# Wuvulu Grammar and Vocabulary 

# A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAI'I AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY 

IN

Linguistics

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## Dedicated to Jim Hafford

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#### Abstract

Wuvulu and Aua are two tiny coral islands located in the Bismarck Sea, about 150 miles north of the island of New Guinea. The linguistic heritage of Wuvulu can be traced back through Proto-Oceanic, and Proto-Malayo-Polynesian to Proto-Austronesian - the mother of more than 1200 of the world's 6500 languages. Oceanic languages form a subset of about 500 languages within the larger Austronesian family.

Wuvulu is one of 31 languages classified into the Admiralty subgroup of Oceanic and, it is one of only two living languages that are further classified into the Western Admiralty subgroup (together with the extinct language, Kaniet). The 28 Eastern Admiralty languages are located more than 200 miles to the east on Manus Island and the islands that surround it.

Wuvulu's position in the Oceanic subgroup is noteworthy in at least two respects. First, Wuvulu is somewhat of a typological exemplar, in that its 28 linguistic sisters (excepting Seimat) are geographically quite distant, and as a subgroup, those languages possess phonetic features that are markedly different than those of Wuvulu.

Second, of the Oceanic languages, Wuvulu lies on the western edge of a diaspora that extends more than 7000 miles to Rapanui 'Easter Island', the eastern most vertex of the Polynesian Triangle.

This present work discusses the most important features of Wuvulu grammar from a functional-descriptive perspective of linguistics. The intended audience is linguists, particularly those engaged in the research of Oceanic langauges. In Part I, the grammar component spans a variety of topics including linguistic affiliation,


sociolinguistic context, phonology, the noun phrase, verb structure (with an emphasis on morphology), clause structure, constituent order syntax, and complex constructions. The grammar component closes with a disscusssion prospects for future research in the language.

The vocabulary in Part II consists of over 2000 lexical items, including species of flora, fauna, and fishes. The present work contributes to the compendium of linguistic knowledge, providing a fuller typological picture of Oceanic langauges. The alarming rate of pidginization and langauge death in and around Papua New Guinea highlights the acute need for language documentation in this area.

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## List of Abbreviations

| - | compound.gloss |
| :--- | :--- |
| - | morpheme-break |
| $=$ | clitic=break |
| 1 | first person |
| 2 | second person |
| 3 | third person |
| ADDR | address |
| ANIM | animate |
| ART | definite |
| CAUS | causative |
| CLASS | classifier |
| COMP | complementizer |
| CPLT | completed |
| DEM | demonstrative |
| DEON | deontic |
| DER | derivation |
| DET | determiner |
| DNEG | deontic negation |
| DU | dual |
| DISC | discourse marker |
| EV | eventual |
| EXCL | exclusive |
| EXST | exist |
| gen | general |
| IJ | interjection |
| INAN | inanimate |
| INCL | inclusive |
| INTS | intensifier |
| IRR | irrealis |
| LOC | locative |
| NEG | negation |
| NYET | not yet |
| o | object marker |
| O | object |
| PERF | perfective |
| PL | plural |
| POC | Proto Oceanic |
| POSS | possessive |
| PRON | pronoun |
| PROPN | proper noun |
| RC | relative clause |
| REAL | realis |
| RED | reduplication |
|  |  |


| REL | relative |
| :--- | :--- |
| REP | repetition |
| RFLX | reflexive |
| SEQ | sequence |
| SIM | simultaneous |
| SG | singular |
| S | subject marker |
| S | subject |
| TAG | tag question |
| TAM | tense/aspect/mood |
| TR | transitive |

## Part I: Grammar

## 1 Introduction

### 1.1 Wuvulu Island

### 1.1.1 Geography

Wuvulu Island is a possession of Papua New Guinea (PNG). Wuvulu is part of the Admiralty Islands, which span a distance of about 225 nautical miles, bounded by Wuvulu in the west, and Manus Island in the east. ${ }^{1}$ The Admiralty Islands are part of the larger Bismarck Archipelago, which includes New Ireland, New Britain, and some 60 smaller islands.


Figure 1.1 Wuvulu, Aua, the Admiralty Islands, and the Bismarck Archipelago.
The inset of Map 1.1 shows the relative positions of Wuvulu and Aua (not to scale). Wuvulu is shaped like a butterfly and measures approximately 4.5 miles east-west and 2.5 miles north-south. The island has a maximum elevation of about 10 feet above sea level. Aua Island is approximately 21 nautical miles northeast of Wuvulu and is inhabited by people who speak a dialect of the language spoken on Wuvulu. The main population centers of the two islands are three villages-two on Wuvulu and one on Aua.

[^0]Onne Village, located at the northwest corner of Wuvulu, is where most of the research was conducted for this dissertation.

### 1.1.2 Meterological phenomena

During the southern hemisphere summer, Wuvulu Island is in the direct path of winds generated by the Inter-Tropical Convergence Zone (ITCZ) ("the Doldrums"). Seasonal winds affect practical aspects of daily life, such as fishing, gardening, and travel. Ross, Pawley \& Osmond, 2007 (RPO) comments on meteorological phenomena among POc speakers:

If POc speakers lived in the Bismarcks, then they encountered two seasons: the dry, when the southeast trades blew with reasonable consistency, and the wet, when there were sporadic northwesterly winds. The POc terms for the winds associated with these seasons, were respectively *raki and *apaRat. They may also have referred to the seasons, with typical weather and wind direction as inevitable components of their meanings, as well as having associations with navigability and agriculture (119).


Figure 1.2 Wuvulu wet season, $a f \bar{a}$ 'west wind', April-October (after RPO:120).


Figure 1.3 Wuvulu dry season, rai 'east wind', November-March (after RPO:121).

The Wuvulu terms for wet and dry seasons are afā 'west wind’ (POc * apaRat), and rai 'east wind' (POc *raki), respectively. Transitional times between seasons are called tetefolo 'erratic winds of unpredictable direction', and can last 4-6 weeks.

The average annual temperature in the shade is approximately $80^{\circ}$ Fahrenheit $\left(28^{\circ} \mathrm{C}\right)$, but the temperature ranges between $75^{\circ} \mathrm{F}$ and $94 \mathrm{~F}^{\circ}$, depending on cloud cover and wind conditions. The mean annual rainfall on Wuvulu measured over a 15 year period is 322 inches (McAlpine \& Keig). The Southern Oscillation (El Niño) periodically wreaks havoc on Wuvulu as was the case in 1997, when Wuvulu (and much of PNG) experienced drought.

### 1.1.3 Demographics

There are an estimated 1600 speakers of the Wuvulu language with about 1000 speakers on Wuvulu, 400 on Aua, and 200 scattered around PNG. Population estimates are extrapolated from data of 1,000 speakers in 1982 (Lewis, 2009), and 1,288 speakers in 2000 (Pokawin, 2001)-a 29 percent population increase over eighteen years. A span of 14 years (2000-2014) at the same rate would be an increase of 289 people, bringing the total to 1579.

### 1.2 Linguistic affiliation

The genetic affiliation of the Wuvulu language is Austronesian,
Malayo-Polynesian, Central-Eastern, Eastern Malayo-Polynesian, Oceanic, Admiralty Islands, Western Admiralty Islands, Wuvulu-Aua (Lewis, 2009).


Figure 1.4 The Austronesian family and major subgroups, RPO: xvi).
The Proto-Eastern Malayo-Polynesian (PEMP) language is thought to have originated in the vicinity of the "Bird's Head" (northwest) area of the island of New Guinea. In that same area the precursor of the Proto Oceanic (POc) language was descended from PEMP.

This pre-POc language spread east along the north coast of New Guinea to the area around Jayapura, Indonesia, prior to the Oceanic dispersal. Wuvulu is the closest island of the Bismarck Archipelago from the point of dispersion on the mainland.
Malcolm Ross writes, "My assumption here [is] that POc was spoken in the Bismarck Archipelago" (RPO, 119).


Figure 1.5 The Austronesian family and major subgroups (RPO: xvi).
The Admiralty subgroup is the only primary branch of POc that is defined by shared innovations (Lynch, Ross \& Crowley 2002). There are 31 Admiralty languages that are divided into Western and Eastern subgroups. The Western subgroup consists of only three languages: Wuvulu-Aua [wuv], Seimat [ssg], and Kaniet [ktk], which is extinct. ${ }^{2}$ The 28 languages of the Eastern subgroup are concentrated hundreds of miles away on Manus Island and its satellites.

Typologically, Wuvulu is an SVO language with a canonical syllable shape of CV. Greenberg's (1963) predictions for the phrasal syntax of VO languages generally hold true for Wuvulu: the language has prepositions, the head noun precedes the possessor in possessive constructions, the head noun precedes a relative clause, question words are sentence-initial, and subjects are prefixed to the verb.

### 1.3 Dialects

The official name of the language is Wuvulu-Aua (Lewis, 2009). Two dialects of the vernacular are spoken on Wuvulu in the villages of Onne and Auna, and one dialect is spoken the Island of Aua. The difference between the two Wuvulu dialects is has to do

[^1]with the phoneme $/ 1 /$. In the Auna dialect $/ 1 /$ is always pronounced [1], but in the Onne dialect, /l/ is pronounced [d] if adjacent to a high vowel.

The dialectical differences between the islands of Wuvulu and Aua are lexical and phonological. One of the differences in dialects is an interesting example of a sound change in progress involving the phoneme /r/. In the Aua dialect, an alveolar trill [r] is produced for the phoneme /r/. And, in the two Wuvulu dialects, speakers born before about 1940 also produce a trilled [r] for phonemic /r/. However, Wuvulu speakers born after the 1940s produce one of the two allophones [x] or [g] for /r/ (see Chapter 2). A second phonological difference between the islands is that on Aua, $/ l /$ is produced as it is in the Onne dialect of Wuvulu ([d] if adjacent to a high vowel).

There are also differences in the lexicon between the two islands. In some cases, the same word has different meanings, e.g., Wuvulu wero 'type of fish' versus Aua wero 'satiated, not hungry'; Wuvulu lama 'deep sea’ versus Aua lama 'in-law' versus Wuvulu rama?a 'person, in-law'. Other words are found exclusively on only one of the islands. For example, the Aua word muta 'chew' is not in the Wuvulu lexicon. The dissertation is based on the two Wuvulu dialects, with about half the data from speakers of the Onne dialect, and half the data from speakers of the Auna dialect. As previously noted, there are no phonemic or lexical differences between Onne and Auna dialects.

### 1.4 History of contact

### 1.4.1 European discovery

European contact with Wuvulu and Aua began in the $16^{\text {th }}$ century, when on August 19, 1545 the Spanish explorer Yñigo Ortiz de Retez discovered Wuvulu and Aua, but the ship's crew did not attempt to go ashore because natives in canoes threw stones and spears and shot arrows at them. ${ }^{3}$ More than two centuries later, on September 19, 1767, Captain Caretet sighted and named Wuvulu and Aua as Matty and Durour, respectively. No direct contact was attempted at that time. In 1817 Captain Bristow of the Sir Andrew Hammond sighted Wuvulu, but didn't realize that it had previously been discovered. He named Wuvulu "Tiger Island" because of the ferocity of the people.

[^2]
### 1.4.2 Theil, Hellwig, Luschan, and the "Matty Mystery"

An interesting facet of the history of European contact with Wuvulu Island has to do with the so called "Matty Mystery" (as noted above, Wuvulu was formerly called Matty Island). This mystery came into focus late in the $19^{\text {th }}$ century and had to do with the ethnicity of the Wuvulu people.

Two observations were made at that time. First, the material culture was not like that of any known New Guinean culture (except perhaps that of the Ninigos, 50+ miles to the east). Buschmann (2009:41) refers to a collection of 37 artifacts that were sold by to the main ethnographic museum in Berlin.
...the [Wuvulu] collection ended up in Berlin's Ethnological Museum, where it came to Luschan's attention. Luschan recognized that the artifacts forwarded by the New Guinea Company barely resembled those from the New Guinea mainland. Nonetheless, based on the scarce evidence of thirty-seven artifacts and Kärnbach's brief notes and recollections, Luschan proclaimed the importance of "Matty" island. What initially dazzled Luschan was that the island, located roughly 150 kilometers from the mainland, displayed a previously unknown material culture.

The second observation had to do with the fact that the physical characteristics of the Wuvulu people are unlike those of most Melanesians (41):


#### Abstract

Similarly, according to Kärnbach's sketchy firsthand observations, its inhabitants were of lighter skin color than their Melanesian neighbors. Their weapons, some spiked with shark's teeth, suggested an affinity with some neighboring islands, especially the Ninigo group, as well as some superficial connections to the area known as Micronesia.


### 1.4.3 The Coconut plantation

In 1893, the German company Deutsche Neuguinea-Kompagnie (DNK), negotiated the purchase of Wuvulu land for a coconut plantation. DNK eventually transferred its holdings to the German Herscheim \& Company. In 1896, Captain A.F.V. Andersen of the schooner Welcome visited Wuvulu and Schielkopf, a copra agent of Hernsheim \& Company, was allegedly killed by the local people (Buschman, 2009:28). In 1899, outsiders again attempted to open a trade post on Wuvulu, but did not go ashore because they felt threatened. In the early 1900s Herscheim \& Company sold its holdings of Wuvulu and Aua to the Swedish consul, Heinrich Richard Wahlen.

In 1903 Danish trader Edward Christian Antonius Nielsen Ørtoft (renamed William Leonard) settled on Wuvulu. The Wuvulu people named him Fai'u (meaning
'the tough strand of a coconut husk'). Leonard lived on the island and took Wuvulu women to be his wives.

### 1.4.3.1 Resettlement of the Native People

Before the days of the coconut plantation, homes were built close to the shore and surrounded the entire perimeter of the island. At that time clans were territorial and clan membership determined where people lived. When the plantation came people were required to dismantle their homes from various locations around the island and reconstruct them in two separate settlement villages: Auna and Onne ${ }^{4}$. This radical reconfiguration of traditional settlement patterns had the effect of forcing different clans and lineages to literally be next-door neighbors, with dozens of houses arranged rows in the centers of Auna and Onne.

### 1.4.3.2 Large-scale Mortality

Another significant impact to the Wuvulu people as a result of outside contact was a catastrophic decline in the population due to low resistance to a variety of diseases. Birger Mörner (1913:28) reported that in the early $20^{\text {th }}$ century, a Wuvulu population of 3000 was decimated to a mere 380 people in less than two decades:

As for Wuvulu, the local population has, after being forced to open their country to all comers, had more than enough of sickness. It has been estimated, and conservatively, that some three thousand natives have died from sickness in the past fifteen years. This leaves a population today of only 380 . The most severe recent epidemic was dysentery; 114 died in the course of a single fortnight...During the months I have spent here three epidemics have ravaged the island in turn.

Mörner states that poor nutrition was also a factor in the steep mortality rate (ibid.):


#### Abstract

The reason for the enormous mortality-or rather the low infection resistance-of the Wuvulu people, is most probably dietary deficiencies...the inferiority of the [taro] fields of Wuvulu, however, is not caused by some soil difference or other natural cause...it is more probable that the cause is found in insufficient cultivation. But how could the Wuvulus be expected to devote sufficient work to the [taro] ponds? Every weekday all healthy Wuvulus-men, women and children-go out to gather and prepare copra, returning only in the evening. There is simply no time left for their own needs.


[^3]The plantation had a significant impact on traditional clan-based settlement patterns, and nearly caused the extermination of the people by disease. In addition to these scourges to the native people, most of the old-growth hardwood trees were cut down in order to maximize the productivity of the coconut plantation.

### 1.4.4 Church influence

In 1952, Seventh Day Adventist (SDA) Papua New Guinean missionaries from Manus Island built churches in Onne and Auna. The SDA Church has also effected much change in Wuvulu social structure, including the elimination of traditional Wuvulu religious practices and the eradication of polygamy. Before the church arrived, traditional spiritual power was wielded by the puela 'spiritual authority'. The puela had the power to bless or curse, and would routinely do spirit-travel to a parallel world called Sinara in order to perform certain rites that cause supernatural change in the real world.

In traditional society, both adelphic polyandry and sororate polygyny were sanctioned and normative. With the advent of the SDA church these marriage patterns were abolished. The church mandated that men could no longer to have marital relations with their brothers' wives, and woman could no longer have marital relations with their sisters' husbands. The kin term reflecting these relationships, aro 'spouse' persists, however, such that a man's wife as well as his brothers' wives refer to him as aro, and he refers to them with the same term. Likewise, a woman's husband and her sisters' husbands refer to her as aro, and she refers to them with the same term.

### 1.4.5 The Summer Institute of Linguistics (SIL)

In 1992, two SIL workers, Audrey and Vinton Goff were invited by Wuvulu leaders to translate the New Testament into the vernacular. During their time on Wuvulu, they experimented with an orthography, transcribed three stories, and collected a word list. The Goffs returned to Canada in 1993 in order to care for an elderly relative.

In 1995, also under the auspices of SIL, I moved to Wuvulu with my wife and children and continued the work begun by the Goffs. Working closely with the people, we finished the Wuvulu New Testament in 2005.

### 1.5 Purpose and scope

The purpose of this dissertation is to document the Wuvulu grammar. Because this is such a broad objective, the scope of the work is constrained to a presentation of the most important features of the language. This dissertation has two parts: Part 1 is a Wuvulu grammar sketch. Part 2 is a vocabulary.

The grammar component is written from a functional-descriptive perspective with an intended audience of linguists, particularly those working in Admiralty or Oceanic languages. The work is also intended to serve as a possible resource for field linguists, anthropologists, ethnomusicologists, literacy workers, language survey personnel, translators, and others who have an interest in documentary linguistics. In addition, this publication has the potential to serve as the basis of a pedagogical grammar to be used in workshops for Wuvulu and Aua communities.

The discussion of each chapter generally builds on previous information. Chapters are arranged in the following order: 1. Introduction, 2. Phonology, 3. Noun Phrase, 4. Verb Phrase, 5. Clause, 6. Complex Constructions, 7. Research: Summary \& Prospects

### 1.6 Previous research

Publications on Admiralty Islands languages are scarce. Only two Eastern Admiralty grammars have been published-Loniu (Hamel, 1994) and Sivisa Titan (Bowern 2011, a grammar based on data collected by Germans in the early 1900s). Linguistic documentation of Western Admiralty languages includes several small collections of lexical items that were recorded in the early 1900s by German ethnographers Thilenius (1903), Dempwolff (1904), and Hambruch (1908). Additional lexical data were recorded by Z'graggen (1975) and Blust (1978). There are a number of publications that discuss aspects of the Wuvulu phonology, including: Blust 1978 and 1996; Lynch 2000 on syllables and stress patterns; Blust 2004 on the possibility of Proto Oceanic $* t>k$ in Wuvulu; Blust 2005 on the suffix -ia as a marker of imperative; and Blust 2008, a reanalysis of the Wuvulu phoneme system.

For over three decades articles were published on Wuvulu phonology with a continuing focus on what appeared to be a complicated problem involving velar phones and their underlying phonemes (Bust 1978, 1996, 2008). Then Hafford 2012 provided the solution to this long-standing linguistics puzzle involving velar obstruent consonants.

The following descriptions from Blust 1996 are provided to give the reader a sense of vexing nature of the problem (italics added): "[Wuvulu velars are] at the very least, rather puzzling" (11); "Most distracting of all, /k/ appears to vary freely between [k], [g], [x], and [ $\mathrm{\gamma}]$ " (11); "Perhaps the most serious problem of free variation in Wuvulu concerns the phonemic status of the velar phones" (13); "at face value these observations suggest an extraordinarily complex system of velar obstruents" (14); "Perhaps subtler and more pernicious to the general concept of the phoneme, however, is the question how 'free' free variants really need to be (22); "Wuvulu and Aua both show an exceptional amount of variation (40); "including some features of 'free' variation that may turn out to have interesting consequences for general linguistics theory" (40).

The goal of this present research is to provide a grammatical description that builds on previous work. This grammar is the first description of its kind for a Western Admiralties language. ${ }^{5}$

### 1.7 Wuvulu society

### 1.7.1 Kinship

Kinship plays a major role in Wuvulu social interaction, as demonstrated in some of the linguistic aspects of the narratives that are included in Part III. Wuvulu kinship is organized by unilineal descent within a clan. Nearly all Wuvulu people are aware of their relationships with other people on the island. All land on Wuvulu is owned by the people of the island. Lineages within a given clan inherit parcels of land within the clan territory, and include garden lands in the interior of the island. An important part of the material culture of Wuvulu is the inheritance of traditional taro gardens, called tuta.

Wuvulu person are aware of their relationship to others in their ancestral lineage. Lineages within a given clan, on the other hand, do not appear to be able to clearly trace their lineage back to a specific ancestor who was common to all lineages of that clan.

The Wuvulu kin system seems to be at the end of a shift from the standard Iroquois system in which children of either ego's father's sister, or of ego's mother's brother were classified together and differentiated from parallel cousins and siblings. The Hawaiian system is currently practiced, classing together ego's siblings, cross-

[^4]cousins, and parallel cousins. Among elderly speakers a vestige of the Iroquois system is the use of the terms ole 'ego's father's sister, and 'ego's mother's brother', which are being replaced by ina 'mother' and ama 'father', respectively. Along these lines, ara 'children of ego's opposite-gender sibling' is being replaced with the naPu 'child'. In the Wuvulu system, ego's father's brothers have the same role and responsibilities of ego's father, and ego's mother's sisters as having the same role as ego's mother.

Wuvulu social structure of the past was strongly clan oriented. The clan as a whole was considered to be the minimal social unit; lineages within a clan did not function autonomously. Each clan was governed by a local chief who was responsible for the function of the clan. He held final authority in matters of work assignments, interclan fights, intra-clan disputes, marriage, adoption, inheritance-basically every aspect of life within the clan.

Today, the clan as the dominant social structure has diminished and is subordinate to the nuclear family in regard to the practical aspects of daily living. The nuclear family is the minimal social unit in the Wuvulu culture of today. The nuclear family consists of a man, his wife and their children (natural and adopted). In the past, the dominant dyad was the lofu 'brother-brother' relationship. The dominant dyad of contemporary Wuvulu society is husband-wife relationship. Husbands and wives work gardens together, and share in most decision-making.

One situation in which the lineage is more important than the husband-wife relationship is the marriage of a child. When a young woman wants to get married her father and his siblings meet to discuss the potential spouse. The mother of the one to be married has no voice at the meeting. The marriage feast is attended by clan members of the bride and groom.

Adoption is pervasive within the Wuvulu society and seems to serve the function of providing male or female offspring to help with gender-specific day-to-day work. The case of having only female children seems to be particularly undesirable since inheritance is patrilineal and the female children wouldn't usually receive an inheritance. Adoption typically occurs within a given clan. In addition to its utilitarian value, adoption also appears to strengthen relationships between the nuclear families involved in adoption.

### 1.7.2 Sociolinguistics

Vernacular is used in nearly all speech domains on Wuvulu, though most adults are bilingual in Tok Pisin [tpi] (henceforth, "pidgin"). Pidgin is used to communicate with visitors and government workers who live and work on the island. Because of the extreme isolation of Wuvulu, many of the indigenous people rarely have a need to use pidgin on the island.

Wuvulu has a vernacular elementary school for grades 1-3. The school began operating in 1998 as part of an SIL literacy program, and was eventually handed over to the Manus Provincial Government. The Government continues to support Wuvulu vernacular elementary instruction, including teacher salaries, teacher-training, and instructional materials production. There are now three government-sponsored vernacular elementary schools among Wuvulu speakers-the original school in Onne, a school in Auna, and a school on the island of Aua. English is the language of instruction in grades 4-6. Most government teachers are not native English speakers, and sometimes mix or switch between English and Tok Pisin. Because of this, most children are exposed to pidgin on the island before they have opportunity to travel to the PNG mainland. Because vernacular is used almost exclusively in most domains, the language appears to be flourishing. The vernacular literacy among adults is very high, perhaps as high as $75 \%$. Many of the elderly are also able to read with a high level of fluency and comprehension.

Wuvulu speakers who live away from the island are scattered throughout PNG. There are small groups of Wuvulu/Aua people living in all the major coastal towns of mainland PNG, including Vanimo, Wewak, Madang, Lae, and Port Moresby. Natives of the two islands also live in the interior of PNG-in Goroka, Kainantu, Aiyura, the Markham Valley, and the Fly River. Wuvulu speakers also live on various PNG islands, including Manus, New Ireland, and New Britain. Most Wuvulu people who leave the island do so for work or school. About $10-15 \%$ of the youth leave the island to attempt grades 7-12. For a variety of reasons, most high school students return home before completing grade 12 .

Due to factors related to the socio-economics of PNG, most young Wuvulu people opt to live on the island, though Wuvulu youth excel on qualifying exams in
grades 8 and 10, and many are able to complete their education and secure jobs on the mainland.

Wuvulu people inherently know that they are dependent on the physical world for food and shelter. And because of this dependence on the physical world, there is a real sense in which the people are dependent on the Wuvulu language. There are many domains of the lexicon that are related to the physical world. According to Stephen Schooling, an SIL linguist who has done research in the Manus Province of PNG, language viability is correlated to its use in domains that meet basic survival needs (1990:4,5).:

> To predict language maintenance...key clusters must be examined. The strength of a cluster depends a great deal on the extent to which it meets basic survival needs, such as the physical needs of nourishment, health, and well-being, the emotional needs of identifications with a caring group and a sense of achievement and purpose, and social needs, which vary from culture to culture and group to group. The first three key clusters, kinship-culture, geographic location, and occupation, fall within the survival category. The fourth key cluster, voluntary association, deals with selection needs, the needs to be creative, to make decisions, and to be involved in activities and relationships based on personal preference.

There is reason to believe that the Wuvulu language will continue to be viable for some time because it is used in domains related to survival needs. The language has specialized terms for phenomena related to obtaining food-astronomy, weather, tides and currents, and the diverse marine life of the reef and sea, as well as the flora and fauna of the bush. It would be inefficient for Wuvulu people to use anything but vernacular in contexts related to fishing, working in the garden, or cooking. Wuvulu people use vernacular to discuss the nuances of interpersonal relationships and in reference aspects of kinship and social structure.

On the other hand, borrowing from other languages does occur, even with terms that are a part of the basic vocabulary such as pidgin meri 'woman', rather than Wuvulu pifine 'woman', and pidgin pisi 'fish', rather than the Wuvulu nia 'fish'. In the 1980s workers with Gospel Recordings (renamed Language Recordings) visited Wuvulu and produced vernacular audio recordings of 40 Bible stories, consisting of a total of 7,738 words (including multiple occurrences of the same word). Of this total, 580 words are borrowed from English or pidgin. Of the borrowed words, 198 words are comments or questions about the pragmatics of the recording session. (For example, Dispela stori em $i$
go wantaim piksa namba tri 'This story goes with picture number three'.) There are also 200 references to proper nouns. Excluding proper nouns and words related to pragmatics, there are 182 borrowed words. Of these, 113 words have no vernacular equivalent. Only 69 words were unnecessary borrowings of words that have a vernacular equivalent.

Of course this is not a true measure of borrowing because people were instructed to tell the stories in vernacular. But although it does not indicate how much borrowing occurs in natural speech, it does show that borrowing occurs, even when people are instructed to use vernacular only. This suggests that some borrowing is habitual. For example, certain words, such as the pidgin meri 'woman', were gratuitously borrowed by more than one storyteller.

When borrowing occurs, words are adapted to conform to Wuvulu phonology. Borrowed words with consonant codas, such as pidgin buk 'book', are adapted to fit the canonical CV syllable shape, for example, buk $>$ [buPu]. Borrowing also reveals properties of Wuvulu phonology such as the fact that there is no [k] in the language, as in the previous example and in the pidgin kilok clock' > [?iloPo]. Borrowings with [r] also reveal the allophonic variants [x] and [g] as America, borrowed as Wuvulu [PamexiPa], and the pidgin meri 'woman' borrowed as Wuvulu /meri/ [megi]. These phenomena are discussed further in Chapter 2.

### 1.8 Data and methodology

Oral narratives that served as a basis for this dissertation were recorded in the first four years of the author's work on Wuvulu. Examples in the body of the grammar are taken from these narratives.

