 3PL=give-COND 3PL 3PL=with IRR-sleep-PFV-DEP
　　　lo-nda
　　　go-IRR
　　　'Give them these women, and they, having slept with them, will go!'
　　　(Literally 'If [you] give them these women, they, having slept with them,
　　　will go.') [ulwa002_06:04]

(97)　*Kwa nïnji mol niya wa **ita** nï ko lïmndï mandïn.*
　　　*kwa nï-nji　　ma=ul　　　nï=iya　　wa　　i-**ta**　　　nï ko*
　　　just 1SG-POSS 3SG.OBJ=with 1SG=toward village go.PFV-COND 1SG just
　　　lïmndï ma=andï-na
　　　eye　　3SG.OBJ=see-IRR
　　　'If [you] come home to me with my [cousin], I will see her.' (i.e., 'Please
　　　bring my cousin to me so that I can see her!') [ulwa037_46:36]

The conditional form may also be used with first person commands (i.e., ex-
hortations, §15.2). Often, only the protasis (marked with the conditional suffix
-*ta* 'COND') is expressed, leaving the apodosis only implied, as in (98).

(98)　*Unan na kali wa alan **lïta**!*
　　　*unan　　na kali wa　　ala=n　　　lï-**ta***
　　　1PL.INCL talk send village PL.DIST=OBL put-COND
　　　'Let's send a message to those villages!' (Literally 'If we send a message
　　　to those villages …') [ulwa001_15:22]

The modal adverb *kop* 'please' may be used in conjunction with the conditional
verb form (99).

(99)　***Kop** ma wa na **nditata** mata!*
　　　***kop**　　ma wa na ndï=ta-**ta**　　ma-ta*
　　　please go just talk 3PL=say-COND go-COND
　　　'Please, just go and tell stories!' (Literally 'If [you] please just go and say
　　　the talks, [it] will go.') [ulwa014†]

The form *kop* 'please' may be shortened to [ko], as in (100) and (101).

(100)   ***Ko ngapta** apa itap nji ngalembam pïn!*
        kop *nga=p-**ta***   *apa* *ita-p*   *nji* *ngala=imbam* *p-n*
        please sg.prox=be-cond house build-pfv thing pl.prox=under be-imp
        'Please build a house here under these things!' (Literally 'If [you] please
        be this, build a house under these things.') [ulwa014_53:10]

(101)   ***Ko amblakalampïta** lun!*
        kop *ambla=kalam=p-**ta***   *lo-n*
        please pl.refl=knowledge=cop-cond go-imp
        'Please look after yourselves and go!' (Literally 'If [you] please know
        yourselves, go!') [ulwa037_63:08]

15.2.4 Negative commands

Negative commands are formed with the prohibitive marker *wana* 'proh' or
wanap 'proh', which occurs along with an irrealis verb form (and not with an
imperative verb form, §10.3.1). The prohibitive marker occurs in the same posi-
tion as the standard negator *ango* 'neg', which is used to negate, for example,
declarative statements. In other words, the prohibitive marker follows the sub-
ject and precedes the verb phrase, including any expressed object in transitive
clauses. As in positive commands, it is common for the second person subject of
negative commands to be omitted, as in (102) and (103).

(102)   ***Wana** nunu nji tï ip lïp mana!*
        wana *nunu* *nji* *tï* *ip* *lï-p*   *ma-na*
        proh   every thing take nose put-pfv go-irr
        'Don't go destroying everything!' (Literally 'Don't go, having put nose
        to everything!') [ulwa014†]

(103)   *Angani i **wanap** makape na!*
        angani *i*   ***wanap*** *maka=p-e*   *na*
        behind go.pfv proh   thus=cop-dep talk
        'Later, when [you] have come, do not [make] talk like this!' [ulwa014†]

Prohibitions, however, are not limited to second person forms, but may apply
to any person or number, as seen in examples (104) through (109).

(104) *(U) **wana** nuwalinda!*
　　　*(u)　**wana** nï=wali-nda*
　　　(2sg) proh　1sg=hit-irr
　　　'Don't hit me!' (commanded to one person) [elicited]

(105) *(Un) **wana** nïnji utam malanda!*
　　　*(un)　**wana** nï-nji　　utam ma=la-nda*
　　　(2pl) proh　1sg-poss yam　3sg.obj=eat-irr
　　　'Don't eat my yam!' (commanded to more than two people) [elicited]

(106) *Mï **wana** landa!*
　　　*mï　　　**wana** la-nda*
　　　3sg.subj proh　eat-irr
　　　'Don't let him eat!' [elicited]

(107) *Unan **wana** mana!*
　　　*unan　　**wana** ma-na*
　　　1pl.incl proh　go-irr
　　　'Let's not go!' [elicited]

(108) *An **wana** nakïna!*
　　　*an　　　**wana** na-kï-na*
　　　1pl.excl proh　detr-say-irr
　　　'We shouldn't talk.' [elicited]

(109) *Nï **wana** mana!*
　　　*nï　**wana** ma-na*
　　　1sg proh　go-irr
　　　'I shouldn't go.' [elicited]

Prohibitions may include the speculative suffix *-t* 'spec' on the irrealis verb form (§6.11), as in examples (110) through (115).

(110) *Tarambi **wana** apka nïklop ma ngaya **manat**!*
　　　*Tarambi **wana** apka nï=klop　　ma ngaya ma-na-**t***
　　　[name]　proh　very 1sg=cross go　far　　go-irr-spec
　　　'Tarambi, don't go completely bypass me and go far away!' [ulwa014†]

(111) ***Wana ndïwalindat!***
　　　wana** ndï=wali-nda-**t
　　　proh　3pl=hit-irr-spec
　　　'Don't shoot them!' [ulwa037_47:35]

(112)   ***Wanap mbïpïnate****!*
    wanap *mbï-p-na-**t**-e*
    PROH   here-be-IRR-SPEC-DEP
    'Don't stay here!' [ulwa001_01:40]

(113)   ***Wana*** *ata ma Kambaramba **manat****!*
    wana *ata ma Kambaramba ma-na-**t***
    PROH up go [place]   go-IRR-SPEC
    'Don't go up to Kambaramba [village]!' [ulwa014†]

(114)   *Inim **wana malakanat** ko man ambi ndalan!*
    *inim   **wana** ma=la-ka-na-**t**   ko ma=n   ambi*
    water PROH 3SG.OBJ=IRR-let-IRR-SPEC just 3SG.OBJ=OBL big
    anda=la-n
    SG.DIST=eat-IMP
    'Water – don't avoid it; drink a lot of it!' [ulwa014†]

(115)   ***Wana*** *imba pïta niya **mbundanat****!*
    wana *imba p-ta   nï=iya   mbï-unda-na-**t***
    PROH night be-COND 1SG=toward here-go-IRR-SPEC
    'Don't come around here to me at night!' (Literally 'Don't, when it is
    night, come around here to me!') [ulwa014_14:22]

Example (115) also illustrates the use of the conditional suffix *-ta* 'COND' (§6.12).
Although here it is used to show an actual condition (along with the speculative
suffix on the final irrealis-marked verb), it may also be used idiomatically in pro-
hibitions, presumably to present an implied apodosis (i.e., 'or else …!'), as in (116)
and (117).

(116)   ***Wana mapta****!*
    wana *ma=p-**ta***
    PROH 3SG.OBJ=be-COND
    'Don't live there!' [ulwa014†]

(117)   ***Wana mbundata*** *inim lata **makapta****!*
    wana *mbï-unda-**ta*** *inim la-ta   maka=p-**ta***
    PROH here-go-COND water eat-COND thus=COP-COND
    'Don't come around here and drink beer like that!' [ulwa014†]

The prohibitive marker *wana ~ wanap* 'PROH' probably originated as the verb *wana-* 'hear', likely originally occurring sentence-finally, but later being reanalyzed as a negative marker (as opposed to a verb) and thus migrating to the canonical sentence position for negators. See Barlow (2020b: 118) for discussion of a similar grammaticalization process in Pondi.

15.3 Negation

This section concerns sentences that exhibit negative polarity. There is no verbal morphology in Ulwa used to indicate polarity, whether positive or negative. Although sentences with negative polarity contain propositions concerning events or states that are contrary to perceived reality, they need not be marked as being irrealis through verbal morphology. Indeed, negative sentences may reflect the same basic three-way TAM distinction that occurs in positive sentences (§6.2). The marking of negative sentences can differ depending on the type of predication: verbal (§15.3.1) or non-verbal (§15.3.2).

15.3.1 Verbal negation

Negative declarative sentences in Ulwa are typically readily identifiable by the negator word *ango* 'NEG' ('no, not'), which comes immediately after the subject NP (or, potentially, after other postnominal modifying elements, such as temporal adverbs). Only when a subject NP is omitted can the negator occur clause-initially. Examples (118) and (119) illustrate the variable ordering of *ango* 'NEG' with other adverbial-like words.

(118) *Kolpe mï amun **ango** apa mayte.*
      *Kolpe   mï   amun **ango** apa   ma=ita-e*
      [name] 3SG.SUBJ now   NEG   house 3SG.OBJ=build-IPFV
      'Kolpe is not building the house now.' [elicited]

(119) *Kolpe mï **ango** amun apa mayte.*
      *Kolpe   mï   **ango** amun apa   ma=ita-e*
      [name] 3SG.SUBJ NEG   now   house 3SG.OBJ=build-IPFV
      'Kolpe is not building the house now.' [elicited]

Sentences (120) through (135) provide examples of negative constructions in Ulwa, all of which use the form *ango* 'NEG'. Many of these would be translated in English (or many other languages) variously (e.g., with words such as 'no

one', 'not ... anything', 'nothing', etc.). Where relevant, parallel positive-polarity sentences are provided to illustrate contrasts.

(120)   *Kwa **ango** nip.*
        kwa **ango** ni-p
        one NEG die-PFV
        'No one died.' (cf. *Kwa nip* 'Someone died.') [elicited]

(121)   *Nï **ango** lïmndï kwa ala.*
        nï   **ango** lïmndï kwa ala
        1SG NEG eye   one see
        (a) 'I didn't see anyone.'
        (b) 'I saw no one.' (cf. *Nï lïmndï kwa ala* 'I saw someone.') [elicited]

(122)   *Nji (Ø / mï / ndï) **ango** liyu.*
        nji   (Ø / mï   / ndï) **ango** li-u
        thing (Ø / 3SG.SUBJ / 3PL) NEG   down-put
        'Nothing fell.' (cf. *Nji kwa liyu* 'Something fell.') [elicited]

(123)   *Nï **ango** lïmndï nji ala.*
        nï   **ango** lïmndï nji   ala
        1SG NEG eye   thing see
        (a) 'I didn't see anything.'
        (b) 'I saw nothing.' (cf. *Nï lïmndï nji kwa ala* 'I saw something.') [elicited]

(124)   *Nï **ango** lïmndï minul kwa ala.*
        nï   **ango** lïmndï min=ul   kwa ala
        1SG NEG eye   3DU=with one see
        'I didn't see either [of them].' (Literally 'I did not see one with [i.e., of] the two.'; cf. *Nï lïmndï minala* 'I saw both.') [elicited]

(125)   *Nï **ango** lïmndï nungol minul kwa ala.*
        nï   **ango** lïmndï nungol min=ul   kwa ala
        1SG NEG eye   child 3DU=with one see
        'I didn't see either child.' (Literally 'I did not see one with [i.e., of] the two children.') [elicited]

(126)   *Nï **ango** lïmndï minala.*
        nï   **ango** lïmndï min=ala
        1SG NEG eye   3DU=see
        'I saw neither [of them].' (Literally 'I did not see the two.') [elicited]

(127) *Nï **ango** lïmndï ankam minala.*
     *nï   **ango** lïmndï ankam min=ala*
     1SG NEG eye   person 3DU=see
     'I saw neither person.' (Literally 'I did not see the two people.') [elicited]

(128) *Nï **ango** lïmndï mïnda ndul kwa ala.*
     *nï   **ango** lïmndï mïnda ndï=ul   kwa ala*
     1SG NEG eye   banana 3PL=with one see
     'I saw none of the bananas.' (Literally 'I did not see one with [i.e., of] the [more than two] bananas.') [elicited]

(129) *Anul kwa **ango** wandam i.*
     *an=ul   kwa **ango** wandam i*
     1PL.EXCL=with one NEG jungle   go.PFV
     'None of us went to the jungle.' (Literally 'With [i.e., among] us, one did not go to the jungle.') [elicited]

(130) *Ndul kwa **ango** wombïn ne.*
     *ndï=ul   kwa **ango** wombïn=n ni-e*
     3PL=with one NEG   work=OBL act-IPFV
     'None of them is working.' (Literally 'With [i.e., among] them, one is not working.') [elicited]

(131) *Ndïnji kwa **ango** nipe.*
     *ndï-nji   kwa **ango** ni-p-e*
     3PL-POSS one NEG die-PFV-DEP
     'Not one of them died.' (Literally 'Their one did not die.') [ulwa002_06:42]

(132) *Ndïnji kwa **ango** tïnanga wolka tïklika i.*
     *ndï-nji   kwa **ango** tïnanga wolka tïkli-ka i*
     3PL-POSS one NEG arise   again turn-let go.PFV
     'Not one of their [men] got up and came back again.' (Literally 'Their one did not arise again and go back.') [ulwa004_00:59]

(133) *Mawna mï keka **ango** mïnkïn amap.*
     *Mawna mï   keka   **ango** mïnkïn   ama-p*
     [name] 3SG.SUBJ completely NEG grub.species eat-PFV
     'Mawna has never eaten sago grubs.' (Literally 'Mawna has completely not eaten sago grubs.') [elicited]

(134) *Nï keka **ango** ya ame.*
   nï   keka   **ango** ya   ama-e
   1SG completely NEG   coconut eat-IPFV
   'I never eat coconut.' (Literally 'I completely do not eat coconut.')
   [elicited]

(135) *Mawna mï **ango** nunu ika mïnda ame.*
   Mawna mï   **ango** nunu ika   mïnda ama-e
   [name] 3SG.SUBJ NEG   every instance banana eat-IPFV
   'Mawna sometimes/rarely eats bananas.' (Literally 'Mawna does not
   always eat bananas.'; cf. *Mawna mï nunu ika mïnda ame* 'Mawna
   always/often eats bananas.') [elicited]

15.3.2 Non-verbal negation

Constructions that negate non-verbal predicates occasionally work the same as
those that negate verbal predicates – that is, non-verbal negation may be ex-
pressed simply by means of the negator *ango* 'NEG' (see §12.2 for non-verbal
predication). Both classificatory (136) and possessive (137) predication can be ex-
pressed with zero copula. In both of these examples, negation is accomplished
by means of *ango* 'NEG' alone.

(136) *Kolpe mï **ango** yana.*
   Kolpe mï   **ango** yana
   [name] 3SG.SUBJ NEG   woman
   'Kolpe is not a woman.' [elicited]

(137) *Nambi **ango** wandam ambi.*
   nï-ambi **ango** wandam ambi
   1SG-TOP NEG   jungle   big
   'As for me, I don't have a big garden.' [ulwa037_50:05]

Both attributive (138) and classificatory (139) predication can, alternatively, be
expressed with the copular enclitic *=p* 'COP'. Here, too, negation is marked by
ango 'NEG'.

(138) ***Ango** anmap.*
   ango anma=p
   NEG   good=COP
   '[It] is not good.' [ulwa001_09:18]

(139) *U **Ango** ulum ulwape.*
    u   **ango** ulum ulwa=p-e
    2SG NEG   palm nothing=COP-DEP
    'You had no lack of sago palms.'[7] [ulwa014_50:02]

More commonly, however, non-verbal negation is accomplished by means of a clause-final negator, either *me* 'NEG' or *kom* 'NEG' (sometimes *kome* 'NEG', perhaps reflecting the dependent marker *-e* 'DEP'). Typically, the clause-final negator occurs in conjunction with the general negator *ango* 'NEG' in its typical post-subject clause position. Thus non-verbal negation in Ulwa is generally accomplished by means of a discontinuous structure (cf. French *ne … pas*). The discontinuous structure *ango … me* 'NEG' can be used to negate different kinds of non-verbal predicates: equative (140), attributive (141), identificational (142), existential (143), and classificatory (144); as well as different kinds of possessive predication, as in (145) and (146).

(140) *Nï **ango** unji itom **me**.*
    nï   **ango** un-nji   itom   **me**
    1SG NEG   2PL-POSS father NEG
    'I am not your father.' [ulwa009_02:55]

(141) *Way **ango** ambi **me**.*
    way   **ango** ambi **me**
    turtle NEG   big   NEG
    'The turtle wasn't big.' [ulwa006_00:02]

(142) ***Ango** Taw **me**.*
    ango Taw   **me**
    NEG   [place] NEG
    '[It] is not Taw.' [ulwa014_25:06]

(143) *Ipka **ango** wambana ambi **me**.*
    ipka   **ango** wambana ambi **me**
    before NEG   fish   big   NEG
    'Before, there weren't any big fish.' [ulwa014_69:19]

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[7]This sentence offers a nice example of litotes.

(144) ***Ango** nu luwa **me**.*
    ango** nu   luwa **me
    NEG   close place NEG
    '[It] was not a close place.' [ulwa031_04:53]

(145) *Unanambi **ango** unanji amba **me**.*
    *unan-ambi **ango** unan-nji   amba   **me***
    1PL.INCL-TOP NEG 1PL.INCL-POSS mens.house NEG
    'As for us, we don't have any magic.' [ulwa037_21:09]

(146) ***Ango** unji **me**.*
    ango** u-nji   **me
    NEG   2SG-POSS NEG
    '[They] are not yours.' [ulwa037_42:38]

Sentence (147) offers an example of the discontinuous negator *ango ... me* 'NEG' being used with a nominalized verb phrase.

(147) *Mï **ango** nan nïkapen **me**.*
    *mï   **ango** na=n   nï=kï-p-en   **me***
    3SG.SUBJ NEG talk=OBL 1SG=say-PFV-NMLZ NEG
    'She didn't reply to me.' (Literally 'She was not a having-spoken-to-me [person].') [ulwa032_21:36]

It is interesting to note that there are also examples of clauses with nominalized verb phrases in which *ango* 'NEG' is used without any clause-final negator. The distinction between the presence and absence of such clause-final negator could reflect a possible difference in scope for the negator *ango* 'NEG': the presence of the clause-final negator *me* 'NEG' (or *kom* 'NEG') would thus suggest that the non-verbal predicate (resulting from a deverbalized verb) is being negated; and the absence of the clause-final negator would suggest that the verb itself has been negated (before being deverbalized). For example, (148) contains *me* 'NEG', whereas (149) lacks it.

(148) *Nambi **ango** alanji wandam **unden me**.*
    *nï-ambi **ango** ala-nji   wandam unda-**en me***
    1SG-TOP NEG PL.DIST-POSS jungle   go-NMLZ NEG
    'As for me, I'm not one to go around in other people's jungles.'
    [ulwa037_41:09]

(149)   *Nambi **ango** ndiya **mawnden**.*
        *nï-ambi **ango** ndï=iya   ma=unda-**en***
        1SG-TOP NEG 3PL=toward 3SG.OBJ=go-NMLZ
        'As for me, I don't go around to them there.' (Literally 'As for me, I am
        not a to-them-there goer.') [ulwa037_63:56]

Perhaps (148) could thus be translated as something like 'I am not a going-
around-in-other-people's-jungles person', whereas (149) could be translated as
something like 'I am a not-going-around-to-them-there person'. Negative scope
is discussed further in §15.3.4. Alternatively, it is possible that the absence of
clause-final negators with nominalized verb phrases simply reflects a more gen-
eral optionality of such marking.

Sentence (150) offers an example of the discontinuous negator *ango … me* 'NEG'
being used with a relative clause.

(150)   ***Ango** kambe nji **me**.*
        ango** [kamb-e]   nji   **me
        NEG [shun-DEP] thing NEG
        '[It] wasn't something that [they] neglected.' [ulwa037_44:45]

The other clause-final non-verbal negator is *kom* 'NEG'. It, too, occurs in dis-
continuous constructions with the negator *ango* 'NEG'. Its use is illustrated in
examples (151) through (154).

(151)   ***Ango** wala luwa **kom**.*
        ango** wala   luwa **kom
        NEG far.off place NEG
        '[It] is not a far-off place.' [ulwa001_18:22]

(152)   *Unan **ango** wa ambi **kom**.*
        *unan   **ango** wa   ambi **kom***
        1PL.INCL NEG village big   NEG
        'We are not a big village.' [ulwa037_24:08]

(153)   ***Ango** wutota **kom** mundotoma ando.*
        ***ango** wutota **kom** mundotoma anda=o*
        NEG long   NEG short   SG.DIST=VOC
        '[The story] is not long; it's a short one.' [ulwa010_00:00]

(154)   **Ango** *unanji amba* **kom.**
        ango *unan-nji*   *amba*   **kom**
        NEG   1PL.INCL-POSS mens.house NEG
        '[It] is not our magic.' [ulwa037_09:59]

I have not identified any differences in usage or meaning between *me* 'NEG' and *kom* 'NEG'.

Sometimes when non-verbal predicates are negated, the clause-final negator is used alone – that is, the only negative element in the sentence is *me* 'NEG' or *kom* 'NEG', without *ango* 'NEG' being used at all.[8] Sentence (155) illustrates the use of *me* 'NEG' alone (i.e., without *ango* 'NEG') as a non-verbal negator.

(155)   *Un ini* **me.**
        un *ini*   **me**
        2PL ground NEG
        '[It] is not your land.' [ulwa014_23:19]

Sentences (156) and (157) demonstrate *me* 'NEG' being used with the semantically negative word *ulwa* 'nothing', perhaps exemplifying a sort of negative concord.

(156)   **Ulwa** *me.*
        ulwa   **me**
        nothing NEG
        '[It] is nothing.' [ulwa032_41:11]

(157)   **Ulwapen** *me nï un ka naman.*
        ulwa=*p-en*   **me** *nï* *u*=*n*   *ka* *na-ma-n*
        nothing=COP-NMLZ NEG 1SG 2SG=OBL let DETR-go-IPFV
        'There's nothing here, so I'm leaving you.' [ulwa031_01:07]

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[8]This may resemble Jespersen's Cycle (Dahl 1979), a grammatical change whereby a preverbal negative marker is replaced by a postverbal negative marker via a stage of two-part negation (again, as in French). However, if in fact different diachronic stages are represented by the presence or absence of preverbal or postverbal negators, then their relative chronologies are not readily discernible. Discontinuous negation is prevalent throughout the Keram family, although the morphology associated with it is perhaps not reconstructible. Given the rather rigid verb-final nature of these languages, the clause-final negator may have more likely emerged via grammaticalization of an older verb form. The particular history of this grammatical structure remains unknown.

It seems somewhat more common for the negator *kom* 'NEG' (or *kome* 'NEG') to be used alone – that is, as the only negator element in a negative non-verbal clause. Sentences (158) through (161) illustrate the use of *kom ~ kome* 'NEG' alone (i.e., without *ango* 'NEG') as a non-verbal negator.

(158) *Mïkï itïm **kome**.*
       *mïkï   itïm   **kome***
       tree.species trash NEG
       '[It] is not a swamp at all.' [ulwa014_31:25]

(159) *Ndïnji **kome** ndï matïna.*
       *ndï-nji   **kome** ndï ma=tï-na*
       3PL-POSS NEG   3PL 3SG.OBJ=take-IRR
       'But [it] isn't theirs, so they [won't] get it.' [ulwa037_23:17]

(160) *Isin wane mundu **kom**.*
       *isi=n   wana-e   mundu **kom***
       soup=OBL cook-DEP food   NEG
       '[This] is not [the kind of] food that is cooked in soup.' [ulwa014†]

(161) *Kwe wat u iyen **kom**.*
       *kwe wat u   i-en   **kom***
       one atop from go.PFV-NMLZ NEG
       'It wasn't just one who came onto [it].' (Literally 'One was not a having-gone onto [it] [one].') [ulwa014_21:43]

Perhaps bearing on the diachronic question of these clause-final (and discontinuous) negators is the fact that it appears that *kome* 'NEG' itself may be separable into two parts, *ko* 'just' and *me* 'NEG', which may surround the negated non-verbal predicate. In examples (162), (163), and (164), the prenominal element is glossed as the modal adverb *ko* 'just, simply', although it is formally identical to the indefinite marker *ko=* 'INDF'. Its origin is unclear.

(162) *Un **ko** nïnji ankam **me**.*
       *un **ko** nï-nji   ankam **me***
       2PL just 1SG-POSS person NEG
       'You are not my people.' [ulwa032_28:00]

(163) *Ngun **ko** ini anma **me**.*
       *ngun **ko** ini   anma **me***
       2DU   just ground good NEG
       'You two, [it] is not good land.' [ulwa014_12:32]

(164) *Nguna **ko** ndul amba kwe in wap **ko** ndïkalampen **me**.*
       *ngunan **ko** ndï=ul   amba   kwe in wap   **ko***
       1DU.INCL just 3PL=with mens.house one in be.PST just
       *ndï=kalam=p-en   **me***
       3PL=knowledge=COP-NMLZ NEG
       'We have not lived with them in even one men's house nor [do we]
       know about them.' [ulwa037_16:31]

Example (163) illustrates the peculiar behavior of *kalam* 'knowledge, knowl-
edgeable', a loan verb from Waran that has taken on nominal/adjectival features
(§7.4). Here it is first verbalized with the copular enclitic *=p* 'COP', before receiv-
ing the nominalizing suffix *-en* 'NMLZ'. Finally, this nominalized form is negated
with the non-verbal negator *me* 'NEG'.

Finally, it must be noted here that there are also instances in which *me* 'NEG' is
used alone without any apparent negative sense. Such uses seem more common
with adjectives designating the greatness of someone or something, as in (165)
and (166).

(165) *E an namndu nïpat **me**!*
       *e an   namndu nïpat **me***
       ay 1PL.EXCL pig   giant NEG
       'Ay, we [had] really giant pigs!' [ulwa014†]

(166) *Ambi ngata nda yangle **me** kenmbu nïpat.*
       *ambi ngata anda   yangle **me** kenmbu nïpat*
       big   grand SG.DIST strong NEG heavy   giant
       'That big huge [child] was very strong, terribly heavy.' [ulwa032_19:15]

Perhaps sentences such as (165) and (166) should be taken to mean, for example,
'not [merely] giant, [but rather] really, really giant'. Alternatively, they could
perhaps be ironical statements.

See §6.11 for the speculative suffix *-t* 'SPEC', which may in origin be a postverbal
negator, although this is far from certain.

15.3.3 Prohibitions

In prohibitions (i.e., negative commands), the regular negator *ango* 'NEG' is not
used at all, but rather the prohibitive marker *wana ~ wanap* 'PROH' is used, as in
(167).

(167)   ***Wanap** apka nïklop mana!*
      ***wanap** apka nï=klop   ma-na*
      PROH   very 1SG=cross go-IRR
      'Don't go and bypass me completely!' [ulwa014†]

More examples of prohibitive statements can be found in the sections on negative commands (§15.2.4) and on the speculative suffix *-t* 'SPEC' (§6.11).

15.3.4 Negative scope

An interesting fact about Ulwa negation concerns the scope of the negator. The tendency in Ulwa is to place *ango* 'NEG' within the first clause of multiclausal constructions, even when the scope of negation is smaller than the whole series of clauses. In other words, a subsequent clause or clausal element may be negated, without any negation implied concerning the clause in which *ango* 'NEG' occurs, as illustrated in examples (168) through (170).

(168)   *An **ango** apa mbïlop mbïwap.*
      *an   **ango** apa   mbï-lo-p   mbï-wap*
      1PL.EXCL NEG   house here-go-PFV here-be.PST
      'We came home, but didn't stay.' (Literally 'We did not come home and stay.') [ulwa032_33:21]

(169)   ***Ango** ulum ale we wandam pen.*
      ***ango** ulum ale-e   we   wandam p-en*
      NEG   palm scrape-DEP sago jungle   be-NMLZ
      'When [they] scrape sago palms, the sago starch is not [left behind] in the jungle.' (Literally '[It is] not [the case that], having scraped sago palms, the sago starch is [left behind] in the jungle.') [ulwa014_60:03]

(170)   ***Ango** mat mïnjikan kïna: ...*
      ***ango** ma=tï   mïnjika=n   kï-na*
      NEG   3SG.OBJ=take speech=OBL say-IRR
      'Having gotten it, [they] wouldn't say [the following]: ...' (Literally '[It is] not [the case that they] get it and would say [the following]: ...') [ulwa032_46:52]

This rather early placement of *ango* 'NEG' occurs in conditional statements as well – that is, the negator may occur within the protasis, even when the verbal element to be negated belongs in the apodosis. In each of the conditional statements in (171), (172), and (173), *ango* 'NEG' occurs within the protasis.

(171) ***Ango*** *maka apwanam mapta inim landa.*
 ango *maka apwanam*   *ma=p-ta*   *inim*   *la-nda*
 NEG   thus   side.of.house   3SG.OBJ=be-COND water eat-IRR
 'As long as [she] is staying at the side of the house, [a recent mother]
 may not drink water.' [ulwa014_36:12]

(172) ***Ango*** *mat ita nduwe malanda.*
 ango *ma=tï*   *i-ta*   *ndï-we*   *ma=la-nda*
 NEG   3SG.OBJ=take go.PFV-COND 3PL-PART.INT 3SG.OBJ=eat-IRR
 'If [he] brings it, they will not eat it alone.' [ulwa014_64:59]

(173) ***Ango*** *amunpïta ikali masinate.*
 ango *amun=p-ta*   *i-kali*   *ma=si-na-t-e*
 NEG   now=COP-COND hand-send 3SG.OBJ=push-IRR-SPEC-DEP
 'If [a baby] is still very young, [then fathers] will not hold it.'
 [ulwa014_37:45]

In the two conditional prohibitive statements given in (174) and (175), the negative marker *wana* 'PROH' occurs in the protasis, even though the negation properly occurs in the apodosis.

(174) ***Wana*** *ambipïta wa lolop ala wandam pïta alanji nji landa!*
 wana *ambi=p-ta*   *wa lolop ala*   *wandam p-ta*   *ala-nji*
 PROH big=COP-COND just just PL.DIST jungle   be-COND PL.DIST-POSS
 nji   *la-nda*
 thing eat-IRR
 'When [you] are grown and are just [going around] in other people's
 gardens, don't eat their things!' [ulwa032_40:38]

(175) *A un **wana** apa mapta luke natana!*
 a   *un **wana** apa*   *ma=p-ta*   *luke na-ta-na*
 INTERJ 2PL PROH house 3SG.OBJ=be-COND too DETR-say-IRR
 'Hey, if you're in the house, don't talk either!' [ulwa032_42:57]

15.3.5 Negative responses

It is relatively uncommon to answer 'yes' or 'no' to questions in Ulwa: rather, interlocutors tend to respond with full answers or paralinguistic gestures (such as head movements) or interjections (such as *m* 'hm!'). It is nevertheless possible to use the word *ase* 'no' (sometimes realized as [asa]), whether as a response to

a question, or as a simple denial (without any question necessarily having been posed). Sentences (176) through (179) provide examples of its use.

(176) *Ndï man nan nït **ase**.*
       *ndï ma=n   na=n   nï=ta   **ase***
       3PL 3SG.OBJ=OBL talk=OBL 1SG=say no
       'They told me "no".' [ulwa014_20:39]

(177) ***Ase** unan tïngïnpe.*
       ***ase** unan   tïngïn=p-e*
       no   1PL.INCL many=COP-DEP
       'No, we are many [now].' [ulwa014_64:27]

(178) *Nï ango wa mbïpta ul wombïn ninda. **Ase** nï umbe un ka wandam*
       namana.
       *nï ango wa   mbï-p-ta   u=ul   wombïn=n ni-nda **ase** nï*
       1SG NEG village here-be-COND 2SG=with work=OBL act-IRR no   1SG
       umbe   u=n   ka wandam na-ma-na
       tomorrow 2SG=OBL let jungle DETR-go-IRR
       'I won't stay in the village and work with you. No, tomorrow I'll leave
       you and go to the jungle.' [ulwa031_00:12]

(179) ***Asa** mï mïnjikan ngunankap: ...*
       ***asa** mï   mïnjika=n   ngunan=kï-p*
       no   3SG.SUBJ speech=OBL 1DU.INCL=say-PFV
       'No, he said the following to us: ...' [ulwa014_23:38]

The word *ulwa* 'nothing', or a verbalized form *ulwa=p* 'there is nothing', may also be used as a negative response word, particularly when declining a request for a physical item. This may be compared with the Tok Pisin word *nogat* 'no' which derives from *no gat* 'there is not [something/anything]'.

15.4 Reported speech

In Ulwa, direct discourse is constructed around at least two separate clauses: one containing the quoted utterance (typically the second clause) and one reporting who uttered it (typically the first clause). Direct discourse constructions are thus of the form: 'speaker says/said: "[what that person says/said]"', as in (180).

(180) *Nï mat ndï amun up.*

    nï   ma=ta   ndï amun u-p

    1SG 3SG.OBJ=say 3PL now   put-PFV

    'I said: "They've only now planted (them)."' (Literally 'I said it …')
    [ulwa014_10:29]

Direct discourse constructions are generally formed with one of two mostly synonymous verbs, either *ta-* 'say' or *kï-* 'say'. The basic three-way TAM paradigms for these verbs (as well as the imperative and conditional forms) are presented in Table 15.1.

Table 15.1: Two 'saying' verbs

gloss	stem	IPFV	PFV	IRR	IMP	COND
'say'	*ta-*	*tan ~ t*	*tap ~ t*	*tana*	*tan*	*tata*
'say'	*kï-*	*ke*	*kap*	*kïna*	*kïn*	*kïta ~ kapta*

The verb *ta-* 'say' often occurs in a reduced (defective) form [t], although only when permitted by the phonotactics of the utterance in which it occurs. The verb *ka-* 'say', however, never occurs reduced as †[k] (indeed, word-final [k] is illicit, §4.1.1). The conditional form for *kï-* 'say' may be built alternatively from the perfective form *kap* 'say [PFV]', which exhibits vowel lowering (§6.2). There is no attested conditional form of *ta-* 'say' built from its perfective form (i.e., †[tapta] does not occur).

15.4.1 Intransitive uses of verbs of speaking

In examples (181), (182), and (183), the verb of speaking *ta-* 'say' or *kï-* 'say' is used intransitively. The form [na], when present, is glossed as the detransitivizing marker (§15.8.2), although the argument could be made that it is the noun *na* 'talk' functioning as the first half of a compound verb form. Since the verb of speaking is often transitive, however, the analysis of [na] here as the detransitivizing marker *na-* 'DETR' is preferred, since the form seems to be helping to reduce the valency of the verb.

(181) *Awal imba ρe una **natap**.*

    *awal   imba ρ-e   unan   **na-ta-p***

    yesterday night be-DEP 1PL.INCL DETR-say-PFV

    'Last night we talked.' [ulwa037_06:28]

(182)   *Inom mï **nakap**.*
        *inom   mï   **na-kï-p***
        mother 3SG.SUBJ DETR-say-PFV
        'Mother spoke.' [elicited]

(183)   *Wiya mbi ul **natana** mbi.*
        *u=iya   mbï-i   u=ul   **na-ta-na***   *mbï-i*
        2SG=toward here-go.PFV 2SG=with DETR-say-IRR here-go.PFV
        '[I] came to you here, came to speak with you here.' [ulwa026_00:35]

15.4.2 Transitive uses of verbs of speaking

It is, however, much more common for the verb of speaking to be transitive, tak-
ing as the object either the thing said or the person addressed. In examples (184)
through (187), the object of the verb is the thing said. Note that the detransitiviz-
ing marker *na-* 'DETR' is not present in these transitive clauses. The noun *na*
'talk', however, may occur.

(184)   *Min na kuma **tap**.*
        *min na   kuma **ta**-p*
        3DU talk some say-PFV
        'The two planned something.' (Literally 'The two said some talks.')
        [ulwa014_03:37]

(185)   *Nï ango na tïngïn **tana**.*
        *nï   ango na   tïngïn **ta**-na*
        1SG NEG talk many say-IRR
        'I won't tell many stories.' [ulwa024_01:55]

(186)   *Nï mol na **ndïtane**.*
        *nï   ma=ul   na   ndï=**ta**-n-e*
        1SG 3SG.OBJ=with talk 3PL=say-IPFV-DEP
        'I was telling the stories with him.' [ulwa014_40:12]

(187)   *Ndï ndïnap atwana **kïna**.*
        *ndï ndï=nap atwana   **kï**-na*
        3PL 3PL=for question say-IRR
        'They will ask about them.' [ulwa032_52:41]

Example (187) illustrates how reported questions can be expressed: namely, one uses the verb phrase 'say a question', where 'question' is the object of the verb of speaking.

Often, the verb of speaking takes as an object the thing said, without there being much semantic value to this object. That is, the object (always a bare 3SG object-marker clitic) functions as an expletive, as in examples (188) through (192).

(188) *Nï **mat** a!*
    nï   ***ma=ta***   *a*
    1SG 3SG.OBJ=say ah
    'I said, "ah!"' (Literally 'I said it: "Ah!"') [ulwa014_70:46]

(189) *Mï **mate** ankam alanji ala!*
    mï   ***ma=ta*-e**   *ankam ala-nji*   *ala*
    3SG.SUBJ 3SG.OBJ=say-DEP person PL.DIST-POSS PL.DIST
    'He said it [that he would kill their pigs], but those are other people's [pigs]!' [ulwa014_27:04]

(190) *Mï ambïwana **mat** a nï ta tata tïn mol li ina mane.*
    mï   *ambï=wana* ***ma=ta***   *a nï ta*   *tata tï-n*
    3SG.SUBJ SG.REFL=feel 3SG.OBJ=say ah 1SG already papa take-PFV
    ma=ul   *li*   *i-na*   *ma-n-e*
    3SG.OBJ=with down come-IRR go-IPFV-DEP
    'It thought to itself and said: "Ah! I'm already able to get papa and come down with him."' [ulwa006_02:22]

(191) ***Makape** mï i.*
    ***ma=kï-p*-e**   *mï*   *i*
    3SG.OBJ=say-PFV-DEP 3SG.SUBJ go.PFV
    'Having spoken, he went.' [ulwa039_00:28]

(192) *Nï lïmndï minlïpe **mat**: …*
    nï   *lïmndï min=lï-p-e*   ***ma=ta***
    1SG eye   3DU=put-PFV-DEP 3SG.OBJ=say
    'I saw the two of them and said: …' [ulwa014_42:15]

As illustrated by examples such as (192), among others, it is common for verbs of speaking (or at least the verb *ta-* 'say') to be defective – that is, the verb stem is often left unmarked for TAM (and loses its stem-final vowel), thus being pronounced as just [t]. This occurs especially in situations in which the object of speech is an expletive (or dummy) object.

The role of the object of the transitive verb of speaking, however, need not be the thing spoken, but may instead be the person addressed, as in (193).

(193) *Nï **nan mat** nï ango makïke lunda.*
       nï   **na=n**   ma=**ta**   nï   ango   ma=kïke   lo-nda
       1SG talk=OBL 3SG.OBJ=say 1SG NEG 3SG.OBJ=throw go-IRR
       'I told her: "I won't sell it."' [ulwa042_01:46]

In such constructions, the word *na* 'talk' is often present before the object marker. This word may or may not be followed by the oblique marker *=n* 'OBL'. When this marker is present, then the construction is analyzed as a clause that consists of a transitive verb taking the person addressed as its direct object and an oblique phrase composed of the word *na* 'talk' plus the oblique marker (i.e., literally 'tell [someone] with/by means of speech/talk'). In examples (194) through (200), the verbs *ta-* 'say' and *kï-* 'say' are used transitively, taking as an object the person addressed. The verb phrase follows the oblique phrase *na=n* 'with talk'.

(194) *Nï **nan ndït** nga unji.*
       nï   **na=n**   ndï=**ta**   nga   un-nji
       1SG talk=OBL 3PL=say SG.PROX 2PL-POSS
       'I said to them: "This is yours."' [ulwa014_06:44]

(195) *Nïnji yanat mï **nan ndïkap:** ...*
       nï-nji   yanat   mï   **na=n**   ndï=**kï-p**
       1SG-POSS daughter 3SG.SUBJ talk=OBL 3PL=say-PFV
       'My daughter told them: ...' [ulwa032_22:49]

(196) *Nï ine Tarambi **nan nït:** ...*
       nï   i-n-e   Tarambi **na=n**   nï=**ta**
       1SG come-PFV-DEP [name] talk=OBL 1SG=say
       'When I came, Tarambi told me: ...' [ulwa014†]

(197) *An **nan amblakap:** ...*
       an   **na=n**   ambla=**kï-p**
       1PL.EXCL talk=OBL PL.REFL=say-PFV
       'We said to each other: ...' [ulwa032_24:57]

(198) *Nï angos **nan ukïn**?*
       nï   angos   **na=n**   u=**kï-na**
       1SG what talk=OBL 2SG=say-IRR
       'What should I tell you?' [ulwa037_16:20]

(199)   **Nan** *nungolke* **ngalakapta** *ndï kalampïn!*

      na=n   *nungolke ngala=**kï**-p-ta*   *ndï kalam=p-na*

      talk=OBL child   PL.PROX=say-PFV-COND 3PL knowledge=COP-IRR

      'Tell these children so that they'll know!' (Literally 'If [you] tell these children with speech, they will know.') [ulwa006_07:23]

(200)   *Mï* **nan minte** *ngun naman!*

      mï   **na=n**   *min=**ta**-e*   *ngun na-ma-n*

      3SG.SUBJ talk=OBL 3DU=say-DEP 2DU   DETR-go-IMP

      'He told the two of them: "Go!"' [ulwa001_09:45]

Dependent marking is not necessary in such reported speech constructions, although it may be possible, as in (200).

Since the word *na* 'talk' functions as the head noun of its own oblique phrase in these constructions, it is possible for it to be modified by an adjective (201).

(201)   *Ndï* **na ilumnï** *ukïnat.*

      ndï **na** *ilum=nï* *u=kï-na-t*

      3PL talk little=OBL 2SG=say-IRR-SPEC

      'They might tell you a little story.' (i.e., 'They might try to deceive you.') [ulwa014_71:00]

When the oblique marker is absent, on the other hand, then the construction is analyzed as a compound verb phrase in which the nominal element occurs before the object (that is, they are separable verb constructions; see §11.2.1).[9] In examples (202) through (207), the verbs *ta-* 'say' and *kï-* 'say' are used transitively, taking as an object the person addressed. Although the word *na* 'talk' is present, it does not take the oblique marker *=n* 'OBL'. Accordingly, these sentences are interpreted as containing compound verb phrases, in which the nominal component is separate from the verb stem, occurring before the object.

(202)   *Nï* **na makïna** *ase.*

      nï   **na** *ma=**kï**-na*   *ase*

      1SG talk 3SG.OBJ=say-IRR no

      'I will tell him "no".' [ulwa031_00:23]

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[9]In certain situations, however, it is impossible to tell whether the form [na] contains the enclitic *=n* 'OBL' or not: if [na] is followed by a word that begins with /n-/ or /nd-/, then the sequence /nn/ – if ever present – would degeminate to [n].

(203) **Na** *Joanna* **kap** *inom ngol man!*
    na   *Joanna*   **kɨ-p**   *inom*   *nga=ul*   *ma-n*
    talk [name] say-PFV mother SG.PROX=with go-IMP
    '[I] told Joanna: "Go with this woman!"' [ulwa037_60:45]

(204) *Yanat mɨ* **na makap:** *...*
    yanat   *mɨ*   **na** *ma=**kɨ-p***
    daughter 3SG.SUBJ talk 3SG.OBJ=say-PFV
    '[My] daughter told her: ...' [ulwa032_28:41]

(205) *Nɨ* **na mate** *mɨ li.*
    nɨ   **na** *ma=**ta**-e*   *mɨ*   *li*   *i*
    1SG talk 3SG.OBJ=say-DEP 3SG.SUBJ down go.PFV
    'I told her and she went down.' [ulwa037_04:50]

(206) *Awal* **na** *yenanu ambi* **ndate.**
    awal   **na** *yenanu ambi anda=**ta**-e*
    yesterday talk woman big   SG.DIST=say-DEP
    'I told that big woman yesterday.' (i.e., 'my older sister') [ulwa037_49:35]

(207) *Nɨ ango angos* **na ukɨnate.**
    nɨ   *ango angos* **na** *u=**kɨ**-na-t-e*
    1SG NEG   what   talk 2SG=say-IRR-SPEC-DEP
    'I don't have anything to tell you.' [ulwa006_05:43]

In another version of transitive clauses based on the verbs *ta-* 'say' and *kɨ-* 'say', an expletive pronominal clitic *ma=* '3SG.OBJ' is used in place of *na* 'talk' and receives the oblique marker *=n* 'OBL'. The literal meaning of these constructions could be rendered as 'tell [someone] with it' (with 'speech' understood as the antecedent of 'it'). This construction is illustrated by examples (208) through (212).

(208) *Nɨ* **man ngunte:** *...*
    nɨ   **ma=n**   *ngun=**ta**-e*
    1SG 3SG.OBJ=OBL 2DU=say-DEP
    'I told you two: ...' [ulwa014_07:48]

(209) *Nɨ* **man mate.**
    nɨ   **ma=n**   *ma=**ta**-e*
    1SG 3SG.OBJ=OBL 3SG.OBJ=say-DEP
    'I told him.' [ulwa014_08:05]

(210) *Tïponïm ini mï tembipe nï **man** Danny **mat**.*

    *Tïponïm ini   mï   tembi=p-e   nï **ma=n**   Danny*

    [place]   ground 3SG.SUBJ bad=COP-DEP 1SG 3SG.OBJ=OBL [name]

    *ma=**ta***

    3SG.OBJ=say

    '"The Tïponïm ground is bad," I told Danny.' [ulwa014_09:07]

(211) *Mï **man mat**: …*

    *mï   **ma=n**   **ma=ta***

    3SG.SUBJ 3SG.OBJ=OBL 3SG.OBJ=say

    'He told her: …' [ulwa001_15:13]

(212) *Nï **man** unate: …*

    *nï **ma=n**   u=na-**ta**-e*

    1SG 3SG.OBJ=OBL 2SG=talk-say-DEP

    'I'm telling you: …' [ulwa014_33:50]

Example (212) illustrates the compound verb form *na-ta* 'say talk' co-occurring with the oblique-marked expletive construction *ma=n* 'with it'.

15.4.3 Expressing the topic of speech

A topic spoken about can be referred to as a phrase consisting of the topic, possessive marking, and the word *na* 'talk' (literally something like 'X's story', where X can be any kind of referent: a person, thing, or concept). Various means of indicating possession can be used in such constructions: the possessive suffix *-nji* 'POSS' (213), the oblique enclitic *=n* 'OBL' (214), or a non-subject pronominal (215) or deictic (216) form.

(213) ***Manji na** latane.*

    ***ma-nji**   **na** ala=ta-n-e*

    3SG.OBJ-POSS talk PL.DIST=say-IPFV-DEP

    '[We] were talking about her.' (Literally 'were saying those talks of her') [ulwa037_00:19]

(214) *Nï **ini man na** tane Wore un ango wap?*

    *nï **ini**   **ma=n**   **na** ta-n-e   Wore un ango wap*

    1SG ground 3SG.OBJ=OBL talk say-IPFV-DEP [place] 2PL which be.PST

    'When I was talking about the land, where were you, [people from] Wore?' [ulwa014_22:43]

(215) *Nï amun maka **lamndu wonmbi ma na** tana manen.*
     nï amun maka **lamndu wonmbi ma**   **na** ta-na   ma-n-en
     1SG now thus pig   tusk   3SG.OBJ talk say-IRR go-IPFV-NMLZ
     'Now I'm thus going to tell the story of the boar tusk.' [ulwa016_00:03]

(216) *Sande ndan **apa nda na** te.*
     Sande anda=n   ***apa anda na*** *ta-e*
     Sunday SG.DIST=OBL house SG.DIST talk say-DEP
     'Last Sunday, [he] was talking about that church.' (*Sande* = TP)
     [ulwa014_26:07]

If there is a person addressed in such constructions, then this person typically occurs as the direct object of the verb of speaking and the topic is included as an oblique phrase marked by *=n* 'OBL' following the word *na* 'talk', as in (217), (218), and (219). The possessive marker does not seem to be necessary.

(217) *Ndï **isi nan** antane.*
     *ndï **isi na=n***   *an=ta-n-e*
     3PL salt talk=OBL 1PL.EXCL=say-IPFV-DEP
     'They were asking us about salt.' [ulwa032_27:51]

(218) ***Ndunduma nan** nïte nï mat: …*
     ndunduma na=n   *nï=ta-e*   *nï ma=ta*
     ancestor   talk=OBL 1SG=say-DEP 1SG 3SG.OBJ=say
     'When [they] asked me about [their] ancestors, I said: …'
     [ulwa014_40:05]

(219) *Nïnji ulum **ndï nan** nïkap.*
     *nï-nji   ulum **ndï na=n***   *nï=kï-p*
     1SG-POSS palm 3PL talk=OBL 1SG=say-PFV
     '[She] told me about my sago palms.' [ulwa032_37:38]

15.4.4 Omission of verbs of speaking

In casual speech, the verb of speaking is sometimes omitted, presumably implied by the word *na* 'talk' plus the oblique marker *=n* 'OBL' (or by the expletive oblique phrase *ma=n* 'with it'), as in (220) and (221).

(220) *Nï **nan: …***
       *nï   **na=n***
       1SG talk=OBL
       'I said: …' [ulwa014†]

(221) *Nï wolka **man** Carobim u nul man!*
       *nï   wolka **ma=n**   Carobim u   nï=ul   ma-n*
       1SG again 3SG.OBJ=OBL [name] 2SG 1SG=with go-IMP
       'I in turn [told] Carobim: "Go with me!"' [ulwa014_70:48]

Sometimes speech is reported without any word of speaking at all to signal the quotation – that is, there is neither the verb *ta-* 'say' or *kï-* 'say' nor the noun *na* 'talk' or an expletive in its place. Such quotations are often signaled by intonation or by paralinguistic sounds or gestures. Often they follow a phrase of 'seeing', which may be used idiomatically to signal thought or reflection, as in (222) and (223).

(222) *Nï **lïmndï ndala** ungusuwata wombïn ambi nda.*
       *nï   **lïmndï ndï=ala** un-ngusuwata wombïn ambi anda*
       1SG eye   3PL=see 2PL-poor   work big SG.DIST
       'I saw them [and said:] "You poor things – that's big work."'
       [ulwa014_59:50]

(223) *Itom ndï **lïmndï anala a** anji nungol ala ambi nape.*
       *itom   ndï   **lïmndï an=ala**   **a** an-nji   nungol ala   ambi*
       father 3PL eye   1PL.EXCL=see ah 1PL.EXCL-POSS child   PL.DIST big
       na-p-e
       DETR-be-DEP
       '[Our] fathers saw us [and said:] "Ah! Our sons have gotten big."'
       [ulwa013_04:54]

As illustrated by example (223), the exclamation *a* 'ah!' often signals speech as well (§10.3.3). It typically belongs at the end of a prosodic unit, with the rest of the quoted speech continuing at the start of the subsequent prosodic unit.

When recounting stories, people may also omit a verb of speaking to make the action livelier (224).

(224) *Ne may tata!*
       na-i   ma=i   tata
       DETR-go.PFV 3SG.OBJ=go.PFV papa
       '[He] went, went to him [and said:] "Papa!"' [ulwa009_02:06]

Also, when conversations are recounted, the back-and-forth between two or more quoted speakers need not contain verbs of speaking between each turn, as in (225).

(225)   *Nï atwana mat a un ango luwa? An ma we ndatïna le. Ande nol!*
      nï atwana ma=ta   a un ango luwa an   ma we
      1SG question 3SG.OBJ=say ah 2PL which place 1PL.EXCL go sago
      anda=tï-na   lo-e   ande na-lo
      SG.DIST=take-IRR go-DEP ok   DETR-go
      'I asked her: "Ah! Where are you [going]?" [And she said:] "We're going to get sago starch." [And I said:] "All right, go!"' [ulwa037_63:00]

The word *mïnja* 'speech' often appears in clauses introducing reported speech. Much like *na* 'talk', it may be used with an oblique marker along with a verb of speaking. It may serve a discourse-deictic function, pointing to what has just been reported or to what is about to be reported (i.e., '[someone] said this'), as in examples (226), (227), and (228).

(226)   *Nï **mïnjan ndït** mambinalakan!*
      *nï **mïnja=n**   ndï=**ta** ma-ambi=na-la-ka-n*
      1SG speech=OBL 3PL=say 3SG.OBJ-TOP=DETR-IRR-let-IMP
      'I told them: "Leave it alone!"' [ulwa037_07:09]

(227)   *Ndï **mïnjan ke**: Mï unanï wa mbïpe.*
      *ndï **mïnja=n** **kï**-e   mï   unan=nï   wa   mbï-p-e*
      3PL speech=OBL say-DEP 3SG.SUBJ 1PL.INCL=OBL village here-be-IPFV
      'They're saying this: "It's here in the village with us."' [ulwa037_17:18]

(228)   *Thomas mï na nïte nï **mïnjan mat**: ...*
      *Thomas mï   na nï=ta-e   nï **mïnja=n** ma=**ta***
      [name] 3SG.SUBJ talk 1SG=say-DEP 1SG speech=OBL 3SG.OBJ=say
      'When Thomas told me, I said to him: ...' [ulwa037_05:54]

Frequently, however, the word *mïnja* 'speech' occurs in a more elliptical construction, in which it takes oblique marking but where there is no expressed verb, as in (229) and (230).

(229) *Nïnji inom mï **mïnjan** a nï inim lopop anmbï nay.*
     *nï-nji   inom   mï   **mïnja=n**   a nï inim lopo-p   an-mbï*
     1SG-POSS mother 3SG.SUBJ speech=OBL ah 1SG water wash-PFV out-here
     na-i
     DETR-go.PFV
     'My mother said: "Ah! I bathed and came out."' [ulwa013_03:01]

(230) *Kowe Marungun min **mïnjan** a una yeta la unan ma maytana!*
     *Kowe   Marungun min **mïnja=n**   a unan   yeta ala   unan*
     [name] [name]   3DU speech=OBL ah 1PL.INCL man PL.DIST 1PL.INCL
     ma ma=ita-na
     go 3SG.OBJ=build-IRR
     'Kowe and Marungun said: "Ah! We are men; let's go and build it!"'
     [ulwa013_07:05]

Note the use of the interjection *a* 'ah!' in (229) and (230). Sometimes the word *mïnja* 'speech' stands alone, without any oblique marking, to introduce reported speech. In examples (231) and (232), the interjection *m* 'hm!' helps signal the start of quoted speech.

(231) *Mï **mïnja m**!*
     *mï   **mïnja m***
     3SG.SUBJ speech hm
     'She said: "Hm!"' [ulwa037_53:08]

(232) *An lïmndï ndala **mïnja m** ala ankam kuma lawo.*
     *an   lïmndï ndï=ala **mïnja m** ala   ankam kuma*
     1PL.EXCL eye   3PL=see speech hm PL.DIST person some
     ala-awa=o
     PL.DIST-INT=VOC
     'We saw them and said: "Hm! Those really are some different people!"'
     [ulwa013_05:38]

15.4.5 Indirect discourse

When speech is reported indirectly, two clauses are employed: a matrix clause containing the verb of speaking and a dependent clause containing the reported speech. The dependent clause, which consists of the indirect speech, is embedded within the matrix clause. Embedded dependent clauses of indirect discourse

maintain Ulwa's canonical S(O)V word order. As in any clause, the subject of the embedded clause may be omitted; this may be especially common when the subject of the embedded clause matches that of the matrix clause (e.g., 'he$_i$ said that he$_i$ …'). In (233), the form [na] (which is not necessarily required in such constructions) is analyzed as the detransitivizing marker *na-* 'DETR'.

(233)   *Alma mï Guren mï apa maytape **natap**.*
        Alma   mï   [Guren mï   apa   ma=ita-p-e]
        [name] 3SG.SUBJ [[name] 3SG.SUBJ house 3SG.OBJ=build-PFV-DEP]
        *na-**ta**-p*
        DETR-say-PFV
        'Alma said that Guren built the house.' [elicited]

The verb in the embedded clause may be marked for irrealis mood if the reported statement refers to something that has not necessarily already transpired, as in (234) and (235).

(234)   *Mï mol **malanda** nate.*
        *mï   [ma=ul   ma=la-**nda**]   na-ta-e*
        3SG.SUBJ [3SG.OBJ=with 3SG.OBJ=eat-IRR] DETR-say-DEP
        'She said that [she] would eat with him.' [ulwa001_06:05]

(235)   *Ndï i **mana** nakap.*
        *ndï i   [ma-**na**] na-kï-p*
        3PL go.PFV [go-IRR] DETR-say-PFV
        'They came and talked about going.' [ulwa001_18:26]

Example (236) suggests that it may also be possible for the embedded clause of indirect discourse to be embedded within a noun phrase headed by the word *na* 'talk'. In this analysis, the literal rendering of this sentence would be something like 'yesterday, Dorothy told me would-sell-it talk'.

(236)   *Dorothy awal makïke **lunda** na nïte.*
        *Dorothy awal   [ma=kïke   lo-**nda** na] nï=ta-e*
        [name] yesterday [3SG.OBJ=throw go-IRR talk] 1SG=say-DEP
        'Yesterday, Dorothy told me that [she] would sell it.' [ulwa042_01:45]

A reflexive pronoun may be used within the embedded clause of speech to refer to the speaker, which is the subject of the matrix clause.[10] This only seems

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[10]See examples (23), (24), and (25) in §8.3 for illustrations of how binding principles apply within indirect discourse.

to occur when the pronoun referring to the speaker in the embedded clause has a role other than subject; otherwise, no pronoun is used at all. There is no designated logophoric pronoun in Ulwa.

Often a verb of speaking is used to refer to thinking (or other non-vocal events), as in examples (237), (238), and (239). This use seems to be more common with the verb *kï-* 'say' than with the verb *ta-* 'say', with which it is otherwise mostly synonymous. Note that there is no overt complementizer used in complements of verbs of thinking.

(237) *Alma mï Guren mï apa mayte **nakap**.*
       Alma   mï   [Guren mï   apa   ma=ita-e]
       [name] 3SG.SUBJ [[name] 3SG.SUBJ house 3SG.OBJ=build-DEP]
       *na-**kï-p***
       DETR-say-PFV
       'Alma thought that Guren was building the house.' [elicited]

(238) *Nï anmbï ina **nakap**.*
       *nï [an-mbï   i-na]   na-**kï-p***
       1SG [out-here come-IRR] DETR-say-PFV
       'I thought about coming out here.' (i.e., 'I thought that [I] would come out here.') [ulwa040_00:55]

(239) *Im maya ata mana **nakap**.*
       *[im   ma=iya   ata ma-na] na-**kï-p***
       [tree 3SG.OBJ=toward up go-IRR] DETR-say-PFV
       '[He] thought about going up a tree.' (i.e., '[He] thought that [he] would go up a tree.') [ulwa035_02:17]

In sentence (240), the verb of speaking *kï-* 'say' is assisted by the form *wana-* 'feel', creating a compound surrounding the embedded clause of indirect speech or thought, thus functioning as a discontinuous compound verb form (§11.2.1).

(240) *Nï **wana** ndï ndine lïpe ndï anmape **nakap**.*
       *nï   **wana** [ndï ndï=in-e   lï-p-e   ndï anma=p-e]*
       1SG feel   [3PL 3PL=get-DEP put-PFV-DEP 3PL good=COP-DEP]
       *na-**kï-p***
       DETR-say-PFV
       'I thought that they got them down and that they were good.' [ulwa014†]

15.5 Conditional sentences

A basic conditional statement in Ulwa consists of two clauses, the first (the prota-
sis) expressing the condition, and the second (the apodosis) expressing the con-
sequence. There are variations to this pattern, though, such as sentences that
include more than one protasis, sentences that include more than one apodosis,
and sentences in which the result clause is not a statement, but rather a question
or a command. An example of a simple conditional sentence is given in (241).

(241)   *Inim **lopota** nï mana.*
        *inim lopo-**ta**   nï ma-na*
        water rain-COND 1SG go-IRR
        'If it rains, I'll go.' [elicited]

In the prototypical conditional sentence, the verb in the protasis is marked
with the conditional suffix *-ta* 'COND', whether affixed to the full perfective form
of the verb or to the verb stem (§6.12). The verb in the apodosis is always marked
as irrealis. This verb may additionally receive the suffix *-ta* 'COND', but only when
built from the irrealis form of the verb. That is, the verb in the apodosis cannot
be in any way perfective-marked or imperfective-marked. Thus, conditional sen-
tences in Ulwa are taken always to be hypothetical. For implicative conditions
(or factual conditions), Ulwa does not employ the suffix *-ta* 'COND', and thus, on
grammatical grounds, these are not taken to be conditional sentences.[11]

Conditional clauses in Ulwa can variously be translated in English with 'if',
'when', 'whenever', 'once', 'lest', 'even if', or 'even though', depending on the
context and intended meaning of the utterance. Sentences (242), (243), and (244)
are all translated with 'if'. The protasis always precedes the apodosis in an Ulwa
conditional sentence.

(242)   *U atwana **nïkïta** nï utana.*
        *u   atwana nï=kï-**ta**   nï u=ta-na*
        2SG question 1SG=say-COND 1SG 2SG=say-IRR
        'If you ask me, I'll tell you.' [elicited]

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[11]Proclamations such as 'if it rains, the ground gets wet' would not be expressed as conditions
in Ulwa; instead, a speaker would likely connect two clauses by subordinating one to the other
and employing the dependent marker on the first clause (i.e., '[when] it rains, the ground gets
wet').

(243) *Itom mï **mbita** unan landa.*
       *itom   mï   mbï-i-**ta**   unan   la-nda*
       father 3sg.subj here-go.pfv-cond 1pl.incl eat-irr
       'If father comes, we'll eat.' [elicited]

(244) *Mï **anmapïta** we ande ndï wolka mol nena.*
       *mï   anma=p-**ta**   we   ande ndï wolka ma=ul*
       3sg.subj good=cop-cond then ok   3pl again 3sg.obj=with
       na-i-na
       detr-come-irr
       'If he is well, then, OK, they would come back with him.'[12]
       [ulwa029_10:14]

The conditional sentences given in (245), (246), and (247) are better translated with 'when'.

(245) *Nï anganika ma maya **mata** ngan lowonda.*
       *nï anganika ma ma=iya   ma-**ta**   ngan   lo-wo-nda*
       1sg after   go 3sg.obj=toward go-cond 1du.excl irr-sleep-irr
       'When I later go, go to her, we two will sleep.' [ulwa032_18:45]

(246) *We mï akïnakapïta u **mankapta** mï anmapïna.*
       *we   mï   akïnaka=p-ta   u   ma=nïkï-p-**ta**   mï*
       sago 3sg.subj young=cop-cond 2sg 3sg.obj=dig-pfv-cond 3sg.subj
       anma=p-na
       good=cop-irr
       'When the sago starch is fresh, [then] when you prepare it, it will be good.' [ulwa014_60:23]

(247) ***Ndïnkïta** ndul wa undana mane.*
       *ndï=nïkï-**ta**   ndï=ul wa   unda-na ma-n-e*
       3pl=dig-irr-cond 3pl=with village go-irr   go-ipfv-dep
       'When we have butchered them, we're going to go home with them.'
       [ulwa038_03:18]

As illustrated by (244), the conditional marker *-ta* 'cond' may follow the copular enclitic *=p* 'cop' (§12.2). Sentence (248) also contains a copular enclitic, as well as a periphrastic 'going' verb in the apodosis in lieu of a simple irrealis verb.

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[12]This example also illustrates how conditional sentences may contain the subordinator *we* 'then' to connect the two clauses (§14.2.7).

(248)   **Tembipïta** *ndï mo* **ina mane.**
        *tembi=p-**ta**   *ndï ma=u*   **i-na**   **ma-n-e**
        bad=COP-COND 3PL 3SG.OBJ=from come-IRR go-IPFV-DEP
        'Whenever [people] were sick, they were going to come from there.'
        [ulwa029_09:50]

The use of periphrastic 'going' verbs in an apodosis is further illustrated by sentence (249), which also illustrates some of the complexity that is possible among conditional sentences in Ulwa. It is not uncommon for either the protasis or the apodosis (or both) to be multiclausal. Whereas the protasis in (249) is monoclausal (consisting of just a single verb, marked with the conditional suffix *-ta* 'COND'), the apodosis is multiclausal (consisting of first a perfective-marked verb and then a periphrastic construction that gives the entire multiclausal apodosis its irrealis mood).[13]

(249)   *Nduwe unïn anmbïlumopta un nul ndinap* **ndulunda mane.**
        ndï=we un=ïn   *an-mbï-lumo-p-ta*   *un nï=ul*   *ndï=ina-p*
        3PL=cut 2PL=OBL out-here-put-PFV-COND 2PL 1SG=with 3PL=get-PFV
        ndï=u-lo-nda   **ma-n-e**
        3PL=from-cut-IRR go-IPFV-DEP
        'Once [I] have cut them [= tobacco leaves] out for you, you, having gotten them with me, are going to peel them.' [ulwa042_03:44]

Like example (249), example (250) illustrates an irrealis perfective in the apodosis, here morphologically clearer since the form of the verb is *lamap* 'eat [IRR/PFV]' (cf. §6.9).

(250)   *U mat ita nï* **malamap** *wa* **mana.**
        u *ma=tï*   *i-ta*   *nï* **ma=la-ama-p**   *wa*   **ma-na**
        2SG 3SG.OBJ=take go.PFV-COND 1SG 3SG.OBJ=IRR-eat-PFV village go-IRR
        'If you bring it, I'll eat it and go home.' [ulwa032_28:45]

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[13]Note that it is rare for the dependent-marker suffix to occur within conditional clauses, even within multiclausal apodoses or protases – that is, it does not occur anywhere except at the very end of the apodosis, as in (249). These clauses are thus considered to be coordinate structures (§14.1). The perfective-marked verb in this example can thus be considered an irrealis perfective (§6.9); and the periphrastic construction (technically an irrealis-marked verb plus an imperfective-marked verb) can thus be considered the requisite irrealis construction of the apodosis.

In addition to exhibiting a multiclausal apodosis, sentence (250) exemplifies a protasis that contains two verbs. The first verb *tï-* 'take', however, is often defective and semantically closely connected to the following verb (often *ma- ~ i-* 'go' or *na-* 'give'), so this is perhaps not the clearest example of multiple clauses. In the conditional sentences given in (251) and (252), the verb *tï-* 'take' is used both in the protasis and in the apodosis.

(251) *Olsem u **ngalat** nïnata nï nïnji **ngalat** unanda.*
       *olsem u   ngala=**tï**   nï=na-ta   nï nï-nji   ngala=**tï***
       thus   2sg pl.prox=take 1sg=give-cond 1sg 1sg-poss pl.prox=take
       u=na-nda
       2sg=give-irr
       'So if you give these to me, I'll give mine to you.' (*olsem* = TP)
       [ulwa029_09:25]

(252) *Nï ko nji **tï** unata u ko nji **tï** nïnanda.*
       *nï ko nji **tï** u=na-ta   u ko nji **tï** nï=na-nda*
       1sg just thing take 2sg=give-cond 2sg just thing take 1sg=give-irr
       'If I give you something, you should give me something.'
       [ulwa032_28:01]

In sentence (253), the verb *tï-* 'take' is indeed marked for TAM (here, perfective).

(253) *Kalam **ngatïn** mol luta ngaya ndapïna.*
       *kalam   nga=**tï-n**   ma=ul   lo-ta   ngaya*
       knowledge sg.prox=take-pfv 3sg.obj=with go-cond far
       anda=p-na
       sg.dist=be-irr
       'If he gets this knowledge and goes around with it, he will be far away.'
       [ulwa014_73:58]

Notably, there is no conditional marking on the first verb in the protasis, even though it is not defective here. There are, however, instances in which multiple verbs in the protasis may be marked with the conditional suffix *-ta* 'cond'. In such sentences, it can be assumed that each verb represents a condition that must be met for the state or event in the apodosis to be or occur. Often these are best translated in English with a single clause, often with a single verb. The Ulwa sentence, however, contains multiple verbs in the protasis that may constitute

either a single clause with multiple verb phrases or a multiclausal protasis, as in (254).[14]

(254) *U kwa **mapta** mundu **lata** tamndï ko mundu ndïwalin.*
      *u   kwa ma=p-**ta**   mundu la-**ta**   tamndï ko mundu*
      2SG just 3SG.OBJ=be-COND food   eat-COND owner just hunger
      ndï=wali-n[da]
      3PL=hit-IRR
      'If you just eat the food there, the owners will go hungry.'
      [ulwa032_13:30]

Note, however, that verbs in the protasis clause or clauses should properly be marked as conditional only if the apodosis is in fact contingent on them. Thus, in sentence (255), the first verb (in fact a verbalized noun) receives no conditional suffix, but rather is dependent-marked.

(255) ***Nungolkepe** nï mandïm sata mï nït awi lïp nul wandam mana.*
      *nungolke=p-**e** nï ma=andïm sa-ta   mï   nï=tï   awi*
      child=COP-DEP 1SG 3SG.OBJ=for cry-COND 3SG.SUBJ 1SG=take shoulder
      lï-p   nï=ul   wandam ma-na
      put-PFV 1SG=with jungle   go-IRR
      'When [I] was a child and I would cry for him [= my father], he would put me on his shoulder and go with me to the jungle.' [ulwa033_01:47]

The protasis may have any number of conditionally marked verbs, however. Sentence (256) contains three.

(256) ***Mambilakata mankïta** keka itïm **nomopta** una wo lolop wa pïn.*
      *ma-ambi=la-ka-**ta**   ma=nïkï-**ta**   keka   itïm*
      3SG.OBJ-TOP=IRR-let-COND 3SG.OBJ=dig-COND completely trash
      *na-lumo-p-**ta**   unan   wa lolop wa   p-na*
      DETR-put-PFV-COND 1PL.INCL just just village be-IRR
      'If [we] abandon it, cut it [out], and throw [it] completely in the trash, [then] we will just stay [fine here] in the village.' [ulwa037_07:19]

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[14]This sentence has two verbs marked with the conditional suffix *-ta* 'COND' in the protasis (literally 'if you are just here and if [you] eat food …'). Note that a simple irrealis stem of *ama-* 'eat' (i.e., [la-]) is employed, and not an irrealis perfective compound stem (i.e., not †/la-ama-/). This is because the hypothetical event in the protasis is not perfective – that is, the event need not have been completed for the situation in the apodosis to be true.

It is also possible for the conditional suffix to appear on one or more verbs in the apodosis. I suspect that this is a form of overextension, marking a clause as conditional simply because it is connected to a conditional clause. This may be seen in examples (257) and (258).

(257) **Nditapta** *kalam mï* **natïnangata**.
  *ndï-ita-p-**ta*** *kalam* *mï* *na-tïnanga-**ta***
  3PL=build-PFV-COND knowledge 3SG.SUBJ DETR-arise-COND
  'When [they] build them [= school buildings], knowledge will increase.'
  [ulwa014_26:35]

(258) *U mat nonal luwa **malta** mï lowop **tembipïta**.*
  u *ma=tï* *nonal luwa ma=lï-**ta*** *mï*
  2SG 3SG.OBJ=take wind place 3SG.OBJ=put-IRR-COND 3SG.SUBJ
  lo-wo-p *tembi=p-**ta***
  IRR-sleep-IRR bad=COP-COND
  'If you put it out in the open air, it will go bad overnight.'
  [ulwa014_64:39]

Since clauses in the apodosis may also be marked with the conditional suffix *-ta* 'COND', it is sometimes not entirely clear whether a clause belongs to the protasis or to the apodosis – that is, in instances in which a conditional sentence contains more than two clauses. Sentence (259) illustrates this possible ambiguity.

(259) *Mat **ndïnata** ndï **mankïta** malanda.*
  ma=tï *ndï=na-**ta*** *ndï ma=nïkï-**ta*** *ma=la-nda*
  3SG.OBJ=take 3PL=give-COND 3PL 3SG.OBJ=dig-COND 3SG=eat-IRR
  (a) 'If [she] gives it to them, then they will prepare it and eat it.'
  (b) 'If [she] gives it to them, and if they prepare it, then [they] will eat it.'
  [ulwa014_40:35]

While many conditional sentences have statements as apodoses, it is also possible for a conditional sentence to have a question or a command as the apodosis. In example (260), the apodosis takes the form of a question.

(260) *Nï **mamata** olsem ko kwa **mbïpïta** lïmndï **ndutata** ay **nïkïta** ndul landa?*

nï	ma=ma-**ta**	olsem ko	kwa mbï-p-**ta**	lïmndï
1SG	3SG.OBJ=go-COND	thus just	one here-be-COND	eye

ndï=uta-**ta**	ay	nïkï-**ta**	ndï=ul	la-nda
3PL=grind-COND	sago	dig-COND	3PL=with	eat-IRR

'If I were to go there, who would stay here, watch after them, prepare sago, and eat with them?' (*olsem* = TP) [ulwa027_00:27]

Note the extensive use of conditional-marked verbs throughout example (260); indeed, every verb except the final irrealis verb in the apodosis exhibits the conditional suffix *-ta* 'COND'. Example (261) also has a question for its apodosis. Here, only one verb is marked with the suffix *-ta* 'COND'.

(261) *Un nambï **kenmbupïta** un anjikaka imbamka lunda?*

un	nambï	kenmbu=p-**ta**	un	anjikaka	imbam-ka	lo-nda
2PL	skin	heavy=COP-COND	2PL	how	run-let	go-IRR

'But if your body is heavy, how can you run around?' [ulwa032_34:46]

It is possible for the question word to occur in the protasis even when (at least in the English translation) the interrogative would be expected to occur in the apodosis, as is the case in (262). This may have something to do with the placement and scope of the negator *ango* 'NEG' in multiclausal constructions (§15.3.3), since the question words are etymologically related to *ango* 'NEG'.

(262) *Una **ango** luwa pïta inim malanda?*

unan	**ango**	luwa	p-ta	inim	ma=la-nda
1PL.INCL	NEG	place	be-COND	water	3SG.OBJ=eat-IRR

'Where will we drink water?' (Literally 'We, if at which place, will drink water?') [ulwa029_03:26]

It is also common for apodoses to take the form of imperatives. In fact, conditional constructions often serve the pragmatic function of softening a request or command (§15.2), as seen in (263).

(263)   *Un ma ya koya ata ma **maynapta** nditap ndïtïl nap ndït **ita** una*
       ndutata *inim uta ndïlan!*
       un   ma ya   ko=iya   ata ma ma=ina-p-**ta**
       2PL go   coconut INDF=toward up   go   3SG.OBJ=get-PFV-COND
       ndï=ita-p   ndï=tïl   na-p   ndï=tï   i-**ta**   unan
       3PL=build-PFV 3PL=husk DETR-be 3PL=take go.PFV-COND 1PL.INCL
       ndï=uta-**ta**   inim   u-ta   ndï=la-n
       3PL=grind-COND water put-COND 3PL=eat-IMP
       'If you go, go up a coconut tree, and get it, [and] if [you] tie them [= the
       coconuts], husk them, and bring them, [then] we will grind them into
       water and eat them!' [ulwa018_00:35]

Although presented as a series of conditions, the first clauses in sentence (263) are pragmatically tantamount to a request (i.e., 'please get coconuts so that we may grind them and eat them'). Note also how the conditional form *-ta* 'COND' occurs in (what is translated here as) the apodosis. Another example of a conditional form used in a command is given in (264).

(264)   *Un keka nul ndïn umop ulwap ndïwat **itapta** we un nol!*
       un   keka   nï=ul   ndï=n   lumo-p ulwa=p   ndï=wat
       2PL completely 1SG=with 3PL=OBL put-PFV nothing=COP 3PL=atop
       ita-p-**ta**   we   un   na-lo
       build-PFV-COND then 2PL DETR-go
       'If you plant all of them [= the tobacco seedlings] with me and cover
       them [with leaves], then you [may] go!' [ulwa040_01:15]

Sometimes, even without an imperative form, a conditional sentence can serve pragmatically as a request (see §15.2.3).

In some instances, the use of the conditional in imperatives may be seen as necessary to clarify a sequence of tasks that the speaker wishes the interlocutor to undertake, as in (265).