Audio recordings of the elicited narratives were produced using a Marantz PMD222 3-head cassette recorder and a PZM-6D microphone. ${ }^{6}$ Technical specifications for the recorder are: microphone attenuation $(0,-10 \mathrm{~dB},-20 \mathrm{~dB}),+/-20 \%$ pitch control, a signal-to-noise ratio of 57 dB and a frequency response of $40 \mathrm{~Hz}-15 \mathrm{kHz}$. A convenient feature of the microphone is its hemispherical "polar pattern"; a flat microphone that can rest on a table. The microphone is capable of $20 \mathrm{~Hz}-20 \mathrm{kHz}$ with a sensitivity of $7 \mathrm{mV} / \mathrm{Pa}(-$ 43 dBV ), has an impedance of 240 ohms and has a signal-to-noise ratio of 74 dB . Good-

[^5]quality metal and CrO 2 media were used for most recordings. All tapes were recorded at $4.76 \mathrm{~cm} / \mathrm{sec}$. Magnetic cassette tapes were stored in industrial-grade 100 cubic-inch airtight containers. The tapes were stored together with small aluminum containers of silicon desiccant. The audio tapes were eventually digitized and electronically deposited in the Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC).

Many of the lexical items included in the vocabulary section of the dissertation were elicited in a dictionary workshop that was held on Wuvulu in 2004. The dictionary workshop was based on the work of Ronald Moe (2001, 2003), an SIL linguist working in East Africa. Moe created an outline of semantic domains that spans most of the categories found in Yale University's Human Relations Area Files. The workshop was conducted over a period of eight days with about four hours of elicitation per day. Six teams of three or four people ages 16-70 worked on the project. Each team received a portion of the semantic domains outline and worked together with a native English speaker to record unique lexical items. A number of field guides of PNG and the Pacific region were used in the dictionary workshop.

### 1.9 Contribution

The geographic position of Wuvulu and its linguistic affiliation suggest the possibility that Wuvulu may have been the homeland of POc, particularly given the eastward movement of Oceanic peoples. Because Admiralty languages are not welldocumented, the present work augments what is known of the typology and grammars of Oceanic languages by providing additional data from this area of Oceania. The rapid disappearance of New Guinea's Oceanic languages highlights the acute need for documentation and analysis in this linguistic hotspot.

The vocabulary of Part II consists of Wuvulu lexical items with diachronic etymologies where available. The lexical items are the morphemes of the language, including words with semantic content, and words and affixes with grammatical content.

The grammar and vocabulary is a valuable contribution to the archives of human language and culture. This work has intrinsic value as the record of a unique ethnolinguistic human culture, and it has extrinsic value as a reference for further
linguistic research. The audio archive in PARADISEC enhances the value of the work by providing original audio recordings of the language.

## 2 Phonology

### 2.1 Typological overview

In the first chapter, Wuvulu was described as a member of the Oceanic subgroup of Austronesian languages. As a point of reference, this chapter begins with a phonological characterization of Oceanic languages from Lynch, Ross \& Crowley 2002:
...languages in this subgroup are frequently phonologically less complex than those of many other linguistic groupings in the world. Syllable structures tend to approximate a simple CV type, and phoneme inventories tend to be both fairly small, and characterized by relatively few complex articulations...Stress is generally fully predictable, falling on the penultimate syllable of a word...Distinctive vowel length is much less common in western Oceania. $(34,35)$

As expected for an Oceanic language, Wuvulu does not have a particularly complex phonology. There are no consonant clusters or complex consonant phonemes. Wuvulu does have two consonant phones with secondary articulation: $[\mathrm{t} f]$ and $\left[\mathrm{l}^{\mathbf{\gamma}}\right]$ (allophones of /t/ and /l/, respectively). In contrast with Wuvulu, most phonologies of Eastern Admiralty languages are more complex, with most having at least two complex phonemes. ${ }^{7}$

Additionally, there are certain vowel pairs that act as diphthongs. These diphthongs function as the unit nuclei of syllabi. Another typical Oceanic feature in Wuvulu is that it has ( C$) \mathrm{V}$ canonic syllable shape, where V can be a vowel, a diphthong, or a long vowel. Vowel length is predictable for certain grammatical functions, however, there is also contrastive vowel length in the lexicon as well.

A syllable is Wuvulu is considered to be heavy if it bimoraic, i.e., if it has a diphthong or long vowel. Blust 2008 states that Wuvulu stress "falls on the penult and shifts rightward under suffixation to remain penultimate in the word" (276). An alternative analysis that seems to explain the data is that the prosodic foot in Wuvulu is a moraic trochee, with stress falling on the penultimate mora.

Although Wuvulu is not well-documented, there are several publications on Wuvulu phonology that are somewhat controversial. The controversy stems, in part, from a phenomenon in which surface allophones of the phonemes $/ \mathrm{l} /$, $/ \mathrm{r} /$, and $/ \mathrm{t} /$ are conditioned by the height of adjacent vowels (see §2.2.1).

[^6]
### 2.2 Phonemes

Wuvulu has 20 phonemes, including ten consonants, and 10 vowels ( 5 vowels and their long counterparts). In §2.1, Wuvulu phonological features were discussed in light of the phonological features that are commonly found in Oceanic languages. If the focus is narrowed to phonologies of the Admiralty subgroup, we find that Western Admiralty languages (Wuvulu and Seimat) have phoneme inventories that are smaller and simpler than most phoneme inventories of Eastern Admiralty languages. ${ }^{8}$

### 2.2.1 Consonants

Three publications posit Wuvulu phonemes: Blust 1996 and 2008, and Hafford 2012. The differences between the three proposals have mostly to do with consonant phonemes. Table 2.1 provides a side-by-side comparison of these previously posited consonant phoneme proposals. Wuvulu consonant phonemes were not well understood in the decades following Blust's 1975 elicitation of Admiralty language data. In Table 2.1, four of the 14 entries of Blust 1996 are uncertain (indicated by parentheses).

Table 2.1 Wuvulu consonant phonemes

| Blust |  |  |  |
| :---: | :---: | :---: | :---: |
| p | t | k | ? |
| b | (d) |  |  |
| f |  |  | (h) |
| m | n | (y) |  |
|  | 1 |  |  |
|  | $(r)$ |  |  |
| $w$ |  |  |  |


| Blust 2008 |  |  |  |
| :---: | :---: | :---: | :---: |
| p | t |  | $?$ |
| b |  |  |  |
| f |  | $x$ | $h$ |
| m | n |  |  |
|  | 1 |  |  |
|  | (r) |  |  |


| Hafford 2012 |  |  |
| :---: | :---: | :---: |
| p | t | $?$ |
| b |  |  |
| f |  |  |
| m | n |  |
|  | 1 |  |
|  | r |  |
|  |  |  |

There were three significant differences between the consonant phonemes of Blust 1996 and those of Blust 2008. One is that the number of possible consonant phonemes was reduced from 14 to 12 . This reduction was achieved by recognizing that $/ \mathrm{y} /$ does not exist in the language, and that [d] and [1] are allophones of $/ \mathrm{I} /$. A second important difference is that the phoneme $/ \mathrm{k} /$ was recast as $/ \mathrm{x} /$. A third significant

[^7]difference is that / $\mathrm{h} /$ was upgraded from its uncertain status to become a definite phoneme.

It is important to note that an argument for positing $/ \mathrm{k} /$ as a phoneme was motivated by a desire to "yield a 'complete' set of voiceless stops". Likewise, the motivation for positing / x / was, at least in part, that "it helps to fill in the set of fricatives" (Blust 2008:288):

The argument for representing the velar obstruent phoneme as $/ \mathrm{k} /$ is basically that this yields a "complete" set of voiceless stops /p/, /t/, /k/, and / $\mathrm{f} /$. However, there are more compelling arguments for representing this phoneme as / $\mathrm{x} /$, because (1) it is more frequent than [k], (2) it occurs in the "elsewhere" environment in relation to [g], and (3) ... it helps to fill in the set of fricatives with /f// $\mathrm{x} /$, and $/ \mathrm{h} /$.

The problem with this analysis is that the data do not support $/ \mathrm{k} /$ (or even $[\mathrm{k}]$ ).
And, although it is generally true that phoneme systems tend to pattern symmetrically, Wuvulu phonemes can be determined without their shifting positions for the sake of symmetry. Hafford 2012 presents the rationale for each phoneme, particularly the controversial velar consonants. Minimal pair data are given in Table 2.2. Note that/t/ has 3 allophones- [ t$]$, and two phones that are in free variation [s]~[t]]; /r/ has three allophones- [r], [x], and [g]; and /l/ has three allophones-[1], [d], and [1 $\left.{ }^{\delta}\right]$.

Table 2.2 Consonant phoneme contrasts

|  | labial | coronal | glottal |
| :---: | :---: | :---: | :---: |
| bilabial | /b/ baPa 'knock sound' /p/ paPa 'very' |  |  |
| plosive | /p/ papa 'adjacent' | It/ tata 'error' <br> allophones [t], [s]~[t]] | /P/ PaPa 'with' |
| fricative | Ifl fefe 'bow down' | Ir/ rere 'shake' [xexe] allophones [r], [x], [g] |  |
| nasal | /m/ meme 'rubbish' | In/ nene 'to follow' |  |
| lateral |  | /l/ lele 'crawl' <br> allophones [1], [d], [1 $\left.{ }^{\text {º }}\right]$ |  |
| plosive fricative | /p/ palu 'pigeon' Ifl falu 'to hammer' |  |  |
| plosive nasal | /b/ baPa 'knock sound' /m/ maPa 'to see' |  |  |
| plosive rhotic |  | It/ tata 'error' /r/ rara 'blood' |  |
| plosive approximate | /b/ balu 'child' /w/ walu 'knife' |  |  |
| plosive <br> Ø |  |  | /?/ Pити 'mouth' <br> Ø ити 'house' |

Blust (2008:283) also resorted to minimal pair data to recognize that $[\mathrm{x}]$ and $[\mathrm{g}]$ are allophones that are conditioned by the height of an adjacent vowel:

Because the phonetic basis for such a statement of complementation is opaque, I initially was skeptical about its accuracy. However, on reexamining my field notes, I discovered overwhelming support for Hafford's claim ...where my field notes show 172 supporting examples of this surprising correlation as against four contrary cases.

But is the phonetic basis for the complementation of $[\mathrm{x}]$ and $[\mathrm{g}]$ truly opaque?
This question is explored further in $\S 2.2 .1 .4$. The status of $/ \mathrm{r} /$ and $* \mathrm{k}$ are discussed below in §2.2.1.1 and §2.2.1.2, respectively.

Though there are a number of differences between the consonant phonemes of Blust 1996 and Blust 2008, the phonemic status of /r/ remained uncertain in both publications (cf. Table 2.1). But the status of $/ \mathrm{r} / \mathrm{is}$ crucial in resolving the problem of how $[\mathrm{x}]$ and $[\mathrm{g}$ ] fit into the phonemic system The phonemic status of $/ \mathrm{r} /$ and $/ \mathrm{k} /$ are discussed below in §2.2.1.1 and §2.2.1.2, respectively.

### 2.2.1.1 The status of /r/

The backing of coronal [r] (rhotic dorsalization) is well-attested in Romance languages. Variants include French [r]>[R] (Haden 1955); European Portuguese [r] > [R] and Brazilian Portuguese [r] > [x] (Whitlam, Davies \& Harland 1997); the phenomenon also occurs in Puerto Rican Spanish in which "trilled $r$ becomes the uvular trill $[\mathrm{R}]$ or the velar fricative [x]" (Goldstein \& Inglesias 1996:84).

In the synchronic phonology of Wuvulu there is evidence that trilled alveolar [r] may have backed to a velar obstruent-[x] or [g] (Hafford, 2012). The diachronic details of rhotic backing are not known for Wuvulu, but a possible sequence is [r] > [y], followed by a change in manner, $[\mathrm{x}]>[\mathrm{g}]$, when adjacent to a high vowel and a change in voicing $[\gamma]>[\mathrm{x}]$ otherwise. A similar change involving the backing of rhotic has occurred in the Oceanic language, Ngatikese (Ken Rehg, 2011: p.c.).

One of the crucial assertions of Hafford 2012 is that /r/ is the phoneme that underlies the phones $[\mathrm{r}],[\mathrm{x}]$, and [g]. Support for this is: 1) the existence of the variant [ r ] in contemporary dialects of Aua and Wuvulu wherever [x] or [g] can occur; 2) the correspondence of Proto Oceanic *r with contemporary Wuvulu [x] and [g]; and 3) [r] is borrowed from Pidgin and English as either [x] or [g], depending on the height of adjacent vowels. Psychologically, a single phoneme underlies [r], [x], and [g]

The first support for $/ \mathrm{r} /$ is that the phone [r] is still spoken by old people on Wuvulu and by all speakers on the island of Aua. Whenever [r] is spoken, it is possible to substitute one of the velar consonants, [x], or [g]. For example, the word warea 'word' is pronounced [warea] in the Aua dialect, but it is pronounced [waxea] in the two Wuvulu dialects. The word rufu 'village' is pronounced [rufu] in the Aua dialect but it is pronounced [gufu] in Wuvulu dialects. Furthermore, elderly Wuvulu speakers still regularly produce alveolar trilled [r] (in environments in which [x] and [g] occur), and it is intelligible to children.

A second argument for $/ \mathrm{r} /$ as the underlying phoneme of $[\mathrm{r}],[\mathrm{x}]$, and $[\mathrm{g}]$ comes from historical data, where Proto Oceanic *r becomes [g] adjacent to a [+hi] vowel and [x] elsewhere (from Blust 2008:290-92):

Table 2.3 /r/ in POc and Wuvulu

```
Proto Oceanic
```

*rua 'two' $>$ [gua]
*mariri 'cold' $>\quad$ [magigi]
*muri 'stern of canoe' $>\quad$ [mugi]
*raun 'leaf' $>$ [xauna]
*rato 'whale' $>$ [xaPo]
*rodom 'dark' $>$ [xoxo]

Wuvulu surface forms
$>\quad$ [gua]
$>\quad$ [magigi]
$>\quad$ [mugi]
$>\quad$ [xauna]
$>\quad$ [xaPo]
$>$ [xoxo]

A third argument for $/ \mathrm{r} /$ as the phoneme of $[\mathrm{r}],[\mathrm{x}]$ and $[\mathrm{g}]$ has to do with the manner in which Wuvulu borrows words from English (E) and Pidgin (P). If /r/ is adjacent to a high vowel it is always borrowed as [g], otherwise it is borrowed as [x]. Examples include meri $(\mathrm{P})$ 'female' $>$ Wuvulu megi; kakaruk $(\mathrm{P})$ 'chicken' > Wuvulu PaPaxo; and truck (E) > Wuvulu taxaPa (note that [k] is borrowed as [?]).

### 2.2.1.2 The status of *k

Blust 1996 proposed that Wuvulu four has velar phones in free variation: [ f$],[\mathrm{g}]$, [x], and [k]. This proposal was revised in Blust 2008 to recognize the conditioned allophones [ x ] and [g]. In addition, the revised proposal excludes [ y ] due to its rarity. This leaves a conundrum in which each of the conditioned variants [ x ] and [g] is purportedly in free variation with [k].

The most basic problem in dealing with [ k ] is that the phone has not been documented in the large corpus of phonetic data collected by the present writer. ${ }^{9}$ It should be emphasized that speakers of all dialects seem to reject $[k]$ as a phone in the language. The claim that $[\mathrm{k}]$ is absent in the language is supported by the manner in which words are borrowed from pidgin $(\mathrm{P})$ and English. The phone $[\mathrm{k}]$ is always borrowed into Wuvulu as glottal stop, [?]. For example, buk (P) 'book' is borrowed as buPu, kilok (P) 'clock' is borrowed as PiloPo, and America is borrowed as Pamexe?a

[^8](note too that $[\mathrm{r}]$ is borrowed as $[\mathrm{x}]$ ). Furthermore, historical data in Table 2.4 (from Blust, 2008:292) suggest that POc *k was deleted (or went to glottal) in synchronic Wuvulu.

Table 2.4 POc *k loss in contemporary Wuvulu

| Proto form | Wuvulu |
| :--- | :--- |
| PAN *aku '1 sg. pronoun' | iau |
| PAN *kururu 'lightning' | Pururu 'thunder' ${ }^{10}$ |
| POc *kalia 'cod' | alia |
| POc *pweka 'fruit bat', | bea |
| POc *panako 'to steal' | fafanao |
| POc *ikan, PAdm *nika 'fish' | nia |
| PAdm *busiko | pusu?o |
| POc *babak 'to strike' | baPa |
| POc *bekeR 'defecate' | PePe |
| POc *lako 'to go' | -lao 'away from listener' |

Data from the Austronesian Comparative Dictionary (ACD) (Trussel, 2013) are also evidence against /k/. Table 2.5 shows that POc *r is interpreted as $/ \mathrm{k} /$. Note that there is direct correspondence between POc *r and synchronic Wuvulu /r/.

Table $2.5 / \mathrm{k} /$ data from the Austronesian Comparative Dictionary

| POc | ACD | Hafford data |
| :--- | :--- | :--- |
| *parara 'thunderclap' | pakaka | parara [paxaxa] |
| *muri 'stern of canoe' | muki | muri [mugi] |
| *quran 'spiny crawfish' | uka | ura [uga] |

The ACD includes data for which Blust transcribed [k] and should presumably be changed now that $/ \mathrm{k} /$ is no longer recognized (Blust 2008).

### 2.2.1.3 Reallocation of phonetic space for $k$ and $r$

Diachronically, it seems reasonable to assume that the loss of POc *k could have effected the reallocation of phonetic space, allowing for the expression of $/ \mathrm{r} /$ to move back to the velar place for the conditioned allophones [x] and [g].

Assuming cardinal phonetic values, coronal consonant phonemes take a disproportionate $50 \%$ of the articulatory space in Table 2.6, versus $31 \%$ for anterior

[^9]consonants, and $19 \%$ for back consonants. The distribution of consonant phonemes has the greatest imbalance between the coronals (50\%) and the backs (19\%) - the places of the source and destination of the phonetic shift that is posited to have occurred.

In Table 2.6 the $/ \mathrm{r} /$ token occurs $15 \%$ of the time (which disproportionately high, given that there are only 10 consonant phonemes). But if the $1528 / \mathrm{r} /$ tokens are counted according to their phonetic surface forms, $[\mathrm{x}]$ and $[\mathrm{g}]$, they generate an evenly balanced space of phonetic articulation. Of the four coronal phonemes, /r/ occurs with the second-highest frequency, after $/ \mathrm{n} /$. The alveolar nasal, $/ \mathrm{n} /$ seems to be the default consonant in the language (borrowed transitive verbs take the transitive suffix -nā, rather than one of the other choices $(-P \bar{a},-f \bar{a},-m \bar{a}$, and $-r \bar{a})$.

Table 2.6 Distribution of consonant phonemes


Table 2.7 Consonant phones by place of articulation

| anterior (labial) | coronal (alveolar) | back (velar, glottal) |  |
| :---: | :---: | :---: | :---: |
| $\mathrm{p}, \mathrm{b}, \mathrm{f}, \mathrm{m}, \mathrm{w}$ | $\mathrm{t}, \mathrm{n}, \mathrm{l},(\mathrm{r})$ | $[\mathrm{x}],[\mathrm{g}]$ | ? |
| 3189 | $3525(5053-1528)$ | $3481(1953+1528)$ |  |
| $31 \%$ | $35 \%$ | $34 \%$ |  |

The expression of $/ \mathrm{r} /$ as the velar phones $[\mathrm{x}]$ and $[\mathrm{g}]$ (rather than $[\mathrm{r}]$ ) redistributes consonant phones in a very well balanced space where $31 \%$ are labial, $35 \%$ are coronal, and $34 \%$ are back. The universal target of an evenly distributed phonetic space is one possible explanation for the diachronic change associated with $/ \mathrm{r} /$.

### 2.2.1.4 A sonority correlation between vowels and consonants

The present discussion returns to the question of whether the conditioning environment for the allophones of $/ \mathrm{r}$ / is "opaque". In other words, is there really no phonetic basis of for the conditioning of allophones [x] and [g]? The allophonic
conditioning in this case is that if the phoneme /r/ is adjacent to a high vowel, then [g] is produced; otherwise [ x ] is produced.

Blust 2008 observes that a high vowel favors the less sonorant voiceless consonant [x] over [g], but on the other hand, a high vowel favors [g] over [x] for reasons of stricture. Table 2.8 is reproduced from Blust 2008 (285). It posits ad hoc scalar feature values <+feature>, rather than conventional binary values [+feature], allowing for finer distinctions of sonority and constriction among the vowels. The five vowels are grouped into two stricture classes, where ' + ' and ' - ' refer to scalar values of 'more' and 'less', respectively:

Table 2.8 Blust 2008 consonant and vowel stricture featues

Blust 2008 notes the conundrum that although vowel height correlates well with theoretically expected differences of manner, it does not correspond with expected differences of voicing. But this type of problem is resolved on a language-specific basis. Although stops are less sonorous than fricatives, a given language may choose to treat either the voiced stop or the voiceless fricative as 'more sonorous'.

So, for the Wuvulu data, gradient features are not necessary; it suffices to say that for the phoneme $/ \mathrm{r} /$, the [-continuant] allophone $[\mathrm{g}]$ is correlated with an adjacent [+hi] vowel and the [+continuant] allophone [x] occurs elsewhere. Blust 2008 discusses this phenomenon only as it applies to the allophones of /r/ however, the same pattern occurs with the phoneme $/ 1 /$; its [-continuant] allophone [d] occurs adjacent to a high vowel and the [+continuant] allophone [1] occurs elsewhere (ali 'to pull upward' > [adi], lifo 'tooth' $>$ [difo], balu 'child' > [badu]). Generally, the liquid phonemes $/ \mathrm{l} /$ and $/ \mathrm{r} /$ surface as [-continuant] if adjacent to a high vowel and as [+continuant] otherwise.

Table 2.9 Consonant phones by [continuant]

|  | $[-c o n t i n u a n t]$ | $[+$ continuant $]$ |
| :--- | :---: | :---: |
| phoneme | $\mathrm{p}, \mathrm{b},(\mathrm{t}), \mathrm{P}$ | $\mathrm{f}, \mathrm{m}, \mathrm{w}, \mathrm{n},(\mathrm{l}),(\mathrm{r})$ |
| phone mappings | $[\mathrm{p}, \mathrm{b}, \mathrm{t}, \mathrm{t}, \mathrm{d}, \mathrm{g}, \mathrm{?}]$ | $[\mathrm{f}, \mathrm{m}, \mathrm{w}, \mathrm{n}, \mathrm{l}, \mathrm{s}, \mathrm{x}]$ |
| frequency | 4884 | 5311 |
| percent | $48 \%$ | $52 \%$ |

Table 2.9 shows that after taking into account vowel and consonant interaction, consonant phones are fairly evenly balanced between [-continuant] and [+continuant]. The phonemes $/ \mathrm{t} /$, $/ \mathrm{l}$ /, and $/ \mathrm{r} /$ appear in parenthesis to indicate that they map to more than one phone: the phoneme /t/ has allophones [t], [s], and [tf]; the phoneme /l/ has allophones [1], [d], and $\left[1^{\delta}\right]$; and the phoneme $/ \mathrm{r} /$ has allophones $[\mathrm{r}],[\mathrm{x}]$ and $[\mathrm{g}]$.

### 2.2.2 Vowels

Wuvulu has five vowel phonemes: $i, u, e, o, a$; and 5 long vowels phonemes: $\bar{l}, \bar{u}$, $\bar{e}, \bar{o}$, and $\bar{a}$.

### 2.2.2.1 Five vowels

Wuvulu has five standard vowel phonemes: $i, u, e, o$, and $a$. Table 2.10 shows contrastive words for the vowels (the phonetic quality of the phoneme $e$ is [ $\varepsilon]$ ).

Table 2.10 Evidence of vowel phonemes

| mimi 'urine', |
| :--- |
| meme 'rubbish' |
| mama 'breadfruit' |
| momo 'coconut shell' |
| mumuPa 'vomit' |

The low central vowel [a] is by far the most frequent vowel, accounting for about $33 \%$ of all vowels in the corpus. In terms of articulatory position in the oral cavity, the distribution of vowels is fairly evenly balanced between front vowels (37\%), the central vowel (33\%), and back vowels (30\%).

Table 2.11 Vowel frequencies

| front |  | central | back |  | total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| i | e | a | o | u |  |
| 2332 | 1123 | 3033 | 1506 | 1292 | 9286 |
| $25.1 \%$ | $12.1 \%$ | $32.7 \%$ | $16.2 \%$ | $13.9 \%$ | $100 \%$ |
| $37 \%$ |  | $33 \%$ | $30 \%$ |  |  |

Table 2.11 shows a stark difference in frequency between the two front vowels $i$ and $e$. The vowel $i$ occurs more than twice as frequently as $e(2332$ tokens versus 1123). Back vowels, on the other hand, show a much smaller difference in frequency between the high back vowel $u$, and the mid back vowel $o$ ( $16.2 \%$ versus $13.9 \%$ ).

Table 2.12 Vowel height

|  | front | central | back |  |
| :---: | :---: | :---: | :---: | :---: |
| high | i |  | u | $39 \%$ |
| mid | e |  | o | $28 \%$ |
| low |  | a |  | $33 \%$ |
|  |  |  |  |  |

In Table 2.12 mid vowels are least frequent ( $28 \%$ ) and high vowels are most frequent ( $39 \%$ ). Because phoneme systems involve interactions of vowels and consonants, a greater frequency in high vowels may be related to the shift of alveolar /r/ to the allophone $[\mathrm{g}]$ and its association with high vowels. In Table 2.7 approximately half of the $1528 / \mathrm{r} /$ tokens were adjacent to a high vowel; resulting in the surface phone [g]. Furthermore, approximately two-thirds of the 9981 tokens were adjacent to a high vowel, resulting in the surface phone [d]. In both cases there has been a diachronic shift to [-continuant] consonants adjacent to high vowels.

### 2.2.2.2 Long vowels

Wuvulu has five long vowel phonemes: $\bar{l}, \bar{u}, \bar{e}, \bar{o}$, and $\bar{a}$. Long vowels have the same phonetic quality as the five standard vowels, except that they are longer in duration. Long vowels are always stressed in their pronunciation. There are three distinct contexts in which long vowels occur: i) they exist in the lexicon (in both words and affixes); ii) they are generated by suffixation resulting in geminate vowels; and iii) the final vowel is lengthened in the first of juxtaposed NPs.

A subset of nouns in the lexicon has long vowels. There are also several grammatical morphemes that have vowel length: 1) $l \bar{l}-$, and - $l \bar{l}$ both 'perfective' morphemes; 2) the transitive morphemes $-\mathrm{C} \bar{a}$, where C is a thematic consonant; ${ }^{12}$
3) suffixation of a $u$-final noun stem by the morpheme, $-u$ ' 1 SG possessor';
4) circumfixation of an $i$-final noun stem by the circumfix, fi-<stem>-i 'reciprocal'; and 5) juxtaposition of noun phrases, NP (possessed) NP (possessor).

### 2.2.2.2.1 Lexical Length

Long vowels exist in perhaps as much as 5\% of the lexicon. Most words that have long vowels are nouns, in words such as, aila 'chief', and pararā 'kind of black bird' (contrasts with parara 'thunder'), but also occur in grammatical words, such as, $3 u \bar{a}$ 'because'. One possible explanation for vowel length in some words has to do with the historical loss of intervocalic consonants that resulted in pairs of adjacent geminate vowels.

For example, fula 'taro' is spoken in all dialects of the language and is cognate with POc *pulaka 'swamp taro: Cyrtosperma spp.'. In Wuvulu, after * $k$ was lost, and after $* p>f$ (in some contexts), the resulting synchronic form is fula in all dialects. A similar result occurred with POc *apaRat 'northwest wind' > afă 'west wind' in synchronic Wuvulu. Lexical items with long vowels include aromā 'tree species', arō 'black trevally, faną̄̄̄̄ 'Lined Monocle-Bream', lilipitī 'shoreline', maralē 'Archer Cherry'.

### 2.2.2.2.2 Transitive Suffixes

There are four forms of the transitive morphemes: i) $=$ Cau ' 1 SG object', ii) $=$ Cio ' 2 SG object', iii) $=$ Cia ' 3 SG object', and, iv) $-\mathrm{C} \bar{a}$ 'transitive marker' (where C is the thematic consonant for a given verb). In (2.1) the verb ato 'to taste, smell' is used intransitively. The same verb root is used in a transitive construction (2.2).
(2.1) Pi=na-ato

3SG=REAL-taste
'He tasted.'

[^10](2.2) Pi=na-ato-f $\bar{a} \quad$ fei nia

3SG=REAL-taste-TR the fish
'He tasted the fish.'
Each transitive verb in the lexicon has a specific consonant, C, associated with its transitive morphemes $(=\mathrm{Cau},=\mathrm{Cio},=\mathrm{Cia}$, and $-\mathrm{C} \bar{a})$. The thematic consonant $f$ is associated with the verb ato 'to taste, smell' in (2.2) and the thematic consonant $P$ is associated with the verb tafi 'to carve' in (2.4). (Transitive morphemes are discussed in more detail in Chapter 4.)

$$
\begin{align*}
& \text { ro=na-tafi }  \tag{2.3}\\
& \text { 3PL=REAL-carve } \\
& \text { 'They carved." }
\end{align*}
$$

(2.4) ro=na-tafi-P $\bar{a}$ feni wa

3PL=REAL-carve-TR this canoe
'They carved this canoe.'

### 2.2.2.2.3 Possessive 1sG Suffix

The Wuvulu first person singular possessive suffix, $-u$, is a reflex of POc *-gu ' 1 SG possessive'. Inalienable nouns can be suffixed by the singular possessive morpheme (cf. Chapter 3). If a noun ending in $u$ is suffixed by the possessive morpheme $-u$, a long vowel results: ити 'house' > ит $\bar{u}(и т и-и) ~ ' m y ~ h o u s e ', ~ P и т ~ ' m o u t h ' ~>~ P и т ~ \bar{u}$ 'my mouth', rufu 'village' > rufū 'my village'. These are pronounced as long vowels, and not as two like vowels with rearticulation.

### 2.2.2.2.4 Reciprocal Circumfix

Wuvulu intransitive verbs and verbs denoting existential states may take the circumfix $f i-<v e r b>-i$ to indicate reciprocal action. If the reciprocal circumfix inflects a verb stem ending in $i$, the resulting geminate vowel is realized as a long vowel instead of rearticulation.
(2.5) larua fi-ari-i

PRON.3DU RECIP-opp.sex.sib-RECIP
'The two are brother and sister.'
(2.6) larua fi-tafi-i

PRON.3DU RECIP-sister-RECIP
'The two are sisters.'

```
(2.7) \(\quad l a r u=n a-f i-f o P a-i\)
    3DU=REAL-RECIP-hit-RECIP
    'The two fought.'
```


### 2.2.2.2.5 Possessive syntax

Wuvulu has an interesting link between syntax and prosody, where the first of two juxtaposed NPs has a heavy final syllable (see §2.3.2).
(2.8) ro=na-maPiru Pi um̄̄ roPou

3PL=REAL-sleep LOC house PRON.3PL
'They slept at their home.'
(2.9) tifeni アei memē roРou
this the rubbish PRON.3PL
'This is their rubbish.'
(2.10) ia arī mei pifine

PRON.3SG opposite.sib the woman
"He is the woman's brother."

### 2.2.2.3 Diphthongs

### 2.2.2.3.1 Vowel-pair sonority

There are 20 possible permutations of vowel pairs of the five standard vowels, arranged in Table 2.13 according to whether the tongue is rising, falling, or level. Of these, there are eight pairs with rising tongue height, eight pairs with falling tongue height, and four pairs for which tongue height is considered level. In general, rising tongue height corresponds with a decrease in sonority, and falling tongue height corresponds with an increase in sonority. It should be noted that references to "rising diphthongs" or "falling diphthongs" have to do with a rise or fall in sonority, and not a rise or fall in tongue height. The pairs $e o, o e$, and $a e$ do not occur in the language. (Recorded transcriptions of $o e$ and $a e$ are considered erroneous).

### 2.2.2.3.2 Tongue Height Transition

In Table 2.13 all valid vowel pairs with rising tongue height are considered to be diphthongs, i.e., they act as a unit nucleus in the syllable. The seven diphthongs are: ai, nomai 'come'; au, таипи 'rain'; ei, rirei ‘door'; eu, nabeu 'empty'; oi, oila 'kind of
fish'; ou, ropou 'PRON.3P'; and ao, nabao 'hungry'. It should be noted that a diphthong is always stressed (cf. §2.3.2).

Table 2.13 Vowel pair tongue height transition

| rising | ai | au | ei | eu | oi | ou | *ae | ao |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 656 | 257 | 284 | 9 | 77 | 46 | 3 | 126 | 1458 |
|  | 45\% | 17.6\% | 19.5\% | 0.6\% | 5.3\% | 3.2\% | 0.2\% | 8.6\% | 100\% |
|  |  |  |  |  |  |  |  |  |  |
|  | front-to-back (j-epenthesis) |  |  |  | back-to-front ( $w$-epenthesis) |  |  |  |  |
| falling | ia | ie | io | ea | ua | uo | ue | oa |  |
|  | 554 | 7 | 77 | 76 | 266 | 7 | 5 | 106 | 1098 |
|  | 50.5\% | 0.6\% | 7\% | 6.9\% | 24.2\% | 0.6\% | 0.5\% | 9.7\% | 100\% |
|  |  |  |  |  |  |  |  |  |  |
| level | iu | *eo |  |  | ui | *oe |  |  |  |
|  | 21 | 0 |  |  | 67 | 1 |  |  |  |

*invalid sequence
All valid vowel pairs that do not have rising tongue height undergo glide epenthesis: $j$-epenthesis for front-to-back pairs, and $w$-epenthesis for back-to-front pairs. Vowel pairs that undergo glide-epenthesis result in two syllables: pie 'sand' > [pije], io 'spear' > [hijo], nia 'fish' > [nija], pea 'bait' > [peja], ?ua 'only' > [Puwa], roa 'red' > [xowa].

### 2.2.2.3.3 Diphthongs

Although Wuvulu has surface diphthongs, there is no reason to posit underlying "true diphthongs" as phonemes. A true diphthong consists of a single, complex vowel of the form, $/ \mathrm{V}^{\mathrm{V}} /$. The introduction of complex segments lacks clear motivation in the language. And, according to Rehg (2007:16), cross-linguistic evidence suggests that true diphthongs have limited distribution in a language, e.g., English diphthongs $/ \mathrm{a}^{\mathrm{i}} /, / \mathrm{a}^{\mathrm{u}} /$, and $/ s^{\mathrm{i}} /$. But, Wuvulu surface forms permit seven of the eight possible permutations of falling diphthongs.

And, Donegan 1985 points out that diphthongs usually originate in vowels that are underlying long. As noted in §2.2.2.2.1 for long vowels, the diachronic loss of intervocalic consonants appears to be the source of at least some of the diphthongs that occur in the lexicon (i.e., their sources are not long vowels). Examples of historical sources for diphthongs are given in Table 2.14.

Table 2.14 Historical sources of diphthongs in Wuvulu

| source | contemporary surface form |
| :--- | :---: |
| PAN *aku '1 sg. pronoun' | iau |
| POc *dahun 'leaf' | rau |
| PEMP *qayawan 'banyan' | aiwa |

### 2.3 Prosody

### 2.3.1 The Syllable

In §2.1 the syllable template of Wuvulu was described as (C)V, where the consonant, C , is optional, and the vowel, can be a standard vowel, a long vowel, or a diphthong. Although the syllable template simply indicates "V", the nucleus of a syllable is actually V , V :, or $\mathrm{V}_{1} \mathrm{~V}_{2}$, where each vowel has one mora of weight, and long vowels and diphthongs have two moras.

### 2.3.2 Stress

### 2.3.2.1 Previous Descriptions

According to Lynch, Ross \& Crowley 2002, Proto Oceanic stress fell on the penultimate syllable with secondary and tertiary stress on every other syllable from the ultima:

POc stress also remains uninvestigated, but phonologically conservative languages generally agree in displaying primary stress on the penultimate syllable and secondary stress on every second syllable preceding the penultimate, and this was probably the basic POc pattern (67).

Blust (1996:16) also discusses Wuvulu stress in terms of syllable position from the right edge of the word:

Primary stress in fact falls optionally on the initial or penultimate syllable of the trisyllabic bases, but on the penult in others. Surface final-syllable stress derives from an underlying penultimate geminate vowel cluster, for example, kufu [gúfu] 'island' vs. kufu-u [gufú] 'my kinsman'.

Lynch 2000 makes reference to Blust 1996 in his discussion of the stress pattern of Western Admiralty languages:

The extant languages of the Western Admiralty family, Seimat, Wuvulu, and Aua fall into a category of languages that have only open syllables, and assign primary stress to the penultimate syllable if the final vowel is short, or to the final syllable if its vowel is long or if it contains a vowel cluster.

The descriptions of Wuvulu stress given by Blust and Lynch both make reference to syllable distinctions that involve weight (Lynch: short, long, vowel-cluster; Blust: geminate vowel cluster). They also both refer to rules that require conditions which are sensitive to syllable weight.

### 2.3.2.2 The Mora and Syllable Weight

Previous descriptions of Wuvulu describe stress in terms of syllables positions. An alternate explanation for stress is possible by appealing to the notions of the mora and the weighted syllable. Such an approach captures a generalization regarding weight distinction in the language and simplifies stress assignment rules. A mora is only associated with a vowel. A light syllable has one mora and a heavy syllable has two moras as in (2.11):

Wuvulu Syllable Weight:
a. light (L)
b. heavy $(\mathrm{H})$-long vowel c. heavy $(\mathrm{H})$-two vowels


Examples:
lo, a
i., po:, fu:
au, mau, bai
Recall that Lynch 2000 assigns Wuvulu primary stress to the penult syllable if the final vowel is short, or to the ultima if it contains a long vowel or a vowel cluster. So, таипи 'rain' and lolo 'sink' have penultimate stress because they have a final short vowel, i.e. a mono-moraic ultima. The words babai 'hot' and rufu: 'my village' have ultimate stress because their nuclei are bi-moraic. But a heavy syllable always receives stress. This is because a prosodic foot in the language is built from either one heavy syllable or two light syllables.

### 2.3.2.3 Foot structure

The Wuvulu prosodic foot is a trochee consisting of two moras. A moraic trochee is built counting moras right-to-left from the right edge of the word. A foot can consist of either one heavy syllable $(\sigma \mathrm{H})$ or two light syllables $(\sigma \mathrm{L})$ as in (2.12).
a. ( $\mathrm{x} \quad$.)

b. ( $\begin{array}{ll}\mathrm{x} & \text { ) }\end{array}$


Stress falls on the head of the trochee. In (2.13)b. a foot is built from the heavy syllable, and the ultima is considered to be extrametrical (where the head of the foot is indicated by ' $x$ ' and the dependent is indicated by '. ').
a. ( $\begin{array}{ll}\mathrm{x} & \text {.) }\end{array}$
b. ( $\mathrm{x} \quad$ )

papa 'beside'


таипи 'rain'

### 2.3.3 Word structure

Words are right-headed, meaning that cumulative, primary stress falls on the right-most trochee of the word, and with secondary stress, if present, falling on the second trochee from the right edge of the world.
word
foot

| $\mu$ | $\mu$ | $\mu$ | $\mu$ | $\mu$ | $\mu$ | $\mu$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mu$ |  |  |  |  |  |
| syllable |  $\sigma$ $\sigma$ $\sigma$ $\sigma$ <br>  ma nu ma nu | Pai | Po | lu |  |  |

тапитапи 'something' PaiPolu '1P.EXCL'

### 2.3.4 Phrasal intonation

### 2.3.4.1 Statements

A statement has level intonation, with a very slight drop in pitch at the end of the phrase.
(2.15) ro=na-re-to=nia
$3 \mathrm{PL}=$ REAL-DIR-get=3SG
'They went and got him.'

### 2.3.4.2 Content Questions

Content questions syntactically consist of a wh-question word followed by a verb.
A content question is similar to a statement in that they both have a level intonation contour that falls in pitch at the end of the phrase. There is a marked difference, however, in the amount of contour drop between the two types of propositions: statements have a very slight drop, but content questions have a steep drop in phrase-final intonation.


### 2.3.4.2.1 Tag Questions

A tag question in the language is used a rhetorical device consisting of a statement followed by the morpheme, na 'tag question'. Tag questions are essentially rhetorical questions that operate like statements, where the answer to the question is understood to be affirmative. The statement portion of the tag question has level intonation, like a statement, but is followed by a sharp rise in intonation.
(2.17) mei pilaua na-biri-Pia, na
the foreigner REAL-work-3S
'The foreigner did this, right?'
(interpreted: 'We both know the foreigner did this.')

### 2.3.4.2.2 Yes/No Questions

Yes/no questions have a flat intonation contour with an abrupt rise, phrase-finally.

$2 \mathrm{SG}=$ good
'Are you okay?'

### 2.3.4.3 Rising-falling intonation (subordination)

Subordination in the language demonstrates an interesting intersection of syntax, morphology, and prosody. Syntactically, subordination usually involves two clauses, the first of which is subordinate to the second. Morphologically, the verb of the subordinate clause is inflected with the irrealis mood morpheme, $P a-$, and is spoken with rising intonation as in (2.19)a. The verb of the main clause is inflected for realis and has a falling intonation contour (2.19)b. (Verbal morphology is discussed further in Chapter 4.)

ro=?a-no-mai b. ro=na-re-to=nia
3 PL=IRR-move- DIR 3 PL=REAL-DIR-get=3SG
'When they came, they went and got him.'
The sentence in (2.20) involves an embedded clause.


The details of subordination are discussed in subsequent chapters, but it is interesting to note the grammatical, syntactic, and prosody involved in inter-clausal propositions.

### 2.4 Phonological processes

### 2.4.1 Epenthesis of $h$

A small amount egressive airflow precedes the onset of a word-initial vowel.
This is not considered to be phonemic. As noted in $\S 2.2 .1$, Blust 2008 considers $h$ to be a phoneme, in order to impose symmetry on the system. The insertion of [h] occurs in the word-initial position and word-internally at morpheme boundaries as in (2.21)c. A motivation for h -insertion could be conformation to canonical syllable shape, but wordinitial glottal stop is phonemic, and the alternative is vocal cords that are open. Egressive
airflow before the onset of a word-initial vowel makes what is an underlying zero into a very soft [h].
$\varnothing>\mathrm{h} /[\ldots \mathrm{V}$
a. alo 'sun'
$>\left[\mathrm{hal}^{\mathrm{z}} \mathrm{o}\right.$ ] (see 2.4.6.2.2)
b. ири 'green coconut'
$>$ [hupu]
c. $P i=n a-a t o=f i a$
$>$ [inahatofia]
$3 \mathrm{SG}=$ REAL-smell=3SG
"He smelled it."

The glottal fricative has very little aspiration compared to English $h$. Glottal consonants contrast in words such as: ири 'green coconut', Рири 'grandparent/grandchild'; and alo 'sun', and Palo 'send'.

### 2.4.2 Glide-epenthesis

A glide is inserted between two consecutive vowels that do not comprise a diphthong (cf. Table 2.13). Glide insertion may be motivated by canonical syllable shape. Examples of glide insertion are: bie 'insane' $>$ [bije], lio 'vagina' $>$ [lijo], wia 'fat' $>$ [wija], bea 'fruit bat' $>$ [beja], rua 'tree kangaroo' $>$ [guwa], poa 'hole' $>$ [powa].


### 2.4.3 Word-final vowel deletion

In rapid speech, word-final high vowels are sometimes deleted.
(2.23)

```
V[+hi] > Ø / __\#
    lomi \(>\) lom 'no'
    humumu > humum 'your house'
```


### 2.4.4 Fricative voicing

There are two cases of intervocalic fricative voicing that have been observed in the language: $f>v$ and $x>\gamma$. The former occurs frequently, but the latter is rare. In both cases voicing occurs in rapid speech.

### 2.4.4.1 Intervocalic /f/ can become voiced in rapid speech.

(2.24) /f / > [+voice] / V_V
fafi 'afternoon greeting' $>$ [favi]

### 2.4.4.2 Intervocalic [ $x$ ] becomes voiced in rapid speech (rare)

(2.25) [x] > [ X$] / \mathrm{V}_{-} \mathrm{V}$
ere 'going on...' $>$ [exe] > [eVe]

### 2.4.5 Spirantization

Before a high vowel the phoneme $t$ becomes the voiceless alveolar affricate in free variation with the voiceless alveolar sibilant.

$$
\begin{align*}
& / \mathrm{t} />\mathrm{s}] \sim[\mathrm{t} 5] / \ldots \mathrm{V}[+\mathrm{hi}]  \tag{2.26}\\
& \text { tua }>\text { [sua }] \sim[t \text { fua }] \text { 'row' } \\
& \text { tiri }>\text { [sigi] } \sim[t \mathrm{figi}] \text { 'swim' }
\end{align*}
$$

Application of (2.26) can be can be seen in borrowings from Pidgin ( P ) and English (E): (P) lotu 'worship' > losu, (E) satan 'Satan' > tatana. In the English example, [ s ] becomes [ t ] and the words adds a final vowel to conform to the target syllable shape. Although [ s ] is an allophone of t it would be a violation of the condition that t must precede a high vowel in order for the allophone [s] to surface.

### 2.4.6 Liquid fortition

### 2.4.6.1 /r/fortition

The phoneme /r/ has three allophones-[r], [g], and [x] (cf. §2.2.1.1). The [r]-variant is used by everyone on Aua, and is still sometimes spoken by the older generation on Wuvulu. The use of [r] is not conditioned by a phonological rule, whereas $[\mathrm{x}]$ and $[\mathrm{g}]$ are. And, although $[\mathrm{r}],[\mathrm{x}]$, and $[\mathrm{g}]$ are given here as allophonic, in actual usage, there is an even more general contrast at work: $[\mathrm{r}]$ vs. ( $[\mathrm{x}]$ or $[\mathrm{g}]$ ). In other words, either $[r]$ is uttered, or $[\mathrm{x}]$ and $[\mathrm{g}]$ are uttered in complementary distribution. In any case, this appears to be a sound-change in process. Blust (2008:228) lists both /x/ and (/r/) in its revised Wuvulu phoneme chart. If /r/ is adjacent to a high vowel, [g] is uttered, otherwise [ x ] is produced.
(2.27) $\mathrm{r}>[\mathrm{g}] / \% \ldots \mathrm{~V}[+\mathrm{hi}], \mathrm{r}>[\mathrm{x}]$ otherwise. rufu $>$ [gufu] 'village'
fira $>$ [figa] 'How many?'
ware $>$ [waxe] 'to speak'

### 2.4.6.2 /// fortition

### 2.4.6.2.1 /// fortition (high vowel)

In the dialects of Onne and Aua, the phoneme /l/ becomes the voiced alveolar stop if adjacent to a [+high] vowel.

$$
\text { (2.28) } \begin{array}{ll} 
& l>[\mathrm{d}] \% \\
& \text { balu }>\text { [badu] 'child' } \\
& \text { fula }>\text { [fuda] 'taro' } \\
& \text { (cf. mala [mala] 'long') }
\end{array}
$$

### 2.4.6.2.2 /l/ fortition (mid-back vowel)

/l/ becomes a lateral with the secondary articulation of a voiced interdental fricative [ $ð$ ] before the mid-back vowel, /o/. Note that there is no fortition of /l/ in (2.29)c.
(2.29) a. $1>\left[1^{\gamma}\right] / \ldots o$
b. ruapalo $>$ [guapal ${ }^{\text {r }} \mathrm{o}$ ] 'two'
c. ola $>$ [ola] "male sib of a female's mom, or female sib of a male's father"

The complex allophone $\left[1^{\check{\delta}}\right]$ is further support for the correlation of vowel and consonant sonority. For the phoneme 1, the allophone [d] represents the greatest degree of stricture and occurs adjacent to a high vowel. The phone $\left[1^{\gamma}\right]$ occurs before the mid vowel [ o ], and [1] occurs otherwise.

### 2.4.7 Syllable deletion

Plural pronouns in Wuvulu lose a syllable from a portion of the morpheme that is based on Polu 'three' (from POc *tolu). Pronouns that lose a syllabe include oPolu '1PL.INCL', aiPolu '1PL.EXCL', amuPolu '2PL', roPolu '3PL'. In all syllable loss results by the deletion of $l$ from the form Polu 'three', as in (2.30).

| Po?olu 'PRON.1PL.INCL' | $>$ | Po?ou |
| :--- | :--- | :--- |
| aiPolu 'PRON.1PL.EXCL' | $>$ | ai?ou |
| amu?olu 'PRON.2PL' | $>$ | mu?ou |
| roPolu 'PRON.3PL' | $>$ | ro?ou |

In §2.3.2.2 a distinction was made between light and heavy syllables. The loss of intervocalic /l/ in plural pronouns results in formation of the diphthong ou. And, although a syllable is lost, the overall duration of the word remains approximately the same, because a heavy, bi-moraic syllable is created from two light mono-moraic syllables.

At this point in the research it is unclear what the motivation is for alternative forms of pronouns. Full pronouns and their reduced counterparts appear to vary freely, but it is possible that deleted forms are preferred for prosodic reasons. Further investigation is required in order to rule out this possibility.

### 2.4.8 Morphophonemic processes

### 2.4.8.1 Diphthong formation

A diphthong can be created at the boundary of a word that ends in $a$, and a verb that begins with the first- or third-person subject clitics $P u=$ and $P i=$, respectively. In these cases, the initial glottal stop is deleted, resulting in the loss of a syllable. In (2.31) the complementizer $b a$ forms the diphthong $a i$ with word that follows it with deletion of the glottal stop.
(2.31) ro=na-ware ba Pi=nei-tama-lao > ronaware baineitamalao 3PL=REAL-talk CMPL 3SG=DEON-paddle-DIR
'They said that he must paddle away.'
In example (2.32) the complementizer, $b a$ forms a diphthong ( $a u$ ) with the word that follows it.
(2.32) ma Ри=na-no-mai

CJ 1SG=REAL-move-DIR
'And I came.'

### 2.4.8.2 Vowel coalescence

Two adjacent words can form a single phonological word if they have identical vowels on their boundary. In (2.33) the word-final vowel of $P a P a$ 'with' and the initial vowel of amи?olu 'you' are the same, so a single word is produced, aPamu?olu 'with you'. A word that is formed by means of vowel coalition follows the normal rules for word stress.
(2.33) Pi=na-biri fipui aPa amuPolu >inabiri fipui aPamuPolu 3SG=REAL-work together with PRON.2PL
'She worked with you.'
As in the case of morphophonemic diphthong formation in §2.4.8.1, morphophonemic vowel coalescence results in the loss of a syllable.

### 2.5 Orthography

An orthography has been in use on Wuvulu since 1992, when SIL workers Audrey and Vinton Goff lived on the island for 16 weeks before leaving to care for family in their home country.

The present orthography is not completely optimal, due in part to certain conventions were adopted while the orthography was still in trial status. Another factor that has influenced orthographic decisions is the requirement that a single alphabet be acceptable to speakers of both Wuvulu dialects, Onne and Aua. A case in point is that [d] is an allophone of $/ 1 /$ in the Onne dialect, but not in the Auna dialect. Onne is more populous than Auna, so a majority of people speak [d]. At an alphabet workshop, attended by both Auna and Onne speakers, it became apparent that the expression of /l/, both phonetically and orthographically, is a marker of identity and prestige. ${ }^{13}$ By vote, both <d> and <l> were adopted into the alphabet to represent the phoneme $/ \mathrm{l} /$, with <d> written next to a high vowel, and <l> written elsewhere. So, the word balu 'child' is written as <badu>. This decision was made for sociolinguistic reasons. This decision was made in spite of the fact that [d]-speakers automatically produce [d] when reading <l>.

[^11]A further case of over-differentiation has to do with $/ \mathrm{r} /$ and its allophones. The alphabet committee adopted $\langle\mathrm{r}>$ for allophones [r] and [x], and $\langle\mathrm{g}\rangle$ for the allophone [ g ] (cf. §2.4.6.1). The argument for over-differentiation in this case was that children would be able to learn to read English more easily by becoming familiar with both <r> and <g> in the Wuvulu orthography. ${ }^{14}$ Similarly, it was decided that/t/ would be written as both $<\mathrm{t}>$ and $<\mathrm{s}>$ for the allophones [ t$]$, and [ s$] \sim[\mathrm{t}]$ ], respectively. The present author participated in the Wuvulu alphabet workshop, but did not vote on which letters would be included in the orthography. The idea was to provide information without unduly influencing decisions, especially in the few cases where there were strong differences of opinion, drawn along sociolinguistic lines.

Because of the prestige of English in PNG, the argument for orthographic bridging between languages was used advantageously by Onne, the most populous speech community. Socio-linguistically, the "bridging" argument seemed to allow for mitigation in building consensus between speech communities, though it is not clear whether orthographic bridging enhances literacy skills in English or Wuvulu.

Vowel-initial words in the language are uttered with a slight initial [h], but there is not a phonemic glottal fricative $/ \mathrm{h} / \mathrm{in}$ the language. The glottal stop $/ \mathrm{R} /$, however, is phonemic and occurs in initial and medial positions. For words that are vowel-initial, the alphabet committee adopted the convention of writing <h> word-initially (before the vowel phoneme), and the convention of not writing word-initial glottal stop. So, the words Pири [Pupu] 'grandchild/grandparent', and ири [hupu] 'green coconut' are written as <upu> and <hupu>, respectively. These conventions were adopted because word-initially, a vowel is much less frequent than the glottal stop, and word-initial < $\mathrm{h}>$ is easier to read than word-initial apostrophe $<$ ' $>$ (the character selected to represent the glottal stop).

### 2.6 Chapter summary

The features of Wuvulu phonology fit fairly well with what is expected for an Oceanic language. Wuvulu has one of the smallest known phoneme inventories among

[^12]Admiralty languages with only 10 vowels and 10 consonants. Evidence suggests that diphthongs are not phonemic in the language. Vowel length is also considered to be non-phonemic because it is predictable in virtually all cases.

There has been some controversy over proposals of Wuvulu consonant phonemes (Blust 1996, 2008; Hafford 2012). The controversy had principally to do with velar consonant phones and discerning their underlying phonemes. The discovery of conditioned velar allophones (Blust 2008) generated theoretical questions regarding the relationship of vowel height and consonant stricture. For example, allophonic variants of the phonemes /r/ and /l/ correlate vowel height and consonant stricture.

Ultimately the relationship between vowel height and consonant stricture seems to be related to sonority constraints. There are still questions, however, regarding the history of change in the consonants POc $* \mathrm{k}$ and $* \mathrm{r}$. The hope is that future research on Admiralty languages will give a clearer picture of how $* \mathrm{k}$ disappeared and how ${ }^{\mathrm{r}}$ is related to the synchronic velar phones $[\mathrm{x}]$ and $[\mathrm{g}]$. Perhaps Blust's forthcoming volume on Admiralty languages will shed light on these phenomena. ${ }^{15}$

Syllables fit a template of the form (C)V, where V can be a vowel, a long vowel, or a diphthong. Vowels each have one mora of weight; long vowels and diphthongs have two moras of weight. Mono-moraic (light) syllables are distinguished from bi-moraic (heavy) syllables with heavy syllables always attracting stress. The Wuvulu stress pattern is consistent with a trochaic foot structure based on moras where a light ultima is extra-metrical if the penult is heavy.

[^13]
### 3.1 Introduction

This chapter generally discusses the Wuvulu noun phrase (NP). A NP in the language is minimally a head noun with no additional modification. Nouns can have semantic content, as in words such as blood or stonefish; or they can have grammatical content in words such as pronouns.

Nouns and pronouns are words in the language, but there are also bound nominals, including verbal clitics, and possessor suffixes. Like POc, Wuvulu verbs take subject and object clitics that agree in person and number with an antecedent that is known from discourse context, the programatics of the situation, or commonly understood cultural information. And like POc, Wuvulu distinguishes between alienable and inalienable nouns.