(265)   *Inim ngan apïn **ta** we inim ngan ndanan!*
       inim   nga=n   apïn [li]-**ta**   we   inim   nga=n
       water SG.PROX=OBL fire   put-COND then water SG.PROX=OBL
       ndï=ana-n
       3PL=scrub-IMP
       'Put this water on the fire, and then scrub with this water!'
       [ulwa014_50:35]

Finally, in prohibitions, the conditional suffix *-ta* 'COND' may be employed without any following apodosis, as in (266). This may be considered a form of ellipsis. Alternatively, it could be the case that the suffix here is related to the speculative suffix *-t* 'SPEC' (§6.11), which is also often used in negative commands.

(266) *Wanap nji ndïn **umopta!***
       *wanap nji   ndï=n   lumo-p-**ta***
       PROH   thing 3PL=OBL put-PFV-COND
       'Don't grow things!' [ulwa014_08:15]

See §15.2.4 and §15.3.2 for more on prohibitions.

15.6 Counterfactual sentences

Counterfactual sentences in Ulwa generally employ a verb with irrealis marking, as illustrated by (267).

(267) *Apïn kali **malnda** inim ngalope nï makam.*
       *apïn kali   ma=lï-**nda**   inim   nga-lo-p-e   nï*
       fire   send 3SG.OBJ=put-IRR water SG.PROX=cut-PFV-DEP 1SG
       ma=kamb
       3SG.OBJ=shun
       '[I] would have burned it, but this rain came, so I didn't want to.'
       [ulwa037_50:25]

The irrealis mood is a natural resource for designating counterfactual statements. While one prolific use of the irrealis mood is to mark future states or events, which are in a sense always counterfactual, the irrealis mood can also be applied to hypothetical states or events in present or past time that are known not to be true. Sentence (268) posits a hypothetical event in the past that is known not to have occurred. In this sentence, an irrealis form is used. This may be contrasted with the perfective forms used in the second clause to mark what was known to have occurred.

(268) *Wa **mbïpïna** Kowe awa mangusuwa asape mï i.*
       *wa   mbï-p-**na**   Kowe   awa ma-ngusuwa asa-p-e   mï*
       village here-be-IRR [name] INT 3SG.OBJ-poor hit-PFV-DEP 3SG.SUBJ
       i
       go.PFV
       '[Kïtalwe] would have stayed in the village, but Kowe himself hit the poor thing [= Kïtalwe] and he [= Kïtalwe] left.' [ulwa037_46:06]

Counterfactual statements are frequently used in conditional sentences, presenting hypothetical states or events, whether in the past or in the present. Examples (269) and (270) illustrate counterfactual conditional statements referring to past time.

(269) *Nï ndïn ndul **sita** ndï ango uta tï **nïnanda**.*
       *nï ndï=n ndï=ul si-ta   ndï ango uta tï nï=na-**nda***
       1SG 3PL=OBL 3PL=with push-COND 3PL NEG bird take 1SG=give-IRR
       'If I had shown them [= the birds] to them, I would not have been able to take the birds for myself.' [ulwa032_56:25]

(270) *U uk undana **nakïta** u ilum atnï wambana **mokona**.*
       *u   uk unda-na na-kï-**ta**   u   ilum at=nï   wambana*
       2SG hook go-IRR DETR-say-COND 2SG little fight=OBL fish
       *moko-**na***
       take-IRR
       'If you had thought of fishing, you would have gotten many fish.'
       (Literally 'would have taken with little fight'; *uk* = TP *huk*)
       [ulwa032_22:59]

Examples (271) and (272) illustrate counterfactual conditional statements referring to present time.

(271) *Ndï **ndandïlaluta ndalin**. Ndï ango ndale.*
       *ndï ndï=andïla-lo-**ta**   ndï=ali-**n[da]** ndï ango ndï=ali-e*
       3PL 3PL=await-go-IRR-COND 3PL=scrape-IRR 3PL NEG 3PL=scrape-IPFV
       'If they looked for them, they would scrape them. But they don't scrape them.' [ulwa032_38:31]

(272) *A! Ala num tï **mbïlta** nï mbu **wonlakana**.*
       *a ala   num tï mbï-lï-**ta**   nï mbï-u   won-**la**-ka-**na***
       ah PL.DIST canoe take here-put-COND 1SG here-from cut-IRR-let-IRR
       'Ah! If only those folks had a canoe here, I would cross from there.'
       [ulwa037_02:50]

15.7 Passive voice

Syntactically, passive sentences are remarkable in Ulwa, since they do not comply with the canonical verb-final clause structure. Despite their crosslinguistically unusual formation (in that they rely solely on the manipulation of word order), these constructions in Ulwa are considered here to be passive, since they satisfy common criteria for defining passives (see Siewierska 2013; Barlow 2019a).

Active sentences in Ulwa have a fairly rigid SOV constituent order (§13.1), as in (273). In passive sentences, on the other hand, the verb occupies a different position: it precedes the subject, as in (274).

(273)   *Yeta mï lamndu **masap**.*
        *yeta mï   lamndu **ma=asa-p***
        man 3SG.SUBJ pig   3SG.OBJ=hit-PFV
        'The man killed the pig.' [elicited]

(274)   ***Asape** lamndu mï.*
        ***asa-p-e**   lamndu mï*
        hit-PFV-DEP pig   3SG.SUBJ
        'The pig was killed.' [elicited]

Likewise, in the active-voice sentence in (275), the word order is SOV, whereas in the passive-voice sentence in (276), the word order is VS. The subject argument in the passive sentence corresponds to the object argument of its active equivalent.

(275)   *Inom utam **nduwanap**.*
        *inom   utam **ndï=wana-p***
        mother yam   3PL=cook-PFV
        'Mother cooked the yams.' [elicited]

(276)   ***Wanape** utam ndï.*
        ***wana-p-e**   utam ndï*
        cook-PFV-DEP yam 3PL
        'The yams were cooked.' [elicited]

As the grammatical subject in the passive sentence, the postverbal patient-like argument is the only obligatory argument of the verb. As the subject, it is marked

not with the object marker but with the subject marker.[15] Furthermore, the verb in the passive sentence does not permit an object-marker proclitic, since the semantic patient (the object of the equivalent active sentence) has been promoted to the role of subject. The difference in word order between active-voice and passive-voice clauses is presented in (277).

(277) Basic constituent order of active and passive clauses
    Intransitive active-voice clauses: SV
    Transitive active-voice clauses: SOV (APV)
    Passive-voice clauses (intransitive): VS   (VP)

The verb in the passive clause generally requires the suffix -*e* 'DEP'.[16] Although not functioning synchronically as dependent clauses, these passive sentences may have developed diachronically from a type of dependent clause, namely, relative clauses. Since relative clauses in Ulwa employ a gapping strategy, they leave themselves open to reanalysis as head-internal relative clauses with inverted word order (§14.3). For example, a set of matrix clause and relative clause as in (278) (with the subject "gapped") could be reanalyzed as the structure presented in (279) (with inverted word order).

(278) Gapping strategy analysis of relative clauses
    $[S[\_{i}OV]O_{i}V]$
    the gap "_" represents the S of the embedded relative clause
    the gap is co-indexed with the O (external head) of the matrix clause

(279) Head-internal analysis of relative clauses
    [S[OVS/O]V]
    "S/O" is the S of the relative clause
    "S/O" is also the O (internal head) of the matrix clause

Perhaps examples such as (274) and (276) could be analyzed as relative clauses. For example, sentence (276) could actually mean something like 'the yams that were cooked'. However, since these examples are all fully capable of serving as independent sentences, not dependent on any other clause, they are analyzed here as indeed passive sentences and not as relative clauses.

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[15]Although these markers are usually homophonous, there is a distinction in the 3SG form: *mï* '3SG.SUBJ' for subjects and *ma=* '3SG.OBJ' for non-subjects (§9.2, §13.2). Crucially, as in example (274), the form [mï] (and not †[ma]) follows the subject of the passive clause.

[16]The form [-e] serves several functions in Ulwa. Although it is glossed here as 'DEP' (i.e., "dependent"), these passive sentences are analyzed as being independent, since they serve as complete sentences, without needing any additional clause, stated or implied.

The suffix *-e* 'DEP' does not appear, at least not overtly, in irrealis-mood passives. Since the irrealis suffix invariably ends in [-a], and a phonological rule would syncopate a following /e/, it is, however, possible that there is an underlying suffix /-e/ even in these irrealis-mood passives. Sentence (280) provides an example of an irrealis-mood passive sentence.

(280) *Umbe **walinda** lamndu.*
       umbe   wali-**nda** lamndu
       tomorrow hit-IRR   pig
       'The pig will be killed tomorrow.' [elicited]

When passive clauses contain discontinuous verb forms (§11.2.1), the entire verbal unit occurs prenominally, as in (281).

(281) ***Lïmndï ale** ankam.*
       lïmndï ala-e   ankam
       eye   see-DEP person
       'The man was seen.' [elicited]

Sentences (282) and (283), which are examples of simple passive sentences taken from texts, reveal some of the pragmatic functions of passive sentences. In sentence (282), the speaker is introducing a new topic and placing emphasis on the action (the killing of pigs) and not on the agents of this action. In sentence (283), the role of the agent (the people who eat food in the dry season) is negligible; rather, the important point is – quite impersonally – that the dry season is a time when there is plenty food.

(282) *Asape nungol!*
       asa-p-e   nungol
       hit-PFV-DEP child
       'Piglets were killed!' (Literally 'Children [i.e., offspring of pigs] were killed!') [ulwa014_47:11]

(283) *Ane se ame mundu.*
       ane sa-e   ama-e   mundu
       sun cry-DEP eat-DEP food
       'When the sun is shining, food is eaten.' (i.e., the dry season is a good time for finding food) [ulwa041_02:10]

Although the agent of a passive sentence need not be expressed, it can be included as an oblique phrase. In active sentences, obliques (such as temporal adverbs) occur either in clause-initial position or immediately before the verb phrase – that is, before the verb in intransitive clauses, and before the object of the verb in transitive clauses. Likewise, the agent oblique phrase, if included, appears at the beginning of the passive clause, immediately before the verb. The oblique marker *=n* 'OBL' (§13.4.1) is used to identify the agent of passive verbs, as in sentences (284), (285), and (286).

(284)   ***Ankamnï*** *toplïpe mana.*
    ankam=nï *top-lï-p-e*   *mana*
    person=OBL throw-put-PFV-DEP spear
    'The spear was thrown by the man.' [elicited]

(285)   ***Ndïn*** *asape lamndu.*
    ndï=n   *asa-p-e*   *lamndu*
    3PL=OBL hit-PFV-DEP pig
    'The pig was killed by them.' [elicited]

(286)   ***Nungolnï*** *lukawtim mape nga.*
    nungol=nï *lukawtim ma=p-e*   *nga*
    child=OBL   look.after 3SG.OBJ=be-DEP SG.PROX
    'This one was looked after by [my] son.' (*lukawtim* = TP *lukautim*)
    [ulwa014_03:20]

It should be noted that passive sentences are very rare in Ulwa discourse. I suspect that they are being lost as the language experiences grammatical attrition in the face of obsolescence (see Chapter 17). In many situations in which one might expect to find a passive construction (i.e., situations in which the role of the agent of a transitive sentence is to be downplayed), alternative structures are often used. For example, some speakers use impersonal constructions. Since a pronominal subject can be omitted, it is possible to say something along the lines of '[they] did something', in which the non-specific subject 'they' is unstated altogether, as in (287) and (288).

(287)   *Nip malpe.*
    ni-p   *ma=lï-p-e*
    die-PFV 3SG.OBJ=put-PFV-DEP
    '[He] died and [they] buried him.' [ulwa037_45:52]

(288)   *Lungum anda matï Tapon nana.*
         lungum   anda   ma=tï   Tapon na-na
         long.spear sg.dist 3sg.obj=take [name] give-pfv
         '[They] gave a long spear to Tapon.' [ulwa003_00:32]

Although often not necessary to convey information, passive clauses fulfill a very useful role in discourse, since they enable certain relative clause constructions that would otherwise be impossible. In relative clause constructions, only the subject argument is accessible to being relativized (§14.3). An antecedent noun phrase cannot serve as the direct object of the relative clause. Therefore, although it would be possible directly to translate into Ulwa a sentence like 'Ginam saw the man who killed the pig', it would not be possible directly to translate into Ulwa a sentence like 'Ginam saw the pig that the man killed'.

Passivization, however, which can promote a direct object to subject, provides a means for conveying the meaning of a sentence like 'Ginam saw the pig that the man killed', changing the sentence, as it were, to a sentence like 'Ginam saw the pig that was killed by the man.' The sentence in Ulwa would appear as in (289).

(289)   *Ginam lïmndï ankamnï asape lamndu mala.*
         Ginam lïmndï [ankam=nï   asa-p-e]   lamndu ma=ala
         [name] eye   [person=obl hit-pfv-dep]   pig   3sg.obj=see
         'Ginam saw the pig that the man killed.' (Literally 'Ginam saw the pig that was killed by the man.') [elicited]

It is a rather straightforward process to have the head noun in an independent clause, such as *lam* 'meat' in (290) or (291), function as the subject of a relative clause, as in (292).

(290)   *Inom mï **lam** mawanap.*
         inom   mï   **lam** ma=wana-p
         mother 3sg.subj   meat   3sg.obj=cook-pfv
         'Mother cooked the meat.' [elicited]

(291)   ***Lam** mï nungol masap.*
         lam mï   nungol ma=asa-p
         meat 3sg.subj child   3sg.obj=hit-pfv
         'The meat killed the child.' (i.e., it poisoned him and he died) [elicited]

(292) *Inom mï nungol masape **lam** mawanap.*
   inom   mï   [nungol ma=asa-p-e]   **lam** ma=wana-p
   mother 3SG.SUBJ [child   3SG.OBJ=hit-PFV-DEP] meat 3SG.OBJ=cook-PFV
   'Mother cooked the meat that killed the child.' [elicited]

It is not, however, possible, for the head noun in the matrix clause to correspond to a direct object in the relative clause. Thus, *lam* 'meat' in (293) cannot be relativized. However, a comparable meaning can be conveyed by using a passive construction in the relative clause, as in (294).

(293) *Nungol mï **lam** mamap.*
   nungol mï   **lam** ma=ama-p
   [name] 3SG.SUBJ meat 3SG.OBJ=eat-PFV
   'The child ate the meat.' [elicited]

(294) *Inom mï nungolnï amape **lam** mawanap.*
   inom   mï   [nungol=nï ama-p-e]   **lam** ma=wana-p
   mother 3SG.SUBJ [child=OBL eat-PFV-DEP] meat 3SG.OBJ=cook-PFV
   'Mother cooked the meat that the child ate.' (Literally 'Mother cooked the meat that was eaten by the child.') [elicited]

It is perhaps due to this usefulness that the passive voice does still appear in discourse, often in other complex constructions that employ relative clauses, like in (295).

(295) *U ko nananï nïwat lape mïnda ngawonp.*
   u   ko nana=nï   nï=wat la-p-e   mïnda
   2SG just mama=OBL 1SG=atop plant-PFV-DEP banana
   nga=won-p-e
   SG.PROX=cut-PFV-DEP
   'You just cut this banana tree that was planted above me by mama.'
   [ulwa001_02:32]

15.8 Valency reduction and decreased transitivity

Passive sentences (§15.7) can be thought of as reducing the valency of a verb. Since their active, transitive equivalents have two core arguments (a subject and a direct object), whereas they themselves have only one argument (a patient-like subject), the valency of the verb is considered to be decreased. This section is concerned with other means of reducing valency or decreasing transitivity.

15.8.1 Transitivity classes of verbs

There are no formal properties, such as phonological differences, by which transitivity classes may be differentiated in Ulwa. That is, there are no formal distinctions between verbs that typically exhibit semantic properties associated with high transitivity and verbs that typically exhibit semantic properties associated with low transitivity.[17]

In examining the degree to which verbs may be ambitransitive in Ulwa, we may consider both A-lability and P-lability.[18]

In considering A-lability, we may note that it seems that essentially any verb in Ulwa may occur without an expressed object. Although this could be taken to suggest that there exist no truly transitive verbs in Ulwa, an alternative view would be that at least some instances in which a putatively ambitransitive verb occurs without an overtly expressed object are examples of indefinite object deletion (Næss 2007: 124–125). For example, the verb *ama-* 'eat' may occur either with (296) or without (297) an expressed object; when no object is stated, however, it could be argued that there is an indefinite object (i.e., 'food') that has simply been deleted.[19]

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[17]I follow here a scalar definition of "transitivity", based on semantic properties including telicity, punctuality, volitionality of the agent, and affectedness of the patient, among others (Hopper & Thompson 1980). Therefore, semantically, transitivity is taken to be a property of an entire clause. Syntactically, on the other hand, I understand a transitive clause (as opposed to an intransitive clause) as being "a construction with two syntactically privileged arguments" (Næss 2007: 6).

[18]Here I follow, for example, Kibrik (1996: 109), in differentiating two varieties of ambitransitivity or lability. In A-lability (i.e., agent-preserving lability), the S argument of the intransitive use of the verb is semantically the same as the A argument of the transitive. In P-lability (i.e., patient-preserving lability), on the other hand, the S argument of the intransitive use of the verb is semantically the same as the P argument of the transitive.

[19]Crosslinguistically, the verb 'eat' often behaves idiosyncratically in terms of transitivity (Næss 2009). Thus, it should perhaps not be taken as indicating too much about transitivity in the language in general. Nevertheless, Ulwa may here be contrasted with other Keram languages, such as Mwakai and Ap Ma, in which the semantically light noun *si* 'things' (in both languages) is commonly used as the object of the verb 'eat' when no particular food is being specified. Thus, in contrast to its sister languages, Ulwa – or at least the Manu dialect of Ulwa – seems to have an ambitransitive verb meaning 'eat'. In the Maruat-Dimiri-Yaul dialect, on the other hand, 'eat' generally takes the object *mundi* 'food', when no particular food is being specified. Although contrasts such as the one exemplified by (296) and (297) suggest the possible ambitransitivity (namely, A-lability) of the verb 'eat', it is common in the Manu dialect for the detransitivizing prefix *na-* 'DETR' to occur with 'eat' when no particular food is being specified (§15.8.2).

(296) *Nï ta lamndu amap.*
    nï ta   lamndu ama-p
    1sg already pig   eat-pfv
    'I have already eaten pork.' [elicited]

(297) *Nï ta amap.*
    nï ta   ama-p
    1sg already eat-pfv
    'I have already eaten.' [elicited]

Next, we may consider P-lability. Ulwa does not have a class of patient-preserving labile verbs. Verbal notions such as 'break' and 'burn', which are crosslinguistically more likely to be expressed with P-labile verbs, occur in Ulwa as pairs of unrelated verbs (i.e., 'break [transitive]' vs. 'break [intransitive]' and 'burn [transitive]' vs. 'burn [intransitive]'). In the terms of Nichols et al. (2004), Ulwa could be said to have an "indeterminate" valence orientation, since the correspondences between "plain" and "induced" verbs are generally of the suppletive variety (298).

(298) Underived pairs of verbs with transitive versus intransitive meanings

asa-	'kill'	*ni-*	'die'
na-	'feed (give food)'	*ama-*	'eat'
=n ul si-	'show'	*lïmndï ala-*	'see'
apïn ama-	'burn (set fire)'	*wo-*	'burn (catch fire)'
a-	'break (cause to break)'	*nungun u-*	'break (get broken)'

There are, for example, several ways of encoding 'breaking' events in Ulwa, but none of them instantiates P-lability. The verbs *a-* 'break', *kol-* 'break, split', *kot-* 'break, bear', and *kun-* 'break, break off' are all transitive, with the P argument referring to that which is broken; the verbs *nungun u-* 'break (intransitive)' and *tukul-* 'break (intransitive)', on the other hand, are both intransitive, with the S argument referring to that which is broken. Sentence (299) exemplifies the use of the intransitive verb *tukul-* 'break'.

(299) *Amun nïnji maka palapal min mï maka **tukulp**.*
    *amun nï-nji   maka palapal   min mï   maka **tukul**-p*
    now 1sg-poss thus decoration? band 3sg.subj thus break-pfv
    'Now, my, like, shell armband has broken like this.' (*palapal* < TP *balbal* ~ *palpal* 'Indian coral tree'?) [ulwa015_00:59]

Example (299) may be compared with example (105) in §10.2.3, which illustrates the use of the intransitive verb *nungun u-* 'break'.

Although *tukul-* 'break' may be etymologically related to *kol-* 'break', *kot-* 'break', or *kun-* 'break', it is not synchronically derived by any process (i.e., there is no known prefix †/tu-/). At any rate, the transitive verb *a-* 'break' is not related to any of these forms, whether diachronically or synchronically. An example of this transitive verb is given in (300), which may be compared with example (135) in §9.3 and example (202) in §9.5, which contain similar uses of this verb.

(300)   *May mïnkïn **map***
        *ma=i   mïnkïn   ma=**a**-p*
        3SG.OBJ=go.PFV sago.species 3SG.OBJ=break-PFV
        '[We] went there and broke a sago palm.' [ulwa037_03:43]

The verb *kot-* 'break' often seems to exhibit ambitransitivity, namely when it has the secondary meaning 'bear, give birth'. This, however, is indicative of A-lability, not P-lability.

Like 'break', the verbal notion of 'burn' in Ulwa is encoded with different verbs for transitive and intransitive meanings. The intransitive verb is *wo-* 'burn, blaze', which does not take an object. Transitive constructions, on the other hand, are formed with the phrase *apïn=n ama-* 'eat with fire', with the A argument referring to the person setting fire to something and the P argument referring to that which is burned (*apïn* 'fire' occurs in an oblique phrase) (301).

(301)   *Nï **apïn** im **ngamap**.*
        *nï   **apïn**=**n** im   nga=**ama**-p*
        1SG fire=OBL tree SG.PROX=eat-PFV
        'I burned this tree.' (Literally 'I ate this tree with fire.') [elicited]

Alternatively, *apïn* 'fire' can itself be the A argument (i.e., subject), with the P argument referring to that which is burned (i.e., 'fire eats [something]'); since there is no animate agent here (the fire is the subject), this construction has, at least semantically, something like an intransitive meaning, although syntactically it is transitive (302).

(302)   ***Apïn** mï amun im **ndame**.*
        ***apïn** mï   amun im   ndï=**ama**-e*
        fire   3SG.SUBJ now   tree 3PL=eat-IPFV
        'The trees are burning now.' (Literally 'Fire is now eating the trees.')
        [elicited]

Finally, although potentially any verb may be used without an overtly stated object, there are some prototypically low-transitivity verbs that never occur with an object, such as 'die'. It would thus not be unreasonable to consider such verbs to be intransitive. There is no class of ditransitive verbs in Ulwa (§13.3).

15.8.2 The detransitivizing prefix *na-* 'DETR'

There is an important bound morpheme in Ulwa that serves a number of grammatical functions, often with nuances that are difficult to explain, but whose basic function seems to be to reduce the transitivity of verbs (Barlow 2019b). This is the verbal prefix *na-* 'DETR' (i.e., "detransitivizer"). Reasons for treating the detransitivizing form *na-* 'DETR' as a prefix rather than a clitic include the fact that it only occurs before verbs and the fact that object-marker proclitics may precede it. It may be seen in sentence (303).

(303)   *Ndï **naytap.***
        *ndï **na**-ita-p*
        3PL DETR-build-PFV
        'They built [something].' [ulwa014_26:43]

In Ulwa, there are not strong distributional or structural differences between what may be thought of as transitive and intransitive verbs. Many verbs with meanings that are often considered prototypically intransitive can, in Ulwa, have direct objects and, as such, may be marked with object-marker proclitics. For example, the verb *ma-* ~ *i-* 'go' can function simply as an intransitive verb, requiring no object (304).

(304)   *Nï **i.***
        *nï   **i***
        1SG go.PFV
        'I went.' [ulwa014_12:42]

As an intransitive verb, *ma-* ~ *i-* 'go' may accept a postpositional phrase to demarcate a goal argument (305).

(305)   *Nï **ndiya i.***
        *nï   ndï=**iya**   **i***
        1SG 3PL=toward go.PFV
        'I went to them.' [ulwa014_05:39]

Alternatively, *ma- ~ i-* 'go' can function as a transitive verb, with the goal argument as its object. As an object, the goal argument can, accordingly, receive object marking (306).

(306) *Nï Kumba **may**.*
     *nï Kumba **ma=i***
     1SG Bun   3SG.OBJ=go.PFV
     'I went to Bun [village].' [ulwa032_00:16]

As a transitive verb, *ma- ~ i-* 'go' may take an object even without an object-marker proclitic (307).

(307) *Mï i wandam **iye**.*
     *mï   i   wandam **i-e***
     3SG.SUBJ go.PFV jungle   go.PFV-DEP
     'She went, went to the jungle.' [ulwa001_00:42]

Furthermore, as a transitive verb, *ma- ~ i-* 'go' can even have both a direct object and a postpositional phrase marking an additional destination (i.e., goal), as in (308). Thus the verb *ma- ~ i-* 'go' may be considered transitive (or at least capable of being transitive), taking as its direct object a goal argument. Even when there is no expressed object, the claim can be made that the verb is still transitive, only that the direct object has been left unexpressed.

(308) *Nï **maya** wa **may**.*
     *nï ma=**iya**   wa   **ma=i***
     1SG 3SG.OBJ=toward village 3SG.OBJ=go.PFV
     'I went to him in the village.' [ulwa037_37:38]

Although it is possible for the verb *ma- ~ i-* 'go' to function as an intransitive verb without any special marking, it very commonly receives the detransitivizing prefix *na-* 'DETR', which seems to serve the primary purpose of reducing transitivity, in this case changing the verb's meaning from something perhaps better glossed as 'go to' to something meaning simply 'go', as in (309) and (310).

(309) *Ndï **nay**.*
     *ndï **na-i***
     3PL DETR-go.PFV
     'They went.' [ulwa032_31:28]

(310) *Mangusuwata **namana**.*
       *ma-ngusuwata **na**-ma-na*
       3SG.OBJ-poor   DETR-go-IRR
       'The poor thing will be going.' [ulwa037_59:19]

This same prefix is seen on the verb 'go' also when a single argument is expressed in a postpositional phrase (i.e., the goal is not expressed as the direct object of the verb), as in (311).

(311) *Mï maya **nay**.*
       *mï   ma=iya   **na**-i*
       3SG.SUBJ 3SG.OBJ=toward DETR-go.PFV
       'He went to her.' [ulwa009_02:26]

The same prefix *na-* 'DETR' can occur with other verbs, also marking them as intransitive. In example (312), the verb *ama- ~ la-* 'eat' is transitive (i.e., it has an overt object). This sentence may be compared with examples (313) and (314), in which the same verb is intransitive, in these examples being marked with the prefix *na-* 'DETR'.

(312) *Tïn mï **utam mamap**.*
       *tïn   mï   **utam ma**=ama-p*
       dog 3SG.SUBJ yam   3SG.OBJ=eat-PFV
       'The dog ate the yam.' [elicited]

(313) *Nï ta **namap**.*
       *nï   ta   **na**-ama-p*
       1SG already DETR-eat-PFV
       'I've already eaten.' [elicited]

(314) *Ndul **nalanda**!*
       *ndï=ul   **na**-la-nda*
       3PL=with DETR-eat-IRR
       '[Let's] eat with them!' [ulwa029_04:11]

As a verbal affix that allows an otherwise transitive verb to lose its direct object argument, the prefix *na-* 'DETR' could theoretically be described as an antipassive morpheme, even though this term is not commonly used in descriptions of languages with nominative-accusative morphosyntactic alignment, such as Ulwa.[20]

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[20]See Heaton (2017: 149–163) for discussion of antipassives in nominative-accusative languages.

The morpheme *na-* 'DETR' is often better described as reducing the transitivity of a verb rather than changing its valency. In example (315), the object of the verb is technically the question word *angos* 'what?'. However, given the fact that the event that the verb is encoding is far from being prototypically transitive (i.e., the situation is non-punctual, irrealis, etc.), it is not surprising that the detransitivizing prefix *na-* 'DETR' is employed.

(315)　*Una angos **nalanda**?*
　　　*unan　　angos **na**-la-nda*
　　　1PL.INCL what　DETR-eat-IRR
　　　'What shall we eat?' [ulwa040_00:46]

Examples (316) and (317) illustrate how the verb *ita-* 'build' can likewise be detransitivized with the prefix *na-* 'DETR'. In example (316), the verb is transitive and receives the object marker *ma=* '3SG.OBJ'; in example (317), the verb is intransitive, and receives the detransitivizing prefix *na-* 'DETR'.

(316)　*Mï **wat maytap**.*
　　　*mï　　　**wat**　**ma**=ita-p*
　　　3SG.SUBJ ladder 3SG.OBJ=build-PFV
　　　'He built the ladder.' [ulwa001_10:24]

(317)　*Mï **naytap**.*
　　　*mï　　　**na**-ita-p*
　　　3SG.SUBJ DETR-build-PFV
　　　'He built [something].' [ulwa014_25:01]

Verbs glossed as 'put' in Ulwa, which take as their direct object a goal argument, are also commonly marked with the prefix *na-* 'DETR', either when there is no specific goal or when the speaker does not wish to include a goal argument, as in examples (318), (319), and (320).

(318)　*I ndïn **nop**.*
　　　*i　　　ndï=n　　**na**-u-p*
　　　go.PFV 3PL=OBL DETR-put-PFV
　　　'[They] went and planted them [somewhere].' [ulwa032_31:25]

(319) ***Nay** mat **nalp** mat wapa nduwatlïpe.*
na-i   ma=tï   **na**-lï-p   ma=tï   wap
DETR-go.PFV 3SG.OBJ=take DETR-put-PFV 3SG.OBJ=take leaf
ndï=wat-lï-p-e
3PL=atop-put-PFV-DEP
'[They] came, took him, put him [somewhere], put him on the leaves.'
[ulwa001_11:04]

(320) *Ndï namlipe mï ndït anmbï **nalpe**.*
*ndï namli=p-e   mï   ndï=tï   an-mbï   **na**-lï-p-e*
3PL soft=COP-DEP 3SG.SUBJ 3PL=take out-here DETR-put-PFV-DEP
'When they were soft, she took them out.' [ulwa013_02:29]

This prefix may also be used when these 'put' verbs are used as the second element of verbal compounds, also with the effect of downplaying the direct object (goal argument) of the 'put' verb, as in (321) and (322).

(321) *Ndï **mamune nop**.*
*ndï ma=mune   **na**-u-p*
3PL 3SG.OBJ=throw DETR-put-PFV
'They threw it around.' [ulwa032_36:3]

(322) *Ndï nji ngalan **ndïnambï nop**.*
*ndï nji   ngala=n   ndï=nambï **na**-u-p*
3PL thing PL.PROX=OBL 3PL=skin   DETR-put-PFV
'They blocked them with these things.' [ulwa036_02:17]

For uses of the form [nay] or [ne] (both from *na-i* 'DETR-go.PFV') as a TAM or discourse marker, see §17.3.

15.8.3 The prefix *na-* 'DETR' as middle voice marker

One function of the prefix *na-* 'DETR' seems to be to create something like a middle voice construction, indicating that the agent of the verb is also affected by the verb, without being its grammatical object. Thus the verb *kuk-* 'gather' can have a middle voice sense when marked with the prefix *na-* 'DETR', something like 'assemble, unite, gather oneself', as in (323).

(323)   *Mape **nakukawe**.*
       ma=p-e   ***na**-kuk-aw-e*
       3SG.OBJ=be-DEP DETR-gather-put.IPFV-DEP
       'While [he] was there, [they] were gathering.' [ulwa021_00:06]

Further examples are provided in the discussion of separable verbs (§11.2.1).

15.8.4 The prefix *na-* 'DETR' with the verbs *ni-* 'act' and *ni-* 'die'

Sometimes the role of the prefix *na-* 'DETR' is not entirely clear. It occurs at times, for example, with the verb *ni-* 'act, do'. It is not, however, always present; and it is difficult to explain its presence as a form of detransitivization, as the verb *ni-* 'act' is not particularly transitive. When it does select an argument (i.e., when the verb has the sense of 'do [something]'), this argument is marked with the oblique marker *=n* 'OBL', as in (324).

(324)   *Ndï makape wombïn **man ne**.*
       ndï maka=p-e   *wombïn ma=**n**   **ni**-e*
       3PL thus=COP-DEP work   3SG.OBJ=OBL act-IPFV
       'They used to do work like this.' [ulwa029_06:12]

It could be argued that example (324) is actually transitive, with the object marker *ma=* '3SG.OBJ' attaching directly to the verb stem. Indeed, the surface form is [wo.mbïn.ma.ne], which does not offer any phonological evidence of the oblique marker /=n/, which – I argue – has deleted before the immediately following /n/. However, its existence as an underlying form is supported by examples in which the allomorph /=nï/ appears as the oblique marker (325).

(325)   *Wombïn **anmanï ne**.*
       *wombïn anma=**nï** **ni**-e*
       work   good=OBL act-IPFV
       '[They] were doing good work.' [ulwa032_31:07]

Nevertheless, it is possible that the verb *ni-* 'act, do' is evolving to become more prototypically transitive, helped in part by the phonological ambiguity of forms such as those in (324). This can perhaps explain what otherwise seems like redundancy in marking *ni-* 'act' with the detransitivizing prefix *na-* 'DETR', seemingly without any change of meaning, as in (356).

(326) *Una umbe makape wombïn **man naninda**.*
    *unan   umbe   maka=p-e   wombïn ma=**n**   **na**-ni-nda*
    1PL.INCL tomorrow thus=COP-DEP work   3SG.OBJ=OBL DETR-act-IRR
    'Tomorrow we will do work like this.' [ulwa030_02:27]

Similarly, the verb *ni-* 'die', which I take to be homophonous rather than polysemous with *ni-* 'act, do', nevertheless exhibits similar patterning, often occurring either with or without the prefix *na-* 'DETR'. Example (327) illustrates the presence of the prefix *na-* 'DETR' with the verb *ni-* 'die', whereas example (328) illustrates its absence.

(327) *Mï **nanip**.*
    *mï   **na**-**ni**-p*
    3SG.SUBJ DETR-die-PFV
    'She died.' [ulwa014_43:05]

(328) *Mï **nip**.*
    *mï   **ni**-p*
    3SG.SUBJ die-PFV
    'She died.' [ulwa028_00:16]

15.8.5 The prefix *na-* 'DETR' with locative verbs

The detransitivizing morpheme *na-* 'DETR' is often used with the locative verb *p-* ~ *wap* 'be, be at (be located at)' (§12.1, §12.4), commonly in conjunction with the form *mbï* 'here'. It may serve the function of making the identification of the location less definite, as in (329). However, this is not always clearly the case. In (330), it is not clear to me why the location would be marked as less definite.

(329) *Una ango luwa lunda? Mbï **nawap**.*
    *unan   ango   luwa lo-nda mbï **na**-wap*
    1PL.INCL which place go-IRR here DETR-be.PST
    'Where should we have gone? We stayed.' (i.e., 'just stayed around'?)
    [ulwa029_04:00]

(330) *Wolka mo nay anmbï mbi mbï **nap**.*
    *wolka ma=u   na-i   an-mbï   mbï-i   mbï **na**-p*
    again 3SG.OBJ=from DETR-go.PFV out-here here-go.PFV here DETR-be
    'Again, [we] came from there, came out here, and are staying here.'
    [ulwa002_02:40]

15.8.6 The prefix *na-* 'DETR' for 'become'

Sometimes when the morpheme *na-* 'DETR' affixes to the locative verb *p-* 'be at', the verb seems to have a meaning closer to that of the generic copula *=p* 'COP', which likely derived from it (§12.3). When used along with /p/, the prefix *na-* 'DETR' often gives the sense of 'become' rather than 'be', although this is not always the case. Although semantically more similar to the copula, the form [p] here is functionally more similar to the verb in that it allows a verbal prefix (*na-* 'DETR'). This sort of ambiguity that exists between the locative verb *p-* 'be' and the copular enclitic *=p* 'COP' may be due to undergoing a process of grammaticalization. Sentences (331) through (334) all convey the sense of 'becoming'.

(331) *Mï wandam **nap**.*
       *mï   wandam **na-p***
       3SG.SUBJ jungle   DETR-be
       'It's become a jungle.' [ulwa014_54:02]

(332) *Asiya mï mundotoma **nape**.*
       *asiya mï   mundotoma **na-p-e***
       string 3SG.SUBJ short   DETR-be-DEP
       'The string has gotten short.' [ulwa015_02:51]

(333) *Ndï ambi **nap** kalam **nap**.*
       *ndï ambi **na-p**   kalam   **na-p***
       3PL big   DETR-be knowledge DETR-be
       'They are already big and know.' (Literally 'have become knowledgeable') [ulwa014†]

(334) *Ane naman awal **nap**.*
       *ane na-ma-n   awal   **na-p***
       sun DETR-go-IPFV afternoon DETR-be
       'The sun is going; it's becoming evening.' [ulwa018_03:28]

15.8.7 The prefix *na-* 'DETR' with object-marker proclitics

Rather more challenging to explain, the detransitivizing prefix *na-* 'DETR' may be used in conjunction with object-marking proclitics. When present, the object marker always precedes the prefix *na-* 'DETR'. Interestingly, when the 3SG marker is used, it takes the subject form [mï=] and not the object form †[ma=]. In other words, although functioning to indicate the object of the verb, the marker in

such constructions has the formal appearance of a subject marker. The fact that the morpheme *na-* 'DETR' immediately precedes verb stems and follows object-marker proclitics is support for the claim that it is a verbal prefix. Sentences (335) through (338) exemplify the use of object markers along with the detransitivizing prefix *na-* 'DETR'.

(335)   *Mï mol anmbi inim naye **mïnape**.*
      mï   ma=ul   an-mbï-i   inim   na-i-e
      3SG.SUBJ 3SG.OBJ=with out-here-go.PFV water DETR-go.PFV-DEP
      mï=na-p-e
      3SG.SUBJ=DETR-be-IPFV
      'It went with it out into the water and stayed around there.'
      [ulwa006_07:38]

(336)   *Mingusuwa mat nay ndï **mïnanïkape**.*
      min-ngusuwa ma=tï   na-i   ndï
      3DU-poor   3SG.OBJ=take DETR-go.PFV 3PL
      mï=na-nïkï-p-e
      3SG.SUBJ=DETR-dig-PFV-DEP
      'The two poor things took it and they butchered it.' [ulwa014_51:32]

(337)   *Ay **ndïnamap**.*
      ay   ***ndï=na-ama-p***
      sago 3PL=DETR-eat-PFV
      '[They] have eaten the sago.' [ulwa014_67:33]

(338)   *Min **ndïnasap**.*
      min ***ndï=na-asa-p***
      3DU 3PL=DETR-hit-PFV
      'The two killed them.' [ulwa001_18:49]

It may be that these forms have some level of reduced transitivity or that the object of the transitive verb is less definite. Sometimes, however, the direct object of the verb marked with both the prefix *na-* 'DETR' and an object marker is expressed as a full NP, as in examples (339), (340), and (341). It is difficult to see the morpheme *na-* 'DETR' as a means of reducing either transitivity or definiteness in examples such as these. That said, example (341) does seem best translated with an indefinite article.

(339) *Ande an **wa mïnapïna**.*
　　*ande an　　　　wa　　mï=**na**-p-na*
　　ok　1PL.EXCL village 3SG.SUBJ=DETR-be-IRR
　　'OK, we'll stay in the village.' [ulwa013_06:27]

(340) *Yokombla mï nay **numbu mïnanip**.*
　　*Yokombla mï　　　　na-i　　　　numbu　mï=**na**-ni-p*
　　[name]　3SG.SUBJ DETR-go.PFV garamut 3SG.SUBJ=DETR-beat-PFV
　　'Yokombla went and beat the *garamut* drum.' [ulwa014_50:40]

(341) ***Apa ambi mïnaytana.***
　　***apa　ambi mï=na**-ita-na*
　　house big　3SG.SUBJ=DETR-build-IRR
　　'[I] will build a big house.' [ulwa042_05:01]

　　In some instances, it seems that the simultaneous use of the detransitivizing prefix *na-* 'DETR' and an object marker may be attributable to frequent use of the prefix *na-* 'DETR' with certain verbs. For example, verb forms such as [nay] (< *na-* 'DETR' + *i* 'go.PFV') are so common, that it could be that, for some speakers, the prefix *na-* 'DETR' has fossilized to the verb root, having lost its original detransitivizing meaning, as for example in (342).

(342) *Nay i nay Imwa **mïnay**.*
　　*na-i　　　　i　　na-i　　　　Imwa　**mï=na**-i*
　　DETR-go.PFV go.PFV DETR-go.PFV [place] 3SG.SUBJ=DETR-go.PFV
　　'[They] went and went, went to Imwa.' [ulwa014_24:52]

　　The hypothesis that [nay] has fossilized as a monomorphemic form may be supported by the fact that it itself may receive the prefix *na-* 'DETR', in effect giving the verb stem two detransitivizing prefixes, as in (343).

(343) *Nï mol nay wa mbï **nanay**.*
　　*nï　ma=ul　　　　na-i　　　　wa　　mbï　**na-na**-i*
　　1SG 3SG.OBJ=with DETR-go.PFV village here DETR-DETR-go.PFV
　　'I went with her and came home here.' [ulwa032_18:08]

　　The stem *kamb-* 'shun' also frequently seems to have a fossilized prefix *na-* 'DETR', especially when the verb has the sense 'suffice, have enough', as in (344).

(344) *Nambi **nakamp**.*
       *nï-ambi **na**-kamb-p*
       1SG-TOP DETR-shun-PFV
       'As for me, I've had enough.' [ulwa032_24:30]

This form *nakamb-* 'shun [DETR]' can also take an additional object marker, as in examples (345) and (346).

(345) *I ndï una **ndïnakam**.*
       *i   ndï unan   **ndï=na**-kamb*
       way 3PL 1PL.INCL 3PL=DETR-shun
       'The [traditional] customs – we shun them.' [ulwa014_39:48]

(346) *Una **ndïnakam** nay.*
       *unan   **ndï=na**-kamb   na-i*
       1PL.INCL 3PL=DETR-shun DETR-go.PFV
       'We left them and came.' [ulwa037_26:13]

15.8.8 Multiple *na-* 'DETR' prefixes on a single verb

At times, however, the sheer number of *na-* 'DETR' prefixes in a given verb can be hard to account for morphosyntactically – even diachronically – and may be most simply explained as a sort of filler, as in examples (347), (348), and (349).

(347) *Unan **ndïnanalanda**.*
       *unan   **ndï=na-na**-la-nda*
       1PL.INCL 3PL=DETR-DETR-eat-IRR
       'We will eat them.' [ulwa030_01:16]

(348) *Mbï **nanap**.*
       *mbï **na-na**-p*
       here DETR-DETR-be
       '[We] stayed around.' [ulwa032_20:48]

(349) *Na ambi ndï mï **ndïnanatïn**.*
       *na   ambi ndï mï   **ndï=na-na**-tï-n*
       talk big   3PL 3SG.SUBJ 3PL=DETR-DETR-take-PFV
       'The big stories – he got them [already].' [ulwa032_05:31]

15.8.9 Objects demoted by preverbal obliques

In this section I examine a phenomenon in Ulwa that may be analyzed as a change in valency or as the demotion of a verbal argument. It is possible for the semantic object of a verb to appear as part of an oblique phrase. This occurs when an element intervenes between the (otherwise immediately preverbal) direct object and the verb. The element that motivates this demotion may be a postpositional phrase or an adjective functioning adverbially. In examples (350) through (353), the logical object of the verb contains oblique marking.

(350)   *Ndï **ndïn** we ndul landa.*
  *ndï **ndï=n** we ndï=ul la-nda*
  3PL 3PL=OBL sago 3PL=with eat-IRR
  '[They] would eat them [= pieces of meat] with sago.' [ulwa033_02:31]

(351)   ***Man** al mol tïn.*
  ma=n *al ma=ul* *tï-n*
  3SG.OBJ=OBL net 3SG.OBJ=with take-PFV
  '[It] got her with the mosquito net.' [ulwa006_04:56]

(352)   *Nïnji yenat ngala ango apka **ndïn** anma kalampe.*
  nï-nji *yenat* *ngala* *ango apka **ndï=n** anma*
  1SG-POSS daughter PL.PROX NEG very 3PL=OBL good
  kalam=p-e
  knowledge=COP-DEP
  'My daughters do not know them very well.' [ulwa032_38:29]

(353)   *Ndï wa **sokoyn** akïnaka ine.*
  *ndï wa **sokoy=n** akïnaka ina-e*
  3PL just tobacco=OBL new get-IPFV
  'They just harvest the tobacco prematurely.' [ulwa037_51:22]

In example (354), it seems that even the question word *anjikaka* 'how?' can intervene, thereby motivating the demotion of the object.

(354)   *U **man** anjikaka tï inde iye mï ko liyu?*
  *u **ma=n** anjikaka tï inda-e i-e mï ko*
  2SG 3SG.OBJ=OBL how take walk-DEP go.PFV-DEP 3SG.SUBJ just
  li-u
  down-put
  'How were you carrying it around such that it just fell?' [ulwa037_01:13]

Constructions such as these may, in a way, be considered antipassives, since the logical object of the transitive verb is demoted to an oblique phrase. It should be noted, however, that there is no verbal morphology, such as an affix, to signal this change.

15.9 Valency expansion?

Ulwa has no known valency-increasing constructions. The addition of any core arguments requires the addition, as well, of an inflected verb – that is, the addition of a clause. In other words, there is no verbal affix or clitic that can turn an intransitive verb into a transitive one or that can create an applicative or causative construction. Thus, what are sometimes expressed through valency-increasing operations in other languages have as functional equivalents in Ulwa multiclausal constructions, as illustrated in the following subsections.

15.9.1 Causative constructions

Events in which one participant causes another to act are expressed in Ulwa by a minimum of two clauses: one relating the causer to the causee, the other detailing the action of the causee. In examples (355) and (356), the verb *ni-* 'act, do' is used along with a postpositional phrase headed by *ul* 'with' to convey the sense 'force'. In these constructions, the clause with the causer as subject is marked as dependent with the dependent marker *-e* 'DEP' following the verb. This first clause may thus be translated with a causal sense (i.e., 'since …') (§14.2.2).

(355)   *Itom mï Kongos **mol nipe** mï apa itap.*
         *itom   mï   Kongos   ma=**ul**   **ni**-p-e   mï   apa*
         father 3SG.SUBJ [name] 3SG.OBJ=with act-PFV-DEP 3SG.SUBJ house
         ita-p
         build-PFV
         'Father made Kongos build a house.' (Literally '[Since] father acted with [i.e., forced] Kongos, he built a house.') [elicited]

(356)   *Yena mï numan **mol nipe** mï asimu inap.*
         *yena   mï   numan   ma=**ul**   **ni**-p-e   mï*
         woman 3SG.SUBJ husband 3SG.OBJ=with act-PFV-DEP 3SG.SUBJ
         asi-mu   ina-p
         grass-seed get-PFV
         'The woman made [her] husband buy rice.' (Literally '[Since] the woman acted with [i.e., forced] [her] husband, he got rice.') [elicited]

In example (357), a conditional statement is used to convey the irrealis sense of a causative.

(357) *Itom mï Kongos **mol nipta** mï apa itana.*

      itom   *mï*   *Kongos* *ma=**ul***   ***ni**-p-ta*   *mï*   *apa*

      father 3SG.SUBJ [name] 3SG.OBJ=with act-PFV-COND 3SG.SUBJ house

      ita-na

      build-IRR

      'Father will make Kongos build a house.' (Literally 'if father forces Kongos, he will build a house.') [elicited]

The idiom 'act with' (i.e., 'force') may be used in a single clause, without any other clause divulging what the person is forced to do, as in (358). This lends further support to the claim that the causative constructions in (355), (346), and (357) are all truly composed of two clauses each.

(358) *Itom mï Kongos **mol nip**.*

      itom   *mï*   *Kongos* *ma=**ul***   ***ni**-p*

      father 3SG.SUBJ [name] 3SG.OBJ=with act-PFV

      'Father forced Kongos.' [elicited]

In addition to 'act with', there is another idiom used in Ulwa to express compulsion. The form is *nambïnïkï-* 'make, nag' (literally 'dig at [one's] skin'). It conveys a weaker level of pressure than *ul … ni-* 'make, force', and may be seen in (359).

(359) *Yena mï numan **manambïnkape** mï asimu inap.*

      yena   *mï*   *numan* *ma=**nambï-nïkï**-p-e*   *mï*

      woman 3SG.SUBJ husband 3SG.OBJ=skin-dig-PFV-DEP 3SG.SUBJ

      asi-mu   *ina-p*

      grass-seed get-PFV

      'The woman made her husband buy rice.' [elicited]

The fact that examples such as (356) and (357) are sets of two clauses is suggested by uses of these causative verb phrases in situations where the would-be causee fails to complete the action, as in (360) and (361).

(360) *Yena mï numan **mol nipe** mï ango asimu inap.*

yena	*mï*	*numan*	*ma=**ul***	***ni-p-e***	*mï*	*ango*
woman	3sg.subj	husband	3sg.obj=with	act-pfv-dep	3sg.subj	neg

asi-mu	*ina-p*
grass-seed	get-pfv

'Even though the woman pressured [her] husband, he didn't buy rice.'
[elicited]

(361) *Yena mï numan **manambïnkape** mï ango asimu inap.*

yena	*mï*	*numan*	*ma=**nambï-nïkï**-p-e*	*mï*	*ango*
woman	3sg.subj	husband	3sg.obj=skin-dig-pfv-dep	3sg.subj	neg

asi-mu	*ina-p*
grass-seed	get-pfv

'Even though the woman nagged [her] husband, he didn't buy rice.'
[elicited]

In other words, any putative 'causing' verb is really an 'asking' or 'persuading' verb, and in no way suggests any increase in valency.

15.9.2 Causatives in indirect discourse

Commands or requests made in reported speech may be viewed as forms of causatives, provided that the command or request being made leads to an action being performed. An example is given in (362).

(362) ***Nan mate** mï i masamasa mowonp.*

na=n	*ma=**ta**-e*	*mï*	*i*	*masamasa*	*ma=won-p*
talk=obl	3sg.obj=say-dep	3sg.subj	go.pfv	tree.species	3sg.obj=cut-pfv

'[She] told him to go cut the tree.' (Literally '[Since] [she] told him, he went and cut the tree.') [ulwa001_03:57]

In Ulwa, commands expressed in reported speech reveal a distinction between realis and irrealis moods. In English, for example, there is a degree of ambiguity created by sentences that employ non-finite verb forms (i.e., infinitives), such as the following: *Mary told John **to leave***. Namely, it is not clear whether John actually left or not. In Ulwa, however, the TAM of the verb (e.g., *leave* in the English example) reveals whether the imperative led to the desired outcome (realis) or not (irrealis). This may be seen with a contrasting pair of sentences, one with perfective aspect (i.e., realis mood) (363) and another with irrealis mood (364).

(363) *Mawna mï **nan** Yawat **mate** mï **i**.*
       *Mawna mï   **na=n**   Yawat ma=**ta**-e   mï   **i***
       [name] 3SG.SUBJ talk=OBL [name] 3SG.OBJ=say-DEP 3SG.SUBJ go.PFV
       'Mawna told Yawat to leave [and he did].' (Literally '[Since] Mawna told
       Yawat, he left.') [elicited]

(364) *Mawna mï **nan** Yawat **mate** mï **mana**.*
       *Mawna mï   **na=n**   Yawat ma=**ta**-e   mï   ma-**na***
       [name] 3SG.SUBJ talk=OBL [name] 3SG.OBJ=say-DEP 3SG.SUBJ go-IRR
       'Mawna told Yawat to leave [but it is unclear whether or not he did].'
       (Literally '[Since] Mawna told Yawat, he might have left'; or '[Since]
       Mawna told Yawat, he will leave.') [elicited]

Sentence (365) provides another example of a causative in indirect discourse,
this one illustrating irrealis mood.

(365) *Unan **na makïta** mï **ndambikulilïnda**!*
       *unan   **na** ma=**kï**-ta   mï   ndï-ambi=kuli-lï-**nda***
       1PL.INCL talk 3SG.OBJ=say-COND 3SG.SUBJ 3PL-TOP=throw-put-IRR
       'Let's tell him to throw them away!' (Literally 'If we tell him, he will
       throw them away.') [ulwa014_13:59]

15.9.3 Factitive constructions

When someone or something is caused to have a certain attribute, Ulwa uses an
idiom with the verb *me-* 'sew'. The object of this verb is the acquired attribute,
and that which acquires it is expressed as an oblique phrase designated by the
oblique marker *=n* 'OBL' (literally 'sew [the attribute] to [that which acquires it]').
Examples of such factitive (or translative) constructions are given in (366), (367),
and (368).

(366) ***Ndïn** wapata **mep**.*
       *ndï=**n**   wapata **me**-p*
       3PL=OBL dry   sew-PFV
       '[He] made them [= sores] dry.' (Literally '[He] sewed dry[ness] to them.'
       In other words, 'He healed the sores.') [ulwa014†]

(367) **Amblan** mundotoma **menda**.

ambla=**n**   mundotoma **me**-nda

PL.REFL=OBL short   sew-IRR

'[We] will make ourselves short.' (Literally '[We] will sew short[ness] to ourselves.' In other words, 'We will become less populous as a village.') [ulwa037_33:57]

(368) *Kïka mï awlu apa mo* **man** *tembi* **mep**.

kïka   mï   awlu apa   ma=u   ma=**n**   tembi

white.ant 3SG.SUBJ step house 3SG.OBJ=from 3SG.OBJ=OBL bad

me-p

sew-PFV

'The white ant nest has come to the house and made it bad.' (Literally '… has sewn bad[ness] to it.' In other words, '… has worsened it.') [ulwa042_05:37]

In examples (366), (367), and (368), the adjectives either may be functioning as abstract nouns or may (as is common in translative constructions in other languages) be functioning as predicate adjectives. Example (369) contains the noun *kalam* 'knowledge', which also commonly functions either as an abstract noun ('knowledge') or as an adjective ('knowledgeable, knowing') (§7.4).

(369) *Nan ndïtap* **ndïn** *kalam* **mendat**.

na=n   ndï=ta-p   ndï=**n**   kalam   **me**-nda-t

talk=OBL 3PL=say-PFV 3PL=OBL knowledge sew-IRR-SPEC

'[We] told them so that [we] might teach them.' (Literally '… might sew knowledge to them.') [ulwa018_05:09]

The 'teaching' construction in (369) encodes in its oblique phrase the recipient of the knowledge. It is also possible for such constructions to admit two oblique phrases, one denoting the recipient of the knowledge and the other denoting the material being taught (literally 'sew knowledge to someone with [respect to] something'), as is illustrated by example (370).

(370) *Nï nji* **ngalan unï** *kalam* **men**.

nï nji ngala=**n**   un=**nï** kalam   **me**-n[da]

1SG thing PL.PROX=OBL 2PL=OBL knowledge sew-IRR

'I will teach you these things.' [ulwa014_41:46]

In example (371), the object of the verb is a title that has been acquired.

(371) ***Amblan** ini tamndï **mep**.*
       *ambla=**n**   ini   tamndï   **me**-p*
       PL.REFL=OBL ground owner sew-PFV
       '[They] made themselves the owners of the land.' (Literally '[They]
       sewed [the title] of land-owner to themselves.') [ulwa014_22:55]

While the verb *me-* 'sew' is the most common verb used in these constructions,
the same factitive concept can be expressed with other verbs that show that a
new quality is being 'attached', as in examples (372) and (373), which use the
compound verb *watlï-* 'put atop'.

(372) *Simban yeta tï **ambïwatlïpe**.*
       *Simban yeta tï   ambï=**wat-lï**-p-e*
       [name] man take SG.REFL=atop-put-PFV-DEP
       'Simban made herself [like] a man.' (Literally 'Simban took "man" and
       put [it] atop herself.') [ulwa034_00:35]

(373) *Mï yeta ambi tï **ambïwatlïp**.*
       *mï   yeta ambi tï   ambï=**wat-lï**-p*
       3SG.SUBJ man big   take SG.REFL=atop-put-PFV
       'He's [like] a grown man!' (Literally 'He took "big man" and put [it]
       atop himself.') [ulwa014_13:03]

15.9.4 Permissive constructions

Constructions expressing permission function similarly to biclausal causative
constructions (§15.9.1). In the first clause is the verb *ka-* 'let, leave, allow', which
takes as its object the person or thing being granted permission; in the second
clause, the subject is this person or thing being granted permission, and the verb
explains what this subject is being permitted to do, as in (374).

(374) ***Ndïlakan** ndï mapïn!*
       *ndï=la-**ka**-n   ndï ma=p-na*
       3PL=IRR-let-IMP 3PL 3SG.OBJ=be-IRR
       'Let them stay there!' (Literally 'Let them! They will be there.')
       [ulwa030_01:55]

First, it may be shown how the verb *ka-* 'let, leave, allow' functions in simple monoclausal constructions. It should be noted that, in these clauses, the object of the verb is the location in which someone or something is being left. That which is being left, on the other hand, may be expressed in an oblique phrase using the oblique marker *=n* 'OBL'.[21] Sentences (375) through (379) illustrate the use of *ka-* 'let, leave, allow' in simple monoclausal constructions.

(375) *Mol i man Simundo **maka**.*
       *ma=ul   i   ma=n   Simundo ma=**ka***
       3SG.OBJ=with go.PFV 3SG.OBJ=OBL [place]   3SG.OBJ=let
       '[They] went with him and left him at Simundo [village].'
       [ulwa002_04:27]

(376) *Dingo man **maka**.*
       *Dingo   ma=n   ma=**ka***
       [name] 3SG.OBJ=OBL 3SG.OBJ=let
       '[They] left Dingo there.' [ulwa002_04:12]

(377) *Mï nul mbi nïn **ka** wolka nay.*
       *mï   nï=ul   mbï-i   nï=n   **ka**   wolka na-i*
       3SG.SUBJ 1SG=with here-go.PFV 1SG=OBL let.PFV again DETR-go.PFV
       'She came with me, left me, and went again.' [ulwa032_11:07]

(378) *Ulum pul male we ndïn **maka**.*
       *ulum pul   ma=ale-e   we ndï=n   ma=**ka***
       palm piece 3SG.OBJ=beat-DEP sago 3PL=OBL 3SG.OBJ=let
       '[They] were scraping a piece of sago palm but left the sago starch there.'
       [ulwa037_60:30]

(379) *Wana **malakana**!*
       *wana ma=la-**ka**-na*
       PROH 3SG.OBJ=IRR-let-IRR
       'Don't abandon it!' [ulwa014_57:39]

Notably, when functioning in biclausal permissive constructions, the verb *ka-* 'let, leave, allow' takes as its object the thing being permitted, as in (380), as opposed to a location, as in monoclausal sentences such as (375) and (376).

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[21]Compare the argument structure of the verb *lï-* 'put' (§11.2.2). For the irregular circumfix-like irrealis form of the verb *ka-* 'let, leave, allow', see §6.3 and §11.2.3.

(380) ***Ndïnji ndïlaka*** *ndï mïnap.*
      ndï-nji ndï=la-ka ndï mï=na-p
      3PL-POSS 3PL=IRR-let 3PL 3SG.SUBJ=DETR-be
      '[They] let their possessions [just] stay [as they are].' (Literally '[They]
      let theirs; they stay.') [ulwa014_71:31]

Such constructions often make use of conditional clauses, especially in com-
mands (381).

(381) ***Unanji malakata*** *mï ina!*
      unan-nji ma=la-ka-ta mï i-na
      1PL.INCL-POSS 3SG.OBJ=IRR-let-COND 3SG.SUBJ come-IRR
      'Let our [granddaughter] come!' (Literally 'If [you] let our
      [granddaughter], she will come.') [ulwa014_11:14]

These permissive conditional sentences may be contrasted with sentence (382),
in which the conditional verb form *lakata* 'let, leave, allow [COND]' is used in a
protasis to mean, simply, 'leave' (i.e., it is not a permissive construction); here,
the object of *lakata* 'let [COND]' is the location where something is left.

(382) *Ndïn mumnopen luwa **lakata** tomoy ndïwat mana.*
      ndï=n mumne-u-p-en   luwa la-**ka**-ta   tomoy
      3PL=OBL cold.and.dark-put-PFV-NMLZ place IRR-let-COND insect.species
      ndï=wat ma-na
      3PL=atop go-IRR
      'If [they] were to leave them in a cold and dark place, [then] insects
      would go onto them.' [ulwa014_69:01]

Finally, it may be noted that the verb *ka-* 'let, leave, allow' is used frequently
in an idiom meaning something like 'forget about it!', 'don't' even mention it!',
or 'amazing!'. In such expressions, the object marker typically takes the topic-
marked pronominal form (§8.6) and the verb takes an irrealis or imperative form.
This use of *ka-* 'let' is illustrated by examples (383) and (384).

(383) *A **mambilakan**!*
      a ma-ambi=la-**ka**-n
      ah 3SG.OBJ-TOP=IRR-let-IMP
      'Ah, forget it!' [ulwa014_21:36]

(384)   **Mambilakan** anankïn ngala!
        ma-ambi-la-**ka**-n   anankïn ngala
        3SG.OBJ-TOP-IRR-let-IMP blood   PL.PROX
        'Amazing, the blood!' [ulwa001_17:55]

15.9.5 Desiderative constructions

The expression of wants follows patterns very similar to those of indirect discourse (§15.4.5). Indeed, the most common way of expressing that one wants something to happen is to use a verb of speaking or thinking, typically *kï-* 'say' and typically expressed in the perfective mood and with the detransitivizing prefix *na-* 'DETR' (thus: [nakap], literally 'said' or 'thought'). This form has likely been somewhat fossilized as a word used to express desires. The clause expressing the desire is a dependent clause embedded within a matrix clause that has as its subject the person who desires something. The verb in the dependent clause is always marked as irrealis, as in sentences (385) through (388). Brackets enclose the embedded clauses.

(385)   *Sokoy ulwape nï nïnji wa mana* **nakap**.
        sokoy   ulwa=p-e   nï [nï-nji   wa   ma-na] **na-kï-p**
        tobacco nothing=COP-DEP 1SG [1SG-POSS village go-IRR] DETR-say-PFV
        'Since there's no tobacco, I want to go to my village.' [ulwa032_02:15]

(386)   *Kaukaunï mankïna* **nakap**.
        [kaukau=nï   ma=nïkï-na]   **na-kï-p**
        [kaukau=OBL 3SG.OBJ=dig-IRR] DETR-say-PFV
        '[They] wanted to plant *kaukau* [= sweet potato].' [ulwa037_55:30]

(387)   *Nïn u na tïna* **nakap**.
        [nï=n   u   na tï-na]   **na-kï-p**
        [1SG=OBL from talk take-IRR] DETR-say-PFV
        '[He] wants to get stories from me.' [ulwa032_05:24]

(388)   *Na ndan nïkïna* **nakap**?
        [na anda=n   nï-kï-na]   **na-kï-p**
        [talk SG.DIST=OBL 1SG=say-IRR] DETR-say-PFV
        'Do [you] want to tell me something?' [ulwa014_03:57]

The subject of the matrix clause (the person desiring something) need not be the subject of the embedded clause (the agent desired to do something). In sen-

tence (389), the subject of the matrix clause is an understood third party, whereas the subject of the embedded clause is the speaker (1sg).

(389) *Nï mana **nakap** nï mïnjan mat: …*
 *[nï   ma-na] **na-kï-p**   nï   mïnja=n   ma=ta*
 [1sg go-irr] detr-say-pfv 1sg speech=obl 3sg.obj=say
 '[Wala] wanted me to go, but I told him: …' [ulwa037_35:55]

The form [nakap], as seen in (389), can be used regardless of TAM distinctions: thus, for example, many sentences with this form have imperfective force, despite the typically perfective-marking suffix *-p* 'pfv'. Moreover, the form [nakap] may be used without any conditional marking, even in the protasis of a conditional sentence, as in (390).

(390) *Nan nïkïna **nakap** na kali nïwatlïta.*
 *[na=n   nï=kï-na]   **na-kï-p**   na   kali   nï=wat-lï-ta*
 [talk=obl 1sg=say-irr] detr-say-pfv talk send 1sg=atop-put-cond
 'If [you] wanted to talk to me, [then you] should have sent a message to me.' [ulwa014_14:24]

In example (391), the conditional marker *-ta* 'cond' occurs within the embedded clause, instead of being affixed to the matrix clause verb form [nakap] (cf. issues of scope in §15.3.4).

(391) *Wutï munta lunda **nakap** …*
 *[wutï mune-ta   lu-nda] **na-kï-p***
 [leg   throw-cond put-irr] detr-say-pfv
 'If you want to throw your legs around …' (i.e., play sports)
 [ulwa032_34:42]

The semantic connection between verbs of speaking or thinking and verbs of desiring is understandable. Often, when one wants something, one talks about it (and almost certainly thinks about it). While [nakap] seems to be a fossilized form used in desiderative clauses, it is nevertheless possible to use other verbs of speaking to express desires, as in the desiderative sentence given in (392), which uses the verb *ta-* 'say'.

(392) *Nul mana **nate**.*
*[nï=ul   ma-na] **na-ta-e***
[1SG=with go-IRR] DETR-say-DEP
'[He] wanted to go with me.' [ulwa014†]

In addition to these biclausal desiderative constructions, it is possible to express a desire in a single clause, simply by using an irrealis verb form. In such instances, it is not necessarily clear whether the person desiring the event encoded by the verb is the subject of the verb, the speaker of the clause, or both. In examples (393) through (397), all translated with 'want', the irrealis verb forms could, in other contexts, impart other meanings (e.g., 'will', 'should', 'can', etc.; see §6.6).

(393) *Nï lamndu **mawalinda**.*
*nï   lamndu ma=wali-**nda***
1SG pig   3SG.OBJ=hit-IRR
'I want to kill a pig.' [elicited]

(394) *Nï awal we **landa**.*
*nï   awal   we la-**nda***
1SG yesterday sago eat-IRR
'I wanted to eat sago yesterday.' [elicited]

(395) *An inamba sokoy **inda**.*
*an   inamba[=n] sokoy   in-**nda***
1PL.EXCL money[=OBL] tobacco get-IRR
'We want to buy tobacco.' [ulwa037_52:59]

(396) *Apa **mana** i liwe umbu anïm nga mas.*
*apa   ma-**na** i   li-aw-e   numbu anïm nga*
house go-IRR go.PFV down-put.IPFV-DEP post   fork SG.PROX
ma=asa
3SG.OBJ=hit
'[He] wanted to go home, but [he] went and fell, and the fork of the post pierced him.' [ulwa021_00:10]

(397) *Nï ango wa **lunda**.*
*nï   ango wa   lo-**nda***
1SG NEG village go-IRR
'I don't want to go around in villages.' [ulwa037_49:14]

Example (397) illustrates a negative desire. Often, to express that something is not desired, the verb *kamb-* 'shun' (§4.1.2) is used. It may take either the imperfective (or unmarked) form *kam* 'shun [IPFV]', the imperfective form *kambe* 'shun [IPFV]', or the perfective form *kamp* 'shun [PFV]', as shown in (398).

(398)   *Nï **kam(be/p)**!*
      nï   ***kamb(-e/-p)***
      1SG shun(-IPFV/-PFV)
      (a) 'I don't want to!'
      (b) 'I don't want it!' [elicited]

To express that an object is desired, Ulwa simply employs the verb *tï-* 'take' in the irrealis mood. After all, to say, for example, that one 'wants a spear' means that one 'wants to take (i.e., obtain, have) a spear'. In other words, a proclamation such as 'I would take' links, by inference, to 'I want'. This is illustrated in (399) and (400).

(399)   *Nï mana **tïna**.*
      nï   *mana **tï-na***
      1SG spear take-IRR
      'I want a spear.' [elicited]

(400)   *Nï awal mana akïnaka **tïna**.*
      nï   *awal*   *mana akïnaka **tï-na***
      1SG yesterday spear new   take-IRR
      'I wanted a new spear yesterday.' [elicited]

Often the distinction between 'want' and 'need' in such instances is not explicit. Sentence (401) thus may be translated variably.

(401)   *Nï mana akïnaka **tïna**.*
      nï   *mana akïnaka **tï-na***
      1SG spear new   take-IRR
      (a) 'I want a new spear.'
      (b) 'I need a new spear.' [elicited]

16 Topics in semantics

In this chapter I describe a few topics in lexical semantics in order to facilitate a clearer understanding of the Ulwa language in general, as well as to provide data that may be of use for crosslinguistic typological comparisons.

16.1 Polysemy and homonymy

Perhaps unsurprisingly for a language with a relatively small phoneme inventory and many monosyllabic and disyllabic morphemes and lexemes, the Ulwa lexicon has many sets of same-sounding forms that have different meanings (i.e., colexifications). It is not always possible to determine whether these pairs represent different meanings of a single word (polysemy) or are truly separate words that, due to historical accident, share the same phonological form (homonymy).

Given Ulwa's phonotactic constraints, the three phonologically shortest possible words are [i], [u], and [a]; no other vowels are permitted word-initially (§4.2.1), and a word requires at least one vowel to be pronounceable. Indeed, there is considerable homophony among morphemes of the form [i] (1) and [u] (2), as well as some homophony among morphemes of the form [a] (3).

(1) Homophony: morphemes of the form [i]
   i   noun, 'behavior, habit, custom, way'
   i   noun, 'hand, arm'
   i   noun, 'lime (calcium hydroxide)'
   i   verb, 'go' (suppletive perfective form of *ma-* 'go')
   i   interjection expressing dejection ('alas')
   i   predicate marker (Tok Pisin loan)
   i- verb, 'come'

(2) Homophony: morphemes of the form [u]
   u   noun, 'ditch, creek'
   u   pronoun, 'you' (2SG)
   u   postposition, 'from, in, at, around, along'
   u   interjection expressing amazement ('ooh')
   u- verb, 'put'

(3) Homophony: morphemes of the form [a]
    a   interjection expressing shock ('ah!')
    a   filler interjection ('uh …')
    a   interjection for tag questions ('eh?')
    a-   verb, 'break'

Although not pronounceable on their own, single-consonant morphemes are possible (in some instances only as abbreviations of other forms). Examples of homophony can be seen in morphemes with the forms [n] (4), [p] (5), and [t] (6).

(4) Homophony: morphemes of the form [n]
    n   epenthetic utterance-final sound for some speakers
    -n   TAM suffix: imperative, 'IMP'
    -n   irregular TAM suffix: imperfective, 'IPFV'
    -n   irregular TAM suffix: perfective, 'PFV'
    -n   nominalizer, allomorph of *-en* 'NMLZ'
    =n   oblique marker, 'OBL'

(5) Homophony: morphemes of the form [p]
    p   epenthetic utterance-final sound for some speakers
    p-   verb, 'be, be at'
    -p   TAM suffix: perfective, 'PFV'
    =p   copular enclitic, 'COP'

(6) Homophony: morphemes of the form [t]
    t   verb, 'say', abbreviated form of *ta-* 'say'
    t   verb, 'take', abbreviated form of *tï-* 'take'
    -t   speculative suffix, 'SPEC'

Examples of homophony with slightly longer phonological forms can be found among forms such as [ala] (7), [ka] (8), [ma] (9), and [na] (10).

(7) Homophony: morphemes of the form [ala]
    ala   demonstrative determiner, 'those'
    ala   postposition, 'for, from'
    ala-   verb, 'see'

(8) Homophony: morphemes of the form [ka]
    ka   noun, 'peak' (as in *apaka* 'roof', literally 'house peak')
    ka   postposition, 'at, in, on'
    ka   adverb, 'thus, in this manner, in that manner'
    ka-   verb, 'let, leave, allow'

(9) Homophony: morphemes of the form [ma]

    ma   possessive pronoun (3sg), equivalent to *manji* '3sg.obj-poss'
    ma   coordinator, 'and' (perhaps a recent innovation)
    ma-   verb, 'go'
    ma=   object marker (3sg.obj)

(10) Homophony: morphemes of the form [na]

    na   noun, 'talk, speech, story, message, thought, reason, etc.'
    na   coordinator, 'and' (Tok Pisin loan)
    na-   verb, 'give'
    na-   detransitivizing prefix, 'detr'
    -na   TAM suffix: irrealis, 'irr'

Thus ample colexification can be found among function words and basic vocabulary items. The pairs of identical forms given in (11) represent colexification between functional morphemes and concrete nouns. These are almost certainly all examples of true homonymy, as opposed to polysemy.

(11) Additional pairs of homonyms

ambla	'pl.refl'	vs.	*ambla*	'tooth'
ina	'come [irr]'	vs.	*ina*	'liver'
mana	'go [irr]'	vs.	*mana*	'spear'
min	'3du'	vs.	*min*	'armband'
un	'2pl'	vs.	*un*	'tree species'

Other pairs of identical forms that are very likely polysemes, as opposed to homonyms, are given in (12).

(12) Likely polysemes

anga	'piece'	or	'side'
apïn	'fire'	or	'pain'
mu	'seed'	or	'fruit (or nut)'[1]
mbomala	'large firefly'	or	'large star (or planet)'
nali	'small firefly'	or	'small star'[2]

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[1]The meaning 'kidney' is probably derived metaphorically; the meaning 'blowfly' may be unrelated though.

[2]The meanings 'spine of a sago frond' and 'ten' are likely related to each other (§9.5), but they are probably unrelated to these other meanings of [nali].

Some words in Ulwa have much greater ranges of meaning than any of their possible English equivalents. While these are not properly polysemes or homonyms, it may nevertheless prove useful to provide a few examples of these words (13).

(13)   Words with broad meaning
  akïnaka 'new, fresh, alive, raw, young'
  anma 'good, nice, true, smart, straight, healthy, well'
  na   'talk, speech, story, message, thought, reason, language'
  tembi 'bad, sick, poor, dirty'

Often a word derives a new meaning based on a metaphorical or metonymic relationship (§16.2). Ulwa coinages for foreign concepts that employ metaphor or metonymy are discussed in §16.9. There are also examples of polysemous relationships among color terms (§16.5), body part terms (§16.6), and terms expressing various temporal concepts (§16.8).

16.2 Metaphor and metonymy

Although many metaphors and metonyms have become fossilized as the primary term used for certain referents (and thus are perhaps no longer viewed as semantic extensions), it is still possible for speakers to employ both metaphor and metonymy creatively. This may be done even when another word for a referent already exists; however, it is more common as a means of coining terminology for new concepts (§16.9). Examples of metaphors are given in (14).

(14)   Metaphors
  ana   'parasitic person', literally 'grass skit'
      (an article of clothing that 'hangs onto' a person)
  mundotoma 'lacking', literally 'short'
      (same metaphor as in English, e.g., 'in short supply')
  unduwan 'elder', literally 'head'
      (the part of the body that comes 'first')
  yawïl 'full moon', literally 'coconut moon'
      (< *ya* 'coconut' + *iwïl* 'moon', the latter 'round' like the former)

Metonymy is very common in Ulwa. Often the material from which something is made is used to refer to the end product, as in (15).

(15) Material-based metonyms
  asiya   'animal trap'   (made with *asiya* 'string')
  numbu '*garamut* drum' (made from *numbu* 'ironwood tree')
  we   'sago pancake'   (made from *we* 'sago starch')

Other forms of metonymy are possible as well, such as synecdoche, in which either the part comes to represent the whole (pars pro toto, as with *isi* 'soup') or the whole comes to represent the part (totum pro parte, as with *ulum* 'sago pith') (16).

(16) Synecdoche
  isi   'soup'   (typically containing *isi* 'salt')
  ulum 'sago pith'   (the soft, white insides of the *ulum* 'sago palm')

Other forms of metonymy are used as well, including those in (17).

(17) Other metonyms
  iwïl   'menstruation'   <   *iwïl* 'moon'
  nambana 'mask'   <   *nambana* 'ancestral spirit'
  yopa   'peace'   <   *yopa* 'cockatoo'

The connection between *iwïl* 'menstruation' and *iwïl* 'moon' is due to their comparble cycles (reflected in English etymology as well). As a further extension of meaning, *iwïl* 'moon' can also be used euphemistically to refer to female genitalia, otherwise called *inmbï* 'vulva'. The word *nambana* 'ancestral spirit' can refer to a mask, since these are often used to represent the faces of ancestral spirits. The word *yopa* 'cockatoo' can mean 'peace', since peace is customarily signaled by painting oneself white to resemble a cockatoo.

16.3 Onomatopoeia

Some words in Ulwa likely derive from sound symbolism. However, there is no special class of ideophones in the language (i.e., there is no morphosyntactically definable class of words that evoke sounds). A number of onomatopoetic words can be found in fauna terms, in most cases the word being derived from the sound the particular animal makes. Frog (18) and bird (19) species in particular seem to lend themselves to onomatopoeia.

(18)   Onomatopoeia in names for frogs
   kïlakïli   'very small frog that lives on leaves'
   popotala   'large brown frog'
   wali   'small green, yellow, or brown frog'
   wandïwandï   'small brown frog'

(19)   Onomatopoeia in names for birds
   awalawa   'red or green parrot (TP *kalangal*)'
   kokawe   'bird species'
   kukumali 'bird species'
   kulkul   'bird species'
   maep   'bird species'
   wotnya   'type of black bird'

As can be seen in (18) and (19), such onomatopoetic words often involve redu-plication (§5.4).

16.4 Formulaic expressions, greetings, and farewells

In Ulwa, as in Tok Pisin and many other languages of the Pacific, it is common to greet people with descriptions of what they are doing (e.g., 'you are bathing', 'you are chopping wood', etc.) or questions regarding what they have just done or are about to do (e.g., 'where were you?', 'where are you going?', etc.). It is not common, as in some European languages, to inquire into one's physical or emotional state. Traditional Ulwa greetings include, for example, those in (20).

(20)   Traditional greetings
   Inim lope.   '[You] are bathing.'
   U ango mana?   'Where are you going?'

In addition, there is a set of formulae used to greet people at various times of the day. They are all formed with the adjective *anma* 'good'. I suspect that they are calques from Tok Pisin, which, like English, employs greetings built from the adjective 'good' (Tok Pisin *gut* ~ *gutpela* 'good') and the time of day. The Ulwa time-of-day greetings are given in (21).

(21)   Time-of-day greetings
   Umbenam anma!   'Good morning!'
   Ane anma!   'Good day!' (literally 'good sun')
   Awal anma!   'Good afternoon!'[3]
   Imba anma!   'Good evening!; Good night!'[4]

Farewells in Ulwa are typically proclamations that one is leaving or commands for the other party to go (or to stay). These, too, parallel traditional Tok Pisin valedictions. Examples are presented in (22).

(22) Farewells

An mana!	'We (1PL.EXCL) shall go!'
Un mbïpïna!	'Stay here!' (addressed to multiple people)
U mana!	'Go!' (addressed to one person)
Namanu!	'Goodbye!' (addressed to someone leaving)[5]

Some polite formulaic expressions that are common among European languages like English (e.g., 'please', 'thank you', etc.) do not have direct equivalents in Ulwa. It is common, for example, for an Ulwa speaker not to say anything when receiving something from another person.

To express strong gratitude, however, one may say *nïnji anma* 'my good', which is akin to English 'thank you'. As a response to this, one might say *u anma* 'you [are] good', which is akin to 'you're welcome'. However, there is probably no tradition of formulaic exchanges of such sayings.

To make a polite request, the modal adverb *kop* 'please' may be used along with an imperative, somewhat like the use of English 'please' (§15.2.2).

16.5 Color terms

Color terms occur very infrequently in the Ulwa corpus. Given the paucity of relevant data and the variability in interpretation of the term "basic", it is not possible to place Ulwa with perfect certainty within Berlin & Kay's (1969) hierarchy of stages of basic color terms. That said, Ulwa seems to employ very few basic color terms, and the terms that it does employ – including those for 'white' and 'black' – seem to be either derived or borrowed.

Terms for colors in Ulwa are given in (23). Some of these words have been obtained through elicitation alone, either by asking speakers to generate lists of color terms or by obtaining translations of Tok Pisin color terms; these are thus perhaps more suspect and are therefore identified in (23) as "[elicited]".

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[3]There is also a longer form: *Awal nambï anma!* (literally 'good body of the afternoon').

[4]The formulaic time-of-day greetings may also be used as farewells, especially at nighttime (i.e., *imba anma* 'good night' can be used either to greet people or to bid them farewell).

[5]The form *namanu* 'goodbye' has taken on a formulaic usage, although it seems derived from a command: *na-* 'DETR' + *ma-* 'go' + *n-* 'IMP' + *u* '2SG' (or *=o* 'VOC').

(23)   Color terms

waembïl	'white'
mbun	'black, blue, dark'
mbunmana	'black'
ngungun	'red'
anem	'blue, purple' [elicited]
ane	'yellow, light'
anembal	'light'
andwana	'yellow'
mïndit	'yellow' [elicited]
mïnal	'green' [elicited]
tondiway	'orange' [elicited]
lemetam	'brown' [elicited]

Many of these are obviously derived from other words, typically nouns that refer to entities that exhibit the relevant color. The word *ngungun* 'red', for example, also refers to a species of red ant.[6] The word *mïnal* 'green' also means 'taro', a plant whose leaves are boiled to make a soup of very saliently green color. Similarly, *tondiway* 'orange' has as its more basic meaning a plant species with orange seeds used to make dyes. The word *lemetam* 'brown' also refers to a large hardwood tree, whose brown bark is used to bandage wounds. The color word *ane* 'yellow, light' also means 'sun'.[7] The word *anem* 'blue, purple' is also the name of a yam variety with purple flesh, as well as a necklace bead made from a blue seed.

Some of the color terms given in (23), although not completely homonymous with other forms, bear very strong resemblances to nominals associated with those colors. Thus, *andwana* 'yellow' may be related to *anduwan* 'young sago palm' and *mïndit* 'yellow' may be related to *mïnda* 'banana'. The form *mbunmana* 'black' seems to have derived from *mbun* 'black, blue, dark', but exactly how this has occurred (or why) is unclear.[8] For a possible etymology of *waembïl* 'white', which contains the unusual low front vowel [ae], see §4.2.

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[6]This ant species is used as a traditional medicine, boiled in a solution to treat coughs. The same word also refers to a species of plant with red seeds. Yet another meaning of the form [ngungun], 'whirlwind, cyclone', is not clearly connected to the color red and may simply be homophonous.

[7]The word *anembal* 'light' clearly contains *ane* 'sun' as well, but the form [mbal] is an obscure element; it possibly underlies the form *waembïl* 'white' as well.

[8]Perhaps *mbunmana* 'black' derives from *mbun* 'dark' plus *mana* 'go [IRR]' (i.e., 'going dark'), but this is speculative. The meaning 'scar' that belongs to the form *mbun* 'black, blue, dark', is, however, more likely derived from the color term than vice versa (if, of course, this is not just a matter of homophony). In any case, *mbun* 'black, blue, dark' itself was likely borrowed from Mwakai (§1.5).

16.6 Body part terms

In this section I discuss terminology for the parts of the body, a domain that is often of interest to semantic typologists, anthropologists, and others.

First, several body-part concepts that may be encoded with distinct lexemes in some languages are colexified in Ulwa. Indeed, the term for 'body' itself is colexified with the word for 'skin'. Thus it seems the word *nambï* 'skin' has extended in meaning to include everything encased in the skin, a semantic extension that seems to be common for the area.

Likewise, Ulwa makes no lexical differentiation between 'hand' and 'arm', relying rather on *i* 'hand, arm' for either meaning. Similarly, the word *wutï* 'leg, foot' refers to a part of the body that could be translated as either 'leg' or 'foot' in English.

While neither 'leg' nor 'foot' is taken to be a more basic meaning for *wutï* 'leg, foot' (and neither 'hand' nor 'arm' is taken to be a more basic meaning for *i* 'hand, arm'), the word *monombam* 'forehead, face', which can mean either 'face' or 'forehead', is assumed to have 'forehead' as its primary meaning, based on the typologically common semantic change of deriving a term for 'face' from a term referring to one particular part of the face, very often from 'forehead'. See §16.1 on pars pro toto synecdoche.

Conversely, there are distinctions that are made in Ulwa that are not commonly made in English. For example, there is no general term to cover 'hair' in Ulwa: the word *wonmi* 'head hair' refers only to the hair on the top of the head, whereas *nil* 'body hair' refers to hair everywhere else on the body, including facial hair.

Also, as is attested in many languages, body part terms may be used metaphorically in Ulwa, often to express spatial reference, as in (24).

(24)   Metaphorical extensions of body part terms
       awi   'the side of'   (literally 'shoulder')
       ip   'front'   (literally 'nose')
       unmbï   'back'   (literally 'buttocks')

The spatial metaphor of 'nose' to mean 'front' has been extended to a temporal metaphor to mean 'earlier, former', as in (25).

(25)   *Mat **ip** ul manata …*
       ma=tï   **ip**   ul   ma=na-ta
       3SG.OBJ=take nose with 3SG.OBJ=give-COND
       'If [we] bring it first …' (Literally 'take it and give with nose')
       [ulwa037_65:32]

Indeed, the postposition/adverb *ipka* 'before, earlier, first' is transparently derived from the noun *ip* 'nose' plus the formative/postposition *ka* 'thus, in this manner, in that manner; at, in, on'.

There are a number of idioms based on body part terms, two of which are given in (26).

(26)   Idioms based on body part terms
       uma tï- 'be strong'   (literally 'take bone')
       tï ip lï- 'destroy'   (literally 'take and put nose to')

In other cases, a word whose primary meaning does not relate to the human body may be used metaphorically to refer to a body part, as in (27).

(27)   Words used metaphorically to refer to body parts
       mïtïn   'testicle'   (literally 'egg')
       mota   'throat'   (literally 'bamboo species', cf. also *aninokam* 'throat')
       mu   'kidney'   (literally 'fruit')
       tïmbïl   'diaphragm'   (literally 'fence')

It seems that the metaphorical use of *mïtïn* 'egg' to refer to testicles has pejorated the word in all its senses. Many speakers thus avoid using *mïtïn* 'egg' when referring to actual fowl or reptile eggs, instead using *yokomtïn* 'egg' for all types of eggs, regardless of species, as a means of taboo avoidance.[9]

The word *imu* 'finger' is a compound, consisting of *i* 'hand' and a metaphorical use of *mu* 'fruit' (literally 'fruit of the hand'). The individual fingers have mostly metaphorically derived names as well. They are given in (28).

(28)   Names of the fingers
       imu unduwan   'thumb'   <   *unduwan* 'head'
       imu ankam   'index finger, pointer finger'   <   *ankam* 'person'
       imu wome   'middle finger'   <   *wome* 'middle'
       imu law   'ring finger'   <   *law* 'cordyline, ti plant'
       imu watangïn 'pinky finger, little finger'   <   *watangïn* 'last'

Similarly, the word *wutïmu* 'toe' is literally 'fruit of the foot'. The individual toes follow a similar naming scheme to that for the individual fingers (29).

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[9]The word *yokomtïn* 'egg' seems to derive from *yokomakan* 'small wild fowl' plus *mïtïn* 'egg'. It thus probably originally referred specifically to wild fowl eggs, but it has been extended in meaning to refer to the eggs of any animal.

(29)   Names of the toes
    wutïmu unduwan   'big toe'   = 'head fruit of the foot'
    wutïmu ankam   'second toe'   = 'person fruit of the foot'
    wutïmu wome   'middle toe'   = 'middle fruit of the foot'
    wutïmu law   'fourth toe'   = 'cordyline fruit of the foot'
    wutïmu watangïn   'pinky toe, little toe' = 'last fruit of the foot'

A list of some of the most commonly used body part vocabulary is provided in (30).

(30)   Body part terms
    akunpu   'back of the skull'   *mutam*   'back'
    ambatïm   'joint'   *nambï*   'skin, body'
    anangum   'spine'   *nil*   'body hair'
    anankïn   'blood'   *nopa*   'cheek'
    anen   'fat'   *ngïnïm*   'chin'
    aninokam   'throat'   *sinanan*   'nail'
    atal   'anus'   *tambeta*   'chest'
    awi   'shoulder'   *tanum*   'lips'
    i   'hand, arm'   *tumbunma* 'nape'
    ina   'liver'   *um*   'neck'
    inapaw   'belly'   *uma*   'bone'
    inji   'innards'   *umbopa*   'stomach'
    inmbï   'vulva'   *unduwan*   'head'
    inpu   'elbow'   *unet*   'navel'
    ip   'nose'   *unmbï*   'clavicle'
    kïkal   'ear'   *unum*   'buttocks'
    limama   'jaw'   *wal*   'ribs'
    lïmndï   'eye'   *wanamba*   'armpit'
    mama   'mouth'   *wol*   'breast'
    mïnandïn   'gallbladder'   *won*   'penis'
    mïnane   'intestines'   *wonmi*   'head hair'
    mïnïm   'tongue'   *woplota*   'lungs'
    mïnopal   'bladder'   *wutï*   'leg, foot'
    misam   'brain'   *yom*   'heart'
    monombam   'forehead, face'

Finally, it is worth noting that the liver has certain importance in Ulwa culture as the seat of emotion and thought. Thus, *ina* 'liver' functions much like either

'heart' or 'mind' in English, capable of referring to one's center of feelings. It forms part of the compound verb *inakawana-* 'think' (§11.2.1), and may also play a part in the etymology of *angwena* 'why?' (§15.1.2).

Similarly, the more general term *inji* 'innards' (likely derived from *in* 'in, inside' plus *nji* 'thing'), which can refer to the inside of anything, but typically refers to internal organs, can also have a metaphorical sense (cf. English *guts*), as in (31).

(31) *Una wa lolop wa **inji** wopapta, nan wa mbï napïn.*
      *unan   wa lolop wa **inji**   wopa=p-ta   unan   wa   mbï*
      1PL.INCL just just   just innards all=COP-COND 1PL.INCL village here
      na-p-na
      DETR-be-IRR
      'If we just have full hearts, then we will stay here [safely] in the village.'
      [ulwa037_30:45]

16.7 Kinship terms

The system of kinship terminology in Ulwa is fairly classificatory (as opposed to descriptive) in that a single term may refer to a large number of different types of relatives. It is, however, possible for Ulwa to employ more descriptive terminology by expanding upon the basic system with nominal modifiers. Gender distinctions are found among most of the basic kinship terms. When gender is not intrinsically encoded in the meaning of a kinship term, however, it may be specified by additional modifiers. Some kinship terms also indicate relative age, such as *atana* 'older sister'.

Relatives of the ego's parents' generation can all be referred to as *itom* 'father' or *inom* 'mother', according to gender. That is, all male siblings of one's father and mother are *itom* 'uncle' (literally 'father'), and all female siblings of one's father and mother are *inom* 'aunt' (literally 'mother'). The spouses of one's parents' siblings are not seen as familial relations per se; however, in the extended kinship system, they can be referred to as 'father' and 'mother' as well, since they belong to that same generation.

However, one member of this parents' generation receives a special designation: the ego's mother's brother is called *yawa* 'maternal uncle' (cf. Tok Pisin *kandere* 'maternal uncle'). Although it is possible to refer to this relation as *itom* 'father', it is more common to use the term *yawa* 'maternal uncle'. This maternal uncle holds special responsibilities to his sister's children.

The ego's mother's brother's wife is known as *ansi inom* '*red buai* (betel nut) mother'.[10] The counterpart to the *yawa* 'maternal uncle' is the *ansi nungol* 'sororal nibling' (the child of a man's sister).

The ego's father's sister does not have the same status as the mother's brother; there is, however, a periphrastic way of referring to this relation: *ane inom* 'paternal aunt' (literally 'sun mother'). Nor does the ego's father's brother have similar responsibilities to his brother's children. This relation may be referred to with the general term *itom* 'father'.

For one's biological parents, it is common to use the nursery forms for direct address – that is, as vocative forms. These are *tata* 'papa' and *nana* 'mama'.

There are a few different terms to refer to the ego's children, but the distinctions among them are not clear to me. A child may be called *nungol* 'child', *nungolke* 'child', *alum* 'child', or *tawatïp* 'child'. Any one of these may refer either to one's biological child (that is, 'son' or 'daughter') of any age or to any person of young age (whether related or not). Although none of these terms is strictly limited to a particular gender, *nungol* 'child' often implies a male child. There is a gender-specific word *yenat ~ yanat* 'daughter', which refers to one's biological daughter or to other females of that generation in the extended kinship system. It is clearly related to *yena ~ yana* 'woman, female'.

When referring to one's siblings, it is common to make distinctions both based on gender and based on relative age. There is no cover term for 'sibling' (of any gender or age), nor is there a cover term either for 'brother' or for 'sister' (unspecified for relative age). It is, however, possible to refer to younger siblings, regardless of gender, with the word *wot* 'younger sibling'. This relation may be further specified as *wot yeta* 'younger brother' (literally 'younger man') or *wot yena* 'younger sister' (literally 'younger woman'). For older siblings there are the gender-specific words *atuma* 'older brother' and *atana* 'older sister'.[11] Although a man has no way of speaking generally about a brother (whether younger or older), a woman may refer to any of her male siblings (regardless of his relative age) simply as *yeta* 'man'.

The words *wot* 'younger (sibling)', *atuma* 'older brother', and *atana* 'older sister' may be used to add specificity to family relations of the parents' generation (i.e., aunts and uncles), as shown in (32).

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[10]The word *ansi* '*red buai*' (i.e., the combination of betel nut, betel pepper, and lime) appears in a number of kinship terms relating to the *yawa* 'maternal uncle', but its exact meaning in these contexts is unclear. In addition to '*red buai*', this word also refers to a gourd-like plant that can be used to store lime and which was previously used to cover the penis. The word may also be used as slang to refer to the penis itself.

[11]The form *atana* 'older sister' probably derives from *ata* 'up, upper' (cf. *wat* 'top') plus *yana* 'woman'. The form *atuma* 'older brother' may derive from *ata* 'up, upper' plus *uma* 'bone'.

(32) Terms for aunts and uncles

itom wot	'father's younger brother'
yawa wot	'mother's younger brother'
inom wot	'parent's younger sister'
ane inom wot	'father's younger sister'
itom atuma	'father's older brother'
yawa atuma	'mother's older brother'
inom atana	'parent's older sister'
ane inom atana	'father's older sister'

For parents' older male siblings, it is also possible to use the modifier *ambi* 'big' instead of *atuma* 'older brother', as in (33).

(33) Alternative terms for parents' older siblings
itom ambi 'father's older brother'
yawa ambi 'mother's older brother'

Grandparents may be referred to with the adjective/noun *ngata* 'grand; grandparent', irrespective of gender. More specifically, though, the ego's male grandparents are called *itom ngata* 'grandfather', and the ego's female grandparents are called *inom ngata* 'grandmother'. The term *ngata* 'grand' is also used generally to refer to any old man or woman (cf. Tok Pisin *lapun* 'old person'). It may also refer, broadly, to 'ancestors' or to members of a past generation. Sometimes the word *mom* 'grandmother' is used as a vocative form; it is a loan from Ap Ma.

Grandchildren are known as *yalum* 'grandchild', also a loan from Ap Ma. Great-grandparents and great-grandchildren alike are called *ndunduma* 'great-grandparent, great-grandchild'. This latter term is also commonly used with the general sense of 'ancestors', usually those from the distant past.

There is no special term for 'wife' that is distinct from general terms meaning 'woman'. To refer to a wife, one may use either *yena* 'woman' or *yenanu* 'woman', or their alternate pronunciations, [yana] and [yananu]. To refer to one's husband, however, the special form *numan* 'husband' is used. The general term *yeta ~ yata* 'man' may be used by women to refer to their brothers, but generally not to their husbands. The form *yenanu* 'woman, wife' is clearly related to *yena* 'woman, wife'.[12]

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[12]It can probably be assumed that *yena* 'woman' (clearly the analogue of *yeta* 'man') was the original word for 'woman'. The form *yenanu* 'woman' probably thus emerged as a word meaning 'wife', but in contemporary usage, *yena* 'woman' and *yenanu* 'woman' are completely interchangeable: both can mean either 'woman' or 'wife', and neither meaning seems to be more basic to either of the forms.

To refer to people related to the ego by marriage, the general term *inga* 'affine, in-law' is used. It may be combined with other kinship terms to add specificity, as in (34).

(34) Examples of more specific terms for affines (in-laws)
      wot inga yena   'younger brother's wife'
      atuma inga yena   'older brother's wife'

A number of taboos dictate the proper relationship that one has with one's affines. For example, it is forbidden to utter an in-law's name. Instead, one will typically employ one or another circumlocution to refer to a person related by marriage.

It may also be noted that the term *tamndï* 'owner' has importance in kinship terminology. While otherwise referring to owners of physical property (e.g., land), *tamndï* 'owner' may refer broadly to any kin, but especially to the next of kin following a death in the family (i.e., children, parents, siblings, and spouse). Incidentally, when there is a death in a family, other relatives belonging to the extended family are referred to as *nambana ankam* 'extended family member' (literally 'spirit person').

I summarize and conclude this section with a glossary of kinship terms in Ulwa, starting with relations one generation older than the ego (35).

(35) Kinship terms: ego's parents' generation
      itom   'father'
      inom   'mother'
      tata   'papa' (nursery term for 'father'; vocative form)
      nana   'mama' (nursery term for 'mother'; vocative form)
      yawa   'mother's brother'
      yawa wot   'mother's younger brother'
      yawa atuma   'mother's older brother' (or *yawa ambi*)
      itom wot   'father's younger brother'
      itom atuma   'father's older brother' (or *itom ambi*)
      ane inom   'father's sister'
      ane inom wot   'father's younger sister'
      ane inom atana   'father's older sister'
      inom wot   'parent's younger sister'
      inom atana   'parent's older sister'
      ansi inom   'mother's brother's wife'

It should be noted that *itom* 'father' is also a general term for uncles (usually only paternal uncles), as well as a term of respect for any older man. It sometimes means simply 'man'. Similarly, *inom* 'mother' is also a general term for aunts, as well as a term of respect for any older woman. It sometimes means simply 'woman'.

The terms in (36) represent relations that are of the same generation as the ego.

(36) Kinship terms: ego's generation

wot	'younger (sibling)'
wot yeta	'younger brother'
wot yena	'younger sister'
atuma	'older brother'
atana	'older sister'
yeta	'brother' (said only by women) (or *yata*) (literally 'man')
yena	'wife' (literally 'woman')
yenanu	'wife' (< *yena* 'woman', also means 'woman')
numan	'husband'
inga	'affine, in-law' (i.e., any relation through marriage)
wot inga yena	'younger brother's wife'
atuma inga yena	'older brother's wife'
wot yena numan	'younger sister's husband'
atana numan	'older sister's husband'

It should be noted that *inga* 'affine, in-law' is not strictly limited to relations of the ego's generation, but refers more generally to any relations obtained through marriage, regardless of generation.

The terms in (37) represent relations that are one generation younger than the ego.

(37) Kinship terms: ego's children's generation

nungol	'child' (often 'son') (or *nungolke*)
alum	'child'
tawatïp	'child'
yetalum	'son, boy'
yenalum	'daughter, girl'
yenat	'daughter' (or *yanat*)
ansi nungol	'nephew, niece' (refers to a man's sister's child)
ansi yanat	'niece' (refers to a man's sister's daughter)

Finally, terms in (38) represent relations that are more than one generation removed from the ego.

(38)   Kinship terms: more than one generation removed from ego
    ngata   'grandparent, old person, ancestor'
    itom ngata   'grandfather, old man'
    inom ngata   'grandmother, old woman'
    mom   'grandmother' (loan from Ap Ma)
    ngata yawa   'mother's mother's brother'
    yalum   'grandchild' (loan from Ap Ma)
    ndunduma   'great-grandparent, great-grandchild, ancestor'

The term *ndunduma* 'great-grandparent, great-grandchild' refers to a relation that is three generations (or more) removed from the ego. It is unspecified as to whether the reference is to an older or a younger relation.

16.8 Expressions of time

Ulwa's vocabulary reflects some of its speakers' traditional methods of marking time. The word for 'year', for example, is the same as the word *inim* 'water'. Living in the tropics, Ulwa speakers do not experience significant seasonal changes in temperature or amount of sunlight per day; the most salient demarcation of the passing of years is the annual rainy season, which generally starts in November or December. During the rainy season the rivers swell and much of the land becomes swampy.

The word used for 'month' is *iwïl* 'moon', reflecting the common division of time based on the synodic month (roughly 29.5 days). Contemporary speakers use the term *iwïl* 'moon' to refer to the months of the Gregorian calendar, not to lunar cycles.

There are also a number of interesting polysemes and derivatives within the semantic domain of 'time'. The form *amun* 'now' means both 'now' and 'today' (cf. colloquial Tok Pisin *nau* 'now, today'). Similarly, *awal* 'afternoon' also means 'yesterday'. Based in part on the existence of cognates in the Keram languages for 'afternoon' but not for 'yesterday', I assume that the word *awal* 'afternoon' in Ulwa originally meant 'afternoon' and subsequently took on the meaning 'yesterday' (cf. English *eve*). In the formula for 'good afternoon', it is possible to clarify 'afternoon' as *awal nambï* 'body of the afternoon'. Finally, the words

umbenam 'morning' and *umbe* 'tomorrow' are clearly related. Here, too, I suspect that the time-of-day meaning preceded the different-day meaning.[13] The form *umbenam* 'morning' may result from a compound of *umbe 'morning' and *anam* 'sky', literally 'sky of the morning'.

As mentioned, *amun* 'now' can mean either 'now' or 'today'; within the domain of this former meaning, *amun* 'now' can be employed to convey a range of temporal meanings, sometimes through the help of the copular enclitic (see §10.2.1 on temporal adverbs). For example, it can mean 'recently' (39) or 'still' (40), among other things.

(39) Ala **amun** manap lop.
      ala   **amun** ma=nap   lo-p
      PL.DIST now   3SG.OBJ=for go-PFV
      'They recently went [to Madang] for his sake.' [ulwa032_29:18]

(40) Nï **amunpe** wol ame.
      nï **amun**=p-e   wol   ama-e
      1SG now=COP-DEP breast eat-IPFV
      'I was still nursing.' [ulwa013_00:28]

In Ulwa, the passage of time is generally expressed with verbal constructions. The verb *wo-* 'sleep', usually in the perfective form *wop* 'sleep [PFV]', has become almost fossilized as an adverb meaning 'the next day'. Examples (41) and (42) illustrate the use of *wop* 'sleep [PFV]' to indicate the passage of one day.

(41) **Wope** nï man Chris mat.
      wo-p-e   nï ma=n   Chris   ma=ta
      sleep-PFV-DEP 1SG 3SG.OBJ=OBL [name] 3SG.OBJ=say
      'The next day, I told Chris.' [ulwa014_22:30]

(42) Nï ndïwanap **wop** wolka ndït tamndï ndïn up.
      nï ndï=wana-p   **wo**-p   wolka ndï=tï   tamndï ndï=n   u-p
      1SG 3PL=cook-PFV sleep-PFV again 3PL=take owner 3PL=OBL put-PFV
      'I cooked them, and the next day in turn gave them to the owners.'
      [ulwa014_47:26]

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[13]In other words, *umbe* 'tomorrow' probably originally meant 'morning', but was extended in meaning to mean 'tomorrow' as well (cf. Spanish *mañana* 'morning, tomorrow', German *Morgen* 'morning' and *morgen* 'tomorrow', English *morrow* and *tomorrow*, etc.).

It is also possible to use other, often very long, expressions to convey the passage of a day, as in (43).

(43) *Awlu ilom ngawat u mat awe …*
      awlu ilom nga=wat   u   ma=tï   aw-e
      step day SG.PROX=atop from 3SG.OBJ=take put.IPFV-DEP
      'On the next day …' (Literally 'taking a step away from this day')
      [ulwa014_70:42]

The verb form *wop* 'sleep [PFV]' can also be used to express longer passages of time. In (44), this verb is used transitively, with the amount of time passed as its direct object.

(44) *Ilom lele **ndïwope** atana mï nan wot yena mat: …*
      *ilom lele ndï=**wo**-p-e   atana   mï   na=n   wot*
      day   three 3PL=sleep-PFV-DEP older.sister 3SG.SUBJ talk=OBL younger
      yena   ma=ta
      woman 3SG.OBJ=say
      'After three nights, the older sister said to the younger sister: …'
      [ulwa011_01:37]

In (45), the passage of time is marked with the verb *tï-* 'take', which has as its direct object the amount of time passed. Here, as in (44), the object marker is plural to agree with the number of units of time (days, months, etc.) that have passed.

(45) *Iwïl lele **ndïtïne** yeta nga nan mat: …*
      *iwïl   lele ndï=**tï**-n-e   yeta nga   na=n   ma=ta*
      moon three 3PL=take-PFV-DEP man SG.PROX talk=OBL 3SG.OBJ=say
      'After three months, the man told her: …' (Literally 'having taken three months') [ulwa006_05:29]

16.9 Coinages

Most contemporary Ulwa speakers do not commonly coin words. Instead, when speaking Ulwa, people will generally use a Tok Pisin loanword to refer to any concept that lacks an Ulwa name. In the past, however, when confronted with new concepts, like 'money' or 'matches', speakers employed at least two basic methods for identifying such referents:

(i)   extending the meaning (metaphorically or metonymically) of an existing Ulwa word to refer to the new concept; or

(ii) forming a compound noun, often one that describes periphrastically the new concept.

Examples of words whose meanings have been extended to include new concepts are given in (46).

(46)   Semantic extensions to refer to new concepts

apïn	'matches, lighter'	= 'fire'
mïndapan	'paper'	= 'banana leaf'
nïpïl	'rope'	= 'vine'
wanwane	'patrol officer, police officer'	= 'mushroom'[14]

Examples of compounds formed to describe new concepts are given in (47). When a compound is typically written elsewhere as a single orthographic word, a hyphen is included here to show the breaks between members of the compound.

(47)   Compounds to refer to new concepts

asi-mu	'rice'	= 'grass seed'
i-nangïn-mana	'official, civil servant'	= 'going claw hand' (?)[15]
inim tembi	'alcohol'	= 'bad water'
mbomala nangum	'flashlight'	= 'firefly shoot'
tïlwa num	'car'	= 'road canoe'[16]

Sometimes multiple means of coining words coexist for a single referent. There are, for example, a number of ways to refer to money. The word *inamba* 'ceremonial armband' may be extended in meaning, presumably due to the armband's material value. Another form, *palapal* 'shell; ceremonial armband; money' is probably a loan from Tok Pisin *palpal ~ balbal* 'Indian coral tree'. Alternatively, a compound may be used, such as *wombasa anga* 'piece of clay pot' or *ata monam mu* 'high fruit of the rain tree', both of whose etymologies are obscure to me.

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[14]The old colonial patrol officers (*kiap* in Tok Pisin) wore hats (perhaps pith helmets) that made them resemble mushrooms.

[15]The etymology is of *inangïnmana* 'official, civil servant' is obscure, but if it does in fact derive from something like 'going claw hand', then it is perhaps related to the official's ability to catch people (cf. the English expression *the long arm of the law*).

[16]The element *tïlwa* 'road' is itself a compound, derived from *utï* 'foot' plus *luwa* 'place'.

16.10 Traditional names

The people of Manu village typically have multiple names. Almost everyone has one or more traditional names, but people are most commonly referred to and addressed by given names of English or Biblical origin. If a person has more than one traditional name, one of these is considered primary. As mentioned in §16.7, it is taboo for someone to utter the primary name of someone related by marriage.

The use of last names (family names) is a relatively new practice, and many of the current oldest living generation – those born before around 1950 – do not have last names that they use. Those who first adopted last names did so by selecting one of their own names or the name of a relative; this then became the name that would be passed down, in patrilineal fashion, to their children.

The meanings of most names are unknown. While the etymologies of some may have been obscured through time, it is likely that many names are loans from neighboring languages. This is especially suspected to be the case where names contain sounds that are foreign to Ulwa, such as the velar nasal [ŋ], which occurs in the name *Kanang* (pronounced [kanaŋ]). Also, while there is generally free variation in pronunciation between [l] and [r] in the Ulwa liquid phoneme /l/, there is a strong preference for some proper names to be pronounced with the rhotic [r]. Accordingly, these names are written with <r> and not [†]<l> (§2.5). Personal names in Ulwa are designated either for men or for women. Some common traditional male names are given in (48). Some common traditional female names are given in (49).

(48)   Traditional male names

Alimban	Ayndin	Kanang	Konawa	Mongima	Yaruwa
Alma	Banjiwa	Kapos	Kongos	Nomnga	Yawat
Ambïnme	Gambri	Kawat	Kowe	Sambome	Yokombla
Amiwa	Ganmali	Kayta	Malman	Wekumba	Yolomban
Amombi	Guren	Kolpe	Manama	Womel	Yomali
Anam					

(49)   Traditional female names

Ambonda	Gami	Kawana	Sinda	Tanom	Yambït
Asingona	Ginam	Mapana	Tambana	Woni	Yanapi
Awandana	Gwam	Maple	Tangin	Yambin	Yawana
Damnda	Jukan	Mawna			

16.11 Toponyms

Some place names found in and around the Ulwa-speaking area are given in (50). All forms presented here reflect the Manu dialect. As is the case for personal names (§16.10), some toponoyms may derived from names used by members of other speech communities. Other toponyms, however, may have language-internal etymologies. For example, *Nïmalnu* 'Manu village' may derive from *nïmal* 'river' (§1.2). Similarly, *Wopata* (the name of the 'old' Manu village) is a contraction of *wa wapata* 'old village' (Appendix E).

(50)   Place names

Amali	site of the third Manu village
Ambwat	Kambot (village)
Andïmali	Dimiri (village)
Bulon	region immediately surrounding the current Manu village
Dim	Biwat (village); name of the original Manu village
Imwa	region surrounding Wopata village
Mïkïlwe	jungle region near Manu village
Morombi	Raten (village)
Mosombla	Yaul (village)
Kambok	Kambuku (village)
Kamen	ancestral village of the Ulwa peopla
Kanangwa	alternative name of Amali village
Kumba	Bun (village)
Mamala	Maruat (village)
Mamanu	downstream half of the old Wopata village
Nanïmwat	name of the old Yetani (Yamen) village
Nïmalnu	Manu (village)
Talamba	jungle region near Manu village
Taw	jungle region near Manu village
Tïwen	jungle region near Wopata village
Tïponïm	section of Manu village where the school was built
Wopata	site of the fourth Manu village
Yalamba	Korokopa (village)
Yambiwa	upstream half of the old Wopata village
Yambul	site of the second Manu village
Yetani	Yamen (village)

17 The structural consequences of language loss

This chapter provides some hypotheses about the nature of contact-induced language change in Ulwa.[1] These must all remain merely hypotheses, since, with hardly any documentation of the language prior to 2015, it is impossible to know with any certainty what the structure of the language was like in the past. Still, based in part on older speakers' grammaticality judgements of younger speakers' speech and in part on suspicious structural similarities to (or clear borrowings from) Tok Pisin, I outline in this chapter some of the most significant changes that Ulwa likely has faced and is facing in light of rapid language loss.

Although Ulwa has likely always been in contact with other languages and has probably undergone changes due to areal influences, I assume that the greatest external force affecting the language has been Tok Pisin, which first came to the Ulwa community in the twentieth century. It has become the first language of all ethnic Ulwas and is the only language of the majority of ethnic Ulwas.

17.1 Lexical changes

The most obvious linguistic effect of Tok Pisin can be seen in the lexicon. It is very common for Ulwa speakers to infuse their speech with Tok Pisin loanwords. Sometimes these borrowings are clearly motivated by the lack of native vocabulary for certain concepts (e.g., Tok Pisin *balus* 'airplane', *hausik* 'hospital', etc.). Often, however, speakers use Tok Pisin words simply because they come more readily to mind or because they do not know the Ulwa word. In some instances, it may be better to view the use of Tok Pisin words as a form of code-switching, as indeed some speakers switch between Ulwa and Tok Pisin both intersententially and intrasententially. Tok Pisin words are generally adapted to accommodate the phonology of Ulwa (§17.2).

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[1]See Campbell & Muntzel (1989) for discussion and examples of changes in obsolescent languages.

17.2 Phonological changes

Even though the number of native lexical items used in speech appears to have
diminished, even among the oldest speakers, Ulwa's native phonology seems still
to be intact. In other words, there are not any indications that older speakers have
shifted their phonologies due to influences from Tok Pisin. In fact, many speakers
impose Ulwa phonotactics on their variety of Tok Pisin. For example, older Ulwa
speakers often produce [l] for /r/ in Tok Pisin words, as in (1).

(1) Pronunciation of Tok Pisin /r/ as [l] among some Ulwa speakers
     [kal]   for Tok Pisin *kar* 'car'
     [lalim]   for Tok Pisin *larim* 'let'
     [lawsim]   for Tok Pisin *rausim* 'remove'

Ulwa speakers often also prenasalize all voiced stops in Tok Pisin, as in (2).

(2) Pronunciation of Tok Pisin voiced stops as prenasalized among some
     Ulwa speakers
     [mbilas]   for Tok Pisin *bilas* 'decoration'
     [ndok]   for Tok Pisin *dok* 'dog'
     [ngutpela] for Tok Pisin *gutpela* 'good'

On the other hand, many younger Ulwas, who are generally non-speakers
but perhaps know a few words, do not seem to have acquired the phonology of
Ulwa. They often fail to prenasalize word-initial voiced stops, as this is phono-
tactically prohibited in Tok Pisin, their first language. Furthermore, when pre-
nasalized voiced stops occur intervocalically, they syllabify the word such that
the nasal gesture belongs to the coda of one syllable and the stop gesture be-
longs to the onset of the following syllable. In other words, they fail to treat the
prenasalized voiced stop as a single segment.

17.3 Morphological changes

Ulwa also seems to be undergoing morphological changes due to contact with
Tok Pisin and to language loss in general. For example, speakers may be less
likely to use the appropriate TAM suffixes on verbs, or they may omit such ver-
bal morphology entirely. Whereas Ulwa exhibits a mandatory three-way distinc-
tion in TAM, manifested by verbal suffixes, Tok Pisin does not inflect verbs at
all for such grammatical categories. As speakers shift more to Tok Pisin, they ob-
serve these distinctions in Ulwa less. Similarly, when speakers do make use of a

perfective or irrealis suffix, they sometimes use an unexpected stem-final vowel. The underlying stem-final vowel of many verbs is never seen in the imperfective form (§6.2), and it may be the case that younger speakers are not acquiring this underlying form, instead creating perfective and irrealis forms based on analogy to other verbs. For example, a speaker might say [indep] for *indap* 'walk [PFV]', unaware that the underlying root is /inda/-, since this form never appears unaffixed as a surface form.

While the aforementioned changes may be viewed as reflecting a general reduction of grammatical forms, there are also morphosyntactic innovations that appear to be due to contact and language shift as well. These are mostly calques from Tok Pisin, a highly analytic language. Thus, even though Ulwa has the ability to express several aspectual and modal meanings through its verbal morphology, speakers have begun to incorporate periphrases to express such distinctions. These may be used in place of or in addition to the more synthetic Ulwa structures.[2]

A very common form of this morphosyntactic calquing from Tok Pisin is the use of the locative verb form *wap* 'be.PST' as an auxiliary verb following the main verb to signal continuous, progressive, or habitual aspect. This may have been derived thanks to the very similar role of *stap* 'be' in Tok Pisin. Not only does the Ulwa suffix parallel the Tok Pisin word in meaning (both are used in locative clauses), but it also resembles the Tok Pisin word phonologically (the two forms rhyme). In example (3), the perfective form of the verb is used, but with the form *wap* 'be.PST' following it to signal continuous action in the past.

(3) *Iya nï imba pe **i wap**.*
     iya nï imba p-e   i   wap
     yes 1SG night be-DEP go.PFV be.PST
     'Yes, I was going at night.' [ulwa037_01:26]

In the immediately following sentence, however, the speaker "corrects" to the more traditional means of expressing past continuous action, which is an imperfective verb form (4).

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[2]This appears to be in keeping with the hypothesis that speakers in endangered language situations tend to rely more on analytic constructions, replacing or reducing the number of their morphologically marked (i.e., synthetic) alternatives (Andersen 1982: 97).

(4) *Imba pe **mane** …*
     *imba p-e   **ma-n-e***
     night be-DEP go-IPFV-DEP
     '[I] was going at night and …' [ulwa037_01:29]

Sentences such as (3) are thus likely influenced by structures in Tok Pisin. To express continuous action, Tok Pisin employs the marker *i stap* (the predicate marker *i* 'PRED' + *stap* 'be'). Moreover, the chance similarity between the Tok Pisin predicate marker *i* 'PRED' and the Ulwa verb *i* 'go.PFV' has perhaps further influenced the adoption of this construction.

In (5), *wap* 'be.PST' serves a habitual function. Here it follows a verb that is already marked as imperfective.

(5) *Kapos wapata anda matï inde wap.*
     *Kapos   wapata anda   ma=tï   inda-e   **wap***
     [name] old   SG.DIST 3SG.OBJ=take walk-IPFV be.PST
     'That old [man] Kapos used to carry it.' [ulwa014_45:35]

Some speakers of Ulwa also make use of iconic repetition of verbs to signal iterative (or, occasionally, durative) aspect. This, too, seems influenced from Tok Pisin, in which verbs may be repeated to signal iterative action (although this could, of course, also reflect a general tendency in languages towards iconic representation of iterated activity). Thus, repeated verbs may be used to signal repetitive (6) or durative (7) action.

(6) ***Ndalep ndalep ndalep** yawt tï nduwep.*
     ndï=ale-p   ndï=ale-p   ndï=ale-p   yawt   tï
     3PL=scrape-PFV 3PL=scrape-PFV 3PL=scrape-PFV machete take
     ndï=we-[u-]p
     3PL=cut-[put-]PFV
     '[They] scraped and scraped and scraped them, [and then] got machetes and cut them.' [ulwa014_59:39]

(7) *Kwa Yalamba wa wap **mawap mawap mawap**.*
     *kwa Yalamba   wa   wap   **ma=wap**   **ma=wap***
     just Korokopa village be.PST 3SG.OBJ=be.PST 3SG.OBJ=be.PS
     ma=wap
     3SG.OBJ=be.PST
     '[He] just stayed at Korokopa village for quite some time.'
     [ulwa037_19:48]

A form of the verb 'go' (often either the root *ma-* 'go' alone or the suppletive perfective form *i* 'go.PFV' with the detransitivizing prefix, i.e., [nay] or [ne]) may be used to show iterative or durative aspect as well. This, too, parallels some uses of the Tok Pisin progressive marker *i go*, and is illustrated in (8) and (9).

(8) *Mï minyam tï ambïlïp **naye**.*
     mï   minyam tï   ambï=lï-p   **na-i-e**
     3SG.SUBJ feces   take SG.REFL=put-PFV DETR-go.PFV-DEP
     'He kept soiling himself.' [ulwa036_00:09]

(9) *Wopata mapen makape wombïn ndïn ne **i**.*
     Wopata ma=p-en   maka=p-e   wombïn ndï=n   ni-e   **i**
     [place] 3SG.OBJ=be-NMLZ thus=be-DEP work   3PL=OBL act-DEP go.PFV
     'Those who lived in Wopata were like this, doing work, for some time.' [ulwa018_04:00]

As in the Tok Pisin progressive *i go* construction, the 'go' element in Ulwa may be repeated, even multiple times, as in (10) and (11).

(10) *Una awal matane **nay nay nay nay**.*
     unan   awal   ma=ta-n-e   **na-i**   **na-i**
     1PL.INCL yesterday 3SG.OBJ=say-IPFV-DEP DETR-go.PFV DETR-go.PFV
     na-i   **na-i**
     DETR-go.PFV DETR-go.PFV
     'We kept discussing it yesterday, over and over.' [ulwa037_08:21]

(11) *Una wombïn nita **ma ma ma** …*
     unan   wombïn=n ni-ta   **ma ma ma**
     1PL.INCL work=OBL act-COND go go go
     'And when we work on and on …' [ulwa037_24:24]

Also likely calqued from Tok Pisin are some idiomatic expressions, such as using the equivalent of *stap na kam* 'be (in a place) and come' to express the notion of coming from a place (here, too, employing *wap* 'be.PST'). The Ulwa equivalent of the Tok Pisin construction may be seen in (12).

(12) *Nambi Madang **wap mbiye** nï maka Wombasame mï Wonmelma mintap.*
     *nï-ambi Madang **wap   mbï-i-e**   nï   maka Wombasame mï*
     1SG-TOP [place] [be.PST here-go.PFV-DEP] 1SG thus [name]   3SG.SUBJ
     Wonmelma min=ta-p
     [name]   3DU=say-PFV
     'As for me, when I came from Madang, I talked about Wombasame and
     Wonmelma.' [ulwa014†]

17.4 Syntactic changes

Speakers may also be employing fewer and fewer syntactic structures in Ulwa.
Thus, the more complex constructions in the language, such as relative clauses
(§14.3) and passive constructions (§15.7), may be avoided entirely by some speakers, or they may be simply unknown to them.

   Other syntactic changes may be due specifically to Tok Pisin influence. Although the order of basic clausal constituents does not seem to have been affected
by the prevalence of Tok Pisin (i.e., Ulwa's SOV word order has not shifted towards Tok Pisin's SVO word order), the structure of NPs may be changing due to
Tok Pisin influence, as some speakers occasionally place adjectives before their
nominal heads (following Tok Pisin syntax) instead of after them (as more traditionally in Ulwa) (§7.4).

17.5 Borrowed function words

In addition to grammatical calques such as those detailed in §17.3, speakers of
Ulwa frequently employ Tok Pisin loanwords for grammatical functions. For example, the borrowed coordinating conjunctions *na* 'and' (13) and *o* 'or' (14) are
commonly used.

(13) *Mat lïp **na** amun wolka kwa ngol ne.*
     *ma=tï   lï-p   **na** amun wolka kwa nga=ul   ni-e*
     3SG.OBJ=take put-PFV and now again one SG.PROX=with act-IPFV
     '[I] left it and now in turn [I] am making this one.' (*na* < TP *na* 'and')
     [ulwa015_01:41]

(14) *U imba pe i **o** ane pe i?*
      u   imba p-e   i   **o** ane p-e   i
      2SG night be-DEP go.PFV or sun be-DEP go.PFV
      'Did you go at night or go during the day?' (*o* < TP *o* 'or') [ulwa037_01:25]

The adoption of the Tok Pisin conjunctions *na* 'and' and *o* 'or' can be seen as filling a gap in the Ulwa lexicon, since, prior to contact with Tok Pisin, the language did not have any word used to coordinate phrases or clauses. This was accomplished rather through juxtaposition (§14.1).

Some commonly borrowed function words from Tok Pisin are given in (12).

(15) Borrowed function words from Tok Pisin

i	'PRED'	<	*i*
iken	'may, can'	<	*i ken*
layk	'be about to'	<	*laik*
mas	'should, must'	<	*mas*
maski	'although'	<	*maski*
mbay	'will'	<	*bai*
na	'and'	<	*na*
nongut	'lest'	<	*nogut*
o	'or'	<	*o*
sapos	'if'	<	*sapos*
sawe	'HAB'	<	*save*
tasol	'but'	<	*tasol*
tem	'when, whenever'	<	*taim*

Loan subordinators from Tok Pisin include *maski* 'although' and *taim* 'when, whenever'. These function words occur at the beginning of a dependent clause. In traditional forms of Ulwa, the dependent marker *-e* 'DEP' would have sufficed to convey such concessive or temporal notions. With these words, however, the dependent marker may be used as well (16), or it may be omitted (17).

(16) ***Tem** ndï ndïnji ngin motop inim **pe** ambana nungol kotïne mbay an malanda.*
      tem ndï ndï-nji   ngin ma=top   inim [lï-]p-**e**   wambana
      time 3PL 3PL-POSS net 3SG.OBJ=throw water [put-]PFV-DEP fish
      nungol ko=tï-n-e   mbay an   ma=la-nda
      child   INDF=take-PFV-DEP   will 1PL.EXCL 3SG.OBJ=eat-IRR
      'Whenever they threw their net into the water and got a small fish, [then] we would eat it.' (*tem* < TP *taim* 'time, when', *mbay* < TP *bai* 'will') [ulwa032_01:36]

(17) ***Maski** u ma awlop maka lowonda.*
      ***maski** u ma awlop ma=ka   lo-wo-nda*
      although 2SG go in.vain 3SG.OBJ=at IRR-sleep-IRR
      'Even if you go and get lost, [you] can sleep there.' (*maski* < TP *maski*
      'although') [ulwa029_02:54]

Example (17) also illustrates the use of the Tok Pisin auxiliary verb *bai* 'will'.
Tok Pisin modal verbs such as *bai* 'will', *iken* 'may, can', or *mas* 'should, must'
may occur along with irrealis-marked Ulwa verbs. The Tok Pisin verb *save*
'know', which can function as an auxiliary in that language to mark habitual
aspect, is also a common loanword in Ulwa, usually used along with an
imperfective-marked verb, the traditional means of marking habitual aspect in
Ulwa. Examples of the borrowed Tok Pisin function words *mas* 'should, must'
(18), *iken* 'may, can', (19), and *save* 'HAB' (17) are commonly found in texts.

(18) *U **mas** matan!*
      *u **mas** ma=ta-n[a]*
      2SG must 3SG.OBJ=say-IRR

      'You should tell it!'[3] (*mas* < TP *mas* 'should, must') [ulwa032_05:47]

(19) *Un **iken** mawan utap ma ndïn mankïna.*
      *un **iken** ma=wan   uta-p   ma ndï=n   ma=nïkï-na*
      2PL may 3SG.OBJ=above grind-PFV go 3PL=OBL 3SG.OBJ=dig-IRR
      'You can clear over it and plant them there.' (*iken* < TP *i ken* 'may, can')
      [ulwa042_04:16]

(20) *Nambi nï **sawe** inim lope.*
      *nï-ambi nï **sawe** inim   lopo-e*
      1SG-TOP 1SG HAB   water wash-IPFV
      'As for me, I bathe.' (*sawe* < TP *save* 'know'; habitual marker) [ulwa014†]

Example (19) illustrates the use of the Tok Pisin predicate marker *i* 'PRED', here
probably just adopted along with the verb *ken* 'can, may' – that is, reanalyzed
as a unitary auxiliary verb [iken]. The predicate marker *i* 'PRED' does appear
elsewhere in Ulwa discourse, but, due to its homophony with the suppletive per-
fective form of the verb 'go', it is often difficult to determine whether the form
[i] is being used as the predicate marker or as a calque of Tok Pisin *go* 'go', which
is used to achieve similar grammatical functions.

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[3]The form [matan] contains either an elided form of the irrealis suffix *-na* 'IRR', or else it contains
   the imperative suffix *-n* 'IMP'.

17.6 Detransitivization of loan verbs

When Tok Pisin verbs are borrowed into Ulwa, they are typically treated as intransitive, regardless of their semantics. The logical object of the verb is not indexed by an object marker, but instead appears as the head of an oblique phrase marked by the oblique marker *=n* 'OBL'.[4] The Tok Pisin verb is usually employed without any TAM marking, as in Tok Pisin. Examples (21), (22), and (23) illustrate the use of Tok Pisin loan verbs without any suffix or auxiliary verb. Note the absence of any grammatical object and the use of the oblique marker *=n* 'OBL'.

(21) *Ndï i awnï **tambuwim**.*
    *ndï i   aw=nï   **tambuwim***
    3PL go.PFV betel.nut=OBL taboo
    'They went and forbade [taking] the betel nut.' (*tambuiwim* = TP
    tambuim) [ulwa014†]

(22) *Nï ta wa man **pilim**.*
    *nï ta   wa ma=n   **pilim***
    1SG already just 3SG.OBJ=OBL feel
    'I had already just felt it.' (*pilim* = TP) [ulwa037_00:34]

(23) *Unji yena unji inin **paynim**!*
    *un-nji   yena un-nji ini=n   **paynim***
    2PL-POSS woman 2PL-POSS ground=OBL find
    '[They] are your women; [so] find your land!' (*payinim* = TP *painim*)
    [ulwa014†]

Sometimes, however, the aspect or mood of a detransitivized Tok Pisin loan verb may be conveyed by means of an auxiliary 'going' verb: (*ma-* ~ *i* 'go' or *unda-* 'go around'). As elsewhere with such detransitivized verb constructions, the logical object is expressed in an oblique phrase. Examples (24) through (29) illustrate various 'going' verbs used with detransitivized Tok Pisin loan verbs.

(24) *Ndïn **mboylim i** ndala ya motap.*
    *ndï=n   **mboylim i**   ndï=ala ya   ma=uta-p*
    3PL=OBL boil   go.PFV 3PL=for coconut 3SG.OBJ=grind-PFV
    '[I] boiled them and ground a coconut for them.' (*mboylim* = TP *boilim*)
    [ulwa014_17:31]

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[4]This occurs even with Tok Pisin verbs that are marked with the transitive suffix *-im*, which of course is not a transitive marker in Ulwa.

(25) *Una gaden ngalan **pinisim iye**.*
*unan   gaden   ngala=n   **pinisim i-e***
1PL.INCL garden PL.PROX=OBL finish   go.PFV-DEP
'We have finished these gardens.' (*pinisim*, *gaden* = TP) [ulwa030_02:59]

(26) *Ala ndïn **labisim mana**.*
*ala   ndï=n   **labisim ma-na***
PL.DIST 3PL=OBL rubbish   go-IRR
'They will mess with them.' (*labisim* = TP *rabisim*) [ulwa014_23:07]

(27) *Una unanji grup ngan **pasim ma**!*
*unan   unan-nji   grup nga=n   **pasim ma***
1PL.INCL 1PL.INCL-POSS group SG.PROX=OBL tie   go
'Let's form a group!' (Literally 'form our group'; *pasim*, *grup* = TP)
[ulwa029_01:16]

(28) *Ala amblol le amblan **winim unde**.*
*ala   ambla=ul   lo-e   ambla=n   **winim unda-e***
PL.DIST PL.REFL=with go-DEP PL.REFL=OBL win   go-IPFV
'They go around with each other, competing with each other.' (*winim* =
TP) [ulwa032_54:02]

(29) *Ya, i mas tokples ngan **laynim unda**.*
*ya   i   mas tokples nga=n   **laynim unda***
yeah PRED must tokples SG.PROX=OBL teach   go
'Yeah, [we] have to teach [them] this *tokples* [= vernacular].' (*laynim* = TP
lainim; *ya, i, mas, tokples* also = TP) [ulwa014_02:46]

Notably, one Tok Pisin loan verb does seem to permit objects: this is the Tok
Pisin verb *helpim* 'help', which is generally pronounced [alpim] in Ulwa. As in
some varieties of Tok Pisin, Ulwa lacks the glottal fricative [h]. Ulwa furthermore
forbids the mid front vowel [e] word-initially. In example (30), the 2SG object
marker is the direct object of the verb.

(30) ***Walpim** unji wombïn man ninda.*
***u=alpim** u-nji   wombïn ma=n   ni-nda*
2SG=help 2SG-POSS work   3SG.OBJ=OBL act-IRR
'[I] will help you do your work.' (*alpim* = TP *helpim*) [ulwa031_00:55]

Sentence (31) illustrates the use of the verb *alpim* 'help' with the auxiliary verb
unda- 'go around'.

(31) *Nungol ndï **malpim unde** mol inamban nji ndine.*
    *nungol ndï **ma=alpim** **unda-e** ma=ul*   *inamba=n*   *nji*
    child   3PL 3SG.OBJ=help go-DEP 3SG.OBJ=with money=OBL thing
    ndï=ina-e
    3PL=get-IPFV
    'The children are helping him buy things.' (*alpim* = TP *helpim*)
    [ulwa032_07:21]

The loan verb *lukawtim* 'look after' is also exceptional in that it seems sometimes to take the copular enclitic rather than using a periphrastic construction with a verb of 'going' to convey TAM meaning. This perhaps reflects the fact that this verb has been adopted into Ulwa as a non-verbal element (cf. *kalam* 'knowledge', borrowed from Waran, §7.4). Still, like most loan verbs that come from Tok Pisin, *lukawtim* 'look after' does not permit an object, but rather makes use of oblique phrases marked by *=n* 'OBL', as in (32).

(32) *Nï ango tïki **ankam kuman lukawtimpïna**.*
    nï   *ango tïki*   *ankam kuma=n*   ***lukawtim=p**-na*
    1SG NEG   again person some=OBL look.after=COP-IRR
    'I won't look after other people anymore.' (*lukawtim* = TP *lukautim*)
    [ulwa032_47:51]

In (33), the verbalized form of this word (with the copular enclitic *=p* 'COP') is further nominalized by the nominalizing suffix *-en* 'NMLZ' and then treated as a non-verbal predicate, being negated with clause-final negator *kom* 'NEG'. A similar phenomenon is seen with *kalam* 'knowledge' in example (164) in §15.3.2.

(33) *Tembi anda wa njin anmanï **lukawtimpen** kom.*
    tembi anda   *wa nji=n*   *anma=nï **lukawtim=p-en***   *kom*
    bad   SG.DIST just thing=OBL good=OBL look.after=COP-NMLZ NEG
    'That bad one just doesn't look after things well.' [ulwa014_07:28]

18 Lexicon

This chapter provides an Ulwa wordlist. First, §18.1, presents 1,429 Ulwa lexical entries, each with an English translation or explanation. This list includes every Ulwa word and morpheme mentioned in this grammar, as well as a number of other words taken from texts or recorded during elicitation sessions. Then, §18.2 provides an English-to-Ulwa finder list. This is intended to be a quick and simple means of finding words in Ulwa and, as such, does not provide lengthy definitions. Finally, for convenient reference, §18.3 presents a list of bound morphemes (i.e., affixes and clitics) along with their glossing abbreviations.

18.1 Ulwa-to-English wordlist

In the following wordlist, the Ulwa words are organized alphabetically, following the conventions of English and Tok Pisin alphabetization. For ease of use, the digraphs <mb>, <nd>, <ng>, <nj>, and <ae> are treated as series of two characters each. That is, although each digraph represents a single phoneme in Ulwa, they are alphabetized as if they were composed of separate letters.[1] This separation of phonologically more similar words is made in the interest of facilitating the discovery of lexical items. The one exception to this scheme is that word-initial prenasalized voiced stops are treated as distinct graphemes and, as such, received their own letter headings (**<mb>**, **<nd>**, **<ng>**, **<nj>**). Proper nouns that begin with these phonemes, are written, however, without the nasal component, and they are alphabetized accordingly (cf. §2.5). The letter <ï> is alphabetized along with <i>.

Word classes are identified following the Ulwa word and preceding the English translation. These should not be taken as definitive statements about lexical classes in the language, but are rather, in many instances, rather roughly defined, based in part on semantic criteria. More detailed information on word class is provided throughout the grammar. The abbreviations used for roughly classifying lexical entries are given in (1).

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[1]Thus, for example, the words *ana-* 'scrub', *anda* 'that', and *ane* 'sun' are presented in that order, even though /ana-/ and /ane/ share the first two phonemes, whereas /anda/ has a different second phoneme.

(1) Word class abbreviations used in the wordlist

(ADJ)	adjective	(NUM)	numeral
(ADV)	adverb	(P)	postposition
(CONJ)	conjunction	(PRO)	pronoun
(DEM)	demonstrative	(Q)	question word
(INTERJ)	interjection	(QUANT)	quantifier
(N)	noun	(V)	verb
(NEG)	negator		

Entries for verbs take the form of the verb's stem. See Chapter 6 for information on the conjugation of verbs. If a verb uses different stems in its paradigm (e.g., the irregular verb *ama-* ~ *la-* 'eat'), each stem receives its own entry in the wordlist. Separable verbs are written with a space between the separable elements, to help show how these words may be used in verb phrases (see §11.2.1–§11.2.3).

When the English gloss is not a translation of the Ulwa word but rather a description (i.e., a grammatical gloss), it is set in square brackets. For example, the Ulwa entry *-p* is glossed as "[perfective suffix, 'PFV']". Proper nouns are also indicated as such with brackets: for example, **Alimban** is glossed as "[male name]", **Alkumot** is glossed as "[female name]", and **Talamba** is glossed as "[place] jungle region near Manu village".

Loanwords are flagged as such when known or suspected, with the arrow symbol (<) indicating the source language or language family. Where deemed helpful, Tok Pisin translations are provided for some words (in parentheses following the abbreviation "TP"), in addition to the English translation. Literal meanings or etymologies of compound forms are occasionally provided (also in parentheses).

<A, a> [a]

a (INTERJ) ah (expresses shock or disbelief; also can introduce quoted speech); uh (filler interjection); eh? (tag question interjection)

a- (V) break

akal (N) ringworm, tinea; any white, ashy skin condition

akat (N) hoof (of a pig)

akatoma (N) fork

akïnaka (ADJ) new, fresh, alive, raw, young

akïnanga (N) palm frond

akum (N) type of basket (basket made from sago fronds, used as a container)

akunpu (N) back of the skull (occipital bone) (cf. *inpu* 'elbow', *wutïnpu* 'heel')

al (N) type of beam (long beam in a house, running to the roof)

al (N) loincloth, man's grass skirt (TP *malo*)

al (N) mosquito net (traditional covering made of woven sago shoots)

-al [irregular perfective suffix, 'PFV'] (for *si-* 'push')

al nambï (N) bedsheet; cloth, clothing (literally 'mosquito net skin')

ala (DEM) those (plural distal demonstrative, 'PL.DIST')

ala (P) for, from (also *andï*, *andïn*, *andïm*)

ala namnap (V) fear, be afraid of, be scared of (literally 'be afraid from')

ala- (V) see (used with *lïmndï* 'eye') (also *andï-*)

ala= (DEM) those (non-subject plural distal demonstrative, 'PL.DIST')

alakamb- (V) dislike, disapprove of, hate (literally 'shun from')

alalama (N) maturing coconut fruit (older than an *andïmoni* 'young coconut', but not yet *wapata* 'dry')

alaman (N) sago species (large sago palm with spines)

alambi (DEM) as for those ones (plural distal topic-marker demonstrative, 'PL.DIST-TOP')

alanji (DEM) those ones' (plural distal possessive demonstrative, 'PL.DIST-POSS')

alata (ADJ) rotting, decaying

alawa (DEM) those themselves (intensive plural distal demonstrative, 'PL.DIST-INT')

alawe (DEM) those themselves (from among several) (plural distal partitive-intensive demonstrative, 'PL.DIST-PART.INT')

ale- (V) scrape (sago) (possibly < Ap Ma)

ali- (V) scrape (sago) (irrealis stem of *ale-*) (possibly < Ap Ma)

alima- (V) beat (sago pulp)

Alimban [male name]

Alkumot [female name]

Alma [male name]

almba (N) bird species (hornbill) (TP *kokomo*) (< Ap Ma)

almbïne (N) banana species (plantain banana plant with bunches containing very many fruit)

alsa (N) scorpion

alum (N) child, baby (possibly < Ap Ma)

alwoma (N) type of beam (support beam in a house)

ama- (V) eat, drink; chew, bite, suck; smoke (tobacco)

Amali [place] site of the third Manu village, near present-day Bun village

amam (N) insect species (insect similar to a ladybug that lives in the water)

amangala (N) bird species (brown eagle, hawk) (TP *tarangau*) (possibly < Ap Ma)

amba (N) men's house, spirit house (TP *haus tambaran* or *haus boi*); clan; magic

ambalka (ADJ) flat, equal (possibly < *ambla* [plural reciprocal pronoun] + *ka* 'thus')

ambatïm (N) joint

ambawa (PRO) myself, yourself, himself, herself, itself (intensive singular reflexive pronoun, 'SG.REFL-INT')

Ambawanam [male name]

Ambayam [female name]

ambep (N) front of the men's house (< *amba* 'men's house' + *ip* 'nose')

ambet (N) magic; poison

ambi (ADJ) big, large; much; (N) big man, God

-*ambi* [topic-marker suffix, 'TOP']

ambï= (PRO) myself, yourself, himself, herself, itself (singular reflexive pronoun, 'SG.REFL')

ambin= (PRO) ourselves, yourselves, themselves, (dual reflexive pronoun, 'DU.REFL'); each other (dual reciprocal pronoun, 'DU.REFL')

ambinawa (PRO) ourselves, yourselves, themselves (intensive dual reflexive pronoun, 'DU.REFL-INT')

ambinji (PRO) our own, your own, their own (dual reflexive possessive pronoun, 'DU.REFL-POSS')

ambïnji (PRO) my own, your own, his own, her own, its own (singular reflexive possessive pronoun, 'SG.REFL-POSS')

Ambïnme [male name]

ambinwe (PRO) ourselves, yourselves, themselves (partitive-intensive dual reflexive pronoun, 'DU.REFL-PART.INT')

ambla (N) tooth; stinger (of an insect)

ambla lam (N) gums (literally 'tooth flesh')

ambla= (PRO) ourselves, yourselves, themselves (plural reflexive pronoun, 'PL.REFL'); one another (plural reciprocal pronoun, 'PL.REFL')

amblanji (PRO) our own, your own, their own (plural reflexive possessive pronoun, 'PL.REFL-POSS')

amblawa (PRO) ourselves, yourselves, themselves (intensive plural reflexive pronoun, 'PL.REFL-INT')

amblawali- (V) fight, battle (literally 'hit one another')

amblawe (PRO) ourselves, yourselves, themselves (partitive-intensive plural reflexive pronoun, 'PL.REFL-PART.INT')

Amblom [female name]

Ambonda [female name]

ambunmbï (N) back of the men's house (< *amba* 'men's house' + *unmbï* 'buttocks')

ambuwe (PRO) myself, yourself, himself, herself, itself (partitive-intensive singular reflexive pronoun, 'SG.REFL-PART.INT')

Ambwat [place] Kambot village

ame (N) type of basket (basket made from sago shoots, used for carrying sago starch); uterus, marsupial pouch

amendum (N) plant species (stinging nettle with small leaves) (TP *salat*)

ametamal (N) spoon made from a coconut shell

Amiwa [male name]

amla (N) tree species (Pacific walnut) (TP *mon*)

Amombi [male name]

amun (ADV) now, today, nowadays, recently, still, yet

amunji (N) young person

an (PRO) we (1PL.EXCL subject pronoun, '1PL.EXCL')

an (ADV) out (only occurs with *mbï* 'here'; cf. *anmbï* 'outside')

an= (PRO) us (1PL.EXCL non-subject pronoun, '1PL.EXCL')

ana (N) skirt, woman's grass skirt (TP *purpur*); a parasitic person; hair on the tip of an animal's tail

ana- (V) scrub, scratch

anam (N) sky, cloud; lightning

Anam [male name]

anam wapata (N) thunder (literally 'dry sky')

anambi (PRO) as for us (1PL.EXCL topic-marker pronoun, '1PL.EXCL-TOP')

anangum (N) spine, backbone

anankïn (N) blood

anapa (N) sister

anapot (N) type of skirt (short grass skirt for men)

anasa (N) pick-axe (for hacking at sago palms) (possibly < Pondi)

anat (N) vegetable species (ginger) (TP *kawawar*)

anaw (N) paddle; fishtail; outboard motor of a canoe; motorboat

anawa (PRO) we ourselves, us ourselves (1PL.EXCL intensive pronoun, '1PL.EXCL-INT')

anda (DEM) that (singular distal demonstrative, 'SG.DIST')

anda (ADV) there; to there, thither

anda= (DEM) that (non-subject singular distal demonstrative, 'SG.DIST')

andambi (DEM) as for that one (singular distal topic-marker demonstrative, 'SG.DIST-TOP')

andana (N) left, left-hand side

andanam (DEM) that is it (singular distal emphatic demonstrative, 'SG.DIST-EMPH')

andanji (DEM) that one's (singular distal possessive demonstrative, 'SG.DIST-POSS')

andawa (DEM) that itself (intensive singular distal demonstrative, 'SG.DIST-INT')

andawe (DEM) that itself (from among several) (singular distal partitive-intensive demonstrative, 'SG.DIST-PART.INT')

ande (INTERJ) OK, okay (expresses agreement, etc.) (also *andi*)

andi (INTERJ) OK, okay (expresses agreement, etc.) (also *ande*)

andï (N) sago shoot

andï (P) for, from (also *andïm*, *andïn*; *ala*)

andï- (V) see (used with *lïmndï* 'eye') (also *ala-*)

andil (ADJ) careful, slow, quiet

andïla (P) waiting for, awaiting (also *angla*)

andïlalo- (V) hunt, seek (literally 'go awaiting') (also *anglalo*)

andïm (P) for, from (also *andï*, *andïn*; *ala*)

Andïmali [place] Dimiri village

andïmoni (N) young coconut, drinking coconut (TP *kulau*)

andin (DEM) those (dual distal demonstrative, 'DU.DIST')

andïn (P) for, from (also *andï*, *andïm*; *ala*)

andin= (DEM) those (non-subject dual distal demonstrative, 'DU.DIST')

andinambi (DEM) as for those ones (dual distal topic-marker demonstrative, 'DU.DIST-TOP')

andinawa (DEM) those themselves (intensive dual distal demonstrative, 'DU.DIST-INT')

andinji (DEM) those ones' (dual distal possessive demonstrative, 'DU.DIST-POSS')

andinwe (DEM) those themselves (from among several) (dual distal partitive-intensive demonstrative, 'DU.DIST-PART.INT')

andïpipi (N) pimple

ando (ADV) there; from there, thence

anduwan (N) young sago palm

andwana (ADJ) yellow

ane (N) sun; midday, day (daytime); (ADJ) yellow, light (color)

ane anma (greeting) good day

ane inom (N) father's sister (paternal aunt) (literally 'sun mother')

ane inom atana (N) father's older sister (paternal aunt) (literally 'older sister sun mother')

ane inom wot (N) father's younger sister (paternal aunt) (literally 'younger sun mother')

ane mongi (N) banana species (banana plant with sweet, red fruit, traditionally eaten only by men) (literally 'sun ***mongi*** banana species')

ane ngungun ane (N) rainbow (literally 'sun red sun', possibly related to ***ngum*** 'snake species')

ane uta (N) bird species (small brown bird with a beak like a parrot's that sings in the dry season) (literally 'sun bird')

ane wapata (N) dry season (literally 'dry sun')

ane wombam (N) noon, midday (literally 'middle sun')

anem (N) plant species (plant with seeds used for making necklace beads); (ADJ) blue, purple

anem (N) yam species (yam with purple flesh); (ADJ) blue, purple

anembal (ADJ) light (color) (possibly a compound containing ***ane*** 'sun')

anen (N) fat, grease

anenisi (N) torch

anga (N) piece, side

angani (P) behind, after; (N) rear, back

angani ka- (V) follow (literally 'let behind')

anganika (ADV) after, afterwards, later, soon

angay (NUM) five (literally 'side [of] hand')

angay angay (NUM) twenty-five (= 5·5)

angay kwe kwe mowon ndïwatlïp (NUM) six (literally 'one side of hand; cut one and put atop them')

angay kwe lele ndïwon ndïwatlïp (NUM) eight (literally 'one side of hand; cut three and put atop them')

angay kwe nini minwon ndïwatlïp (NUM) seven (literally 'one side of hand; cut two and put atop them')

angay kwe watangïnila ndïwon ndïwatlïp (NUM) nine (literally 'one side of hand; cut four and put atop them')

angay lele (NUM) fifteen (= 5·3)

angay lele kwe mowon ndïwatlïp (NUM) sixteen (literally 'three sides of hands; cut one and put atop them')

angay lele lele ndïwon ndïwatlïp (NUM) eighteen (literally 'three sides of hands; cut three and put atop them')

angay lele nini minwon ndïwatlïp (NUM) seventeen (literally 'three sides of hands; cut two and put atop them')

angay lele watangïnila ndïwon ndïwatlïp (NUM) nineteen (literally 'three sides of hands; cut four and put atop them')

angay nini (NUM) ten (= 5·2)

angay nini kwe mowonndïwatlïp (NUM) eleven (literally 'two sides of hands; cut one and put atop them')

angay nini lele ndïwon ndïwatlïp (NUM) thirteen (literally 'two sides of hands; cut three and put atop them')

angay nini nini minwon ndïwatlïp (NUM) twelve (literally 'two sides of hands; cut two and put atop them')

angay nini watangïnila ndïwon ndïwatlïp (NUM) fourteen (literally 'two sides of hands; cut four and put atop them')

angay watangïnila (NUM) twenty (= 5·4)

angïn (N) vine species

angla (P) waiting for, awaiting (also *andïla*)

anglalo- (V) hunt, seek (literally 'go awaiting') (also *andïlalo-*)

ango (NEG) no, not

ango (Q) which?; where?

ango luwa (Q) where? (literally 'which place?')

ango tem (Q) when? (literally 'which time?')

ango- (V) pull out, pick

angom lï- (V) pull, pull out, uproot (literally 'put a pull'?)

angos (Q) what?; (P) whatever, whatsoever, anything

angos nji (P) whatever (literally 'whatever thing')

angumoni (ADJ) swelling (waves)

angumoni nïmal (N) ocean, sea (literally 'swelling river')

angun (N) tail; fin, fishtail

angwena (Q) why? (< *ango* 'which?' + *na* 'reason, cause')

ani (N) string bag, net bag (TP *bilum*)

anïm (N) forking stick

anïmasi (N) snake species (python) (TP *moran*)

anïmbu (N) mango

aninokam (N) throat, windpipe

anji (PRO) our, ours (1PL.EXCL possessive pronoun, '1PL.EXCL-POSS')

anjika (Q) how many?

anjikaka (Q) how?; what's the matter? (possibly < *anjika* 'how many?' + *ka* 'thus')

ankam (N) person, human

ankam unduwan (NUM) fifty (literally 'person head')

ankam unduwan nali (NUM) sixty (50+10)

ankam unduwan nali lele (NUM) eighty (50+30)

ankam unduwan nali nini (NUM) seventy (50+20)

ankam unduwan nali watangïnila (NUM) ninety (50+40)

ankïn (N) vegetable species (TP *kumu mosong*)

anma (ADJ) good, nice, true, smart, intelligent, straight, healthy, well

anma wanani- (V) be happy (literally 'feel-act good')

anma- (V) go out (literally 'go out')

anmbasa- (V) chase (literally 'hit outside')

anmbï (ADV) outside (literally 'out here')

anmbi- (V) come out (literally 'go outside')

anmoka (N) snake

anmopa (N) vegetable species (*Gnetum gnemon*) (TP *tulip*)

anmot (N) post used in the middle of a house to support the roof (literally 'out awning')

ansi (N) mix of betel nut, betel pepper, and lime; chewed-up betel nut (TP *red buai*); lime gourd (a gourd-like plant used to store lime), previously used to cover the penis; penis (slang)

ansi inom (N) mother's brother's wife (aunt) (literally 'lime gourd mother')

ansi nungol (N) sister's child (sororal nibling), nephew or niece (only used to refer to a man's sister's child, i.e., the reciprocal relation of the *yawa*) (literally 'lime gourd child')

ansi yanat (N) niece (only used to refer to a man's sister's daughter) (literally 'lime gourd daughter')

ansimu (N) type of drum (gourd-like drum) (literally 'lime gourd fruit')

anul (N) grass, grassland (also ***nipum amba***)

anwe (PRO) we ourselves, us ourselves (from among several) (1PL.EXCL partitive-intensive pronoun, '1PL.EXCL-PART.INT')

-ap [perfective suffix, 'PFV'] (in double perfective constructions; also ***-ip***, ***-op***)

apa (N) house, building

apa ini (N) floor of a house (literally 'house ground')

apa nambï (N) wall of a house (literally 'house skin')

apaka (N) roof of a house (literally 'house peak')

apembam (N) area beneath a stilted house (literally 'house under')

apep (N) front of the house (< ***apa*** 'house' + ***ip*** 'nose')

apïn (N) fire, matches, lighter; pain

apïn ama- (V) burn (transitive) (literally 'eat [with] fire')

apïn inim (N) perspiration, sweat (literally 'fire water')

apïn mïnda (N) banana species (banana plant with sweet, small, red fruit, traditionally eaten only by men) (literally 'fire banana')

apïn nangïn (N) large fire tongs (literally 'fire tongs')

apïn ngïn (N) smoke (literally 'fire cloud')

apïn we (N) sago cooked on the fire (literally 'fire sago')

apïnal (N) swamp (also **mïka itïm**)

apïnsi (N) ash, ashes (< *apïn* 'fire' + *isi* 'ashes, salt')

apka (ADV) very, really

aplatam (N) table, shelf

apombam (N) middle of the house (< *apa* 'house' + *wombam* 'middle')

apot (N) shelf that hangs above the hearth, used for drying and smoking meat and fish

apunmbï (N) back of the house (< *apa* 'house' + *unmbï* 'buttocks')

apwanam (N) side of the house (< *apa* 'house' + *wanam* 'side')

apwane (N) insect species (the adult form of the *mïnkïn* grub species)

as (V) hit, stab, shoot; kill (abbreviated form of *asa-*)

asa (INTERJ) nah, no (expresses denial)

asa- (V) hit, stab, shoot; kill

ase (INTERJ) no (expresses denial)

asi (N) grass

asi ka- (V) sit, sit down (literally 'let sit'?)

asïmïna (N) nosering traditionally worn by men; sneeze

asimu (N) rice (literally 'rice seed')