Lynch, Ross \& Crowley 2002 (LRC) categorizes POc nouns as personal, local, or common. These categories are along the lines of the basic definition of a noun as a person, place or thing. Personal nouns in Wuvulu include names of people and address forms of kin terms. Local nouns include names of places (proper nouns), familiar personal places, such as one's home, village, or garden; or familiar public places, such as the bush, beach or ocean, and locative part nouns-words that are semantically like prepositions (on, under, over, etc.), but that have the morphology and distribution of nouns. The category of common nouns includes prototypical nouns such as stone and tree.

POc nouns can be categorized into two broad categories based on possessive constructions: "most, and perhaps all, nouns belonged by default to either the directly possessed or the indirectly possessed category" (LRC, 69). In both Wuvulu and its linguistic ancestor, POc, directly possessed nouns take a possessor suffix. In contrast, indirectly possessed nouns cannot take a possessor suffix. Instead, a possessive classifier takes the suffix (§3.5.2.2). LRC writes that in POc, indirectly possessed nouns "occur with one of three (or more) possessive classifiers which specify more narrowly the nature of the possessive relationship" (LRC, 37). In Wuvulu there are three possessive classifiers: ana 'food', numa 'drink', and ape 'general'.

A noun can be derived from an adjective or a verb by the suffix, $-a$ 'DER'. (Adjectives are discussed in §3.6.3.1, and criteria for the lexical class verb are discussed in Chapter 4.) Neither reduplication nor compounding is a productive derivational process in Wuvulu, as they are in many Oceanic languages. There are, nevertheless, words in the noun class that are clearly products of reduplication or compounding. The noun class is generally open, in that words can be added to the class by coining or borrowing. But, certain subclasses of nouns are closed (e.g., locative part nouns).

This chapter describes the categorial features of nouns, and then discusses the POc noun phrase, and the Wuvulu noun phrase in light of POc features, and in terms of features that are expected in Oceanic languages. The organization of the present chapter is somewhat axiomatic, with a discussion of prototypical nouns, the word class noun, and the composition and function of a NP. Chapter sections are presented in the following order: §3.1 Introduction, §3.2 Word class noun, §3.3 Noun derivation, §3.4 Pronominals, $\S 3.5$ Possession, §3.6 N, and §3.7 Chapter summary.

### 3.2 Word class noun

As noted in the introduction, nouns in Wuvulu can be classified as common, personal, or local. Common nouns include words with semantic content, such as napa 'stone', aiai 'tree', and raPo 'whale'. Some nouns, like locative part nouns have functional content as in pafo 'above'.

### 3.2.1 Common nouns

Common nouns account for the greatest number of words in the noun class. Within a NP, a common noun can be optionally modified by other phrasal constituents (e.g., aipani baua a? 'five big tuna', fei uwiPa 'the octopus'). The structure of a NP is discussed in §3.6.

### 3.2.1.1 Basic vocabulary

Cross-linguistically, nouns tend to be more semantically stable over time than other parts of speech (Givón, 1984). And within the noun class, basic vocabulary items tend to be the most semantically stable nouns over time. In Wuvulu this includes words like stone 'muro', rara 'blood' ( POc *daRaq), and alo 'sun' (POc *qaco).

The Wuvulu lexicon shares cognate vocabulary with about 500 contemporary Oceanic languages, spanning a number of large semantic domains such as basic vocabulary, fishes and other living species, e.g., nofu 'stonefish' (POc *nopuq).

### 3.2.1.2 Compounds

A compound noun is a single word that is composed of two separate words. Compound nouns can be modified by other NP constituents. Examples of compounds include bala?ari 'doctor fish' from balafai 'rat' and ari 'ocean'; fanatao 'hammerhead shark' from fana 'weaving motion' and tao 'hat'; napupolu 'PNG highander' from na?u 'child' and polu 'bush'; puneafi 'coral stove' from punei 'ribbed box' and afi 'fire'; wari'Peni 'today' from wari 'related to' and Peni 'now'; puputapaPa 'spotted triggerfish', from рири 'triggerfish' and tapa?a 'spotted'; tawaparara 'large rainbow runner (fish)' from tawa 'table' and parara 'seabird', meaning the fish is large like a table that a seabird can stand on.

Another evidence of compound nouns has to do with prosody. The stress of a compound word is different than that of a pair of juxtaposed NPs in a possessive relationship. In (3.1) stress on the word nā?upōlu 'highlander' is on the first syllable and the penult (the expected word-stress pattern). This indicates that the word is a compound noun. If, on the other hand, these were juxtaposed nouns, stress would fall on the ultima of the first word, and the penult of the second word: nap̀ $\bar{u} \overline{\bar{l}} \mathrm{l}=$ 'child (of the) bush' (§3.5.1).

```
(3.1) mei naPupolu na-uri pafō wa the highlander REAL-jump on canoe 'The highlander boarded the canoe.'
```


### 3.2.1.3 Reduplication

Reduplication is not a productive noun derivation process in Wuvulu. Nouns that are reduplicated in form have been fossilized in the lexicon, e.g., waliwali 'driftwood', PanoPano 'carpenter', and wiliwili 'bicycle' (borrowed from Melanesian Pidgin wilwil 'bicycle’).

### 3.2.1.4 Onomatopoeia

Some common nouns are onomatopoeic. Examples include PioPio 'Bismarck Kingfisher', and bapa 'knock'. Onomatopoeic words are emulations of sounds associated with the words' referents. So, [Pio?io] is the name of the Bismarck Kingfisher, because of its call, and baPa [baPa] or [baPabaPa] 'knock' sounds like a knock. Onomatopoeic words generally pattern as alienable nouns.

### 3.2.2 Personal nouns

Names and address forms are nominals that refer to people. Names of people (and locations) are considered proper nouns because they cannot be modified and they cannot take possessive suffixes. Address forms are created by prefixing the address morpheme $o$ - to any kin term or title name, e.g., o-Pama 'Dad...', o-lofu 'Brother...', $o$-fatu 'Leader...'.

### 3.2.2.1 Names

Wuvulu people a have a traditional given name and family name. The family name can be the father's given name or it can be a clan name. Most Wuvulu people born after 1950 also have an English given name. A name is a proper noun that serves as the head of an unmodified NP. As a NP, a name can function as a syntactic argument, or it can serve as an adjunct.

Proper nouns that are borrowed from English or Pidgin are adapted to Wuvulu phonology. James is borrowed as [semesi], the PNG town Wewak [wiwæk] is borrowed as [wiwe?e], America is borrowed as [amexe?a]. Names of people and places can serve as syntactic NP arguments. In (3.2), the proper noun, Pulei functions as a subject NP that is co-referenced by the verbal clitic, $3 i={ }^{\prime} 3 \mathrm{SG}$ '.
(3.2) tỉei Pulei Pi=na-poro-?a fei muro therefore PROPN 3SG=REAL-carry-TR the stone 'Therefore, Pulei carried the stone.'

### 3.2.2.2 Address form

Kin terms and other terms denoting professions can function as proper nouns when used in the address form. The address morpheme $o$ - 'ADDR' prefixes an addressee.

The address form can be used with any noun that is an addressee, including kin terms: o-tafi 'Sister, ...', o-lofu 'Brother,...', o-?ama 'Father,...', o-feroia 'Teacher,...'.

$$
\begin{aligned}
& \text { (3.3) o-ina, fani ana-u } \\
& \text { ADDR-mother give food-my } \\
& \text { "Mother, give my food (to me)." }
\end{aligned}
$$

### 3.2.3 Local nouns

Local nouns include proper names of locations; locative part nouns, such as pafo 'on', aro 'under', and papa 'beside'; and familiar locations that require no further specification, such as polu 'bush', ari 'ocean', one's umи 'home', and one's periape 'garden'. Local nouns are often preceded by the locative preposition (cf. §3.2.3.2).

### 3.2.3.1 Location names

Names of locations on Wuvulu are based on clan names. For the sake of efficiency, the German plantation on Wuvulu resettled all people into the two present-day villages of Onne and Auna. ${ }^{16}$ Prior to resettlement, the names of locations around the island became associated with clan names. Traditional clan names affect modern patterns of ownership and inheritance. Onne Village was settled by six clans: Baramaia (with territories Ture, Punanora, Piela, Wiwi, Roafe), Male (Rarufu, Foranai, Pora), Timi (Faofao, Purupale, WaluPaPao, Piefolo, Ofabara), Panimala (Ufири?и, Piroa, Arewera, Walue, Wali, Turi), Lifa (Falura, Muri, Amai, Oretala), Onne (Lare, Wala, Bara, Ware, Amai).

Proper location names are often preceded by the locative preposition, $?_{i}$ 'LOC', as in (3.4).
(3.4) na-paPi baua lalaia Pi Onne REAL-have big marriage LOC PROPN 'There is a big wedding in Onne.'

[^14]
### 3.2.3.2 Locative preposition

The locative preposition, $\langle i$ 'LOC', takes a NP location as its object. LRC (87) states that the POc preposition $* i$ governed local and temporal nouns, and its occurrence with a common or personal noun had to be mediated by a directly possessed local noun (POc: *i lalo-ña 'PREP inside-3SG’, cp. Wuvulu: ?i lalo-na 'LOC inside-3SG').

In POc most common nouns occurred with a locative preposition that was mediated by a locative part noun. For example, the locative part noun (lalo 'inside') is required in (3.5).

Pi=na-maPiru Pi lalo fei nopa
3SG=REAL-sleep LOC inside the room
'He slept inside the room.'
A locative part noun is not required if the preposition $P i$ 'at' precedes a familiar place such as pie 'beach' in (3.6).

$$
\begin{array}{ll}
\text { (3.6) } & \begin{array}{l}
\text { Pi=na-maPiru Pi pie } \\
\text { 3SG=REAL-sleep LOC beach } \\
\text { 'He slept at (the) beach.' }
\end{array}
\end{array}
$$

Proper names of places are generally not modified, and can serve as the complement of a locative preposition.

```
(3.7) Pi=na-maPiru Pi Madang
3SG=REAL-sleep LOC Madang
'He slept at Madang.'
```

In (3.8) the preposition $P i$ precedes the locative part noun PaPa 'with'.
(3.8) Pi=li na-to-na mei balu Pi Pa?a meni Ninitapuli

3SG-go REAL-get-TR the child LOC with this PROPN
"He went and got the child, there with Ninitapuli."
Wuvulu is like POc in that the preposition Pi can govern temporal as well as local nouns. In (3.9) the local preposition precedes narani 'tomorrow'.

```
(3.9) fei wa Pi=we-no-mai \(\quad\) Pi narani the canoe \(3 \mathrm{SG}=\mathrm{EV}-\) move- DIR LOC tomorrow 'The ship will come tomorrow.'
```


### 3.2.3.3 Locative part nouns

LRC (87) refers to directly suffixed "locative part nouns ('inside', 'above', 'beneath'...)'. Locative part nouns comprise a small closed set of words that are semantically like English prepositions, but that function in the language like nouns. Wuvulu also has Locative part nouns (cf. Table 3.1) that are semantically similar to English prepositions, but they function like nouns.

Table 3.1 Locative part nouns

| aro | under |
| :--- | :--- |
| lalo | inside |
| mapa | in front of |
| muri | behind |
| pafo | on |
| papa | beside |
| peto | beyond, behind |
| taba | on |
| tuwule | on the other side |
| Pano | outside |
| Pa?a | with, for, to |
| lupua | among |
| memewa | center |
| watola | between |

With regard to morphosyntax, locative part nouns pattern like possessed nouns As we shall discuss more fully in the section on possession (§3.5), there is a class of nouns that take singular possessor suffixes. For example, taba 'head', umи 'house', and Pama 'father' can take the possessor suffix -mu 'POSS. 2 SG ', to give the forms taba-mu 'your head', ити-ти 'your house', and ’ата-ти 'your father'. Morphologically, locative part nouns function in the same way: lalo-mи 'your inside', pafo-mи 'your top', peto-mи 'your backside'. And like a possessed NP, a locative part noun can take the first-, second-, or third-person singular possessor suffixes, $-u$, $-m и$, or -na, respectively.

In (3.10) the suffix, $-n a$ 'POSS.3SG' is attached to the possessed noun, pani 'hand'.
(3.10) na-babaruru pani-na

REAL-excited hand-POSS. 3 SG
'It is exciting to him (his hand)'
In (3.11) the suffix -na 'POSS.3SG' is attached to the locative part noun pafo 'on', following the pattern of the possessed noun in (3.10).
(3.11) na-mariri pafo-na

REAL-cold on-POSS. 3 SG
'Its top is cold'
In $\S 3.5$ we shall see also see that a second strategy for expressing possession in Wuvulu is the juxtaposition of NPs, where the first NP is possessed and the second is possessor. In (3.12) the two NPs are tooth and dog, meaning dog's tooth. (The comma represents a pause.)
(3.12) fei, difō ponoto

ART tooth dog
'That is (the) tooth of a dog.'
The same syntax occurs with locative part nouns, where the first of two juxtaposed nouns is an attribute that is possessed by the second noun. In (3.13), for example, murì 'back' is the possessed attribute, and wa 'canoe' is the possessor of that attribute.
(3.13) Pi=na-ruta murī fei wa
$3 \mathrm{SG}=$ REAL-sit back the canoe
'He sat in the stern of the canoe.'
Note that locative part nouns can optionally be preceded by the locative preposition, $3 i$ ' $L O C$ '.
(3.14) Pi=na-ruta Pi murīfei wa 3SG=REAL-sit LOC back the canoe
'He sat in the stern of the canoe.'
(3.15) Pi=na-maアiru アi muri-na

3SG=REAL-sit LOC back-POSS.3SG
'He sat at its stern.'
For the possesion strategy involving juxtaposed nouns, the final vowel of the first noun is long ( $\$ 2.2 \cdot 2.2 .5$ ). The analysis that locative part nouns function like possessed nouns is further supported by the fact that the ultima of locative part noun is lengthened when it when it precedes another NP, just as it is for the first of two juxtaposed NPs. In (3.12) the first NP difō 'tooth' has a long final vowel. The locative part noun in (3.13)
murī 'back' is like the possessed noun of (3.12) in that it also has a long final vowel. In both cases the possessed NP has a long final vowel and is possessed by the second NP.

There are three locative part nouns that require a non-singular possessor: watola 'between' requires a dual or plural possessor, and lириа 'center' and memewa 'in the midst of' each require a plural possessor. Because they require non-singular possessors, none of the three nouns can take a singular possessor suffix.

Note that the locative part nouns of (3.16)-(3.18) all have final long vowels, as expected for a possessive relationship expressed by means of juxtaposed NPs.
(3.16) $\mathfrak{\imath i = n a ~ r u t a ~ w a t o l a ̄ ~ m e i ~ p i f i n e ~ m a ~ m e i ~ w a w a n e ~}$

3SG=REAL-sit between the woman and the man 'S/he sat between the woman and the man.'
(3.17) Pi=na-ruta lupuā roPolu

3SG=REAL-sit among them
'S/he sat among them.'
(3.18) $\langle i=n a$ ruta memew $\bar{a}$ Pei baßo

3SG=REAL-sit in.the.midst the.PL crab 'S/he sat in the midst of the crabs.'

The locative preposition, Pi 'at' appears before location adjuncts, and it is the only preposition in the language, with the possible exception of na 'to'.

### 3.2.3.4 Familiar Places

Nouns of familiar places require no further specification by modifiers. Familiar places include personal locations such as one's ити 'home', one's rufu 'village' or one's periape 'garden'.
(3.19) Pa-li-na ити

IRR-go-to house
'I will go home.'
The NP ити 'house' in (3.19) is a bare noun. There are no NP modifiers, and there is no possessor suffix. A possessor suffix is unnecessary because a familiar location is understood to be possessed by the speaker.

Familiar places also include public locations. Familiar public locations include polu 'bush', pie 'beach', namo 'reef', and ari 'ocean'. Familiar personal and public locations can also function as common nouns that take determiners.

### 3.3 Noun derivation

A noun is derived from a verb or adjective by the suffixation of $-a$ 'DER'. The verb root ware 'talk' in (3.20) is nominalized in (3.21).
(3.20) Pi=na-ware $b a \quad$ ro=nei=ruta

3SG=REAL-talk that 3PL-DEON-sit
'He said that they must sit.'
The derived noun warea 'word' in (3.21) is the head of a NP that is modified by the demonstrative Peni 'these'.

(3.21) | Peni ware-a |
| :--- |
| these talk-DER |
| 'these words' |

(3.22) | mei weleru ramaPa |
| :--- |
| the short person |
| 'the short person' |

(3.23) | mei weleru-a |
| :--- |
| the short-DER |
| 'the short person' |

(3.24) | fei tare umu |
| :--- |
| the tall house |
| 'the tall house' |

(3.25) | fei tare-a-na |
| :--- |
| the tall-DER-poss. 3 SG |
| 'the tallness of it' |

Because words in Wuvulu are always vowel-final, noun derivation always results in a sequence of two vowels. If the derivation results in a final geminate or diphthong the word will have ultima stress (cf. Chapter 2). Like other nouns, a derived noun can take further suffixation as in (3.26).
(3.26) Peni ware-a-u
these talk-DER-POSS.1SG
'these words of mine'

### 3.4 Pronominals

Wuvulu has both free pronouns and bound pronominals. Verbal pronominal clitics have their origins in free pronouns that were phonologically reduced and attached to a verb stem as coreferential subject and object markers.

Free pronouns can function as subjects and objects. Verbal clitics agree with their antecedents in person and number. The interaction of NP arguments, and verb-marked pronominals is discussed further in Chapter 5. Object clitics are discussed in §3.4.2.2 below.

### 3.4.1 Pronouns

Wuvulu pronouns distinguish in number between singular, dual, and plural; and in person between first, second, and third. First person dual and plural pronouns further indicate inclusive/exclusive reference to the listener.

Table 3.2 Pronouns

|  | singular | dual |  | plural |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| person |  | inclusive | exclusive | inclusive | exclusive |
| 1 | $i-a u$ | Pa-rua | ai-rua | Po-?olu | $a i$-Polu |
| 2 | $i$-oi | amu-rua |  | amu-Polu |  |
| 3 | $i-a$ | la-rua |  | ro-?olu |  |

Contemporary Wuvulu pronouns are fossilized forms. However, they could be analyzed further. Singular forms begin with an initial $i$, with $a u$, oi, and $a$ as first, second, and third person, respectively. Dual and plural pronouns are each composed of two morphemes. For duals, the second morpheme is rua 'two' (POc *rua 'two'); for plurals, it is Polu 'three' (POc *tolu 'three'). First person dual and plural forms distinguish between inclusive, Pa-/Po-, and exclusive, ai (cp. POc *ka[m]i '1.EXCL'). The non-singular second person morpheme is amu- (POc *ka[m]u '2SG'). Third person non-singulars are $l a$ - and ro- ( $\mathrm{POc} *[\mathrm{k}]$ ira ' $3 \mathrm{SG}^{\prime}$ ).

Wuvulu apparently had a trial category (?olu 'three') which eventually came to refer to three or more entities. Singular pronouns in the language are based on POc
independent pronominal forms: POc *[i]au '1SG' > Wuvulu iau; POc *[i]ko[e] '2SG' > Wuvulu ioi; and POc *ia '3sG' > Wuvulu ia. (Note that the pronominal system gives further evidence of the loss of $\mathrm{POc} * \mathrm{k}$ in the language).

### 3.4.2 Verbal clitics

Pronominal clitics in Wuvulu are modified forms of free pronouns that are bound to the edges of a verb stem. In accordance with the SVO constituent order typology of Wuvulu, the grammaticalization of free pronouns has resulted in a set of subject clitics that bind to the initial position of a verb stem, and a set of object clitics that bind to the final position of a verb stem. Verbal clitics serve cross-referentially as subject and objects of a clause, or they can be co-located in a clause with NP arguments. The morphosyntax of clauses is discussed in Chapter 5.

### 3.4.2.1 Subject proclitics

Subject proclitics are thought to have existed in POc, based on the frequency of their appearance in modern Oceanic languages. Wuvulu subject proclitics resemble one of the three possible sets of reconstructions for proto forms of subject clitics given in LRC (68).

Table 3.3 shows singular subject clitic forms in POc and Wuvulu. The first person singular clitic POc *au= apparently coalesced into Wuvulu $P u=$. The second person clitic is consistent with the deletion of POc *k in Wuvulu. The only plural form reconstructed for POc is the third person form *ra= ( cp . Wuvulu $r o=$ ' 3 PL ').

Table 3.3 Singular subject clitics in POc and Wuvulu

| person | POc | Wuvulu |
| :---: | :---: | :---: |
| 1 | $* a u=$ | $P u=$ |
| 2 | $* k o=$ | $P o=$ |
| 3 | $* i=$ | $P i=$ |

In (3.27) there are four subject proclitics. The first instance, $P i=l i$ can be glossed as 'it goes' where 'it' commonly refers to a span of time, and functions at the discourse level to move the storyline forward.
 so, 3 SG -go 3PL=IRR-go 3SG=REAL-talk COMP okay 2PL=DEON-INTS-sleep "So time went by, as they went, he said, "Okay, you must sleep deeply."

Subject clitics are discussed further in the context of verbal morphology in Chapter 4.

### 3.4.2.2 Object Enclitics

Object enclitics have their origins in free clausal pronouns that have undergone phonological reduction. As postulated for POc, Wuvulu has only singular object enclitics. For transitive constructions in POc, if the verb was vowel final, the object enclitic, *- $a$ was directly attached. Otherwise, the close ('short') transitive suffix, *- $i$, was added, followed by the object enclitic (Evans, 1997). Wuvulu object enclitics attach to transitive verbs that do not have a final historical consonant, e.g., talu 'bite'.

$$
\begin{aligned}
& \text { (3.28) } 3 i=n a-t a l u=a u \\
& \text { 3SG=REAL-bite=1SG } \\
& \text { 'It bit me.' }
\end{aligned}
$$

Object enclitics distinguish $1 / 2 / 3$ singular. The first person enclitic is identical to its POc counterpart. The second and third person enclitics $=i o$, and $=i a$ are likely fossilized from the POc transitive suffix $*-i$ and the object forms $=o$, and $=a$ respectively (*k has been lost in Wuvulu).

Table 3.4 Object clitics in POc and Wuvulu

| person | POc | Wuvulu | free pronoun |
| :---: | :---: | :---: | :---: |
| 1 | $*=a u$ | $=a u$ | iau |
| 2 | $*=k o$ | $=i o$ | ioi |
| 3 | $*=a$ | $=i a$ | ia |

```
(3.29) ware-fana=au
    talk-give=1SG
    'Tell me.'
(3.30) Pi=na-talu=io
    \(3 \mathrm{SG}=\) REAL-bite \(=2 \mathrm{SG}\)
    'It bit you.'
(3.31) Pi=na-talu=ia
    3SG=REAL-bite=3SG
    'It bit her.'
```

(3.32) Pana Paba $3 o=w e-t a l a i-t o-t o-$ Pua=ia
also NEG 1PL.INCL-will-walk-RED-get-only=3SG
"Also, we won't just walk around taking things."

As discussed in §4.5.3.2, allomorphs of object enclitics have an initial thematic consonant.
(3.33) $и п и=$ mia
drink $=3$ SG
‘Drink it!'
Pi=na-tafi=Pia
3SG=REAL-carve=3SG
'He carved it.
(3.35) Pi=na-timi=nia

3SG=REAL-throw=3SG
'She threw it.'
(3.36) mei pifine namo na-ware PaPa-na ba fufu=Pia Pei lepo-mи the woman reef REAL-talk with-3SG COMP lift=3sG the net-2SG
'And the woman of the reef said to her, "Lift your nets."'

### 3.4.3 Inclusory pronominals

Lichenberk (2000:3) refers to "inclusory pronominals" in certain Oceanic languages (such as Toqabaqita). Wuvulu also has Inclusory pronouns. An inclusory pronominal is essentially a type of NP in which a pronoun precedes another noun and defines a set of which the second noun is a member. In (3.37) the first person inclusive dual pronoun airua defines the set of actors; the proper noun, Peter is included in the set of two.
(3.37) airua Peter na-li-na polu

PRON.1DU.EXCL PROPN REAL-go-S.TR bush
'Peter and I went to the bush.'

The included NP can also be a pronoun. Unlike (3.37), in which the included NP is a proper noun (Peter), in the context of (3.38), the listener is salient of the antecedent of larua 'PRON.3DU'.
(3.38) aiłolu larua na-li-na ari

PRON.1DU.EXCL PRON.3DU REAL-go-S.TR sea
'We went to the sea with the two of them.'

Inclusory pronominals can occur in subject position, as in (3.37), and (3.38), but they can also occur in recipient position as in (3.39).
(3.39) ro=na-ware-na PaPa airua Lois

3PL=REAL-talk-S.TR with PRON.1DU.EXCL PROPN
'They talked with me and Lois.'
Finally, inclusory pronominal constructions can also function in questions, as in (3.40).
(3.40) aтигиа ini?

PRON.2DU who
'You and who?'
(3.41) amиРои ini?

PRON.2PL who
'You all, and who else?'

### 3.4.4 Sociolinguistic functions

The semantics of certain pronouns have been extended to take on secondary meanings that are determined by social factors. In particular, inclusive pronouns are used as a means of persuasion, and the second person dual pronoun is used as an honorific address form.

### 3.4.4.1 Inclusive Exhortation

Inclusive first person dual and first person plural pronouns are used rhetorically to persuade, or to mitigate exhortation. By using a first person form, the speaker includes herself or himself, indicating some responsibility in heeding the exhortation, and thereby mitigating some of the responsibility of the listener.
(3.42) lomi narawani ba Parua to nia Pa?a fei

NEG good CMPL PRON.1DU.INCL get fish with it 'It is not good for us to get fish using it [poison]'

Another rhetorical device is to use a dual inclusive pronoun (or proclitic), rather than a plural form, to refer to "the two of us" when addressing more than one person with
a deontic. The effect is that the speaker is having a personal conversation with each listener.
(3.43) Paru=nei-roba=ia fei malalarufu

1DU.INCL=DEON-cut=3SG the field
'The two of us must cut the grass (addressing a group).'

### 3.4.4.2 Inclusive Ownership

In Wuvulu, a common way of asking to borrow a possession is to refer to the possession with an inclusive pronoun, thus implying shared ownership. This is accomplished by means of a possessive construction of juxtaposed NPs, with the possessed NP followed by an inclusive pronoun (possessor NP).
(3.44) na-rawani ba $\quad$ Pu=Pa-to-na wiliwili Parua REAL-good CMPL 1SG=IRR-take-TR bicycle PRON.1DU 'Is it okay that I take "our" bicycle?'

### 3.4.4.3 Honorific Dual

In-laws have a very strong respect relationship with one another, such that they avoid joking or talking about sensitive topics. Another way that in-laws show respect is that they address one another with the second person dual pronoun, amиrиa 'you two'. The reference is literally used to address two people, but it is also used as an honorific with in-laws to address one. The second person dual reference expresses the idea that the listener is equal to two people. A shortened alternate of amurua 'you two', is meru. The phrase mafufuo, meru 'Good morning, you two', for example, can be used to address either two people, or one in-law.

### 3.5 Possession

There are two ways of expressing possession in Wuvulu: the juxtaposition of two NPs, where the first is possessed by the second; or the inflection of a noun by a suffix for singular pronominal possessors. Either way, the first entity is the possessed NP, and the second is the possessor, encoded by a NP or by a suffix:

```
NP (possessed) NP (possessor)
NP (possessed)-suffix (possessor)
```

In the literature of Oceanic linguistics, "direct possession" is based on the semantic notion of inalienability, where there is an inherent relationship between the possessed and the possessor. Kin and body parts are prototypically inalienable because people are born with them. Other nouns that are also considered inalienable include familiar places (e.g., one's umu 'house'), and indispensable objects (such as wa 'canoe' and walu 'bush knife').

Indirect possessions are classified alienable because they are not considered to be inherently related to the possessor. An alienable noun cannot take a possessor suffix, but in its stead, a classifier is suffixed (cf. §3.5.2.2).