Asingona [female name]

asiya (N) string, thread; animal trap made of string; fishing line

asiyot (N) grass knife (literally 'grass machete')

at (N) end, piece

at (N) fight, battle

ata (ADV) up, upper, upward, upstream; (ADJ) high

ata monam mu (N) money (literally 'high rain tree fruit')

ata tanum (N) upper lip, area above the mouth (literally 'upper lip')

atal (N) laughter; anus

atala- (V) laugh (literally 'break a laugh'?)

atalï- (V) put up (literally 'put up')

atana (N) older sister (probably < *ata* 'upper' + *yana* 'woman')

atana numan (N) older sister's husband (brother-in-law) (literally 'older sister husband')

atate (N) Singapore taro (members of the genus *Xanthosoma*) (TP *kongkong*)

atay (V) go up (< *ata* 'up' + *i* 'go.PFV')

atï- (V) hit, stab, shoot; kill (irregular irrealis stem)

atuma (N) older brother (possibly < *ata* 'upper' + *uma* 'bone')

Atuma [female name]

atuma inga yena (N) older brother's wife (sister-in-law) (literally 'older brother affine woman')

atwana (N) question

atwana kï- (V) ask (literally 'say a question') (also ***atwana ta-***)

atwana ta- (V) ask (literally 'say a question') (also ***atwana kï-***)

aw (N) betel nut (*Areca catechu*) palm or fruit (TP *buai*)

aw ilowan (N) young betel nut palm, just grown from a shoot (***aw*** is 'betel nut'; meaning of *ilowan* is unknown)

aw imbïn (N) betel nut spittle (literally 'betel nut refuse')

aw lïmndï (N) youngest (immature) stage of betel nut fruit (literally 'eye betel nut')

aw ulum (N) young, somewhat wet betel nut fruit (the stage following ***kakïla*** 'young betel nut') (literally 'sago palm nut')

aw wapata (N) mature, dry betel nut fruit (the stage following ***pïsima*** 'older betel nut') (literally 'dry betel nut')

aw- (V) put (imperfective stem of ***u-***)

awa [intensive marker, 'INT')

-awa [intensive suffix, 'INT')

Awaka [male name]

awal (N) afternoon, evening; (ADV) yesterday

awal anma (greeting) good afternoon

awal nambï (N) afternoon (literally 'afternoon body')

awal nambï anma (greeting) good afternoon

awalawa (N) bird species (red or green parrot) (TP *kalangal*)

awame (N) seed species (rice-like seed of a palm species, commonly eaten by children)

Awandana [female name]

awaw (N) lie, falsehood

awe (N) tree species (ilima tree) (*Octomeles sumatrana*) (TP *erima*)

awena (N) female friend (of a woman)

aweta (N) (male) friend

awi (N) shoulder; the side of something

awïl (N) yam species (white, thin, very long yam)

awindal (N) reeds (TP *tiktik*)

awlop (ADV) in vain

awlu (N) step

awnaka (N) tree species

awngala (N) bird species (small black, yellow-breasted bird)

awpane (N) butterfly

awsingïn (N) bird species (eagle, hawk) (TP *tarangau*)

ay (INTERJ) ow, ay (expresses pain or shock)

ay (N) sago, jellied sago

aya (INTERJ) ah me (expresses compassion)

aylat (N) insect species (millipede)

aymoma (N) sago stick (stick used to stir sago) (***ay*** is 'sago'; relationship, if any, to ***moma*** 'leaf tied in a knot' is unknown)

ayna (N) scarf worn by women in mourning; string bag used for carrying babies

Ayndin [male name]

aypul (N) scoop of jellied sago (literally 'sago piece')

<B> [ᵐb]

Banjiwa [male name]

Bay [male name]

Bulon [place] region immediately surrounding the fifth (and current) Manu village

<D> [ⁿd]

Damnda [female name]

Dim [place] Biwat village; name of the original Manu village

Dimes [male name]

Dingo [male name]

Dumngul [male name]

<E, e> [e]

e [free dependent marker, 'DEP']

e (INTERJ) hey, ay (expresses excitement, either positive or negative); eh? (tag question interjection)

-e [dependent marker suffix, 'DEP']

-e [imperfective suffix, 'IPFV']

eklak (N) tree species (Malay apple) (*Syzygium malaccense*) (TP *laulau*) (loan of unknown origin)

-en [nominalizing suffix, 'NMLZ']

<G> [ᵑg]

Gambri [male name]
Gami [female name]
Ganmali [male name]
Ginam [female name]
Guren [male name]
Gwam [female name]

<I, i> [i]

i [predicate marker, 'PRED'] (< Tok Pisin *i*, predicate marker)
i (N) behavior, habit, custom, way
i (N) hand, arm
i (N) lime (calcium hydroxide) (TP *kambang*) (< Ap Ma; probably ultimately
   < Austronesian)
i (V) go, flow (suppletive perfective form of *ma-*)
i (INTERJ) alas; yay (expresses dejection or joy)
i- (V) come
i ambatïm (N) elbow (literally 'arm joint')
i mutam (N) back of the hand (literally 'hand back')
i mwa (N) palm of the hand (literally 'hand opening') (also *yombam*)
i name (N) upper arm (cf. *wutï name* 'thigh', *lam* 'muscle')
i nangum (N) forearm (literally 'arm shoot')
ika (N) instance, time (literally 'way-thus'?)
ika (N) riverbank (< Ap Ma)
ika uta- (V) count (literally 'rub instances'?)
ikali lï- (V) grab, hold, catch (literally 'send hand')
iken (modal marker) may, can (< Tok Pisin *i ken*, predicate marker + 'may')
ila (N) sago palm frond, thatch (TP *morota*)
ilom (N) day
ilu (N) root
ilum (N) piece; (QUANT) little, few
ilumka (ADV) a little
im (N) tree
im kal (N) sap (*im* is 'tree'; meaning of *kal* is unknown)
im nali (N) stick (literally 'tree frond spine')
im nambï (N) bark (literally 'tree skin')
im nangïn (N) branch (literally 'tree tongs')

imba (N) night, evening
imba anma (greeting) good evening, good night
imbam (P) under, below
imbam ka- (V) run (literally 'let under')
imbïn (N) refuse water when washing sago pith
imnde (N) type of basket (basket used for straining sago)
imot (N) log, firewood (possibly < **im** 'tree' + **wat** 'top')
impul (N) piece of wood (literally 'tree piece')
imu (N) finger, digit (literally 'hand fruit')
imu ankam (N) index finger (literally 'person finger')
imu law (N) ring finger (literally 'cordyline finger')
imu unduwan (N) thumb (literally 'head finger')
imu watangïn (N) pinky finger, little finger (literally 'last finger')
imu wome (N) middle finger (literally 'middle finger')
Imwa [place] region surrounding **Wopata** village
in (P) in, inside, into, within
in- (V) get, collect (irrealis stem of **ina-**)
ina (N) liver; the seat of reasoning and emotion
ina- (V) get, collect
inakawana- (V) think (literally 'feel in the liver')
inamba (N) armband; money
inane (N) grub species (mature edible grub, either of the **mïnkïn** or **mundum** grub species)
inangïnmana (N) official, civil servant (literally 'going claw hand'?)
inapaw (N) belly, waist
inapum (N) right, right-hand side
inda- (V) walk
inga (N) affine, in-law (TP *tambu*)
inga yena (N) brother's wife (sister-in-law) (literally 'affine woman')
ingwa (N) spider
ini (N) ground, land, earth, soil
inim (N) water, liquid, rain; rainy season, wet season; year
inim ambi (N) flood (literally 'big water')
inim mo ma- (V) swim (literally 'go on the water')
inim nïkï- (V) celebrate (literally 'dig water')
inim tembi (N) alcohol (literally 'bad water')
inimndum (N) sago species (small sago palm with short spines)
inimnji (N) type of spirit (water spirit); dew (literally 'water thing')
inimpul (N) lake, pond (literally 'water piece')

inji (N) innards, insides, guts (literally 'inside things')

inkaw (N) mountain

inmbï (N) vulva, vagina

inmbï mïnïm (N) clitoris (literally 'vulva tongue')

inmi (N) hole

inom (N) mother; term of respect for older women; general term for aunts; any adult woman

inom atana (N) parent's older sister (aunt) (literally 'older sister mother')

inom ngata (N) grandmother, old woman (literally 'grand mother')

inom wot (N) parent's younger sister (aunt) (literally 'younger mother')

inpu (N) elbow (cf. *wutïnpu* 'heel', *akunpu* 'back of the skull')

intïp (N) cassowary bone (often sharpened to be used as a tool or weapon)

inu- (V) put in, put into (literally 'put in')

inum (N) ground, burial spot (cf. *ini* 'ground')

ip (N) nose, front

ip ka- (V) precede (literally 'let nose' or 'let front')

ip nonal (N) snore (literally 'nose breath')

ipka (P) before, in front of; (ADV) beforehand, earlier, first

ipwat (N) front (literally 'nose top')

isi (N) ash, ashes (usually only as part of the compound *apïnsi* 'ashes'); salt (traditional salt made from the ashes of burnt banana leaves); broth, soup

isi (N) young palm frond used for weaving (a younger form of *wema* 'palm frond') (TP *pangal*); fuzz (as found on some plants)

isi monombam u- (V) pray (literally 'push hand on forehead')

ita- (V) build, make; tie

itenmbu (N) bamboo species; bamboo container, cup

itïm (N) trash, rubbish, garbage

itïtïl (N) dust

itom (N) father; term of respect for older men; general term for uncles (usually only paternal uncles); any adult man

itom ambi (N) father's older brother (paternal uncle) (literally 'big father')

itom atuma (N) father's older brother (paternal uncle) (literally 'older brother father')

itom ngata (N) grandfather, old man (literally 'grand father')

itom wot (N) father's younger brother (paternal uncle) (literally 'younger father')

iwa (N) type of basket (vase-shape basket woven from sago fronds, used to catch fish); fish trap

iwal (N) type of beam (horizontal beam in a house)

iwanal (N) insect species (small red or brown ant)

iwïl (N) moon; month; menstruation; vulva (euphemism)

iya (P) to, toward

iya (INTERJ) yeah, yes (expresses affirmation)

iyo (INTERJ) yes (expresses affirmation)

<ï> [ɨ]

=*ïn* [oblique marker, 'OBL'] (allomorph of =*n*)

-*ïp* [perfective suffix, 'PFV'] (in double perfective constructions; also -*ap*, -*op*)

<J> [ⁿdʒ]

Jukan [female name]

<K, k> [k]

ka (N) peak

ka (P) at, in, on

ka (ADV) thus, in this way, in that way; (filler word) like (TP *olsem*) (also *mïka*, *maka*)

ka- (V) let, leave (behind), allow

ka- (V) say (perfective stem of *kï-*)

kaka (ADV) completely (also *keka*)

kakïla (N) young, wet betel nut fruit (the stage following *aw lïmndï* 'youngest betel nut')

kalam (N) knowledge, wisdom; (ADJ) knowledgeable, knowing, wise (< Waran)

kalamp (V) know (literally 'be knowledgeable')

kali lï- (V) send (literally 'put a send'?)

kalim (N) cassowary (TP *muruk*) (< Yuat)

kalingana (N) insect species (mantis)

Kalingana [male name]

kalum (N) egg yolk

kamb- (V) shun, avoid

Kambok [place] Kambuku village

Kamen [place] ancestral village of the Ulwa and neighboring language communities, near present-day Kambaramba village

kana (P) beside, near, next to (also *kanam*)

kanaka lumo- (V) unwrap (literally 'put an unwrapping'?)

kanam (P) beside, near, next to (also *kana*)

Kanang [male name]

Kanangula [male name]

Kanangwa [place] alternative name of *Amali* village

kananum (N) boil, blister, abscess

Kapos [male name]

kat ambla (N) molar (*ambla* is 'tooth'; meaning of *kat* is unknown)

katmombe (N) insect species (black stinging ant) (< Mwakai)

kaw (N) song, song and dance (TP *singsing*) (< Ap Ma)

kawa (N) nut species (small green nut that is chewed) (possibly < Tok Pisin *kawiwi* 'wild betel nut')

Kawana [female name]

Kawat [male name]

kawni- (V) sing (literally 'do song')

kayanmali (N) lizard species (lizard with a horn on the back of its head)

Kayngam [male name]

Kayta [male name]

keka (ADV) completely (also *kaka*)

kekaka (QUANT) one each, one by one, just a few (also *kwekaka*)

kenmbu (ADJ) heavy; (N) problem

kï- (V) say, speak, tell, talk, think

kïka (N) insect species (white ant, termite); white ant nest

kïkal (N) ear

kïkal indam (N) temple (of the head) (*kïkal* is 'ear'; meaning of *indam* is unknown)

kïkal wana- (V) hear, listen (literally 'feel [by means of] ear')

kïkal wopa (ADJ) deaf (literally 'whole ear')

kïkalsina (ADJ) sharp

kïke u- (V) throw (literally 'put a throw'?)

kïlakïli (N) frog species (very small frog that lives on leaves)

Kïtalwe [male name]

kïtïmngïle (N) banana species (banana plant with very large fruit, second in size only to the *wowi* banana species)

klop- (V) cross, pass

ko (ADV) just, simply, without care, without reason (also *kwa*, *wa*)

ko= [indefinite marker, 'INDF']

kokal (N) casque (of a cassowary) (horn), comb (of a rooster)

kokawe (N) bird species (possibly < Yuat)

koko (N) cocoa (< Tok Pisin *koko* 'cocoa')

kol- (v) break, split
Kolpe [male name]
kom [non-verbal negator, 'neg']
komblam (n) chair
kome [non-verbal negator, 'neg']
kon (n) corn (maize) (< Tok Pisin *kon* 'corn')
Konawa [male name]
Kongos [male name]
kop (adv) please
kot- (v) break; bear, give birth
Kowe [male name]
kuk u- (v) gather, pile; assemble, unite (literally 'put a gathering'?)
kukul (n) type of basket (basket used for carrying sago)
kukum (n) insect species (grasshopper)
kukumali (n) bird species
kukumbe (n) clay pot used to hold water
kukumbe (n) sago species (sago palm with no spines)
kukun (n) type of beam (horizontal beam on the top of a house, under the roof)
kuli lï- (v) throw (literally 'put a throw'?)
kulkul (n) bird species
kuma (quant) some
kuma (q) who? [nsg] (non-singular interrogative pronoun)
kuman (n) bird species (large wildfowl)
kumanji (q) whose? [nsg] (non-singular interrogative pronoun)
Kumba [place] Bun village
kumblima (n) betel pepper species (TP *daka*) (long bean-like betel pepper)
kun- (v) break, break off
kundan (n) fish species (eel)
kunya (n) yam species (yam with red skin and reddish-pink flesh)
kwa (adv) just, simply, without care, without reason (also *ko*, *wa*)
kwa (num) one (also *kwe*)
kwa (pro) someone; other, another
kwa (q) who? [sg] (singular interrogative pronoun)
kwanji (q) whose? [sg] (singular interrogative pronoun)
kwe (num) one (also *kwa*)
kwekaka (quant) one each, one by one, just a few (also *kekaka*)

<L, l> [l]

l (V) put (abbreviated form of *lï-*)

la (DEM) those (plural distal demonstrative, 'PL.DIST') (abbreviated form of *ala*)

la- (V) eat, drink; chew, bite, suck; smoke (tobacco) (irregular irrealis stem of *ama-*)

la- [irregular irrealis prefix, 'IRR'] (for *ka-* 'let', *wo-* 'sleep')

la= (DEM) those (non-subject plural distal demonstrative, 'PL.DIST') (abbreviated form of *ala=*)

laka- (V) let, leave, allow (irregular irrealis stem of *ka-*)

lam (N) meat, flesh, muscle (< Ap Ma)

lamban (N) nut species (nut larger than betel nut and also chewed)

lamndu (N) pig (also *namndu*)

lamndu mu (N) insect species (blowfly that follows pigs and stings) (literally 'pig blowfly')

lamndu unduwan (NUM) twenty (literally 'pig head')

lamndu uta (N) bird species (literally 'pig bird')

langay (N) bird species (red-and-black parrot-like bird)

lanjin (N) fish species (perch) (TP *nilpis*) (< Ap Ma)

lapa- (V) plant

law (N) bunch of bananas

law (N) plant species (cordyline, ti plant) (TP *tanget*)

layk (modal marker) be about to (< Tok Pisin *laik* 'want', future marker)

le (N) rattan cane (TP *kanda*); bowstring (possibly < Ap Ma)

lele (NUM) three

lemetam (N) tree species (large hardwood tree) (TP *ton*); (ADJ) brown

lemta (N) spade

lemum (N) wart

li (ADV) down, downward, downstream; (ADJ) low, lower (possibly < Ap Ma)

li (V) go down (< *li* 'down' + *i* 'go.PFV')

li tanum (N) lower lip, area below the mouth (literally 'lower lip')

li u- (V) fall (literally 'put down')

lï- (V) put

limama (N) jaw (literally 'down mouth')

lïmndï (N) eye

lïmndï ala- (V) look, see, watch (literally 'see [by means of] eye') (also *lïmndï andï-*)

lïmndï andï- (V) look, see, watch (literally 'see [by means of] eye') (also *lïmndï ala-*)

lïmndï inim (N) tear, teardrop (literally 'eye water') (also *sal*)
lïmndï lï- (V) watch, look at (literally 'put eye')
lïmndï minyam (N) eye mucus (literally 'eye excrement')
lïmndï mu (N) iris, pupil (literally 'eye fruit')
lïmndï uta- (V) check, examine (literally 'grind eye')
lïmndï wopa (ADJ) blind (literally 'whole eye')
lindïn (N) plant species (edible fern)
lïngïn (N) fog (< Mwakai)
lingïnane (N) spider web
lïwa (N) dawn
lo- (V) cut, carve, cut down, chop, fell; go
lo- [irregular irrealis prefix, IRR'] (for *wo-* 'sleep') (allomorph of *la-*)
lolop (ADV) just (< Ap Ma)
lomon- (V) ignite, set fire to
longom (N) dream
lop ka- (V) lie, lie down (literally 'let lie'?)
lopo- (V) rain, wash, bathe
lowo- (V) sleep (irregular irrealis stem of *wo-*)
lu (P) with (comitative) (allomorph of *ul*)
lu- (V) cut, carve, cut down, chop, fell; go (irrealis stem of *lo-*)
luke (ADV) also, too
lumnjap (N) fish species (garfish) (possibly < Waran)
lumo- (V) put
lungum (N) long spear made of sharpened palm stem, used to fight
luwa (N) place

<M, m> [m]

m (INTERJ) hm (expressed disapproval); mhm (signals agreement)
-m [irregular irrealis suffix, 'IRR'] (for *asa-* ~ *atï-* 'hit')
-m [irregular perfective suffix, 'PFV'] (for *andï-* 'see')
ma (CONJ) and
ma- (V) go, flow
ma= (PRO) him, her, it (3SG non-subject pronoun, '3SG.OBJ'; 3SG object marker, '3SG.OBJ')
mae (N) shovel, spade (possibly a compound containing *me* 'palm species')
maep (N) bird species (possibly onomatopoetic)
mak (N) tattoo (< Tok Pisin *mak* 'mark, tattoo')

maka (ADV) thus, in this way, in that way; (filler word) like (TP *olsem*) (also **ka**, **mika**)

malalïwa (N) snake species

Malman [male name]

mama (N) mouth

mamal (N) yawn

Mamala [place] Maruat village

maman (N) insect species (dragonfly)

Mamanu [place] downstream half of the old **Wopata** village

mambi (PRO) as for him, as for her, as for it (3SG topic-marker pronoun, '3SG.OBJ-TOP')

mambilakan (expression) forget about it! (literally 'as for it, let it!')

mambun (N) insect species (bedbug)

mambun (N) vegetable species (amaranth) (TP *aupa*)

mamnda (N) plant species (stinging nettle with large leaves) (TP *salat*)

mamwapa (N) bird species (owl)

mana (N) spear

manal (N) hot water

manal *u-* (V) boil (literally 'put in hot water')

Manama [male name]

manana (N) snail species (river snail)

manangum (N) stick with decorations used in dances

mangusuwa (PRO) the poor thing (3SG affective pronoun, '3SG.OBJ-poor') (also **mangusuwata**)

mangusuwata (PRO) the poor thing (3SG affective pronoun, '3SG.OBJ-poor') (also **mangusuwa**)

manji (PRO) his, her, hers, its (3SG possessive pronoun, '3SG.OBJ-POSS')

manjimanji (N) maggot (cf. **njimana** 'fly')

Mapana [female name]

Maple [female name]

mapu (N) fish species (gudgeon) (TP *bikmaus*)

Marungun [male name]

mas (modal marker) should, must (< Tok Pisin *mas* 'should, must')

masamasa (N) tree species

maski (CONJ) although, even though (< Tok Pisin *maski*, 'although')

matamal (ADJ) sharp; difficult; angry

matlaka (N) rat species

maw (ADJ) correct, right

mawa (PRO) himself, herself, itself, he himself, she herself, it itself, him himself, her herself (3SG intensive pronoun, '3SG.OBJ-INT')

mawe (PRO) himself, herself, itself, he himself, she herself, it itself, him himself, her herself (from among several) (3SG partitive-intensive pronoun, '3SG.OBJ-PART.INT')

maweka (ADV) also, moreover (also ***moweka***)

Mawna [female name]

mawnam (INTERJ) that's it (signals emphatic identification or approval)

may (N) fish species (catfish) (TP *mausgras pis*)

me [non-verbal negator, 'NEG']

me (N) palm species; flattened palm stem (TP *limbum*)

me- (V) sew

membul (N) bird species (small pigeon-like bird with brown sides)

metmet (N) type of spirit (swamp dwarf)

mi (N) crayfish species (small crayfish)

mi (N) splinter, strand, fiber (inside the husk of a coconut)

mï (PRO) he, she, it (3SG subject pronoun, '3SG.SUBJ'; 3SG subject marker, '3SG.SUBJ')

mïka (ADV) thus, in this way, in that way; (filler word) like (TP *olsem*) (also ***ka***, ***maka***)

mïka (N) tree species (fig tree) (TP *fikus*)

mïka itïm (N) swamp (literally 'fig tree trash') (also ***apïnal***)

Mïkïlwe [place] jungle region near Manu village

mil (N) sugarcane, sugar

mili (N) vegetable species (tall ginger) (TP *gorgor*)

mïmïl u- (V) wring (as sago fibers), squeeze, strain (literally 'put a squeeze'?)

mïmin (N) louse (on humans)

min (N) armband, belt, joint for pick-axe

min (PRO) they (3DU subject pronoun, '3DU'; 3DU subject marker, '3DU')

min= (PRO) them (3DU non-subject pronoun, '3DU'; 3DU object marker, '3DU')

mïnal (N) taro; (ADJ) green

mïnal anmoka (N) snake species (green snake) (literally 'taro snake')

minam (N) urine

minam (PRO) he is the one, she is the one, it is the one (3SG emphatic pronoun, '3SG.SUBJ-EMPH')

minambi (PRO) as for them (3DU topic-marker pronoun, '3DU-TOP')

mïnandïn (N) gallbladder

mïnane (N) intestines, guts

mïnanum (N) mature, fully ripe betel nut fruit (the stage following **aw wapata** 'mature betel nut')

mïnap (ADJ) rotting

minawa (PRO) themselves, they themselves, them themselves (3DU intensive pronoun, '3DU-INT')

mïnda (N) banana (plant or fruit)

mïndam (N) pus

mïndapan (N) banana leaf; paper (probably < **mïnda** 'banana' + **wapa** 'leaf'; origin of *n* is unknown)

mïndit (ADJ) yellow

mïngamata (placeholder word) whatchamacallit

mingusuwa (PRO) the poor things [DU] (3DU affective pronoun, '3DU-poor') (also **mingusuwata**)

mingusuwata (PRO) the poor things [DU] (3DU affective pronoun, '3DU-poor') (also **mingusuwa**)

mini= (PRO) them (3DU non-subject pronoun, '3DU.OBJ'; 3DU object marker, '3DU.OBJ') (allomorph of **min=**)

mïnïm (N) tongue; strap of a bag

mïnja (N) speech

minji (PRO) their, theirs (3DU possessive pronoun, '3DU-POSS')

minjika (N) this kind of speech, that kind of speech

mïnkïn (N) grub species (small edible sago grub, the larva of the **apwane** insect species) (< Ap Ma)

mïnkïn ulum (N) sago species (sago palm with many spines, used for harvesting **mïnkïn** grubs) (literally 'sago grub palm')

mïnkïn we (N) sago pancake fried with **mïnkïn** grubs (literally 'sago grub sago')

mïnoma (ADJ) cold, cool

minopal (N) bladder

mïnwata (ADJ) wet, ripe, rotting, rotten, spoiled

minwe (PRO) themselves, they themselves, them themselves (from among several) (3DU partitive-intensive pronoun, '3DU-PART.INT')

minyam (N) feces, excrement

misam (N) brain, brains

misimisi (N) story

misisina- (V) arrange

mïtïn (N) egg; testicle

mïtïn (N) language (TP *tokples*)

mïtïn ame (N) scrotum (literally 'testicle bag')

mm (INTERJ) uh-uh (signals disagreement)

mo= (PRO) him, her, it (3SG non-subject pronoun, '3SG.OBJ'; 3SG object marker, '3SG.OBJ') (allomorph of ***ma=***)

moko- (V) take, take one-by-one, catch

mokum (N) stealth

mokum moko- (V) steal (literally 'take stealth')

molombi (N) statuette, spirit idol (< Ap Ma; possibly ultimately < Waran)

molpan (N) type of spirit (tree spirit)

mom (N) grandmother (< Ap Ma)

moma (N) leaf tied in an overhand knot, used to summon the spirit of the deceased

momul (N) glowing fungus, mold

monam (N) tree species (rain tree) (TP *marmar*)

Monde [male name]

mondin (N) fruit species (fruit similar to a watermelon)

mondo- (V) dry, smoke

mongi (N) banana species (banana plant with sweet, thin, long fruit)

Mongima [male name]

moni (N) bird species (red bird with a beak like a parrot's)

moni (P) between, among

moniwot (N) plant species (croton shrub) (TP *purpur*)

monkin (N) gray hair, white hair

monombam (N) forehead, face

monop (ADJ) full, sated

mop li- (V) tie (literally 'put a tie'?)

Morombi [place] Raten village

Mosombla [place] Yaul village

mot (N) awning of a house; porch, veranda under the awning

mota (N) bamboo species used for cooking fish; bamboo flute; throat

motam (N) stick, bundle; bunch of coconuts

moweka (ADV) also, moreover (also ***maweka***)

mu (N) fruit, seed, nut, berry; bump, mosquito bite; head or tip of a tool, striking end of a pick-axe

mu (N) insect species (blowfly) (TP *blulang*)

Mukamba [male name]

muku (N) package, packet (as of jellied sago, wrapped in a leaf)

mukuwi (N) older sago palm with flowers

mulwat (N) bird species

mumne (ADJ) cold and dark

muna (N) insect species (large brown ant)

mundotoma (ADJ) short, lacking

mundu (N) food, animal; hunger

mundu asa- (V) be hungry (literally 'hunger hits [someone]')

mundum (N) grub species (edible, mid-sized grub, the larva of the *nitïl* insect species)

mune u- (V) throw (literally 'put a throw'?)

mungul (N) plant species (edible fern with small leaves)

mungun (N) earring, ring; earwax

mupu (N) core of a tree or palm, pulp; meat of a coconut, sago palm, or betel nut fruit

mutam (N) back (of the body)

mutam (N) tree species (tree with leaves used to wrap sago or bandage wounds)

mutoma (N) backbone, spine (probably < *mutam* 'back' + *uma* 'bone')

mutulum (N) mud

mwa (N) opening, door, window, eye of a needle; face

<Mb, mb> [ᵐb]

mbalanji (N) enemy, stranger (< Yuat word for 'person')

mbalus (N) airplane (< Tok Pisin *balus* 'dove, airplane')

mbatmbat (N) fish species (tilapia) (TP *makau*)

mbay (modal marker) will (< Tok Pisin *bai* 'will')

mbï (ADV) here; to here, hither

mbi- (V) come here (< *mbï* 'here' + *i-* 'come')

mbïlanda (N) palm species (palm used to make bows)

mbinmbin (N) grave, cemetery

mblandu (N) rat species (rat that lives in the water) (< Ap Ma)

mbomala (N) insect species (large firefly); large star, planet

mbomala nangum (N) flashlight (literally 'firefly shoot')

mbone (N) crab

mbu (ADV) here; from here, hence

mbuka (ADV) quickly

mbun (ADJ) black, blue, dark; (N) scar (< Mwakai)

mbunmana (ADJ) black

<N, n> [n]

n [epenthetic utterance-final sound for some speakers]
-n [imperative suffix, 'IMP']
-n [irregular imperfective suffix, 'IPFV'] (for *ma-* 'go')
-n [irregular perfective suffix, 'PFV'] (for *i-* 'come', *na-* 'give', *tï-* 'take')
-n [nominalizing suffix, 'NMLZ'] (allomorph of *-en*)
=n [oblique marker, 'OBL']
=n =n kalam me- (v) teach (literally 'sew knowledge about [something] to [someone]')
=n ul si- (v) show (literally 'push with [something] with [someone]')
na (N) talk, speech, story, message, thought, reason, cause, language
na (CONJ) and (< Tok Pisin *na* 'and')
na- (v) feed
na- (v) give
na- [detransitivizing prefix, 'DETR']
-na [irrealis suffix, 'IRR']
-na [irregular perfective suffix, 'PFV'] (for *na-* 'give') (allomorph of *-n*)
naka (ADV) after, afterwards, later, soon (abbreviated form of *anganika*)
nakam wanmbi (N) betel pepper species (wild betel pepper) (TP *wel daka*) (*wanmbi* is 'betel pepper'; meaning of *nakam* is unknown)
nakamb- (v) suffice, have enough (< *na-* 'DETR' + *kamb-* 'shun, avoid')
nakap (P) on account of, because of, for the sake of, for (also *nap*)
nali (N) insect species (small firefly); small star
nali (N) spine of a sago frond used to make baskets or arrows
nali (NUM) ten (literally 'sago frond spine')
nali angay (NUM) fifty (= 10+5)
nali kwe kwe (NUM) eleven (= 10·1+1)
nali kwe lele (NUM) thirteen (= 10·1+3)
nali kwe nini (NUM) twelve (= 10·1+2)
nali kwe watangïnila (NUM) fourteen (= 10·1+4)
nali lele (NUM) thirty (= 10·3)
nali nini (NUM) twenty (= 10·2)
nali nini angay (NUM) twenty-five (= 10·2+5)
nali watangïnila (NUM) forty (= 10·4)
-nam [emphatic suffix, 'EMPH']
namanu (farewell) goodbye (addressed to someone who is leaving)
nambana (N) ancestral spirit, ghost; mask depicting a spirit's face
nambana (N) sago palm flower

nambana (N) yam species (large white yam)

nambana ankam (N) extended family member (literally 'spirit person')

nambana mwa (N) mask (literally 'spirit face')

nambi (PRO) as for me (1SG topic-marker pronoun, '1SG-TOP')

nambï (N) skin, hide; body

nambïlumo- (V) block (literally 'put body')

nambïnïkï- (V) make, nag (literally 'dig [at someone's] skin')

nambït (N) odor, smell

nambït wana- (V) smell, sniff (literally 'feel a smell')

nambli (N) feather, fur

Nambu [male name]

nambum (N) inner membrane of an egg shell

nambuwe u- (V) peel (literally 'put a skin-cutting'?)

namle (N) plant species (plant that grows in swamps)

namli (ADJ) soft, smooth

namna (ADJ) afraid, fearful, scared

namnap (V) be afraid, be scared (literally 'be afraid')

namndu (N) pig (also *lamndu*)

nana (N) mama (a nursery term for mother); the vocative form of *inom* 'mother' for speakers of all ages

nanama (ADJ) bitter

nangïn (N) tongs (for cooking), scissors

nangu (N) lizard species (venomous brown lizard with a diamond-shaped head)

nangum (N) shoot, seedling (possibly a variant of *nungum*)

nanïm (N) tree species (ironwood tree) (TP *kwila*)

Nanïmwat [place] name of the old Yamen village

nanïwe (N) banana species (banana plant with small sweet fruit)

nap (N) arrow, fishing spear; yam thorn

nap (P) on account of, because of, for the sake of, for (also *nakap*)

nasalïwa (N) leech

nataw (N) lizard species (large brown gecko)

nataw (N) white spot on the skin

natnat (N) vegetable, vegetables, greens (TP *kumu*)

nawa (PRO) I myself, me myself (1SG intensive pronoun, '1SG-INT')

Nawoli [male name]

ne- (V) harvest

netïl (N) plant species (plant with black seeds)

ni (N) crayfish species (large crayfish)

ni- (V) act, do; beat

ni- (v) die (singular subject)

nï (pro) I (1sg subject pronoun, '1sg')

nï= (pro) me (1sg non-subject pronoun, '1sg')

=nï [oblique marker, 'obl'] (allomorph of ***=n***)

nïka- (v) dig, break up (ground), hoe; cut, butcher; prepare (sago) (perfective stem of ***nïkï-***)

nïkï- (v) dig, break up (ground), hoe; cut, butcher; prepare (sago)

nïkïn (n) hiccup; belch, burp

nïkït (n) lizard

nil (n) body hair

nil nopa (n) beard (literally 'cheek hair')

nim (n) nest

nïmal (n) river

Nïmalnu [place] Manu village

nïmban (n) fish species

nïmïn (n) mucus

nïmtu (n) bird species (very small green, yellow-breasted bird)

nin (n) thorn, spine

nïndiwe (n) sago species (small sago palm with no spines)

nini (num) two

nïnil (n) sago species (sago palm)

nïnji (pro) my, mine (1sg possessive pronoun, '1sg-poss')

nïnji anma (expression) thank you, thanks (literally 'my good')

nïpa (n) breadfruit

nïpat (adj) giant

nïpïl (n) vine, rope

nipinp u- (v) die (plural subject) (literally 'put deaths'?)

nïplopa (n) flying fox, large bat

nïpokonam (adj) hard

nipum (n) sword grass (*Imperata cylindrica*) (TP *kunai*)

nipum amba (n) grassland (***nipum*** is 'sword grass'; relationship, if any, to ***amba*** 'men's house' is unknown) (also ***anul***)

nipunp u- (v) die (plural subject) (literally 'put deaths'?) (alternative form of ***nipinp u-***)

nisi (n) coconut flower sheath (TP *pandol*); bunch of betel nut

nïte (n) type of drum (small hand drum) (TP *kundu*)

nitïl (n) insect species (the adult form of the ***mundum*** grub species)

nka- (v) dig, break up (ground), hoe; cut, butcher; prepare (sago) (abbreviated form of ***nïka-***)

nkï- (v) dig, break up (ground), hoe; cut, butcher; prepare (sago) (abbreviated form of **nikï-**)

nokal (N) beak

nokop lï- (v) hide (literally 'put a hiding'?)

nokosam (N) tree species (Java almond tree) (TP *galip*)

nol (expression) go!; let's go!

nom (N) clay stand used to hold pots over a fire

Nomnga [male name]

nonal (N) wind, breath; the Holy Spirit

nonal u- (v) breathe (literally 'put a breath')

nonalni- (v) blow (of wind) (literally 'do wind')

Nongami [male name]

nongan (N) vomitus

nongan u- (v) vomit (literally 'put vomitus')

nongat (INTERJ) no (expresses denial) (< TP *nogat* 'no')

nongontam (N) sweet potato (TP *kaukau*)

nongut (CONJ) lest (< Tok Pisin *nogut* 'bad; lest')

nopa (N) cheek

nopal (N) coconut frond, used in roofing

nopal u- (v) crush, mash (literally 'put a frond'?)

nowe (N) sago species (large sago palm with no spines)

nu (ADV) near, close

nuku (N) flatus, fart

num (N) canoe, boat

numan (N) husband

numbu (N) tree species (ironwood tree) (TP *garamut*); type of drum (large slit drum) (TP *garamut*); post of a house

numbu motam (N) mallet used to beat the large slit drum (literally 'slit drum stick')

numbunum (N) insect species (large red bee, wasp)

numïni (N) ditch

numnata (N) earthquake

nuna (N) insect species (large mosquito-like insect)

nungol (N) child (often son, but may refer to any young person, boy or girl) (also **nungolke**)

nungolke (N) child (often son, but may refer to any young person, boy or girl) (also **nungol**)

nungum (N) sucker of a plant, used to plant new bananas, sago palms, etc. (possibly a variant of **nangum**)

nungun u- (v) break (intransitive) (literally 'put a break'?)

nunu (QUANT) every; various, many

nunu ika (ADV) always, often, regularly (literally 'every instance')

nunu ilom (ADV) every day (literally 'every day')

nunu nji (P) everything (literally 'every thing')

nupu (N) bottom, base; side of the coconut fruit without eyes; part of the yam that is planted in soil

nuwe (PRO) I myself, me myself (from among several) (1SG partitive-intensive pronoun, '1SG-PART.INT')

<Nd, nd> [ⁿd]

nda (DEM) that (singular distal demonstrative, 'SG.DIST') (abbreviated form of *anda*)

nda= (DEM) that (non-subject singular distal demonstrative, 'SG.DIST') (abbreviated form of *anda=*)

-nda [irrealis suffix, 'IRR'] (allomorph of *-na*)

ndal (N) vein, tendon, ligament

ndam (N) bridge

ndambi (PRO) as for them (3PL topic-marker pronoun, '3PL-TOP')

ndanandum mu (N) kidney (*mu* is 'fruit'; meaning of *ndanandum* is unknown)

ndande (N) shadow, shade

ndawa (PRO) themselves, they themselves, them themselves (3PL intensive pronoun, '3PL-INT')

ndï (PRO) they (3PL subject pronoun, '3PL'; 3PL subject marker, '3PL')

ndï= (PRO) them (3PL non-subject pronoun, '3PL'; 3PL object marker, '3PL')

ndil (N) pandanus

ndïlpot (N) type of basket

ndin (DEM) those (dual distal demonstrative, 'DU.DIST') (abbreviated form of *andin*); (PRO?) (possible alternative of 3DU subject pronoun *min*)

ndin= (DEM) those (non-subject dual distal demonstrative, 'DU.DIST') (abbreviated form of *andin=*); (PRO?) (possible alternative of 3DU non-subject pronoun *min=*)

ndïnam (PRO) they are the ones (3PL emphatic pronoun, '3PL-EMPH')

ndïngonim (N) insect species (brown ant)

ndïngusuwa (PRO) the poor things [PL] (3PL affective pronoun, '3PL-poor') (also *ndïngusuwata*)

ndïngusuwata (PRO) the poor things [PL] (3PL affective pronoun, '3PL-poor') (also *ndïngusuwa*)

ndïnji (PRO) their, theirs (3PL possessive pronoun, '3PL-POSS')

ndolum (N) bird species

ndukumbu (N) palm species (palm used in construction)

ndunduma (N) great-grandparent, ancestor; great-grandchild

nduwe (PRO) themselves, they themselves, them themselves (from among several) (3PL partitive-intensive pronoun, '3PL-PART.INT')

<Ng, ng> [ŋg]

nga (DEM) this (singular proximal demonstrative, 'SG.PROX')

nga= (DEM) this (non-subject singular proximal demonstrative, 'SG.PROX')

ngala (DEM) these (plural proximal demonstrative, 'PL.PROX')

ngala= (DEM) these (non-subject plural proximal demonstrative, 'PL.PROX')

ngalambi (DEM) as for these ones (plural proximal topic-marker demonstrative, 'PL.PROX-TOP')

ngalanji (DEM) these ones' (plural proximal possessive demonstrative, 'PL.PROX-POSS')

ngalawa (DEM) these themselves (plural proximal intensive demonstrative, 'PL.PROX-INT')

ngalawe (DEM) these themselves (from among several) (plural proximal partitive-intensive demonstrative, 'PL.PROX-PART.INT')

ngam (DEM) this is it (singular proximal emphatic demonstrative, 'SG.PROX-EMPH')

ngambi (DEM) as for this one (singular proximal topic-marker demonstrative, 'SG.PROX-TOP')

ngan (PRO) we (1DU.EXCL subject pronoun, '1DU.EXCL')

ngan= (PRO) us (1DU.EXCL non-subject pronoun, '1DU.EXCL')

nganambi (PRO) as for us (1DU.EXCL topic-marker pronoun, '1DU.EXCL-TOP')

nganangan (N) betel pepper seed

nganawa (PRO) we ourselves, us ourselves (1DU.EXCL intensive pronoun, '1DU.EXCL-INT')

nganji (PRO) our, ours (1DU.EXCL possessive pronoun, '1DU.EXCL-POSS')

nganji (DEM) this one's (singular proximal possessive demonstrative, 'SG.PROX-POSS')

nganwe (PRO) we ourselves, us ourselves (from among several) (1DU.EXCL partitive-intensive pronoun, '1DU.EXCL-PART.INT')

ngata (ADJ) grand, big, huge; (N) grandparent, old person, ancestor

ngata yawa (N) mother's mother's brother (maternal great-uncle) (literally 'great uncle')

ngawa (DEM) this itself (singular proximal intensive demonstrative, 'SG.PROX-INT')

ngawe (DEM) this itself (from among several) (singular proximal partitive-intensive demonstrative, 'SG.PROX-PART.INT')

ngaya (ADV) far; long (time)

ngin (N) net, fishing net; fish trap woven around a cane hoop

ngin (DEM) these (dual proximal demonstrative, 'DU.PROX')

ngin= (DEM) these (non-subject dual proximal demonstrative, 'DU.PROX')

ngïn (N) cloud (usually only as part of the compound ***apïn ngïn*** 'smoke')

nginambi (DEM) as for these ones (dual proximal topic-marker demonstrative, 'DU.PROX-TOP')

nginawa (DEM) these themselves (dual proximal intensive demonstrative, 'DU.PROX-INT')

ngïnïm (N) chin (< Yuat)

nginji (DEM) these ones' (dual proximal possessive demonstrative, 'DU.PROX-POSS')

nginwe (DEM) these themselves (from among several) (dual proximal partitive-intensive demonstrative, 'DU.PROX-PART.INT')

ngom li- (V) spit (literally 'put spit'?)

ngowil (N) insect species (black ant)

ngum (N) snake species (venomous snake that lives both in water and on land)

ngum (N) yam species (long white yam)

ngun (PRO) you (2DU subject pronoun, '2DU')

ngun= (PRO) you (2DU non-subject pronoun, '2DU')

nguna (PRO) we (1DU.INCL subject pronoun, '1DU.INCL') (abbreviated form of ***ngunan***)

ngunambi (PRO) as for you (2DU topic-marker pronoun, '2DU-TOP')

ngunan (PRO) we (1DU.INCL subject pronoun, '1DU.INCL')

ngunan= (PRO) us (1DU.INCL non-subject pronoun, '1DU.INCL')

ngunanambi (PRO) as for us (1DU.INCL topic-marker pronoun, '1DU.INCL-TOP')

ngunanawa (PRO) we ourselves, us ourselves (1DU.INCL intensive pronoun, '1DU.INCL-INT')

ngunanji (PRO) our, ours (1DU.INCL possessive pronoun, '1DU.INCL-POSS')

ngunanwe (PRO) we ourselves, us ourselves (from among several) (1DU.INCL partitive-intensive pronoun, '1DU.INCL-PART.INT')

ngunawa (PRO) you yourselves (2DU intensive pronoun, '2DU-INT')

ngungun (N) insect species (red ant) (TP *karakum*); (ADJ) red

ngungun (N) plant species (plant with red seeds); (ADJ) red

ngungun (N) whirlwind, cyclone

ngungusuwa (PRO) you poor things [DU] (2DU affective pronoun, '2DU-poor')
   (also ***ngungusuwata***)
ngungusuwata (PRO) you poor things [DU] (2DU affective pronoun, '2DU-poor')
   (also ***ngungusuwa***)
ngunguswa (N) insect species (cockroach)
ngunji (PRO) your, yours (2DU possessive pronoun, '2DU-POSS')
ngunmbi (N) banana species (plantain banana plant with medium-sized fruit in
   large bunches)
ngunwe (PRO) you yourselves (from among several) (2DU partitive-intensive
   pronoun, '2DU-PART.INT')
ngusuwa (ADJ) poor, pitiful
ngwimakan (N) black possum, black cuscus (TP *black kapul*)

<Nj, nj> [ⁿdʒ]

nji (N) thing, something
-nji [possessive suffix, 'POSS']
njimana (N) fly, housefly (literally 'going thing'?) (cf. ***manjimanji*** 'maggot')
njukuta (ADJ) small, little, thin, narrow

<O, o> [o]

o (CONJ) or (< Tok Pisin *o* 'or')
=o [intensifier; vocative enclitic, 'VOC']
oke (INTERJ) OK, okay (expresses agreement, etc.) (< Tok Pisin *oke* 'OK')
-op [perfective suffix, 'PFV'] (in double perfective constructions; also ***-ap***, ***-ip***)

<P, p> [p]

p [epenthetic utterance-final sound for some speakers]
p- (V) be, be at (be located at), stay, stay at, live, live at, reside, reside at, inhabit
-p [perfective suffix, 'PFV']
=p [copular enclitic, 'COP']
pal (N) main shoot of a sago palm; type of beam (horizontal beam in houses to
   support the floor, made from the main shoot of the sago palm)
palam (N) cane grass (TP *pitpit*) (< Mwakai)
palapal (N) shell; ceremonial armband; money (possibly < Tok Pisin *balbal* ~
   palpal 'Indian coral tree')
palmana (ADJ) thick, wide

pan (N) clay

pat (N) shoot that emerges from the bulb of a yam

pawla (N) yam species (wild yam with a long bulb)

pïna (V) be, be at (be located at), stay, stay at, live, live at, reside, reside at, inhabit (irrealis mood)

pïsima (N) older, somewhat dry betel nut fruit (the stage following *aw ulum* 'young betel nut')

Pisuwa [male name]

piya (N) banana species (plantain banana plant with small fruit)

Plas [male name]

pon (ADJ) dull, blunt (also *tambumana*)

pop lï- (V) sweep (literally 'put a sweep'?)

popo (N) papaya (< Tok Pisin *popo* 'papaya')

popotala (N) frog species (large brown frog)

pul (N) piece, place

   <S, s> [s]

s (V) push (abbreviated form of *si-*)

sa- (V) cry, weep

sakïma (N) adze, tool for carving canoes (< Yuat)

sakla (N) platform; stretcher

saklup (N) broom (< Ap Ma)

sal (N) tear, teardrop (also *lïmndï inim*)

samban (N) pot for cooking (possibly a variant of *sïmbïn*)

Sambome [male name]

sambulumbu (N) insect species (flying insect)

samnang (N) yam species (yam with pink flesh) (< Ap Ma)

sandïpal (N) type of basket (basket made from coconut fronds)

sapos (CONJ) 'if' (< Tok Pisin *sapos* 'if')

sasi (N) initiation rites

sasi yena (N) type of spirit (TP *masalai*) (literally 'initiation woman')

sawe [habitual marker, 'HAB'] (< Tok Pisin *save* 'know'; habitual marker)

sawi (N) saliva, spit; magic (< Yuat) (cf. *tawi* 'magic')

si- (V) push

sikal (N) insect species (type of fly)

sikul (N) school (< Tok Pisin *skul* 'school')

sikulmakan ni- (V) learn (literally 'do school'?) (*sikul* is from Tok Pisin; origin of *makan* is unknown)

Simban [female name]

simbïli (ɴ) lizard species (blue-and-brown-striped lizard)

sïmbïn (ɴ) large storage pot (possibly a variant of *samban*)

sïmin (ɴ) louse (on animals)

simïnda (ɴ) banana species (plantain banana plant with large bunches, second only to the *almbïne* banana species in number of fruits)

sina (ɴ) small young bamboo stalk; small knife made from bamboo

Sinanam [female name]

sinanan (ɴ) nail, fingernail

sinananangïn (ɴ) claw (< *sinanan* 'nail' + *nangïn* 'tongs')

sinangul (ɴ) Jew's harp, mouth harp

Sinda [female name]

sini- (v) play (literally 'push-do'?)

sinokoy (ɴ) crop

siwi (ɴ) grub species (large edible sago grub, the larva of the *tambïn* insect species)

sokoy (ɴ) tobacco (areal term)

somïn (ɴ) fish species

sum (ɴ) grub species (either the edible *mïnkïn* or *siwi* sago grub species in a slightly more mature state)

Supam [female name]

supangasa (ɴ) banana species (plantain banana plant with the second smallest fruit after the *yokomakan* banana species)

suwan (ɴ) mesh rack made of palm fronds, used to smoke fish

Suwol [male name]

<T, t> [t]

t (v) say, speak, tell, talk, think (abbreviated form of *ta-*)

t (v) take, get (abbreviated form of *tï-*)

-t [speculative suffix, 'sᴘᴇᴄ']

ta (ɴ) type of beam (floor-supporting beam in a house)

ta (ᴀᴅᴠ) already

ta- (v) say, speak, tell, talk, think

-ta [conditional suffix, 'ᴄᴏɴᴅ']

tal (ɴ) tail feather

Talamba [place] jungle region near Manu village

taman (ɴ) type of beam (roof beam in a house that sits atop supports)

Tambana [female name]

tambanji (N) bird species (black, sharp-beaked bird)

tamben (N) ladder used to climb trees

tambeta (N) chest, sternum

tambïn (N) insect species (the adult form of the *siwi* grub species)

tambïn ulum (N) sago species (tall, thin sago palm that, when fallen and dry, often contains *siwi* grubs) (literally 'sago grub palm')

tambontam (N) yam species (yam with yellow-whitish skin and white flesh)

tambumana (ADJ) dull, blunt (also *pon*)

tamndï (N) owner, kin, next of kin

tana (N) stone, rock; axe

tana isi (N) sand (literally 'stone ashes')

tanatmu (N) stone axe; axe head

tanawen (N) hoe, digging tool

tane lï- (V) stand, be standing (literally 'put a stance'?)

tanen (N) bird species (brown, yellow-legged bird)

tangam (N) sprout, bud

Tangin [female name]

Tanom [female name]

tanum (N) lips, area around the mouth

tap (ADV) maybe

Tapon [male name]

Tarambi [male name]

tasol (CONJ) but (< Tok Pisin *tasol* 'but')

tata (N) papa (a nursery term for father); the vocative form of *itom* 'father' for speakers of all ages

Taw [place] jungle region near Manu village

tawa (N) wound, sore

tawatal (N) scab

tawatïp (N) child

tawi (N) magic, venom (also *sawi*)

tem (N) time; (CONJ) when, whenever (< Tok Pisin *taim* 'time')

tembi (ADJ) bad, sick, ill, poor, dirty; (N) badness, sickness, illness

tï inda- (V) carry (literally 'take [and] walk')

tï- (V) take, get

tïke (ADJ) small

tïki (ADV) again, anymore, else

tïkli ka- (V) turn, turn around (literally 'let turn'?)

tïl (N) husk (coconut husk), shell

tïlwa (N) road, path, trail, track (< *utï* 'foot' + *luwa* 'place')

tïlwa num (N) car (literally 'road canoe')

tïmal (N) buttress root

tïmbïl (N) fence; diaphragm

tïn (N) dog

tïnanga- (V) arise, get up, stand up

tïngïn (ADJ) many

tïnum (N) game, play

tïpal (N) hip

tïponïm (N) possum, cuscus (TP *kapul*)

Tïponïm [place] section of Manu village where the school was built

Tïrïngïn [male name]

Tïwen [place] jungle region near Wopata

tomal u- (V) pour (literally 'put a pour'?)

tomona (N) frog species (brown, sharp-nosed frog)

tomoy (N) insect species (insect that lives around hearth ashes)

tondiway (N) plant species (plant with orange seeds used to make dyes); (ADJ) orange

tongan (N) mosquito-swatter

tongla (N) headdress

tongonat (N) frog species (small black frog)

tongonat (N) insect species (flying insect)

top lï- (V) throw (literally 'put a throw'?)

topinka- (V) forget (literally 'let in throw'?)

tukul (N) fish trap made from bamboo posts shaped into a vee

tukul- (V) break (intransitive)

tul (N) bird species (crow-like black bird)

tumbu itïm (N) outhouse, toilet (*itïm* is 'trash'; meaning of *tumbu* is unknown)

tumbunma (N) nape of the neck

tumopa (N) heap, pile

tumul ka- (V) bend (literally 'let bend'?)

Tupuk [male name]

twa (N) hearth, stove

<U, u> [u]

u (N) ditch, creek

u (PRO) you (2SG subject pronoun, '2SG')

u (P) from, in, at, around, along

u (INTERJ) ooh (expresses amazement)

u- (V) put

u= (PRO) you (2SG non-subject pronoun, '2SG')

u anma (expression) you're welcome (literally 'you [are] good')

ul (P) with (comitative)

ul ni- (V) make, force, pressure (literally 'act with')

ul watka- (V) float (literally 'let atop with')

ula- (V) weave

ulep li- (V) jump (literally 'put a jump'?)

ulet (N) clay bowl, dish

ulo- (V) peel (literally 'cut from')

ulum (N) sago palm; sago pith

ulumbi (N) taro species (wild taro)

ulwa (NEG) nothing, none; (ADJ) empty

um (N) neck

uma (N) bone; fish hook; needle

umba (N) garbage heap

umbe (ADV) tomorrow

umbenam (N) morning

umbenam anma (greeting) good morning

umbopa (N) stomach (< Ap Ma)

umo- (V) put (abbreviated form of ***lumo-***)

un (N) tree species (okari nut tree) (TP *talis*)

un (PRO) you (2PL subject pronoun, '2PL')

un= (PRO) you (2PL non-subject pronoun, '2PL')

una (PRO) we (1PL.INCL subject pronoun, '1PL.INCL') (abbreviated form of ***unan***)

unambi (PRO) as for you (2PL topic-marker pronoun, '2PL-TOP')

unan (PRO) we (1PL.INCL subject pronoun, '1PL.INCL')

unan= (PRO) us (1PL.INCL non-subject pronoun, '1PL.INCL')

unanambi (PRO) as for us (1PL.INCL topic-marker pronoun, '1PL.INCL-TOP')

unanawa (PRO) we ourselves, us ourselves (1PL.INCL intensive pronoun, '1PL.INCL-INT')

unanji (PRO) our, ours (1PL.INCL possessive pronoun, '1PL.INCL-POSS')

unanwe (PRO) we ourselves, us ourselves (from among several) (1PL.INCL partitive-intensive pronoun, '1PL.INCL-PART.INT')

unapïn (N) insect species (bee)

unawa (PRO) you yourselves (2PL intensive pronoun, '2PL-INT')

unda (N) enemy; vital spot, target

unda- (V) go around

unden (N) stem of the areca palm (TP *buai limbum*); container for catching water from strained sago

unduwan (N) head; elder

unduwan apïn (N) headache (literally 'head fire')

unduwan nambï (N) scalp of the head (literally 'head skin')

unet (N) navel, umbilical cord

ungusuwa (PRO) you poor thing (2SG affective pronoun, '2SG-poor') (also *ungusuwata*)

ungusuwa (PRO) you poor things [PL] (2PL affective pronoun, '2PL-poor') (also *ungusuwata*)

ungusuwata (PRO) you poor thing (2SG affective pronoun, '2SG-poor') (also *ungusuwa*)

ungusuwata (PRO) you poor things [PL] (2PL affective pronoun, '2PL-poor') (also *ungusuwa*)

uni- (V) shout

unji (PRO) your, yours (2SG possessive pronoun, '2SG-POSS')

unji (PRO) your, yours (2PL possessive pronoun, '2PL-POSS')

unmbï (N) buttocks; rear

unum (N) clavicle; crevice

unwe (PRO) you yourselves (from among several) (2PL partitive-intensive pronoun, '2PL-PART.INT')

upa (N) fish species (mosquitofish) (probably a variant of **upan**)

upan (N) fish species (small fish) (probably a variant of **upa**)

upin (N) bird species (crowned pigeon) (TP *guria*)

uta (N) bird; (NUM) hundred, one hundred

uta (N) coconut shell; plate (also **wuta**)

uta kwe (NUM) one hundred (= 100·1)

uta lele (NUM) three hundred (= 100·3)

uta nini (NUM) two hundred (= 100·2)

uta- (V) grind (coconut), rub, wipe, scoop, catch (fish) with a net

utal (N) worm

utam (N) yam

utan (N) cough, phlegm

utan uta- (V) cough (literally 'rub a cough'?)

utï (N) leg, foot (also **wutï**)

utï moni (N) groin (literally 'between the legs')

utïl (N) refuse, leftovers

uwe (N) tree species (tree whose oil is used to clean rusted metal)

uwe (PRO) you yourself (from among several) (2SG partitive-intensive pronoun, '2SG-PART.INT')

<W, w> [w]

wa (ADV) just, simply, without care, without reason (also *ko*, *kwa*)

wa (N) village (possibly < Yuat)

waembïl (ADJ) white (possibly a compound containing *we* 'sago starch')

waembïl ankam (N) white person (literally 'white person')

waenkïn (N) plant species (plant similar to the *ankïn* vegetable species, but with leaves with white backsides) (possibly < *we* 'sago starch' + *ankïn* 'vegetable species')

wakan (N) wallaby (TP *sikau*) (likely an areal term, perhaps ultimately < Austronesian)

wal (N) ribs

wala (ADV) far; (ADJ) far-off

wala (N) rat species

wala luwa (N) far-off place (literally 'far-off place')

wala uta (N) bat (literally 'rat bird')

wali (N) frog species (small green, yellow, or brown frog)

wali- (V) hit, stab, shoot; kill

walimot (N) bird species (dove, pigeon) (TP *balus*) (< Yuat)

wam (N) bark strap used for climbing palms

wambana (N) fish (possibly < Mwakai)

wambi (PRO) as for you (2SG topic-marker pronoun, '2SG-TOP')

wambïn (N) nut species (small green nut that is chewed)

wan (N) sago shoot; sago frond stalk

wan (P) over, above

wana [prohibitive marker, 'PROH'] (also *wanap*)

wana- (V) cook

wana- (V) feel, taste, sense, perceive; think

wanakï- (V) call (literally 'feel-say')

wanam (N) side; wooden shield

wanamba (N) armpit

wananum (ADJ) hot, warm

wanap [prohibitive marker, 'PROH'] (also *wana*)

wanawni- (V) call, summon (literally 'feel-shout')

wandam (N) jungle, woods, forest, bush; garden

wandana (N) vegetable species (curry-flavored vegetable, used for treating coughs)

wandapata (N) fallow garden (< *wandam* 'garden'+ *wapata* 'old, dry')

wandïl (N) bird species

wandïwandï (N) frog species (small brown frog)

Wangasa [male name]

wanmbi (N) betel pepper (TP *daka*)

wanmbi mutam (N) betel pepper vine (TP *rop daka*) (literally 'betel pepper back')

wanmbi wapa (N) betel pepper leaf (TP *lip daka*) (literally 'betel pepper leaf')

wanwane (N) mushroom; patrol officer, district officer (TP *kiap*), police officer

wap (V) be, be at (be located at), stay, stay at, live, live at, reside, reside at, inhabit (past tense)

wapa (N) leaf

wapa (N) wing

wapal (N) insect species (caterpillar)

wapata (ADJ) old, dry

wasi (N) tree species (tree whose seeds are used to repel cockroaches)

wat (N) ladder, log with steps carved into it leading to a stilted home

wat (P) atop, onto; (N) top

watangïn (N) last, final; last bunch (of bananas) to emerge

watangïnila (NUM) four (literally 'last frond')

watlo- (V) clear, cut down (literally 'cut atop')

wawa (PRO) you yourself (2SG intensive pronoun, '2SG-INT')

wawal (N) hive (for ants, bees, etc.)

wawana (N) plant species (plant with fruit eaten by flying foxes)

wawat (N) segment (as between joints in a sugarcane)

way (N) turtle (< Ap Ma)

way sokoy (N) tobacco species (tobacco with short, oval-shaped leaves) (literally 'turtle tobacco')

we (N) sago starch, sago flour, fresh sago; sago pancake

we (ADV) alone, only

we (CONJ) then, and then

-we [partitive-intensive suffix, 'PART.INT']

we nangïn (N) small cooking tongs (literally 'sago tongs')

we u- (V) cut (literally 'put a cut'?)

Wekumba [male name]

welo- (V) box (as one's ears) (literally 'cut a cut'?)

wema (N) palm frond used for weaving (TP *pangal*)

wemali (N) large pot for stirring sago (< Ambakich)

wemana (N) lizard species (small colorful gecko)

wen (N) handle (as of a pick-axe)

wenta (N) bird species (small black bird whose call is believed to announce a visitor's arrival)

wepal (N) dry, dead sago palm

wewun (N) clay pot for storing dry sago starch

wi (N) name

wipam (N) arrow, arrowhead; bullet

wiwila (ADJ) light (not heavy)

wiwina- (V) fly

wo (ADV) very own (used with possessives)

wo- (V) burn (intransitive), blaze; swell

wo- (V) sleep

=wo [intensifier; vocative enclitic, 'VOC'] (allomorph of **=o**)

woka (N) banana flower

wokïn (N) big man, important person

wokomana (N) conch shell

wokomana (N) plant species (orchid with large leaves)

wol (N) breast

wol mïnda (N) banana species (alternative name for **wowi mïnda**) (literally 'breast banana')

wol mïndam (N) milk (literally 'breast pus')

wolka (ADV) again, in turn

wolmu (N) nipple (literally 'breast fruit')

wolname (N) tadpole, larval frog

womba (N) lizard species (large brown lizard)

womba (N) tree species (tree whose sap is drunk to treat illness)

wombam (N) middle

wombasa (N) clay pot, clay pan

wombasa anga (N) money (literally 'piece of clay pot')

Wombasame [male name]

wombïn (N) work, job, task, activity

wombïn ni- (V) work (literally 'do work')

wombulalaw (N) bird species (kingfisher)

wome (N) middle, trunk

Womel [male name]

womotana (N) frog

won (N) penis

won inim (N) semen (literally 'penis water')

won- (V) cut, cross

wondi (N) bandicoot (TP *mumut*)

wongïta (N) bow, bow and arrow

wonglin (N) cup, ladle for hot water used in making jellied sago (< Ap Ma)

Woni [female name]

wonmbi (N) tusk (of a boar)

Wonmelma [male name]

wonmi (N) hair

wop (ADV) the next day (probably < *wo-* 'sleep')

wopa (QUANT) all; everything, everyone; (ADJ) whole, entire, full

wopana (N) type of skirt (waist skirt)

Wopata [place] site of the fourth Manu village, still used as a hunting campsite

wopaw (N) ball; (ADJ) round

woplota (N) lungs (possibly < Ap Ma)

wot (N) younger; younger sibling

wot inga yena (N) younger brother's wife (sister-in-law) (literally 'younger affine woman')

wot yana (N) younger sister (literally 'younger woman') (also *wot yena*)

wot yata (N) younger brother (literally 'younger man') (also *wot yeta*)

wot yena (N) younger sister (literally 'younger woman') (also *wot yana*)

wot yena numan (N) younger sister's husband (brother-in-law) (literally 'younger woman husband')

wot yeta (N) younger brother (literally 'younger man') (also *wot yata*)

wotnya (N) bird species (type of black bird)

wow (V) sleep (imperfective form of *wo-*)

wowal (N) chicken

wowane (N) feathers worn ceremonially

wowaw (N) fish species (rainbow fish); fish scale

wowi mïnda (N) banana species (banana plant with the largest fruit of all, traditionally eaten only by men and used to make *yamkwe* 'sago fried with banana and coconut') (*mïnda* is 'banana'; meaning of *wowi* is unknown) (also *wol mïnda*

woyambïn (ADV) pointlessly, fruitlessly

wulïn u- (V) rest, relax, pause (literally 'put a rest'?)

wulis (N) platform; raft

wun (N) fan

wusim (N) crocodile (possibly < Yuat)

Wusimali [male name]

wusimi (N) bamboo panpipes

wuta (N) coconut shell, plate (also *uta*)

wutï (N) leg, foot (also *utï*)

wutï ambatïm (N) knee (literally 'leg joint')

wutï anmot (N) shin, lower leg (literally 'leg post')

wutï awi (N) ankle (joint) (literally 'side of foot')

wutï lïmndï (N) anklebone (literally 'foot eye')

wutï mutam (N) top of the foot (literally 'foot back')

wutï name (N) thigh, upper leg, lap (cf. *i name* 'upper arm', *lam* 'muscle')

wutï sinanan (N) toenail (literally 'foot nail')

wutï yïwa (N) footprint (literally 'foot hill')

wutï yombam (N) sole of the foot (literally 'foot palm')

wutïmu (N) toe (literally 'foot fruit')

wutïmu ankam (N) second toe (literally 'person toe')

wutïmu law (N) fourth toe (literally 'cordyline toe')

wutïmu unduwan (N) big toe (literally 'head toe')

wutïmu watangïn (N) pinky toe, little toe (literally 'last toe')

wutïmu wome (N) middle toe (literally 'middle toe')

wutïni- (V) dance (literally 'beat leg')

wutïnpu (N) heel of the foot (cf. *inpu* 'elbow', *akunpu* 'back of the skull')

wutïwutï (N) bird species (duck) (possibly 'foot-foot')

wutota (ADJ) tall, long

<Y, y> [j]

ya (N) coconut; egg white

ya inim (N) coconut water (literally 'coconut water')

ya wapata (N) mature coconut fruit (older than an *alalama* 'maturing coconut') (literally 'dry coconut')

Yaka [female name]

yakal (N) insect species (edible, black-and-yellow, caterpillar-like insect)

yakal inom (N) bird species (*inom* is 'mother'; relationship, if any, to *yakal* 'insect species' is unknown)

yakam (N) shoe made from sago fronds

yakeka (N) bean

Yalamba [place] Korokopa village

yalum (N) grandchild, grandson, granddaughter (< Ap Ma)

Yaluwa [male name]

yamangla (N) cloth-like part of the coconut tree bark

yamanyawi (N) bird species (bird of paradise) (TP *kumul*)

yambalpa (N) type of spirit (devil-like spirit in the form of a man)

yambi (N) tree species (tall, white tree)

Yambïn [female name]

yambïpal (N) insect species (centipede)

yambisa (N) yam species (large white, soft yam)

Yambït [female name]

Yambiwa [place] upstream half of the old ***Wopata*** village

yambola (N) rash, scabies

Yambul [place] site of the second Manu village, near present-day Maruat, Dimiri, and Yaul villages

yami (N) bird species

yami (N) insect species

yamkwe (N) sago fried with banana and coconut

yana (N) woman, wife, female (also ***yena***)

yanalum (N) daughter, girl (also ***yenalum***) (literally 'female child')

yananu (N) woman, wife (also ***yenanu***)

Yanapi [female name]

yanat (N) daughter (also ***yenat***)

yanaw (N) wrist

yangïmot (ADJ) tasty, sweet

yangle (ADJ) strong

yangun (N) mosquito

yangusole (N) plant species (green stinging nettle) (TP *salat*)

yanïmana (N) plant species (plant with round leaves, used to perfume the body during dances)

Yaruwa [male name]

yata (N) man, male; brother (said only by women) (also ***yeta***)

yatalum (N) son, boy (also ***yetalum***) (literally 'male child')

yawa (N) mother's brother (maternal uncle) (TP *kandere*)

yawa (N) sago strainer

yawa ambi (N) mother's older brother (maternal uncle) (also ***yawa atuma***) (literally 'big uncle')

yawa atuma (N) mother's older brother (maternal uncle) (also ***yawa ambi***) (literally 'older brother uncle')

yawa wot (N) mother's younger brother (maternal uncle) (literally 'younger uncle')

Yawana [female name]

Yawat [male name]

yawatalin (N) fish species (small eel)

yawe (N) sago pancake cooked with coconut (literally 'coconut sago')

yawïl (N) full moon (literally 'coconut moon')

yawïn (N) sugar glider

yawt (N) machete, knife (also *yot*)

yena (N) woman, wife, female (also *yana*)

yena utam (N) yam species. (class of yam varieties with spines) (TP *mami*) (literally 'female yam')

yenalum (N) daughter, girl (also *yanalum*) (literally 'female child')

yenanu (N) woman, wife (also *yananu*)

yenat (N) daughter (also *yanat*)

yeta (N) man, male; brother (said only by women) (also *yata*)

yeta utam (N) yam species. (class of yam varieties without spines) (literally 'male yam')

yetalum (N) son, boy (also *yatalum*) (literally 'male child')

Yetani [place] Yamen village

yïwa (N) mound (as for planting yams), hill

yokam (N) arrow shaft

yokomakan (N) banana species (plantain banana plant with the smallest fruit of all)

yokomakan (N) bird species (small wildfowl) (possibly < Ap Ma)

Yokombla [male name]

yokomtïn (N) wildfowl egg (< *yokomakan* 'wildfowl' + *mïtïn* 'egg')

Yolomban [male name]

yom (N) heart

yoma (N) snake species (brown snake)

yomal (N) vegetable species (TP *aibika*)

Yomali [male name]

yomba (N) vegetable species (Indian coral tree) (*Erythrina variegata*) (TP *balbal*)

yombam (N) palm of the hand (possibly < *i* 'hand' + *wombam* 'middle') (also *i mwa*)

yopa (N) bird species (cockatoo) (TP *koki*); peace, peace treaty

yot (N) machete, knife (also *yawt*)

yuname (N) bird species (small brown bird that sings in the morning)

18.2 English-to-Ulwa finder list

The following finder list provides translations from English to Ulwa. It is orga-
nized alphabetically by the basic English translations for words in the Ulwa lex-
icon. It is intended to be used as a general guide and is by no means exhaustive.
More detailed definitions of Ulwa words are provided in §18.1.

A – a

'a' ***ko=***
'a little' ***ilumka***
'about to, be' ***layk***
'above' ***wan***
'abscess' ***kananum***
'act' *v.* ***ni-***
'activity' ***wombïn***
'adze' ***sakïma***
'affine' ***inga***
'afraid' ***namna***
'afraid, be' *v.* ***namnap***
'after' ***angani***, ***anganika***, ***naka***
'afternoon' ***awal***, ***awal nambï***
'afterwards' ***anganika***, ***naka***
'again' ***tïki***, ***wolka***
'ah' ***a***, ***aya***
'*aibika*' ***yomal***
'airplane' ***mbalus***
'alas' ***i***
'alcohol' ***inim tembi***
'alive' ***akïnaka***
'all' ***wopa***
'allow' *v.* ***ka-***, ***laka-***
'alone' ***we***
'along' ***u***
'already' ***ta***
'also' ***luke***, ***maweka***, ***moweka***
'although' ***maski***
'always' ***nunu ika***

'amaranth' ***mambun***
'among' ***moni***
'an' ***ko=***
'ancestor' ***ndunduma***, ***ngata***
'and' ***ma***, ***na***
'and then' ***we***
'angry' ***matamal***
'animal' ***mundu***
'animal trap' ***asiya***
'ankle' ***wutï awi***, ***wutï lïmndï***
'anklebone' ***wutï lïmndï***
'another' ***kwa***
'ant species' ***iwanal***, ***katmombe***, ***kïka***, ***muna***, ***ndïngonim***, ***ngowil***, ***ngungun***
'anus' ***atal***
'anymore' ***tïki***
'anything' ***angos***
'areca nut' ***aw***
'areca palm' ***aw***
'arise' *v.* ***tïnanga-***
'arm' ***i***
'armband' ***inamba***, ***min***, ***palapal***
'armpit' ***wanamba***
'around' ***u***
'arrange' *v.* ***misisina-***
'arrow' ***nap***, ***wipam***
'arrow shaft' ***yokam***
'arrowhead' ***wipam***
'as for her' ***mambi***
'as for him' ***mambi***
'as for it' ***mambi***
'as for me' ***nambi***
'as for that one' ***andambi***
'as for them' ***minambi***, ***ndambi***
'as for these ones' ***ngalambi***, ***nginambi***
'as for this one' ***ngambi***
'as for those ones' ***alambi***, ***andinambi***
'as for us' ***anambi***, ***nganambi***, ***ngunanambi***, ***unanambi***
'as for you' ***ngunamb***, ***unambi***, ***wambi***
'ash' ***apïnsi***, ***isi***

'ashes' ***apïnsi***, ***isi***
'ask' *v.* ***atwana kï-***, ***atwana ta-***
'assemble' *v.* ***kuk u-***
'at' ***ka***, ***u***
'at, be' *v.* ***p-***, ***wap***
'atop' ***wat***
'aunt' ***ane inom***, ***ane inom atana***, ***ane inom wot***, ***ansi inom***, ***inom***, ***inom atana***, ***inom wot***
'*aupa*' ***mambun***
'avoid' *v.* ***kamb-***
'awaiting' ***andïla***, ***angla***
'awning' ***apa mot***
'axe' ***tana***, ***tanatmu***
'axe head' ***tanatmu***
'ay' ***ay***, ***e***

B – b

'baby' ***alum***
'back' ***angani***, ***mutam***
'back of the hand' ***i mutam***
'backbone' ***anangum***, ***mutoma***
'bad' ***tembi***
'badness' ***tembi***
'bag' ***ni***
'*balbal*' ***yomba***
'ball' ***wopaw***
'*balus*' ***walimot***
'bamboo species' ***itenmbu***, ***mota***, ***sina***
'banana' ***mïnda***
'banana flower' ***woka***
'banana leaf' ***mïndapan***
'banana species' ***almbïne***, ***ane mongi***, ***apïn mïnda***, ***kïtïmngïle***, ***mongi***, ***nanïwe***, ***ngunmbi***, ***piya***, ***simïnda***, ***supangasa***, ***wol mïnda***, ***wowi mïnda***, ***yokomakan***
'band' ***inamba***, ***min***, ***palapal***
'bandicoot' ***wondi***
'bank' ***ika***
'bark' ***im nambï***, ***yamangla***

'bark strap' ***wam***
'base' ***nupu***
'basket, type of' ***akum***, ***ame***, ***imnde***, ***iwa***, ***kukul***, ***ndïlpot***, ***sandïpal***
'bat' ***nïplopa***, ***wala uta***
'bathe' *v.* ***lopo-***
'battle' ***at***
'battle' *v.* ***amblawali-***
'be' *v.* ***p-***, ***wap***
'beak' ***nokal***
'beam, type of' ***al***, ***alwoma***, ***iwal***, ***kukun***, ***pal***, ***ta***, ***taman***
'bean' ***yakeka***
'bear' *v.* ***kot-***
'beard' ***nil nopa***
'beat' *v.* ***alima-***, ***ni-***
'because of' ***nakap***, ***nap***
'bedbug' ***mambun***
'bedsheet' ***al nambï***
'bee' ***numbunum***, ***unapïn***
'before' ***ipka***
'beforehand' ***ipka***
'behavior' ***i***
'behind' ***angani***
'belch' ***nïkïn***
'belly' ***inapaw***
'below' ***imbam***
'belt' ***min***
'bend' *v.* ***tumul ka-***
'berry' ***mu***
'beside' ***kana***, ***kanam***
'betel nut' ***aw***, ***aw ilowan***, ***aw lïmndï***, ***aw ulum***, ***aw wapata***, ***kakïla***,
    mïnanum, ***pïsima***
'betel nut spittle' ***aw imbïn***
'betel palm' ***aw***, ***aw ilowan***
'betel pepper' ***kumblima***, ***nakam wanmbi***, ***nganangan***, ***wanmbi***
'betel pepper leaf' ***wanmbi wapa***
'betel pepper vine' ***wanmbi mutam***
'between' ***moni***
'big' ***ambi***, ***ngata***
'big man' ***ambi***, ***wokïn***

'big toe' **wutïmu unduwan**
'*bikmaus*' **mapu**
'*bilum*' **ani**
'bird' **uta**
'bird of paradise' **yamanyawi**
'bird species' **almba**, **amangala**, **ane uta**, **awalawa**, **awngala**, **awsingïn**, **kalim**, **kokawe**, **kukumali**, **kulkul**, **kuman**, **lamndu uta**, **langay**, **maep**, **mamwapa**, **membul**, **moni**, **mulwat**, **ndolum**, **ïmtu**, **tambanji**, **tanen**, **tul**, **upin**, **walimot**, **wandïl**, **wenta**, **wombulalaw**, **wotnya**, **wowal**, **wutïwutï**, **yakal inom**, **yamanyawi**, **yami**, **yokomakan**, **yopa**, **yuname**
'bite' *v.* **ama-**, **la-**
'bitter' **nanama**
'black' **mbun**, **mbunmana**
'bladder' **mïnopal**
'blaze' *v.* **wo-**
'blind' **lïmndï wopa**
'blister' **kananum**
'block' *v.* **nambïlumo-**
'blood' **anankïn**
'blow' *v.* **nonalni-**
'blowfly' **lamndu mu**, **mu**
'blue' **anem**, **mbun**
'*blulang*' **mu**
'blunt' **pon**, **tambumana**
'boat' **anaw**, **num**, **wulis**
'body' **nambï**
'body hair' **nil**
'boil' **kananum**
'boil' *v.* **manal u-**
'bone' **uma**
'bottom' **nupu**
'bow' **wongïta**
'bow and arrow' **wongïta**
'bowl' **ulet**
'bowstring' **le**
'box' *v.* **welo-**
'boy' **nungol**, **nungolke**, **yatalum**, **yetalum**
'brain' **misam**
'brains' **misam**

'branch' **im nangïn**
'breadfruit' **nïpa**
'break' *v.* **a-, kol-, kot-, kun-, nungun u-, tukul-**
'break off' *v.* **kun-**
'break up' *v.* **nïka-, nïkï-, nka-, nkï-**
'breast' **wol**
'breath' **nonal**
'breathe' *v.* **nonal u-**
'bridge' **ndam**
'broom' **saklup**
'broth' **isi**
'brother' **atuma**, **wot yata**, **wot yeta**, **yata**, **yeta**
'brother-in-law' **atana numan**, **wot yena numan**
'brown' **lemetam**
'*buai*' **ansi**, **aw**
'*buai limbum*' **unden**
'bud' **tangam**
'build' *v.* **ita-**
'building' **apa**
'bullet' **wipam**
'bump' **mu**
'bunch' **law**, **motam**, **nisi**, **watangïn**
'bundle' **motam**
'burial spot' **inum**
'burn' *v.* **apïn ama-, wo-**
'burp' **nïkïn**
'bush' **wandam**
'but' **tasol**
'butcher' *v.* **nïka-, nïkï-, nka-, nkï-**
'butterfly' **awpane**
'buttocks' **unmbï**
'buttress root' **tïmal**

   C – c

'calcium hydroxide' **i**
'call' *v.* **wanakï-, wanawni-**
'can' **ken**
'cane' **le**, **mil**, **palam**

'cane grass' ***palam***
'canoe' ***num***
'car' ***tïlwa num***
'careful' ***andïl***
'carry' *v.* ***tï inda-***
'carve' *v.* ***lo-***
'casque' ***kokal***
'cassowary' ***kalim***
'cassowary bone' ***intïp***
'catch' *v.* ***ikali lï-***, ***moko-***, ***uta-***
'caterpillar' ***wapal***, ***yakal***
'catfish' ***may***
'cause' ***na***
'celebrate' *v.* ***inim nkï-***
'cemetery' ***mbinmbin***
'centipede' ***yambïpal***
'chair' ***komblam***
'chase' *v.* ***anmbasa-***
'check' *v.* ***lïmndï uta-***
'cheek' ***nopa***
'chest' ***tambeta***
'chew' *v.* ***ama-***, ***la-***
'chewed-up betel nut' ***ansi***
'chicken' ***wowal***
'child' ***alum***, ***nungol***, ***nungolke***, ***tawatïp***
'chin' ***ngïnïm***
'chop' *v.* ***lo-***
'civil servant' ***inangïnmana***
'clan' ***amba***
'clavicle' ***unum***
'claw' ***sinananangïn***
'clay' ***pan***
'clay bowl' ***ulet***
'clay pan' ***wombasa***
'clay pot' ***kukumbe***, ***wewun***, ***wombasa***
'clay stand' ***nom***
'clear' *v.* ***watlo-***
'clitoris' ***inmbï mïnïm***
'close' ***nu***

'cloth' *al nambï*
'clothing' *al nambï*
'cloud' *anam*, *ngïn*
'cockatoo' *yopa*
'cockroach' *ngunguswa*
'cocoa' *koko*
'coconut' *alalama*, *andïmoni*, *ya*
'coconut husk' *tïl*
'coconut meat' *mupu*
'coconut shell' *wuta*, *uta*
'coconut water' *ya inim*
'cold' *mïnoma*, *mumne*
'collect' *v. in-*, *ina-*
'comb' *kokal*
'come' *v. anmbi-*, *i-*, *mbi-*
'come here' *v. mbi-*
'come out' *v. anmbi-*
'completely' *kaka*, *keka*
'conch shell' *wokomana*
'container' *akum*, *itenmbu*, *unden*
'cook' *v. wana-*
'cooking tongs' *nangïn*, *we nangïn*
'cool' *mïnoma*
'cordyline' *law*
'core' *mupu*
'corn' *kon*
'correct' *maw*
'cough' *utan*
'cough' *v. utan uta-*
'count' *v. ika uta-*
'crab' *mbone*
'crayfish' *mi*, *ni*
'creek' *u*
'crevice' *unum*
'crocodile' *wusim*
'crop' *sinokoy*
'cross' *v. klop-*, *won-*
'crossbeam' *iwal*, *kukun*, *pal*
'croton' *moniwot*

'crow' ***tul***
'crowned pigeon' ***upin***
'crush' *v.* ***nopal u-***
'cry' *v.* ***sa-***
'cup' ***itenmbu***, ***wonglin***
'cuscus' ***ngwimakan***, ***tïponïm***
'custom' ***i***
'cut down' *v.* ***lo-***, ***watlo-***
'cut' *v.* ***lo-***, ***nïka-***, ***nïkï-***, ***nka-***, ***nkï-***, ***we u-***, ***won-***
'cyclone' ***ngungun***

D – d

'*daka*' ***kumblima***, ***nakam wanmbi***, ***nganangan***, ***wanmbi***
'dance' *v.* ***wutïni-***
'dark' ***mbun***, ***mumne***
'daughter' ***yanalum***, ***yanat***, ***yenalum***, ***yenat***
'dawn' ***lïwa***
'day' ***ane***, ***ilom***
'daytime' ***ane***
'deaf' ***kïkal wopa***
'decaying' ***alata***
'decoration' ***manangum***
'devil' ***yambalpa***
'dew' ***inimnji***
'diaphragm' ***tïmbïl***
'die' *v.* ***ni-***, ***nipinp u-***, ***nipunp u-***
'difficult' ***matamal***
'dig' *v.* ***nïka-***, ***nïkï-***, ***nka-***, ***nkï-***
'digit' ***imu***
'dirty' ***tembi***
'disapprove of' *v.* ***alakamb-***
'dish' ***ulet***
'dislike' *v.* ***alakamb-***
'district officer' ***wanwane***
'ditch' ***numïni***, ***u***
'do' *v.* ***ni-***
'dog' ***tïn***
'don't!' ***wana***, ***wanap***

'door' ***mwa***
'dove' ***walimot***
'down' ***li***
'downstream' ***li***
'downward' ***li***
'dragonfly' ***maman***
'dream' ***longom***
'drink' *v.* ***ama-***, ***la-***
'drinking coconut' ***andïmoni***
'drum' ***ansimu***, ***nïte***, ***numbu***
'dry' ***wapata***
'dry' *v.* ***mondo-***
'dry season' ***ane wapata***
'duck' ***wutïwutï***
'dull' ***pon***, ***tambumana***
'dust' ***itïtïl***
'dwarf' ***metmet***

E – e

'each other' ***ambin=***
'eagle' ***amangala***, ***awsingïn***
'ear' ***kïkal***
'earlier' ***ipka***
'earring' ***mungun***
'earth' ***ini***
'earthquake' ***numnata***
'earwax' ***mungun***
'eat' *v.* ***ama-***, ***la-***
'eel' ***kundan***, ***yawatalin***
'egg' ***mïtïn***, ***yokomtïn***
'egg shell' ***nambum***
'egg white' ***ya***
'egg yolk' ***kalum***
'eh?' ***a***, ***e***
'eight' ***angay kwe lele ndïwon ndïwatlïp***
'eighteen' ***angay lele lele ndïwon ndïwatlïp***
'eighty' ***ankam unduwan nali lele***
'elbow' ***i ambatïm***, ***inpu***

'elder' **unduwan**
'eleven' **angay nini kwe mowon ndïwatlïp**, **nali kwe kwe**
'else' **tïki**
'empty' **ulwa**
'end' **at**
'enemy' **mbalanji**, **unda**
'enough' *v.* **nakamb-**
'entire' **wopa**
'equal' **ambalka**
'*erima*' **awe**
'even though' **maski**
'evening' **awal**, **imba**
'every' **nunu**
'every day' **nunu ilom**
'everyone' **wopa**
'everything' **nunu nji**, **wopa**
'examine' *v.* **lïmndï uta-**
'excrement' **minyam**
'eye' **lïmndï**
'eye mucus' **lïmndï minyam**
'eye of a needle' **mwa**

F – f

'face' **monombam**, **mwa**
'fall' *v.* **li u-**
'fallow garden' **wandapata**
'falsehood' **awaw**
'family member' **nambana ankam**, **tamndï**
'fan' **wun**
'far' **ngaya**, **wala**
'far-off' **wala**
'fart' **nuku**
'fast' **mbuka**
'fat' **anen**
'father' **itom**, **tata**
'fear' *v.* **ala namnap**
'fearful' **namna**
'feather' **nambli**, **tal**, **wowane**

'feces' **minyam**
'feed' *v.* **na-**
'feel' *v.* **wana-**
'fell' *v.* **lo-**
'female' **yana**, **yena**
'fence' **tïmbïl**
'fern' **lindïn**, **mungul**
'few' **ilum**
'fiber' **mi**
'fifteen' **angay lele**
'fifty' **ankam unduwan**, **nali angay**
'fig tree' **mïka**
'fight' **at**
'fight' *v.* **amblawali-**
'*fikus*' **mïka**
'fin' **angun**
'final' **watangïn**
'finger' **imu**
'fingernail' **sinanan**
'fire' **apïn**
'fire tongs' **apïn nangïn**, **nangïn**
'firefly' **mbomala**, **nali**
'firewood' **imot**
'first' **ipka**
'fish' **wambana**
'fish hook' **uma**
'fish scale' **wowaw**
'fish species' **kundan**, **lanjin**, **lumnjap**, **mapu**, **may**, **mbatmbat**, **nïmban**, **somïn**, **upa**, **upan**, **wowaw**, **yawatalin**
'fish trap' **iwa**, **ngin**, **tukul**
'fishing line' **asiya**
'fishing net' **ngin**
'fishing spear' **nap**
'fishtail' **anaw**, **angun**
'five' **angay**
'flashlight' **mbomala nangum**
'flat' **ambalka**
'flatus' **nuku**
'flesh' **lam**

'float' *v. **ul watka-***
'flood' ***inim ambi***
'floor' ***apa ini***
'flour' ***we***
'flow' *v. **i**, **ma-***
'flower' ***nambana**, **woka***
'flower sheath' ***nisi***
'flute' ***mota**, **wusimi***
'fly' ***njimana**, **sikal***
'fly' *v. **wiwina-***
'flying fox' ***nïplopa***
'fog' ***lïngïn***
'follow' *v. **angani ka-***
'food' ***mundu***
'foot' ***utï**, **wutï***
'footprint' ***wutï yïwa***
'for' ***ala**, **andï**, **andïm**, **andïn**, **nakap**, **nap***
'for the sake of' ***nakap**, **nap***
'force' *v. **ul ni-***
'forearm' ***i nangum***
'forehead' ***monombam***
'forest' ***wandam***
'forget' *v. **topinka-***
'forget about it!' ***mambilakan***
'fork' ***akatoma***
'forty' ***nali watangïnila***
'four' ***watangïnila***
'fourteen' ***angay nini watangïnila ndïwon ndïwatlïp**, **nali kwe watangïnila***
'fourth toe' ***wutïmu law***
'fresh' ***akïnaka***
'friend' ***awena**, **aweta***
'frog' ***wolname**, **womotana***
'frog species' ***kïlakïli**, **popotala**, **tongonat**, **tomona**, **wali**, **wandïwandï***
'from' ***ala**, **andï**, **andïm**, **andïn**, **u***
'from here' ***mbu***
'from there' ***ando***
'frond' ***akïnanga**, **isi**, **nopal**, **wema***
'front' ***ip**, **ipwat***
'fruit' ***mu***

'fruit species' ***mondin***
'fruitlessly' ***woyambïn***
'full' ***monop***, ***wopa***
'fungus' ***momul***
'fur' ***nambli***
'fuzz' ***isi***

G – g

'*galip*' ***nokosam***
'gallbladder' ***mïnandïn***
'game' ***tïnum***
'*garamut*' ***numbu***
'garbage' ***itïm***, ***umba***
'garden' ***wandam***, ***wandapata***
'garfish' ***lumnjap***
'gather' *v.* ***kuk u-***
'gecko' ***nataw***, ***wemana***
'get' *v.* ***in-***, ***ina-***, ***t***, ***tï-***
'get up' *v.* ***tïnanga-***
'ghost' ***nambana***
'giant' ***nïpat***
'ginger' ***anat***, ***mïli***
'girl' ***nungol***, ***nungolke***, ***yanalum***, ***yenalum***
'give birth' *v.* ***kot-***
'give' *v.* ***na-***
'glowing fungus' ***momul***
'go' *v.* ***anma-***, ***atay***, ***i***, ***li***, ***lo-***, ***lu-***, ***a-***, ***unda-***
'go!' ***nol***
'go around' *v.* ***unda-***
'go down' *v.* ***li***
'go out' *v.* ***anma-***
'go up' *v.* ***atay***
'God' ***ambi***
'good' ***anma***
'good afternoon' ***awal anma***, ***awal nambï anma***
'good day' ***ane anma***
'good evening' ***imba anma***
'good morning' ***umbenam anma***

'good night' ***imba anma***
'goodbye' ***namanu***
'*gorgor*' ***mïli***
'gourd' ***ansi***
'grab' *v.* ***ikali lï-***
'grand' ***ngata***
'grandchild' ***yalum***
'granddaughter' ***yalum***
'grandfather' ***itom ngata***
'grandmother' ***inom ngata***, ***mom***
'grandparent' ***ngata***
'grandson' ***yalum***
'grass' ***anul***, ***asi***, ***nipum***
'grass knife' ***asiyot***
'grass skirt' ***al***, ***ana***, ***anapot***
'grasshopper' ***kukum***
'grassland' ***anul***
'grave' ***inum***, ***mbinmbin***
'gray hair' ***monkin***
'grease' ***anen***
'great-grandchild' ***ndunduma***
'great-grandparent' ***ndunduma***
'great-uncle' ***ngata yawa***
'green' ***mïnal***
'greens' ***natnat***
'grind' *v.* ***uta-***
'groin' ***utï moni***
'ground' ***ini***, ***inum***
'grub species' ***inane***, ***mïnkïn***, ***mundum***, ***siwi***, ***sum***
'gudgeon' ***mapu***
'gums' ambla ***lam***
'*guria*' ***upin***
'guts' ***inji***, ***mïnane***

H – h

'habit' ***i***
'hair' ***monkin***, ***nil***, ***wonmi***
'hand' ***i***

'hand drum' ***nïte***
'handle' ***wen***
'happy, be' *v.* ***anma wanani-***
'hard' ***nïpokonam***
'hardwood tree' ***lemetam***
'harvest' *v.* ***ne-***
'hate' *v.* ***alakamb-***
'*haus boi*' ***amba***
'*haus tambaran*' ***amba***
'hawk' ***amangala***, ***awsingïn***
'he' ***mï***
'he is the one' ***mïnam***
'head' ***mu***, ***unduwan***
'headache' ***unduwan apïn***
'headdress' ***tongla***
'healthy' ***anma***
'heap' ***tumopa***, ***umba***
'hear' *v.* ***kïkal wana-***
'heart' ***ina***, ***yom***
'hearth' ***twa***
'heavy' ***kenmbu***
'heel' ***wutïnpu***
'hence' ***mbu***
'her' ***ma=***, ***mo=***, ***manji***
'her own' ***ambïnji***
'here' ***mbï***, ***mbu***
'hers' ***manji***
'herself' ***mawa***, ***mawe***
'hey' ***e***
'hiccup' ***nïkïn***
'hide' ***nambï***
'hide' *v.* ***nokop lï-***
'high' ***ata***
'hill' ***yïwa***
'him' ***ma=***, ***mo=***
'himself' ***ambawa=***, ***ambï=***, ***ambuwe***, ***mawa***, ***mawe***
'hip' ***tïpal***
'his' ***manji***
'his own' ***ambïnji***

'hit' *v. as*, *asa-*, *atï-*, *wali-*
'hither' *mbï*
'hive' *wawal*
'hm' *m*
'hoe' *tanawen*
'hoe' *v. nïka-*, *nïkï-*, *nka-*, *nkï-*
'hold' *v. ikali lï-*
'hole' *inmi*
'Holy Spirit' *nonal*
'hoof' *akat*
'hook' *uma*
'horn' *kokal*
'hornbill' *almba*
'hot' *wananum*
'hot water' *manal*
'house' *apa*
'housefly' *njimana*
'how many?' *anjika*
'how?' *anjikaka*
'huge' *ngata*
'human' *ankam*
'hundred' *uta*
'hunger' *mundu*
'hungry, be' *v. mundu asa-*
'hunt' *v. andïlalo-*, *anglalo-*
'husband' *numan*
'husk' *tïl*

I – i

'I' *nï*
'I myself' *nawa*, *nuwe*
'idol' *molombi*
'if' *sapos*
'ignite' *v. lomon-*
'ilima' *awe*
'ill' *tembi*
'illness' *tembi*
'important person' *wokïn*

'in' *in*, *ka*, *u*
'in front of' *ipka*
'in that way' *ka*, *maka*, *mïka*
'in this way' *ka*, *maka*, *mïka*
'in turn' *wolka*
'in vain' *awlop*
'in-law' *inga*
'index finger' *imu ankam*
'inhabit' *v. p-*, *wap*
'initiation rites' *sasi*
'innards' *inji*
'insect species' *amam*, *apwane*, *aylat*, *iwanal*, *kalingana*, *katmombe*, *kïka*, *kukum*, *lamndu mu*, *maman*, *mambun*, *manjimanji*, *mïmin*, *mu*, *muna*, *mbomala*, *nali*, *nitïl*, *numbunum*, *nuna*, *ndïngonim*, *ngowil*, *ngungun*, *ngunguswa*, *njimana*, *sambulumbu*, *sikal*, *sïmin*, *tambïn*, *tomoy*, *tongonat*, *unapïn*, *wapal*, *yakal*, *yambïpal*, *yami*, *yangun*
'inside' *in*
'insides' *inji*
'instance' *ika*
'intelligent' *anma*
'intestines' *mïnane*
'into' *in*
'iris' *lïmndï mu*
'ironwood' *nanïm*, *numbu*
'it' *ma=*, *mo=*, *mï*
'it is the one' *mïnam*
'its' *manji*
'its own' *ambïnji*
'itself' *ambawa=*, *ambï=*, *ambuwe*, *mawa*, *mawe*

J – j

'Java almond' *nokosam*
'jaw' *limama*
'jellied sago' *ay*, *aypul*
'Jew's harp' *sinangul*
'job' *wombïn*
'joint' *ambatïm*, *min*
'jump' *v. ulep lï-*

'jungle' **wandam**
'just' **lolop**, **ko**, **kop**, **kwa**, **wa**
'just a few' **kekaka**, **kwekaka**

K – k

'*kalangal*' **awalawa**
'*kambang*' **i**
'*kanda*' **le**
'*kandere*' **yawa**
'*kapul*' **ngwimakan**, **tïponïm**
'*karakum*' **ngungun**
'*kaukau*' **nongontam**
'*kawawar*' **anat**
'*kiap*' **wanwane**
'kidney' **ndanandum mu**
'kill' *v.* **as**, **asa-**, **atï-**, **wali-**
'kin' **nambana ankam**, **tamndï**
'kingfisher' **wombulalaw**
'knee' **wutï ambatïm**
'knife' **asiyot**, **sina**, **yawt**, **yot**
'know' *v.* **kalamp**
'knowing' **kalam**
'knowledge' **kalam**
'knowledgeable' **kalam**
'*koki*' **yopa**
'*kokomo*' **almba**
'*kongkong*' **atate**
'*kulau*' **andïmoni**
'*kumu*' **natnat**
'*kumu mosong*' **ankïn**
'*kumul*' **yamanyawi**
'*kunai*' **nipum**
'*kundu*' **nïte**
'*kwila*' **nanïm**

L – l

'lacking' *mundotoma*
'ladder' *tamben*, *wat*
'ladle' *wonglin*
'ladybug' *amam*
'lake' *inimpul*
'land' *ini*
'language' *mïtïn*, *na*
'lap' *wutï name*
'large' *ambi*
'last' *watangïn*
'later' *anganika*, *naka*
'laugh' *v. atala-*
'laughter' *atal*
'*laulau*' *eklak*
'leaf' *mïndapan*, *moma*, *wapa*
'learn' *v. sikulmakan ni-*
'leave' *v. ka-*, *laka-*
'leech' *nasalïwa*
'left' *andana*
'left-hand' *andana*
'leftovers' *utïl*
'leg' *utï*, *wutï*
'lest' *nongut*
'let' *v. ka-*, *laka-*
'let's go!' *nol*
'lie' *awaw*
'lie' *v. lop ka-*
'lie down' *v. lop ka-*
'ligament' *ndal*
'light' *anembal*, *wiwila*
'lighter' *apïn*
'lightning' *anam*
'*limbum*' *me*
'lime' *i*
'lime gourd' *ansi*
'*lip daka*' *wanmbi wapa*
'lips' *tanum*

'liquid' ***inim***
'listen' *v.* ***kïkal wana-***
'little' ***ilum***, ***njukuta***
'little finger' ***imu watangïn***
'little toe' ***wutïmu watangïn***
'live' *v.* ***p-***, ***wap***
'liver' ***ina***
'lizard' ***nïkït***
'lizard species' ***kayanmali***, ***nangu***, ***nataw***, ***simbïli***, ***wemana***, ***womba***
'located, be' *v.* ***p-***, ***wap***
'log' ***imot***
'loincloth' ***al***
'long' ***ngaya***, ***wutota***
'look' *v.* ***lïmndï ala-***
'look at' *v.* ***lïmndï lï-***, ***lïmndï uta-***
'louse' ***mïmin***, ***sïmin***
'low' ***li***
'lower' ***li***
'lower leg' ***wutï anmot***
'lower lip' ***li tanum***
'lungs' ***woplota***

M – m

'machete' ***yawt***, ***yot***
'maggot' ***manjimanji***
'magic' ***amba***, ***ambet***, ***sawi***, ***tawi***
'maize' ***kon***
'*makau*' ***mbatmbat***
'make' *v.* ***ita-***, ***nambïnïkï-***, ***ul ni-***
'Malay apple' ***eklak***
'male' ***yata***, ***yeta***
'mallet' ***numbu motam***
'*malo*' ***al***
'mama' ***nana***
'*mami*' ***yena utam***
'man' ***itom***, ***yata***, ***yeta***
'mango' ***anïmbu***
'mantis' ***kalingana***

'many' ***nunu***, ***tïngïn***
'*marmar*' ***monam***
'*masalai*' ***sasi yena***
'mash' *v.* ***nopal u-***
'mask' ***nambana***, ***nambana mwa***
'matches' ***apïn***
'*mausgras pis*' ***may***
'may' ***ken***
'maybe' ***tap***
'me' ***nï=***
'me myself' ***nawa***, ***nuwe***
'meat' ***lam***, ***mupu***
'men's house' ***amba***
'menstruation' ***iwïl***
'mesh' ***suwan***
'message' ***na***
'mhm' ***m***
'midday' ***ane***, ***ane wombam***
'middle' ***wombam***, ***wome***
'middle finger' ***imu wome***
'middle toe' ***wutïmu wome***
'milk' ***wol mïndam***
'millipede' ***aylat***
'mind' ***ina***
'mine' ***nïnji***
'mix of betel nut' ***ansi***
'molar' ***kat ambla***
'mold' ***momul***
'*mon*' ***amla***
'money' ***ata monam mu***, ***inamba***, ***palapal***, ***wombasa anga***
'month' ***iwïl***
'moon' ***iwïl***, ***yawïl***
'*moran*' ***anïmasi***
'moreover' ***maweka***, ***moweka***
'morning' ***umbenam***
'*morota*' ***ila***
'mosquito' ***yangun***
'mosquito bite' ***mu***
'mosquito net' ***al***

'mosquito-swatter' ***tongan***
'mosquitofish' ***upa***
'mother' ***inom***, ***nana***
'motorboat' ***anaw***
'mound' ***yïwa***
'mountain' ***inkaw***
'mouth' ***mama***, ***tanum***
'mouth harp' ***sinangul***
'much' ***ambi***
'mucus' ***nïmïn***
'mud' ***mutulum***
'*mumut*' ***wondi***
'*muruk*' ***kalim***
'muscle' ***lam***
'mushroom' ***wanwane***
'must' ***mas***
'my' ***nïnji***
'my own' ***ambïnji***
'myself' ***ambawa=***, ***ambï=***, ***ambuwe***

N – n

'nah' ***asa***
'nail' ***sinanan***
'name' ***wi***
'nape' ***tumbunma***
'narrow' ***njukuta***
'navel' ***unet***
'near' ***kana***, ***kanam***, ***nu***
'neck' ***tumbunma***, ***um***
'needle' ***uma***
'nephew' ***ansi nungol***
'nest' ***kïka***, ***nim***, ***wawal***
'net' ***al***, ***ngin***
'net bag' ***ani***
'nettle' ***amendum***, ***mamnda***, ***yangusole***
'new' ***akïnaka***
'next day' ***wop***
'next of kin' ***tamndï***

'next to' **kana**, **kanam**
'nibling' **ansi nungol**
'nice' **anma**
'niece' **ansi nungol**, **ansi yanat**
'night' **imba**
'*nilpis*' **lanjin**
'nine' **angay kwe watangïnila ndïwon ndïwatlïp**
'nineteen' **angay lele watangïnila ndïwon ndïwatlïp**
'ninety' **ankam unduwan nali watangïnila**
'nipple' **wolmu**
'no' **ango**, **ase**, **nongat**
'none' **ulwa**
'noon' **ane wombam**
'nose' **ip**
'nosering' **asïmïna**
'not' **ango**
'nothing' **ulwa**
'now' **amun**
'nowadays' **amun**
'nut' **mu**
'nut species' **kawa**, **lamban**, **wambïn**

O – o

'occipital bone' **akunpu**
'ocean' **angumoni nïmal**
'odor' **nambït**
'official' **inangïnmana**
'often' **nunu ika**
'OK' **ande**, **andi**, **oke**
'okari nut' **un**
'okay' **ande**, **andi**, **oke**
'old' **wapata**
'old man' **itom ngata**
'old person' **ngata**
'old woman' **inom ngata**
'older brother' **atuma**
'older sister' **atana**
'*olsem*' **ka**, **maka**, **mïka**

'on' **ka**
'on account of' **nakap**, **nap**
'one' **kwa**, **kwe**
'one another' **ambla=**
'one by one' **kekaka**, **kwekaka**
'one each' **kekaka**, **kwekaka**
'one hundred' **uta**, **uta kwe**
'only' **we**
'onto' **wat**
'ooh' **u**
'opening' **mwa**
'or' **o**
'orange' **tondiway**
'orchid' **wokomana**
'other' **kwa**
'our' **anji**, **nganji**, **ngunanji**, **unanji**
'our own' **ambinji**, **amblanji**
'ours' **anji**, **nganji**, **ngunanji**, **unanji**
'ourselves' **ambin=**, **mbinawa**, **ambinwe**, **ambla=**, **amblawa**, **amblawe**
'out' **an**
'outboard motor' **anaw**
'outhouse' **tumbu itïm**
'outside' **anmbï**
'over' **wan**
'ow' **ay**
'owl' **mamwapa**
'own' **wo**
'owner' **tamndï**

P – p

'Pacific walnut' **amla**
'package' **muku**
'packet' **muku**
'paddle' **anaw**
'pain' **apïn**
'palm' **anduwan**, **mukuwi**, **ulum**, **wepal**
'palm flower' **nambana**
'palm frond' **akïnanga**, **isi**, **wema**

'palm of the hand' *i mwa*, *yombam*
'palm species' *me*, *mbïlanda*, *ndukumbu*
'palm stem' *me*
'pan' *wombasa*
'pancake' *we*
'pandanus' *ndïl*
'*pandol*' *nisi*
'*pangal*' *isi*, *wema*
'panpipes' *wusimi*
'papa' *tata*
'papaya' *popo*
'paper' *mïndapan*
'parasite' *ana*
'parrot' *ane uta*, *awalawa*, *langay*, *moni*
'pass' *v. klop-*
'path' *tïlwa*
'patrol officer' *wanwane*
'pause' *v. wulïn u-*
'peace' *yopa*
'peak' *ka*
'peel' *v. nambuwe u-*, *ulo-*
'penis' *ansi*, *won*
'penis gourd' *ansi*
'pepper' *kumblima*, *nakam*, *nganangan*, *wanmbi*
'perceive' *v. wana-*
'perch' *lanjin*
'perfume' *yanïmana*
'person' *ankam*
'perspiration' *apïn inim*
'phlegm' *utan*
'pick' *v. ango-*
'pick-axe' *anasa*
'piece' *anga*, *at*, *ilum*, *pul*
'piece of wood' *impul*
'pig' *lamndu*, *namndu*
'pigeon' *membul walimot*
'pile' *tumopa*
'pile' *v. kuk u-*
'pimple' *andïpipi*

'pinky finger' ***imu watangïn***
'pinky toe' ***wutïmu watangïn***
'pith' ***ulum***
'pitiful' ***ngusuwa***
'*pitpit*' ***palam***
'place' ***luwa***, ***pul***
'plane' ***mbalus***
'planet' ***mbomala***
'plant species' ***amendum***, ***anem***, ***law***, ***lindïn***, ***mamnda***, ***moniwot***, ***mungul***, ***namle***, ***netïl***, ***ngungun***, ***tondiway***, ***waenkïn***, ***wawana***, ***wokomana***, ***yangusole***, ***yanïmana***
'plant' *v.* ***lapa-***
'plate' ***uta***, ***wuta***
'platform' ***sakla***, ***wulis***
'play' ***tïnum***
'play' *v.* ***sini-***
'please' ***kop***
'pointlessly' ***woyambïn***
'poison' ***ambet***
'police officer' ***wanwane***
'pond' ***inimpul***
'poor' ***ngusuwa***, ***tembi***
'poor thing' ***mangusuwa***, ***mangusuwata***
'poor things' ***mingusuwa***, ***mingusuwata***, ***ndïngusuwa***, ***ndïngusuwata***
'porch' ***apa mot***
'possum' ***ngwimakan***, ***tïponïm***
'post' ***anmot***, ***numbu***
'pot' ***kukumbe***, ***samban***, ***sïmbïn***, ***wemali***, ***wewun***, ***wombasa***
'pouch' ***ame***
'pour' *v.* ***tomal u-***
'pray' *v.* ***isi monombam u-***
'precede' *v.* ***ip ka-***
'prepare' *v.* ***nïka-***, ***nïkï-***, ***nka-***, ***nkï-***
'pressure' *v.* ***ul ni-***
'problem' ***kenmbu***
'pull' *v.* ***angom lï-***
'pull out' *v.* ***ango-***, ***angom lï-***
'pulp' ***mupu***
'pupil' ***lïmndï mu***

'purple' **anem**
'*purpur*' **ana**, **moniwot**
'pus' **mïndam**
'push' *v.* **s**, **si-**
'put' *v.* **atalï-**, **aw**, **l**, **lï-**, **lumo-**, **u-**, **umo-**
'put in' *v.* **inu-**
'put up' *v.* **atalï-**
'python' **anïmasi**

Q – q

'question' **atwana**
'quickly' **mbuka**
'quiet' **andïl**

R – r

'rack' **suwan**
'raft' **wulis**
'rain' **inim**
'rain tree' **monam**
'rain' *v.* **lopo-**
'rainbow' **anem nambum**
'rainbow fish' **wowaw**
'rainy season' **inim**
'rash' **yambola**
'rat species' **matlaka**, **mblandu**, **wala**
'rattan' **le**
'raw' **akïnaka**
'really' **apka**
'rear' **angani**, **unmbï**
'reason' **na**
'recently' **amun**
'red' **ngungun**
'red ant' **ngungun**
'*red buai*' **ansi**
'reeds' **awindal**
'refuse' **imbïn**, **utïl**
'regularly' **nunu ika**

'relax' *v.* ***wulïn u-***
'reside' *v.* ***p-***, ***wap***
'rest' *v.* ***wulïn u-***
'ribs' ***wal***
'rice' ***asimu***
'right' ***inapum***, ***maw***
'right-hand' ***inapum***
'ring' ***asïmïna***, ***mungun***
'ring finger' ***imu law***
'ringworm' ***akal***
'ripe' ***mïnwata***
'rites' ***sasi***
'river' ***nïmal***
'river snail' ***manana***
'riverbank' ***ika***
'road' ***tïlwa***
'rock' ***tana***
'roof' ***apaka***
'root' ***ilu***, ***tïmal***
'*rop daka*' ***wanmbi mutam***
'rope' ***nïpïl***
'rotten' ***mïnwata***
'rotting' ***alata***, ***mïnap***, ***mïnwata***
'round' ***wopaw***
'rub' *v.* ***uta-***
'rubbish' ***itïm***, ***umba***
'run' *v.* ***imbam ka-***

S – s

'sago' ***ay***
'sago flour' ***we***
'sago jelly' ***ay***, ***aypul***
'sago palm' ***anduwan***, ***mukuwi***, ***ulum***, ***wepal***
'sago pancake' ***we***
'sago pith' ***ulum***
'sago shoot' ***andï***, ***wan***
'sago species' ***alaman***, ***inimndum***, ***kukumbe***, ***mïnkïn ulum***, ***nïndiwe***, ***nïnil***,
    nowe, ***tambïn ulum***

'sago starch' *we*
'sago stick' *aymoma*
'sago strainer' *yawa*
'*salat*' *amendum*, *mamnda*, *yangusole*
'saliva' *sawi*
'salt' *isi*
'sand' *tana isi*
'sap' *im kal*
'sated' *monop*
'say' *v. ka-*, *kï-*, *t*, *ta-*
'scab' *tawatal*
'scabies' *yambola*
'scale' *wowaw*
'scalp' *unduwan nambï*
'scar' *mbun*
'scared' *namna*
'scared, be' *v. namnap*
'scarf' *ayna*
'school' *sikul*
'scissors' *nangïn*
'scoop' *aypul*
'scoop' *v. uta-*
'scorpion' *alsa*
'scrape' *v. ale-*
'scratch' *v. ana-*
'scrotum' *mïtïn ame*
'scrub' *v. ana-*
'sea' *angumoni nïmal*
'second toe' *wutïmu ankam*
'see' *v. lïmndï ala-*
'seed' *mu*
'seed species' *awame*
'seedling' *nangum*
'seek' *v. andïlalo-*, *anglalo-*
'segment' *wawat*
'semen' *won inim*
'send' *v. kali lï-*
'sense' *v. wana-*
'seven' *angay kwe nini minwon ndïwatlïp*

'seventeen' **angay lele nini minwon ndïwatlïp**
'seventy' **ankam unduwan nali nini**
'sew' *v.* **me-**
'shade' **ndande**
'shadow' **ndande**
'shaft' **yokam**
'sharp' **kïkalsina**, **matamal**
'she' **mï**
'she is the one' **mïnam**
'sheet' **al nambï**
'shelf' **aplatam**, **apot**
'shell' **palapal**, **tïl**, **uta**, **wokomana**, **wuta**
'shield' **wanam**
'shin' **wutï anmot**
'shoe' **yakam**
'shoot' **andï**, **nangum**, **pal**, **pat**, **wan**
'shoot' *v.* **as**, **asa-**, **atï-**, **wali-**
'short' **mundotoma**
'should' **mas**
'shoulder' **awi**
'shout' *v.* **uni-**
'shovel' **mae**
'show' *v.* **=n ul si-**
'shun' *v.* **kamb-**
'sibling' **wot**
'sick' **tembi**
'sickness' **tembi**
'side' **anga**, **awi**, **wanam**
'*sikau*' **wakan**
'simply' **ko**, **kop**, **kwa**, **wa**
'sing' *v.* **kawni-**
'Singapore taro' **atate**
'*singsing*' **kaw**
'sister' **anapa**, **atana**, **wot yana**, **wot yena**
'sister-in-law' **atuma inga yena**, **inga yena**, **wot inga yena**
'sit' *v.* **asi ka-**
'sit down' *v.* **asi ka-**
'six' **angay kwe kwe mowon ndïwatlïp**
'sixteen' **angay lele kwe mowon ndïwatlïp**

'sixty' ***ankam unduwan nali***
'skin' ***nambï***
'skirt' ***al***, ***ana***, ***anapot***, ***wopana***
'skull' ***akunpu***
'sky' ***anam***
'sleep' *v.* ***lowo-***, ***wo-***, ***wow***
'slit drum' ***numbu***
'slow' ***andïl***
'small' ***njukuta***, ***tïke***
'smart' ***anma***
'smell' ***nambït***
'smell' *v.* ***nambït wana-***
'smoke' ***apïn ngïn***
'smoke' *v.* ***ama-***, ***la-***, ***mondo-***
'smooth' ***namli***
'snail species' ***manana***
'snake' ***anmoka***
'snake species' ***anïmasi***, ***malalïwa***, ***mïnal anmoka***, ***ngum***, ***yoma***
'sneeze' ***asïmïna***
'sniff' *v.* ***nambït wana-***
'snore' ***ip nonal***
'soft' ***namli***
'soil' ***ini***
'sole of the foot' ***wutï yombam***
'some' ***kuma***
'someone' ***kwa***
'something' ***nji***
'son' ***nungol***, ***nungolke***, ***yatalum***, ***yetalum***
'song' ***kaw***
'soon' ***anganika***, ***naka***
'sore' ***tawa***
'soup' ***isi***
'spade' ***lemta***, ***mae***
'speak' *v.* ***ka-***, ***kï-***, ***t***, ***ta-***
'spear' ***lungum***, ***mana***, ***nap***
'speech' ***mïnja***, ***na***
'spider' ***ingwa***
'spider web' ***lingïnane***
'spine' ***anangum***, ***mutoma***, ***nali***, ***nin***

'spirit house' ***amba***
'spirit mask' ***nambana***
'spirit, type of' ***inimnji***, ***metmet***, ***molpan***, ***nambana***, ***sasi yena***, ***yambalpa***
'spit' ***sawi***
'spit' *v.* ***ngom lï-***
'splinter' ***mi***
'split' *v.* ***kol-***
'spoiled' ***mïnwata***
'spoon' ***ametamal***
'sprout' ***tangam***
'squeeze' *v.* ***mïmïl u-***
'stab' *v.* ***as***, ***asa-***, ***atï-***, ***wali-***
'stalk' ***sina***, ***wan***
'stand' ***nom***
'stand' *v.* ***tane lï-***, ***tïnanga-***
'stand up' *v.* ***tane lï-***
'star' ***nali***, ***mbomala***
'starch' ***we***
'statuette' ***molombi***
'stay' *v.* ***p-***, ***wap***
'steal' *v.* ***mokum moko-***
'stealth' ***mokum***
'step' ***awlu***
'steps' ***wat***
'sternum' ***tambeta***
'stick' ***anïm***, ***aymoma im nali***, ***manangum***, ***motam***
'still' ***amun***
'stinger' ***ambla***
'stinging nettle' ***amendum***, ***mamnda***, ***yangusole***
'stomach' ***umbopa***
'stone' ***tana***
'stone axe' ***tanatmu***
'story' ***misimisi***, ***na***
'stove' ***twa***
'straight' ***anma***
'strain' *v.* ***mïmïl u-***
'strainer' ***imnde***, ***yawa***
'strand' ***mi***
'stranger' ***mbalanji***

'strap' ***mïnïm***, ***wam***
'strap of a bag' ***mïnïm***
'stretcher' ***sakla***
'string' ***asiya***
'string bag' ***ani***, ***ayna***
'strong' ***yangle***
'suck' *v.* ***ama-***, ***la-***
'sucker' ***nungum***
'suffice' *v.* ***nakamb-***
'sugar' ***mil***
'sugar glider' ***yawïn***
'sugarcane' ***mil***
'summon' *v.* ***wanawni-***
'sun' ***ane***
'swamp' ***apïnal***, ***mïka itïm***
'swatter' ***tongan***
'sweat' ***apïn inim***
'sweep' *v.* ***pop lï-***
'sweet' ***yangïmot***
'sweet potato' ***nongontam***
'swell' *v.* ***wo-***
'swelling' ***angumoni***
'swim' *v.* ***inim mo ma-***
'sword grass' ***nipum***

T – t

'table' ***aplatam***
'tadpole' ***wolname***
'tail' ***anaw***, ***angun***
'tail feather' ***tal***
'take' *v.* ***moko-***, ***t***, ***tï-***
'take one-by-one' *v.* ***moko-***
'*talis*' ***un***
'talk' ***na***
'talk' *v.* ***ka-***, ***kï-***, ***t***, ***ta-***
'tall' ***wutota***
'tall ginger' ***mïli***
'*tambu*' ***inga***

'*tanget*' **law**
'*tarangau*' **amangala**, **awsingïn**
'*target*' **unda**
'taro' **mïnal**
'taro species' **ulumbi**
'task' **wombïn**
'taste' *v.* **wana-**
'tasty' **yangïmot**
'tattoo' **mak**
'teach' *v.* **=n =n kalam me-**
'tear' **lïmndï inim**, **sal**
'teardrop' **lïmndï inim**, **sal**
'tell' *v.* **ka-**, **kï-**, **t-**, **ta-**
'temple' **kïkal indam**
'ten' **angay nini**, **nali**
'tendon' **ndal**
'termite' **kïka**
'testicle' **mïtïn**
'thank you' **nïnji anma**
'thanks' **nïnji anma**
'that' **anda**, **anda=**, **nda**, **nda=**
'that is it' **andanam**
'that itself' **andawa**, **andawe**
'that one's' **andanji**
'that's it' **mawnam**
'thatch' **ila**
'their' **minji**, **ndïnji**
'their own' **ambinji**, **amblanji**
'theirs' **minji**, **ndïnji**
'them' **min=**, **mini=**, **ndï=**
'them two' **min=**, **mini=**
'themselves' **ambin=**, **ambinawa**, **ambinwe**, **ambla=**, **amblawa**, **amblawe**,
   minawa, **minwe**, **ndawa**, **nduwe**
'then' **we**
'thence' **ando**
'there' **anda**, **ando**
'these' **ngala**, **ngala=**, **ngin**, **ngin=**
'these ones'' **ngalanji**, **nginji**
'these themselves' **ngalawa**, **ngalawe**, **nginawa**, **nginwe**

'these two' ***ngin***, ***ngin***=
'they' ***min***, ***ndin***, ***ndï***
'they are the ones' ***ndïnam***
'they two' ***ndin***, ***min***
'thick' ***palmana***
'thigh' ***wutï name***
'thin' ***njukuta***
'thing' ***nji***
'think' *v.* ***inakawana***-, ***ka***-, ***kï***-, ***t***, ***ta***-, ***wana***-
'thirteen' ***angay nini lele ndïwon ndïwatlïp***, ***nali kwe lele***
'thirty' ***nali lele***
'this' ***nga***, ***nga***=
'this is it' ***ngam***
'this itself' ***ngawa***, ***ngawe***
'this one's' ***nganji***
'thither' ***anda***
'thorn' ***nap***, ***nin***
'those' ***ala***, ***ala***=, ***andin***, ***andin***=, ***la***, ***la***=, ***ndin***, ***ndin***=
'those ones'' ***alanji***, ***andinji***
'those themselves' ***alawa***, ***alawe***, ***andinawa***, ***andinwe***
'those two' ***andin***, ***andin***=, ***ndin***, ***ndin***=
'thought' ***na***
'thread' ***asiya***
'three' ***lele***
'three hundred' ***uta lele***
'throat' ***aninokam***, ***mota***
'throw' *v.* ***kïke u***-, ***kuli lï***-, ***mune u***-, ***top lï***-
'thumb' ***imu unduwan***
'thunder' ***anam wapata***
'thus' ***ka***, ***maka***, ***mïka***
'ti plant' ***law***
'tie' *v.* ***ita***-, ***mop lï***-
'*tiktik*' ***awindal***
'tilapia' ***mbatmbat***
'time' ***nunu***, ***tem***
'tinea' ***akal***
'tip' ***ana***, ***mu***
'to' ***iya***
'to here' ***mbï***

'to there' **anda**
'tobacco' **sokoy**
'tobacco species' **way sokoy**
'today' **amun**
'toe' **wutïmu**
'toenail' **wutï sinanan**
'toilet' **tumbu itïm**
'*tokples*' **mïtïn**
'tomorrow' **umbe**
'*ton*' **lemetam**
'tongs' **apïn nangïn**, **nangïn**, **we nangïn**
'tongue' **mïnïm**
'too' **luke**
'tooth' **ambla**
'top' **wat**
'top of the foot' **wutï mutam**
'torch' **anenisi**
'toward' **iya**
'track' **tïlwa**
'trail' **tïlwa**
'trap' **asiya**, **iwa**, **ngin**, **tukul**
'trash' **itïm**, **umba**
'treaty' **yopa**
'tree' **im**
'tree species' **amla**, **awe**, **awnaka**, **eklak**, **lemetam**, **masamasa**, **mïka**, **monam**, **mutam**, **nanïm**, **nokosam**, **numbu**, **un**, **uwe**, **wasi**, **womba**, **yambi**
'tree spirit' **molpan**
'true' **anma**
'trunk' **wome**
'*tulip*' **anmopa**
'turn' *v.* **tïkli ka-**
'turn around' *v.* **tïkli ka-**
'turtle' **way**
'tusk' **wonmbi**
'twelve' **angay nini nini minwon ndïwatlïp**, **nali kwe nini**
'twenty' **angay watangïnila**, **lamndu unduwan**, **nali nini**
'twenty-five' **angay angay**, **nali nini angay**
'two' **nini**
'two hundred' **uta nini**

U – u

'uh' *a*
'uh-uh' *mm*
'umbilical cord' *unet*
'uncle' *itom*, *itom ambi*, *itom atuma*, *itom wot*, *ngata yawa*, *yawa*, *yawa ambi*, *yawa atuma*, *yawa wot*
'under' *imbam*
'unite' *v. kuk u-*
'unwrap' *v. kanaka lumo-*
'up' *ata*
'upper' *ata*
'upper arm' *i name*
'upper leg' *wutï name*
'upper lip' *ata tanum*
'uproot' *v. angom lï-*
'upstream' *ata*
'upward' *ata*
'urine' *minam*
'us' *an=*, *ngan=*, *ngunan=*, *unan=*
'us ourselves' *anawa*, *anwe*, *nganawa*, *nganwe*, *ngunanawa*, *ngunanwe*, *unanawa*, *unanwe*
'us two' *ngan=*, *ngunan=*
'uterus' *ame*

V – v

'vagina' *inmbï*
'various' *nunu*
'vegetable' *natnat*
'vegetable species' *anat*, *ankïn*, *anmopa*, *mambun*, *mïli*, *wandana*, *yomal*, *yomba*
'vegetables' *natnat*
'vein' *ndal*
'venom' *tawi*
'veranda' *apa mot*
'very' *apka*
'very own' *wo*
'village' *wa*

'vine' ***nïpïl***
'vine species' ***angïn***
'vital spot' ***unda***
'vomit' *v.* ***nongan u-***
'vomitus' ***nongan***
'vulva' ***inmbï***, ***iwïl***

W – w

'waist' ***inapaw***
'waist skirt' ***wopana***
'waiting for' ***andïla***, ***angla***
'walk' *v.* ***inda-***
'wall' ***apa nambï***
'wallaby' ***wakan***
'warm' ***wananum***
'wart' ***lemum***
'was' ***wap***
'wash' *v.* ***lopo-***
'wasp' ***numbunum***
'watch' *v.* ***lïmndï ala-***, ***lïmndï lï-***
'water' ***inim***
'water spirit' ***inimnji***
'way' ***i***
'we' ***an***, ***ngan***, ***nguna***, ***ngunan***, ***una***, ***unan***
'we ourselves' ***anawa***, ***anwe***, ***nganawa***, ***nganwe***, ***ngunanawa***, ***ngunanwe***, ***unanawa***, ***unanwe***
'we two' ***ngan***, ***nguna***, ***ngunan***
'weave' *v.* ***ula-***
'web' ***lingïnane***
'weep' *v.* ***sa-***
'*wel daka*' ***nakam wanmbi***
'well' ***anma***
'wet' ***mïnwata***
'wet season' ***inim***
'what?' ***angos***
'what's the matter?' ***anjikaka***
'whatchamacallit' ***mïngamata***
'whatever' ***angos***, ***angos nji***

'whatsoever' ***angos***
'when' ***tem***
'when?' ***ango tem***
'whenever' ***tem***
'where?' ***ango***, ***ango luwa***
'which?' ***ango***
'whirlwind' ***ngungun***
'white' ***waembïl***
'white ant' ***kïka***
'white hair' ***monkin***
'white person' ***waembïl ankam***
'white spot' ***nataw***
'who?' ***kuma***, ***kwa***
'whole' ***wopa***
'whose?' ***kumanji***, ***kwanji***
'why?' ***angwena***
'wide' ***palmana***
'wife' ***yana***, ***yananu***, ***yena***, ***yenanu***
'wild betel pepper' ***nakam wanmbi***
'wild taro' ***ulumbi***
'wildfowl species' ***kuman***, ***yokomakan***
'wildfowl egg' ***yokomtïn***
'will' ***mbay***
'wind' ***nonal***
'window' ***mwa***
'windpipe' ***aninokam***
'wing' ***wapa***
'wipe' *v.* ***uta-***
'wisdom' ***kalam***
'wise' ***kalam***
'with' ***lu***, ***ul***
'within' ***in***
'without care' ***ko***, ***kop***, ***kwa***, ***wa***
'without reason' ***ko***, ***kop***, ***kwa***, ***wa***
'woman' ***inom***, ***yana***, ***yananu***, ***yena***, ***yenanu***
'wood' ***impul***
'woods' ***wandam***
'work' ***wombïn***
'work' *v.* ***wombïn ni-***

'worm' **utal**
'wound' **tawa**
'wring' *v.* **mïmïl u-**
'wrist' **yanaw**

Y – y

'yam' **utam**
'yam species' **anem**, **awïl**, **kunya**, **nambana**, **ngum**, **pawla**, **samnang**, **tambontam**, **yambisa**, **yena utam**, **yeta utam**
'yam thorn' **nap**
'yawn' **mamal**
'yay' **i**
'yeah' **iya**
'year' **inim**
'yellow' **andwana**, **ane**, **mïndit**
'yes' **iyo**
'yesterday' **awal**
'yet' **amun**
'yolk' **kalum**
'you' **ngun**, **ngun=**, **un**, **un=**, **u**, **u=**
'you poor thing' **ungusuwa**, **ungusuwata**
'you poor things' **ngungusuwa**, **ngungusuwata**, **ungusuwa**, **ungusuwata**
'you two' **ngun**, **ngun=**
'you yourself' **uwe**, **wawa**
'you yourselves' **ngunawa**, **ngunwe**, **unawa**, **unwe**
'you're welcome' **u anma**
'young' **akïnaka**, **amunji**
'young coconut' **andïmoni**
'young person' **amunji**, **nungol**, **nungolke**
'younger' **wot**
'younger brother' **wot yata**, **wot yeta**
'younger sister' **wot yana**, **wot yena**
'your' **ngunji**, **unji**
'your own' **ambinji**, **ambïnji**, **amblanji**
'yours' **ngunji**, **unji**
'yourself' **ambawa=**, **ambï=**, **ambuwe**
'yourselves' **ambin=**, **ambinawa**, **ambinwe**, **ambla=**, **amblawa**, **amblawe**

18.3 List of bound morphemes

Table 18.1 provides a list of the bound morphemes found in this grammar. Phonologically conditioned allomorphs are listed in the column labeled "allomorphs". Lexically conditioned allomorphs, however, such as irregular TAM suffixes, are given their own entries in the table. The "gloss" column shows how these bound morphemes are glossed in example sentences. More information on both the form and function of these bound morphemes can be found by following the cross-references listed in the "sections" column.

Most of these morphemes are suffixes. Suffixes may be identified as those forms that are followed by a hyphen (-). Prefixes, on the other hand, may be identified as those forms that are preceded by a hyphen (-). It should be noted, however, that the only proper prefix in Ulwa is *na-* 'DETR'. The form *la- ~ lo-* 'IRR' only occurs as part of an irregular circumfix-like marker for two verb forms; it is perhaps a fossilized form of the sole prefix *na-* 'DETR' < *la-.

Table 18.1 also contains clitics: four proclitics and two enclitics. The proclitics consist of three object markers/non-subject markers and one indefinite marker. The enclitics consist of one oblique marker and one copula. It should be noted that non-subject pronominal forms (Chapter 8) and non-subject demonstrative forms (Chapter 9) are not included in this table.

Table 18.1: Bound morphemes

form	allomorphs	gloss	description	sections
-al		PFV	perfective (irregular)	§6.3
-ambi		TOP	topic marker	§8.8
-awa		INT	intensifier	§8.6
-e	*-Ø, -ye*	IPFV	imperfective	§6.4
-e	*-ye*	DEP	dependent	§14.2.1
-en	*-n, -wen, -yen*	NMLZ	nominalizer	§5.2, §14.3.1
ko=		INDF	indefinite	§9.2
la-	*l-, lo-*	IRR	irrealis (irregular)	§6.3
-m		IRR	irrealis (irregular)	§6.3
-m		PFV	perfective (irregular)	§6.3
ma=	*m=, mo=*	3SG.OBJ	3SG non-subject	§9.2
mï=		3SG.SUBJ	3SG subject (only before *na-*)	§15.8.7
min=	*mini=*	3DU	3DU non-subject	§9.2
-n	*-na*	PFV	perfective (irregular)	§6.3
-n		IMP	imperative	§6.7, §15.2
-n		IPFV	imperfective (irregular)	§6.3
=n	*=ïn, =nï*	OBL	oblique	§13.4.1
-na	*-nda*	IRR	irrealis	§6.2, §6.6
na-	*n-*	DETR	detransitivizer	§15.8.2
-nam		EMPH	emphatic	§8.7
ndï=	*nd=*	3PL	3PL non-subject	§9.2
-nji		POSS	possessive	§8.2, §11.1.5
=o	*=wo*	VOC	vocative	§10.3.3
-p	*-ap, -ïp, -op*	PFV	perfective	§6.5, §6.8
=p		COP	copula	§12.3
-t		SPEC	speculative	§6.11, §15.2.4
-ta		COND	conditional	§6.11, §15.5
-we		PART.INT	partitive intensifier	§8.6

19 Texts

This chapter contains three Ulwa texts: *Way Inom* ('The Mother of the Turtle', §19.1), *Amblom Yena* ('The Woman Amblom', §19.2), and *Anmoka* ('Snakes', §19.3). The versions of the texts included here are all based on recordings that I have collected in Manu village. These recordings can all be found online in the collections of the Endangered Languages Archive (ELAR):

http://hdl.handle.net/2196/00-0000-0000-000F-CB61-A

The transcriptions in this chapter have been made in the practical phonemic orthography that is used throughout the book. Minor speech errors and non-linguistic vocalizations such as coughs have not been included in these clean versions. The translations are meant to be fairly literal, while still capturing the spirit of the stories being told. Where it is thought helpful, footnotes are included to explicate relevant cultural information, clarify aspects of the narrative, or indicate words borrowed from Tok Pisin.

19.1 *Way Inom* ('The Mother of the Turtle')

This is a traditional story told by Ayndin Bram on 16 November 2016, at his home in Manu village. Examples from this text that appear elsewhere in this book are labeled "ulwa006_mm:ss". The audio recording can be found on the ELAR website (file name: ulwa006.wav). It is about eight-and-a-half minutes long (08:40).

The story is an etiology of sea turtles. The Ulwa people live at a considerable remove from the ocean and may not have had much direct familiarity with the ocean traditionally. That said, there must have been a long history of trade routes leading to the sea and its contents. For example, the lime (calcium hydroxide) used in chewing betel nut is produced from seashells.

The story runs roughly as follows: A woman lives alone with her son. Every morning she goes out on the river with him in her canoe to check her fish traps. One day she finds a small turtle caught in a trap. The boy becomes fond of the turtle and keeps it as a pet. He feeds fish to the turtle, and it grows bigger and

bigger. One day, however, an eagle swoops down and snatches both the boy and his turtle. It carries them far away, ultimately dropping them on the top of a sago palm. With no way down, the two live together in a crevice at the top of the palm. The turtle continues to grow and grow. Once it has become rather large, it begins testing its strength, climbing up and down the stalk of the palm with pieces of wood on its shell. When it gets strong enough, it climbs down the palm, uproots a house from a village, and carries it off. It goes back up the palm to fetch its owner, carries him down, and puts him in the house. The turtle then goes off to find a wife for its owner, who is by now a grown man. It picks up a young woman fast asleep and carries her back to the owner in his new house. The man and woman live together with the turtle and have children of their own. The children grow up, but the man never tells them about the special nature of this turtle. One day, one of his sons shoots an arrow at the turtle, hitting it in the eye. The turtle decides to leave the family forever, running off to the sea, where it can still be seen to this day as the giant sea turtle.

(1) *Way inom.*
     way   inom
     turtle mother
     'The mother of the turtle.'[1]

(2) *Way ango ambi me.*
     way   ango ambi me
     turtle NEG big   NEG
     'The turtle wasn't big.'

(3) *Njukuta ndoy.*
     njukuta anda=o
     small   SG.DIST=VOC
     'It was small!'

(4) *Inom mï –*
     inom   mï
     mother 3SG.SUBJ
     'A woman –'

---

[1]This is something like a title to the story. This is a story about the 'mother' of the turtle since it explains the origin of the (sea) turtle.

(5) *Inom mï wa unde iwa lan inim andawe.*
    inom   mï   wa unda-e iwa   ala=n   inim
    mother 3SG.SUBJ just go-DEP basket PL.DIST=OBL water
    anda=aw-e
    SG.DIST=put.IPFV-DEP

    'A woman used to just go around, setting fish traps[2] in the water.'

(6) *Iwa lan inim andawe umbenam unde ndi we ndin u kundan nïmban
    ndïwale ndïkuk nji awe.*
    iwa   ala-n   inim anda=aw-e   umbenam unda-e
    basket PL.DIST=OBL water SG.DIST=put.IPFV-DEP morning   3PL=go.PFV
    ndï=i   we ndï=in u   kundan nïmban   ndï=wali-e ndï=kuk
    go-DEP then 3PL=in from eel   fish.species 3PL=hit-DEP 3PL=gather
    nji   aw-e
    thing put.IPFV-DEP

    '[She] would put fish traps in the water, go to them in the morning, and
    then, from within them, kill eels and fish[3] and gather them into
    something [i.e., a basket].'

(7) *Ndïkuk nji awe mï wolka i ndïn up.*
    ndï=kuk   nji   aw-e   mï   wolka i   ndï=n   u-p
    3PL=gather thing put.IPFV-DEP 3SG.SUBJ again go.PFV 3PL=OBL put-PFV

    'After gathering them into something, she again went and set them.'

(8) *Iye wolka i ndïkukaw.*
    i-e   wolka i   ndï=kuk-aw
    go.PFV-DEP again go.PFV 3PL=gather-put.IPFV

    'Having gone, [she] again went and gathered them [= the fish].'

(9) *Ndi we iye way nungol kotïn.*
    ndï=i   we i-e   way   nungol ko=tï-n
    3PL=go.PFV then go.PFV-DEP turtle child   INDF=take-PFV

    '[She] went to them, and having gone, [she] caught a little turtle.'[4]

---

[2]The *iwa* basket (here translated as 'fish trap') is a traditional basket woven from sago fronds;
it is shaped like a vase (or funnel) and is used to catch fish in the river overnight as they swim
into the wide mouth and get trapped at the other end of the basket.

[3]The speaker refers to *nïmban*, an unidentified fish species. This form might actually reflect the
generic Proto-West Keram word for fish (cf. Pondi *kimbe* 'fish', with which it is cognate).

[4]Literally a 'child turtle'.

(10) *Way nungol mï iwa mene.*
    way   nungol mï   iwa   ma=in-e
    turtle child   3SG.SUBJ basket 3SG.OBJ=in-IPFV
    'The little turtle was in the trap.'

(11) *Manji nungol mat ambïn num malïp.*
    ma-nji   nungol ma=tï   ambï=n   num ma=lï-p
    3SG.OBJ-POSS child   3SG.OBJ=take SG.REFL=OBL canoe 3SG.OBJ=put-PFV
    '[She] got her child and put [him] in her canoe.'[5]

(12) *Alum ulwap numan ulwapeno.*
    alum ulwa=p   numan   ulwa=p-en=o
    child nothing=COP husband nothing=COP-NMLZ=VOC
    '[She] didn't have a child[6] – didn't have a husband.'

(13) *Mawe awa iyen.*
    ma-we   awa i-en
    3SG.OBJ-PART.INT INT go.PFV-NMLZ
    'She herself used to go out alone.'

(14) *Yanat matï nungol matï ambïn num malïp.*
    yanat   ma=tï   nungol ma=tï   ambï=n   num
    daughter 3SG.OBJ=take child   3SG.OBJ=take SG.REFL=OBL canoe
    ma=lï-p
    3SG.OBJ=put-PFV
    '[She] put her daughter[7] – her son into her canoe.'

(15) *Wolka mol i iwa ndi we iye way mï matïne matï nungol manane.*
    wolka ma=ul   i   iwa   ndï=i   we i-e   way
    again 3SG.OBJ=with go.PFV basket 3PL=go.PFV then go.PFV-DEP turtle
    mï   ma=tï-n-e   ma=tï   nungol
    3SG.SUBJ 3SG.OBJ=take-PFV-DEP 3SG.OBJ=take child
    ma=na-n-e
    3SG.OBJ=give-PFV-DEP
    '[She] in turn went with him, went to the fish traps and then, having gone – the turtle – when [she] got it, [she] gave it to her son.'

---

[5]Here the story backs up to what the woman had done before catching the turtle in her trap.
[6]The speaker makes a mistake ('child') but corrects it ('husband').
[7]The speaker makes another mistake ('daughter') but again corrects it ('child/son').

(16) *Nungol mï ikali mas mat uta ndenlïp.*
       nungol mï   i-kali   ma=si   ma=tï   uta
       child   3sg.subj hand-send 3sg.obj=push 3sg.obj=take shell
       anda=in-lï-p
       sg.dist=in-put-pfv
       'The son grabbed it and put it in a [coconut] shell.'

(17) *Mat uta ndalp mala unde.*
       ma=tï   uta anda=lï-p   ma=ala   unda-e
       3sg.obj=take shell sg.dist=put-pfv 3sg.obj=for go-ipfv
       '[He] put it in the shell and started going around for the sake of it.'[8]

(18) *Mala wambana mïnwata ndïmoke manane.*
       ma=ala   wambana mïnwata ndï=moko-e   ma=na-n-e
       3sg.obj=for fish   rotten   3pl=take-dep 3sg.obj=give-pfv-dep
       'For the sake of it, [he] gave rotten fish to it.'

(19) *Mï ndame nay nay.*
       mï   ndï=ama-e   na-i   na-i
       3sg.subj 3pl=eat-dep detr-go.pfv detr-go.pfv
       'It ate them for quite some time.'

(20) *Way mï nay ambi nap.*
       way mï   na-i   ambi na-p
       turtle 3sg.subj detr-go.pfv big   detr-be
       'And the turtle went and got big.'

(21) *Inom mï mol nay.*
       inom   mï   ma=ul   na-i
       mother 3sg.subj 3sg.obj=with detr-go.pfv
       'The mother went with him [= her son].'

(22) *Inom mol iyen mambi nungol mï ambi nap.*
       inom   ma=ul   i-en   ma-ambi   nungol mï   ambi
       mother 3sg.obj=with go.pfv-nmlz 3sg.obj-top child   3sg.subj big
       na-p
       detr-be
       'And as for the mother who went around with him, [her] son got big.'

---

[8]That is, the boy started going around the river to look for food for his pet turtle.

(23) *Ambi nape way mï luke ambi nap.*
    ambi na-p-e   way mï   luke ambi na-p
    big   DETR-be-DEP turtle 3SG.SUBJ too big   DETR-be
    '[He] got big and the turtle got big, too.'

(24) *Ambi nape nogat!*
    ambi na-p-e   nogat
    big   DETR-be-DEP no
    '[It] got big, but no!'[9]

(25) *Wolka wop mol iye nogat!*
    wolka wo-p   ma=ul   i-e   nogat
    again sleep-PFV 3SG.OBJ=with go.PFV-DEP no
    'Again, the next day,[10] [the mother] went with him [= the son], but no!'[11]

(26) *Mï ikali way nungol man uta mol si.*
    mï   i-kali   way nungol ma=n   uta ma=ul   si
    3SG.SUBJ hand-send turtle child   3SG.OBJ=OBL shell 3SG.OBJ=with push
    'He held the little turtle with the [coconut] shell.'

(27) *Amangala nda kwa i wapa li ka i.*
    amangala anda   kwa i   wapa li   ka i
    eagle   SG.DIST just go.PFV wing down let go.PFV
    'But an eagle[12] just came, came with [its] wings pointing down.'

(28) *Kwa mangusuwa –*
    kwa ma-ngusuwa
    just 3SG.OBJ-poor
    'Just, the poor thing –'

(29) *Num mo nungol man kwa way mol tïn.*
    num ma=u   nungol ma=n   kwa way ma=ul
    canoe 3SG.OBJ=from child   3SG.OBJ=OBL just turtle 3SG.OBJ=with
    tï-n
    take-PFV
    '[The eagle] got the boy with the turtle from the canoe.'

---

[9]The Tok Pisin interjection *nogat* 'no' is signaling that something bad is about to happen.
[10]Literally 'slept'.
[11]The interjection *nogat* 'no' is from Tok Pisin.
[12]A large, brown predatory bird, similar to an eagle.

(30) *Mat i matï nowe ndo malïp.*
　　　ma=tï　　　i　　　ma=tï　　　nowe　　　anda=u
　　　3SG.OBJ=take go.PFV 3SG.OBJ=take sago.species SG.DIST=from
　　　ma=lï-p
　　　3SG.OBJ=put-PFV
　　　'And [it] brought him and put him on a sago palm.'[13]

(31) *Matï nowe ndo malïpe mï mawat pe.*
　　　ma=tï　　　　　nowe　　　　anda=u　　　　ma=lï-p-e　　　　　　mï
　　　3SG.OBJ=take sago.species SG.DIST=from 3SG.OBJ=put-PFV-DEP 3SG.SUBJ
　　　ma=wat　　　　p-e
　　　3SG.OBJ=atop be-IPFV
　　　'Having put him on the sago palm, he [= the boy] stayed on top of it.'

(32) *Mï mawat pe way mat ambul inde.*
　　　mï　　　　ma=wat　　　　p-e　　　way　ma=tï　　　　ambï=ul
　　　3SG.SUBJ 3SG.OBJ=atop be-DEP turtle 3SG.OBJ=take SG.REFL=with
　　　inda-e
　　　walk-IPFV
　　　'While he was staying on top of it, [he] carried the turtle around with himself.'

(33) *Way mï nay ambi nap.*
　　　way　　mï　　　　na-i　　　　ambi　na-p
　　　turtle 3SG.SUBJ DETR-go.PFV big　　DETR-be
　　　'The turtle went and got big.'

(34) *Way mï nay ambi nape inom mï wa ma na tap ma sal sap.*
　　　way　　mï　　　　na-i　　　　ambi na-p-e　　　　inom　mï　　　　wa
　　　turtle 3SG.SUBJ DETR-go.PFV big　　DETR-be-DEP mother 3SG.SUBJ just
　　　ma　　na　ta-p　　ma　　sal　sa-p
　　　3SG.OBJ talk say-PFV 3SG.OBJ tear cry-PFV
　　　'After the turtle went and got big, the mother just spoke about him and cried about him [= the boy].'[14]

---

[13]The narrator specifies that the palm is a *nowe* palm, a large sago palm species that has no spines on its stem. In some versions of the story, the eagle wishes to remove the boy and the turtle from the river because the boy has been feeding the turtle all the fish that the eagle would otherwise hunt.

[14]Literally 'said his talk' and 'cried his tears', the second of which may be considered a cognate accusative.

(35) *Mï nay.*
    mï   na-i
    3SG.SUBJ DETR-go.PFV
    'He went.'

(36) *Ay nungol mï ulum mo mape.*
    ay nungol mï   ulum ma=u   ma=p-e
    ay child   3SG.SUBJ palm 3SG.OBJ=from 3SG.OBJ=be-IPFV
    'Ay, the child was living within [a crevice in] the sago palm.'

(37) *Way mï mo map mol mïnawap.*
    way mï   ma=u   ma=p   ma=ul
    turtle 3SG.SUBJ 3SG.OBJ=from 3SG.OBJ=be 3SG.OBJ=with
    mï=na-wap
    3SG.SUBJ=DETR-be.PST
    'The turtle was [also] within it, living with him.'

(38) *Mawap mawap way mï keka ambi ngata nap.*
    ma=wap   ma=wap   way mï   keka   ambi ngata
    3SG.OBJ=be.PST 3SG.OBJ=be.PST turtle 3SG.SUBJ completely big   grand
    na-p
    DETR-be
    '[They] stayed and stayed there, and the turtle got really huge.'

(39) *Way mï keka ambi nape imba pe mï mol awlu unum kwa men u.*
    way mï   keka   ambi na-p-e   imba p-e   mï
    turtle 3SG.SUBJ completely big   DETR-be-DEP night be-DEP 3SG.SUBJ
    ma=ul   awlu unum   kwa ma=in   u
    3SG.OBJ=with step crevice one 3SG.OBJ=in from
    'Once the turtle was really big, one night, he [= the boy] stepped out with it from within one crevice [to another].'

(40) *Awlu ato unum kwa men u lowonda mane.*
    awlu ata-u   unum kwa ma=in   u   lo-wo-nda   ma-n-e
    step up-from crevice one 3SG.OBJ=in from IRR-sleep-IRR go-IPFV-DEP
    'Having stepped up into another crevice, [he] was going to sleep [there].'

(41) *Lowonda mane way mï mala ne.*
    lo-wo-nda   ma-n-e   way mï   ma=ala   na=i
    IRR-sleep-IRR go-IPFV-DEP turtle 3SG.SUBJ 3SG.OBJ=for DETR-go.PFV
    'As [he] was going to sleep, the turtle went for his sake.'

(42) *Li ne.*
 li   na-i
 down DETR-go.PFV
 '[It] went down.'

(43) *Ulum ma nambï ka li wandam nay.*
 ulum ma   nambï ka li-i   wandam na-i
 palm 3SG.OBJ skin   on down-go.PFV jungle   DETR-go.PFV
 '[It] went down along the bark of the sago palm and went toward the
 jungle.'

(44) *Li wandam may molop.*
 li   wandam ma=i   ma=lo-p
 down jungle   3SG.OBJ=go.PFV 3SG.OBJ=go-PFV
 '[It] went down to the jungle and went around.'

(45) *Molop impul kotïn mas ambï awi lïp.*
 ma=lo-p   im-pul   ko=tï-n   ma=si   ambï
 3SG.OBJ=go-PFV wood-piece INDF=take-PFV 3SG.OBJ=push SG.REFL
 awi   lï-p
 shoulder put-PFV
 '[It] went around, got a piece of wood, and put it on its shoulder.'

(46) *Mas ato ambï mutoma watlïp.*
 ma=si   ata-u   ambï   mutoma   wat-lï-p
 3SG.OBJ=push up-from SG.REFL backbone atop-put-PFV
 '[It] put it [= the wood] up onto its back.'

(47) *Mat i atay ulum maya ata i.*
 ma=tï   i   ata-i   ulum ma=iya   ata i
 3SG.OBJ=take go.PFV up-go.PFV palm 3SG.OBJ=toward up go.PFV
 '[It] brought it and went up, went up the sago palm.'

(48) *Ata i wap a wolka mat i li.*
 ata i   wap   wolka ma=tï   i   li-i
 up go.PFV be.PST again 3SG.OBJ=take go.PFV down-go.PFV
 'Having gone up, [the turtle] again brought it [= the wood] down.'

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(49) *Mat i li nay matï li wandam nay inakawana.*
　　 ma=tï　　　i　　　li　　　na-i　　　ma=tï　　　li-i
　　 3SG.OBJ=take go.PFV down DETR-go.PFV 3SG.OBJ=take down-go.PFV
　　 wandam na-i　　　ina-ka-wana
　　 jungle　　DETR-go.PFV liver-in-feel
　　 '[It] brought it, went down, brought it down, went to the jungle, and thought.'

(50) *Mï ambïwana mat: "A!"*
　　 mï　　　ambï=wana ma=ta　　　a
　　 3SG.SUBJ SG.REFL=feel 3SG.OBJ=say ah
　　 'It thought to itself and said: "Ah!"'

(51) *"Nï ta tata tïn mol li ina mane."*
　　 nï　ta　　　tata tï-n　　ma=ul　　li　i-na　　ma-n-e
　　 1SG already papa take-PFV 3SG.OBJ=with down come-IRR go-IPFV-DEP
　　 '"I'm already able to get papa and come down with him."'[15]

(52) *"Nï tata tïn mol li ina!"*
　　 nï　tata tï-n　　ma=ul　　li　i-na
　　 1SG papa take-PFV 3SG.OBJ=with down come-IRR
　　 '"So I'll get papa and come down with him!"'

(53) *Makap.*
　　 ma=kï-p
　　 3SG.OBJ=say-PFV
　　 '[It] thought this.'

(54) *Ango amunpe.*
　　 ango amun=p-e
　　 NEG　now=COP-DEP
　　 'But not immediately.'

(55) *Ango amunpe atay matïna.*
　　 ango amun=p-e　　ata-i　　ma=tï-na
　　 NEG　now=COP-DEP up-go.PFV 3SG.OBJ=take-IRR
　　 '[It] wouldn't go up and get him immediately.'

---

[15]The turtle was carrying the wood as a test to see whether it would be able to carry the boy (its 'papa') down from atop the palm.

(56)   *Kop mala i inim i i wa ndï li ndule i apa kongomlïp.*
     kop ma=ala   i   inim i   i   wa   ndï li-i
     just 3SG.OBJ=for go.PFV water go.PFV go.PFV village 3PL down-go.PFV
     ndï=u-l-e   i   apa   ko=angom-lï-p
     3PL=from-go-DEP go.PFV house INDF=pull.out-put-PFV
     '[It] just went for his sake, went to the water, went, went down to the villages, went around in them, went, and pulled out a house.'

(57)   *Apa kongomlïp wa molop.*
     apa   ko=angom-lï-p   wa   ma=lo-p
     house INDF=pull.out-put-PFV village 3SG.OBJ=cut-PFV
     '[It] pulled out a house and cleared a village.'

(58)   *I apa kongomlïp mat i matanelïp.*
     i   apa   ko=angom-lï-p   ma=tï   i
     go.PFV house INDF=pull.out-put-PFV 3SG.OBJ=take go.PFV
     ma=tane-lï-p
     3SG.OBJ=stand-put-PFV
     '[It] went and pulled out a house, brought it, and stood it up.'

(59)   *Keka wandam ndï way mawa wandam ndïlop.*
     keka   wandam ndï way ma-awa   wandam ndï=lo-p
     completely jungle   3PL turtle 3SG.OBJ-INT jungle   3PL=cut-PFV
     'Completely, the gardens – the turtle itself cut the gardens.'

(60)   *Mïnal o mil o utam o nongontam –*
     mïnal o mil   o utam o nongontam
     taro   or sugar or yam or kaukau
     '[Whether it be] taro or sugarcane or yam or *kaukau* [= sweet potato] –'[16]

(61)   *Mï keka ndïn up.*
     mï   keka   ndï-n   u-p
     3SG.SUBJ completely 3PL=OBL put-PFV
     'It planted them all.'

(62)   *Ndï keka ambip.*
     ndï keka   ambi=p
     3PL completely big=COP
     'They [= the crops] were really big.'

---

[16]The coordinator *o* 'or' is borrowed from Tok Pisin *o* 'or'.

(63) *Wowal lamndu mï ndïtïn ndït i ndïkuk wandam mop.*
    wowal   lamndu mï   ndï=tï-n   ndï=tï   i   ndï=kuk
    chicken pig   3sg.subj 3pl=take-pfv 3pl=take go.pfv 3pl=gather
    wandam ma=u-p
    jungle   3sg.obj=put-pfv
    'Chickens and pigs – it got them, brought them, and gathered them into the garden.'