### 3.5.1 Juxtaposed NPs

As mentioned in $\S 3.5$, two NPs can be juxtaposed to indicate possession, where the first NP is the possessed and the second NP is the possessor as in (3.45).
(3.45) tabā rama?a
head person
'head of a person’
Because the juxtaposition of two NPs is itself an NP, this resultant NP can be a NP possessor in a recursive structure. In (3.46) [tabā [ramaia]] "person's head" serves as an embedded NP (possessor) in [ubē [tabā [ramaPa]]].
(3.46) ubē tabā ramaia
coconut.shell head person
"skull of a person's head"
As noted in §2.2.2.2.5, the first of juxtaposed NPs has a final long vowel. In the embedded structure of (3.46) both possessed NPs have final long vowels as a result of possessive formation.

For alienable nouns, a classifier is juxtaposed with a following possessor NP as in (3.47). (The comma indicates a pause.)
(3.47) ape ro?olu, ponoto

CLASS.general PRON.3PL dog
'Their pet dog'

### 3.5.2 Possessor suffixes

A possessor suffix can be attached either attached directly to an inalienable noun, or it can be attached to a possessive classifier. Inalienable nouns include body parts, kin terms, locative part nouns, and derived nouns. The Wuvulu possessor suffixes are: -и 'my', -ти 'your', and -na 'his/her/its’ (cp. POc: *-gu 'my', *-mu 'your', and *-ña ‘his/her/its' (Ross, 1988:112)).
(3.48) taba-na
head-POSs.3sG
'his head'
For alienable nouns, a classifier takes the possessor suffix:
(3.49) ape-na, ponoto

CLASS.general-POSS.3sG dog
'his dog'
(3.50) ape-na

CLASS.general-POSS.3SG
'his possession'
(3.51) ana-ти

CLASS.general-POSS.2SG
'your food'
(3.52) пита-и

CLASS.general-POSS.1SG
'my drink'

### 3.5.2.1 Direct Possession

Directly possessed nouns denote entities that are inherent, or semantically inalienable from the possessor; indirectly possessed nouns denote entities that are considered alienable, so they do not take possessor suffixes. The underlying semantics related to the alienability of a noun are not necessarily obvious in the synchronic grammar.

Wuvulu conforms to the POc pattern for inalienable nouns: "Directly possessed nouns in POc probably included most body parts, most kin terms, and most locative parts..." (LRC (76)).

### 3.5.2.1.1 Body Parts

Body parts (such as taba 'head') can take a direct-possession suffix -u 'my', -mи 'your', or -na 'his/her/its'.
(3.53) a. taba-u 'my head'
b. taba-mи 'your head'
c. taba-na 'his/her/its head'

All body parts take direct possessor suffixes, except genitalia (cf. §3.5.2.2.3).

### 3.5.2.1.2 Kin Terms

The Wuvulu kin system seems to be close to the end of a shift from an Iroquois kin system which distinguishes between cross cousins and parallel cousins, and a Hawaiian kin system which classifies cousins as siblings, nephews and nieces as children, and aunts and uncles as parents.

Kin terms take singular possessor suffixes, as in Pama-и 'my father', Pama-mи 'your father', Pama-na 'his/her/its father'. In (3.54) the suffixed head noun naPu 'child' is modified by the definite article mei, which is optional.
(3.54) na-wanini-li mei na?u-na

REAL-birth-PRF the child-3SG
'Her child was already born.'
Most consanguineal kin terms are known and used by all speakers and include the words Pama 'father' (POc *tama), Pina 'mother' (POc *tina), na?u 'child', lofu 'brother of male', Pari 'opposite-gender sibling', tafi ‘sister of female', Рири 'grandchild, grandparent'. Affinal kin terms are: aro 'spouse', ramaia 'in-law', tala 'spouse of kin as road or path to in-laws'.

There are three consanguineal kin terms that are not well known among younger speakers, primarily because the relationships that they imply are no longer in place in society. These terms are considered archaic and are likely to be lost: ara "male's sister's son", the reciprocal term ola "male's mother's brother", and the bidirectional term wane "female's father's sister, female's brother's daughter". In contemporary Wuvulu, cross cousins refer to one-another as siblings. People also refer to a paternal uncle as father and
a maternal aunt as mother. Nephews and nieces are referred to as children. Details of the Wuvulu kin system are documented in Hafford 2006.

### 3.5.2.1.3 Derived Nouns

Derived nouns are frequently used with direct possession. In (3.55) the head noun of the phrase ?ei wareamu 'your words' consists of a noun derived from the verb ware 'talk' (> ware-a 'word'). The derived noun takes the direct possessor suffix, -mu 'your'. Phrasal syntax further indicates that wareamu 'your word' is a noun because it can be preceded by the plural demonstrative $P e i$ 'the'.

```
(3.55) faРиа Pei ware-a-ти
    true the talk-NOM-2SG
    'Your words are true.'
```


### 3.5.2.2 Indirect Possession

Alienable nouns cannot take a direct possessor suffix. Instead, a possessive classifier is used in place of the alienable noun to host a possessor suffix. There are three classifiers used with possessive reference to alienable nouns: ana 'food' (POc *nak 'to eat'), numa 'drink' (POc *unum 'to drink'), and ape 'general', a classifier of all other alienable possessions, including stories, wood carvings, pets, and genitalia. All three classifiers take direct possessor suffixes - $\quad$ 'my', -mи 'your', and -na 'his/her/its', where the classifier functions in the place of an alienable noun noun such as 'food', 'drink', or 'general possession'. The suffixed classifier is optionally followed by the alienable noun as in, ana-u, fula 'my food, taro'.

### 3.5.2.2.1 Food Classifier, ana

In (3.56) the classifier for food ana takes a possessor suffix and is optionally followed by the explicit alienable noun. The noun nia 'fish' indicates the specific food that the classifier ana refers to.


In (3.57) there is no mention of the alienable food noun. In the absence of an explicit noun the classifier can refer to the general class (give me food), or it can be co-referential with an antecedent (as in nia 'fish' in (3.56)).
(3.57) fani ana-u
give CLASs.food-1SG
'Give (me) my food.'

### 3.5.2.2.2 Drink Classifier, numa

In (3.58) the classifier numa 'drink' takes the direct possessor suffix -mu followed by the alienable noun ири 'green coconut'. Again, the presence of the specific alienable NP (in this case, ири 'green coconut') is not required if understood from context.
(3.58) to-па пита-ти ири take-TR CLASS.drink-2SG green.coconut 'Take your coconut (to drink).'

### 3.5.2.2.3 General Classifier, ape

The alienable general classifier, ape, is used with alienable nouns that are not included in the categories of food or drink. This category includes general possessions such as stories, pets, and genitalia, e.g., ape-и PuPura 'my story', and ape-mи ponoto 'your dog'.
(3.59) Pi=na-to-na fei ape-na ponoto

3SG=REAL-take-TR the CLASS.general-3SG dog
'She took her dog.'
Contrary to the pattern of direct suffixation for body parts, the classifier ape is used with terms related to genitalia. The inalienable possessor suffix is typically used in possessive reference to body parts, but such references to genitalia are an exception. A possible motivation for the substitution of the classifier is to interpose a level of indirect reference for the sake of modesty whereby the speaker can avoid explicit reference to terms for the genitalia by using only the suffixed classifier without the co-referential NP.

### 3.6 NP structure

The structure of a NP in POc (adapted from LRC (75)) is given in (3.60): ${ }^{17}$

## POC NOUN PHRASE STRUCTURE

ART + (NUMBER/QUANTIFIER +) NOUN (+ MODIFIER) (+ DEMONSTRATIVE)

## WUVULU NOUN PHRASE STRUCTURE

(ART/DEMONSTRATIVE +) (NUMBER/QUANTIFIER + ) (MODIFIERS +) NOUN (+ MODIFIER)
In POc, an optional demonstrative occurred as the final constituent of a NP (cf. (3.60)). In Wuvulu, an optional demonstrative is in complementary distribution with articles (cf. (3.61)). In both POc and Wuvulu, the second constituent position of a NP is occupied by an optional number/quantifier. Also, in both languages, an adjectival modifier optionally follows the head noun. In Wuvulu, however, there is also a position immediately before the head noun that can be optionally occupied by an intensifier and one or two adjectives.

### 3.6.1 Articles and demonstratives

Demonstratives in the language distinguish between two categories of animacy. Animate entities include humans and spiritual beings, including ani?u 'spirit of the dead, devil' (PMP *qanitu 'spirit of the dead') and, pirea 'evil spirits', from Wuvulu traditional religion. In the past 50 years, God, Satan, angels, and other spiritual beings have been incorporated into Wuvulu the animacy system.

In the same way that the phonological features of a borrowed word, are adapted to the phonology of the borrowing language, the animacy features of the Wuvulu grammar, and of the Wuvulu traditional religious system, have been adapted to accommodate the animacy domain of Christianity, where God, angels, and other spiritual beings are classified as animate, as are spiritual beings in the traditional religion of Wuvulu.

[^15]
### 3.6.1.1 Articles

LRC (38) states that languages of Manus generally do not have articles. According to Wozna \& Wilson 2005, the Seimat language (Wuvulu's closest linguistic sister) also has no articles. Wuvulu is an exceptional Admiralty language in that it has indefinite articles. Definiteness is specified with demonstratives.

Wuvulu has two indefinite articles that distinguish between animate and inanimate nouns. Indefinite articles are based on the number one. The article epalo 'one, a/an' is used with inanimate nouns, and the article emea 'one, a' is used with animate nouns.
(3.62) ia emea rama?a $i=n a-f a u f a u$
he one person 3SG=REAL-strong
'He was a person who was strong.'
(3.63) i=na-papi epalo ape larua, palu

3SG=REAL-have one CLASS.gen PRON.3DU pigeon
'There was a pet that belonged to the two, a pigeon.'
In Wuvulu discourse indefinite articles function to introduce participants, and definite demonstratives are used for subsequent reference.

### 3.6.1.2 Demonstratives

Ross 2004 states that demonstratives which exhibit a three-way distinction in distance are common in Oceanic languages, and that such a distinction was likely present in Proto Oceanic (177):

> Demonstratives in Oceanic languages usually make a three way distinction based either on person-near speaker, near addressee, near neither or near a third person-or on relative distance-proximal, intermediate, distal-or on a mixture of both. With some systems it is difficult to distinguish between these two possibilities as their members seem to be used in both ways. So widespread are such three-way systems that it is virtually certain that Proto Oceanic had such a system, and it is reasonably certain that it was person-oriented, as are the majority of systems in both Oceanic and non-Oceanic Austronesian languages.

Wuvulu demonstratives are based a three-way distinction in distance from the speaker. The sequences ?eni ‘close’, Pena ‘far', and Pei ‘unspecified’ (distance) are fossilized in the demonstratives.

Table 3.5 Demonstratives and articles

| type | demonstratives |  |  | articles |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| distance | close | far | unspecified | n/a |  |
| singular | animate | meni | mena | mei | emea |
|  | inanimate | feni | fena | fei | epalo |
|  | Peni | Pena | Pei | efi?a |  |
| definiteness |  |  |  |  |  |

Although the Wuvulu demonstrative system is based on only three morphemes, the referential possibilities are fairly rich. The plural, close demonstrative Peni is glossed 'these' in reference to close objects, 'now' in reference to time, and 'close anaphor' in reference to discourse material. Along these same lines, the plural, far demonstrative Pena is glossed 'those' in reference to objects, 'then' in reference to time, 'distant anaphor' in reference to antecedent discourse material. The plural demonstrative that is unspecified for distance, $P e i$ is used somewhat generally to reference plural entities, time, and antecedent discourse material without regard to proximity.

Singular demonstratives and articles modify nouns for animacy, but plural demonstratives and articles do not modify nouns for the feature of animacy. Singular demonstratives and articles distinguish between animate and inanimate. The word initial consonant of singular demonstratives and definite articles is /f/ for inanimate forms, and $/ \mathrm{m} /$ for animate forms. The three base forms Pei/Reni/Rena 'the'/'these'/'those' all specify plural referents with no specification of animacy. Animate reference in Wuvulu is limited to humans, ancestor spirits, divine messengers, and other spiritual beings with personality.
(3.64) meni Pama 'this father' feni wa 'this canoe'
(3.65) mena Pama 'that father'
fena wa 'that canoe'
(3.66) mei ?ama 'the father' fei wa 'the canoe'

Pi=na-ware Pa?a mei ponoto 3SG=REAL-talk with the police
'He talked with the policeman.'
(3.68) fei paiwa na-talu-a mei wawane the shark REAL-bite-TR the man 'The shark bit the man.'
(3.69) Pei rama?a na-uri pafo wa the people REAL-jump on boat 'The people boarded the ship.'

The most basic use of demonstratives occurs in speech acts in which referents are present in the context of the speaker-hearer, where reference indicates relative distance from the speaker, even if the referents are a great distance. So in Wuvulu it is natural to refer to a constellation of stars as close relative to a group of stars that is perceived to be far, as in (3.70).
(3.70) Peni pi?и na para we?ai these star REAL very light
'These stars are very bright'
In (3.71) the speaker uses a far demonstrative, "those", because a group of stars appears to be far relative to another group of stars.
(3.71) アena pi२и na we?ai
those star REAL light
'Those stars are bright'

### 3.6.1.2.1 Particular referents

A feature of demonstratives is that they can be used to "sandwich" NP in order to refer to it in particular.
(3.72) mei rama?a mei, ia, ripe wawane
the person the PRON. 3 SG big man
"That particular person is a big man."
(3.73) meni rama?a meni, na-lalai minoa
this person this REAL-marry yesterday
"This particular person, married yesterday."
(3.74) feni २иРиra feni, ३u?ura mina
that story that story past
"That particular story is a story of the past."

### 3.6.1.2.2 Pronominal Demonstratives.

Wuvulu demonstratives can function pronominally as NP arguments. The demonstrative mena in the following example functions as the object of the verb.
(3.75) ro=nei-no-lura-mi mena

3PL-DEON-move-get-come that
'They must fetch that (person).'
A demonstrative can also be post-verbal and it can be co-referential with the third person subject clitic $3 i=$ ' 3 SG ' or $r o=' 3 \mathrm{PL}$ '.

Pi=na-no-mai fena
3SG=REAL-move-DIR that
'That (thing) came.'
(3.77) ro=na-no-mai Pena

3PL=REAL-move-DIR those
'Those (people/things) came.'
Pronominal demonstratives can also be used in equational clauses. Equational clauses in the language are juxtaposed NPs with a null copula that are distinguished phonologically by phrasal stress on the first NP and a pause before the second NP.
(3.78) a. feni, aiai 'this is a tree'
b. aiai, feni 'this is a tree'
c. iau, meni 'It is I'
d. ponoto, feni 'this is a dog'
e. feni, baua ponoto'this is a big dog'
f. baua ponoto, feni 'this is a big dog'
g. mena, napu-u 'that is my child'
h. na? $u-u$, mena 'that is my child'

Demonstrative identifiers in Wuvulu specify for distance, animacy and number.
A demonstrative can serve as a minimal NP as in (3.79).
(3.79) ro=na-birip-a feni

3PL=REAL-work-TR this
'They did this.'

### 3.6.1.2.3 Adverbial Demonstratives

Wuvulu demonstratives can serve adverbially to indicate the location of the verbal activity.

Pi=na-Pau=ria ieni
3SG=REAL-put=3SG here
'He put it here.'
ro=nei-2ule iei
3PL=DEON-stay there
'They must stay there.'
(3.82) ro=nei-Pule iena

3PL=DEON-stay there
'They must stay there (distant).'
There are three morphemes that occur with demonstrative morphemes to indicate location are $3 i-$ 'at', pepe- 'beside', and fawele 'vicinity'. The preposition $3 i$ 'at' has been fossilized in the forms ieni 'here', iena 'there' (further), iei 'there'. The form pepe'beside' is similar in shape to the locative part noun papa 'beside'. The form fawele 'vicinity' is fossilized from $f a$ 'causative' + welo 'round'. Locational forms are given in Table 3.6.

Table 3.6 Combinations of locative and demonstrative forms

| at | beside | vicinity |
| :--- | :--- | :--- |
| i-eni 'here' | pep-eni 'this side' | fawel-eni 'close vicinity' |
| i-ena 'there' | pep-ena 'the far side' | fawel-ena 'distant vicinity' |
| i-ei 'there' | pep-ei 'beside' | fawel-ei 'vicinity' |

Locational forms for beside and vicinity are preceded by the locational preposition, ?i. Locational forms with distance morphemes typically function in adjuncts to a core clause.

### 3.6.1.2.4 Equivalence and Similarity

There are two morphemes that can be prefixed to definite determiners in order to give meanings of identification and similarity. The prefixes $t i$ - 'it is' and ale- 'like' can combine with the nine demonstratives given in Table 3.7.

Table 3.7 Combinations of identification/similarity and demonstrative forms

| ti- 'it is' ale- 'like' | + | meni 'this' | mena 'that' | mei 'the' | animate |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | feni 'this' | fena 'that' | $f e i$ 'the' | inanimate |
|  |  | Peni 'these' | Pena 'those' | Pei 'the' | plural |

The identification morpheme $t i$ 'it is' combines with definite forms to give the meanings timeni 'this is the (person)', timena 'that is the (person)', timei 'it is the (person)'; tifeni 'it is this (thing)', tifena 'it is that (thing)', tifei 'it is the (thing)', ti?eni 'it is these (things/people)', tiPena 'it is those (things/people)', tỉei 'it is the (things/people)'. In addition to its function in deixis involving real world objects, the word tiPei can also be glossed 'therefore' (cf. (3.2)).

The comparison morpheme ale- 'like' occurs with each definite form to give the meanings alemeni 'like this (person)', alemena 'like that (person)', alemei 'like the (person)'; alefeni 'like this (thing)', alefena 'like that (thing)', alefei 'like the (thing)', ale?eni 'like these (things/people)', ale?ena 'like those (things/people)', ale?ei 'like the (things/people)'.

### 3.6.2 Numbers/Quantifiers

A number or quantifier optionally occurs in the second constituent position in a noun phrase:

NP $=($ ART/DEMONSTRATIVE +$)($ NUMBER/QUANTIFIER +$)($ PREMODIFIERS +$)$ NOUN $(+$ MODIFIER $)$.
It is possible to have a NP consisting only of a number/quantifier and the head noun:
(3.83) Pi=na-tafi-Pa oloroa wa 3SG=REAL-carve-TR six canoe 'He carved six canoes.'

In addition to the obligatory head noun, a number/quantifier can co-occur with other optional constituents as in (3.84) (cf. § 3.6.3).
(3.84) Pena aipani baua tarea rama?a afelo ro=na-no-mai those five big tall person bad 3PL=REAL-move-come 'Those five big, tall bad people came.'

### 3.6.2.1 Numbers

Many Oceanic languages have base 10 counting systems (LRC:39):
The most widely distributed pattern of numerals in Oceanic languages is based on a decimal system, found throughout Polynesia and Micronesia, as well as in much of Melanesia. These languages often also have separate lexical items for 'hundred' and 'thousand'.

The basic Wuvulu system is a base five system that functions as a base 10 system in that the counting repeats in groups of 10 . The Wuvulu word for five is based on the word for 'hand'(pani).

There are two systems for counting based on animacy, with morphemes for 100 and 1000 . The two base 10 counting systems distinguish between animacy. The animate system is used to count people and spiritual beings; the inanimate system is used for counting inanimate objects, as well other species of living things including flora, fauna, and fishes.

### 3.6.2.1.1 Counting

The first four Wuvulu numbers are related to the first four numerals of the Proto Oceanic language. Table 3.8 gives the Wuvulu numerals for 1-10, together with their POc etymologies (from LRC,72).

Table 3.8 POc etymologies of Wuvulu numbers

| gloss | Proto Oceanic | Wuvulu morphemes | Inanimate | Animate |
| :--- | :--- | :--- | :--- | :--- |
| 1 | *kai | ai/e 'one '; palo 'thing'; mea person' | e-palo | e-mea |
| 2 | *rua | rua, roa '2'; larui 'two people' | rua-palo | e-larui |
| 3 | *tolu | Polu '3'; manu 'thing'; | Polu-manu | Po?olui |
| 4 | *pati, *pat | fa '4' | obao | runaroa |
| 5 | *lima | ai-pani 'one hand=5' | aipani | aipani |
| 6 | *onom | Polu-roa '3x2' | Poloroa | Poloroa |
| 7 | *pitu | Polo-roa-ma-epalo '(3x2)+1' | Polorompalo | Poloromea |
| 8 | *walu | fai-na-roa '4x2' | fainaroa | fainaroa |
| 9 | *siwa | fai-na-roa-ma-epalo '(4x2)+1' | faimpalo | faimea |
| 10 | *sa[-na]-puluq | $e^{\text {'1'; } 1 \text { fua 'fruit' }}$ | efua | efua |

It is interesting to note that Seimat has a counting system involving the number five. Seimat is Wuvulu's closest linguistic sister, and the languages have cognate terms for the first three numbers, and for the number five. Seimat counting specifies the number of hands (te-panim 'one hand') and the number of digits (1-4). Three hands and four is
19. The number 20 is seilon 'person'. Numbers up to 500 are combinations of people, hands, and digits.

### 3.6.2.1.2 Morphemes for $\mathbf{1 0}, \mathbf{1 0 0}, 1000$

The most frequently used counting systems are decimal (base 10) systems used for counting ordinary objects. The conjunction $m a$ 'and' is used in number formation for numbers in which there is a tens place number and a units place number. For example, efua ma epalo 'ten and one $=11$ '; efua ma ruapalo ' $10+2$ '; faimfua paraniana ma faimpalo ' $90+9$ '. The morpheme pa?aniana denotes the tens place, pu?u denotes the hundreds place, and pufaba?a denotes the thousands place. In Table 3.9 numbers are given for one through nine, counting by tens, and counting by hundreds.

Table 3.9 Counting by 10, 100, 1000

| 10 efua papaniana | 100 efиа ри?и | 1000 efua pufaba?a |
| :---: | :---: | :---: |
| 20 Репи paPaniana | 200 Репи риРи | 2000 Репи pufabapa |
| 30 Polufua paPaniana | 300 ?olufua pu?и | 3000 Polufua pufabapa |
| 40 runaroa papaniana | 400 runaroa pu?и | 4000 runaroa pufaba?a |
| 50 aipani paPaniana | 500 aipani pupи | 5000 aipani pufaba?a |
| 60 olora paPaniana | 600 olora pupu | 6000 olora pufaba?a |
| 70 oloramfua papaniana | 700 oloramfua pu? | 7000 oloramfua pufaba?a |
| 80 fainaroa papaniana | 800 fainaroa ри?и | 8000 fainaroa pufabapa |
| 90 faimfua pa?aniana | 900 faimfua pu? | 9000 faimfua pufabapa |

### 3.6.2.1.3 Counting by $2,4,16$

Wuvulu has specific lexical forms associated with counting by increments of two, four, and sixteen. These systems are ideal for counting coconuts tied in pairs by strands of their husks. The pairs are configured into groups of 16 coconuts or partial groups of 16. Fluency in counting was a prized skill during the days of the coconut plantation. The elderly population of present-day Wuvulu speakers is the last generation whose parents were alive during the plantation days of the early 1900s. The right column of Table Table 3.10 shows a base 16 system that increments by 4 .

Table 3.10 Counting by 2, 4

| 2 | roa | 4 | Pobao |
| ---: | :--- | ---: | :--- |
| 4 | rua | 8 | rua?o $(2 \times 4)$ |
| 6 | Polu | 12 | Polu?o $3 \times 4)$ |
| 8 | fa | 16 | emoro (1x16) |
| 10 | rea | 20 | emoro ma ?obao |

Table 3.11 lists base 16 forms through $100 \times 16$, but the hundreds place continues with ruapu? ' $900 \times 16$ '.

Table 3.11 Hexidecimal counting

| 1x16 emoro | 11x16 Pawanaemoro | 10x16 epi?i |
| :---: | :---: | :---: |
| 2x16 ruamoro | 12x16 Pawanaruamoro | 20x16 ruapipi |
| $3 \times 16$ Polumoro | 13x16 Pawana?olumoro | 30x16 Polupi?i |
| $4 \times 16$ runaroamoro | 14×16 Pawanarunaroamoro | 40x16 runaropipi |
| $5 \times 16$ aipanimoro | 15x16 Pawanaaipanimoro | $50 \times 16$ apanipi?i |
| 6x16 oloroamoro | 16x16 Pawanapoloroamoro | 60x16 PoloroapiPi |
| 7x16 Poloroamamoro | 17x16 ?awana?olorompalomoro | 70x16 Poloromfuapipi |
| 8x16 fainaroamoro | 18x16 ?awanafainaroamoro | 80x16 fainaroapipi |
| 9x16 faimamoro | 19x16 Pawanafaimpalomoro | 90x16 faimfuapi? |
| 10x16 epipi | 20x16 ruapipi | 100x16 efapu?ирi̧i |

### 3.6.2.2 Numeral Classifiers

Numeral classifier systems are somewhat of an areal phenomenon among Admiralty languages, including Wuvulu (LRC: 39):

Some languages of Micronesia and the Admiralties, as well as the languages of the Livila family as characterized by fairly elaborate systems of numeral classifiers which are either postposed to the numeral, or directly suffixed to it.

Wuvulu classifiers are still fairly well known among the elderly, but they are not widely used in younger generations of speakers. Counting classifiers are morphemes that combine with numerals, and which classify counted entities according to some physical or dimensional property, such as length, shape, or bi-sectional cuts (cf. Table 3.12).

Table 3.12 Counting classifiers

| Class | one | two | three | four | five | six |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| flat things | $\begin{aligned} & e- \\ & p a p a \end{aligned}$ | ruaрара | Polu- <br> papa | runaroa- <br> papa | $\begin{aligned} & \text { aipan- } \\ & \text { papa } \\ & \hline \end{aligned}$ | Poloroa- <br> papa |
| long things | $e$-tui | rua-tui | Polu-tui | runaroa-tui | aipan-tui | ?oloroa-tui |
| round things | $e$-wipi | rua-wipi | Polu-wi?i | runaroa-wipi | aipan-wi?i | ?olaroa-wipi |
| long edibles | $e$ nono | ruanono | ?olu- <br> nono | runaroanono | $\begin{aligned} & \text { aipan- } \\ & \text { nono } \end{aligned}$ | ?oloroa- <br> nono |
| bisected things | ewaru | ruawaru | ?olu- <br> waru | runaroawaru | aipan- <br> waru | Polaroawaru |
| not known | $e$-wilo | rua-wilo | ?olu-wilo | runaroa-wilo | aipan-wilo | ?olaroa-wilo |

Elicited data on numeral classifiers involve only the counting of entities. So, counting sheets of paper is just epapa 'one', ruapapa 'two', ?olupapa 'three'...etc. For the bisection of things the speakers simply counts as she or he makes the cut, ewaru, ruawaru, Poluwaru '1, 2, 3, ...' Further research should be conducted in order to determine whether these morphemes can be used in combination with other elements in a phrase, or whether they can be used in any other manner. In contemporary Wuvulu, speakers usually use just two systems for counting-one for people, and one for all other entities.

### 3.6.2.2 1 Ordinal Numbers

Available data show ordinal counting to be limited to the three terms: first, second, third, but further research may prove that they go beyond this. Ordinal numbers are formed by suffixing -poa to the number root of the inanimate set: e-poa 'first', ruapoa 'second', Polu-poa 'third'. The ordinal morpheme, -poa is not used in any other context, and appears to be fossilized with the numerals as epoa, ruapoa, ?olupoa.

### 3.6.2.3 Quantifiers

Wuvulu has a small set of quantifiers that modify the head noun of a NP. With respect to syntactic distribution, quantifiers and numbers are mutually exclusive in that they occupy the same constituent position in a NP (cf. (3.61)).

## Table 3.13 Quantifiers

```
epepalo 'each (inanimate, count)'
ememea 'each (animate, count)'
epalo 'one, indefinite article (inanimate, count)'
emea 'one, indefinite article (animate, count)'
lomi epalo 'not one (inanimate)'
lomi emea 'not one (animate)'
epalo liai 'another (inanimate, count)'
emea liai 'another (animate, count)'
efia 'some (in/animate, mass/count)'
maPila 'small amount (mass)'
wataula 'much, many (mass)'
mina 'all'
```

Wuvulu quantifiers reveal a distinction between mass nouns and count nouns.
Mass nouns include malarufu 'soil', ranu 'water', Pari 'salt', luPua 'food', rara 'blood', pie 'sand', and tiara 'rice'. Count nouns include countable objects, e.g., nia 'fish', palu 'pigeon', io 'spear', and ити 'house'.Quantifiers in the language include words like efia 'some', wataula 'many', maPila 'small amount', and mina 'all'. Quantifier words come before the head nouns they modify, but an adjective can be interposed between a quantifier (or number) and a head noun. Quantifiers such as mailila 'small amount' can modify only mass nouns such as ranu 'water' and rara 'blood'. Quantifiers, such as epepalo 'each (inanimate)' can modify only countable nouns such nia 'fish' and aiai 'tree'.