(64) *Apa membamup.*
    apa   ma=imbam-u-p
    house 3sg.obj=under-put-pfv
    '[The turtle] put [the livestock] under the house.'

(65) *Ande.*
    ande
    ok
    'OK.'

(66) *Mï wolka impul matïn mat ambï mutoma watlïpe.*
    mï   wolka im-pul   ma=tï-n   ma=tï   ambï
    3sg.subj again wood-piece 3sg.obj=take-pfv 3sg.obj=take sg.refl
    mutoma wat-lï-p-e
    back   atop-put-pfv-dep
    'It again got a piece of wood, got it and put it on its shell.'

(67) *Mol i atay ulum maya atay.*
    ma=ul   i   ata-i   ulum ma=iya   ata-i
    3sg.obj=with go.pfv up-go.pfv palm 3sg.obj=toward up=go.pfv
    '[It] went with it, went up, went up the sago palm.'

(68) *Ulum mat atay wape mat nay li nay.*
    ulum ma=tï   ata-i   wap-e   ma=tï   na-i
    palm 3sg.obj=take up-go.pfv be.pst-dep 3sg.obj=take detr-go.pfv
    li   na-i
    down detr-go.pfv
    '[On the] palm, got it [= the piece of wood], went up, brought it down, and went down.'

(69) *Mat nay li wandam i ambïwana.*
    ma=tï   na-i   li-i   wandam i   ambï=wana
    3SG.OBJ=take DETR-go.PFV down-go.PFV jungle   go.PFV SG.REFL=feel
    '[The turtle] bought it [= the wood] down, went to the jungle, and thought to itself.'

(70) *Mat: "Nï ata ma matïn mol li ina."*
    ma=ta   nï ata ma ma=tï-n   ma=ul   li   i-na
    3SG.OBJ=say 1SG up go 3SG.OBJ=take-PFV 3SG.OBJ=with down come-IRR
    '[It] thought: "I shall go up, get him, and come down with him."'

(71) *Al matïn.*
    al   ma=tï-n
    net 3SG.OBJ=take-PFV
    '[It] got a mosquito net.'

(72) *Al mï apa mï alanda men wapen nda.*
    al mï   apa mï   al anda ma=in   wap-en   anda
    net 3SG.SUBJ house 3SG.SUBJ net SG.DIST 3SG.OBJ=in be.PST-NMLZ SG.DIST
    'The mosquito net, the house – there was a mosquito net in it.'[17]

(73) *Man mol tï i.*
    ma=n   ma=ul   tï   i
    3SG.OBJ=OBL 3SG.OBJ=with take go.PFV
    '[The turtle] brought it [= the mosquito net] with it [= the house].'

(74) *Man mol tï i matanelïpape mï imba pe nay mï nawowe.*
    ma=n   ma=ul   tï   i   ma=tane-lï-p-ap-e
    3SG.OBJ=OBL 3SG.OBJ=with take go.PFV 3SG.OBJ=stand-put-PFV-PFV-DEP
    mï   imba p-e   na-i   mï   na-wow-e
    3SG.SUBJ night be-DEP DETR-go.PFV 3SG.SUBJ DETR-sleep-IPFV
    'After [the turtle] had brought it [= the mosquito net] with it [= the house] and stood it up, it went at night, while he [= the man] was sleeping.'

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[17]The speaker is clarifying what the turtle had done: the house that the turtle had pulled out for the growing young man had a mosquito net inside it.

(75) *Unum pe men pe wowe mï i mokum ne i membam i.*

unum p-e ma=in p-e wow-e mï i mokum
crevice be-DEP 3SG.OBJ=in be-DEP sleep-DEP 3SG.SUBJ go.PFV stealth

na-i i ma=imbam i
DETR-go.PFV go.PFV 3SG.OBJ=under go.PFV

'While [the man] was sleeping in the crevice, inside it, it [= the turtle] went, went stealthily, went, went under him.'

(76) *Mat ato ambï mutam watlïp.*

ma=tï ata-u ambï mutam wat-lï-p
3SG.OBJ=take up-from SG.REFL back atop-put-PFV

'[The turtle] got him and put him up onto its back.'

(77) *Ankam ngatan ambï mutam watlïp.*

ankam ngata=n ambï mutam wat-lï-p
person grand=OBL SG.REFL back atop-put-PFV

'[It] put the huge person on its back.'

(78) *Ankam ngatan ambï mutam watlïp ande mokum mat le.*

ankam ngata=n ambï mutam wat-lï-p ande mokum
person grand=OBL SG.REFL back atop-put-PFV ok stealth

ma=tï lo-e
3SG.OBJ=take go-IPFV

'Having put the huge man on its back, OK, [it] began bringing him carefully.'

(79) *Naye ulum ma nambï ka nay li wandam nay.*

na-i-e ulum ma nambï ka na-i li-i
DETR-go.PFV-DEP palm 3SG.OBJ skin on DETR-go.PFV down-go.PFV

wandam na-i
jungle DETR-go.PFV

'[It] went and went down the bark of the palm and went to the jungle.'

(80) *Keka matï i atay apa may.*

keka ma=tï i ata-i apa ma=i
completely 3SG.OBJ=take go.PFV up-go.PFV house 3SG.OBJ=go.PFV

'[The turtle] brought him all the way up to the house.'

(81) *Mat i ata apa may mol i.*

ma=tï i ata apa ma=i ma=ul i
3SG.OBJ=take go.PFV up house 3SG.OBJ=go.PFV 3SG.OBJ=with go.PFV

'[It] brought him up to the house and went with him.'

(82) *Al men i matï menlïp.*
   al   ma=in   i   ma=tï   ma=in-lï-p
   net 3SG.OBJ=in go.PFV 3SG.OBJ=take 3SG.OBJ=in-put-PFV
   '[It] went into the mosquito net and put him inside it.'

(83) *Mï al men ka wop.*
   mï   al   ma=in   ka wo-p
   3SG.SUBJ net 3SG.OBJ=in at sleep-PFV
   'He slept in the mosquito net.'

(84) *Mï al men ka wop awlu anmbu inakawanap: "A!"*
   mï   al   ma=in   ka wo-p   awlu an-mbï-u   ina-ka-wana-p
   3SG.OBJ net 3SG.OBJ=in at sleep-PFV step out-here-from liver-in-feel-PFV
   a
   ah
   'He slept in the mosquito net, came out, and thought: "Ah!"'

(85) *"Nï anjikaka li wap?"*
   nï   anjikaka li-i   wap
   1SG how   down-go.PFV be.PST
   '"How did I come down like this?"'

(86) *Way mï asi man wat wan make.*
   way   mï   asi ma=n   wat   wan   ma=ka-e
   turtle 3SG.SUBJ sit 3SG.OBJ=OBL ladder above 3SG.OBJ=let-IPFV
   'The turtle was sitting at the top of his ladder.'[18]

(87) *Lop man wat wan maka map.*
   lop ma=n   wat   wan   ma=ka   ma=p
   lie 3SG.OBJ=OBL ladder above 3SG.OBJ=let 3SG.OBJ=be
   '[The turtle] lay at the top of his ladder and stayed there.'

(88) *Mape lïmndï malïpe mï anmbi inakawana:*
   ma=p-e   lïmndï ma=li-p-e   mï   an-mbï-i
   3SG.OBJ=be-DEP eye 3SG.OBJ=put-PFV-DEP 3SG.SUBJ out-here-go.PFV
   ina-ka-wana
   liver-in-feel
   '[It] was there watching him, when he [= the man] came out and thought:'

---

[18]This is the ladder (or stairs) leading up to the house, which, like all houses in the region, would have been built on stilts.

(89) *"Nï anjikaka li?"*
    nï   anjikaka li-i
    1SG how   down-go.PFV
    '"How did I get down like this?"'

(90) *"A!"*
    a
    ah
    '"Ah!"'

(91) *Inakawane: "Nï anjikaka li?"*
    ina-ka-wana-e   nï   anjikaka li-i
    liver-in-feel-DEP 1SG how   down-go.PFV
    '[He] was thinking: "How did I get down like this?"'

(92) *"Nï ata ndawap nanjikaka liye?"*
    nï   ata anda=wap   nï   anjikaka li-i-e
    1SG up SG.DIST=be.PST 1SG how   down-go.PFV-DEP
    '"I was up there, so how did I get down like this?"'

(93) *Lïmndï way mala.*
    lïmndï way   ma=ala
    eye   turtle 3SG.OBJ=see
    '[He] saw the turtle.'

(94) *"Way ngangusuwa ngapïnate mï ko mï mase –"*
    way   nga   ngusuwa nga=p-na-t-e   mï   ko mï
    turtle SG.PROX poor   SG.PROX=be-IRR-SPEC-DEP 3SG.SUBJ just 3SG.SUBJ
    mas-e
    must-DEP
    '[And he thought:] "This turtle, the poor thing; it might be this [turtle] –
    it just; it must[19] have – "'

(95) *"Ata i ko nïtïn nït li wap."*
    ata i   ko nï=tï-n   nï=tï   li-i   wap
    up go.PFV just 1SG=take-PFV 1SG=take down-go-PFV be.PST
    '"[It] went up and just got me and brought me down."'

(96) *Makap inakawanap.*
    ma=kï-p   ina-ka-wana-p
    3SG.OBJ=say-PFV liver-in-feel-PFV
    '[He] said it and thought.'

---

[19]The modal word *mas* 'should, must' is borrowed from Tok Pisin *mas* 'should, must'.

(97) *Mawap imba pe mï wolka nawow.*
      ma=wap   imba   p-e   mï   wolka   na-wow
      3SG.OBJ=be.PST night be-DEP 3SG.SUBJ again   DETR-sleep.IPFV
      '[He] stayed the night there and again he fell asleep.'

(98) *Wolka nawowe mï mala yana angla nol.*
      wolka na-wow-e   mï   ma=ala   yana   angla na-lo
      again DETR-sleep.IPFV-DEP 3SG.SUBJ 3SG.OBJ=for woman await DETR-go
      'After again sleeping, it [= the turtle] went searching for a wife for him.'

(99) *Way nga wa mala yana anglale.*
      way   nga   wa ma=ala   yana   angla-lo-e
      turtle SG.PROX   just 3SG.OBJ=for woman await-go-IPFV
      'This turtle was just searching for a wife for him.'

(100) *I wa kwa may inim i li wa kwa may atay.*
      i   wa   kwa ma=i   inim i   li-i   wa
      go.PFV   village one 3SG.OBJ=go.PFV water go.PFV down-go.PFV village
      kwa ma=i   ata-i
      one 3SGOBJ=go.PFV up-go.PFV
      '[It] went, went to one village, went downstream, went to another village,
      and then went up [into yet another village].'[20]

(101) *Atay wa mo le yana amunji nungol anma ndawa.*
      ata-i   wa   ma=u   lo-e   yana   amunji nungol anma
      up-go.PFV   village 3SG.OBJ=from go-DEP woman young child good
      ndï-awa
      3PL-INT
      '[It] went up, going around the village, [looking for] suitable young
      women.'

(102) *Mï i apa ndin u le i lïmndï mala.*
      mï   i   apa ndï=in u lo-e   i   lïmndï ma=ala
      3SG.SUBJ go.PFV house 3PL=in from go-DEP go.PFV eye   3SG.OBJ=see
      'It went, went around inside the houses, went, and saw her.'[21]

(103) *Lïmndï mala mokum al men u matïn.*
      lïmndï ma=ala   mokum al ma=in   u   ma=tï-n
      eye   3SG.OBJ=see stealth net 3SG.OBJ=in from 3SG.OBJ=take-PFV
      '[It] saw her and stealthily got her from out of [her] mosquito net.'

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[20]The turtle was going to village after village along the river to find a wife for its master.

[21]That is, the turtle finally saw the woman who it thought would make a good wife for its master.

(104)   *Man al mol tïn.*
    ma=n   al   ma=ul   tï-n
    3SG.OBJ=OBL net 3SG.OBJ=with take-PFV
    '[It] got her with the mosquito net.'

(105)   *Mat ambï mutam watlïp mat i.*
    ma=tï   ambï   mutam wat-lï-p   ma=tï   i
    3SG.OBJ=take SG.REF back   atop-put-PFV 3SG.OBJ=take go.PFV
    '[It] got her onto its back and brought her.'

(106)   *Mat i itom maya apa i.*
    ma=tï   i   itom ma=iya   apa   i
    3SG.OBJ=take go.PFV father 3SG.OBJ=toward house go.PFV
    '[It] brought her and went home to the man.'

(107)   *Itom maya apa i mat makanalïp.*
    itom   ma=iya   apa   i   ma=tï
    father 3SG.OBJ=toward house go.PFV 3SG.OBJ=take
    ma=kana-lï-p
    3SG.OBJ=beside-put-PFV
    '[It] went home to the man and put her next to him.'

(108)   *Mat iye keka mol i maya al men i mat monilïp.*
    ma=tï   i-e   keka   ma=ul   i
    3SG.OBJ=take go.PFV-DEP completely 3SG.OBJ=with go.PFV
    ma=iya   al   ma=in   i   ma=tï   moni-lï-p
    3SG.OBJ=toward net 3SG.OBJ=in go.PFV 3SG.OBJ=take among-put-PFV
    'Having brought her, [it] went all the way with her, went to him into
    [his] mosquito net, and put her within [it].'

(109)   *Mï mol wop.*
    mï   ma=ul   wo-p
    3SG.SUBJ 3SG.OBJ=with sleep-PFV
    'She slept with him.'[22]

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[22]That is, she slept in the same bed as him. The young woman was asleep the whole time she
was being transported.

(110) *Mol wope yana mï tïnanga lïmndï wa mala.*
   ma=ul   wo-p-e   yana   mï   tïnanga   lïmndï   wa
   3SG.OBJ=with sleep-PFV-DEP woman 3SG.SUBJ arise   eye   just
   ma=ala
   3SG.OBJ=see
   'Having slept with him, the woman got up and noticed him.'

(111) *Lïmndï ankam ngala.*
   lïmndï   ankam   nga=ala
   eye   person SG.PROX=see
   '[She] saw this person.'

(112) *Mï keka se wap se wap se wap se wap keka awal pe imba pe wop.*
   mï   keka   sa-e   wap   sa-e   wap   sa-e   wap
   3SG.SUBJ completely cry-DEP be.PST cry-DEP be.PST cry-DEP be.PST
   sa-e   wap   keka   awal   p-e   imba   p-e   wo-p
   cry-DEP be.PST completely afternoon be-DEP   night be-DEP sleep-PFV
   'And she cried and cried and cried throughout the afternoon, throughout
   the night, and into the next day.'

(113) *Keka maka wap makape imba pe wop.*
   keka   maka wap   maka=p-e   imba   p-e   wo-p
   completely thus be.PST thus=COP-DEP night be-DEP sleep-PFV
   'It was totally like that, like this, every night.'

(114) *Inim iwïl lele ndïtïn.*
   inim   iwïl   lele   ndï=tï-n
   water moon three 3PL=take-PFV
   'Three years[23] – months passed.'

(115) *Iwïl lele ndïtïne yeta nga nan mat:*
   iwïl   lele   ndï=tï-n-e   yeta   nga   na=n   ma=ta
   moon three 3PL=take-PFV-DEP   man   SG.PROX talk=OBL 3SG.OBJ=say
   'And after three months, the man told her:'

(116) *"Nawa ango kalam me nï i ungusuwalu i wap."*
   nï-awa   ango kalam   me nï i   u-ngusuwa=lu i   wap
   1SG-INT NEG knowledge NEG 1SG go.PFV 2SG-poor=with go.PFV be.PST
   '"I really don't know how I went and came to stay with you, you poor
   thing."'

---

[23]The speaker makes a mistake ('year') but corrects it ('month').

(117) *"Nï ango kalam me u anjikaka i wap."*
  nï ango kalam me u anjikaka i wap
  1SG NEG knowledge NEG 2SG how go.PFV be.PST
  '"I don't know how you got here."'

(118) *"Nï ango kalam me."*
  nï ango kalam me
  1SG NEG knowledge NEG
  '"I don't know."'

(119) *"Way nga tap ungusuwa tï i wapape."*
  way nga tap u-ngusuwa tï i wap-ap-e
  turtle SG.PROX maybe 2SG-poor take go.PFV be.PST-PFV-DEP
  '"Maybe this turtle brought you, you poor thing."'

(120) *"Nï ango angos na ukïnate."*
  nï ango angos na u=kï-na-t-e
  1SG NEG what talk 2SG=say-IRR-SPEC-DEP
  '"I don't have anything to tell you."'

(121) *"Awlopen luwa nda nguna map."*
  awlop=p-en   luwa anda ngunan ma=p
  in.vain=COP-NMLZ place SG.DIST 1DU.INCL 3SG.OBJ=be
  '"That strange place – we are in it."'

(122) *"Nguna mbï nanap."*
  ngunan mbï na-na-p
  1DU.INCL here DETR-DETR-be
  '"We are staying here."'

(123) *Mï nasape mï mala li lamndu masap.*
  mï   na-sa-p-e   mï ma=ala li-i   lamndu
  3SG.SUBJ DETR-cry-PFV-DEP 3SG.SUBJ 3SG.OBJ=for down-go.PFV pig
  ma=asa-p
  3SG.OBJ=hit-PFV
  'After she cried, he went down for her and killed a pig.'

(124)   *Yeta mï mala li lamndu masap manke man up.*
  yeta mï   ma=ala   li-i   lamndu ma=asa-p
  man 3SG.SUBJ 3SG.OBJ=for down-go.PFV pig   3SG.OBJ=hit-PFV

  ma=nïkï-e   ma=n   u-p
  3SG.OBJ=dig-DEP 3SG.OBJ=OBL put-PFV

  'The man went down for her, killed a pig, butchered it, and put it [in the house] for her.'

(125)   *Mol min ndïmondop.*
  ma=ul   min ndï=mondo-p
  3SG.OBJ=with 3DU 3PL=dry-PFV

  'With her – the two dried them [= the butchered pieces of meat].'

(126)   *Ndïmonde ndame ndïwat pe.*
  ndï=mondo-e ndï=ama-e   ndï=wat   p-e
  3PL=dry-DEP 3PL=eat-DEP 3PL=atop be-DEP

  '[They continued] drying them, eating them, and relying'[24] on them.

(127)   *Way nga minïn twa kana map.*
  way nga   min=ïn twa   kana ma=p
  turtle SG.PROX 3DU=OBL hearth beside 3SG.OBJ=be

  'And this turtle stayed there with them next to the hearth.'

(128)   *Way nga minïn twa kana mape mï nan mat:*
  way nga   min=ïn twa   kana ma=p-e   mï
  turtle SG.PROX 3DU=OBL hearth beside 3SG.OBJ=be-DEP 3SG.SUBJ

  na=n   ma=ta
  DETR=OBL 3SG.OBJ=say

  'And while this turtle stayed there with them next to the hearth, he [= the man] said to her:'

(129)   *"Tsk!"*
  tsk
  tsk
  '"Tsk!"'[25]

---

[24]Literally 'being atop'.

[25]Phonetically this is a dental click [ǀ]. In Ulwa it is a paralinguistic sound used to express shock, compassion, or dismay. Here it signals the man's sympathy for the woman.

(130) *"Way nga mï tap utïn utï i wap."*
way nga mï tap u=tï-n u=tï i wap
turtle SG.PROX 3SG.SUBJ maybe 2SG=take-PFV 2SG=take go.PFV be.PST
'"This turtle, maybe he got you and brought you."'

(131) *"Nï ango kalam me."*
nï ango kalam me
1SG NEG knowledge NEG
'"I don't know."'

(132) *Way mï minïn twa kana map.*
way mï min=n twa kana ma=p
turtle 3SG.SUBJ 3DU=OBL hearth beside 3SG.OBJ=be
'The turtle stayed there with them next to the hearth.'

(133) *Minïn twa kana mape min ame.*
min=ïn twa kana ma=p-e min ama-e
3DU=OBL hearth beside 3SG.OBJ=be-DEP 3DU eat-IPFV
'While [it] stayed with them there by the hearth, the two would eat.'

(134) *Mundu ndïkuk man awe mï ndame.*
mundu ndï=kuk ma=n aw-e mï ndï=ama-e
food 3PL=gather 3GSG=OBL put.IPFV-DEP 3SG.SUBJ 3PL=eat-IPFV
'[They] would gather food for it and it would eat them [= the items of food].'

(135) *Ndame nay nay way mï keka ne ambi nïpat ngata nap.*
ndï=ama-e na-i na-i way mï keka
3PL=eat-DEP DETR-go.PFV DETR-go.PFV turtle 3SG.SUBJ completely
na-i ambi nïpat ngata na-p
DETR-go.PFV big giant grand DETR-be
'[It] ate them and ate them until the turtle totally went and got big, giant, huge.'

(136) *Way mï keka ne ambi nïpat ngata nap ande.*
way mï keka na-i ambi nïpat ngata na-p ande
turtle 3SG.SUBJ completely DETR-go.PFV big huge giant DETR-be ok
'The turtle completely went big, giant, huge, OK.'

(137) *Mï inakawane –*
mï ina-ka-wana-e
3SG.SUBJ liver-in-feel-DEP
'He was thinking –'

(138)   *Ita tata mï inakawane mïnape.*

    i-ta   tata mï   ina-ka-wana-e   mï=na=p-e

    go.PFV-COND papa 3SG.SUBJ liver-in-feel-DEP 3SG.SUBJ=DETR-be-DEP

    'If [he] went – the papa was thinking around there.'[26]

(139)   *Min yena mol mïnap min alum ndïnanayn.*

    min yena   ma=ul   mï=na-p   min alum

    3DU woman 3SG.OBJ=with 3SG.SUBJ=DETR-be 3DU child

    ndï=na-na-in

    3PL=DETR-DETR-get

    'They – [he] stayed around there with his wife, and they had children.'

(140)   *Min yena mol mïnap min alum ndïnanayn.*

    min alum ndï=na-na-in-e

    3DU child 3PL=DETR-DETR-get-IPFV

    'They had children.'

(141)   *E yeta uwe ko way ma nan alum ndïkïna!*

    e   yeta u-we   ko way ma   na=n   alum ndï=kï-na

    hey man 2SG-PART.INT just turtle 3SG.OBJ talk=OBL child 3PL=say-IRR

    'Hey, man, you yourself should have just told the children about the turtle!'[27]

(142)   *"Un wana mbïwap angos ngan anjikalakana!"*

    un wana mbï-wap   angos nga=n   anjika-la-ka-na

    2PL PROH here-be.PST what SG.PROX=OBL how.many-IRR-let-IRR

    '"Don't do something [bad] to this [turtle] here!"'[28]

(143)   *Way mï nï min ndïwana ande.*

    way mï   nï min ndï=wana ande

    turtle 3SG.SUBJ 1SG 3DU 3PL=feel   ok

    'The turtle, I, they two, heard them, OK.'[29]

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[26]This line is hard to follow.

[27]The narrator is apostrophically addressing the man in the story, who should have told his children that this turtle that lives around them is no ordinary turtle, but something like a foster parent to their own parents. The line seems to have a false start.

[28]This is something along the lines of what the father should have told his children.

[29]This line seems to be confused.

(144) *Mï alum ndïnayne way mï mala inim namana man.*
　　　mï　　　alum ndï=na-in-e　　　way mï　　　ma=ala　　　inim
　　　3SG.SUBJ child 3PL=DETR-get-DEP turtle 3SG.OBJ 3SG.OBJ=from water
　　　na-ma-na　　　ma-n
　　　DETR-go-IRR go-IPFV
　　　'[After] he [= the man] had children, the turtle was going to go away from him, [back] to the water.'

(145) *Mala inim namana mane.*
　　　ma=ala　　　　inim na-ma-na　　　ma-n-e
　　　3SG.OBJ=from water DETR-go-IRR go-IPFV-DEP
　　　'[It] was going to go away from him to the water.'

(146) *Imba pe ala maka longom tï manana.*
　　　imba p-e　　　ala　　　maka longom tï　　ma=na-na
　　　night be-DEP PL.DIST thus　　dream take 3SG.OBJ=give-PFV
　　　'At night, they[30] gave him [= the man] a dream like this.'

(147) *Nan mat: "Nï wandïm inim namana."*
　　　na=n　　　ma=ta　　　nï　u=andïm inim na-ma-na
　　　talk=OBL 3SG.OBJ=say 1SG 2SG=from water DETR-go-IRR
　　　'[It] told him: "I will go from you [back] to the water."'[31]

(148) *Itom mï wop umbenam lamndu masap.*
　　　itom　mï　　　wo-p　　　umbenam lamndu ma=asa-p
　　　father 3SG.SUBJ sleep-PFV morning　pig　　　3SG.OBJ=hit-PFV
　　　'The man slept and in the morning killed a pig.'

(149) *Wonmelma.*
　　　Wonmelma
　　　[name]
　　　'Wonmelma.'

(150) *Lamndu manji wi Wonmelma.*
　　　lamndu ma-nji　　　wi　　Wonmelma
　　　pig　　　3SG.OBJ-POSS name [name]
　　　'The pig's name was Wonmelma.'[32]

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[30]The plural demonstrative pronoun here perhaps refers to spirits that grant people dreams at night.

[31]The man has a premonitory dream, in which the turtle tells him that it will leave him.

[32]Text "ulwa001" tells the tale of Wonmelma, a popular figure in Ulwa storytelling.

(151) *Masape way mol mïnanamap.*
    ma=asa-p-e   way   ma=ul   mï=na-na-ama-p
    3sg.obj=hit-pfv-dep turtle 3sg.obj=with 3sg.subj-detr-detr-eat-pfv
    'After [he] killed it, [he] ate it with the turtle.'

(152) *At kwa man mï mat man ani lïp.*
    at   kwa ma=n   mï   ma=tï   ma=n   ani   li-p
    end one 3sg.obj=obl 3sg.subj 3sg.obj=take 3sg.obj=obl bilum put-pfv
    'One piece [of the meat] – he put it in the *bilum* [= string bag] for it
    [= the turtle].'

(153) *Way mï ango man ka li mana.*
    way   mï   ango ma=n   ka li   ma-na
    turtle 3sg.subj neg   3sg.obj=obl let down go-irr
    'The turtle would not [yet] leave him and go down.'

(154) *Mï kop mol mape.*
    mï   kop ma=ul   ma=p-e
    3sg.subj just 3sg.obj=with 3sg.obj=be-ipfv
    'It just stayed with him.'

(155) *Mï ko mol mape nogat!*
    mï   ko   ma=ul   ma=p-e   nogat
    3sg.subj just 3sg.obj=with 3sg.obj=be-ipfv no
    'It just stayed with him – no!'[33]

(156) *Itom manji alum ndï ndï –*
    itom   ma-nji   alum ndï ndï
    father 3sg.obj-poss child 3pl 3pl
    'The father's children, they –'

(157) *Min numan yena ul wandam mane.*
    min numan   yena   ul   wandam ma-n-e
    3du husband woman with jungle   go-ipfv-dep
    'They – the husband was going around the jungle with [his] wife.'

(158) *I nan nungolke ngalakapta ndï kalampïn!*
    i   na=n   nungolke ngala=kï-p-ta   ndï kalam=p-na
    ay talk=obl child   pl.prox=say-pfv-cond 3pl knowledge=cop-irr
    'Ay, tell these children so that they'll know!'[34]

---

[33]The interjection *nogat* 'no' is from Tok Pisin.
[34]The narrator is again addressing the man in the story.

(159)   *Nogat.*
        nogat
        no
        'No.'[35]

(160)   *Alum yeta mï ko mawap nali wongïta tïn ko way ngusuwa man lïmndï mo*
        maka mas.
        alum yeta mï   ko   ma=wap   nali wongïta tï-n   ko   way
        child man 3SG.SUBJ just 3SG.OBJ=be.PST spine bow   take-PFV just turtle
        ngusuwa ma=n   lïmndï ma=u   maka ma=asa
        poor   3SG.OBJ=OBL eye   3SG.OBJ=from thus 3SG.OBJ=hit
        'The son just stayed there and got a sago frond bow[36] and just hit the
        poor turtle like this in the eye.'

(161)   *Yeta mï way mï anmbi inim i.*
        yeta mï   way   mï   an-mbï-i   inim i
        man 3SG.SUBJ turtle 3SG.SUBJ out-here-go.PFV water go.PFV
        'The man[37] – the turtle went out into the water.'

(162)   *Mase mïka nali nungun ma lïmndï upe.*
        ma=asa-e   mïka nali mï   nungun ma   lïmndï u-p-e
        3SG.OBJ=hit-DEP thus spine 3SG.SUBJ break 3SG.OBJ eye   put-PFV-DEP
        'Having hit it, the spine thus broke into its eye.'

(163)   *Mï mol anmbi inim nay.*
        mï   ma=ul   an-mbï-i   inim na-i
        3SG.SUBJ 3SG.OBJ=with out-here-go.PFV water DETR-go.PFV
        'It went with it [the spine arrow] out into the water.'

(164)   *Mï mol anmbi inim naye mïnape.*
        mï   ma=ul   an-mbï-i   inim na=i-e
        3SG.SUBJ 3SG.OBJ=with out-here-go.PFV water DETR-go.PFV-DEP
        mï=na-p-e
        3SG.SUBJ=DETR-be-IPFV
        'It went with it out into the water and stayed around there.'

---

[35]The interjection *nogat* 'no' is from Tok Pisin, here used to express the fact that something did
not occur (i.e., the father never did tell his children about the turtle.)

[36]That is, a set of bow and arrow. The arrow is made from a *nali* 'sago frond spine'.

[37]This seems to be another false start.

(165) *Itom mï wa i manglalop.*
       itom   mï   wa   i   ma=angla-lo-p
       father 3SG.SUBJ village go.PFV 3SG.OBJ=await-go-PFV
       'The man went to the village and searched for it.'

(166) *"Inom ngata ngusuwa nda ango luwa nay?"*
       inom   ngata ngusuwa anda   ango   luwa na-i
       mother grand poor   SG.DIST which place DETR-go.PFV
       '"Where did that poor grandmother go?"'[38]

(167) *Ndï atwana nungolke ndïte.*
       ndï atwana   nungolke ndï=ta-e
       3PL question child   3PL=say-DEP
       'They asked the children.'

(168) *Alum ndïte alum ndï nat: "An ango kalam me."*
       alum ndï=ta-e   alum ndï na-ta   an   ango kalam   me
       child 3PL=say-DEP child 3PL DETR-say 1PL.EXCL NEG knowledge NEG
       '[They] asked the children and the children replied: "We don't know."'

(169) *Yenanu nungol mawape nan mat: "Nogat ya!"*
       yenanu nungol ma=wap-e   na=n   ma=ta   nogat ya
       woman child   3SG.OBJ=be.PST-DEP talk=OBL 3SG.OBJ=say no   yes
       'But the daughter later[39] told him [= the father]: "Not at all!"'[40]

(170) *"Yeta nda mas wape!"*
       yeta anda   ma=asa   wap-e
       man SG.DIST 3SG.OBJ=hit be.PST-DEP
       '"That boy hit it!"'

(171) *"Nali wongïta ndan mangusuwa lïmndï andaka mas wap."*
       nali   wongïta anda=n   ma-ngusuwa lïmndï anda=ka   ma=asa
       spine bow   SG.DIST=OBL 3SG.OBJ-poor eye   SG.DIST=in 3SG.OBJ=hit
       wap
       be.PST
       '"[He] hit the poor thing in the eye with that sago frond bow."'

---

[38]The man and woman refer to the turtle as 'grandmother', since it was a foster parent to them and therefore a foster grandparent to their children.

[39]Translated here as 'later', *mawape* '3SG.OBJ=be.PST-DEP' literally means something like 'having been there'.

[40]In other words, she confesses that she and the other children had been lying; the expression *nogat ya* (literally 'no yes') is from Tok Pisin.

(172)　*Itom mï way manakap tïnanga se.*
　　　itom　mï　　　way　ma=nakap　tïnanga sa-e
　　　father 3sg.subj turtle 3sg.obj=for arise　　cry-ipfv
　　　'The father got up and began to cry on account of the turtle.'

(173)　*Way mï ta awal pe imba pe i maya apa i lïmndï man mol si.*
　　　way　mï　　　ta　　　awal　　　p-e　　imba　p-e　　i
　　　turtle 3sg.subj already afternoon be-dep night be-dep go.pfv
　　　ma=iya　　　　apa　i　　　lïmndï ma=n　　　ma=ul　　　si
　　　3sg.obj=toward house go.pfv eye　　3sg.obj=obl 3sg.obj=with push
　　　'The turtle – already in the afternoon[41] – went at night, went to him in
　　　the house, and showed him [its injured] eye.'

(174)　*"Ngam u nïn lïmndï ngaka nase."*
　　　nga-nam　　　u　　nï=n　　lïmndï nga=ka　　nï=asa-e
　　　sg.prox-emph 2sg 1sg=obl eye　　sg.prox=in 1sg=hit-dep
　　　'"This is it – you shot me in my eye."'[42]

(175)　*"Nï wandïm namana man."*
　　　nï　u=andïm　na-ma-na　　　ma-n
　　　1sg 2sg=from detr-go-irr go-ipfv
　　　'"So I'm going to go to away from you."'

(176)　*Itom mï mala wop wolka li lamndu masap.*
　　　itom　mï　　　ma=ala　　wo-p　　wolka li-i　　　　lamndu
　　　father 3sg.subj 3sg.obj=for sleep-pfv again　down-go-pfv pig
　　　ma=asa-p
　　　3sg.obj=hit-pfv
　　　'The next day, the man went down again and killed a pig for it.'

---

[41]The speaker again corrects his word choice.
[42]The turtle presumably speaks this line, as well as the following one.

(177) *Wolka lamndu kwa masape mol mïnanamap at kuma ndïn man ame naytap.*
       wolka lamndu kwa ma=asa-p-e   ma=ul
       again pig   one 3SG.OBJ=hit-PFV-DEP 3SG.OBJ=with
       mï=na-na-ama-p   at kuma ndï=n   ma=n   ame
       3SG.SUBJ=DETR-DETR-eat-PFV end some 3PL=OBL 3SG.OBJ=OBL basket
       na-ita-p
       DETR-tie-PFV
       'Having killed another pig, [he] ate it with it [= the turtle] and tied some pieces [of meat] up in his basket.'

(178) *Ndït manane mï ndït nay inim nay.*
       ndï=tï   ma=na-n-e   mï   ndï=tï   na-i   inim
       3PL=take 3SG.OBJ=give-PFV-DEP 3SG.SUBJ 3PL=take DETR-go.PFV water
       na-i
       DETR-go.PFV
       '[He] gave them [= the pieces of meat] to it [= the turtle], and it took them and went, went into the water.'

(179) *Inim naye una amun lïmndï way ambi ndanden.*
       inim   na-i-e   unan   amun lïmndï way   ambi
       water DETR-go.PFV-DEP 1PL.INCL now   eye   turtle big
       anda=andï-en
       SG.DIST=see-NMLZ
       'Having gone into the water, we now see that big turtle.'

(180) *Ndï angumoni nïmal ando inimp.*
       ndï angumoni nïmal anda=u   inim   p[-e]
       3PL swelling   river SG.DIST=from water be[-IPFV]
       'They are in the swelling river,[43] in the water.'

(181) *Ndï angumoni nïmal mo inim pe.*
       ndï angumoni nïmal ma=u   inim   p-e
       3PL swelling   river 3SG.OBJ=from water be-IPFV
       'They are in the water in the swelling river.'

---

[43]That is, the ocean: *angumoni nïmal* 'swelling river, ocean, sea' may perhaps best be thought of as a compound noun, especially since it has the (non-canonical) order adjective-noun. The big turtles referred to here are sea turtles.

(182)   *Una way ambi way ambi ndï –*
      unan   way ambi way ambi ndï
      1PL.INCL turtle big   turtle big   3PL
      'We – big turtles, the big turtles –'

(183)   *Ndïnam ndï angumoni nïmal map.*
      ndï-nam   ndï angumoni nïmal ma=p
      3PL-EMPH 3PL swelling   river 3SG.OBJ=be
      'They're the ones; they live in the swelling river.'

(184)   *Mawnam.*
      mawnam
      thats.it
      'That's it.'

19.2   *Amblom Yena* ('The Woman Amblom')

This is a traditional story told by Yanapi Kua on 26 May 2017, at her home in Manu village. Examples from this text that appear elsewhere in this book are labeled "ulwa020_mm:ss". The audio recording can be found on the ELAR website (file name: ulwa020.wav). It is a little over two minutes long (02:17).

The story is, among other things, an etiology of the moon. In the tale, a wicked woman named Amblom lives in the village. Whenever the men and women of the village go off into the jungle to harvest sago starch, she captures their children, decapitates them, and eats them. She then hides their bones in the top of a sago palm. Eventually, however, the parents discover Amblom's secret and decide to kill her. She evades them, however, by climbing the palm where she keeps the children's bones. The parents run to the palm but she exerts a magical force over it, so there is little that they can do to get her down. In some versions of the story she taunts the parents by throwing feces at them – that is, the final product of their eaten children. They cannot chop down the palm, nor can they shoot her down with arrows. Finally, a mysterious stranger comes to the village, supposedly a friend of one of the villagers. Versed in magic, he is able to shoot down Amblom with an enchanted arrow. She falls to her death and the villagers butcher her body. They begin distributing her flesh as meat, offering to the stranger whichever body part he prefers. He refuses all the choicest cuts, requesting instead Amblom's vulva. He places the vulva on a frond of the palm where she was hiding, whereupon it transforms into a glowing torch. Using this torch, he has great success hunting pigs. The stranger's friend learns of his fruitful hunts, but does not know his secret. The stranger, not wanting to reveal his

magical glowing vulva, instructs his friend simply to build a regular torch from palm fronds. The friend has some initial success killing a small pig, but, when he tries to kill a larger one, he himself is nearly killed by the boar. Suspecting that he has been tricked, he spies on the stranger's home, discovering the magical vulva. However, while trying to grab it, he clumsily disrupts the vulva and sends it flying up into the sky where it remains to this day as the moon. The Ulwa conception that there is something vaginal about the moon can still be seen in the fact that the word *iwïl* 'moon' also means 'menstruation', no doubt related to the similarity in duration of the lunar cycle and menstrual cycle.

The story also contains an epilogue in which the stranger builds a huge ladder to rescue the magical vulva (now the moon). He manages to reach the moon and dangle from it. While hanging there, however, a colony of bats comes by to inspect this strange new being. When he declines the fruit that they offer him, they become suspicious that he is not one of them, so they yank him away. And no human since has been able to reach the moon. In some versions of the story, these bats are said to be the stars that surround the moon in the night sky.

(1) *Amblom Yena mï –*
     Amblom Yena   mï
     [name]   woman 3SG.SUBJ
     'Amblom Yena –'

(2) *Ndï nungolke ndïn man lïp.*
     ndï nungolke ndï=n   ma=n   lï-p
     3PL child   3PL=OBL 3SG.OBJ=OBL put-PFV
     'They [= other villagers] left [their] children with her.'

(3) *Wandam unde ulum ale mï wa mape.*
     wandam unda-e ulum ali-e   mï   wa   ma=p-e
     jungle   go-DEP palm scrape-DEP 3SG.SUBJ village 3SG.OBJ=be-IPFV
     'When [they] would go around in the jungle and scrape sago palms, she stayed in the village.'

(4) *Ndïnji unduwan nduwe we ndame uma ndït li unde ndïkuk maka ulum*
nowe nda ndïn –
ndï-nji   unduwan ndï=we we   ndï=ama-e   uma ndï=tï   li
3PL-POSS head   3PL=cut then 3PL=eat-DEP bone 3PL=take down
unda-e ndï=kuk   maka ulum nowe   anda   ndï=n
go-DEP 3PL=gather thus palm sago.species SG.DIST 3PL=OBL
'[She] would cut off their heads and then eat them, bring [their] bones
down, and pile them – like, that sago palm[44] – with them –'

(5) *Ndïkuk mo ma awi up.*
ndï=kuk   ma=u   ma   awi   u-p
3PL=gather 3SG.OBJ=from 3SG.OBJ shoulder put-PFV
'[She] piled them there onto its shoulder.'[45]

(6) *Ndï nokoplïp lïmndï mala.*
ndï nokop-lï-p   lïmndï ma=ala
3PL hide-put-PFV eye   3SG.OBJ=see
'But they [= the parents] hid and saw her.'

(7) *I ma nan amblakap.*
i   ma   na=n   ambla=kï-p
go.PFV 3SG.OBJ talk=OBL PL.REFL=say-PFV
'They went and talked about her.'

(8) *Matïna nakap iye.*
ma=atï-na   na-kï-p   i-e
3SG.OBJ=hit-IRR DETR-say-PFV go.PFV-DEP
'[They] wanted to kill her.'

(9) *Mï li awlu ulum mo ma we ulum mï keka i wutotap.*
mï   li   i   awlu ulum ma=u   ma we   ulum mï
3SG.SUBJ down go.PFV step palm 3SG.OBJ=from go then palm 3SG.SUBJ
keka   i   wutota=p
completely go.PFV tall=COP
'But she went down [from her house] and stepped onto the palm, and
then the palm went and got really tall.'[46]

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[44]The narrator specifies that the palm is a *nowe* palm, a large sago palm species that has no
thorns on its stem.
[45]That is, she piles the eaten children's bones into a crevice in the frond of the palm.
[46]Amblom performs some magic to make the palm grow tall.

(10) *Wutotape ndï wongïta tïn mol asap ulwape.*

  wutota=p-e ndï wongïta tï-n   ma=ul   asa-p
  tall=COP-DEP 3PL bow   take-PFV 3SG.OBJ=with hit-PFV

  ulwa=p-e
  nothing=COP-DEP

  'Since [it] was tall, they could hit nothing when they got a bow and shot with it.'

(11) *Kwa ngawa wandam ngo i ndiya wa i.*

  kwa nga-awa   wandam nga=u   i   ndï=iya   wa
  one SG.PROX-INT jungle   SG.PROX=from go.PFV 3PL=toward village

  i
  go.PFV

  'But someone just came from out of the jungle and went to them in the village.'

(12) *Wongïta matïn man mawl as.*

  wongïta ma=tï-n   ma=n   ma=ul   asa
  bow   3SG.OBJ=take-PFV 3SG.OBJ=OBL 3SG.OBJ=with hit

  '[He] took the bow and shot at her with it.'

(13) *Manji sawi manip mawl ase.*

  ma-nji   sawi ma=ni-p   ma=ul   asa-e
  3SG.OBJ-POSS magic 3SG.OBJ=act-PFV 3SG.OBJ=with hit-DEP

  '[He] sang his magic charm and shot with it.'

(14) *Kwa mï man ambï aweta kap.*

  kwa mï   ma=n   ambï   aweta kï-p
  one 3SG.SUBJ 3SG.OBJ=OBL SG.REFL friend say-PFV

  'Someone[47] said that it was his friend.'

(15) *"A nïnji aweta anda ko matïna!"*

  a nï-nji   aweta anda   ko   ma=atï-na
  ah 1SG-POSS   friend SG.DIST just 3SG.OBJ=hit-IRR

  '"Ah, that friend of mine will really hit her!"'

(16) *Mï asika sawi manip ulwape.*

  mï   asi-ka sawi   ma=ni-p   ulwa=p-e
  3SG.SUBJ sit-let magic 3SG.OBJ=act-PFV nothing=COP-DEP

  'He [= the stranger] sat and sang the magic spell to the end –'

---

[47]That is, one of the villagers identifies the stranger as his friend.

(17) *Keka man u wongïta matïn keka mase mï keka nip.*
    keka   ma=n   u   wongïta ma=tï-n   keka
    completely 3SG.OBJ=OBL from bow   3SG.OBJ=take-PFV completely
    ma=asa-e   mï   keka   ni-p
    3SG.OBJ=hit-DEP 3SG.SUBJ completely die-PFV
    'Totally – [he] got the bow from him [= his friend] and totally hit her and she died completely.'

(18) *Ulum molop li lïp men u uma ndïkuk anmbup.*
    ulum ma=lo-p   li   lï-p   ma=in   u   uma ndï=kuk
    palm 3SG.OBJ=cut-PFV down put-PFV 3SG.OBJ=in from bone 3PL=gather
    an-mbï-u-p
    out-here-put-PFV
    '[They] cut the sago palm down and gathered the bones out from within it.'

(19) *Mankap at kot mananda nate.*
    ma=nïkï-p   at   ko=tï   ma=na-nda   na-ta-e
    3SG.OBJ=dig-PFV end INDF=take 3SG.OBJ=give-IRR DETR-say-DEP
    '[They] butchered her and talked about giving a piece [of her body] to him [= the stranger].'[48]

(20) *Mï kambï man ndït: "M!"*
    mï   kambï ma=n   ndï=ta   m
    3SG.SUBJ shun   3SG.OBJ=OBL 3PL=say INTERJ
    'But he didn't want it and told them: "No!"'

(21) *"Un maka ma nambï pen ngat nïnata nï mat mana."*
    un maka ma   nambï p-en   nga=tï   nï=na-ta   nï
    2PL thus   3SG.OBJ body   be-NMLZ SG.PROX=take 1SG=give-COND 1SG
    ma=tï   ma-na
    3SG.OBJ=take go-IRR
    '"If you, like this, give me this thing on her body, I will take it and go."'[49]

---

[48]Having butchered Amblom Yena's fallen body, the villagers distribute her body parts as food. The stranger, as the hero of the day, is offered various body parts.
[49]The stranger rejects the offers of various body parts, asking instead for Amblom Yena's vulva.

(22) *Mï mat i mas isi pul mat lïp.*

mï	*ma=tï*	*i*	*ma=si*	*isi*	*pul*
3SG.SUBJ	3SG.OBJ=take	go.PFV	3SG.OBJ=push	young.pangal	piece

ma=tï	*lï-p*
3SG.OBJ=take	put-PFV

'He brought it and pushed it onto a piece of palm frond.'[50]

(23) *Kukumbe isi pul mat lïpe mï tembip.*

kukumbe	*isi*	*pul*	*ma=tï*	*lï-p-e*	*mï*	*tembi=p*
sago.species	pangal	piece	3SG.OBJ=take	put-PFV-DEP	3SG.SUBJ	bad=COP

'[He] put it on a piece of *kukumbe* sago frond,[51] but it was bad.'

(24) *Mï mas nowe isi pul mat lïpe mï anmap!*

mï	*ma=si*	*nowe*	*isi*	*pul*	*ma=tï*
3s.SUBJ	3SG.OBJ=push	sago.species	young.pangal	piece	3SG.OBJ=take

lï-p-e	*mï*	*anma=p*
put-PFV-DEP	3SG.SUBJ	good=COP

'So he pushed it onto a piece of a *nowe* sago fond,[52] and it was good!'[53]

(25) *Pe mï ma anenisin namndu nduwalep.*

p-e	*mï*	*ma*	*ane-nisi=n*	*namndu*
be-DEP	3SG.SUBJ	3SG.OBJ	sun-flower.sheath=OBL	pig

ndï=wali-e=p
3PL=hit-DEP=COP

'And then he, with its torch,[54] was killing pigs.'[55]

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[50]The word *isi* 'young palm frond' refers to a younger form of the *wema* 'palm frond'. Here the frond is being used as a pike.

[51]The narrator specifies the species of sago palm to which the palm frond pike belongs: *kukumbe* 'sago species (sago palm with no spines)'.

[52]The narrator again specifies the species of sago palm: *nowe* 'sago species (large sago palm with no spines)'.

[53]The mysterious hero, clearly familiar with magic, knows that Amblom Yena's vulva has special properties. He is experimenting with different species of palm fronds to discover how to harness its power.

[54]Literally its 'sun-coconut-flower-sheath'. The flower pods of coconut palms were traditionally used as torches.

[55]Now affixed to the proper species of palm frond, the vulva emits a light like a torch, which the stranger can use to help him hunt pigs at night.

(26) *Manji aweta mï i.*
      ma-nji   aweta mï   i
      3SG.OBJ-POSS friend 3SG.SUBJ go.PFV
      'But then his friend came.'

(27) *Mangop ana mangop.*
      ma=ango-p   ana   ma=ango-p
      3SG.OBJ=NEG-PFV grass.skirt 3SG.OBJ=pull.out-PFV
      '[And the stranger] lied to him, tricked him.'[56]

(28) *"U ma ila we apïn lumope namndu kotïn!"*
      u   ma ila   we apïn lumo-p-e   namndu ko=tï-n
      2SG go morota cut fire put-PFV-DEP pig   INDF=take-IMP
      '"Go and cut sago palm fronds, put them on the fire, and kill a pig!"'[57]

(29) *Mï i ila we apïn up namndu tïke mase mï nip.*
      mï   i   ila   we apïn u-p   namndu tïke   ma=asa-e
      3SG.SUBJ go.PFV morota cut fire put-PFV pig   small 3SG.OBJ=hit-DEP
      mï   ni-p
      3SG.SUBJ die-PFV
      'He went and cut sago palm fronds, put them on the fire, hit a small pig, and it died.'

(30) *Mï numbu mane mï i mankape.*
      mï   numbu ma=ni-e   mï i   ma=nïkï-p-e
      3SG.SUBJ garamut 3SG.OBJ=beat-DEP 3SG go.PFV 3SG.OBJ=dig-PFV-DEP
      'He beat the *garamut* drum until he came, and [they] butchered it.'[58]

(31) *Mat: "Mawnam."*
      ma=ta   mawnam
      3SG.OBJ=say thats.it
      '[And the stranger] said: "That's it."'

---

[56]The verbs here are difficult to parse. The verb 'lie' may be a verbalized form of the negator *ango* 'NEG'. Alternatively, there may be an idiom 'pull off one's grass skirt' meaning 'trick', containing the component *ango-* 'pull out'.

[57]The stranger's friend has come in order to learn how the stranger has been so successful in hunting pigs. The stranger tricks him, however, in that he tells him to make a regular torch from sago palm fronds, not revealing anything of the incandescent vulva.

[58]Having successfully killed a small pig, the friend summons the stranger by beating the *garamut* drum, so that the two may work together to butcher the pig.

(32) *Mï nay awlu ambi mo ma awi we ambi mï keka mat nin ndïl.*

      mï   *na-i*   *awlu ambi ma=u*   *ma*   *awi*   *i*

      3SG.SUBJ DETR-go.PFV step big   3SG.OBJ=from 3SG.OBJ shoulder go.PFV

      we   *ambi mï*   *keka*   *ma=tï*   *nin*   *ndï=lï*

      then big   3SG.SUBJ completely 3SG.OBJ=take thorn 3PL=put

      'He went and stepped onto the shoulder of a big one [= a pig],[59] but then the big one completely got him and pushed [him] into some thorns.'

(33) *Ka atay nipe.*

      ka   *ata i*   *ni-p-e*

      thus up   go.PFV die-PFV-DEP

      '[He] went up like that and [nearly] died.'[60]

(34) *Mï wa i tawa ndul mawap.*

      mï   *wa*   *i*   *tawa* *ndï=ul*   *ma=wap*

      3SG.SUBJ village go.PFV wound 3PL=with 3SG.OBJ=be.PST

      'He went home and stayed there with his wounds.'

(35) *I mangani wonp.*

      i   *ma=angani*   *won-p*

      go.PFV 3SG.OBJ=behind cut-PFV

      '[He] went behind his back.'[61]

(36) *Njin iwïl mase mï keka i atay anam i.*

      nji=n   *iwïl*   *ma=asa-e*   *mï*   *keka*   *i*   *ata-i*

      thing=OBL moon 3SG.OBJ=hit-DEP 3SG.SUBJ completely go.PFV up-go.PFV

      anam i

      sky   go.PFV

      '[He] hit the moon with something and it went completely up, went to the sky.'[62]

(37) *Anam maye mï anmbi.*

      anam ma=i-e   *mï*   *an-mbï-i*

      sky   3SG.OBJ=go.PFV-DEP 3SG.SUBJ out-here-go.PFV

      'When [it] went to the sky, he [= the stranger] came out.'

---

[59]The friend goes out again, this time trying to kill a larger pig.

[60]This second pig is too much for the hunter to handle. While he is climbing onto the pig's shoulders to attack it, the pig bucks, pushing the hunter into a thorny tree, injuring him severely.

[61]Literally 'cut behind him'. The injured friend goes to the home of the stranger without him knowing.

[62]While spying, the injured friend spots the magical vulva, here referred to euphemistically (or with foreshadowing) as the 'moon'. He somehow disrupts it and it flies up into the sky.

(38) *"Nïnji aweta nda nangani wonp!"*
    nï-nji   aweta anda   nï=angani won-p
    1sg-poss friend sg.dist 1sg=behind cut-pfv
    '"That friend of mine has gone behind my back!"'

(39) *Mï tamben mayte i atay.*
    mï   tamben ma=ita-e   i   ata-i
    3sg.subj ladder 3sg.obj=build-dep go.pfv up-go.pfv
    'He [= the stranger] went and built a ladder[63] and climbed up.'

(40) *I si membamlïpe ato ul ka.*
    i   si   ma=imbam-lï-p-e   ata-u   ul   ka
    hand push 3sg.obj=under-put-pfv-dep up-from with let
    '[He] put his hand under it [= the moon] and hung [onto it].'

(41) *Ato ul ke nïplopa ngala i.*
    ata-u   ul   ka-e   nïplopa   ngala   i
    up-from with let-dep flying.fox pl.prox go.pfv
    'As [he] hung, some flying foxes came.'

(42) *Wapan masine i.*
    wapa=n   ma=si-ni-e   i
    wing=obl 3sg.obj=push-beat-dep go.pfv
    '[They] came and played with him with [their] wings.'

(43) *Wawana mu kot manane.*
    wawana   mu   ko=tï   ma=na-n-e
    plant.species fruit indf=take 3sg.obj=give-pfv-dep
    '[They] gave him a *wawana* fruit.'[64]

(44) *Mï man ndït: "Ango mundu kom un mat nïnan!"*
    mï   ma=n   ndï=ta   ango mundu kom un ma=tï
    3sg.subj 3sg.obj=obl 3pl=say neg food   neg 2pl 3sg.obj=take
    nï=na-n
    1sg=give-pfv
    'But he told them: "That's not food you gave me!"'

---

[63]A *tamben* 'ladder' is very tall, used for climbing trees, as opposed to a *wat* 'ladder', which is shorter and leads up to the entrance of a house.

[64]The flying foxes are curious about this new creature (a man) that has come to join their realm in the sky. They give him a *wawana* fruit, which is something a flying fox (but not a human) would typically eat.

(45) *Ndï i ma nan amblakap.*
      ndï i   ma   na=n   ambla=kï-p
      3PL go.PFV 3SG.OBJ talk=OBL PL.REFL=say-PFV
      'They went and talked about him.'[65]

(46) *Wop wolka i umbenam i.*
      wo-p   wolka i   umbenam i
      sleep-PFV again go.PFV morning   go.PFV
      'The next day, [they] came again, came in the morning.'

(47) *Ato mawlop.*
      ata-u   ma=u-lo-p
      up-from 3SG.OBJ=from-go-PFV
      '[They] grabbed onto him.'

(48) *Iwïl membam u motop anmbïlïp.*
      iwïl   ma=imbam   u   ma=top   an-mbï-lï-p
      moon 3SG.OBJ=under from 3SG.OBJ=throw out-here-put-PFV
      '[And they] threw him out from under the moon.'

(49) *Em Amblom manji mïnam.*
      em Amblom ma-nji   mï-nam
      3SG [name] 3SG.OBJ-POSS 3SG.SUBJ-INT
      'That's it;[66] that's Amblom's [story].'

19.3 *Anmoka* ('Snakes')

This is a description of a traditional cultural practice, as told by Tangin Kapos on 1 June 2017, at her home in Manu village. This text is part of a larger conversation between Tangin Kapos and Gweni Tungun. Examples from this text that appear elsewhere in this book are labeled "ulwa035_mm:ss". The audio recording can be found on the ELAR website (file name: ulwa035.wav). The entire recording is almost six minutes long (05:51). The following text, however, represents about the first minute (00:57) of the recording; in the rest of the recording (not transcribed here), the speaker recounts a crocodile hunt.

In this text, Tangin describes a traditional method of inducing labor, which would be used when a husband suspected that his wife was overdo in carrying

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[65]When the man refuses the *wawana* fruit as something inedible, the flying foxes become suspicious and are wary about having him around.

[66]The pronoun *em* '3SG', used here as an interjection, is a loan from Tok Pisin.

their child. The husband would kill a snake and wrap its body in a banana leaf, as if it were cooked food. He would then give this package to his wife, who, thinking it was food, would unwrap it, see the snake, and get a shock, which – it was believed – would induce her to bear the child on that very night.

(1) *Anmoka stori.*
    anmoka stori
    snake   story
    'A snake story.'[67]

(2) *Nambi sawe anmoka ala namnapen.*
    nï-ambi sawe anmoka ala   namna=p-en
    1SG-TOP HAB snake   from afraid=COP-NMLZ
    'As for me, I'm afraid of snakes.'[68]

(3) *Nï wandam mata ankam anmoka matïm mapta nï mandï namnap unip.*
    nï wandam ma-ta   ankam anmoka ma=atï-m   ma=p-ta
    1SG jungle   go-COND person snake   3SG.OBJ=hit-IRR 3SG.OBJ=be-COND
    nï ma=andï   namna=p uni-p
    1SG 3SG.OBJ=from afraid=COP shout-PFV
    'Whenever I go to the jungle and people kill a snake there, I shout in fear about it.'

(4) *Wopa ndawa u mana mane.*
    wopa anda-awa u   ma-na ma-n-e
    all   SG.DIST-INT from go-IRR go-IPFV-DEP
    '[I] am going to go far from there.'

(5) *Ango anmoka ndala nambï nïpatpe.*
    ango anmoka ndï=ala nambï nïpat=p-e
    NEG snake   3PL=for skin   giant=COP-DEP
    '[I] don't have thick skin for snakes.'[69]

---

[67] *Stori* 'story' is from Tok Pisin.

[68] The habitual marker *sawe* 'HAB' is borrowed from the Tok Pisin habitual marker *save* (literally 'know').

[69] Literally 'not for the snakes is skin giant' (i.e., the speaker is easily frightened by snakes).

(6) *Anmoka ndï ala ipka inom ala nambï kenmbupe itom ala ndïwale ndïn*
     muku ite ndït wa unde ndïmune ndïwat awe.
     anmoka ndï ala   ipka   inom   ala   nambï kenmbu=p-e   itom
     snake   3PL PL.DIST before mother PL.DIST skin   heavy=COP-DEP father
     ala   ndï=wali-e ndï=n   muku   ita-e   ndï=tï   wa   unda-e
     PL.DIST 3PL=hit-DEP 3PL=OBL package tie-DEP 3PL=take village go-DEP
     ndï=mune   ndï=wat   aw-e
     2PL=throw 3PL=atop put.IPFV-DEP

     'Snakes[70] – people in the past, when mothers were pregnant,[71] the
     fathers used to kill them [= snakes], tie them up into packages [with
     leaves], bring them home, and toss them [= the wrapped snakes] to them
     [= the pregnant women].'[72]

(7) *"U alum man nambï ka wap ngayap."*
     u   alum ma=n   nambï ka wap   ngaya=p
     2SG child 3SG.OBJ=OBL body   on be.PST far=COP

     '"You've been with a child on your body for [too] long."'[73]

(8) *"Wap ngayape oke."*
     wap   ngaya=p-e   oke
     be.PST far=COP-DEP ok

     '"[You] have been [that way] for [too] long, OK."'[74]

(9) *Manap anmoka matïm map man muku itap matï ma angop mundu tï*
     mawatlïp mat mananda.
     ma=nap   anmoka ma=atï-m   ma=p   ma=n   muku
     3SG.OBJ=for snake   3SG.OBJ=hit-IRR 3SG.OBJ=be 3SG.OBJ=OBL package
     ita-p   ma=tï   ma ango=p   mundu tï   ma=wat-lï-p
     tie-PFV 3SG.OBJ=take go   NEG=COP food   take 3SG.OBJ=atop-put-PFV
     ma=tï   ma=na-nda
     3SG.OBJ=take 3SG.OBJ=give-IRR

     'Having killed a snake for her there, made a package with it, and brought
     it [home], [the husband], pretending that it was food, would give it to
     her.'[75]

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[70]After the preceding prologue about the speaker's fear of snakes, she begins now to describe a
traditional means of inducing labor that relies on a woman's fear of snakes.

[71]Literally 'bodies (have) heaviness'.

[72]That is, the husband would toss the leaf-wrapped snake to his wife as if it were food.

[73]This is what a husband might say to his presumed overdo wife.

[74]The interjection *oke* 'OK' is borrowed from Tok Pisin *oke* 'OK'.

[75]Literally 'in a false way taking [the name] "food" and putting [it] on it [= the snake]'.

(10) *Mat manata mï makanakawmop lïmndï mandï mandï unipïna: "Yi!"*
　　ma=tï　　　ma=na-ta　　　　mï　　　ma=kanaka-lumo-p
　　3sg.obj=take 3sg.obj=give-cond 3sg.subj 3sg.obj=unwrap-put-pfv
　　lïmndï ma=andï　　ma=andï　　uni=p-na　　　yi
　　eye　　3sg.obj=see 3sg.obj=for shout=cop-irr interj
　　'When [he] has given it to her, she would unwrap it, see it, and shout[76] about it: "Eek!"'

(11) *Mala namnap unipïna.*
　　ma=ala　　　namna=p　uni=p-na
　　3sg.obj=from afraid=cop shout=cop-irr
　　'[She] would shout in fear of it.'

(12) *Ta manji alum mï tïnangata mï mokotnda.*
　　ta　　　ma-nji　　　alum mï　　　tïnanga-ta　mï
　　already 3sg.obj-poss child 3sg.subj arise-cond 3sg.subj
　　ma=kot-nda
　　3sg.obj=break-irr
　　'Immediately, her baby would get up, and she would bear[77] it.'

(13) *Olsem mï amun imba pïta mï mandï unipta mï imba pïta alum mï tïnangana.*
　　olsem mï　　　amun imba p-ta　　　mï　　　ma=andï
　　thus　　3sg.subj now　　night be-cond 3sg.subj 3sg.obj=for
　　uni-p-ta　　　　mï　　　imba p-ta　　　alum mï　　　tïnanga-na
　　shout-pfv-cond 3sg.subj night be-cond child 3sg.subj arise-irr
　　'And so,[78] it – that night, when she shouted about it, it – that night – the baby would get up.'

(14) *Men u tïnangata mï imba pïta mokotnda.*
　　ma=in　　　u　　tïnanga-ta mï　　　imba p-ta　　　ma=kot-nda
　　3sg.obj=in from arise-cond 3sg.subj night be-cond 3sg.obj=break-irr
　　'When [the baby] would get up inside her, she would bear it that night.'

---

[76]The form *unipïna* 'shout [irr]' appears to be an alternate form of *uninda* 'shout [irr]', seemingly formed with the copular enclitic plus the irrealis suffix.

[77]The form *kotnda* 'break [irr]' appears to be an alternate form of *kotïna* 'break [irr]', exhibiting the allomorph [-nda] of the irrealis suffix *-na* 'irr'].

[78]The connector word *olsem* 'thus' is from Tok Pisin.

20 The Maruat-Dimiri-Yaul dialect of Ulwa

This chapter provides information on the Maruat-Dimiri-Yaul dialect of Ulwa, focusing on the ways in which it differs from the Manu dialect, which is otherwise the basis of description in this grammar. As its name implies, the Maruat-Dimiri-Yaul dialect of Ulwa is spoken in the three villages of Maruat, Dimiri, and Yaul, each of which is within an hour's walk of the other two. Manu village is at least a four-hour walk from these three villages. The trip is considerably longer when trail conditions are more challenging, such as during the rainy season.

The data for this description come mainly from Yaul villagers, some of whom I visited in Yaul in 2015, and some of whom I met living in the town of Angoram in 2018. I have also consulted Laycock's (1971a) field notes, which are reproduced as Appendix F. Finally, I have considered data that I collected at Maruat and Dimiri in 2015, although I have spent less time with speakers from those two villages.

Although lexically somewhat divergent, the two main dialects of Ulwa appear to be rather similar grammatically. That said, I have much less information on the grammar of this dialect than I do for the Manu dialect, especially concerning less common and more complex grammatical structures. It is possible that more differences exist than the ones I am aware of. Nevertheless, the basic syntactic structures and morphology appear to be very similar.

20.1 Lexical similarity among the Ulwa dialects

The lexical differences that exist among the three villages of Maruat, Dimiri, and Yaul are very minor (and some of the apparent differences in my data are probably due to errors of elicitation or to synonymy rather than to a true lack of cognacy). Of 74 words[1] from the Swadesh 100-word wordlist:

> 69 words (93%) are cognate between Yaul and Maruat,
> 69 words (93%) are cognate between Yaul and Dimiri, and
> 71 words (96%) are cognate between Maruat and Dimiri.

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[1] 26 words were discarded due to either lack of data or duplication of data elsewhere in the list.

Similarly, from the SIL-PNG list of 170 words:

> 120 out of 128 words (94%) are cognate between Yaul and Maruat,
> 123 out of 129 words (95%) are cognate between Yaul and Dimiri, and
> 123 out of 128 words (96%) are cognate between Maruat and Dimiri.

Thus, at least based on this crude metric, we can say that the varieties of Ulwa spoken at the three villages of Maruat, Dimiri, and Yaul are roughly 95% lexically similar to one another.

The Manu dialect, however, is clearly distinct, at least in terms of vocabulary. Of 84 words[2] from the Swadesh 100-word wordlist, 72 (86%) are cognate between Manu and Yaul. Similarly, of 141 words from the SIL-PNG list, 121 (86%) are cognate between Manu and Yaul. Likewise, between Manu and Dimiri, 62 of 74 words (84%) of the Swadesh list are cognate and 109 of 129 words (84%) of the SIL-PNG list are cognate. Between Manu and Maruat, 61 of 74 words (82%) of the Swadesh list are cognate and 106 of 128 words (83%) of the SIL-PNG list are cognate. These percentages are summarized in Table 20.1. Percentages are averaged between those of the Swadesh and SIL-PNG lists, where different.

Table 20.1: Cognacy rates among Ulwa varieties

	Manu	Yaul	Dimiri	Maruat
Manu	100%	86%	84%	83%
Yaul		100%	94%	93%
Dimiri			100%	96%
Maruat				100%

It should be noted, however, that although such lists are intended to reflect so-called basic vocabulary items (i.e., words that are theoretically less likely to be replaced over time), some items on these lists are probably not terribly basic, at least not in the New Guinea context. It is remarkable that, of the 12 non-cognate words among the 84 words used from the Swadesh-100 list, seven are adjectives ('hot', 'cold', 'red', 'black', 'long', 'small', 'many').[3]

For the sake of convenience (and because all of the following data come specifically from Yaul villagers), I will henceforth simply use "Yaul" in referring to the Maruat-Dimiri-Yaul dialect of Ulwa.

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[2]16 words were discarded due to either lack of data or duplication of data elsewhere in the list.

[3]The remaining five non-cognate words are 'person', 'fish', 'grease', 'head', and 'liver'.

20.2   Sound changes

A few sound changes have led to differences in pronunciation between the two dialects. By far the most salient is the change of non-final *l to /n/ in Manu. Speakers of both dialects are very aware of this *l* : *n* correspondence and are quick to offer examples of how speakers of the other dialect "mispronounce" certain words. Word-initial examples of the correspondence are given in Table 20.2.

Table 20.2: Word-initial *l* : *n* correspondences between Yaul and Manu

gloss	Yaul word	Manu word
'talk, speech'	*la*	*na*
'die'	*li-*	*ni-*
'near'	*lu*	*nu*
'lizard'	*lïkït*	*nïkït*
'thorn'	*lin*	*nin*
'vine'	*lïpïl*	*nïpïl*
'dig'	*lïkï-*	*nïkï-*
'beak'	*lokal*	*nokal*
'IRR'	*-la*	*-na*

Word-medial examples of the correspondence are given in Table 20.3.

Table 20.3: Word-medial *l* : *n* correspondences between Yaul and Manu

gloss	Yaul word	Manu word
'sky, cloud'	*alam*	*anam*
'sun'	*ale*	*ane*
'snake'	*almoka*	*anmoka*
'boil, abscess'	*kalalum*	*kananum*
'spear'	*mala*	*mana*
'hot water'	*malal*	*manal*
'navel'	*ulet*	*unet*
'feel'	*wala-*	*wana-*

In a few instances, the change of *l to /n/ in Manu was accompanied by metathesis of the following vowel and consonant, as illustrated in Table 20.4.

Table 20.4: Metathesis in some Manu words following *l > *n*

gloss	Yaul word	Manu word	changes in Manu
'lime gourd'	*ali**s***	*an**s**i*	**alis > *anis > ansi*
'elbow'	*il**up***	*in**pu***	**i-lup 'arm-base' > *inup > inpu*

At least for one word, however, it appears that the Yaul dialect was the one that underwent a transposition, namely, of *l (Table 20.5).

Table 20.5: Metathesis of *l in Yaul

gloss	Yaul word	Manu word	changes in Yaul
'*tulip* greens'	*amo**l**apa*	*a**n**mopa*	**alma-wapa ? ('good-leaf'?) > *almoapa > amolapa*

Some examples of word-medial /l/ found in contemporary Manu are likely due to metathesis of formerly word-final *l (Table 20.6).

Table 20.6: Metathesis of word-final *l in Manu

gloss	Yaul word	Manu word	changes in Manu
'PL.REFL'	*amba**l***	*amb**l**a*	**ambal > ambla*
'root'	*iwï**l***	*i**l**u*	**iwul > *iwlu > ilu*

In at least one case, Manu preserves an original word-final /l/ where Yaul has undergone metathesis (Table 20.7).

Table 20.7: Metathesis of word-final *l in Yaul

gloss	Yaul word	Manu word	changes in Yaul
'sugarcane'	*mï**l**i*	*mi**l***	**mil > *mli > mïli*

In three instances, there appears to be a reverse correspondence of *n : l* – that is, Yaul exhibits /n/ where Manu has /l/ (Table 20.8).

Table 20.8: "Reverse correspondence" of *n* : *l* between Yaul and Manu

gloss	Yaul word	Manu word
'pig'	**n**amndu	**l**amndu
'dream'	**n**ongam	**l**ongam
'eye'	**n**ïmndï	**l**ïmndï

In *lamndu* 'pig', the presence of /l/ in Manu is likely due to folk etymology from *lam* 'meat' (itself a loan from Ap Ma). I do not know the etymologies of the other two words. It should be noted, though, that some Manu speakers produce [namndu] for 'pig'; moreover, some Yaul speakers produce [lïmndï] for 'eye'. Indeed, variation between [l] and [n] – sometimes within even a single speaker's realization of a single word – is common in the Keram family. Contemporary Manu has plenty of examples of word-initial and word-medial /l/. Some of these are due no doubt to borrowing, but some may also reflect language-internal sporadic changes of *n to /l/, in some instances reversions back to the Pre-Ulwa form.

Aside from this *l* : *n* correspondence, there are not many robust phonemic differences between the Yaul and Manu dialects. The realization of initial *y- in the two dialects is somewhat variable. Generally, when the onset of the following syllable was not a nasal (or prenasalized) consonant, *y- became /n/ in Manu, but was retained as /y/ in Yaul (Table 20.9).

Table 20.9: *y > *n* / # _ VC [-nasal] in Manu

gloss	Yaul word	Manu word	changes in Manu
'vegetables'	**y**at**l**at	**n**at**n**at	*y- > *n*- ; *-l- > -*n*
'body hair'	**y**il	**n**il	*y- > *n*-
'bamboo species'	**y**okam	ani-**n**okam ('throat')	*y- > *n*-

However, when the following onset was a nasal (or prenasalized) consonant, Manu seems to have retained initial *y-, whereas Yaul behaves less predictably, reflecting either /l/ or /n/ (Table 20.10).

It is difficult to disentangle what is happening here. Family-internal borrowing could be complicating the matter. It could also be that the approximant /y/ is part of a more general pattern of sporadic *l* : *n* : *y* alternations in the Keram

Table 20.10: **y > l ~ n / # _ VC [+nasal]* in Yaul

gloss	Yaul word	Manu word	changes in Yaul
'*aibika* greens'	**l**omol	**y**omal	**y- > l-*
'mosquito'	**n**angun	**y**angun	**y- > n-*

languages. The verb 'carve', for example, is difficult to explain in Ulwa, especially since comparison to other Keram languages seems to indicate a proto-form **lo* (Table 20.11).

Table 20.11: The verb 'carve' in Ulwa dialects

gloss	Yaul word	Manu word	Pre-Ulwa word
'carve'	*lo- ~ yo-*	*lo-*	**lo- (?)*

Thus, Manu reflects *lo-* 'carve' instead of the expected [†]/no-/; and, alongside the expected reflex *lo-* 'carve', Yaul has an alternate form /yo-/ that points to a change of **l-* to /y-/ (the reverse of the aforementioned Yaul sound change).

The approximant /w/ also exhibits some unusual behavior. In some instances, final **w* has become /m/ in Yaul (Table 20.12).

Table 20.12: Sporadic changes of final **-w > -m* in Yaul

gloss	Yaul word	Manu word	changes in Yaul
'betel nut'	*am*	*aw*	**-w > -m* (**aw-mu > *awm > am*)
'belly'	*inapam*	*inapaw*	**-w > -m*
'paddle'	*anam*	*anaw*	**-w > -m*

At least in the case of *am* 'betel nut', an apparent change of **-w* to /-m/ probably instead reflects compounding with the suffix-like element *mu* 'fruit, seed, nut'. That is, **aw-mu* 'areca palm-nut' was reduced to one syllable (**awm*), and then the **wm* cluster was reduced to [m]. The attested alternative Yaul pronunciation of [awm] strongly supports this idea.

In other instances, a medial /w/ in Yaul corresponds to a medial /m/ in Manu (Table 20.13).

Table 20.13: Occasional correspondence of *w* : *m* between Yaul and Manu

gloss	Yaul word	Manu word
'housefly'	*nji**w**ala*	*nji**m**ana*
'nape of the neck'	*tumbun**wa***	*tumbun**ma***

Here I suspect that there was an original medial *mw cluster, which was simplified in different ways in the two dialects (i.e., *mw > *w* in Yaul; *mw > *m* in Manu). Indeed, Laycock (1971a: 3220) records <tumbʊnmwɔ> for 'nape of the neck' in Yaul. This word itself may reflect a compound containing *umwa 'neck'. Compare Manu *um* 'neck', and the variable Yaul forms *umo* ~ *umwo* 'neck'. Laycock (1971a: 3220) records <wuwɑ> 'neck' for Yaul.

In one case, a final *-l seems to have become /-w/ in Manu, whereas in another case a final *-w seems to have become /-l/ (Table 20.14).

Table 20.14: Sporadic change of final *-l > -*w* and final *-w > -*l* in Manu

gloss	Yaul word	Manu word	Pre-Ulwa word
'scale'	*wowa**l***	*wowa**w***	*wowal (?)
'afternoon'	*awa**w***	*awa**l***	*awaw (?)

The reconstructions in Table 20.14 are made based on comparison to Ulwa's sister languages. While the change of Manu *wowal to /wowaw/ 'scale' may be due to a sporadic retrograde assimilation to the medial /w/; the change of *awaw to /awal/ is more difficult to explain.

Finally, there is variation in the presence or absence of word-initial [w-] when immediately preceding /u/ (Table 20.15).

Table 20.15: Idiosyncrasies of initial [wu- ~ u-] in Yaul and Manu

gloss	Yaul word	Manu word
'bird'	***w**uta*	*uta*
'worm'	***w**utal*	*utal*
'fan'	*un*	***w**un*

Since there is likely both glide epenthesis and glide deletion at play in both dialects, it is difficult to make much of these apparent differences: they may mostly reflect idiosyncrasies, or perhaps arbitrary decisions that I myself made in transcribing different forms.

Sometimes Yual [wï-] corresponds to Manu [wu- ~ u-], as in Table 20.16.

Table 20.16: Some correspondences of *wï-* : *(w)u-* between Yaul and Manu

gloss	Yaul word	Manu word
'coconut shell'	**wï**ta	**wu**ta ~ **u**ta
'leg'	**wï**tï	**wu**tï
'with'	**wï**l	**u**l

In addition to these sometimes regular, sometimes seemingly sporadic consonant correspondences, there is some variability in vowel quality between the two dialects. Again, it is unclear to what extent this reflects actual dialectal differences as opposed to, say, idiolectal differences, especially considering the limited number of Yaul speakers I worked with. In a number of cases, it seems that Manu has rounded *a to /o/ when either directly preceding or directly following a labial consonant (/w, m, mb, p/), as in Table 20.17.

However, this same *a* : *o* correspondence may also be found in the absence of neighboring labials (Table 20.18).

The reverse correspondence (i.e., *o* : *a*) is also attested (Table 20.19). This may reflect hypercorrection on the part of Manu dialect, since in all examples the vowel in question directly neighbors a labial consonant.

In two words, both *o* : *a* and *a* : *o* correspondences can be seen, perhaps reflecting both rounding and hypercorrection in the same word, or perhaps resulting from metathesis of the vowels /a/ and /o/ (Table 20.20). Both examples exhibit word-initial /y-/; I do not know whether this is relevant.

Examples of other sporadic vowel correspondences are given in Table 20.21. Note that *lenjin* ~ *lanjin* 'fish species' is likely a loan from Ap Ma *landʒin* 'fish species (perch) (TP *nilpis*)' (Barlow 2021: 77), thus explaining the word-initial /l-/ in the Manu form.

Table 20.17: Manu *a > *o*, when directly preceding or following a labial

gloss	Yaul word	Manu word	notes
'bandicoot'	**wa**ndi	**wo**ndi	
'hair'	**wa**nïmi	**wo**nmi	
'tusk'	**wa**nmbi	**wo**nmbi	
'breast'	**wa**lum	**wo**l	< *wal-um 'breast-fruit'
'penis'	**wa**l	**wo**n	< *walV (?); Manu *n* < *l
'father'	it**am**	it**om**	
'mother'	in**am**	in**om**	
'day'	il**am**	il**om**	
'forehead'	mon**amb**am	mon**omb**am	
'stomach'	u**mba**pa	u**mbo**pa	
'cockatoo'	ya**p**uta	yo**p**a	
'throw'	ta**p**	to**p**	

Table 20.18: Correspondence of *a* : *o* between Yaul and Manu (in a non-labial environment)

gloss	Yaul word	Manu word
'sweet potato'	n**a**ngontam	n**o**ngontam

Table 20.19: "Reverse correspondence" of *o* : *a* between Yaul and Manu (in labial environments)

gloss	Yaul word	Manu word
'strap'	w**o**m	w**a**m
'village'	w**o**	w**a**
'wallaby'	w**o**kan	w**a**kan
'bedbug'	m**o**mbïn	m**a**mbun

Table 20.20: Correspondence of *a … o* : *o … a* between Yaul and Manu

gloss	Yaul word	Manu word
'palm of the hand'	*yambom*	*yombam*
'snake species'	*yamo*	*yoma*

Table 20.21: Sporadic vowel correspondences between Yaul and Manu

gloss	Yaul	Manu	correspondences
'bad'	*tambi*	*tembi*	*a : e*
'cough'	*uten*	*utan*	*e : a*
'some'	*kume*	*kuma*	*e : a*
'fish species'	*lenjin*	*lanjin*	*e : a*
'*pangal*'	*woma*	*wema*	*o : e*
'bow'	*wenguta*	*wongïta*	*e : o* ; *u : ï*
'buttocks'	*unmbu*	*unmbï*	*u : ï*
'hunger'	*mundï*	*mundu*	*ï : u*
'frog species'	*kïlikïli*	*kïlakïli*	*i : a*
'yellow'	*mïndït*	*mïndit*	*ï : i*
'all'	*wupa*	*wopa*	*u : o*
'river'	*numul*	*nïmal*	*u : ï* ; *u : a*
'white'	*waembïl*	*wembal*	*ae : e* ; *ï : a*

20.3 Phonetics and phonology

One simply phonetic difference between the Manu and Yaul dialects is found in the pronunciation of the glide /w/. In Manu this phoneme is almost always pronounced as a labial-velar approximant [w], whereas in Yaul it tends to be pronounced as a labiodental approximant [ʋ]. It may be noted that the Mundukumo language, which has been especially influential on the Yaul dialect of Ulwa, has a phonemic /v/. Otherwise, the two dialects are phonetically rather similar.

The phonemic inventories of the two dialects are exactly the same. The Yaul dialect does not appear to have the very limited phone [æ] that has been observed in just four Manu dialect words (§4.2.1).

In terms of phonological rules, the only difference between the dialects that I know of concerns glide formation. In Manu, vowel sequences of /ai/ and /au/

become [ay] and [aw], respectively. Otherwise, central vowels /a, ɨ/ are deleted before immediately following vowels, suggesting that this glide-formation rule in Manu bleeds the vowel-deletion rule (§4.5.1). In Yaul, however, central vowel deletion occurs unimpeded. Thus, we see contrasts such as those in (1).

(1) Central vowel deletion in /ai/ and /au/ sequences in Yaul

    a. Yaul   vs. b. Manu
        [mɨta]   [mayta]
        /ma=ita/   /ma=ita/
        'build it'   'build it'

    c. Yaul   vs. d. Manu
        [muta]   [mawta]
        /ma=uta/   /ma=uta/
        'grind it'   'grind it'

20.4 Morphology

The two dialects are very similar in terms of morphology as well. Like Manu, Yaul exhibits a basic three-way TAM distinction in verbal suffixes (2).

(2) TAM suffixes in Yaul
    -e ~ -i   imperfective ('IPFV')
    -pe ~ -pi   perfective ('PFV')
    -la ~ -nda irrealis ('IRR')

For its basic imperfective suffix, the Yaul dialect employs either *-e*, 'IPFV' (as in Manu) or the allomorph *-i* 'IPFV'. These two forms appear to be in free variation. Similarly, instead of Manu's perfective suffix *-p* 'PFV', Yaul generally employs either *-pe* 'PFV' or *-pi* 'PFV', again, in free variation. Less commonly, I have also observed *-pa* 'PFV', *-pɨ* 'PFV', and indeed *-p* 'PFV' as variations of the Yaul perfective suffix.[4] Finally, the irrealis form *-la* 'IRR' in Yaul is the expected cognate to Manu *-na* 'IRR' (Pre-Ulwa *-la). The allomorph *-nda* 'IRR', however, appears to behave less predictably in Yaul than in Manu. Whereas the Manu allomorph is

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[4]It is unclear whether the vowel-final Yaul forms are more archaic, reflecting the final vowel segment of Proto-Keram *-apɨ 'PFV', or whether they are innovative, adding a final vowel to what would – according to this hypothesis – be Pre-Ulwa *-p 'PFV'. The Yaul dialect appears to show a stronger aversion to codas than the Manu dialect, so its phonotactics may have encouraged such paragogic vowels.

conditioned by a preceding sonorant consonant (§6.2), I can find no clear condi-
tioning environment for *-nda* 'IRR' in Yaul. My data here could be unreliable.

Sentences (3), (4), and (5) exemplify imperfective verb forms in Yaul.

(3) *Itam ma apa **mite**.*
   *itam   mï-a   apa   ma=ita-**e***
   father 3SG.SUBJ-INT house 3SG.OBJ=build-IPFV
   'Father is building a house.' [elicited]

(4) *Sïmboy ma ya **mute**.*
   *sïmboy mï-a   ya   ma=uta-**e***
   child   3SG.SUBJ-INT coconut 3SG.OBJ=grind-IPFV
   'The child grinds the coconut.' [elicited]

(5) *Yeta wokïn mï tïn samola **masi**.*
   *yeta wokïn mï   tïn   samola ma=asa-**i***
   man huge   3SG.SUBJ dog small   3SG.OBJ=hit-IPFV
   'The big man is hitting the small dog.' [elicited]

Sentences (6) and (7) exemplify perfective verb forms in Yaul.

(6) *Ndï awaw kambïn **masapi**.*
   *ndï awaw   kambïn ma=asa-**pi***
   3PL yesterday child   3SG.OBJ=hit-PFV
   'Yesterday they hit the child.' [elicited]

(7) *Inam ngata ma **lipe**.*
   *inam   ngata mï-a   li-**pe***
   mother grand 3SG.SUBJ-INT die-PFV
   'The old woman is dead [= has died].' [elicited]

Sentences (8) and (9) exemplify irrealis verb forms in Yaul.

(8) *Nï **mawalinda** mï **sala** ne.*
   *nï ma=wali-**nda** mï   sa-**la** n-e*
   1SG 3SG.OBJ=hit-IRR 3SG.SUBJ cry-IRR want-IPFV
   'I'll hit him and he'll cry.' [elicited]

(9) *asi **kanda***
   *asi ka-**nda***
   sit let-IRR
   '[We] will sit down.' [(Laycock 1971a: 3256); glossing mine]

Irregular verbs (with their associated irregular TAM suffixes) mostly behave the same in Yaul as they do in Manu. Moreover, the same suppletive verbal forms (i.e., for 'hit' and 'go') are attested. The verbs *ka-* 'let' (10) and *wo-* 'sleep' (11), however, do not seem to employ the Manu irrealis forms with the prefix-like element [la-] (cf. §6.3).[5]

(10) The verb *ka-* 'let' in Yaul

    ka   'IPFV/PFV'
    ka-nda 'IRR'   (cf. Manu *la-ka-na*)

(11) The verb *wo-* 'sleep' in Yaul

    wow-e 'IPFV'
    wo-pi 'PFV'
    wo-la 'IRR'   (cf. Manu *lo-wo-nda*)

Yaul pronouns match their Manu counterparts, with the slight distinction that Yaul more consistently drops the final /-n/ from the two disyllabic forms that have it (i.e., [una] for /unan/ '1PL.INCL' and [nguna] for /ngunan/ '1DU.INCL'). Yaul also makes more frequent use of the intensive suffix *-awa* 'INT', typically reduced to [-a], thereby producing forms such as those in Table 20.22.[6]

Table 20.22: Intensive pronominal forms in Yaul

	SG	DU	PL
1	*na*	*ngana* [EXCL]	*ana* [EXCL]
		nguna [INCL]	*una* [INCL]
2	*wa*	*nguna*	*una*
3	*ma*	*mina*	*nda*

Thus there is often apparent homophony between the forms *una(n)* '1PL.INCL' and *una(wa)* '2PL-INT' and between *nguna(n)* '1DU.INCL' and *nguna(wa)* '2DU-INT'. Furthermore, the distinction between subject and non-subject forms,

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[5]These [la- ~ lo-] forms in Manu may be innovations, perhaps reflecting a fossilized form of the archaic detransitivizing prefix *la- (contemporary Manu *na-* 'DETR'). Yaul does, however, employ the same possibly related irrealis form of 'eat' as found in Manu (i.e., *ama-* 'eat', *landa* 'eat [IRR]').

[6]The deletion of final /n/ and the insertion of final /a/ could both be motivated by Yaul's aversion to codas.

generally only observable in 3sg forms, is mostly eroded in Yaul, since the subject form /mï/ is frequently pronounced [ma] (< /mï-a/), thereby becoming homophonous with the non-subject form /ma/. However, the distinction seems to be partially maintained in the 3du, where the non-subject form has the allomorph [mini=] when immediately preceding /n-/. In fact, in Yaul, as opposed to in Manu, /l-/ conditions this allomorphy as well as /n-/, as illustrated by (12).

(12)   *Itam ma num nini **minilope**.*
       *itam   mï-a   num   nini **mini**=lo-pe*
       father 3sg.subj-int canoe two 3du.obj=cut-pfv
       'Father carved two canoes.' [elicited]

Example (12) also exhibits the use of the intensive suffix *-a* 'int' on subject markers, which is common in Yaul.

The reflexive/reciprocal pronominal forms in Yaul are given in Table 20.23.[7]

Table 20.23: Reflexive/reciprocal pronouns in Yaul

	SG	DU	PL
REFL	*amba=*	*ambin=*	*ambal=*

The Yaul plural formative [-al] provides evidence that the Manu plural form [-la] in the plural reflexive form [ambla] has undergone metathesis, thus explaining the preservation of /l/, otherwise expected to change to /n/, were it originally in word-medial position.

The topic-marking pronominal suffix is *-ambo* 'top', which probably also derives from *ambï, but with an emphatic suffix *-o* 'emph' added.

As in Manu, the possessive suffix in Yaul is *-nji* 'poss' (§8.2). There are no other known differences between the two dialects in terms of grammatical morphemes.

20.5 Syntax

The two dialects are rather similar in their syntax as well. The order of basic constituents is the same, as is the order of elements within noun phrases and within verb phrases. Yaul exhibits discontinuous verb constructions of the kind

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[7]Note that the singular reflexive form may actually be /ambï/, but with the intensive suffix *-a* 'int' added. The form *ambal=* 'pl.refl' is alternatively recorded as [ambal-a=].

used in Manu (§11.2.1), as well as verbal compounding with light verbs like 'put' (§11.2.2) and 'let' (§11.2.3). Equative sentences can be formed without an overt copula. Alternatively, the copular enclitic *=p* 'cop' can be used. Yaul also has the related locative verb *p-* 'be, be at', but no past-tense form †[wap] is attested. This may be a Manu innovation.

While periphrastic 'going' verb phrases are not attested in Yaul, it is very common for future-time sentences to employ what appears to be a volitive/conative auxiliary verb *ne ~ ni* 'want, will, try', as in examples (13) through (16).

(13) *Nï uwïl la tanda **ne**.*
      nï   u=wïl   la-ta-nda   **n-e**
      1SG 2SG=with DETR-say-IRR want-IPFV
      'I want to speak with you.' [elicited]

(14) *Mï utam ndïlanda **ni**.*
      mï   utam ndï=la-nda **n-i**
      3SG.SUBJ yam 3PL=eat-IRR want-IPFV
      'She will eat the yams.' [elicited]

(15) *Na umbe indï wandïla **ne**.*
      nï-a   umbe   indï u=andï-la   **n-e**
      1SG-INT tomorrow eye   2SG=see-IRR want-IPFV
      'I'll see you tomorrow.'[8] [elicited]

(16) *Na umbe wo mana **ne**.*
      nï-a   umbe   wo   ma-na **n-e**
      1SG-INT tomorrow village go-IRR want-IPFV
      'I want to go to the village tomorrow.'[9] [elicited]

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[8]In example (15) we see a reduction of *nïmndï* 'eye' to [indï], which seems to occur commonly in Yaul when this word is used as part of a discontinuous verb construction.

[9]It should be observed that the Yaul irrealis form of 'go' is [ma-na], and not †[ma-la], indicating that the Pre-Ulwa irregular irrealis suffix for 'go' is *-na. This explains why the Ulwa form is not the expected †[-nda] following the sonorant /m/. Indeed, I suspect that this irregular *-na* 'IRR' suffix may derive from this volitive auxiliary verb, still productive in Yaul, but only present as the grammaticalized suffix in Manu. This same verb *n- likely also lies behind the irregular perfective forms *tï-n* 'take-PFV', *na-n(a)* 'give-PFV', and *i-n* 'come-PFV' (§6.3). It should also be noted that the Yaul irrealis form of 'come' is (as in Manu) *i-na* 'come-IRR', suggesting that this verb (like *ma-na* 'go-IRR') contains the fossilized auxiliary verb *n- 'want, will, try', as opposed to the regular irrealis suffix *-la 'IRR'. This auxiliary verb *n- may ultimately be related to the light verb *ni-* 'act, do'.

In example (8), which features the non-volitional verb 'cry', the auxiliary *ne* 'want, will, try' seems to have little or no volitive or conative force, presumably simply indicating futurity or potentiality. Example (13) additionally shows the use of the detransitivizing prefix *la-* 'DETR', the expected cognate of Manu *na-* 'DETR'.

As in Manu, 'giving' constructions are formed with two clauses, the first containing the verb *tï-* 'take', the second containing the verb *na-* 'give', as in (17).

(17) *Yana mï ya **matï** numon **manane**.*
  yana   mï   ya   ma=**tï**   numon   ma=**na-ne**
  woman 3SG.SUBJ coconut 3SG.OBJ=take husband 3SG.OBJ=give-PFV
  'The woman gave the coconut to [her] husband.' [elicited]

Oblique marking works the same in Yaul as in Manu (§13.4). Moreover, the form of the marker is *=n* 'OBL', suggesting that the Pre-Ulwa form was *=n, as opposed to †/=l/. An example of oblique marking in Yaul is given in (18).

(18) *Itam mala **man** namndï mase.*
  itam   mala spear ma=**n**   namndï ma=asa-e
  father spear 3SG.OBJ=OBL pig   3SG.OBJ=hit-IPFV
  'Father shoots the pig with the spear.' [elicited]

The only examples of overt coordination I have seen for Yaul contain the borrowed Tok Pisin conjunction *na* 'and'. Dependent clauses do seem to contain the dependent marker *-e* 'DEP', although it is difficult to say for sure, since this phonetic form is pervasive in Yaul verb endings: essentially every realis verb form ends with [-e] or [-i]. It is possible that this preponderance of endings with [-e ~ -i] is itself the result of an overextension of the dependent-marking suffix.

Questions and commands are formulated the same in Yaul as in Manu (§15.1, §15.2). Negation likewise occurs with a negator *ango* 'NEG', which follows the subject. Discontinuous negative constructions are also possible, namely when negating non-verbal predicates. The final element is, as in Manu, *me* 'NEG', as seen in (19).

(19) *Mï **ango** yana **me**.*
  mï   **ango** yana   **me**
  3SG.SUBJ NEG   woman NEG
  'He is not a woman.' [elicited]

Interesting, Laycock (1971a) records a non-verbal negator <meko>, which reflects the opposite ordering of morphemes as found in the Manu non-verbal negator *ko-me* 'NEG' (§15.3.1) (20).

(20) **aŋgwɔ** *nindʒi* **meko**
      ango *nï-nji* **me-ko**
      NEG   1SG-POSS NEG-just
      '[It] is not mine.' [(Laycock 1971a: 3262); glossing mine]

Laycock (1971a) also records <ko> alone as an occasional postverbal element, namely in negative declarative sentences, such as (21) and (22).

(21) *na* **ŋgɔ** *mundə amapɛ* **ko**
      nï **ango** *mundï ama-pe* **ko**
      1SG NEG   food   eat-PFV NEG
      'I have not eaten.' [(Laycock 1971a: 3246); glossing mine]

(22) *na* **ŋgwɔ** *kəkal maɓali* **ko**
      nï **ango** *kïkal ma=wala-i*   **ko**
      1SG NEG   ear   3SG.OBJ=feel-IPFV NEG
      'I do not hear it.' [(Laycock 1971a: 3258); glossing mine]

In my own notes, I have one example of the negator *ko* 'NEG' occurring optionally in a negative command (23). I have not found any equivalent of Manu *wana* 'PROH' being used in Yaul.

(23) *U* **ango** *malanda ne* **(ko)**.
      u **ango** *ma=la-nda* *n-e*   **(ko)**
      2SG NEG   3SG=eat-IRR want-IPFV (NEG)
      'Do not eat it!' [elicited]

I do not have enough data to remark on less-common syntactic constructions, such as relative clauses, passivization, or detransitivization in Yaul.

20.6 Loanwords and other lexical differences

The Manu and Maruat-Dimiri-Yaul dialects share several loans from other languages, some of which very well may have entered at the stage of Pre-Ulwa, if not earlier. Some loans that are only attested in the Maruat-Dimiri-Yaul dialect, however, include those given in Table 20.24.

Table 20.24: Loanwords in Yaul

gloss	Yaul word	Manu word	source of Yaul borrowing
'person'	*mbalanji*	*ankam*	Yuat
'child'	*kambïn*	*nungol*	Yuat
'machete'	*itïpïn*	*yot*	Yuat
'guts'	*ngïnda*	*inji*	Yuat
'frog'	*kita*	*womotana*	Yuat
'hornbill'	*sipal*	*almba*	Yuat
'grass skirt'	*nandu ~ landu*	*ana*	Ap Ma
'rat'	*yaki*	*matlaka*	Ap Ma
'small'	*samola*	*njukuta*	Tok Pisin (?)

As Table 20.24 suggests, the Yuat family has had a greater influence on Yaul than on Manu. Compared to Manu, the three villages of Maruat, Dimiri, and Yaul are much closer geographically to the Yuat family languages, in particular Mundukumo and Bun.

The Manu word *ankam* 'person' derives from Proto-West Keram form *alka-m. The Yaul word *mbalanji* 'person', however, is borrowed from Yuat: compare Bun <mbɑlɑdʒi> (Laycock 1971c: 5024). In Manu, *mbalanji* has taken on the meaning 'enemy', an interesting semantic shift, although not a surprising one, considering the traditional animosity between Manu village and the Yuat-speaking people.

Yaul *kambïn* 'child' likewise comes from Yuat: compare Mundukumo <kabən> (McElvenny 2006: 29). I do not know the origin of the alternative Yaul form *sïmboy* 'child'. The alternative Manu form *alum* 'child' may be a loan from Ap Ma <jalum> 'grandson' (Barlow 2021: 76), although this word was apparently (also) borrowed as Manu *yalum* 'grandchild'. I do not know the origin of Manu *tawatïp* 'child'.

Yaul *itïpïn* 'machete' seems to derive from compounding with a Yuat word for 'machete, knife': compare Bun <pi·n> (Laycock 1971c: 5044).

Yaul *ngïnda* 'innards, guts' may be compared, for example, with Mundukumo <ŋgənda> 'guts' (Laycock 1971a: 3128).

Yaul *kita* 'frog' may be compared, for example, with Bun <kitɑk> (Laycock 1971c: 5040).

Yaul *sipal* 'hornbill' probably also comes from Yuat: compare Mundukumo <sifwɑt>, plural <sifɔlɛ> (Laycock 1971c: 3194). A similar term is also found in the Lower Sepik family: compare Chambri <səbʊl> (Laycock 1971c: 4982). The Manu form *almba* 'hornbill', is a loan from Ap Ma <alɨmba> 'hornbill' (Barlow 2021: 75).

Although the Ap Ma language has probably exerted greater influence on Manu than it has on Yaul, there are a couple of borrowings from Ap Ma attested only in the Yaul dialect. Yaul *nandu ~ landu* 'grass skirt' likely comes from Ap Ma <nando> 'grass skirt' (Barlow 2021: 80). Yaul *yaki* 'rat' likely comes from Ap Ma <jake> 'rat species' (Barlow 2021: 76); this Ap Ma form may ultimately be related somehow to Manu *matlaka* 'rat species', but, if so, the exact nature of the relationship is unclear to me.

Finally, Yaul *samola* 'small' may derive from Tok Pisin *smol ~ smolpela* 'small', if it is not a chance similarity.

In addition to lexical differences due to borrowing, there are some differences due to semantic shift. For example, Manu *misam* 'brain' has, through metonymy, come to mean 'head' in Yaul. To refer to the internal organ, Yaul uses *misam mu* 'brain' (literally 'fruit of the head'). Yaul *inangïn* 'red' is not used in Manu; rather *ngungun* 'red ant' is used to refer to the color red as well as to the insect known for having that color. Whereas the Manu word *yenanu ~ yananu* 'woman' can also mean 'wife', in Yaul this word may be restricted to the meaning 'sister'; this could reflect differences in semantic extension, if not simply a laxity in distinctions made within the semantic category of 'women'.

Some Yaul words appear to have "extra" phonological material, not reflected in the corresponding Manu forms (Table 20.25).

Table 20.25: Yaul words with "extra" phonological material

gloss	Yaul word	Manu word
'breast'	*wal**um***	*wol*
'heart'	*yam**un***	*yom*
'wing'	*wapa**lup***	*wapa*
'shoulder'	*awi**nam***	*awi*
'cockatoo'	*yap**u**ta*	*yopa*

The [-um] ending in Yaul *walum* 'breast' likely results from metathesis of the suffix-like word *mu* 'fruit, seed, nut'.[10] The [-un] ending in Yaul *yamun* 'heart', however, is more obscure. It may be a corruption of *mu ~ um* 'fruit, seed, nut'. Or perhaps it results from a shortening of some other internal organ meaning (cf. *inji* 'liver' [Yaul], *inji* 'innards' [Manu], *ina* 'liver' [Manu]).

The [-lup] ending of Yaul *wapalup* 'wing' may be related to *lup* 'base of a shell, bottom' (cf. *ilup* 'elbow', from *i* 'arm'), perhaps added as a means of disambiguating *wapa(-lup)* 'wing' from the homophonous word *wapa* 'leaf'.

Perhaps the [-nam] ending of Yaul *awinam* 'shoulder' is related somehow to Manu *nambï* 'skin, body', although this might be a stretch semantically.

Finally, the [-ta] in Yaul *yaputa* 'cockatoo' probably results from compounding with *wuta* 'bird'. The word for 'cockatoo' in Ulwa may ultimately be borrowed from Yuat: compare Bun <yɑɓɸwɑk> 'cockatoo' (Laycock 1971c: 5040). It was possibly a borrowing into Proto-West Keram, since Ulwa's sisters in this branch appear to exhibit cognate forms.

In one case, Manu seems to be the dialect to have added some additional phonological material (Table 20.26).

Table 20.26: A Manu word with "extra" phonological material

gloss	Yaul word	Manu word
'pigeon'	*walim*	*walim**ot***

This word is a loan from Yuat: compare Mundukumo <wɑlim> 'pigeon' (Laycock 1971a: 3192). In this case, the Manu form *walimot* 'pigeon' probably results from the compounding of *walim* 'pigeon' and *uta* 'bird'.

For whatever reason, insects seem to be a particularly unstable semantic category in Ulwa, exhibiting not only lexical replacement but also irregular sound changes (Table 20.27).

Manu *mïmin* 'louse' refers to lice on humans; *sïmin* 'louse' is used to refer to lice on animals. The Yaul form *mïn* 'louse', however, is a hypernym referring to all types of lice. Stable insect names across both dialects seem to be limited to *kïka* 'white ant, termite', *ngungun* 'red ant', and *mu* 'blowfly'.

Finally, as already suggested (§20.2), the class of property-denoting words (i.e., adjectives) is not very stable in Ulwa. Some examples of lexical divergence within this class are given in Table 20.28.

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[10]This is sometimes realized as a suffix-like element [um] in Mwakai as well (Barlow 2020a: 65).

Table 20.27: Insect words in Yaul and Manu

gloss	Yaul word	Manu word
'centipede'	*imb**apïl**at*	*yambïp**al***
'cockroach'	*kusimba*	*ngunguswa*
'firefly'	*la**l**i*	*na**l**i*
'louse'	*mïn*	***mï**min*
'grasshopper'	*mïndisinam*	*kukum*
'brown ant'	*m**ola**n*	*m**u**na*
'bedbug'	*momb**ï**n*	*mamb**u**n*
'bee'	***m**unapïn*	*unapïn*
'mosquito'	***n**angun*	***y**angun*
'wasp'	*numbum*	*numbu**num***
'millipede'	*ngunjimba*	*aylat*
'housefly'	*nji**w**ala*	*nji**m**ana*
'butterfly'	*yakalapana*	*awpane*

Table 20.28: Adjectives in Yaul and Manu

gloss	Yaul word	Manu word
'black'	*imkïl*	*mbun*
'hot'	*imamal*	*wananum*
'cold'	*tangaliwa*	*mïnoma*
'heavy'	*nanal*	*kenmbu*
'short'	*wanum*	*mundotoma*
'wide'	*lalame*	*palmana*
'small'	*samola*	*njukuta*

20.7   Yaul dialect wordlist

This chapter concludes with a wordlist of 500 items from the Yaul dialect of Ulwa.
The lexicographical conventions followed in §18.1 apply here as well.

-a [intensive pronominal suffix, 'ɪɴᴛ'] (also *-awa*)

akat (ɴ) 'hoof'

akïlaka (ᴀᴅᴊ) 'new'

akïlisa (ᴀᴅᴊ) 'sharp'

akum (ɴ) 'back of the skull; cassowary casque'

al (ɴ) 'mosquito net'

ala- (ᴠ) 'see' (with *nïmndï* 'eye') (also *andï-*)

alam (ɴ) 'cloud, sky'

alam kot- (ᴠ) 'thunder'

alamas (ɴ) 'snake species (python) (TP *moran*)'

ale (ɴ) 'sun, day (daytime)'

ale- (ᴠ) 'scrape (sago)' (possibly < Ap Ma)

ale ngume (ɴ) 'rainbow'

alekwal (ɴ) 'uvula'

alesa (ɴ) 'pick-axe (for hacking at sago palms)' (possibly < Pondi)

ali (ɴ) 'string bag, net bag (TP *bilum*); uterus, womb'

alïnam (ɴ) 'cloth, clothing'

alis (ɴ) 'lime gourd'

alkïn (ɴ) 'blood'

alkïn (ɴ) 'vegetable species (TP *kumu mosong*)'

almo (ᴀᴅᴊ) 'good' (also *anmo*)

almoka (ɴ) 'snake'

am (ɴ) 'betel nut' (also *awm*)

am inji (ɴ) 'betel nut meat'

ama- (ᴠ) 'eat, drink, suck'

amakaya (ɴ) 'hoe, digging tool'

amba (ɴ) 'men's house, spirit house (TP *haus tambaran* or *haus boi*)'

amba= (ᴘʀᴏ) 'myself, yourself, himself, herself, itself' (singular reflexive
pronoun)

ambal= (ᴘʀᴏ) 'ourselves [ᴘʟ], yourselves [ᴘʟ], themselves [ᴘʟ]; one another'
(plural reflexive/reciprocal pronoun)

ambas (ɴ) 'chewed-up betel nut'

ambatïm (ɴ) 'joint'

ambi (ᴀᴅᴊ) 'big, large, thick'

ambïla (N) 'tooth'
ambïla wïla (N) 'gums'
ambïla wokïn (N) 'molar'
ambin= (PRO) 'ourselves [DU], yourselves [DU], themselves [DU]; each other'
  (dual reflexive/reciprocal pronoun)
ambo [topic marker, 'TOP']
ambol (N) 'snake species (small snake)'
ame (N) 'basket'
amolapa (N) 'vegetable species (TP *tulip*)'
amun (ADV) 'now, today'
an (PRO) 'we' (1PL.EXCL subject pronoun)
an= (PRO) 'us' (1PL.EXCL non-subject pronoun)
ana- (V) 'scratch, rub'
anam (N) 'paddle'
anda (DEM) 'that, that one' (singular distal demonstrative)
anda= (DEM) 'that, that one' (singular distal demonstrative)
andan (N) 'left (not right)'
ande (INTERJ) 'yes' (expresses affirmation) (also *andi*)
andi (INTERJ) 'yes' (expresses affirmation) (also *ande*)
andï (N) 'affine, in-law'
andï (N) 'sago shoot'
andï- (V) 'see' (with *nïmndï* 'eye') (also *ala-*)
anga (N) 'piece'
angenka (ADV) 'afterwards, later' (also *laka*, *naka*)
ango (NEG) 'no, not'
ango lïwa (Q) 'where?'
angos (Q) 'what?'
angos lakap (Q) 'why?'
angun (N) 'tail, fin'
anjikeka (Q) 'when?'
anmo (ADJ) 'good' (also *almo*)
apa (N) 'house'
apatam (N) 'table, shelf'
apïka (ADV) 'very'
apïn (N) 'fire'
apïn ama- (V) 'burn'
apïngïn (N) 'smoke'
apïnji (N) 'ashes'
as (N) 'grass'

asa- (V) 'hit, shoot; kill' (also ***wali-***)

ase (N) 'string, trap (for catching land animals)'

asi ka- (V) 'sit'

asum (N) 'rice'

ata (ADV) 'up'; (N) 'top'

atal (N) 'laughter'

atal a- (V) 'laugh'

atana (N) 'sister (older sister)'

atumo (N) 'brother (older brother)'

-awa [intensive pronominal suffix, 'INT'] (also ***-a***)

awasingïn (N) 'bird species (eagle, hawk) (TP *tarangau*)'

awaw (N) 'afternoon'; (ADV) 'yesterday'

aweta (N) 'friend'

awinam (N) 'shoulder'

awm (N) 'betel nut' (also ***am***)

ay (N) 'sago jelly, jellied sago'

aymom (N) 'sago stick (for stirring sago)'

aypul (N) 'scoop of jellied sago'

-e [imperfective suffix, 'IPFV'] (also ***-i***)

i (N) 'arm'

i (N) 'lime (calcium hydroxide) (TP *kambang*)' (< Ap Ma)

i (V) 'go' (suppletive perfective form of ***ma-***) (also ***iye***)

i- (V) 'come'

-i [imperfective suffix, 'IPFV'] (also ***-e***)

ila (N) 'thatch (TP *morota*)'

ilam (N) 'day (countable)'

ilapum (N) 'right (not left)' (also ***inapum***)

ilaw (N) 'fat, grease'

ilis (N) 'dust'

ilup (N) 'elbow'

im (N) 'tree'

im nambim (N) 'bark'

imamal (ADJ) 'hot, warm'

imba (N) 'night'

imbam (P) 'under, below'

imbapïlat (N) 'insect species (centipede)'

imkïl (ADJ) 'black'

imot (N) 'firewood, stick, log'

in (N) 'ground, land'

in (P) 'in, inside'
ina (V) 'come' (irregular irrealis form of *i-*)
inam (N) 'mother'
inam ngata (N) 'grandmother, old woman'
inanan (N) 'nail, fingernail'
inangï (ADJ) 'red'
inapam (N) 'belly'
inapum (N) 'right (not left)' (also *ilapum*)
inat (N) 'earth, soil'
indï (N) 'eye' (when used with *ala-* ~ *andï-* 'see')
indïp (N) 'cassowary bone'
inim (N) 'water, rain'
inim lopo- (V) 'bathe'
inim nji (N) 'dew'
inim pul (N) 'pond'
inïmbï (N) 'vulva'
inïmi (N) 'hole'
inji (N) 'liver'
ip (N) 'nose'
ipïka (ADV) 'before'
ita- (V) 'build'
itam (N) 'father'
itam ngata (N) 'grandfather, old man'
itam wot (N) 'father's brother (paternal uncle)'
itïpïn (N) 'machete, knife' (< Yuat)
ititïm (N) 'insect species (black ant)'
iwa (N) 'fish trap'
iwal (N) 'beam'
iwali (N) 'armband, legband'
iwïl (N) 'moon'
iwïl (N) 'root'
iye (V) 'go' (suppletive perfective form of *ma-*) (also *i*)
ka- (V) 'let'
kakas (ADJ) 'long, tall'
kalalum (N) 'boil, abscess'
kalim (N) 'cassowary (TP *muruk*)' (< Yuat)
kambïn (N) 'child' (< Yuat) (also *sïmboy*)
kï- (V) 'talk, say' (also *ta-*)
kïka (N) 'insect species (white ant, termite)'

kïkal (N) 'ear'

kïkal wala- (V) 'hear'

kïlikïli (N) 'frog species (small frog)'

kita (N) 'frog' (< Yuat)

ko [non-verbal negator, 'NEG'] (also **me**)

ko= [indefinite marker, 'INDF']

koke (Q) 'who?' (also **kwo**)

kot- (V) 'break'

koy (N) 'chest'

kume (QUANT) 'some'

kusimba (N) 'insect species (cockroach)'

kwe (NUM) 'one'

kwo (Q) 'who?' (also **koke**)

la (N) 'talk, speech, story'

-la [irrealis suffix, 'IRR'] (also *-**nda***)

laka (ADV) 'afterwards, later' (also **naka**, **angenka**)

lakap (N) 'reason'

lalame (ADJ) 'wide'

lali (N) 'insect species (firefly); star'

lam (N) 'meat, flesh' (< Ap Ma)

landa (V) 'eat, drink, suck' (irregular irrealis form of **ama-**)

landu (N) 'skirt, woman's grass skirt (TP *purpur*)' (also **nandu**) (< Ap Ma)

lap (N) 'fishing spear'

law (N) 'bunch (of bananas)'

law (N) 'tree species (TP *tanget*)'

le (N) 'rattan, cane (TP *kanda*)' (possibly < Ap Ma)

lemol (N) 'vegetable species (TP *aibika*)'

lenjin (N) 'fish species (perch) (TP *nilpis*)' (< Ap Ma)

li (ADV) 'down'; (N) 'bottom' (possibly < Ap Ma)

li (N) 'crayfish, prawn'

li- (V) 'beat; blow (of wind)'

li- (V) 'die'

li u- (V) 'fall'

lïkï- (V) 'dig'

lïkït (N) 'lizard'

lil (N) 'fish species (eel)'

lila (NUM) 'three'

lïmndï (N) 'eye' (also **nïmndï**)

lin (N) 'thorn'

lïngïn (N) 'spider'

lïpa (N) 'breadfruit'

lïpïl (N) 'vine, rope'

lïpïlopa (N) 'flying fox'

lisa 'drum (type of drum: small hand drum) (TP *kundu*)'

lïwa (N) 'dawn'

lïwa (N) 'jungle, woods, forest, bush; place' (also ***wandam***)

lo- (V) 'cut, carve; go around' (also ***yo-***)

lokal (N) 'beak'

lom (N) 'stand (used to hold a pot)'

lopa (N) 'cheek'

lu (ADJ) 'near, close'

lup (N) 'base of a shell, bottom'

ma= (PRO) 'him, her, it' (3SG non-subject pronoun / singular object marker)

ma- (V) 'go'

mala (N) 'spear'

malal (N) 'hot water'

malal ama- (V) 'boil'

malo (N) 'loincloth' (< Tok Pisin *malo* 'loincloth')

mama (N) 'mouth'

mamapa (N) 'bird species (owl)'

mana (V) 'go' (irregular irrealis form of ***ma-***)

manana (N) 'snail'

may (N) 'fish species (catfish) (TP *mausgras pis*)'

me [non-verbal negator, 'NEG'] (also ***ko***)

me (N) 'betel nut palm stem (TP *buai limbum*)'

mï (PRO) 'he, she, it' (3SG subject pronoun)

mïlale (N) 'guts, intestines'

mïli (N) 'sugarcane'

mïlïkïn (N) 'grub species (sago grub)' (< Ap Ma)

milïm (N) 'tongue' (also ***mïnïm***)

miminya (N) 'feces, excrement'

min (PRO) 'they two' (3DU subject pronoun)

min= (PRO) 'them two' (3DU non-subject pronoun / dual object marker)

mïn (N) 'louse'

mïnal (N) 'taro'; (ADJ) 'green'

mïnam (N) 'urine'

mïnawata (ADJ) 'wet; ripe'

mïnda (N) 'banana'

mïndam (N) 'pus'
mïndapa (N) 'banana leaf'
mïndisinam (N) 'insect species (grasshopper)'
mïndït (ADJ) 'yellow'
mini= (PRO) 'them two' (3DU non-subject pronoun / dual object marker) (allomorph of ***min=***)
mïnïm (N) 'tongue' (also ***mïlïm***)
misam (N) 'head'
misam mum (N) 'brain'
mïtïn (N) 'egg'
mïtïn (N) 'testicles'
mo (N) 'forehead, face; middle'
molam (N) 'tree species (tree with red sap)'
molan (N) 'insect species (brown ant)'
molap (ADJ) 'full, sated'
molawi (N) 'plant species (stinging nettle) (TP *salat*)'
molïkïn (N) 'gray hair'
molpan (N) 'spirit (type of spirit: tree spirit)'
mombïn (N) 'insect species (bedbug)'
mombïn (N) 'vegetable species (TP *aupa*)'
mon (N) 'betel pepper species (wild betel pepper) (TP *wel daka*)'
monambam (N) 'forehead'
monata (N) 'earthquake'
mongi (N) 'mask'
motam (NUM) 'five'
motam kwe ndïwatke (NUM) 'six'
motam lila ndïwatke (NUM) 'eight'
motam nange ndïwatke (NUM) 'nine'
motam nini (NUM) 'ten' (also ***motam wupa***)
motam nini ndïwatke (NUM) 'seven'
motam wupa num 'ten' (also ***motam nini***)
mu (N) 'fruit, seed, nut' (also ***mum***)
mu (N) 'insect species (blowfly)'
mum (N) 'fruit, seed, nut' (also ***mu***)
munapïn (N) 'insect species (bee)'
mundï (N) 'hunger, food'
mundï asa- (V) 'be hungry'
mungul (N) 'plant species (fern)'
mup (N) 'core of a tree'

mutam (N) 'back (of the body)'
mutulum (N) 'mud'
mbalanji (N) 'person, human' (< Yuat)
mbï (ADV) 'here'
mbïl ngom (N) 'vegetable species (tall ginger) (TP *gorgor*)'
mbomala (N) 'insect species (large firefly)'
mbone (N) 'crab'
mbonem (N) 'morning' (also *umbenam*)
mbosanga (N) 'pot (made of clay)'
mbosanga mu (N) 'money'
n- (V) 'want, will, try' (volitive auxiliary verb, 'VOL')
=n [oblique-marking enclitic, 'OBL']
na (CONJ) 'and' (< Tok Pisin *na* 'and')
na- (V) 'give'
-na [irregular irrealis suffix, 'IRR'] (for *i-* 'come')
naka (ADV) 'afterwards, later' (also *laka*, *angenka*)
nambana (N) 'spirit, ghost'
nambï (ADJ) 'dirty'
nambim (N) 'skin'
nambis (N) 'odor, smell'
namïli (ADJ) 'soft'
namndï (N) 'pig' (also *namndu*)
namndu (N) 'pig' (also *namndï*)
nana (ADJ) 'afraid'
nanal (ADJ) 'heavy'
nanange (NUM) 'four'
nandu (N) 'skirt, woman's grass skirt (TP *purpur*)' (also *landu*) (< Ap Ma)
nangïn (N) 'tongs (for cooking)'
nangontam (N) 'sweet potato (TP *kaukau*)''
nangun (N) 'mosquito'
-ne [irregular perfective suffix, 'PFV'] (for *i-* 'come', *na-* 'give') (also *-ni*)
-ni [irregular perfective suffix, 'PFV'] (for *i-* 'come', *na-* 'give') (also *-ne*)
nï (PRO) 'I' (1SG subject pronoun)
ni= (PRO) 'me' (1SG non-subject pronoun)
=nï [oblique-marking enclitic, 'OBL'] (allomorph of *=n*)
nïmban (N) 'fish'
nïmïn (N) 'mucus'
nïmndï (N) 'eye' (also *lïmndï*)
nïmndï ala- (V) 'see' (also *nïmndï andï-*)

nïmndï andï- (v) 'see' (also ***nïmndï ala-***)
nini (NUM) 'two'
nongam (N) 'dream'
nongan (N) 'vomitus'
nongan u- (v) 'vomit'
num (N) 'canoe'
numan (N) 'husband' (also ***numon***)
numbu (N) 'drum (type of drum: large slit drum) (TP *garamut*)'
numbum (N) 'insect species (wasp)'
numon (N) 'husband' (also ***numan***)
numul (N) 'river'
numulwa (N) 'ditch, creek'
nungun (N) 'seedling'
-nda [irrealis suffix, 'IRR'] (also ***-la***)
ndam (N) 'bridge'
ndï (PRO) 'they' (3PL subject pronoun)
ndï= (PRO) 'them' (3PL non-subject pronoun / plural object marker)
nga (DEM) 'this, this one' (singular proximal demonstrative)
ngan (PRO) 'we two' (1DU.EXCL subject pronoun)
ngan= (PRO) 'us two' (1DU.EXCL non-subject pronoun)
ngangali (N) 'poison, magic'
ngata (ADJ) 'great, big, large'
ngïnda (N) 'innards, guts' (< Yuat)
ngïnimo (N) 'chin' (< Yuat)
ngïtam (N) 'mallet'
ngun (PRO) 'you two' (2DU subject pronoun)
ngun= (PRO) 'you two' (2DU non-subject pronoun)
nguna (PRO) 'we two' (1DU.INCL subject pronoun)
nguna= (PRO) 'us two' (1DU.INCL non-subject pronoun)
ngungun (N) 'insect species (red ant) (TP *karakum*)'
ngungun (N) 'wind, whirlwind, cyclone'
ngunjimba (N) 'insect species (millipede)'
njanjani (N) 'grub species (large grub)'
njanjni (N) 'shadow, shade'
nji (N) 'thing'
-nji [possessive suffix, 'POSS']
njiwala (N) 'fly, housefly'
p- (v) 'be, be at'
=p [copular enclitic, 'COP']

palam (N) 'cane grass (TP *pitpit*)' (< Mwakai)

-pe [perfective suffix, 'PFV'] (also *-pi*)

-pi [perfective suffix, 'PFV'] (also *-pe*)

pul (N) 'piece'

sa- (V) 'cry'

sakanma (N) 'axe (metal)' (< Yuat)

samban (N) 'pot for cooking'

samola (ADJ) 'small, little' (possibly < Tok Pisin *smol* 'small')

si (N) 'salt, soup'

sïmboy (N) 'child' (also *kambïn*)

sïngïm (N) 'fog' (< Mwakai)

sipal (N) 'bird species (hornbill) (TP *kokomo*)' (< Yuat; possibly an areal term)

sokay (N) 'tobacco' (areal term)

ta (N) 'hearth, stove'

ta- (V) 'talk, say' (also *kï-*)

tale li- (V) 'stand, be standing'

talum (N) 'lips'

tambi (ADJ) 'bad'

tambïnmot (N) 'chest'

tambumana (ADJ) 'dull'

tana (N) 'axe, adze'

tangaliwa (ADJ) 'cold, cool'

tap li- (V) 'throw'

taw (N) 'flute'

tawa (N) 'wound, sore'

tawi (N) 'saliva'

tï- (V) 'take'

tïl (N) 'coconut husk'

tïn (N) 'dog'

tïnanga- (V) 'stand, arise'

tongan (N) 'mosquito swatter'

tumbunwa (N) 'nape of the neck'

tup (N) 'fish species (TP *bikmaus*)'

tuwalïm (N) 'possum, cuscus (TP *kapul*)'

u (PRO) 'you [SG]' (2SG subject pronoun)

u= (PRO) 'you [SG]' (2SG non-subject pronoun)

u- (V) 'put'

ulamban (N) 'ladder'

ulanda (N) 'riverbank'

ulet (N) 'navel, umbilical cord'
uli- (V) 'shout, call out'
ulpan (N) 'fish species (small fish)'
ulum (N) 'sago palm; sago pith'
ulwa (NEG) 'nothing'
uma (N) 'bone'
umbapa (N) 'stomach' (< Ap Ma)
umbe (ADV) 'tomorrow'
umbenam (N) 'morning' (also ***mbonem***)
umwa (N) 'neck' (also ***uwa***)
un (N) 'fan'
un (PRO) 'you [PL]' (2PL subject pronoun)
un= (PRO) 'you [PL]' (2PL non-subject pronoun)
una (PRO) 'we' (1PL.INCL subject pronoun)
una= (PRO) 'us' (1PL.INCL non-subject pronoun)
unda (N) 'enemy'
unden (N) 'betel nut palm stem (TP *buai limbum*)'
unmbu (N) 'buttocks'
upin (N) 'bird species (crowned pigeon) (TP *guria*)'
uta- (V) 'grind (coconut)'
utam (N) 'yam'
uten (N) 'cough, phlegm'
uten wïte- (V) 'cough'
uwa (N) 'neck' (also ***umwa***)
wal (N) 'penis'
wala (ADJ) 'far'
wala- (V) 'perceive'
wali- (V) 'hit, shoot; kill' (also ***asa-***)
walim (N) 'bird species (dove, pigeon) (TP *balus*)' (< Yuat)
walïm (N) 'segment (of sugarcane)'
walum (N) 'breast'
walum uma (N) 'ribs'
walwale (N) 'mushroom species'
wanambam (N) 'armpit'
wandam (N) 'garden; jungle, woods, forest, bush'
wandi (N) 'bandicoot (TP *mumut*)'
wanïmi (N) 'hair'
wanmbi (N) 'betel pepper (TP *daka*)'
wanmbi (N) 'tusk (of a boar)'

wanum (ADJ) 'short'
wapa (N) 'leaf'
wapalup (N) 'wing'
wapata (ADJ) 'dry; old'
wat (P) 'above, atop'
watangïn (N) 'little finger, pinky finger'
wawalmalape (ADJ) 'hard'
way (N) 'turtle' (< Ap Ma)
we (N) 'sago starch, sago flour; sago pancake'
wemala (N) 'lizard species (small colorful gecko)'
wembal (ADJ) 'white' (cf. *wendum* in Dimiri)
wenguta (N) 'bow'
wepal (N) 'sago palm (dead, dry sago palm)'
wi (N) 'name'
wil (P) 'with (comitative)'
wilingïn (N) 'taro (wild taro)'
wipam (N) 'arrow'
wïta (N) 'coconut shell'
wïtï (N) 'leg, foot'
wïtï ambatïm (N) 'knee' (also *wïtal mot*)
wïtï lema (N) 'upper leg, thigh'
wïtï mot (N) 'knee' (also *wïtal ambatïm*)
wïtïlwa (N) 'path, road'
wïtum (N) 'foot'
wiwila (ADJ) 'light (not heavy)'
wiwina- (V) 'fly'
wo (N) 'village' (possibly < Yuat)
wo- (V) 'sleep'
=wo [intensifier/vocative enclitic, 'VOC']
wokan (N) 'banana flower'
wokan (N) 'wallaby (TP *sikau*)' (likely an areal term)
wokïn (ADJ) 'huge'; (N) 'big man, important person'
wom (N) 'strap (for climbing trees)'
woma (N) 'woven fronds (TP *pangal*)'
womba (N) 'tree species'
wombi (ADJ) 'many'
wombïn (N) 'work, job, task, activity'
wot (N) 'younger sibling'
wotena (N) 'sister (younger sister)'

wowal (N) 'chicken' (areal term)
wowal (N) 'fish scale'
wowi (N) 'tree species (ilima tree) (*Octomeles sumatrana*) (TP *erima*)'
wupa (QUANT) 'all'
wusim (N) 'crocodile' (possibly < Yuat)
wuta (N) 'bird'
wutal (N) 'worm'
wutïwutï (N) 'bird species (duck)'
ya (N) 'coconut'
ya mïnandïn (N) 'coconut (young, drinking coconut) (TP *kulau*)'
yakalapana (N) 'butterfly'
yakeka (N) 'bean'
yaki (N) 'rat' (< Ap Ma)
yalïs (N) 'coconut flower sheath'
yamangïla (N) 'spine, backbone'
yambi (N) 'tree species (tree with white sap)'
yambom (N) 'palm of the hand'
yamo (N) 'grandchild'
yamo (N) 'snake species (short, black snake)'
yamun (N) 'heart'
yana (N) 'woman' (also *yena*)
yana kambïn (N) 'girl' (also *yena kambïn*)
yananu (N) 'sister' (also *yenanu*)
yangum (N) 'hand' (also *yum*)
yapalum (N) 'fish species (TP *palang pis*)'
yaposa (N) 'coconut frond'
yaputa (N) 'bird species (cockatoo) (TP *koki*)'
yata (N) 'man, brother' (also *yeta*)
yata kambïn (N) 'boy' (also *yeta kambïn*)
yatlat (N) 'greens, vegetables'
yena (N) 'woman' (also *yana*)
yena kambïn (N) 'girl' (also *yana kambïn*)
yenanu (N) 'sister' (also *yananu*)
yeta (N) 'man, brother' (also *yata*)
yeta kambïn (N) 'boy' (also *yata kambïn*)
yil (N) 'body hair'
yo- (V) 'cut, carve; go around' (also *lo-*)
yokam (N) 'bamboo'
yokomakan (N) 'bird species (wildfowl)' (possibly < Ap Ma)

yum (N) 'hand' (also **yangum**)
yumip (N) 'finger'

Appendix A: Swadesh 100-word list

The following is a list of 100 basic vocabulary items in Ulwa, following Swadesh's (1971: 283) list of 100 words. Where deemed useful, alternate words or clarifications of meaning are provided in parentheses.

1   'I' *nï*
2   'you' *u* (2SG; *ngun* 2DU, *un* 2PL)
3   'we' *an* (1PL.EXCL; *unan* 1PL.INCL, *ngan* 1DU.EXCL, *ngunan* 1DU.INCL)
4   'this' *nga*
5   'that' *anda*
6   'who' *kwa* (SG; *kuma* NSG)
7   'what' *angos*
8   'not' *ango*
9   'all' *wopa*
10 'many' *tïngïn*
11 'one' *kwe* (also *kwa*)
12 'two' *nini*
13 'big' *ambi*
14 'long' *wutota*
15 'small' *njukuta*
16 'woman' *yena* (also *yana*)
17 'man' *yeta* (also *yata*)
18 'person' *ankam*
19 'fish' *wambana*
20 'bird' *uta*
21 'dog' *tïn*
22 'louse' *mïmin* (on humans; *sïmin* refers to lice on animals)
23 'tree' *im*
24 'seed' *mu*
25 'leaf' *wapa*
26 'root' *ilu*
27 'bark' *im nambï* (= *im* 'tree' + *nambï* 'skin')

28 'skin' *nambï*
29 'flesh' *lam* (loan from Ap Ma)
30 'blood' *anankïn*
31 'bone' *uma*
32 'grease' *anen*
33 'egg' *mïtïn*
34 'horn' *kokal* (actually 'casque', as of a cassowary)
35 'tail' *angun*
36 'feather' *nambli*
37 'hair' *wonmi* (hair on the top of the head; *nil* refers to other hair)
38 'head' *unduwan*
39 'ear' *kïkal*
40 'eye' *lïmndï*
41 'nose' *ip*
42 'mouth' *mama*
43 'tooth' *ambla*
44 'tongue' *mïnïm*
45 'claw' *sinananangïn* (< *sinanan* 'nail' + *nangïn* 'tongs')
46 'foot' *wutï*
47 'knee' *wutï ambatïm* (= *wutï* 'leg, foot' + *ambatïm* 'joint')
48 'hand' *i*
49 'belly' *inapaw*
50 'neck' *um*
51 'breasts' *wol*
52 'heart' *yom*
53 'liver' *ina*
54 'drink' *ama-* (also means 'eat', 'bite')
55 'eat' *ama-* (also means 'drink', 'bite')
56 'bite' *ama-* (also means 'drink', 'eat')
57 'see' *lïmndï ala-* (= *lïmndï* 'eye' + *ala-* 'see')
58 'hear' *kïkal wana-* (= *kïkal* 'ear' + *wana-* 'feel')
59 'know' *kalamp* (= *kalam* 'knowledge' + *=p* 'COP'; loan from Waran)
60 'sleep' *wo-*
61 'die' *ni-*
62 'kill' *asa-* (also *wali-*)
63 'swim' *inim mo ma-* (= *inim* 'water' + *ma=* '3SG.OBJ' + *u* 'on' + *ma-* 'go')
64 'fly' *wiwina-*
65 'walk' *inda-*
66 'come' *i-*

67 'lie' *lop ka-* (= *lop* 'lying' + *ka-* 'let'?)
68 'sit' *asi ka-* (= *asi* 'seat' + *ka-* 'let'?)
69 'stand' *tane lï-* (= *tane* 'stance' + *lï-* 'put'?)
70 'give' *na-*
71 'say' *ta-* (also *kï-*)
72 'sun' *ane*
73 'moon' *iwïl*
74 'star' *nali* (small star; *mbomala* refers to big stars)
75 'water' *inim* (also means 'rain')
76 'rain' *inim* (also means 'water')
77 'stone' *tana*
78 'sand' *tana isi* (= *tana* 'stone' + *isi* 'ashes')
79 'earth' *ini*
80 'cloud' *ngïn*
81 'smoke' *apïn ngïn* (= *apïn* 'fire' + *ngïn* 'cloud')
82 'fire' *apïn*
83 'ash' *apïnsi* (< *apïn* 'fire' + *isi* 'ashes')
84 'burn' *wo-* (intransitive; transitive is *apïn ama-* 'eat [with] fire')
85 'path' *tïlwa* (< *utï* 'leg, foot' + *luwa* 'place')
86 'mountain' *inkaw*
87 'red' *ngungun* (also refers to red ants and to a plant species with red seeds)
88 'green' *mïnal* (also refers to taro)
89 'yellow' *mïndit* (also *andwana* and *ane*)
90 'white' *waembïl*
91 'black' *mbunmana* (also *mbun*; loan from Mwakai)
92 'night' *imba*
93 'hot' *wananum*
94 'cold' *mïnoma*
95 'full' *monop*
96 'new' *akïnaka*
97 'good' *anma*
98 'round' *wopaw*
99 'dry' *wapata*
100 'name' *wi*

Appendix B: Swadesh 200-word list

The following is a list of 200 basic vocabulary items in Ulwa, following Swadesh's (1952: 456–457) list of 200 words. Where deemed useful, alternate words or clarifications of meaning are provided in parentheses.

1   'all' *wopa*
2   'and' *ma* (possibly a recent innovation)
3   'animal' *mundu*
4   'ashes' *apïnsi* (< *apïn* 'fire' + *isi* 'ashes')
5   'at' *ka* (also *u*)
6   'back' *mutam*
7   'bad' *tembi* (also means 'dirty')
8   'bark' *im nambï* (= *im* 'tree' + *nambï* 'skin')
9   'because' *angwena* (means 'why', but may function like 'because')
10 'belly' *inapaw*
11 'berry' *mu* (also means 'seed')
12 'big' *ambi*
13 'bird' *uta*
14 'to bite' *ama-* (also means 'to drink', 'to eat', 'to suck')
15 'black' *mbunmana* (also *mbun*; loan from Mwakai)
16 'blood' *anankïn*
17 'to blow' *nonalni-* (= *nonal* 'wind, breath' + *ni-* 'do')
18 'bone' *uma*
19 'to breathe' *nonal u-* (= *nonal* 'breath' + *u-* 'put')
20 'to burn' *wo-* (intransitive; transitive is *apïn ama-* 'eat [with] fire'; same form as 'to swell')
21 'child' *nungol* (also *nungolke, alum, tawatïp*)
22 'cloud' *ngïn*
23 'cold' *mïnoma*
24 'to come' *i-*
25 'to count' *ika uta-* (= *ika* 'instance' + *uta* 'rub')
26 'to cut' *lo-* (also *nïkï-, we u-, won-*)

27 'day' *ane* ('sun, day'; *ilom* refers to the countable unit of time)
28 'to die' *ni-*
29 'to dig' *nïkï-*
30 'dirty' *tembi* (also means 'bad')
31 'dog' *tïn*
32 'to drink' *ama-* (also means 'to bite', 'to eat', 'to suck')
33 'dry' *wapata* (also means 'old')
34 'dull' *tambumana* (also *pon*)
35 'dust' *itïtïl*
36 'ear' *kïkal*
37 'earth' *ini*
38 'to eat' *ama-* (also means 'to bite', 'to drink', 'to suck')
39 'egg' *mïtïn*
40 'eye' *lïmndï*
41 'to fall' *li u-* (= *li* 'down' + *u-* 'put')
42 'far' *ngaya*
43 'fat' *anen*
44 'father' *itom*
45 'to fear' *namnap* (= *namna* 'afraid' + *=p* 'COP')
46 'feather' *nambli*
47 'few' *ilum*
48 'to fight' *amblawali-* (= *ambla=* 'PL.REFL' + *wali-* 'hit')
49 'fire' *apïn*
50 'fish' *wambana*
51 'five' *angay* (< *anga* 'piece' + *i* 'hand')
52 'to float' *ul watka-* (= *ul* 'with' + *wat* 'atop' + *ka-* 'let')
53 'to flow' *ma-* (the verb *ma-* 'to go' is used for 'to flow')
54 'flower' *woka* ('banana flower'; there is no hypernym 'flower')
55 'to fly' *wiwina-*
56 'fog' *lïngïn* (loan from Mwakai)
57 'foot' *wutï* (also means 'leg')
58 'four' *watangïnila* (< *watangïn* 'last' + *ila* 'sago palm frond')
59 'to freeze' [there is no word that means 'to freeze']
60 'to give' *na-*
61 'good' *anma* (also means 'straight')
62 'grass' *asi*
63 'green' *mïnal* (also refers to taro)
64 'guts' *inji*
65 'hair' *wonmi* (hair on the top of the head; *nil* refers to other hair)

66 'hand' *i*

67 'he' *mï*

68 'head' *unduwan*

69 'to hear' *kïkal wana-* (= *kïkal* 'ear' + *wana-* 'feel')

70 'heart' *yom*

71 'heavy' *kenmbu*

72 'here' *mbï*

73 'to hit' *wali-* (also *asa-*; both forms also mean 'to kill', 'to stab')

74 'to hold' *ikali lï-* (= *i* 'hand' + *kali* 'send' + *lï-* 'put')

75 'how' *anjikaka*

76 'to hunt' *anglalo-* (= *angla* 'awaiting' + *lo-* 'go'; also *andïlalo-*)

77 'husband' *numan*

78 'I' *nï*

79 'ice' [there is no word that means 'ice']

80 'if' *-ta* (verbal suffix that signals the apodosis of a condition, 'COND')

81 'in' *in* (also *ka*, *u*)

82 'to kill' *asa-* (also *wali-*; both forms also mean 'to hit', 'to stab')

83 'to know' *kalamp* (= *kalam* 'knowledge' + *=p* 'COP'; loan from Waran)

84 'lake' *inimpul* (= *inim* 'water' + *pul* 'piece')

85 'to laugh' *atal a-* (= *atal* 'laughter' + *a-* 'break'?)

86 'leaf' *wapa* (same form as 'wing')

87 'left' *andana*

88 'leg' *wutï* (also means 'foot')

89 'to lie' *lop ka-* (= *lop* 'lying' + *ka-* 'let'?)

90 'to live' *p-* (locative verb)

91 'liver' *ina*

92 'long' *wutota*

93 'louse' *mïmin* (on humans; *sïmin* refers to lice on animals)

94 'man' *yeta* (also *yata*)

95 'many' *tïngïn*

96 'meat' *lam* (loan from Ap Ma)

97 'mother' *inom*

98 'mountain' *inkaw*

99 'mouth' *mama*

100 'name' *wi*

101 'narrow' *njukuta* (also means 'small', 'thin')

102 'near' *nu*

103 'neck' *um*

104 'new' *akïnaka*

105 'night' *imba*
106 'nose' *ip*
107 'not' *ango*
108 'old' *wapata* (also means 'dry')
109 'one' *kwe* (also *kwa*)
110 'other' *kwa* (actually 'one; someone; who?', the closest equivalent)
111 'person' *ankam*
112 'to play' *sini-* (= *si-* 'push' + *ni-* 'do'?)
113 'to pull' *angom lï-* (= *angom* 'pull' + *lï-* 'put'?)
114 'to push' *si-*
115 'to rain' *lopo-* (also means 'to wash')
116 'red' *ngungun* (also refers to red ants and to a plant species with red seeds)
117 'right (correct)' *maw*
118 'right (hand)' *inapum*
119 'river' *nïmal*
120 'road' *tïlwa* (< *utï* 'leg, foot' + *luwa* 'place')
121 'root' *ilu*
122 'rope' *nïpïl*
123 'rotten' *mïnwata* (also means 'wet')
124 'to rub' *uta-* (also means 'to wipe')
125 'salt' *isi* (native 'salt', made from burnt banana leaves)
126 'sand' *tana isi* (= *tana* 'stone' + *isi* 'ashes')
127 'to say' *ta-* (also *kï-*)
128 'to scratch' *ana-*
129 'sea' *angumoni nïmal* (= *angumoni* 'swelling' + *nïmal* 'river')
130 'to see' *lïmndï ala-* (= *lïmndï* 'eye' + *ala-* 'see')
131 'seed' *mu* (also means 'berry')
132 'to sew' *me-*
133 'sharp' *matamal*
134 'short' *mundotoma*
135 'to sing' *kawni-* (= *kaw* 'song' + *ni-* 'do')
136 'to sit' *asi ka-* (= *asi* 'seat' + *ka-* 'let'?)
137 'skin' *nambï*
138 'sky' *anam*
139 'to sleep' *wo-*
140 'small' *njukuta* (also means 'narrow', 'thin')
141 'to smell' *nambït wana-* (= *nambït* 'odor' + *wana-* 'feel')
142 'smoke' *apïn ngïn* (= *apïn* 'fire' + *ngïn* 'cloud')
143 'smooth' *namli*

144 'snake' *anmoka*

145 'snow' [there is no word that means 'snow']

146 'some' *kuma*

147 'to spit' *ngom lï-* (= *ngom* 'spitting' + *lï-* 'put'?)

148 'to split' *kol-*

149 'to squeeze' *mïmïl u-* (= *mïmïl* 'squeeze' + *u-* 'put'?)

150 'to stab' *asa-* (also *wali-*; both forms also mean 'to hit', 'to kill')

151 'to stand' *tane lï-* (= *tane* 'stance' + *lï-* 'put'?)

152 'star' *nali* (small star; *mbomala* refers to big stars)

153 'stick' *im nali* (= *im* 'tree' + *nali* 'sago frond spine')

154 'stone' *tana*

155 'straight' *anma* (also means 'good')

156 'to suck' *ama-* (also means 'to bite', 'to drink', 'to eat')

157 'sun' *ane*

158 'to swell' *wo-* (same form as 'to burn')

159 'to swim' *inim mo ma-* (= *inim* 'water' + *ma* '3SG.OBJ' + *u* 'on' + *ma-* 'go')

160 'tail' *angun*

161 'that' *anda*

162 'there' *ando* (= *anda* 'that' + *u* 'from, in, at, around, along')

163 'they' *ndï* (3PL; *min* 3DU)

164 'thick' *palmana* (also means 'wide')

165 'thin' *njukuta* (also means 'small', 'narrow')

166 'to think' *inakawana-* (= *ina* 'liver' + *ka* 'in' + *wana-* 'feel')

167 'this' *nga*

168 'thou' *u*

169 'three' *lele*

170 'to throw' *kïke u-* (= *kïke* 'throwing' + *u-* 'put'?; also *kuli lï-*, *mune u-*, *top lï-*)

171 'to tie' *mop lï-* (= *mop* 'tying' + *lï-* 'put'?; also *ita-* 'build, tie')

172 'tongue' *mïnïm*

173 'tooth' *ambla*

174 'tree' *im*

175 'to turn' *tïkli ka-* (= *tïkli* 'turn' + *ka-* 'let'?)

176 'two' *nini*

177 'to vomit' *nongan u-* (= *nongan* 'vomitus' + *u-* 'put')

178 'to walk' *inda-*

179 'warm' *wananum*

180 'to wash' *lopo-* (also means 'to rain')

181 'water' *inim* (also means 'year')

182 'we' *an* (1PL.EXCL; *unan* 1PL.INCL, *ngan* 1DU.EXCL, *ngunan* 1DU.INCL)

183 'wet' *mïnwata* (also means 'rotten')
184 'what?' *angos*
185 'when?' *ango tem* (= *ango* 'which?' + *tem* 'time' < Tok Pisin *taim* 'time')
186 'where?' *ango luwa* (= *ango* 'which?' + *luwa* 'place')
187 'white' *waembïl*
188 'who?' *kwa* (sg; *kuma* nsg)
189 'wide' *palmana* (also means 'thick')
190 'wife' *yenanu* (also *yananu*, *yena*, *yana*; all also mean 'woman')
191 'wind' *nonal*
192 'wing' *wapa* (same form as 'leaf')
193 'to wipe' *uta-* (also means 'to rub')
194 'with' *ul* (comitative postposition; instrumental meaning can be indicated with oblique marker *=n* 'OBL')
195 'woman' *yena* (also *yana*, *yenanu*, *yananu*; all also mean 'wife')
196 'woods' *wandam*
197 'worm' *utal*
198 'ye' *un* (2pl; *ngun* 2du)
199 'year' *inim* (also means 'water')
200 'yellow' *mïndit* (also *andwana*, *ane*)

Compared to an older study with 215 words (Swadesh 1950), there are 17 items that are not included among these 200 words.[1] The closest Ulwa forms for these 17 lexical concepts are as follows.

1 'six' *angay kwe kwe mowon ndïwatlïp* (= 5·1+1)
2 'seven' *angay kwe nini minwon ndïwatlïp* (= 5·1+2)
3 'eight' *angay kwe lele ndïwon ndïwatlïp* (= 5·1+3)
4 'nine' *angay kwe watangïnila ndïwon ndïwatlïp* (= 5·1+4)
5 'ten' *angay nini* (= 5·2; also *nali* 'sago frond spine')
6 'twenty' *angay watangïnila* (= 5·4; also *nali nini* 'two sago frond spines', *lamndu unduwan* 'pig head')
7 'hundred' *uta* (also means 'bird')
8 'brother' *atuma* (refers to older brothers; there is no hypernym for 'brother')
9 'clothing' *al nambï* (= *al* 'mosquito net' + *nambï* 'skin')

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[1]Swadesh (1952: 457) mentions having excluded 16 words, but he seems to have miscounted, apparently having omitted reference to 'spear (war)', which was also among the original 215 words (Swadesh 1950: 161). Two items occur in the 200-word list that were not included in the 215-word list: 'to say' (a replacement for 'to speak') and 'heavy' (added to create an even 200 items).

10   'to cook' *wana-*
11   'to cry' *sa-*
12   'to dance' *wutïni-* (= *wutï* 'leg, foot' + *ni-* 'beat')
13   'to shoot' *asa-* (also *wali-*; both forms also mean 'to hit', 'to kill', 'to stab')
14   'sister' *anapa*
15   'to speak' *ta-* (also *kï-*; both forms also mean 'to say')
16   'spear' *mana* (also *lungum*)
17   'to work' *wombïn ni-* (= *wombïn* 'work' + *ni-* 'do')

Appendix C: Standard SIL-PNG survey word list (190 items)

The following is a list of 190 items (170 words and 20 sentences) in Ulwa, based on the standard survey word list used by SIL in Papua New Guinea. The list, developed by Bee & Pence (1962), was revised in 1999 such that the items are grouped according to semantic domains. Where deemed useful, alternate words or clarifications of meaning are provided in parentheses.

1   'head' *unduwan*
2   'hair' *wonmi* (hair on the top of the head; *nil* refers to other hair)
3   'mouth' *mama*
4   'nose' *ip*
5   'eye' *lïmndï*
6   'neck' *um*
7   'belly' *inapaw*
8   'skin' *nambï*
9   'knee' *wutï ambatïm* (= *wutï* 'leg, foot' + *ambatïm* 'joint')
10 'ear' *kïkal*
11 'tongue' *mïnïm*
12 'tooth' *ambla*
13 'breast' *wol*
14 'hand' *i*
15 'foot' *wutï* (also means 'leg')
16 'back' *mutam*
17 'shoulder' *awi*
18 'forehead' *monombam*
19 'chin' *ngïnïm*
20 'elbow' *inpu*
21 'thumb' *imu unduwan* (= *i* 'hand' + *mu* 'fruit' + *unduwan* 'head')
22 'leg' *wutï* (also means 'foot')
23 'heart' *yom*
24 'liver' *ina*

25 'bone' *uma*

26 'blood' *anankïn*

27 'baby' *alum* (includes older children; also *nungol, nungolke, tawatïp*)

28 'girl' *yenalum* (also *yena, yana*; or any words for 'child')

29 'boy' *yetalum* (also *yeta, yata*; or any words for 'child')

30 'old woman' *inom ngata* (= *inom* 'mother' + *ngata* 'grand')

31 'old man' *itom ngata* (= *itom* 'father' + *ngata* 'grand')

32 'woman' *yena* (also *yana*)

33 'man' *yeta* (also *yata*)

34 'father' *itom*

35 'mother' *inom*

36 'brother' *atuma* (refers to older brothers; there is no hypernym for 'brother')

37 'sister' *anapa*

38 'name' *wi*

39 'bird' *uta*

40 'dog' *tïn*

41 'pig' *lamndu* (also *namndu*)

42 'cassowary' *kalim* (loan from Mundukumo)

43 'wallaby' *wakan* (likely an areal term, perhaps ultimately from Austronesian)

44 'flying fox' *nïplopa*

45 'rat' *wala* (also *matlaka, mblandu*)

46 'frog' *womotana*

47 'snake' *anmoka*

48 'fish' *wambana* (possibly a loan from Mwakai)

49 'person' *ankam*

50 'to sit' *asi ka-* (= *asi* 'seat' + *ka-* 'let'?)

51 'to stand' *tane lï-* (= *tane* 'stance' + *lï-* 'put'?)

52 'to lie down' *lop ka-* (= *lop* 'lying' + *ka-* 'let'?)

53 'to sleep' *wo-*

54 'to walk' *inda-*

55 'to bite' *ama-* (also means 'to eat', 'to drink')

56 'to eat' *ama-* (also means 'to bite', 'to drink')

57 'to give' *na-*

58 'to see' *lïmndï ala-* (= *lïmndï* 'eye' + *ala-* 'see')

59 'to come' *i-*

60 'to say' *ta-* (also *kï-*)

61 'to hear' *kïkal wana-* (= *kïkal* 'ear' + *wana-* 'feel')

62 'to know' *kalamp* (= *kalam* 'knowledge' + *=p* 'cop'; loan from Waran)

63 'to drink' *ama-* (also means 'to bite, 'to eat')

64 ‘to hit’ *wali-* (also *asa-*; both forms also mean ‘to kill’)
65 ‘to kill’ *asa-* (also *wali-*; both forms also mean ‘to hit’)
66 ‘to die’ *ni-*
67 ‘to burn’ *wo-* (intransitive; transitive is *apïn ama-* ‘eat [with] fire’)
68 ‘to fly’ *wiwina-*
69 ‘to swim’ *inim mo ma-* (= *inim* ‘water’ + *ma* ‘3SG.OBJ’ + *u* ‘on’ + *ma-* ‘go’)
70 ‘to run’ *imbam ka-* (= *imbam* ‘under’ + *ka-* ‘let’)
71 ‘to fall down’ *li u-* (= *li* ‘down’ + *u-* ‘put’)
72 ‘to catch’ *ikali lï-* (= *i* ‘hand’ + *kali* ‘send’ + *lï-* ‘put’)
73 ‘to cough’ *utan uta* (= *utan* ‘cough’ + *uta* ‘rub’)
74 ‘to laugh’ *atal a-* (= *atal* ‘laughter’ + *a-* ‘break’?)
75 ‘to dance’ *wutïni-* (= *wutï* ‘leg, foot’ + *ni-* ‘beat’)
76 ‘big’ *ambi*
77 ‘small’ *njukuta*
78 ‘good’ *anma*
79 ‘bad’ *tembi*
80 ‘long’ *wutota*
81 ‘short’ *mundotoma*
82 ‘heavy’ *kenmbu*
83 ‘light’ *wiwila*
84 ‘cold’ *mïnoma*
85 ‘hot’ *wananum*
86 ‘new’ *akïnaka*
87 ‘old’ *wapata* (also means ‘dry’)
88 ‘round’ *wopaw*
89 ‘wet’ *mïnwata*
90 ‘dry’ *wapata* (also means ‘old’)
91 ‘full’ *monop*
92 ‘road’ *tïlwa* (< *utï* ‘leg, foot’ + *luwa* ‘place’)
93 ‘stone’ *tana*
94 ‘earth’ *ini*
95 ‘sand’ *tana isi* (= *tana* ‘stone’ + *isi* ‘ashes’)
96 ‘mountain’ *inkaw*
97 ‘fire’ *apïn*
98 ‘smoke’ *apïn ngïn* (= *apïn* ‘fire’ + *ngïn* ‘cloud’)
99 ‘ashes’ *apïnsi* (< *apïn* ‘fire’ + *isi* ‘ashes’)
100 ‘sun’ *ane*
101 ‘moon’ *iwïl*
102 ‘star’ *nali* (small star; *mbomala* refers to big stars)

103 'cloud' *ngïn*
104 'rain' *inim* (also means 'water')
105 'wind' *nonal*
106 'water' *inim* (also means 'rain')
107 'vine' *nïpïl*
108 'tree' *im*
109 'stick' *im nali* (= *im* 'tree' + *nali* 'sago frond spine')
110 'bark' *im nambï* (= *im* 'tree' + *nambï* 'skin')
111 'seed' *mu*
112 'root' *ilu*
113 'leaf' *wapa* (same form as 'wing')
114 'meat' *lam* (loan from Ap Ma)
115 'fat' *anen*
116 'egg' *mïtïn*
117 'louse' *mïmin* (on humans; *sïmin* refers to lice on animals)
118 'feather' *nambli*
119 'horn' *kokal* (actually 'casque', as of a cassowary)
120 'wing' *wapa* (same form as 'leaf')
121 'claw' *sinananangïn* (< *sinanan* 'nail' + *nangïn* 'tongs')
122 'tail' *angun*
123 'one' *kwe* (also *kwa*)
124 'two' *nini*
125 'three' *lele*
126 'four' *watangïnila* (< *watangïn* 'last' + *ila* 'sago palm frond')
127 'five' *angay* (< *anga* 'piece' + *i* 'hand')
128 'ten' *angay nini* (= *angay* 'five' [times] *nini* 'two'; also *nali* 'sago frond spine')
129 'taro' *mïnal* (also means 'green')
130 'sugarcane' *mil*
131 'yam' *utam*
132 'banana' *mïnda*
133 'sweet potato' *nongontam*
134 'bean' *yakeka*
135 'axe' *tana* (literally 'stone')
136 'knife' *yawt* (large knife or machete; also *yot*; *sina* 'bamboo species' refers to a smaller knife)
137 'arrow' *wipam* (also *nap*; *wongïta* refers to a bow and arrow)
138 'net bag' *ani*
139 'house' *apa*
140 'tobacco' *sokoy* (areal term)

141 'morning' *umbenam*

142 'afternoon' *awal*

143 'night' *imba*

144 'yesterday' *awal*

145 'tomorrow' *umbe*

146 'white' *waembïl*

147 'black' *mbunmana* (also *mbun*; loan from Mwakai)

148 'yellow' *mïndit* (also *andwana, ane*)

149 'red' *ngungun* (also refers to red ants and to a plant species with red seeds)

150 'green' *mïnal* (also means 'taro')

151 'many' *tïngïn*

152 'all' *wopa*

153 'this' *nga*

154 'that' *anda*

155 'what?' *angos*

156 'who?' *kwa* (SG; *kuma* NSG)

157 'when?' *ango tem* (= *ango* 'which?' + *tem* 'time' < Tok Pisin *taim* 'time')

158 'where?' *ango luwa* (= *ango* 'which?' + *luwa* 'place')

159 'yes' *iyo*

160 'no' *ase*

161 'not' *ango*

162 'I' *nï*

163 'you (singular)' *u*

164 'he' *mï*

165 'we two' *ngan* (1DU.EXCL; *ngunan* 1DU.INCL)

166 'you two' *ngun*

167 'they two' *min*

168 'we' *an* (1PL.EXCL; *unan* 1PL.INCL)

169 'you (plural)' *un*

170 'they' *ndï*

171 'He is hungry.'