As the following examples show, there is some flexibility in how words are classified. In (3.85) the phrase wataula maumau 'many shapes', the quantifier wataula patterns as an adjective of the head noun maumau 'shape'; but in (3.86) wataula functions adverbially to modify the verb rararapa 'wander'.
(3.85) Pi=na-paPi wataula maumau Pei papalei

3SG= REAL-have many shape the.PL cloud
'The clouds have many forms.'
(3.86) ma Po=?a-ra-ra-rapa wataula, and 1SG=IRR-RED-RED-wander much
'And if you gallivant a lot,
maPila luPиa airua na-pa?i ioi lomi ana-ти little food 1DU.EXCL REAL-have you NEG CLASS.food-POSS.2SG the limited food of us two (parents) won't be your food.'

In terms of literary structure, the moral of the story in (3.86) contrasts the quantifiers wataula 'much' and maPila 'small.quantity', with the idea that much wandering results in little food.

### 3.6.3 Pre-Nominal modifier

The optional pre-nominal modifier position is the third constituent position of the NP. The pre-nominal modifier position immediately precedes the head noun, and can be optionally filled by up to two adjectives (from (3.61)):

NP $=($ ART/DEMONSTRATIVE +$)($ NUMBER/QUANTIFIER + ) (MODIFIERS + ) NOUN $(+$ MODIFIER $)$.

### 3.6.3.1 Adjectives

The premodifier position can be filled by an adjective phrase. Adjectives in the language include words that describe dimension, temperature, and colors: putu?oro 'small', baua 'big', mala 'long', weleru 'short', babai 'hot', and mariri 'cold', poPia 'white', mamarawi 'green', arara 'black', roa 'red', rewa rau tao 'yellow'.

An optional intensifier pa?a 'very' can precede an adjective as in (3.87).
(3.87) раа ро尺̊a ити
'very white house'
It is possible to conjoin a second adjective as in (3.88).
(3.88) poria ma mamarawi umи,
'white and green house'

### 3.6.3.1.1 Derived adjectives

Adjectives can be derived from nouns with the suffix $-i$.
(3.89) Fufulu (Wuvulu)
'Wuvulu'
(3.90) Fufulu-i

Wuvulu-DER
'Wuvuluan'
Other examples include: Aua (Island), Aua-i 'Auan'; pifine 'woman', pifine-i 'womanly'; wawane 'man', wawane-i 'manly', balu 'child', balu-i 'childish'. Derived adjectives are typically used in adjective predicate constructions (see Chapter 5).

### 3.6.4 Post-Nominal modifier

Appealing again to the Wuvulu NP structure given in (3.61), there is an optional modifier position following the head noun of a NP:

NP $=($ ART/DEMONSTRATIVE +$)($ NUMBER/QUANTIFIER +$)($ MODIFIERS +$)$ NOUN $(+$ MODIFIER $)$.
The syntax of the Wuvulu NP (3.61) is like that of POc in that they both have a modifier position following the head noun. One difference in the two languages is that Wuvulu has added a pre-nominal modifier position, while retaining the post-nominal modifier position.
(3.91) Pi=na-poma-i-na Pei aipani paPa poPia ma mamarawi uти putu?oro 3SG= REAL-paint-DER-TR the five very white and green house small 'He painted the five, small, very white and green houses.'

### 3.7 Chapter summary

Many of the features of Wuvulu nominals have been inherited from POc. Possessor suffixes are nearly identical in form and function in Wuvulu and POc. Subject proclitics and object enclitics also appear to have their origins in POc. Like POc, Wuvulu has locative part nouns and a preposition that occurs before a locative or temporal NP. The Wuvulu system of deixis is also based on a three-way system of demonstratives that originated with POc. Wuvulu has retained much of the vocabulary of POc and there are cognate forms found in their counting systems. And like POc, Wuvulu has articles, which are rare for Admiralty languages.

Nominal structures in Wuvulu suggest that grammaticalization has occurred in forms such as possession suffixes and verbal clitics. For possession, the sequence of
possessed and possessor is the same for juxtaposed NPs and a NP with a suffix, suggesting grammaticalization. In the verb phrase, subject proclitics and object enclitics are the results of the grammaticalization of free pronouns.

Language change is also evident in the structure of a Wuvulu NP, where demonstratives have moved from phrase-final to phrase-initial position, and in the addition of an adjectival modifier position before the head noun.

A study of nouns also suggests imminent loss of vocabulary in certain domains such as counting classifiers and kin terms. The loss of vocabulary is suggestive of culture loss, for example, the change of kin relations between cross-cousins.

## 4 Verb structure

### 4.1 Introduction

"It is in the area of verbal morphology and verb phrase syntax that Oceanic languages generally exhibit the greatest complexity" $\sim($ LRC,45) $\sim$

Wuvulu has perhaps the most complex verbal morphology that has been documented in any of the approximately 500 Oceanic languages. A Wuvulu verb can have as many as 20 bound morphemes. Regarding the morphology of Oceanic verbs, LRC states that, "The number of preverbal markers can be quite large" (45). However, no indication is given of how large, or whether there is also a large number of postverbal markers. In personal communication with Malcolm Ross, he disclosed that he is uncertain of the maximum number of pre-verbal markers in the Oceanic subgroup, but he mentioned that Wuvulu is "high on the list." (4/2014). But, even if an Oceanic language were discovered to have a more highly inflected verb than Wuvulu, the point is that Wuvulu has an extremely complex verbal morphology.

It is not surprising that words of the verb class are more complex morphologically than words of other classes in the language. A root verb can be reduplicated to indicate imperfective aspects such as continuous and durative. Verbs can be bound with subject and object clitics, and they can be inflected for mood, aspect, intensification, direction, action, repetition, completion, transitivity, and object agreement.

Two types of verbal markers that are relevant to deixis are: subject and object clitics, and what Ross (2004: 193) refers to as "directionals". Directionals are, "forms that are derived from a set of Proto Oceanic verbs that occurred phrase-finally in directional serial-verb constructions". Wuvulu verbal morphology is distinct in that it has pre-verbal directionals, as well as the post-verbal directionals that are common in POc and modern Oceanic languages.

Throughout this chapter, the Wuvulu verb phrase is discussed in light of what is known of the Proto Oceanic verb phrase (LRC). A Wuvulu verb phrase consists minimally of an uninflected verb root that serves as the head of a phrase that has no other constituents (verbless predications are discussed in Chapter 5). An example of a minimal verb phrase is the imperative, poni 'run!'. A verb phrase may also consist of an inflected verb root, and NP complements, as per the requirements of the verb. For example, timi
'throw' can be used intransitively, but it can also be used transitively with a bound object marker, as in timi=nia 'throw it'. The verb root can also take the transitive morpheme, $-a$, that serves to signal that an NP object immediately follows, timi-na fei muro 'throw the stone'. The verb poni 'run!' is inherently intransitive and cannot take an object unless its valence is increased by means of causative morphology, fa-poni-a 'run it'.

The word class verb is established according to distributional and morphological features, including verb derivation. Verbs can be derived from words of other classes, and transitive verbs can be derived from intransitive verbs. The topic of derivation is a natural segue to the discussion of transitivity in the language. Transitivity is presented in this chapter in terms of verbal morphology, involving clitics, and the transitive morpheme.

An intriguing innovation in the morphosyntax of Wuvulu is a phenomenon referred to as semi-transitivity. Dryer (2005:38) describes semi-transitive clauses as simultaneously having properties of both transitive and intransitive clauses.

The interaction of arguments at the syntactic level is reserved for the discussion of the clause (Chapter 5). Like most Oceanic languages, Wuvulu frequently marks non-core arguments with "prepositions" (locative part nouns, (LRC, 51)).

Topics discussed in this chapter are presented in an axiomatic manner, beginning with morphological and distributional criteria for membership in the verb class. The focus of the chapter is on the structure and morphology of the verb phrase; word order variation is reserved for Chapter 5. Topics are discussed in the following order:
§4.1 Introduction; §4.2 Overview; §4.3 Word class verb; §4.4 Derivational morphology; §4.5 Verb morphology; and §4.6 Chapter summary.

### 4.2 Overview

For the sake of terminological consistency, the wording "verb phrase" is used here in the discussion of the Wuvulu verb complex. LRC refers to the POc verb phrase, even though it did not include an explicit object NP. As mentioned in the Introduction, the focus of the present chapter is on the morphology of the Wuvulu verb.

The Proto Oceanic verb phrase of (4.1) is from LRC (83). The structure of the Wuvulu verb phrase is given in (4.2).
(4.1) POc VP
$($ ASPECT/MOOD $=)$ SUBJECT $=$ VERB $(=O B J E C T)(=D I R E C T I O N A L)$
(4.2) Wuvulu VP
(SUBJECT $=$ ) (MOOD/ASPECT-) (DIRECTIONAL-) VERB (-ADVERBIAL) (=OBJECT) (-DIRECTIONAL)
Compared to the POc VP of (4.1), the Wuvulu VP of (4.2) has undergone five innovations worth noting: i) transposition to a syntax of (SUBJECT=) (ASPECT/MOOD-), ii) the position-internal transposition of (ASPECT/MOOD-) to (MOOD/ASPECT-), iii) negation and adverbials included in (MOOD/ASPECT-), iv) the addition of a (DIRECTIONAL-) position, and $v$ ) the addition of an (-ADVERBIAL) position. ${ }^{18}$

LRC states that many modern Oceanic languages have undergone a series of diachronic processes that have resulted in the transposition of (subject=) and (aspect/mood-). The author hypothesizes that given the original syntax of (aspect/mood-) (subject=), if there were a phrase-initial, independent pronoun, and if the (subject=) position were null, then over time the independent pronoun would be reduced phonologically and would cliticize to the (aspect/mood-) marker.

Three other notable differences between the VPs of POc and Wuvulu are: i) LRC implies notationally (by use of the equal sign " $=$ ") that every inflectional morpheme is a clitic, ii) the subject clitic of (4.1) is not enclosed in parenthesis, implying that it is obligatory, and, iii) the form given in (4.1) is essentially the entire verb phrase for POc.

As LRC (83) states:
It is important to note that the presence or absence of a subject proclitic was in no way dependent on the presence or absence of a subject noun phrase. In all probability in POc, as in many modern Oceanic languages, the typical clause in narrative or conversation had no core noun phrase, or at most one, as the task of referent tracking was performed by the clitics, which also remained when the relevant noun phrase was present. The one apparent exception to this occurred if the object was a generic referent - 'apparent exception' because the generic 'object' was incorporated into the verb phrase, forming a compound intransitive verb (83).

The Wuvulu VP given in (4.2) refers mostly to verbal morphology. The Wuvulu verb phrase can have NP arguments, but a typical clause does not have an overt NP. Object NPs are introduced in this chapter, and are discussed further in Chapter 5.

[^16]
### 4.3 Word class verb

The criteria for classifying a Wuvulu word as a verb are mostly morphological, but verbs also have distributional patterns in their co-occurrence with arguments and adjuncts. Verbs in the language are morphologically irreducible forms that have semantic content. Members of the verb class take a common set of markers that have grammatical content. Words classed as nouns and adjectives cannot take verbal markers without first being derived as verbs.

### 4.4 Derivational morphology

"Verbs in Oceanic languages typically do not have extensive patterns of derivational morphology" LRC (43). Wuvulu is somewhat typical, in that it does not have extensive patterns of derivational morphology, but it does have verb derivation from nouns and adjectives, and transitive verbs can be derived from intransitive verbs. Verbs are derived from either nouns or adjectives by suffixing the verb derivation morpheme, $-i$, to the noun or adjective.

### 4.4.1 Transitives from intransitives

The causative marker, fa-, derives transitive verbs from intransitives, including those that were previously derived from nouns and adjectives.

```
(4.3) \(P i=n a-p o n i\)
3SG=REAL-run
'He ran.'
(4.4) \(\quad\) Pi=na-fa-poni=ia
3SG=REAL-run=3SG
'She made him run.'
(4.5) Pi=na-ruta
3PL=REAL-sat
'She sat.'
(4.6) \(r o=n a-f a-r u t a=n i a\)
3 PL=REAL-sit=3SG
'They made her sit.'
```


### 4.4.2 Verbs from nouns

Virtually any common noun can derive a stative verb by means of $-i$ suffixation, with the derived meaning 'to be N '. This can be combined with a causative prefix $f a$-, to derive a transitive verb, 'to cause/let something become $N$ '. For example, in one of the traditional narratives, a practitioner of supernatural phenomena turns two bad spirits to stone.

## (4.7) fei muro

 the stone(4.8) Pi=na-muro- $i$

3SG=REAL-stone-DER
'It is stone.'
(4.9) Pi=na-fa-muro-i-na larua

3SG=REAL-CAUS-stone-DER-TR PRON.3DU
'She turned the two to stone.'

When the noun denotes an object that affects another entity, such as awa 'blanket', the meaning of the derived stative verb is not to become N , but rather, to be affected by N .
(4.10) fei awa
the blanket
To express it is a blanket, the words of (4.10) can be used with a slight pause after the article as in (4.11).
(4.11) fei, awa
the, blanket
'It is a blanket.'
(4.12) ${ }^{2}=n a-a w a-i$

3SG=REAL-blanket-DER
'It is blanketed.'
(4.13) $r o=n a-f a-a w a-i=n i a$

3PL=REAL-CAUS-stone-DER=3SG
'They blanketed it.'
(4.14) fei pa
the basket
(4.15) $P i=n a-p a-i$

3SG=REAL-basket-DER
'It is basketed.'
(4.16) $r o=n a-p a-i=a$

3PL=REAL-basket-DER=3SG
'They basketed it.'
(4.17) fei ири
the green.coconut
(4.18) $3 i=n a-и р и-i$

3SG=REAL-green.coconut-DER
'It is green coconutty (it has the character of a green coconut).'
(4.19) fa-uри-i=nia

CAUS-green.coconut-DER=3SG
'Let it become a green coconut (allow it to get to that state).'

### 4.4.3 Verbs from adjectives

### 4.4.3.1 Intransitive

Verbs are derived from adjectives in the same way that they are derived from nouns, with the derivational morpheme, $-i$ suffixed to the adjective stem.
(4.20) fei putuporo muro 'the small stone'
(4.21) Pi=na-putuPoro- $i$

3SG=REAL-small-DER
'it is small'
(4.22) ro=na-fa-putuPoro-i=nia

3 PL=REAL-CAUS-small-DER=3SG
'they made it small'

### 4.4.3.2 Transitive

A transitive verb can be derived from an adjective by $-f a$ 'CAUS'. The derived forms take either a transitive marker, followed by an object NP, or it takes an object suffix or clitic.
(4.23) $\quad$ Pi=na-fa-rawani=nia
$3 \mathrm{SG}=$ REAL-CAUS-good=3SG
'He treated her well.'
(4.24) Pi=na-fa-afelo=ia $^{2}$
$3 \mathrm{SG}=$ REAL-CAUS-bad=3sG
'He destroyed it (lit. caused it to be bad).'
Pi=na-fa-afelo-a mei pifine
3SG=REAL-CAUS-bad-TR the woman
'He treated the woman badly.'
(4.26) Pi=na-fa-rawani-na Pei ponoto

3SG=REAL-CAUS-good-TR ART.PL dog
'He treated the dogs well.'

### 4.4.4 Iterative derivation

We saw in §4.4.1 that transitive verbs can be derived from intransitive verbs, and we saw in §4.4.2 and §4.4.3 that intransitive verbs could be derived from nouns and adjectives. It is possible to have iterative derivation, where a verb is first derived from an noun or adjective, followed by a derivation from an intransitive verb to a transitive verb.

```
(4.27) Pi=na-muro- \(i\)
    3SG=REAL-DER
    'It is stone.'
(4.28) Pi=na-fa-muro- \(i=n i a\)
    \(3 \mathrm{SG}=\) REAL-CAUS-stone-DER \(=3 \mathrm{SG}\)
    'He turned it to stone.'
(4.29) ro=na-afelo- \(i\)
    3PL=REAL-CAUS-bad-DER
    'They are destroyed.'
(4.30) \(r o=n a-f a-a f e l o-i-a\)
    3 PL=REAL-CAUS-bad-DER=3SG
    'They destroyed/trashed it.'
```


### 4.5 Verb morphology

The stem can include morphology for subject, mood, aspect, direction, cause, manner, and object. Furthermore, a verb root can undergo whole or partial (syllable) reduplication to encode for imperfective aspect. Table 4.1 gives an overview of the structure of the Wuvulu verb.

| Table 4.1 Verb structure |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| clitics= | $n a-$ <br> Pa-nei-neipa- | ta- <br> fane- <br> fi- <br> li- | Ри-?o-lopo-po?o-we-mina- | root <br> RED-root serial roots fa- <br> fi-V-i | $\begin{aligned} & \hline-P u a \\ & -l i(r) \\ & -l i(n) \end{aligned}$ | $\begin{aligned} & \hline=\mathrm{clitics} \\ & -\mathrm{TR} \end{aligned}$ | -mai <br> -wau <br> -lao <br> -rai/-rio |
| Subject | Mood | Aspect | Adverbial | $\begin{aligned} & \hline \text { Verb } \\ & \text { stem } \\ & \hline \end{aligned}$ | Adverbial | Object | Directional |

### 4.5.1 Preverbal morphology

Preverbal morphemes within the Wuvulu VP, repeated here in (4.31), consist of positions for subject clitics, and inflectional prefixes denoting mood/aspect and direction:

## (4.31) (SUBJECT=) (MOOD/ASPECT-) (DIRECTION-) VERB (-ADVERBIAL) (=OBJECT) (-DIRECTIONAL)

Oceanic languages typically have pre-verbal morphemes that are either free or prefixed. In Wuvulu, both pre- and post-verbal morphemes are bound to the verb stem. The exception is that subjects and objects can be either free nominals, verbal clitics, or combinations of both.

### 4.5.1.1 Subject

The subject proclitic is the first possible element of the verb. One of the differences between the verbal morphology of POc and Wuvulu is that the positions for subject and mood/aspect have been transposed, such that subject clitics come first and are followed by mood/aspect. LRC describes how this transposition could have come about in modern Oceanic languages.
clitics have often been the subject of phonological attrition and there has been a strong tendency for elements which occur before the verb phrase to become cliticised to it and themselves to undergo reduction. These preverbal elements fall into two categories.
Firstly, independent pronouns serving as a topicalized (preverbal) subject noun phrase have become procliticized to the aspect/mood morpheme, forming new subject proclitics...secondly, temporal adverbs and conjunctions occurring immediately before the (otherwise clause-initial) verb phrase have become procliticised to it. It is easy enough to see that processes of this kind could result in a flip-flopping of the order of the preverbal proclitics over time.

This explanation resonates with what is observed in the Wuvulu verb complex, in terms of pre-verbal morphology, particularly with the tendency for the subject NP to occur post-verbally.

```
(4.32) Pi=na-ware-lao
    3SG=REAL-talk-DIR
    'He was talking.'
(4.33) laru=na-fo? \(a=i a\)
    3DU=REAL-hit=3SG
    'They (dual) hit him.'
```

(4.34) ro=na-timi-na Pei muro
3SG=REAL-throw-TR the stone
'They threw the stones.'

Table 4.2 Subject proclitics

| pronoun | proclitic | gloss |
| :---: | :---: | :---: |
| iau | Pи= | 1SG |
| ioi | ? $0=$ | 2SG |
| ia | Pi= | 3SG |
| arua | aru= | 1DU.INCL |
| airua | airu= | 1DU.EXCL |
| атигиа | amиги= | 2DU |
| larua | laru= | 3DU |
| Popolu | ?o?ou= | 1PL.INCL |
| Pairolu | PaiPou= | 1PL.EXCL |
| amuPolu | amu? ${ }^{\text {a }}$ = | 2PL |
| ropolu | $r o=$ | 3PL |

### 4.5.1.2 Mood

The first element of the POc verb phrase in (4.1) is "aspect/mood", rather than "tense/aspect/mood". POc and many of its descendants lacked a tense category (LRC, 84). Wuvulu also lacks a tense category, but conveys tense by means of mood and aspect markers, and time phrases. The realis mood inflection, $n a$-, is used with past events, because speakers have a high degree of certainty about of events that have already occurred.

So an event that has occurred in the past is likely to be expressed a realis marker. Note the difference in interpretation of the clause marked with realis mood in (4.35), and the clause marked with irrealis mood in (4.36).

```
(4.35) ro=na-biri=?ia
    3PL=REAL-work=3SG
    'They did it.'
ro=?a-biri=?ia
3 PL=IRR-work=3SG
'They are about to do it.'
```

In (4.35) the realis morpheme correlates with a past event, but in (4.37) the realis marker correlates with a present state of being.
(4.37) Pi=na-putuPoro- $i$

3PL=REAL-Small-DER
'It is small.'
So the translation in is 'it is small', rather than 'it was small'. This makes sense semantically, because a present state predication represents a high degree of certain of the speaker.

Payne (1997:233-4) describes the categories of aspect and mood as they relate to the category of tense:
...operations that anchor or ground the information are expressed in a clause according to its sequential, temporal, or epistemological orientation. Tense is associated with the sequence of events in real time, aspect with the internal temporal "structure" of a situation, while mode relates the speaker's attitude toward the situation associated with verbs.

Payne's definition of tense has to do with "a sequence of events in real time". Wuvulu makes up for the lack of a tense category by using time adverbials, and by aspectual marking for relative sequence, repetition, and completion. There are three verbal markers related to the sequence of events-one preverbal, and two postverbal. Preverbally, the adverbial form lo?o- 'first' indicates that the action of the verb occurs before any other action. Postverbally there are morphemes for repetition and completion. There is an intransitive form and a transitive form of each of the morpheme: -liai 'repeated' (intransitive), and -linia 'repeated (3SG)' (transitive); and -li 'completed'
(intransitive), and -liria 'completed (3SG)' (transitive). Transitive forms of the suffixes, --linia 'repeated', and -liria 'completed' are given in 3sg, but there are also forms for the first and second persons, as well as the forms without an object clitic, -lina . and -lir $\bar{a}$. for transitive forms that are immediately followed by an NP object. Mood and aspect inflections are discussed further in §4.5.1.2 and §4.5.1.3.

The discussion of mood and aspect points out that in both POc and Wuvulu, a basic distinction is made between realis mood and irrealis mood. Palmer (2001) states that "Typically with mood, all or most clauses are either realis or irrealis: the system is basically ('prototypically') binary." (4) Palmer also notes that realis/irrealis systems usually do not occur with tense systems.

The mood position is filled by one of four inflectional forms: na- 'realis', Pa- 'irrealis', nei- 'deontic', and neiPa- 'negated deontic'. Present tense declaratives commonly omit mood morphemes, as in (4.38) and (4.39).
(4.38) Pi=no-mai

3SG-move-DIR
'He comes.'
(4.39) Pi=fi-no-mai

3SG=SIM-move-DIR
'He is coming.'

### 4.5.1.2.1 Realis

In Wuvulu, the realis mood marker, $n a-$, generally denotes a high degree of certainty. The occurrence of the realis marker often correlates with past events in Wuvulu, perhaps because they are attested in the mind of the speaker. Realis is also used in present stative clauses like it is green. Realis mood is also used to mark the verb of an independent clause, with irrealis marking on the verb of a dependent clauses (cf. Chapter $6)$.
(4.40) ro=na-to-na-mi ro?olu Pa?a Baule 3PL=REAL-get-S.TR-DIR them with PROPN 'They brought them to Baule.'

In addition to indicating past events, the realis mood marker is used in existential, stative, and attributive clauses. The form below Pi=na-paPi 'there was' is a common way to express an existential predication.
(4.41) Pi=na-paPi e-laru Pei rama?a mina

3SGREAL-have CLASS-DU ART person before
'There were two people in the past.'
The next example is from a text in which the narrator is a monitor lizard giving a description of itself.
(4.42) na-wala-wala-3ua fei alia-u ma taba-u na-tau-tio-tio REAL-RED-round-only the ear-1SG and head-1SG REAL-narrow-RED-taper 'my ears are round and my head is tapered narrow'

### 4.5.1.2 2 Irrealis

The irrealis marker, $P a$-, is used for a range of attitudes which express uncertainty on the part of the speaker. It is also used to express immediate future tense, and it is commonly used in the protasis of conditional statements. Irrealis mood marks verbs of subjunctives, interrogatives, subordinate clauses, and action in the immediate future, and dependent clauses. In (4.43) the irrealis marker $P a$ - is used to indicate immediate future.
(4.43) Peni ba २и=?a-२uРur-a laru Peni fi-lofu-i
now COMP 1SG=IRR-story-TR 3DU these RCPR-brother-RCPR
'Now I am going to (tell a ) story about these two brothers.'
Another example of the use of irrealis is a question in which the person asking is uncertain of what the response will be.
(4.44) ma mei ari-mи, ari-mи, o aru=?a-fo?a-fa-maPe=ia and the opp.sib-2SG opp.sib-2SG or 1DU=IRR-hit-CAUS-die=3SG 'And is your brother [really] your brother, or shall we kill him?'

### 4.5.1.2.3 Deontic

Deontic mood is signaled by the inflection nei- 'must'. Deontic mood relates to obligation, or permission, emanating from an external source (Palmer 2001:9). The

Wuvulu pre-stem affix nei- 'must' is very commonly used to express strong deontic modality.
(4.45) nali amи?о-nei-li ma amи?о-nei-ро?о-таशirи okay 2 PL -DEON-go and 2 PL-DEON-really-sleep
'Okay, you must go and you must really sleep.'
Deontic mood is similar to a true imperative. One difference is that the imperative is unmarked with respect to subject. On the semantic level it can be argued that the imperative is also unmarked in the sense that it is used by a person in full authority whereas deontic modality (must) is used by someone who is not in full authority (Palmer, 2001).

### 4.5.1.2.4 Deontic negation

The morpheme, Pa- 'DNEG' works only together with the deontic marker nei'must', to give a prohibitive sense to a proposition: nei-Pa- 'must not'. The prohibitive marker is identical in shape to the irrealis marker ? $a$ - 'IRR'.
(4.46) Po=ma?ama?a fei tala ba ro=nei-Pa-we-no-?ua-mai
$2 \mathrm{SG}=$ RED-watch the road COMP 3PL=DEON-NEG-EV-move-just-DIR
'Watch the road so that they must not just come.'

### 4.5.1.3 Aspect

Comrie defines aspect as "different ways of viewing the internal temporal constituency of a situation" (1976:3). The meanings of the Wuvulu verbal aspect morphemes are difficult to tease apart because of the number of possible combinations of verbal morphemes and because of the interaction of semantics between morphemes. Another thing that complicates the analysis is that at some morphemes do not always occupy the same positions relative to one another.

One of the basic contrasts in the morphology of the verb is perfective versus imperfective aspect. Comrie (1976:12) points out that "perfective denotes a situation viewed in its entirety, without regard to internal temporal constituency."

There are four possible preverbal aspect markers: i) perfective, ii) perfective negation, iii) simultaneous, and iv) habitual. Aspect can also be marked by the reduplication (cf. §4.5.2.1).

Some of these aspect markers co-occur, e.g., po-we- 'definitely will'; na-we 'finally', indicating that an expected event finally occurred; and fi-po-we-, 'finally occurring as expected'.

### 4.5.1.3.1 Perfective

The perfective $l i$ - views the action as a whole that has been completed before another action. In (4.47) Pinaliwarefarawani 'he had already clearly told', the morphemes $n a$-'realis' and $l i$ - 'perfect' give a sense of the past perfect.
(4.47) maPua Pi=na-li-ware-fa-rawani PaPa roPou, Barafi but 3SG=REAL-PERF-talk-CAUS-good with them PROPN 'But, Barafi had already clearly told them.'