> *Mundu mase.*
> *mundu ma=asa-e*
> hunger 3SG.OBJ=hit-IPFV
> 'Hunger is hitting him/her.'

172 'He eats sugarcane.'

> *Mï mil ame.*
> *mï   mil   ama-e*
> 3SG.SUBJ sugar eat-IPFV
> 'He/she eats sugarcane.'

173 'He laughs a lot.'

> *Mï nunu ika atalaye.*
> *mï   nunu ika   atal-a-e*
> 3SG.SUBJ every instance laughter-break-IPFV
> 'He/she laughs often.'

174 'One man stands.'

> *Yeta kwe tanelïp.*
> *yeta kwe tane-lï-p*
> man one stand-put-PFV
> 'One man stands.'[1]

175 'Two men stand.'

> *Yeta nini tanelïp.*
> *yeta nini tane-lï-p*
> man two stand-put-PFV
> 'Two men stand.'[2]

176 'Three men stand.'

> *Yeta lele tanelïp.*
> *yeta lele   tane-lï-p*
> man three stand-put-PFV
> 'Three men stand.'

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[1]More colloquial Ulwa would more likely use *ankam* 'person' in sentences such as this and the following. The singular subject marker *mï* '3SG.SUBJ' could be used instead of the numeral *kwe ~ kwa* 'one'.

[2]The dual subject marker *min* '3DU' could be used instead of the numeral *nini* 'two'.

177 'The man goes.'

> *Yeta mï man.*
> yeta mï   ma-n
> man 3sg.subj go-ipfv
> 'The man goes.'

178 'The man went yesterday.'

> *Yeta mï awal i.*
> yeta mï   awal   i
> man 3sg.subj yesterday go.pfv
> 'The man went yesterday.'

179 'The man will go tomorrow.'

> *Yeta mï umbe mana.*
> yeta mï   umbe   ma-na
> man 3sg.subj tomorrow go-irr
> 'The man will go tomorrow.'

180 'The man eats the yam.'

> *Yeta mï utam mame.*
> yeta mï   utam ma=ama-e
> man 3sg.subj yam 3sg.obj=eat-ipfv
> 'The man eats the yam.'

181 'The man ate the yam yesterday.'

> *Yeta mï awal utam mamap.*
> yeta mï   awal   utam ma=ama-p
> man 3sg.subj yesterday yam 3sg.obj=eat-pfv
> 'The man ate the yam yesterday.'

182 'The man will eat the yam tomorrow.'

> *Yeta mï umbe utam malanda.*
> yeta mï   umbe   utam ma=la-nda
> man 3sg.subj tomorrow yam 3sg.obj=eat-irr
> 'The man will eat the yam tomorrow.'

183 'The man hit the dog.'

> *Yeta mï tïn masap.*
> yeta mï   tïn   ma=asa-p
> man 3SG.SUBJ dog 3SG.OBJ=hit-PFV
> 'The man hit the dog.'

184 'The man didn't hit the dog.'

> *Yeta mï ango tïn masap.*
> yeta mï   ango tïn   ma=asa-p
> man 3SG.SUBJ NEG dog 3SG.OBJ=hit-PFV
> 'The man didn't hit the dog.'

185 'The big man hit the little dog.'

> *Yeta ambi mï tïn njukuta masap.*
> yeta ambi mï   tïn   njukuta ma=asa-p
> man big   3SG.SUBJ dog small   3SG.OBJ=hit-PFV
> 'The big man hit the small dog.'

186 'The man gave the dog to the boy.'

> *Yeta mï tïn matï nungol manan.*
> yeta mï   tïn   ma=tï   nungol ma=na-n
> man 3SG.SUBJ dog 3SG.OBJ=take child   3SG=OBJ=give-PFV
> 'The man gave the dog to the child.'

187 'The man hit the dog and went.'

> *Yeta mï tïn masap i.*
> yeta mï   tïn   ma=asa-p   i
> man 3SG.SUBJ dog 3SG.OBJ=hit-PFV go.PFV
> 'The man hit the dog [and] went.'

188 'The man hit the dog when the boy went.'

> *Nungol iye yeta mï tïn masap.*
> nungol i-e   yeta mï   tïn   ma=asa-p
> child   go.PFV-DEP man 3SG.SUBJ dog 3SG.OBJ=hit-PFV
> 'When the child went, the man hit the dog.'[3]

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[3]The order of the clauses in the translation is reversed, reflecting more natural Ulwa syntax. The Ulwa sentence could also mean: 'After the child went, the man hit the dog'.

189 'The man hit the dog and it went.'

    Yeta mi tïn masap mï i.
    yeta mi   tïn ma=asa-p   mï   i
    man 3SG.SUBJ dog 3SG.OBJ=hit-pfv 3SG.SUBJ go.PFV
    'The man hit the dog [and] it went.'

190 'The man shot and ate the pig.'

    Yeta mï lamndu masap mamap.
    yeta mï   lamndu ma=asa-p   ma=ama-p
    man 3SG.SUBJ pig   3SG.OBJ=hit-PFV 3SG.OBJ=eat-PFV
    'The man shot [and] ate the pig.'

Appendix D: Glossary of Tok Pisin words

The following is an annotated glossary of Tok Pisin words sometimes used in this grammar because they more closely capture the meanings of certain Ulwa words or because they are more familiar to people who live or work in Papua New Guinea. In the list provided here, the Ulwa translation is given in *italics*, along with an English explanation.

aibika (*yomal*). A leafy green vegetable (*Abelmoschus manihot*) that is harvested in the jungle. Its long, soft leaves are commonly cooked in coconut milk (cf. **tulip**).

bilum (*ani*). A net bag woven of strings and typically worn around the neck; smaller ones are often used to carry items such as tobacco and betel nut. The Ulwa term has come to be applied to modern, factory-made bags as well.

buai (*aw*). The *Areca catechu* palm, whose seed (or 'nut', i.e., 'betel nut') is chewed as a stimulant, especially when combined with **daka** (*wanmbi*) and lime (calcium hydroxide). The palm is grown in Manu both for personal consumption and for export. Both the Tok Pisin term and the Ulwa term can be applied to the palm or to the nut harvested from it or to the combination of the nut with **daka** and lime, which, alternatively, may be called **red buai** (*ansi*).

daka (*wanmbi*). The leaf or flower of the *Piper betle* ('pepper') vine, commonly chewed with **buai** (*aw*) and lime (calcium hydroxide) to make **red buai** (*ansi*).

garamut (*numbu*). A large slit-drum made from the hollowed log of an ironwood tree. The term, both in Tok Pisin and in Ulwa, may also be applied to the trees themselves. The drum is struck as a gong to communicate messages or to summon people to a location. The drums may be decorated with carvings. In Ulwa, the word *numbu* may also be used to refer to the vertical posts of a house, since these, too, are made from the timber of these trees.

haus tambaran (*amba*). A traditional ancestral worship house ('men's house' or 'spirit house'). Before being abolished in the latter half of the twentieth century – that is, after the arrival of Christian missionaries – these 'spirit houses' were the exclusive domain of Ulwa men who had been initiated with secret rites, which included body scarification. The practices of these initiates have largely remained secret, but they are known to have included singing, dancing, and communal dining, sometimes on human flesh. In the Sepik area, 'spirit houses' are also referred to as **haus boi**.

kanda (*le*). Several species of climbing palm (rattan cane) that are used to weave the internal walls of houses.

kandere (*yawa*). A kinship term that varies in usage based on local custom. In the Ulwa-speaking area it refers to one's mother's brother (i.e., maternal uncle), a relation who has special obligations to his sister's children, who are called *ansi nungol*.

kaukau (*nongontam*). Any of the varieties of sweet potato (*Ipomoea batatas*) that are harvested and consumed in Papua New Guinea. Although more common in the Highlands, some Manu villagers do grow this crop at home in the Sepik lowlands. The varieties grown are typically white sweet potatoes, with flesh and skin that are whiter than the more orange-colored North American varieties.

kiap (*wanwane*). Patrol officers (or district officers) of the British (and later Australian) colonial territories in New Guinea. The Ulwa name *wanwane* literally means 'mushroom', referring to the traveling officers' headwear, which apparently resembled mushroom caps.

kunai (*nipum*). A blade-like grass (*Imperata cylindrica*) not found directly in the Ulwa area, but in nearby grasslands.

kundu (*nïte*). A small hand drum with a body of wood and vibrating membrane of lizard skin that is struck with the hand. It is used in traditional dances and to accompany singers.

limbum (*me*). A species of palm whose stems are split and flattened to be used for flooring and baskets. The term typically refers not to the palm itself, but to the flattened product derived from it, or – possibly – to a strip of this flattened stem.

morota (*ila*). Sago palm fronds, used in house construction to make thatch roofs. Traditionally, these were also used by the Ulwa people to keep track of time by breaking a frond for each day that has passed.

pangal (*wema*). Woven sago palm fronds, used to make the outside walls of houses.

tokples (*na* 'talk', *mïtïn* 'egg; language', *unanji na* 'our [EXCL] talk', etc.). Any of the hundreds of vernacular languages of Papua New Guinea, often contrasted with **Tok Pisin**, the nation's lingua franca. There is no clear equivalent for this word in Ulwa, and it is commonly used as a loan in that language. However, *na* 'talk, speech, story, message, thought, reason, language' may convey this meaning, especially when used with a possessive marker. The word *mïtïn* 'egg' may also be used to mean 'language'.

tulip (*anmopa*). A leafy green vegetable (*Gnetum gnemon*) that is harvested in the jungle. It is commonly cooked in coconut milk (cf. **aibika**).

Appendix E: The Ulwa cosmogony

The Ulwa people have a traditional story that tells of the origin of the universe and the creation of the first people. It runs roughly as follows.

Long ago there was Ambawanam Ngata, a great man who lived in the universe all alone. He built village after village, until finally he built the current village – that is, our world. Still, he had no wife and no children. Living alone, he set out to build a *garamut* drum. While hacking at the wood with his stone axe to carve the drum, he accidentally cut his leg. When blood began to pour out, he grabbed a leaf to tie around the wound. After staunching most of the blood, he took half of a split coconut shell, put it under his leg, and let the rest of the blood flow into it. When the bleeding stopped, he took the other half of the coconut shell and enclosed his blood between the two halves. He put the blood-filled coconut under the awning of his house and resumed building his drum. Meanwhile, the coconut, which had transformed into an egg, hatched. Inside the egg were a man and a woman.

The man left the egg and headed out to see Ambawanam Ngata working on his drum. Shocked to see another human, Ambawanam Ngata asked the man who he was and where he had come from. The man led him back to the awning of the house, whereupon Ambawanam Ngata shot the broken coconut-egg with an arrow, and the woman fell out. Having forbidden the woman to follow him, Ambawanam Ngata went back to work on his drum. But disregarding his order, the woman came upon him while he was carving the drum. He shouted at her to leave, as it is taboo for a woman to be present while a *garamut* drum is being made. The woman and the man left together. The woman found a yam and cooked it in the fire. She scraped off the ashes and put the cooked yam in a coconut shell. She gave this to the man, telling him to bring it to their supposed father. The man did just that: he went to Ambawanam Ngata and called to him, "Papa!" But Ambawanam Ngata told the man: "I am not your father; I am your grandfather." And Ambawanam Ngata left for good, flying off to live in the clouds.

Within the contemporary Christian Ulwa community, the man and woman who hatched from the coconut-egg are sometimes equated with Adam and Eve. Ambawanam Ngata is sometimes identified with the Christian god.

* * *

The Ulwa people have another traditional story that tells of the origins of the peoples of New Guinea and, perhaps, the wider world. It runs roughly as follows.

Long ago, alone in this world were an old man and an old woman, who lived together as husband and wife. The old woman desperately wanted a child, but the couple was unable to conceive one. So the old woman prayed to the gods and, in a dream, she was told what to do. She was to gather clay and mold it into the shape of a man; then she was to put the clay man into the fire to bake and take him out once his body had cooked to a fine golden brown.

The next morning, the woman set out to do just that. She gathered some clay, molded it into the shape of a man, and put this clay man into the fire. Having put the clay man in the fire, she headed out to go fishing. She fished and fished, losing track of the time. Meanwhile, the clay man continued to bake, turning brown, then browner, and then – since he was in the fire much too long – black as night. Once fully blackened, the clay man – now a living boy – jumped out of the fire and began to run. The old man, who was home, saw this black child and shrieked in fright. The boy, startled by the old man's yelling, ran away into the jungle, where he became a jungle spirit.

Eventually, the old woman returned to find the fire having died down, but with no child inside. After her husband explained what he had seen, the old woman, not at all deterred, tried again, this time resolving to keep watch by the fire. She gathered more clay, molded it into a second man, and placed this second clay man into the fire. She watched as the clay started to darken. When the clay man had reached a nice golden brown, she removed him from the fire. He came to life, and she considered him her son.

Very pleased with the results, the old woman decided to try to make one final child – only now the fire had died down completely. So she decided to bake this man in the sun instead. She gathered clay, molded the man, and put him out in the sun. He baked and baked, but his color never managed fully to darken. Nevertheless, he too came alive – another son. He was like his two brothers, only white in complexion. The old woman took the two sons that remained and brought them home to introduce them to their father.

The old man was also pleased with his new sons, and so he decided then and there to allot to each his inheritance. He called the two boys over. Grabbing a coconut, he split it in two: one side held the eyes of the coconut, the other side the rear. He threw the two halves before the children, telling the older son (the brown-skinned one) that he may choose first. Foolishly, the older son chose the rear end of the coconut. The younger son was left with no choice but to take the

eye side. The father spoke to them as follows: "Ah, my son, you are older, but you have chosen foolishly. For you must hold this closed end of the coconut before your face, unable to see far; you will not have an easy life; you must work hard for your livelihood; but this land here will be yours, and it is good land. And you, my younger son, you have before you the eyes of the coconut; you will hold this side before your face, and you will see far; you will make great advances compared to your brother, but you must live far away from here."

And with that he sent his sons off into the world. The brown-skinned one was to be the father of all people alive today in the region. Years later, when white people came to New Guinea, they were recognized as the descendants of the white-skinned child. Similarly, Solomon Islanders, whose skin is notably darker than that of the people of New Guinea, are sometimes said to be the descendants of the first, black-skinned child.

* * *

The village of Manu has an account of its origins as well, extending into the legendary past, which runs roughly as follows.

Long ago, the ancestors of everyone – Ulwa-speakers and everyone else who now lives along the Sepik River – came from far off, in unknown lands lying to the distant west. Eventually, they settled in a place called Kamen, which is near present-day Kambaramba village. All the clans and all the language groups lived together: Ulwa, Mundukumo, Ap Ma, Kanda, Mwakai, Pondi, and so on. But the leading clan in this massive village was called Kamen, after which the settlement was named. One day, the Kamen clan killed a huge crocodile. But, contrary to custom, the leaders of the clan did not share the meat with the other clans. Greatly angered by this, the other clans declared war on the Kamen clan, killing some of them in the battle. In the disorderly fighting that ensued, people from other clans were killed as well. Eventually the entire settlement was at war, every clan fighting for itself. With peace no longer tenable at Kamen, all the clans split up.

The Ulwa clan was itself divided into four sub-clans: Nïmalnu (Manu), Mamala (Maruat), Andïmali (Dimiri), and Mosombla (Yaul). The Nïmalnu clan first settled in a place called Dim, which is near present-day Biwat. The Mundukumo people, who lived at Biwat, began to enter this land, and wars ensued between the two groups.[1] Avoiding further warfare, the Nïmalnu clan moved to a second village,

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[1]The Mundukumo (or Mundugumor) people were famously described as being aggressive by Mead (1935).

called Yambul, which is in the area of the present-day Maruat, Dimiri, and Yaul villages.

When the other Ulwa sub-clans moved to this area, too, however, the Nïmalnu clan moved to yet another village (their third), called Amali, which is about a five-hour walk away from the current village location, in the direction of the Bun clan.

This proved a very desirable location, but incessant warring with the Bun community, who are closely related linguistically to the Mundukumo community, prompted the Nïmalnu clan to move yet again, to the fourth village, which itself was divided into two areas: Yambiwa and Mamanu. This two-part village, which is about a two-hour walk away from the current one, is still known to the people of Manu, and it is often visited and used as a base from which to hunt. Its full name is *Wa Wapata* (literally 'old village'), but it is usually called by a shortened form, *Wopata*. By the time of its arrival to this fourth village, the Nïmalnu clan had grown so large as to consist of seven sub-clans: three clans lived at the Yambiwa part of the village and four clans lived at the Mamanu part of the village. This fourth village, although a refuge from enemy groups, proved unhygienic. In the swampy climate, the Nïmalnu clan suffered countless deaths due to disease. The sub-clans were reduced in number from seven to four, which is the current number of Manu clans.

It was because of this poor climate, as well as a desire for better access to water and to colonial Australian administrative services that the Nïmalnu people started moving in the 1960s to their fifth (and current) village, in the area known locally as Bulon, but now commonly referred to as Manu.

Appendix F: Laycock's Yaul field notes

This appendix offers a typed transcription of Laycock's (1971a: 3218–3264)[1] hand-written field notes on the Yaul dialect of Ulwa, recorded around February or March of 1971. Laycock generally did not write glosses in his field notes. Rather he followed a mostly fixed elicitation order, which is recorded in Laycock (1973: 70–71). As signposts he included some occasional item numbers in his notes. He often used a dash (–) to indicate that a word has been skipped. He used a tilde (~) to indicate that part or all of the preceding line is to be interpreted as duplicated in the current line.

In this present transcription, I have included the glosses from Laycock's (1973: 70–71) standard elicitation list. Italicized words are those that Laycock notes to be frequently omitted, since their translations proved difficult to elicit. Other bracketed content (ending in "RB") contains my own annotations. Digital scans of the original handwritten notes are stored at the PARADISEC archive:

https://dx.doi.org/10.4225/72/56F2B4E751BAF

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YAUL ?
(ANDJI LOWA) our language
Silami, Ansamari [Laycock's two consultants – RB]
Yaul, Dimiri, Maruat, Manu [the villages where "Yaul" (i.e., Ulwa) is spoken – RB]

mbɑrɑndʒi ['man'] ['person' – RB]
yɑnɑ ['woman']
itɑmgɑdɑ, itɑmgɑdɛ ['old man'][2]
inɑmgɑdɑ, inɑmgɑdɛ ['old woman']
sɪmbwɑy ['child']

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[1]Laycock mostly skipped odd-numbered pages in his notebooks.
[2]Laycock notes here: "one informant has ɑ, other ɛ – one informant has final Ø, other ə". This note is probably meant to refer to the idiolects of the two consultants more generally.

itɑum ['father']
inɑum ['mother']
itɑum ɑundum ['grandfather']
inɑum ~ ['grandmother'] [i.e., *inaum aundum* – RB]
ɑtumow ['elder brother (of man)']
wɔtu ['younger brother (of man)']
yɛnɑnuwə ['sister (of man)']
nindʒinɑm 'MB' [i.e., 'mother's brother' – RB][3]
nindʒinɑum wɔtu 'SS' [i.e., 'sister's son' – RB][4]
inɑum yɛnɑnu 'kantire ♀' [i.e., 'mother's sister' – RB][5]
nindʒi ɑnduwɑ ['wife's brother/brother's wife'] [actually 'my in-law' – RB]
– ['*sorcerer*']
– ['*person*']
nəməndi ['eye']
yip(ə) ['nose']
kəkɑr ['ear']
ɑmbə́lɑ ['tooth']

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mələm ['tongue'][6]
mɑmɑ ['mouth']
gənúmɔ ['chin']
wɑnɪmi ['head hair']
misɑm ['head']
wuwɑ ['neck']
tumbʊnmwɔ ['nape']
– ['*tear*']
ɑɓinɑm ['shoulder']
yɑŋgwʊm ['arm']
yɪrup ['elbow']
yoʊmbɔm ['hand/palm']
yumí·p ['finger']

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[3]The form here probably actually means 'my mother' (or 'my aunt'), suggesting some confusion in elicitation.
[4]The form here might actually mean 'my parent's younger sister'.
[5]Laycock's gloss uses the Tok Pisin word *kandere*, which in local usage generally means 'mother's brother' but can refer to other relations in other areas.
[6]Numbered "21".

inɛnɑn ['fingernail']
– ['*fist*']
kuɔyi (kwɔyi) ['chest']
mutɑmɑ 'spine' ['back' – RB]
wɑlʊm ['breast (female)']
inɑɸwɔm ['belly']
mutɑmɑ wʊmɑ ['back'] ['back bone', i.e., 'spine' – RB]
wʊnbu·p ['rump']

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– ['*anus*']⁷
bətʊm ['leg']
bətɑlmʊtwʊmɑ ['knee']
nɑmbiyʊm ['skin']
yɪl ['body hair']
ɑrᵊkən ['blood']
wʊmʷɑ ['bone']
ɓɑlʊm wʊmɑ 'ribs'
kwɔy 'bros' [i.e., 'chest' – RB]
mənɑndən 'heart' [actually 'gallbladder'? – RB]
– ['*lungs*']
índʒɑŋɑ ['liver' – RB]
mɛlɛlɑ, mɛlɛlɛ ['intestines' – RB]⁸
ŋgəndɑ ['guts']
ilɑw ['fat']
lɑm 'mit' [i.e., 'meat, flesh' – RB]
wɑl ['penis']
mətɛ́n ['testicles']
ɪnɪmbə ['vulva']
tɑɓɑ ['sore']
məndɑm ['pus']
– ['*ghost*']
– ['*ancestral spirit*']
– ['*natural spirit*']

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⁷Numbered "41".
⁸Numbered "50".

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ɑlei ['sun'][10]
yiƀəl ['moon']
lɑ·ri ['star']
– ['*sky*']
ɑrɑm ['cloud']
ɑlesíŋgəm ['fog']
yɪnəm ['rain']
yimbɑ ['night']
mɑtɑkwulᵊp ʊmbwenɑm '(tulait bruk nau.)' ['day'][11]
bʷɔnɛmbi ['morning'][12]
ɑƀɑnɑmge ['evening']
i·nəm ['water']
inum pul ['pond']
inəm mɑ tɑit pɪn i·n, inəm mɑ ɑmbitey ini 'wara i tait na i kam' ['current'][13]
– ['*sea*']
– ['*beach*']
yinɑt ['ground']
minɛm ['stone']
yin yirís ['sand']
inɑt mɑ· tɑk ['mountain']
– ['*ridge*']

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– ['*valley*'][14]
wɑniɑt ɑmbɑ·kei ['plain']
ƀantɑm, ruƀɑ ['bush'] [i.e., 'jungle, woods, forest' – RB]
~ ['garden'] [i.e., *ƀantɑm* – RB]

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[9]At the top of the page Laycock has the note: "l = r".

[10]Numbered "61".

[11]Laycock's Tok Pisin translation is roughly 'twilight has broken' in English. He glosses <ʊmbwenɑm> as 'tomara' (i.e., 'tomorrow').

[12]Numbered "70".

[13]Laycock's Tok Pisin translation is roughly 'the water is strong and coming' in English. The first sentence in Ulwa is probably actually 'the water *tait pinis* has come' (*tait* 'flood/current' and *pinis* 'already' are both Tok Pisin), and the second sentence in Ulwa is probably 'the water is big, has come'.

[14]Numbered "81".

– [‘*fence*’]
– [‘river’]
inat tambíŋgata [‘swamp’] [literally ‘bad ground’ – RB]
ŋgʊŋgwʊn [‘wind’]
ŋgʊŋgwʊn mayinɛ [‘wind has come’ – RB]
apǝn [‘fire’]
yimɔt [‘firewood’]¹⁵
apǝrǝ́ŋgǝn [‘smoke’]
apǝn inaŋgǝn málaŋ [‘white ash’]
imǝkǝl [‘black ash’]
sakwɑy [‘tobacco’]
– [‘*cigarette*’]
ɓǝtǝ́lɓa [‘road’]
lǝɓá ~ [‘track’] [i.e., *lǝɓá ɓǝtǝ́lɓa*; literally ‘jungle road’ – RB]
mʊndǝ [‘food’]
yɪm [‘tree’]
yɪm mamgwʊmu [‘branch’] [literally ‘tree stick’? – RB]
mʊndǝ nasi ‘hanggri’ [i.e., ‘hungry’; literally ‘hunger hits me’ – RB]

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yɪm bɑpɑ [‘leaf’] [literally ‘tree leaf’ – RB]¹⁶
~ misam [‘tree-top’] [i.e., *yɪm misam*; literally ‘tree head’ – RB]
– [‘*vine*’]
~ mʊm [‘fruit’] [i.e., *yɪm mʊm*; literally ‘tree fruit’ – RB]
– [‘flower’]
nambiyum [‘bark’] [= ‘skin’ – RB]
yɪm kɑl [‘tree sap’ – RB]
ɑsɑpɑ [‘grass (kunai)’]
pɑlam [‘wild sugarcane (pitpit)’]
mǝlí [‘sugarcane’]
yɛkwɑm [‘bamboo’]¹⁷
rɛ [‘rattan’]
wʊlʊm ‘palm’ [‘sago’]
ɓɛ ‘food (for frying)’ [‘sago flour, sago pancake’ – RB]

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¹⁵Numbered “90”.
¹⁶Numbered “101”.
¹⁷Numbered “110”.

ɑy 'hatwara' ['sago broth'] [i.e., 'jellied sago' – RB]
nɪŋgwɔmtɑm ['sweet potato']
mənɑr ['taro']
wʊtɑm ['yam']
kʊmbulɛ ['small yam (mami)']
məndə ['banana']
ŋgənɑm ['*pandanus*']
yɛ ['coconut']
~ ƀəpɑtɑ ['dry coconut'] [i.e., *yɛ ƀəpɑtɑ* – RB]
~ mənɑndən ['green coconut'] [i.e., *yɛ mənɑndən* – RB]

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– ['*edible fern (kumu)*']¹⁸
ɑ·mu ['areca nut']
wɑnbi ['betel pepper vine']
~ ƀapɑ ['betel pepper leaf'] [i.e., *wɑnbi ƀapɑ* – RB]
~ ŋgəraŋgɑn ['betel pepper fruit'] [i.e., *wɑnbi ŋgəraŋgɑn* – RB]
i· ['lime']
ɑris ['lime gourd']
– ['*lime stick*']
si· ['salt']
lə́pɑ ['breadfruit']
– ['*Gnetum (sayor)*']
ɑmwɔlɑɸɑ ['Gnetum (tulip)']
yɔmɔl ['Hibiscus (epika)']
– ['Amaranthus (grinlip)']
mɔmbʊn ['Amaranthus (aupa)']
– ['tree sap']¹⁹
rɑᵘƀu ['cordyline']
– ['*capsicum*']
mə́rəkən ['nipa'] [i.e., 'sago palm species' – RB]²⁰
wʊndɛn ['arecoid palm (limbum)']

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¹⁸Numbered "121".
¹⁹This was already elicited, after 'bark'. Laycock often elicited 'tree sap' earlier than in his pre-scribed order.
²⁰The form given refers to the sago palm species from which grubs are harvested.

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daŋgwɑn 'black palm' ['wild arecoid (wail limbum)']
yimɑ·ɓəl ['cassava']
tɨn (tɪn) ['dog']
namʊndə ['pig']
~ yinɔm 'mother pik' [i.e., *namʊndə yinɔm* 'sow' – RB]
~ kɑmbən 'baby pig' [i.e., *namʊndə kɑmbən* 'piglet' – RB]
tɪn aŋgwʊn ['dog's tail']
~ yɪl ['dog's fur'] [i.e., *tɪn yɪl* – RB]
wuta, wutɛ ['bird']
~ ɓɑpɑ ['wing'] [i.e., *wuta ɓɑpɑ*; literally 'bird wing' – RB]
~ yɪl ['feather'] [i.e., *wuta yɪl*; literally 'bird body hair' – RB]
~ yip(ˀ) ['beak'] [i.e., *wuta yip(ˀ)*; literally 'bird nose' – RB]²¹
mətən ['egg']
gwi·mɑkɑn ['tree kangaroo']
təɸwɔ·ləm ['possum']
kɑrim ['cassowary']
kɑlim ʷɔmbi 'many muruk' [i.e., 'many cassowaries' – RB]
wɑndi ['bandicoot']
yɑki ['rat']
yapɔlɔpa ['flying fox']
~ sɔmɔrə, mənəmnɛ ['small bat'] [i.e., *yapɔlɔpa sɔmɔrə, mənəmnɛ*]²²
wɔlim ['pigeon']
ʊpín ['goura'] [i.e., 'crowned pigeon' – RB]

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yɑpóta ['cockatoo']
– ['*crow*']
ɑsipɑl ['hornbill']
woɓal ['fowl']
ɑɓasíŋgən ['hawk']
ɓitíwt ['duck']
yɑkomɑkɑn ['wildfowl']

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²¹Numbered "150".
²²The first form is literally 'small flying fox'. The second form may be an otherwise unidentified bat species, or else there was some confusion in the elicitation.

– ['*owl*']
wɑy ['parrot']
(kʊmʊl) kumulmɑu ['Bird of Paradise']²³
＿ ²⁴
ɑrəmwɔkɑ ['snake']
~ ambiŋgata ['python'] [i.e., *arəmwɔka ambiŋgata*; literally 'big snake' – RB]
wʊsʸɪm ['crocodile']
rəkət ['lizard']
– ['monitor lizard']
kita ['frog']
ɓəlipɑn ['fish']
ri· ['crayfish']
dʒiɓa·lə ['fly']
mu· 'blulang' ['March fly']²⁵
nɑŋgwʊn ['mosquito']

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yɑkərɑɓaɓanə ['butterfly']²⁶
kəkɑ ['ant'] ['white ant' – RB]
ŋgu·ŋgʊn ['red ant']
mɨn ['louse']
– ['*spider*']
– ['termite']
ɑpɑ ['house']
wuɑ (wɔɑ) ['village']
ɑpɑtɑm ['bed']
– ['fireplace']
＿ ²⁷

mɑrɑ ['spear']

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²³Numbered "170". Laycock used parentheses to indicate that this form in Ulwa (presumably two variants given?) derives from a Tok Pisin loan, *kumul* 'bird of paradise'.

²⁴Laycock skipped a line here, but it is not clear what was intended, since there is no corresponding item that occurs here in his test list.

²⁵Laycock's Tok Pisin gloss *blulang* is often translated in English as 'blowfly' (Calliphoridae). The item that occurs at this point in his test list ('March fly') is known elsewhere in English as the 'horsefly' (Tabanidae).

²⁶Numbered "181".

²⁷Laycock skipped a line here, but it is not clear what was intended, since there is no corresponding item that occurs here in his test list.

waŋgutɑ ['bow']
rɑpə, wiɸɑm 'supsup' [i.e., 'fishing spear' – RB]
– ['*bowstring*']
– ['club']
– ['shield']
mɑsɑ² ['string'] [i.e., *masamasa* – RB]
~ ambiŋgɑtɑ ['rope'] [i.e., *masamasa ambiŋgata*; literally 'big string' – RB]
ɑri· ['man's netbag'] [i.e., '*bilum*, string bag, net bag' – RB]
nɑndu· ['woman's skirt']

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lɔplɔp 'laplap' ['cloth', i.e., a loan from Tok Pisin *laplap* 'cloth' – RB]
ɑnɑmbiyum ['male clothing']
sɑkɑnmɑ ['axe']
yitəpən ['bushknife'] [i.e., 'machete' – RB]
lísə ['hand-drum'] [i.e., '*kundu* (small hand drum)' – RB]
nəmbu ['slit-gong'] [i.e., '*garamut* (large slit drum)' – RB]
kwoƀ(u) ['singsing'] [i.e., 'song, song and dance' – RB]
– ['*decorations*']
– ['*oil*']
nʊmu ['canoe']
ɑnɑƀ ['paddle']

[Editor's note: The remainder of Laycock's Yaul notes are devoted to "prelim-inary grammatical testing" (Laycock 1973: 71). Laycock does not include many translations, but those that he does include are presented as the second line of each entry. When his translation is abbreviated or not fully presented in English (i.e., it is at least partly written in Tok Pisin), I have included a translation on the second line as well (in brackets). This should be taken as a translation of what Laycock probably understood the Yaul form to mean in English. As the third line of each entry, I have included my own translation of what I think the Yaul form most likely means in English – RB.]

kwo wɑmɑ?
['Who are you [sɢ]?']
['Who are you [sɢ] [who is] going?' – RB]

nɑwu
mi [= 'me']
['[It's] me.'] – RB

kwʊmʊŋgu nɑ·mə
['Who are you two?']
['Who are you two [who are] going?' – RB]

ŋgɑnɑwɔ
['us two']
['[It's] us [DU.EXCL].' – RB]

ŋgɑnbi
mi 2 i kam [= 'We [DU.EXCL] come.']
['We [DU.EXCL] have come here.' – RB]

kwumo wunɑ·mɑlɑ?
['Who are you [PL]?']
['Who are you [PL] [who are] going?' – RB]

wʊn biyɛ
yupela ol i kam [= 'You [PL] come.']
['You [PL] have come here.' – RB]

ɑnɑw wuɸɑ mbi
mipela olgeta i kam [= 'We all come.']
['We all have come here.' – RB]

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kwoyɛ
1
['one' – RB]

nini
2
['two' – RB]

rirɑ
3
['three' – RB]

nənangɛ
4
['four' – RB]

mwɔtɑm
5
['five'; literally 'stick' or 'bundle'? – RB]

kwey ɑɓɔk
6
['six'; literally 'one again'? – RB]

nini ~ [i.e., *nini aɓɔk*]
7
['seven'; literally 'two again'? – RB]

rirɑ ~ [i.e., *rira aɓɔk*]
8
['eight'; literally 'three again'? – RB]

nənangɛ ~ [i.e., *nənangɛ aɓɔk*]
9
['nine'; literally 'four again'? – RB]

mwɔtɑm nini
10
['ten'; literally 'two bundles'? – RB]

~ kweyɑ ɓatək [i.e., *mwɔtam nini kweya ɓatək*]
11
['eleven'; literally 'two bundles, one let atop'? – RB]

( ) nini ~ [i.e., *mwɔtam nini nini ɓatək*]
12
['twelve'; literally 'two bundles, two let atop'? – RB]

( ) rirɑ ~ [i.e., *mwɔtam nini rirɑ ɓatək*]
13
['thirteen'; literally 'two bundles, three let atop'? – RB]

( ) nənangɛ ~ [i.e., *mwɔtam nini nənangɛ ɓatək*]
14
['fourteen'; literally 'two bundles, four let atop'? – RB]

~ rirɔ [i.e., *mwɔtam rirɔ*]
15
['fifteen'; literally 'three bundles'? – RB]

kwey aɓɔk mwɔtam rirɑ dəɓatək
16
['sixteen'; literally 'one again, three bundles let atop them'? – RB]

nini ~ ~ ~ ~ [i.e., *nini aɓɔk mwɔtam rirɑ dəɓatək*]
17
['seventeen'; literally 'two again, three bundles let atop them'? – RB]

rirɑ [i.e., *rirɑ aɓɔk mwɔtam rirɑ dəɓatə*]
18
['eighteen'; literally 'three again, three bundles let atop them'? – RB]

nənangɛ [i.e., *nənangɛ aɓɔk mwɔtam rirɑ dəɓatək*]
19
['nineteen'; literally 'four again, three bundles let atop them'? – RB]

mwɔtam nənangɛ
20
['twenty'; literally 'four bundles'? – RB]

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na mʊndə randa
['I eat.']
['I will eat food.' – RB]

wu ~ ~ na? [i.e., *wu mʊndə randa na?*]
['Do you eat?']
['Will you eat food?' – RB]

andi, na ~ ~ [i.e., *andi, na mʊndə randa*]
yes, mi kaikai [= 'Yes, I eat.']
['Yes, I will eat food.' – RB]

ninsikambən ~ ~ [i.e., *ninsikambən mʊndə randa*]
child eats [= 'The child eats.']
['My child will eat food.' – RB]

wi nu, gwunə ~ ~ ni [i.e., *wi nu, gwunə mʊndə randa ni*]
yu kam, mi 2 kaikai [= 'You come, we two eat.']
['Come [sg]! We [du.incl] will eat food.' – RB]

mu mʊndəranda
em i kaikai [= 'He eats.']
['He will eat food.' – RB]

yatəkambən mu ~ [i.e., *yatəkambən mu randa*]
male child eats [= 'The male child eats.']
['The male child will eat.' – RB]

gwʊnə mundəranda
we 2 eat [= 'We two eat.']
['We [du.incl] will eat food.' – RB]

gwuna munda ma?
yu 2 kaikai pinis [= 'Have you two eaten?']
['Do you two eat food?' – RB]

wɑyu, ŋgɑnɑ ŋgɔ mundəmɑ ɸeiko
nogat, mi 2 no kaikai [= 'No, we [DU.EXCL] do not eat.']
['No, we [DU.EXCL] do not eat food.' – RB]

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PRONOUNS

nɑ(w)	ŋgɑnɑ(w)	ɑnɑ
[1SG]	[1DU]	[1PL]
[1SG-INT – RB]	[1DU.EXCL-INT – RB]	[1PL.EXCL-INT – RB]
wu	gwunɑ	wʊnɑ
[2SG]	[2DU]	[2PL]
[2SG – RB]	[2DU-INT – RB]	[2PL-INT – RB]
mu	minɑ	ndɑ(pwɑ)
[3SG]	[3DU]	[3PL]
[3SG.SUBJ – RB]	[3DU-INT – RB]	[3PL(-INT) – RB]

wey nɑmbowᵘ
mi wanpela [= 'I myself']
['only I myself' – RB]

nini
2
['two' – RB]

gwunɑ mundɑ mɑ pɑ?
yu 2 kaikai pinis [= 'Have you two eaten?']
['Have you two eaten food?' – RB]

ɑnɑ mundɑ mɑp
we all [have eaten] [= 'We [PL] have eaten.']
['We [PL.EXCL] have eaten food.' – RB]

wunɑ pwɑ mʊndɑ mɑ·pɑ
['Have you all eaten?']
['Have you [PL.EXCL] already eaten food? – RB]

andi, ana mʊnda mapi
yes, mipela ol i kaikai pinis [= 'Yes we [PL] have eaten.']
['Yes, we [PL.EXCL] have eaten food.' – RB]

ŋgana mʊnda mapi
we 2 eat [= 'We two eat.']
['We [DU.EXCL] have eaten food.' – RB]

mina ᵃmap(i)
2 pela kaikai ['They two eat.']
['They two have eaten.' – RB]

ndaɸwa amap
ol i kaikai pinis [= 'They [PL] have eaten.']
['They [PL] have already eaten.' – RB]

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w aŋgwo mana?
yu go we? [= 'Where do you [SG] go?']
['Where will you [SG] go?' – RB]

na wɔ mani
mi go long ples [= 'I go to the village.']
['I am going to the village.' – RB]

andi na ləɓa mani
yes mi go long bus [= 'Yes, I go to the jungle.']
['Yes, I am going to the jungle.' – RB]

wumbelepə ləɓa manani
tumara mi go long bus [= 'Tomorrow I go to the jungle.']
['[I] will go to the jungle tomorrow.' – RB]

na aŋgwɔlam mani
mi go Angoram [= 'I go to Angoram.']
['I am going to Angoram.' – RB]

namʊn manani
nau bai mi go [= 'I will go now.']
['I will go now.' – RB]

wandʒikɛka manana?
wanem taim bai [go] [= 'When will you [sɢ] go?']
['When will you [sɢ] go?' – RB]

wʊmbelap manani
tumara bai mi go [= 'Tomorrow I will go.']
['[I] will go tomorrow.' – RB]

wandʒikɛka yinane?
when yu kam [= 'When do you [sɢ] come?']
['When will you [sɢ] come?' – RB]

andumbelap yiname
mi kam bek haptumara [= 'I return the day after tomorrow.']
['[I] will come the day after tomorrow.' – RB]

nə mundərande
['I will eat.']
['I will eat food.' – RB]

na ŋgɔ mundə amapɛ ko, nə mbəɸi
mi no kaikai, mi stap nating [= 'I do not eat, I just stand around.']
['I have not eaten; I am here.' – RB]

nə aŋgɛŋga naka mundərande
mi kaikai bihain [= 'I eat later.']
['I will eat food later.' – RB]

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wʊni ɓəka mundə randu
yupela kaikai pastaim [= 'You [ᴘʟ] eat first.']
['You [ᴘʟ] will eat food first.' – RB]

wʊmbelɑp mʊndə rɑndu
I eat tumara [= 'I eat tomorrow.']
['[I] will eat food tomorrow.' – RB]

nɑ aɓɑ mundɑ mɑpe
I ate yesterday.
['I have eaten food yesterday.' – RB]

nə ɓuləɓa wɔpi
mi slip nating [= 'I just sleep.']
['I have just slept.' – RB]

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ADJECTIVES

ɑpɑ ambiɡɑta
['big house']
['big house' – RB]

~ sɔmɔlə [i.e., *ɑpa sɔmɔlə*]
liklik [= 'small']
['small house' – RB]

~ kərɑkɑ [i.e., *ɑpa kəraka*]
nupela [= 'new']
['new house' – RB]

~ wɔɓat [i.e., *pa wɔɓat*]
olpela [= 'old']
['old house' – RB]

~ almow [i.e., *ɑpa almow*]
gutpela [= 'good']
['good house' – RB]

~ tɑmbiɡɑtɑ [i.e., *apa tambigata*]
haus nogut [= 'bad house']
['bad house' – RB]

yɪm kɑkɑs
longpela [= 'long']
['long tree' – RB]

~ wɑnum [i.e., *yɪm wanum*]
siotpela [= 'short']
['short tree' – RB]

yɑŋɡəɓɑtɑ
liklik (siotpela) [= 'small (short)']
['small, short' (?) – RB]

nɑ· rinɑi
mi sik [= 'I am sick.']
['I am sick.' (?) – RB]

wu li wɑyɑ?
yu sik? [= 'Are you sick?']
['Are you sick?' (?) – RB]

ɑnde, nɑ· rinɑyi
yes, mi sik [= 'Yes, I am sick.']
['Yes, I am sick.' (?) – RB]

nɑ misɑm ɑpənpi
het i pen [= '[My] head hurts.']
['My head hurts.' – RB]

nɑ· ɑrəmow
mi no sik [= 'I am not sick.']
['I am good [= healthy]' – RB]

inaŋgən
red
['red' – RB]

ɓɛndʊm
white
['white' – RB]

yiməkər
black
['black' – RB]

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inəm yiməmɑr
wara i hat [= 'The water is hot.']
['The water is hot.' – RB]

~ taŋganmələ [i.e., *inəm taŋganmələ*]
wara i kol [= 'The water is cold.']
['The water is cold.' – RB]

nɑmbim yimɑmɑr
skin i hat [= '[My] skin is hot.']
['[My] skin is hot.' – RB]

~ taŋganmɑlow [i.e., *nambim taŋganmalow*]
skin i kol [= '[My] skin is cold.']
['[My] skin is cold.' – RB]

wʊgən pɑt
strongpela man [= 'strong man']
['giant big man' – RB]

wʊmowurəɓow
nogat strong [= 'weak']
['weak' (?) – RB]

yirɑpʊmɑ
han siut [= 'right hand']
['right (not left)' – RB]

ɑndɑn yimow
han kais [= 'left hand']
['left (not right)' – RB]

yim nɑnɑru
['heavy tree']
['heavy tree' – RB]

~ bɑpɑŋgaw [i.e., *yim bɑpɑŋgaw*]
['light tree']
['light tree' – RB]

nɑmbərəm nɑmbium
skin i doti [= '[My] skin is dirty.']
['[My] skin is dirty.' – RB]

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mundə dɑ ɑrəmɔpi
kaikai i dan [= 'The food is cooked.']
['The foods have cooked.' – RB]

mɑlɑl dɑ mɑp
ol i boilim pinis [= 'They already boiled.']
['They have boiled.' (Literally 'Hot water has eaten them.') – RB]

akəlakowɑ
raw
['raw' – RB]

dɑŋgwɔ ɑrəmɔpɛk
not cooked
['They have not cooked.' – RB]

mənda mənata
banana mau [= 'ripe banana']
['ripe banana' – RB]

akolaka
nupela [= 'new'; intended, here: 'unripe']
['new' – RB]

wɔlʊm landa
drinks breast [= '[The child] nurses.']
['[The child] will nurse.' (Literally '[The child] will eat breast.') – RB]

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VERBS

inəm landane
I drink water
['[I] will drink water.' – RB]

tənɔ ŋganda
stand [= 'stand']
['will stand' – RB]

asi kanda
yumi sindaun [= 'We [INCL] sit.']
['will sit' – RB]

wɔrani
slip [= 'sleep']
['will sleep' – RB]

mari·pi
em i dai [= 'He dies.']
['He died.' – RB]

ɑnɑ lɑtɑndi
we tok ['We talk.']
['We will talk.' – RB]

sɑkwey wʊ sɑkwɔy tinɑ (nɑnɑndu!)
give me brus! [= 'Give me tobacco!']
['Tobacco – [give] [sɢ] me tobacco!' – RB]

sɑkwey wuluƀɑpe
nogat brus [= 'There is no tobacco.']
['There is no tobacco.' – RB]

nɑŋgɔ tətunɑndɑ
mi no ken gipim yu [= 'I cannot give you [sɢ].']
['I cannot give you [sɢ].' – RB]

wu nəməndə ɑŋgwɔsɑli?
['What do you [sɢ] see?']
['What do you [sɢ] see?' – RB]

nɑ nimdi wʊtɑmɑli
I see a bird
['I see a bird.' – RB]

mɑ· mbuƀi
em i stap [= 'It stays.']
['It is here.' – RB]

winɛ mɑsindɑ
yu kam siutim [= 'Come [sɢ] shoot [it]!']
['Come [sɢ] shoot it!' – RB]

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nɑ ŋgɔ nəməndə mɑli
mi no lukim [= 'I do not see.']
['I do not see it.' – RB]

nə ma andərəli
mi lukautim [= 'I look after [it].' (?)]
['I see it.' – RB]

wi·nu, winɛ mara nəkəlu ni maandərəl
yu kam soim mi mi lukautim [= 'Come [sɢ] show me! I look after [it].' (?)]
['Come [sɢ]! Come [sɢ] show me! I see it.' – RB]

nə nəmənda ma·li [ma ali][28]
mi lukim pinis [= 'I have seen.']
['I see it.' – RB]

ma yiyɛ
em i go pinis [= 'It has gone.']
['It has gone.' – RB]

nə nəmdama andrani
bai mi lukim [= 'I will see.']
['I will see it.' – RB]

ma apəlu
yu (em?) stap [= 'You [sɢ] (he?) stay(s).']
['Stay [sɢ] there! – RB]

nə kəgal ma·ɓali
mi harim [= 'I hear.']
['I hear it.' – RB]

na ŋgwɔ kəkal maɓali ko
mi no harim [= 'I do not hear.']
['I do not hear it.' – RB]

nə ma· nambis ɓali
mi harim smel [= 'I hear a smell.']
['I smell it.' (Literally 'I perceive its smell.') – RB]

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[28]These brackets are Laycock's.

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ɑnəndʒi tokples mɑɓow
tokples bilong mipela [= 'our [EXCL] language']
['our [EXCL] very own language' – RB]

low(u)
tokples [= 'language']
['language' – RB]

wɑŋgɔrɑ nindʒi tɨn mɑɓali?
why yu hit my dog? [= 'Why do you [SG] hit my dog?']
['Why do you [SG] hit my dog?' – RB]

mə nəl ɓutumwɔmpi nə mɑsi
it bit me – I hit it ['It bit me; I hit it.']
['It bit me, [so] I am hitting it.' – RB]

wɑ ŋgɔdɑ mɑɓale nindʒi tɨnə, mɑrəkɑndɑ!
yu no ken paitim dok bilong mi, lusim! [= 'Do [SG] not hit my dog! Leave it!']
['Do [SG] not hit it! Leave my dog [alone]! – RB]

nu wɑlindɑni
I will hit yu (?) [= 'I hill hit you [SG] (?)']
['I will hit you [SG].' – RB]

gwʊnɑn ambin ɓalindɑ
bai yu mi pait [= 'We [INCL] will fight.']
['We [DU.INCL] will fight.' (Literally 'We [DU.INCL] hit each other.') – RB]

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nɪndʒi tɨn
['my dog']
['my dog' – RB]

wʊndʒi tɨn?
['your [sɢ] dog?']
['your [sɢ] dog?' – RB]

mɑndʒi tɨn u
his dog
['his/her/its dog' – RB]

ŋganəndʒi tɨnɑ
our 2 dog [= 'our [ᴅᴜ] dog']
['our [ᴅᴜ.ᴇxᴄʟ] dog' – RB]

ndidʒi tɨnɑ
their dog [= 'their [ᴘʟ] dog']
['their [ᴘʟ] dog' – RB]

ɑŋgwɔ nindʒi meko
not my dog [= 'not my dog']
['not mine' – RB]

gwʊnəndʒi tɨnᵊ mɑ?
your 2 dog? [= 'your [ᴅᴜ] dog?']
['[Is] it your [ᴅᴜ] dog?' – RB]

minəndʒi tɨn kwɑɓo
bilong tupela narapela [= 'two others'']
['some other two's dog' (?) – RB]

ɑnəndʒi tɨnu
our all dog [= 'our [ᴘʟ] dog']
['our [ᴘʟ.ᴇxᴄʟ] dog' – RB]

wunəndʒi tɨnu?
bilong yupela [= 'yours [ᴘʟ]?']
['your [ᴘʟ] dog?' – RB]

ndaɓandʒi tɨnu (ndandʒi)
their dog [= 'their [PL] dog']
['those [people]'s dog' – RB]

miminya tu·ndan
mi pekpek [= 'I defecate.']
['[I] will defecate.' – RB]

minam tundani
mi pispis [= 'I urinate.']
['[I] will urinate.' – RB]

yɛnawalindani
I fuck woman [= 'I copulate with a woman.']
['[I] will hit a woman.' – RB]

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na manane
bai me go [= 'I will go.']
['I will go.' – RB]

ana ɸwa ~ [i.e., *ana ɸwa manane*]
mipela olgeta i go [= 'We all go.']
['We all will go.' – RB]

na yinane
mi kam [= 'I come.']
['I will come.' – RB]

nə mamape wey nane
mi go bai mi kambek [= 'I go; I will come back.']
['I went and stayed there, [but] I will go to the village.' – RB]

wi·na!
yu kam [= 'Come! [SG]']
['Come! [SG]' – RB]

wʊ manɑne!
yu go [= 'Go! [sɢ]']
['Go! [sɢ]' – RB]

wʊ mɑnɑ!
yu go! [= 'Go! [sɢ]']
['Go! [sɢ]' – RB]

wʊ rɑndɑnɑ! (wʊrɑndɑ!)
yu kaikai [= 'Eat! [sɢ]']
['Eat! [sɢ]' – RB]

nə mbəplɑn
I stay
['I will be here.' – RB]

ŋgɑn bəplɑn
we stay
['We [ᴅᴜ.ᴇxᴄʟ] will be here.' – RB]

wʊm bəplɑne?
yu stap? [= 'Do you [sɢ] stay?']
['Will you [sɢ] be here?' – RB]

wʊ nəmdɑmɑ·rɑ?
yu lukim wanpela na tu? [= 'Do you [ᴘʟ] one and two?' (?)]
['Do you see it?' – RB]

nə nəmdɑmɑri
mi lukim pinis [= 'I have seen.']
['I see it.' – RB]

nə kəkɑlmɑ ɓɑli
mi harim [= 'I hear.']
['I hear it.' – RB]

nə sikul mɑkɑn
mi save [= 'I know.']
['I learn.' – RB]

References

Aikhenvald, Alexandra Y. 2006. Serial verbs constructions in a typological perspective. In Alexandra Y. Aikhenvald & Robert M. W. Dixon (eds.), *Serial verb constructions: A cross-linguistic typology* (Explorations in Linguistic Typology 2), 1–68. Oxford: Oxford University Press.

Aikhenvald, Alexandra Y. 2008. *The Manambu language of East Sepik, Papua New Guinea.* Oxford: Oxford University Press.

Allen, Jim & James F. O'Connell. 2020. A different paradigm for the initial colonisation of Sahul. *Archaeology in Oceania* 55(1). 1–14. DOI: 10.1002/arco.5207.

Andersen, Roger W. 1982. Determining the linguistic attributes of language attrition. In Richard D. Lambert & Barbara F. Freed (eds.), *The loss of language skills*, 83–118. Rowley: Newbury House.

Barlow, Russell. 2015. *Ulwa (East Sepik, Papua New Guinea).* Honolulu: Kaipuleohone: The University of Hawai'i Digital Ethnographic Archive. https://hdl.handle.net/10125/37432.

Barlow, Russell. 2018a. *Documentation of Ulwa, an endangered language of Papua New Guinea.* London: SOAS, Endangered Languages Archive. http://hdl.handle.net/2196/00-0000-0000-000F-CB61-A.

Barlow, Russell. 2018b. *A grammar of Ulwa.* Honolulu: University of Hawai'i at Mānoa. (Doctoral dissertation). http://hdl.handle.net/10125/62506.

Barlow, Russell. 2019a. Agent demotion through inverted word order: Syntactic passives in Ulwa. *Studies in Language* 43(4). 1015–1037. DOI: 10.1075/sl.19010.bar.

Barlow, Russell. 2019b. A syntactic motivation for valency reduction: Antipassive constructions in Ulwa. *Oceanic Linguistics* 58(1). 1–30. DOI: 10.1353/ol.2019.0001.

Barlow, Russell. 2020a. Notes on Mwakai, East Sepik Province, Papua New Guinea. *Language and Linguistics in Melanesia* 38. 37–99. https://langlxmelanesia.com/llm-vol_-38-2020.

Barlow, Russell. 2020b. *A sketch grammar of Pondi.* Canberra: Asia-Pacific Linguistics (College of Asia & the Pacific, the Australian National University). DOI: 10.22459/SGP.2020.

References

Barlow, Russell. 2021. Ambakich phonological sketch. *Language and Linguistics in Oceania* 13. 32–88. https://izumi-syuppan.co.jp/web_LLO/vol-13.

Bee, Darlene & Alan R. Pence. 1962. Toward standardization of a survey word list for Papua and New Guinea. In James C. Dean (ed.), *Studies in New Guinea linguistics by members of the Summer Institute of Linguistics (New Guinea branch)* (Oceania Linguistic Monographs 6), 64–75. Sydney: University of Sydney.

Berlin, Brent & Paul Kay. 1969. *Basic color terms: Their universality and evolution.* Berkeley: University of California Press.

Blust, Robert. 2013. *The Austronesian languages: Revised edition* (Asia-Pacific Linguistics A-PL 008). Canberra: Research School of Pacific & Asian Studies, the Australian National University. http://hdl.handle.net/1885/10191.

Bourke, R. Michael. 2009. History of agriculture in Papua New Guinea. In R. Michael Bourke & Tracy Harwood (eds.), *Food and agriculture in Papua New Guinea*, 10–26. Canberra: ANU E Press. DOI: 10.22459/FAPNG.08.2009.

Butler, William. 1981a. *A tentative phonology of Banaro.* Pioneer Bible Translators. (Unpublished MS).

Butler, William. 1981b. *Preliminary notes on Banaro grammar.* Pioneer Bible Translators. (Unpublished MS).

Campbell, Lyle & Martha C. Muntzel. 1989. The structural consequences of language death. In Nancy Dorian (ed.), *Investigating obsolescence: Studies in language contraction and death* (Studies in the Social and Cultural Foundations of Language 7), 181–196. Cambridge: Cambridge University Press. DOI: 10.1017/CBO9780511620997.016.

Capell, Arthur. 1954. *A linguistic survey of the south-western Pacific* (South Pacific Commission Technical Paper No. 70). Nouméa: South Pacific Commission.

Capell, Arthur. 1962. *A linguistic survey of the south-western Pacific: New and revised edition* (South Pacific Commission Technical Paper No. 136). Nouméa: South Pacific Commission.

Clark, Ross. 2011. Birds. In Malcolm Ross, Andrew Pawley & Meredith Osmond (eds.), *The lexicon of Proto Oceanic: The culture and environment of ancestral Oceanic society, volume 4: Animals* (Pacific Linguistics 621), 271–370. Canberra: Research School of Pacific & Asian Studies, the Australian National University. http://hdl.handle.net/1885/106908.

Comrie, Bernard, Martin Haspelmath & Balthasar Bickel. 2008. The Leipzig Glossing Rules: Conventions for interlinear morpheme-by-morpheme glosses: Revised edition. https://www.eva.mpg.de/lingua/resources/glossing-rules.php.

Comrie, Bernard & Tania Kuteva. 2013. Relativization on subjects. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online.* Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/chapter/122.

Dahl, Östen. 1979. Typology of sentence negation. *Linguistics* 17(1). 79–106. DOI: 10.1515/ling.1979.17.1-2.79.

Daniels, Don. 2020. *Grammatical reconstruction: The Sogeram languages of New Guinea* (Studies in Language Change 16). Berlin: De Gruyter Mouton. DOI: 10.1515/9783110616217.

de Vries, Lourens & Gerrit J. van Enk. 1997. *The Korowai of Irian Jaya: Their language in its cultural context* (Oxford Studies in Anthropological Linguistics 9). New York: Oxford University Press.

Dixon, Robert M. W. 1979. Ergativity. *Language* 55(1). 59–138. DOI: 10.2307/412519.

Donohue, Mark. 2007. The Papuan language of Tambora. *Oceanic Linguistics* 46(2). 520–537. DOI: 10.1353/ol.2008.0014.

Dryer, Matthew S. 2006. Descriptive theories, explanatory theories, and basic linguistic theory. In Felix K. Ameka, Alan Dench & Nicholas Evans (eds.), *Catching language: The standing challenge of grammar writing* (Trends in Linguistics. Studies and Monographs 167), 207–234. Berlin: Mouton de Gruyter. DOI: 10.1515/9783110197693.207.

Eberhard, David M., Gary F. Simons & Charles D. Fennig (eds.). 2023. *Ethnologue: Languages of the world. Twenty-sixth edition.* Dallas: SIL International. http://www.ethnologue.com.

Evans, Nicholas. 2007. Insubordination and its uses. In Irina Nikolaeva (ed.), *Finiteness: Theoretical and empirical foundations*, 366–431. Oxford: Oxford University Press.

Foley, William A. 1986. *The Papuan languages of New Guinea.* Cambridge: Cambridge University Press.

Foley, William A. 1991. *The Yimas language of New Guinea.* Stanford: Stanford University Press.

Foley, William A. 1999. Grammatical relations, information structure, and constituency in Watam. *Oceanic Linguistics* 38(1). 115–138. DOI: 10.2307/3623395.

Foley, William A. 2000. The languages of New Guinea. *Annual Review of Anthropology* 29. 357–404. DOI: 10.1146/annurev.anthro.29.1.357.

Foley, William A. 2005. Linguistic prehistory in the Sepik-Ramu Basin. In Andrew Pawley, Robert Attenborough, Jack Golson & Robin Hide (eds.), *Papuan pasts: Studies in the cultural, linguistic and biological history of the Papuan-speaking peoples* (Pacific Linguistics 572), 109–144. Canberra: Research School of Pacific

References

& Asian Studies, the Australian National University. http://hdl.handle.net/1885/146735.

Foley, William A. 2018. The languages of the Sepik-Ramu Basin and environs. In Bill Palmer (ed.), *The languages and linguistics of the New Guinea area: A comprehensive guide* (The World of Linguistics 4), 197–432. Berlin: De Gruyter Mouton. DOI: 10.1515/9783110295252-003.

Foley, William A. 2020. Language diversity, geomorphological change, and population movements in the Sepik-Ramu basin of Papua New Guinea. In Mily Crevels & Pieter Muysken (eds.), *Language dispersal, diversification, and contact: A global perspective*, 142–155. Oxford: Oxford University Press. DOI: 10.1093/oso/9780198723813.003.0008.

Greenberg, Joseph H. 1971. The Indo-Pacific hypothesis. In J. Donald Bowen (ed.), *Linguistics in Oceania* (Current Trends in Linguistics 8), 807–871. The Hague: Mouton. DOI: 10.1515/9783111418827.

Haberland, Eike. 1966. Sago und "Austronesier": Bemerkungen zur Kulturhistorischen Methode. *Paideuma: Mitteilungen zur Kulturkunde* 12. 81–101. https://www.jstor.org/stable/40341484.

Hammarström, Harald, Robert Forkel, Martin Haspelmath & Sebastian Bank (eds.). 2022. *Glottolog 4.7*. Leipzig: Max Planck Institute for Evolutionary Anthropology. DOI: 10.5281/zenodo.7398962.

Haspelmath, Martin. 2016. The serial verb construction: Comparative concept and cross-linguistic generalization. *Language and Linguistics* 17. 291–319. DOI: 10.1177/2397002215626895.

Hatfield, Adam. 2016. *A grammar of Mehek*. Buffalo: University of Buffalo, State University of New York. (Doctoral dissertation). https://eric.ed.gov/?id=ED589163.

Heaton, Raina. 2017. *A typology of antipassives, with special reference to Mayan*. Honolulu: University of Hawai'i at Mānoa. (Doctoral dissertation). http://hdl.handle.net/10125/62499.

Hopper, Paul & Sandra A. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56(2). 251–299. DOI: 10.2307/413757.

Janzen, Correna & Elvira Corbalan (eds.). 2018. *Sos Kundi – English – Tok Pisin dictionary*. SIL International. https://www.webonary.org/soskundi.

Keenan, Edward L. & Bernard Comrie. 1977. Noun phrase accessibility and universal grammar. *Linguistic Inquiry* 8(1). 63–99. https://www.jstor.org/stable/4177973.

Kibrik, Andrej A. 1996. Transitivity in lexicon and grammar. In Alexandr E. Kibrik (ed.), *Godoberi* (LINCOM Studies in Caucasian Linguistics 2), 108–147. München: LINCOM EUROPA.

Killian, Don & Russell Barlow. 2022. Deictic marking in adpositions in Ap Ma and Waran. *Linguistic Typology at the Crossroads* 2(1). 37–64. DOI: 10.6092/issn.2785-0943/13575.

Kulick, Don & Angela Terrill. 2019. *A grammar and dictionary of Tayap: The life and death of a Papuan language* (Pacific Linguistics 661). Berlin: De Gruyter Mouton. DOI: 10.1515/9781501512209.

Laycock, Donald C. 1970. *Notebook D6: Selected research papers of Don Laycock on languages in Papua New Guinea.* Sydney, Melbourne, Canberra: Pacific & Regional Archive for Digital Sources in Endangered Cultures (PARADISEC). DOI: 10.4225/72/56F2B482900D8.

Laycock, Donald C. 1971a. *Notebook D23: Selected research papers of Don Laycock on languages in Papua New Guinea.* Sydney, Melbourne, Canberra: Pacific & Regional Archive for Digital Sources in Endangered Cultures (PARADISEC). DOI: 10.4225/72/56F2B4E751BAF.

Laycock, Donald C. 1971b. *Notebook D25: Selected research papers of Don Laycock on languages in Papua New Guinea.* Sydney, Melbourne, Canberra: Pacific & Regional Archive for Digital Sources in Endangered Cultures (PARADISEC). DOI: 10.4225/72/56F2B4F2BB09C.

Laycock, Donald C. 1971c. *Notebook D34: Selected research papers of Don Laycock on languages in Papua New Guinea.* Sydney, Melbourne, Canberra: Pacific & Regional Archive for Digital Sources in Endangered Cultures (PARADISEC). DOI: 10.4225/72/56F2B51B75A17.

Laycock, Donald C. 1971d. *Notebook D35: Selected research papers of Don Laycock on languages in Papua New Guinea.* Sydney, Melbourne, Canberra: Pacific & Regional Archive for Digital Sources in Endangered Cultures (PARADISEC). DOI: 10.4225/72/56F2B52172E4E.

Laycock, Donald C. 1971e. *Notebook D36: Selected research papers of Don Laycock on languages in Papua New Guinea.* Sydney, Melbourne, Canberra: Pacific & Regional Archive for Digital Sources in Endangered Cultures (PARADISEC). DOI: 10.4225/72/56F2B52794742.

Laycock, Donald C. 1973. *Sepik languages: Checklist and preliminary classification* (Pacific Linguistics B-25). Canberra: Research School of Pacific Studies, the Australian National University. http://hdl.handle.net/1885/146478.

Laycock, Donald C. & John A. Z'graggen. 1975. The Sepik-Ramu phylum. In Stephen A. Wurm (ed.), *New Guinea area languages and language study, volume 1: Papuan languages and the New Guinea linguistic scene* (Pacific Linguistics C-38), 731–764. Canberra: Research School of Pacific Studies, the Australian National University. http://hdl.handle.net/1885/145150.

References

Lee, Nala H. & John R. Van Way. 2016. Assessing levels of endangerment in the Catalogue of Endangered Languages (ELCat) using the Language Endangerment Index (LEI). *Language in Society* 45(2). 271–292. DOI: 10.1017/S0047404515000962.

Lee, Nala H. & John R. Van Way. 2018. The Language Endangerment Index. In Lyle Campbell & Anna Belew (eds.), *Cataloguing the world's endangered languages*, 66–78. London: Routledge. DOI: 10.4324/9781315686028-5.

Lewis, M. Paul & Gary F. Simons. 2010. Assessing endangerment: Expanding Fishman's GIDS. *Revue roumaine de linguistique* 55(2). 103–120. https://www.lingv.ro/RRL-2010.html.

Lincoln, Peter C. 1977. *Gitua – English vocabulary. Preliminary version.* (Unpublished MS). http://hdl.handle.net/10524/18938.

Longacre, Robert. 2007. Sentences as combinations of clauses. In Timothy Shopen (ed.), *Language typology and syntactic description, volume II: Complex construction, second edition*, 372–420. Cambridge: Cambridge University Press. DOI: 10.1017/CBO9780511619434.007.

Loukotka, Čestmír. 1957. Classification des langues papoues. *Lingua Posnaniensis* 6. 19–83.

Maddieson, Ian. 2013a. Consonant inventories. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online.* Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/chapter/1.

Maddieson, Ian. 2013b. Vowel quality inventories. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online.* Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/chapter/2.

Maddieson, Ian. 2013c. Consonant-vowel ratio. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online.* Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/chapter/3.

Malchukov, Andrej, Martin Haspelmath & Bernard Comrie (eds.). 2010. *Studies in ditransitive constructions: A comparative handbook.* Berlin: De Gruyter Mouton. DOI: 10.1515/9783110220377.

McElhanon, Kenneth A. & C. L. Voorhoeve. 1970. *The Trans-New Guinea Phylum: Explorations in deep-level genetic relationships* (Pacific Linguistics B-16). Canberra: Research School of Pacific Studies, the Australian National University. http://hdl.handle.net/1885/146444.

McElvenny, James. 2005. *Biwat (Papua New Guinea).* Sydney, Melbourne, Canberra: Pacific & Regional Archive for Digital Sources in Endangered Cultures (PARADISEC). DOI: 10.4225/72/56E82555997E4.

McElvenny, James. 2006. *Notes on the Mudukumo language of the Yuat River, East Sepik Province, PNG.* Sydney: University of Sydney. (Unpublished MS).

Mead, Margaret. 1935. *Sex and temperament in three primitive societies.* New York: William Morrow & Company.

Mead, Margaret. 1938. *The Mountain Arapesh, I: An importing culture* (Anthropological Papers of the American Museum of Natural History, volume XXXVI, part III). New York: The American Museum of Natural History. http://hdl.handle.net/2246/293.

Moran, Steven & Daniel McCloy. 2019. *PHOIBLE 2.0.* Jena: Max Planck Institute for the Science of Human History. DOI: 10.5281/zenodo.2593234.

Næss, Åshild. 2007. *Prototypical transitivity* (Typological Studies in Language 72). Amsterdam: John Benjamins. DOI: 10.1075/tsl.72.

Næss, Åshild. 2009. How transitive are EAT and DRINK verbs? In John Newman (ed.), *The linguistics of eating and drinking* (Typological Studies in Language 84), 27–43. Amsterdam: John Benjamins. DOI: 10.1075/tsl.84.03nae.

National Statistic Office. 2014. *Papua New Guinea 2011 National population and housing census: Ward population profile: Momase region.* Port Moresby: National Statistic Office. https://www.nso.gov.pg/download/51/population-housing/2962/census-figures-by-wards-momase-region.pdf.

Nichols, Johanna, David A. Peterson & Jonathan Barnes. 2004. Transitivizing and detransitivizing languages. *Linguistic Typology* 8(2). 149–211. DOI: 10.1515/lity.2004.005.

Palmer, Bill. 2018. Language families of the New Guinea Area. In Bill Palmer (ed.), *The languages and linguistics of the New Guinea Area: A comprehensive guide* (The World of Linguistics 4), 1–20. Berlin: De Gruyter Mouton. DOI: 10.1515/9783110295252-001.

Patrol Reports. 1950. 1948–1953. District: East Sepik. Station: Angoram. Volume No: 2. Accession No: 496. https://library.ucsd.edu/dc/object/bb7715246r.

Patrol Reports. 1969. 1969–1970. District: East Sepik. Station: Angoram. Volume No: 15. Accession No: 496. https://library.ucsd.edu/dc/object/bb8295461n.

Pawley, Andrew & Ralph Bulmer. 2011. *A dictionary of Kalam with ethnographic notes* (Pacific Linguistics 630). Canberra: College of Asia & the Pacific, the Australian National University. http://hdl.handle.net/1885/209981.

Potter, Margaret, Philip Lambrecht, Laura Alemán & Correna Janzen. 2008. *The sociolinguistic situation of the Ambakich language* (SIL Electronic Survey Report 2008-012). SIL International. https://www.sil.org/resources/archives/8990.

Retsema, Thom, Margaret Potter & Rachel Gray. 2009. *Mungkip: An endangered language* (SIL Electronic Survey Reports 2009-015). SIL International. https://www.sil.org/resources/archives/9185.

References

Riesenfeld, Alphonse. 1951. Tobacco in New Guinea and the other areas of Melanesia. *The Journal of the Royal Anthropological Institute of Great Britain and Ireland* 81(1). 69–112. DOI: 10.2307/2844017.

Ross, Malcolm. 2005. Pronouns as a preliminary diagnostic for grouping Papuan languages. In Andrew Pawley, Robert Attenborough, Jack Golson & Robin Hide (eds.), *Papuan pasts: Studies in the cultural, linguistic and biological history of the Papuan-speaking peoples* (Pacific Linguistics 572), 15–66. Canberra: Research School of Pacific & Asian Studies, the Australian National University. http://hdl.handle.net/1885/146735.

Siewierska, Anna. 2013. Passive constructions. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online.* Leipzig: Max Planck Institute for Evolutionary Anthropology. http://wals.info/chapter/107.

Silverstein, Michael. 1976. Hierarchies of features and ergativity. In Robert M. W. Dixon (ed.), *Grammatical categories in Australian languages* (Linguistic Series 22), 112–171. Canberra: Australian Institute of Aboriginal Studies.

Stanhope, John M. 1980. *The language of the Rao people, Grengabu, Madang Province, Papua New Guinea* (Pacific Linguistics D-18). Canberra: Research School of Pacific Studies, the Australian National University. http://hdl.handle.net/1885/144501.

Storey, Alice A., Thegn Ladefoged & Elizabeth A. Matisoo-Smith. 2008. Counting your chickens: Density and distribution of chicken remains in Archaeological sites of Oceania. *International Journal of Osteoarchaeology* 18(3). 240–261. DOI: 10.1002/oa.947.

Swadesh, Morris. 1950. Salish internal relationships. *International Journal of American Linguistics* 16(4). 157–167. DOI: 10.1086/464084.

Swadesh, Morris. 1952. Lexico-statistic dating of prehistoric ethnic contacts: With special reference to North American Indians and Eskimos. *Proceedings of the American Philosophical Society* 96(4). 452–463. https://www.jstor.org/stable/3143802.

Swadesh, Morris. 1971. *The origin and diversification of language.* Joel F. Sherzer (ed.). Chicago: Aldine-Atherton.

UNESCO Ad Hoc Expert Group on Endangered Languages. 2003. Language vitality and endangerment. Document submitted to the International Expert Meeting on UNESCO Programme Safeguarding of Endangered Languages. https://ich.unesco.org/doc/src/00120-EN.pdf.

Usher, Timothy. N.d. Keram River. In Timothy Usher & Edgar Suter (eds.), *New Guinea world.* https://sites.google.com/site/newguineaworld/families/keram-and-ramu-rivers/keram-river.

Usher, Timothy & Russell Barlow. In preparation. The Keram language family of New Guinea.

Volker, Craig Alan. 2008. *Papua New Guinea Tok Pisin English dictionary*. Melbourne: Oxford University Press.

Vormann, Franz & Wilhelm Scharfenberger. 1914. *Die Monumbo-Sprache: Grammatik und Wörterverzeichnis, mit Einleitung und Anhang von P. Ferd. Hestermann, S.V.D.* (Anthropos 1). Wien: Mechitharisten-Buchdruckerei.

Wade, Martha. 1983. *Botin/English dictionary*. Pioneer Bible Translators. (Unpublished MS).

Wade, Martha. 1984. *Some stratificational insights concerning Botin (Kambot), a Papuan language*. Arlington: University of Texas at Arlington. (Master's thesis).

Wilkinson, Richard James. 1959. *A Malay-English dictionary: Romanised*. London: Macmillan.

Wurm, Stephen A., C. L. Voorhoeve & Kenneth McElhanon. 1975. The Trans New Guinea Phylum in general. In Stephen A. Wurm (ed.), *New Guinea area languages and language study, volume 1: Papuan languages and the New Guinea linguistic scene* (Pacific Linguistics C-38), 299–322. Canberra: Research School of Pacific Studies, the Australian National University. http://hdl.handle.net/1885/145150.

Z'graggen, John A. 1969. *Classificatory and typological studies in languages of the Western Madang District, New Guinea*. Canberra: The Australian National University. (Doctoral dissertation). http://hdl.handle.net/1885/130077.

Z'graggen, John A. 1971. *Classificatory and typological studies in languages of the Madang District* (Pacific Linguistics C-19). Canberra: Pacific Linguistics, the Australian National University. http://hdl.handle.net/1885/146580.

Z'graggen, John A. 1972. *Comparative wordlist of the Ramu language group, New Guinea*. Alexishafen: Anthropos Institute. (Unpublished MS).

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A grammar of Ulwa

This book is a grammatical description of Ulwa, a Papuan language spoken by about 600 people living in four villages in the East Sepik Province of Papua New Guinea. Ulwa belongs to the Keram language family. This grammatical description is based on a corpus of recorded texts and elicited sentences that were collected during a total of about twelve months of research carried out between 2015 and 2018. The book aims to detail as many aspects of Ulwa grammar as possible, including matters of phonology, morphology, and syntax. It also contains a lexicon with over 1,400 entries and three fully glossed and translated texts. The book was written with a typologically oriented audience in mind, and should be of interest to Papuan specialists as well as to general linguists. It may be useful to those working on the history or classification of Papuan languages as well as those conducting typological research on any number of grammatical features.