### 4.5.1.3.2 Perfective Negation

The marker, $t a$ - 'not yet' signals that an action has not yet occurred. This is semantically imperfective in that the action of the verb may yet occur. It does not indicate the probability of whether the event will occur.
(4.48) $3 i=t a-n o-m a i$

3SG=NYET-move-DIR
'It has not yet come.'
(4.49) Pi=?a-ta-we-no-mai

3SG=IRR-NYET-EV-move-DIR
'It has not yet come.'
The morpheme ta-'not yet' only occurs in conjunction with verbs that are irrealis, or that are not marked for mood, as in (4.48) and (4.49).

### 4.5.1.3.3 Simultaneous

The prefix $f i$ - 'simultaneous, in-process' indicates that the action of the verb occurs simultaneous to another action, or that the action of the verb is in the process of occurring. One of the formal distinctions between simultaneous/in-process action and that of the reciprocal confix $f i--i$, is that the simultaneous morpheme allows for other morphemes to intervene between $f i$ - and the verb root, but the reciprocal $f i$ - always immediately precedes the verb root. Simultaneity and reciprocity have semantic overlap, so the forms may have the same etymology.
(4.50) Pi=na-panaro-pulupi-na ruapalo Pei pani Puleafo

3SG=REAL-hold-together-TR two ART hand PROPN
ma $3 i=f i-u n u$
and 3 SG=SIMUL-drink
'He held together the two hands of Puleafo while drinking.'
The simultaneous affix fi- only occurs with singular subject clitics. For dual and plural subject clitics, $f i$ - is not used. Instead the forms $\mathcal{P e i}$ - and $i$-are used for the same function and occur in free variation with one another.

### 4.5.1.3.4 Habitual

The marker fane- can indicate either recurring or habitual activity. The marker is somewhat rare, but it is attested by native speakers.
(4.51) ma Pi=na-fane-nara-nara fei nara faninilo ba, Pale?ena ba And 3SG=REAL-HAB-RED-think the thought PROPN COMP like COMP
ini liai mei rama?a mei who again the person the
'And the thought kept occurring to Faninilo, "Who is this particular person?"

### 4.5.1.4 Adverbial

The pre-stem adverbial position can be occupied by six different morphemes.

### 4.5.1.4.1 Completely

In (4.52) the adverbial mina- 'totally, completely' qualifies the action of the verb. The free-standing word mina 'all' is an NP quantifier meaning 'all' or 'every', e.g., mina ro?olu 'all of them' (the comma indicates a pause).

```
(4.52) ro=na-mina-ai-fa-rawani, Pei lalaura
    3PL=REAL-totally-cry-CAUS-good, the.PL singer
    'The singers sang really well.'
```


### 4.5.1.4.2 Frequently

The markers $\mathcal{P u}$ - and $\mathcal{P o}$ - seem to go together semantically. Frequently occurring events are marked with $u$-; infrequently occurring events are marked with the morpheme $o-(\S 4.5 .1 .4 .3)$.
(4.53) Риа ro=mina-?и-fo?a-?иа ai?ou
because they=totally-FREQ-hit-just us
'...because they frequently just slaughter us.'

### 4.5.1.4.3 Infrequently

The morpheme, ?o- 'infrequent', is rare, as is $? u$ - 'frequent'.
(4.54) Ma Pi=na-?o-filu-lao fei ape larua, And 3SG=REAL-INFREQ-fly-dir the CLASS PRON.3DU
ma Pi=na-?o-no-mai, ro=na-Pala-timi=nia fei alatai and 3 SG $=$ REAL-INFRQ-move-DIR 3 SG=REAL-untie-discard=3SG the bracelet
'And when their pet bird occasionally flew away and occasionally came back, they untied and discarded the bracelet.'

According to a native Wuvulu speaker, it is possible for the morpheme fane'habitual' to combine with either $२ u$ - or $? 0$ - to give fane-?u- or fane-?o- for frequent and infrequent habitual behavior. These combinations do not show up in the corpus, so further research is required to elicit and confirm the grammaticality of fane- in combination with $P u-/ P o-$ 'frequent/infrequent'.

### 4.5.1.4.4 Eventually

The eventual morpheme, we-, indicates that the action of will eventually occur.

> ma Pi=we-no-rio LifuroroPa.
> and 3 SG=EV-move-DIR PROPN
> And Lifuroro?a will come.

Although the eventual marker can indicate that an event will occur in the future, it is not a future tense marker, per se. For example, the realis marker, na-frequently cooccurs with we- to indicate that an event that finally (eventually) occurred in past, as in (4.56).
(4.56) $l a r u=n a-w e-f i-f o P a-i$

3DU=REAL-EV-RECIP-hit-RECIP
'The two finally fought.'
The co-occurrence of the forms po?o- 'INTS' and we- 'ev' marks a temporal subordinate clause. The two markers, we- and fi-can also combine with powe- to give the forms wepowe and fipowe, but not *powewe, or *powefi.

Ma Pa-po-we-ware-ware ba, $\quad$ Pi=na-pelu, and IRR-INTS-EV-RED-talk COMP 3SG=REAL-finish,
i?i, amo=nei-?u-to=nia, Pena io amu?olu yes, $2 \mathrm{PL}=$ DEON-stand-get=3SG those spear PRON.2PL
'And when I eventually say, "It's finished", okay, you must stand, [and] take your spears.'

The morphemes of (4.57) can also occur transposed as we-po?o- as in (4.58) with the meaning 'when it eventually happens'.

Pi=li, Funu na-Pai-ware-ware-na-lao Pa?a mei tafi-na ba, 3SG=go PROPN REAL-cry-RED-talk-S.TR-away with the friend-3SG COMP

Oo ma Pi=we-poPo-feta mei naPu tafi-mи
IJ and 3SG-EV-really-how the child friend-2SG
'Funu went crying to his friend,
"Oh, and how will the child of your friend really be...?""
The data corpus also has the combination we-po-we 'EV-INTS-EV' which refers to an event finally happening in the future. This is not a common form in the corpus, but it is attested as grammatical by native speakers. One of the differences between the sentence below and the sentence in the previous example is that we-po-we 'EV-INTS-EV' in the example below occurs in the main clause.
?o=we-po-we-naba-uru-fa fei ape-na palu.
$2 \mathrm{SG}=\mathrm{EV}-\mathrm{INTS}$-EV-chew-swallow-TR the CLASS-POSS.3SG pigeon 'You can finally eat her pet pigeon.'

Another rare but grammatical form is the combination fi-po-we- which refers to an event that is finally be in the process of happening.
(4.60) fi-po-we-ware-ware, Bau, "Oo! ..."

SIM-INTS-EV-RED-talk Bau IJ
Bau was finally in the process of talking, [saying] "Oh! ..."

### 4.5.1.4.5 Intensifier

The intensifier po?o 'INTS' is equivalent with the English adverb very.
Pi=nа-ро२о-тиа-a fei, ?ale-Pena Pano?ano
3SG=REAL-INTS-win-TR the like-those skilled.person
'He really won it, like an expert."
(4.62) nara-a-u ro=na-poPo-mapiru-li Peni
think-DER-POSS.1SG 3PL=REAL-INTS-sleep-CPLT now 'My thinking (is that) they have begun really sleeping now.'

### 4.5.1.4.6 Sequence

The sequence morpheme lo?o 'SEQ' indicates that the modified verb occurs prior to some other event.

> (4.63) Pi=na-loPo-luri-na Pei ramaßa
> 3SG=REAL-SEQ-gather-TR the.PL person
> 'He first gathered the people.'

### 4.5.1.5 Directionals

Ross defines the term directional as "a morpheme-often a clitic-that occurs in a verb phrase and has a deictic meaning," and states that directionals are, "forms that are derived from a set of Proto Oceanic verbs that occurred phrase-finally in directional serial-verb constructions" (2004:193).

I adopt Ross's use of the term "directional" because it describes fairly closely the form and function of Wuvulu directionals. Wuvulu directionals are clearly based on POc forms. In Wuvulu, directional markers are not considered to be verbs. They can only occur as inflections of a verb. The POc verb phrase, reproduced in (4.64), has only one optional directional which occurs post-verbally. One of the distinctive innovations of the Wuvulu verb phrase (given in (4.65)), is that it takes two directional positions-one pre-verbal, and one post-verbal.
(4.64) POc VP
(ASPECT/MOOD=) SUBJECT= VERB (=OBJECT) (=DIRECTIONAL)
(4.65) Wuvulu VP
(SUBJECT=) (MOOD/ASPECT-) (DIRECTIONAL-) VERB (-MODIFIER) (=OBJECT) (-DIRECTIONAL)
Wuvulu directionals are similar to POc directionals in form and function. In the Wuvulu system the short form of the directional is always preverbal and the long form is post-verbal; the only exception is that -mai 'toward speaker' sometimes shortens to -mi. Long forms are never preverbal.

Table 4.3 Directionals in POc and Wuvulu

|  | POc |  | Wuvulu |  |
| :--- | :--- | :--- | :--- | :--- |
| *mai, *ma | 'come towards speaker' | mi- | -mai | 'come towards speaker' |
| *ua[ta] | 'go towards addressee' | wi- | -wau | 'go away from speaker' |
| *lako, *la | 'go (to)' | li- | -lao | 'go to' |
| *pano, *pa | 'go away, go across' | re- | -rai, -rio | 'go to; go vertical' |

Examples of preverbal directionals are
(4.66) mi-to-na-wau

DIR-get-S.TR-DIR
'come get (it and) go'
(4.67) to-na-mai

DIR-get-S.TR-DIR
'get (it and) come'
(4.68) wi-to-na-mai

DIR-get-S.TR-DIR
'go get (it and) come'
(4.69) mi-to-na-lao

DIR-get-S.TR-DIR
'come get (it and) go'

### 4.5.2 Verb stem

A verb stem consists minimally of a verb root, and includes reduplicated roots, derived verbs, and serialized roots. A verb root in Wuvulu is a single morpheme in the lexicon. Verbs are built from monomorphemic roots according to verb class criteria. A
root word that cannot take verbal inflection without derivation is not considered a verb root.

### 4.5.2.1 Reduplication

There are two forms of reduplication in the language-initial syllable reduplication, and full root reduplication. Reduplication is a means of expressing imperfective aspect where the action of the verb is repeated, durative, or continuous.

### 4.5.2.1.1 Initial syllable

The initial syllable of a root can be reduplicated to show continuous or repeated action. In (4.70) the initial syllable is reduplicated to indicate continuous action, roni 'to hurry' vs. roroni 'hurrying'.

> (4.70) tani Po-mina-ro-roni-Pua
> why $2 \mathrm{SG}=$ totally-RED-hurry-ADV
> 'Why are you just hurrying?'

In (4.71) the initial syllable is reduplicated twice to indicate that a continuous action is persistent or repeated.

> (4.71) tani ?o-mina-ro-ro-roni-Pua?
> why 2SG=totally-RED-RED-hurry-ADV
> 'Why do you just keep hurrying?'

### 4.5.2.1.2 Full reduplication

A verb root as a whole can be reduplicated to indicate continuous aspect.

$$
\begin{aligned}
& \text { (4.72) } \text { Pi=na-biri-biri } \\
& \text { 3sG=REAL-RED-work } \\
& \text { 'He was working.' }
\end{aligned}
$$

Reduplication is another means of expressing aspect. Note that aspect was discussed in §4.5.1.3, but reduplication was not discussed in that section because the verb complex is presented in the order in which morphemes occur, from left to right.

Reduplication is nearly universally present in Oceanic verbal morphology (LRC, 44). Reduplication of the verb root typically indicates imperfective aspect, including continuous or durative action. In (4.73) the root ware 'talk' is reduplicated.
ro=?a-no-lao na-ware-ware Pa?a roPou Baule 3SG=IRR-move-DIR REAL-RED-talk with them PROPN 'When they went, Baule talked with them.'

The phrase in (4.74) demonstrates reduplication of the initial syllable, $r a$-, of the word rawani 'good' to indicate continuous aspect.
> (4.74) na-ware Barafi ba aba Pu=na-mina-ra-rawani-?ua REAL-talk PROPN COMP NEG 1SG=REAL-totally-RED-good-only Baude said, "Aa...I'm not totally well, but okay just a bit."

### 4.5.2.2 Reciprocal

The confix (circumflex) fi- -i 'reciprocal', indicates reciprocal action (from POc *pai ' reciprocal'). The prefix portion of the confix, $f i$-, is always immediately to the left of the verb root, and the suffix portion of the confix, $-i$, binds to the right edge of the verb. For example, from ware 'talk', we have fi-wareware-i 'converse'; from fo?a 'hit' we have fi-fora-i 'fight'.
(4.75) ma narani Po?ou-we-fi-ware-ware-i
and tomorrow 1PL.INCL-EV-RECIP-RED-talk-RECIP
'And tomorrow we will converse.'

The reciprocal confix requires a dual or plural subject.

### 4.5.2.3 Causative

The causative is generally expressed by a verbal prefix in Polynesian and Micronesian languages (LRC: 43,44). In Wuvulu the verbal prefix fa- 'CAUS' (from POc *pa[ka] 'causative') is a marker that can derive a transitive verb from an intransitive verb, so that it takes a direct object. In (4.76) fa- 'causative' increases the valence of the intransitive verb $? u$ 'stand' so that it takes the direct object ro?olu 'them'.
(4.76) ma Pi=li, na-fa-Pu-na ropolu
and $3 \mathrm{SG}=$ go REAL-CAUS-stand-TR PRON. 3 PL
'and he went and caused them to stand (stood them up)'
In (4.77) the causative $f a$ - is used in a reflexive construction, in which the subject is humbles himself. Note that the subject NP and the object pronoun are co-referential.
(4.77) ma Pi=na-fa-fafau-na ana ia pu and 3 SG=REAL-CAUS-humble-TR RFLX PRON.3SG below 'Barafi humbled himself low.'

### 4.5.3 Postverbal morphology

Recall that the Wuvulu verb phrase in (4.2) has post-verbal positions for adverbial, object, and directional information.

Wuvulu VP (from (4.2))
(subject=) (mood/aspect-) (direction-) verb (-adverbial) (=object) (-directional)
There are three types of post-verbal morphemes that occupy the adverbial position: i) a limiter, ii) a set of completive forms, and iii) a set of repetition morphemes. For transitive verbs, the post-verbal object position takes either an object enclitic, or it takes a transitive marker signaling a following object NP. Like the final position of the POc VP, the final position of the Wuvulu VP can be occupied by a directional.

### 4.5.3.1 Adverbial

The adverbial position can be filled by a suffix or by a derived adverbial. There are three adverbial suffixes-a limiter, a repetitive, and a completive. A manner adverbial can also be incorporated into the verb nucleus by means of $f a$ - 'caus'.

### 4.5.3.1.1 Limiter

The adverbial, -?ua 'only, just' limits the action of verb. So the intransitive predication:
(4.78) Pi=na-rawani-Pua

3SG=REAL-good-ADV
'It (is) just fine.'
The position of the limiter is before object marking in transitive clauses.
(4.79) $3 i=b i r i-$ Pua $=i a$
$3 \mathrm{SG}=$ REAL-good-ADV=3SG
'He did it anyway.'
(4.80) laru=na-no-?иa-lao

3DU=REAL-move-ADV-DIR
'they just went away'
The limiter can also function as an independent word as in the English I just arrived:

Ри-na-no-mai アeni Үua
1SG=REAL-move-DIR now only
'I arrived just now.'
In (4.82) ? ${ }^{2}$ a 'only, just' is used in a phrase.
(4.82) Ри=na-paPi olumanи Риа

1SG=REAL-have three only
'I have only three.'

### 4.5.3.1.2 Repetition

There are two types of repetition morphemes-an intransitive form, -liai; and a transitive form, -lina, used with NP object; and the forms, -linau, -linio, and, -linia, used with $1 / 2 / 3$ SG pronominal objects, respectively.

```
(4.83) ro=na-unи-liai
    3PL=REAL-work-REP
    'They drank again.'
(4.84) ro=na-unu-li=nia
    3PL=REAL-work-REP=3SG
    'They drank it again.'
(4.85) ro=na-unu-li-na Реi ири
    3PL=REAL-drank-REP-TR the.PL coconut
    'They drank the coconuts again.'
```


### 4.5.3.1.3 Completion

The perfective morpheme, has three types of grammatical marking-an intransitive form, -li; and transitive forms, -lira, used with a NP object; and -lirau, -lirio, and, -liria, used with $1 / 2 / 3$ SG pronominal objects, respectively.

The morpheme, -li 'completed':
ro=na-biri-li
3PL=REAL-work-CPLT
'They worked to completion.'
ro=na-biri-li=ria
3PL=REAL-work- CPLT=3SG
'They finished working it.'
(4.88) ro=na-biri-li-ra fei ити

3PL=REAL-work- CPLT-TR the house
'They completed work on the house.'

### 4.5.3.1.4 Manner Derivation

In addition to the three possible adverbial suffixes, the post-verbal adverbial position can be filled by a manner adverbial derived by fa- 'caus'. A derived adverbial follows the verb that it modifies. Prosody indicates that a derived adverbial is brought into the nucleus from the (extended) clause core (cf. §5.9.1). The morphology of manner adverbials provides added evidence for drawing a distinction between manner adverbials and time/location adverbials.

There are two kinds of manner adverbials-those that take the causative, fa- 'CAUS', and those that do not take the causative. Prosodically, adverbials derived by the causative are considered to be part of the verb nucleus.

```
(4.89) \(3 i=n a-p o n i-f a-r a w a n i\)
3SG=REAL-run-CAUS-good
'He ran well.'
```

Note that adverbials that take the causative cannot modify the verb without the causative.
(4.90) *Pi=na-poni rawani

```
(4.91) \(l a r u=n a-b i r i-f a-w e ? i\)
    3DU=REAL-work-CAUS-strong
    'They worked hard.'
```

(4.92) *laru=na-biri we?i

Another set of adverbials do not take the causative. These adverbials are words that immediately follow the clause nucleus.

```
(4.93) Pi=na-poni maluare
    3SG=REAL-run quick
    'He ran quickly.'
```

Note that adverbials that modify the verb without a causative cannot take a causative.
(4.94) *?i=na-poni-fa-maluare
(4.95) Pi=na-ruta wiwiwili

3SG=REAL-sit happy
'He sat happily.'
(4.96) $*$ Pi=na-ruta-fa-wiwiwili

In addition to the syntactic constraints on manner adverbials, there is also morphological evidence that manner adverbials are distinct from time/location adverbials. In (5.126) we saw that maluare 'quick' is phonologically distinct from the verb and seems to operate as an adjunct to the core. But unlike time and location adjuncts, manner adverbials that do not take the causative can be incorporated into the nucleus, by means of derivation.

```
(4.97) \(r o=n a-b i r i-m a l u a r e-i=n i a\)
\(3 \mathrm{PL}=\) REAL-run-quick-DER=3SG
'They hurried the work.'
(4.98) ro=na-biri batafa
3PL=REAL-work fast
'They worked fast.'
(4.99) \(r o=n a-b i r i-b a t a f a-i=n i a\)
    \(3 \mathrm{SG}=\) REAL-fast-DER=3SG
    'They did it fast.'
```

Dik (1997a:50) recognizes a core predication as a nuclear predication that is qualified by a manner adverbial and distinguishes an extended predication as a core predication that is located in time and space. From a morphological perspective it is clear that manner adverbs have a tighter relationship with the verb nucleus than do time and location adverbials (below).

### 4.5.3.2 Transitivity marking

Although all Wuvulu words have open syllables, the lexicon of POc had verbs with final consonants. Diachronically, verb-final consonants were reanalyzed together with attached vowels as object clitics and final consonants were lost from the lexicon.

The object of a transitive verb can be a NP or an eneclitic. If the object is a NP, the verb takes a transitive marker, $-\mathrm{C} \bar{a}$, and is followed immediately by an NP object. The "C" of the transitive marker is the thematic consonant associated with the historical final consonant that was reanalyzed. For example, in aro-fa mei balu, 'call-TR the child', the transitive marker, $-f a$, is used because POc *arof 'call' + POc *-a 'TR', was reanalyzed in Wuvulu as aro-fa.

Alternatively, the object can be marked on the verb by an enclitic. If a verb historically ended in a vowel, then the transitive form takes an object enclitic, $=a u /=i o /=i a, ' 1 / 2 / 3 \mathrm{SG}$ '. If the verb historically ended in a consonant, then an allomorphic clitic has an initial thematic consonant, $=\mathrm{Cau} /=\mathrm{Cio}=\mathrm{Ci} a$, where C is one of the consonants $f, m, n, r$, or $?$.

Wuvulu, like most Oceanic languages has CV canonic syllable shape, with no closed syllables. At some point in the past, the Wuvulu verbs *arof 'call'; *unum 'drink', *timin 'throw', *afur 'punch', and *birip 'work', lost their final consonants. When this happened, verb=clitic sequences such as $\operatorname{arof=ia}$ were reanalyzed as each aro=fia. So, the modern Wuvulu verb aro 'call', can be marked by four possible forms: -fa, =fau, $=$ fio, and =fia, for transitive, and 1/2/3 SG objects, respectively. The four forms each have five allomorphs-one for each of the thematic consonants.

### 4.5.3.2.1 Transitive suffix

For verbs associated with thematic consonants, the transitive marker is $-\mathrm{C} \bar{a}$, where C is the historical thematic consonant. ${ }^{19}$ The verb moro 'sever' in (4.100), for example, had a historical final glottal stop. Thus, it takes the glottal-initial allomorph of the transitive suffix.

```
(4.100) ma ?i=na-moro-?a fei wawa pure-na
    and \(3 \mathrm{SG}=\) REAL-sever-TR the cord belly.button-3SG
    'And she cut its umbilical cord.'
(4.101)e-ai arewa Barafi Pi=na-biri-?a Pei ana-na
    CLASS-one day PROPN 3SG=REAL-work-TR the CLASS.food-3SG
    'One day Barafi prepared his food...'
```


### 4.5.3.2.2 Object clitics

Object clitics are discussed in Chapter 3 (§3.4.2.2). Table 4.4 gives examples of synchronic forms of verbs and their thematic object clitics. Very few verbs in the lexicon subcategorize according to $m$-initial clitics and suffixes. The nasal alveolar, $n$, is the most frequent thematic consonant, and is also the default consonant for borrowed verbs, such as shoot=nia 'shoot it', and drive $=$ nia 'drive it'.

[^17]Table 4.4 Verbs and historical thematic consonants

| intransitive | transitive | 1SG object | 2SG object | 3SG object | gloss |
| :---: | :---: | :---: | :---: | :---: | :---: |
| aro | aro-fa | aro=fau | aro=fio | aro=fia | 'call' |
| ato | ato-fa | ato=fau | ato $=$ fio | $a t o=f i a$ | 'smell' |
| panaro | panaro-fa | panaro=fau | panaro=fio | panaro=fia | 'hold' |
| alu | alu-ma | $a l u=m a u$ | $a l u=m i o$ | $a l u=m i a$ | 'help' |
| tu | tu-ma | tu=mau | tu=mio | $t u=$ mia | 'cover' |
| Pono | Pono-ma | Pono=mau | Pono $=$ mio | Pono=mia | 'swallow' |
| ararati | ararati-na | ararati=nau | ararati $=$ nio | ararati $=$ nia | 'slander' |
| furoi | furoi-na | furoi=nau | furoi=nio | furoi=nia | 'hold down' |
| timi | timi-na | timi=nau | timi=nio | timi=nia | 'throw' |
| nene | nene-ra | nene $=$ rau | nene $=$ rio | nene $=$ ria | 'follow' |
| pelu | pelu-ra | pelu=rau | pelu=rio | pelu=ria | 'finish' |
| pile | pile-ra | pile $=$ rau | pile $=$ rio | pile $=$ ria | 'wrestle' |
| abe | abe-Pa | $a b e=$ Pau | abe $=$ Pio | $a b e=$ Pia | 'hang' |
| biri | biri-Pa | biri=Pau | biri=Pio | biri=Pia | 'work' |
| eru | eru-Pa | eru=Pau | eru=Pio | eru=Pia | 'scoop water' |

### 4.5.3.2.3 Semi-transitive Suffix

Semi-transitivity is grammatically marked in Wuvulu by the morpheme, $-n \bar{a}$ 'S.TR'. It occurs on verbs of motion and requires a location "argument". Verbs of motion may occur with or without s.tr marking. If a motion verb does not have S.TR marking, it does not take a location. If a motion verb has S.TR marking, a location is obligatory.

In (4.102) the intransitive verb, $l i$ ' go' is used.
(4.102) Ma laru=na-li. Laru=?a-no-lao.

3DU=REAL-go. 3DU=IRR-move-DIR
'And the two went. They were going.'
In (4.103) the intransitive verb, $l i$ ' go' takes the semi-transitive marker, -na, which requires a location.
(4.103)? $\quad$ nara-u ba iau, Pa-li-na Wewe?e. the.PL thought=1sg COMP PRON.1SG IRR-go-S.TR PROPN
'My thoughts are that I will go to Wewak.'

It is also possible to consider $-n a$ to be a prepostion, $n a$, instead of a verbal marker. The problem with this anaysis is that word stress on the verbs of motion to which -na attaches indicates that it is best considered as a verbal marker. Perhaps a language change is in progress, such that a phrasal prepostion na 'to' is being grammaticalized as a verbal clitic.

Such a channge could be motivated by analogy. A transitive verb that takes a direct object NP has a transitive marker. Analogously, a motion verb that takes a location adjunct has a semi-transitive marker. The semi-transitive morpheme also occurs with two verbs that are not verbs of motion, but which convey a sense of direction.

> (4.104) laru=na-ware-nā PaPa John 3DU=REAL-S.TR to PROPN 'They spoke to John.'
(4.105) $\mathfrak{\imath i = n a - f a n u n u - n a ̄ ~ p i e ~}$

3SG=REAL-S.TR beach
'He looked to (the) beach.'
See Chapter 5 for additional discussion of semi-transitive clauses.

### 4.5.3.3 Directionals

Table 4.5 Wuvulu directionals

| mi- | - -mai | 'come towards speaker' |
| :--- | :--- | :--- |
| wi- | - wau | 'go away from speaker' |
| li- | - -lao | 'go towards goal' |
| re- | -rai, -rio | 'go to; go vertical' |

Directionals occur with verbs of motion: no 'move', no-mai 'come', lele 'crawl', lele-mai ‘crawl here!', lele-wau ‘crawl away’.

Two particular directionals -mai and -lao, in addition to expressing the direction of physical movement, also function to express direction that does not have to do with physical movement. The two markers can function to express a passage of time leading up to the action of the verb (-mai), and from the action of the verb into the future (-lao).

The use of directionals to mark direction of time occurs frequently with verbs like think and sleep that are inherently atelic, but they can also mark verbs that seem to be inherently telic, such as fo?a 'hit'.
(4.106) Pi=na-tama-mai

3SG-SIM-sever-TR
'He thought about it until now.'
(4.107) Pi=na-nara-mai

3SG-SIM-sever-TR
'He thought about it until now.'
The example in (4.108) is similar to that of (4.107) in that the main verb is not a verb of physical motion. With respect to the inherent properties of the verb sleep in the language there is a sense of imperfective asepect, but the motion indicated by -lao has to do with the passage of time into the future. ${ }^{20}$

```
(4.108) \({ }^{2} i=n a-m a\) Piru-lao
3SG=REAL-sleep-DIR
'He was sleeping.'
```

(4.109) ? $i=n a-$ tama-lao

3SG=REAL-paddle-DIR
'He paddled away.'

### 4.5.3.3.1 Two directionals per verb

An unusual innovation in Wuvulu verbal morphology is the grammaticalization of a preverbal counterpart for each of the post-verbal directionals. Perhaps equally unusual is that a Wuvulu verb can simultaneously host both a preverbal and a postverbal directional.
(4.110) mi-to-na-wau fei wa

DIR-get-to-TR-DIR the canoe
'Come get the canoe (and) go.'
Note that directional markers come after the transitive marker in (4.110) and (4.111). The direct object NP of (4.110) is optional if the object is understood. In such constructions the transitive marker is still present as in (4.111).

> (4.111) mi-to-na-wau
> DIR-get-to-TR-DIR
> 'Come get the (it and) go.'

[^18]It is not possible, however, to have both an object marker and a directional on a verb as in (4.112).
$(4.112) *$ mi-to $=$ nia-wau
DIR-get-to-3SG-DIR
'Come get it (and) go.'
(4.113)re-to-na-mai fei wa

DIR-get-to-DIR the canoe
'Go get the canoe and come.'
(4.114) wi-to-na-mai

DIR-get-to-DIR
'Go get (it and) come.'
(4.115) mi-to-na-lao

DIR-get-to-DIR
'Come get (it and) go.'

### 4.5.3.3.2 Directionals encoding aspect

The directional markers - mai 'to speaker', and -lao 'from speaker' can be used with verbs other than verbs of motion to give a sense of movement in time from the past to the present, or from the present into the future. These forms communicate imperfective aspect.

$$
\begin{aligned}
& \text { (4.116) ro=na-biri-mai } \\
& \text { 3PL=REAL-work-DIR } \\
& \text { 'They worked up until now.' } \\
& \text { 3PL-DEON-work-DIR } \\
& \text { 'They must keep working' }
\end{aligned}
$$

In the next example, the directional is used with the verb ware 'talk' to indicate the direction of words from one person to another.
(4.118) ro=nei-ware-ia-mai

3PL-DEON-work-3SG-DIR
'they must tell it to me.'

Table 4.5 Post verbal morphemes

| function | form | section |
| :--- | :--- | :--- |
| Limiter | - -Pua | $\S 4.5 .3 .1 .1$ |
| Repetition | -liai, -linia | $\S 4.5 .3 .1 .2$ |
| Completion | -li, liria | $\S 4.5 .3 .1 .3$ |
| Transitive suffix | -C $a$ | $\S 4.5 .3 .2 .1$ |
| Object clitics | =(C)au, =(C)io, =(C)ia | $\S 4.5 .3 .2 .2$ |
| Semi-transitive Suffix | --na | $\S 4.5 .3 .2 .3$ |
| Directionals | -mai, -lao, -wau, -rai | $\S 4.5 .3 .3$ |

### 4.6 Chapter summary

In this chapter, it is evident that the Wuvulu verb phrase is conservative with respect to many features of the grammar. In Chapter 5 we will continue to see that Wuvulu is a canonical, "well-behaved" Oceanic language. Yet, it is also obvious that Wuvulu has been quite innovative, especially with regard to the structure of the verb phrase.

In the introduction, the controversial claim was made that Wuvulu has the most highly agglutinating verb of any documented Oceanic language. In the New Testament, and in the corpus of text data, it is clear that the Wuvulu verb is highly agglutinating, so I set out to test the limits of verbal inflection by playing a language game with several linguistically gifted native speakers. The generated forms were then tested for grammaticality across dozens of native speakers.
"Let's play a game!" The game was simply to come up with the longest inflected verb that is still grammatical. The longest form was built-up by adding morphemes and testing grammaticality with different groups of native speakers along the way. It was reassuring to get "starred" expressions along the way-i.e., forms that were ungrammatical, and that were rejected. To maximize success, we began with a verb stem, derived from a noun. The form that gave us the most success was based on the noun aru 'dry brown coconut'.
(4.119) fei aru 'the coconut'
(4.120) Pi=na-aru- $i$

3SG=REAL-dry.coconut-DER
'It is dry.coconutty."
I discovered that a coconut can reach the 'dry' state by causing it to remain untouched.
(4.121) fa-aru-i=nia

CAUS-dry.coconut-DER=3SG
'Let it become a dry coconut.'
(4.122) $r o=n a-f a-a r u-i=n i a$

3pl=real-caus-dry.coconut-der=3sG
'They let it become a dry coconut.'
I also serendipitously discovered that the derived verb could be reduplicated to indicate a process, and that the expression is used colloquially among speakers to refer to allowing an adolescent person to reach maturity.
(4.123) ro=na-fa-aru-aru-i=nia

3PL=REAL-CAUS-RED-dry.coconut-DER=3SG
'They let it him become mature.'
(4.124) ro=po-we-fa-aru-aru-i=nia

3PL=REAL-CAUS-RED-dry.coconut-DER=3SG
'They would definitely allow him to become mature.'
(4.125) ro=fi-po-we-fa-aru-aru-i=nia

3PL=SIM-INTS-EV-CAUS-RED-dry.coconut-DER=3sG
'They were in the process of definitely allowing him to become mature.'
(4.126) ro=fi-po-we-paPa-mina-fa-aru-aru-i=nia

3PL=SIM-INTS-EV-CAUS-RED-dry.coconut-DER=3SG
'They were in the process of definitely allowing him to become totally, very mature.'
The previous iterations mostly involve seeing how far we could go with preverbal inflection.

## (4.127) ro=fi-po-we-paPa-mina-fa-aru-aru-i-fa-rawani=nia

3PL=SIM-INTS-EV-very-totally-CAUS-RED-dry.coconut-DER-CAUS-good=3SG
'They were in the process of definitely allowing him to totally, mature very well.'

Ultimately, the word in (4.128) was the most complex grammatical verb generated to date. The group was quick to reject ungrammatical forms. Because it was a game the participants were eager to disqualify one another. In other words, these forms are well-attested. In this form, post-verbal inflection was added, and the object was removed so that the predication is intransitive. Serialization also appears to function adverbially.
ro=?ei-fi-po-we-paPa-mina-re-fa-aru-aru-i-fa-rawani-maPa-maPa-aPaPpo-i-li-na-lao
3 SG=IRR=SIMUL=INTS-EV-very-totally-DIR-CAUS-RED-dry.coconut-DER-CAUS-good-RED-see-last-DER-go-S.TR-DIR
"They are really going to very much, totally go cause maturity well, really to the very end."
Although (4.128) is grammatical, there are no forms as long as this in the corpus. This is probably like the English, "I thought, she said, he told her...," where iterative embedding can go on indefinitely, constrained by practicality and the human capacity to remember a limited list of items. It would not be surprising to find that other Oceanic languages can generate grammatical forms that have an extreme amount of inflection.

## 5 Clause structure

### 5.1 Introduction

Wuvulu has both verbal and verbless clauses. Verbless clauses are formed by the juxtaposition of two noun phrases as in $i a, f a t u$ 'he (is a) chief', where the subject and predicate are seperated by a pause, indicated by a comma.

Verbal clauses are described in terms of the functional grammar model (FG) espoused in Foley \& Van Valin (1984) and Van Valin \& LaPolla (1997). Under this model, the clause is structurally layered around a nuclear verb (depicted in Figure 5.1).

## [CLAUSE [ADJUNCT ] [CORE [NUCLEUS] ] [ADJUNCT] ]

Figure 5.1 FG layered clause
In the present analysis, the nucleus of a Wuvulu clause consists of a verb and its clitics and affixes (cf. Chapter 4). The clause core is composed of the nuclear verb and any direct or oblique arguments. Adjuncts occur on the periphery of the clause core and include time and location modifiers.
[clause [adunct yesterday] [core the men [nuclevs they=caught] the tuna] [adunct at sea] ]

Figure 5.2 Wuvulu layered clause
(5.1) minoa, $२ e i \quad$ wawane, ro=na-paРuru-paPa-a Pei apu, Pi ari yesterday ART.PL man 3 SG=REAL-cast-have-TR ART.PL tuna at sea 'Yesterday the men caught the tuna at sea.'

Morphologically, verbal clauses can be classified into two categories: attributive clauses, that are somewhat restricted in their morphology, and non-attributive clauses that can have a more complex morphology.

The verb of an attributive clause has an attributive word with realis mood marking. For example, colors, height, weight, and other adjectives can all take realis marking, as in $2 i=n a-p o{ }^{2} i ~ ' ~ 3 \mathrm{SG}=$ REAL-white (it is white)'; ro=na-we?i 'they=REAL-strong (they are strong)'; na-waiwa, iau 'REAL-cold, I (I am cold)'. Attributive clauses are intransitive clauses in which the subject ( S ) is in the semantic role of undergoer (U).

Verbal clauses that are not attributives can have subjects that function in the semantic role of actor (A) or undergoer, U . The subject of transitive clauses typically
serves as A and the object typically serves as U (the exception is reflexive constructions where the subject and object are co-referential). Intransitive clauses can have subjects that are A or U depending on semantics, for example, $3 i=$ na-poni ' $3 \mathrm{SG}=$ REAL-run ( He ran)', versus Pi=na-pati '3SG=REAL-fall (He fell)'.

The syntactic roles of subject and object are typically encoded by clitics that agree in person and number with their antecedents. There are, however, grammatical sentences that have clitics and co-referential argument NPs within the same clause.

A transitive verb can take either a cross-referential object agreement clitic, or it can take a transitive marker, $-\mathrm{C} \bar{a}$ (where C is a thematic consonant). Verbs marked with a transitive marker are followed immediately by an obligatory object NP.

As noted in Chapter 4, core syntactic arguments, S and O , can be arranged in a variety configurations with the verb, and with co-referential clitics. The interaction of verbal pronominals and the syntactic constituents $\mathrm{S}, \mathrm{V}$, and O allows for the following combinations: SVO; (S)sVO; VOS; sVO(S); (O)VoS; (O)SVo; (O)sVoS; (O)SsV=o; SVo, O; sVo, O. And for imperatives, V!; Vo!; and VO!

The remainder of the chapter is organized as follows: §5.2 Syntactic typology, §5.3 Verbless clauses, §5.4 Verbal clauses, §5.5 Interrogative clauses, §5.6 Negation, §5.7 Transitivity, §5.8 Syntactic variation, §5.9 Adjuncts, and §5.10 Chapter summary.

### 5.2 Syntactic typology

Wuvulu is classified as an SVO language, as are her 30 sisters in the Admiralty subgroup of Oceanic languages. Yet, the ordering of constituents is frequently VOS. This is consistent with the observation that constituent syntax in POc was perhaps verb-initial (LRC, 86):

> It is sometimes assumed that the basic clause structure of POc was SVO, on the grounds that the subject clitic/affix precedes and the object clitic/affix follows the verb in the majority of Oceanic languages. However the reconstruction of developments in the period between PMP and POc provides an explanation for the subject proclitics/prefixes and also favours a verb-initial structure, with the possibility of topicalisation of an argument or adjunct to preverbal position.

Wuvulu does, in fact, show a tendency for VOS syntax. It is also noteworthy that POc was itself classified as SVO because of the respective ordering of pre-verbal subject marking, and post-verbal object marking. Wuvulu is very much like POc in terms of both its verbal agreement marking and its propensity for the subject constituent in final
position. A ditransitive clause that has no NPs, has the form $\mathrm{s}=\mathrm{V}=\mathrm{o}$; however, if a subject NP is present, the clause is likely to be encoded: $\mathrm{s}=\mathrm{V}=\mathrm{o}, \mathrm{S}$. In other words, even though the subject and object marking are sVo, the S constituent is post-verbal unless it is topicalized before the verb nucleus. Wuvulu morphosyntax is likely the result of diachronic subject fronting, followed by cliticization.

From a typological perspective, Wuvulu possesses the features of what Ross (2004b:500) refers to as a "canonic Oceanic language": SVO constituent order; prepositions; verbal subject proclitics; a set of mood and aspect markers that follow the subject proclitic; the absence of tense marking; a grammatical distinction between realis and irrealis mood; the use of realis to mark past, and irrealis to mark future; postverbal aspect and directional markers; a set of singular object enclitics; transitive clauses with subject as actor, and object as undergoer; and intransitive clauses with subject as actor for action verbs, and as undergoer otherwise.

### 5.3 Verbless clauses

Verbless clauses are constructed by the juxtaposition of two NPs. There is always a slight pause between the NPs (indicated by a comma in the examples).

### 5.3.1 Predicate nominals

Verbless predications are formed by the juxtaposition of NPs. Typically the first NP in such a clause is the subject, and the second is the predicate.
(5.2) ia, fatu

PRON.3SG chief
'He is a chief.'
(5.3) ia, mei fatu PRON.3SG the chief 'He is the chief.'
(5.4) roŋou, puala PRON.3PL sorcerer
'They are sorcerers.'
(5.5) Bara, fatu

PROPN chief
'Bara is a chief.'
(5.6) ia, emea

PRON.3SG one
'He is one.'
(5.7) ia, mei fatu

PRON.3SG the chief
'He is the chief.'
The predicate NP can also be a proper name, in which case the definite article is not necessary.
(5.8) ara laru Pei rama?a laru Pei, Barafi ma Pudeafo name two ART person two ART PROPN CJ PROPN
'The names of the two particular people are Barafi and Pudeafo.'

### 5.3.2 Predicate locative

A predicate locative is a verbless clause in which a topical noun precedes a location noun.
(5.9) ia, Wewak

PRON.3SG PROPN
'He is in Wewak.'
(5.10) $i a, \quad i e i$

PRON.3SG there
'He is there'
The location phrase can optionally include the locative preposition, $? i$.
(5.11) roPou, Pi polu

PRON.3PL LOC bush
'They are in the bush.'

### 5.3.3 Demonstrative subjects

Wuvulu demonstratives mark a three-way distinction in distance, animacy, and number (cf. Chapter 3). Demonstrative subjects are similar to nominal predications, except that the subject of the predication is a bare demonstrative with no head noun. This is a cross-linguistic phenomenon that Diessel (1999:79) refers to as demonstrative predications. In (5.12), demonstrative pronouns occur as the subject of the nominal construction. The emphasis is on the subject (demonstrative), as indicated by italics in the English translatition..
(5.12) a. feni, aiai 'this is a tree'
b. mena, nap $\bar{u}$ 'that is my son'
c. fena, ponoto 'that is a dog'
d. feni, baua ponoto 'this is a big dog'

In (5.13) the positions are switched, with the demonstrative occurring after the predicate nominal (with the emphasis on the predicate).
(5.13) a. baua ponoto, feni 'this is a big dog'
b. ponoto, feni' this is a dog'
c. aiai, feni 'this is a tree'
d. iau, meni 'It is $I$ '

### 5.4 Verbal clauses

A verbal clause contains a verb in the predicate (cf. Chapter 4).

### 5.4.1 Existential

Existential clauses use the verb papi 'have, exist' to denote the existence of something. The same verb is also used in stories to introduce participants. The verb takes the subject clitic $P i=$ ' 3 SG' as a non-referential dummy subject.

### 5.4.1.1 paßi 'have'

(5.14) ma inene, アi=na-paPi efa Pau afelo na-no-mai
and later $3 \mathrm{SG}=$ REAL-have some time bad REAL-move-DIR
'And later, there will be some bad times that come.'

### 5.4.2 Declarative

The basic declarative clause is a statement or assertion about something. A typical declarative clause has a verb marked for realis mood, although irrealis mood marking can also be used in a declarative clause.

$$
\begin{aligned}
& \text { (5.15) } P i=n a-b i r i=P i a \\
& 3 \mathrm{SG}=\text { REAL-work }=3 \mathrm{SG} \\
& \text { 'He did it.' }
\end{aligned}
$$

The declarative clause in (5.16) is marked for irrealis mood and declares that the speaker is about to do something.
(5.16) $२ u=$ ? $a-b i r i=$ Pia
$1 \mathrm{SG}=$ IRR-work=3SG
'I will do it.'

A declarative clause can also be unmarked with respect to mood marking if the verb is marked with the aspectual marker fi- ‘SIM’ as in (5.17).

$$
\begin{aligned}
& \text { (5.17) } \text { Pi=fi-biri=Pia } \\
& \text { 3SG=SIM-work=3SG } \\
& \text { 'He is doing it.' }
\end{aligned}
$$

### 5.4.3 Imperative

True imperative clauses have no overt expression of subject NP or a subject clitic, but always assume a second person subject, the listener. Directionals are the only morphemes that occur preverbally in imperatives, but the full range of postverbal inflections can be used in an imperative clause.
(5.18) no-mai!
move-DIR
'Come!'
(5.19) Ware!
‘Talk!'

An imperative can be transitive, or intransitive.
(5.20) mi-unu=mia!

DIR-drink $=3$ SG
'Come drink it!'

### 5.4.4 Deontic

Deontic modality, nei- 'must', is like imperative modality in that it can also be used in commands. The differences between deontic and imperative modalities are that imperative modality is unmarked and assumes full authority. Deontic modality, on the other hand, is marked grammatically and appeals to duty or obligation.
(5.21) aти२ои=nei-?аипи!

2PL=DEON-go
'You must leave!'
Another important distinction between deontic and imperative clauses is that imperatives have no overt subject, though second person is assumed. Deontic clauses specify an overt subject, and the subject is not necessarily second person. The imperative clause poni! 'run!' has no overt expression of the subject, but the deontic clause ro=neiponi! 'they must run!' specifies a third person subject, and marks the obligation.
(5.22) $\mathrm{ro}=$ nei-pono=?ia
$3 \mathrm{PL}=\mathrm{DEON}-\mathrm{buy}=3 \mathrm{SG}$
'They must buy it.'
(5.23) ?o=nei-aliwe?i-mai narani

2SG=DEON-return-DIR tomorrow
'You must return tomorrow.'

### 5.4.5 Reflexive

Reflexive constructions consist of a transitive verb followed by a phrase consisting of the word Pana 'RFLX' and a pronoun. Before looking at a reflexive construction, it is helpful to review the structure of a transitive clause. The clauses in (5.24) and (5.25) show an object clitic and a direct object NP, respectively.
(5.24) Pi=na-talu=ia

3SG=REAL-bite=3SG
'He bit it.'
(5.25) Pi=na-talu-a fei nia

3SG=REAL-bite-TR the fish
'He bit the fish.'

The example in (5.26) shows the typical pattern of a reflexive clause. The reflexive phrase always immediately follows a transitive verb.

Pi=na-talu-a Pana ia
3SG=REAL-bite-TR RFLX PRON.3SG
'He bit himself.'
(5.27) Ma tani $3 i=$ ?a-poro=Pia Pana ia?

CJ why $3 \mathrm{SG}=\mathrm{irr}-\mathrm{lift}=3 \mathrm{SG}$ RFLX PRON.3SG
'And why does he exalt himself?'
The object pronoun of a reflexive construction always agrees with the subject in person and number.
(5.28) ro=na-foPa-a Pana roßou

3PL=REAL-lift-TR RFLX PRON.3PL
'They hit themselves'
Note that the reflexive also functions as an intensifier for a NP as in the English, he himself, and even Sally.
(5.29) Pиa Pana ioi, Po-na-waluPai-Pua-na lalo-na because RFLX PRON.2SG 2SG=REAL-enter-only-S.TR in-3SG 'Because you yourself, you enter into it.'
(5.30) Pana airua beri-fana amurua, airua

RFLX PRON.1DU.EXCL husk-give.S.TR PRON.2DU, PRON.1DU.EXCL 'We two will ourselves husk for you two.'

### 5.5 Interrogative clauses

Questions are constructed like statements, but are distinguished from statements by their prosody. A statement has a flat intonation pattern, but a question has a sentence-final drop in intonation.

### 5.5.1 Polar questions

### 5.5.1.1 Intonation

Polar questions in Wuvulu are identical to statements, but polar questions contrast with statements in phrasal intonation. Statements have level intonation, but polar questions have a sentence-final drop in intonation.
(5.31) Pi=na-paアi wao?

3SG=REAL-have rope
'[Does] he have rope?'
If (5.31) is spoken with level intonation pattern, it means, 'he has rope'.

### 5.5.1.2 Answers to polar questions

Polar questions are typically answered with a 'yes'/'no' response. Other possible responses include mai 'I am not sure', lomi na-aila 'NEG REAL-know ('(I do) not know')', and ini na-Paila 'who knows?'

### 5.5.1.3 Yes

The affirmative response to a polar question is $i \geqslant i$ 'yes',
(5.32) ah na-papi tala balus?

IJ REAL-have road airplane
'Ah, is there an airstrip?'
(5.33) Pi=na-ware $\quad b a, \quad i P i$

3SG=REAL-talk COMP yes
'He said, "Yes.""

### 5.5.1.4 No

The negative response to a polar questions are lomi 'no' (or in free variation, lope 'no, not', cf. §5.6).
(5.34) ah na-paPi tuPulu

IJ REAL-have school
'Ah, is there a school?'
(5.35) na-ware $b a$, lomi

REAL-speak COMP no
(I) said, "No.""
(5.36) na-papi lotu

REAL-have church
'Do you have a church?'

## (5.37) "LoPe." <br> 'No.'

### 5.5.1.4.1 Negative polar questions

A polar question can be negated phrase-initially by means of the words lope ' NEG ', or lomi ' NEG '. Negative polar questions have rising intonation at the end of the phrase.
lomi ro=na-no-mai
NEG 3PL=REAL-move-DIR
'They did not come?'

Wuvulu is like many other Oceanic languages in that the answer to a negative yes/no question is an answer to the truth value of the whole proposition. So, a "no" answer to the question, They did not come? means that they did come, and a "yes" answer means they did not come.

### 5.5.2 Tag questions

A tag question consists of a statement, followed by a pause and the tag word, na 'okay'. The intonation contour of a tag question is flat, with rising intonation on the phrase final na 'okay'. The tag question is rhetorical, assuming agreement with the listener. It is equivalent to the English: I'm going to the store, okay?

```
(5.39) te ?o=na-ruta, na
    CJ \(1 \mathrm{SG}=\) REAL-sit TAG
    'So you stay, okay?'
(5.40) ma ?o=nei-mina-?u-tau-fa-we?i, na
    and \(1 \mathrm{SG}=\mathrm{DEON}\)-really-stand-hold-CAUS-strong TAG
    'And you must hang on tightly, okay?'
```

A yes/no question in the language can also be followed by o lo?e 'or not' as in (5.41). The word lomi can be substituted for lo?e with no variation in meaning. The answer to a yes/no question is either ipi 'yes' or lo?e 'no'. The word lomi 'no' can be spoken in free variation with lo?e 'no' as the answer to a yes/no question.
(5.41) amuru=na-rawani, o lope

2DU=REAL-good or NEG
'Are you two alright, or not?'

### 5.5.3 Content questions

The focus of this section is the syntax of content questions. It is worth noting that Wuvulu demonstrates affinity with POc in some of the vocabulary of content questions for "when?", and "how many?".

Table 5.1 Question words

| aira | 'when?' (past) |
| :--- | :--- |
| naira | 'when?' (future) |
| amaia | 'where?' (animate) |
| afaia | 'where?' (inanimate) |
| itani/ia | 'where?' (in/animate) |
| batanai | 'how?' |
| fira | 'how many? |
| tamanu | 'what?' |
| ini | 'who?' |
| (ama)tani | 'why?' |

### 5.5.3.1 When?

Wuvulu has two question words for 'when'-one that asks when something happened in the past, and one that asks when something will happen in the future. This distinction exists in the POc vocabulary *(q)ana- $\eta i c a n ~ ' w h e n ~(p a s t) ? ' ~ a n d, ~ *(~(\eta, q) a-\eta i c a n ~$ 'when (future)?'. The questions aira 'when?' (past), and naira 'when?' (future), demonstrate a pattern of dyads that distinguish between past and future, based on the presence of word-initial phoneme $/ \mathrm{n} /$ (cf. Table 5.1).

The 'when' question can occur in sentence-ininital position, or in sentence-final position. There is a slight pause between the question word and the rest of the sentence.
(5.42) aira, ro=na-nafa-?a mena Pola-и when.PAST 3PL=REAL-spear-TR that moms.bro-1SG
'When did they spear my mother's brother?'
ro=na-nafa-Pa mena ?ola-u, aira
3PL=REAL-spear-TR that moms.bro-1SG when.PAST
'When did they spear my mother's brother?'
The question word naira 'when?' (future) forms a dyad with aira 'when' (past). Like aira 'when (past)', naira can occur in the first or last position of a sentence.
(5.44) ma naira, tala ?o?ou? and when.FUT road 1PL.INCL
'And when is our journey?'
(5.45) tala Po?ou, naira?
road 1PL.INCL when.FUT
'And when is our journey?'

### 5.5.3.2 Where?

There are two forms for 'where', amaia, and itani. The word amaia tends to be used with animate reference, to ask about the whereabouts of a person. The word is fossilized, but appears to be composed of the morphs $a$ 'IJ' $+m a$ 'and' $+i a$ ' $3 \mathrm{SG}^{\prime}$, with a literal meaning of 'and he?'.

The form itani is used with about equal frequency for animate and inanimate 'where' questions. The distinction in animacy includes people and spirits but not other living forms such as animals, fishes, or plants.

In the typical syntax of a 'where' question, the 'where' word comes first and is followed by the subject with a slight pause between the two.
(5.46) amaia, Bara
where PROPN
'And, where is Bara?'
The order of the where word can also appear in sentence-final position.
(5.47) Bara, amaia

PROPN where
'Where is Bara?'
(5.48) Alo, ma pifine Mona, itani?

PROPN and woman PROPN where
'Where are Alo and the woman, Mona?'
(5.49) itani Alo, ma pifine Mona, itani?
where PROPN and woman PROPN where
'Where are Alo and the woman, Mona?'

In constructions involving verbs, a 'where' word can also appear in an adjunct position on the left or right periphery of the clause.
(5.50) ro=na-biri=?ia, itani

3PL= REAL-work=3SG where
'Where did they do it?'
(5.51) itani, ro=na-biri=Pia
where 3 PL $=$ REAL-work $=3$ SG
'Where did they do it?'

### 5.5.3.3 How?

The word batanai 'how' is fossilized, but seems to be composed of the forms $b a$ 'COMP', and tani 'why?'. The meaning of batanai can have the sense of the question, How will things be then?, (referring a perplexing situation).
(5.52) batanai, fei io
how the spear
'How is the spear?"
(5.53) maPa=ia, ?arua batanai
see=3SG 1DU.INCL how
'See, what are we going to do now'
(5.54) Pena amu?ou=mina-Piwa-pelu,

DEM 2PL=FREQ- totally-yell-pelu
Pua ro=?a-baParofo, ma batanai?
because 3PL=IRR-surprise and how
'When you totally finish screaming, because they will be surprised, and how will they be?'
(5.55) batanai, fei biri-?a-na
how the work-DER-POSS.3SG
'How does it work?'

### 5.5.3.4 What?'

The 'what?' question word functions as syntactic subject or object. In (5.56) tamanu 'what' functions as the subject of a transitive verb.
(5.56) taтапи na-fa-afelo-a fei ити what REAL-CAUS-bad-TR the house 'What damaged the house?'

In (5.57) tamanu 'what' serves as the syntactic object argument of a transitive verb.
(5.57) ma mei Aua mei, fi-biri-Pa tamanu and ART PROPN ART, SIM-do-TR what 'And as for this Aua person, what is he doing?'

In (5.58) 'what?' is topicalized in sentence-initial position, and is co-referential with the object clitic =?ia.
(5.58) tamanu, ro=na-biri=Pia
what 3 PL=REAL-work=3SG
'What did they do?'
In (5.59) 'what?' occurs in a possessive construction with the locative part noun Pa ?a 'with'.
(5.59) ro=na-fa-wane-wane $=i a \quad$ ?a ?a tamanu

3PL=REAL-CAUS-RED-straight=3SG with what
'What did they straighten it with?'

### 5.5.3.5 Why?

The 'why?' question word, tani, always comes sentence-initial. An alternate form of tani 'why' is amatani which is a lexicalization of $a$ ' IJ ' $+m a^{\text {' }}$ and' + tani 'why'
(5.60) amatani Barafi Pi=po?o-luri-li-na ?ei rama?a why PROPN 3SG-INTS-gather-REP-TR the.pl person 'Why [does] Barafi gather the people?'
(5.61) na-mina ruta-PiPiri-na mei aro-na ba, "Tani? Рei maРa-mu, tani? REAL-totally sit-ask-TR the spouse-3SG COMP why the.PL see-3SG, why 'Her spouse sat and sat and asked, "Why? In your view, why?""

### 5.5.3.6 Who?

The question word ini 'who?' can function syntactically as the subject of nominal and verbal clauses, or it can serve as the object of a transitive verb or preposition.

In (5.62) and (5.63) ini 'who' functions syntactically as the subject of nominal clauses in both initial and final positions.
(5.62) ini ara-ти
who name-2SG
'What (lit. who) is your name?'
(5.63) ioi, ini

PRON. 2 SG who
'Who are you?'
In (5.64) ini 'who' functions as syntactic subject.
(5.64) ini na-ware-fani=o?
who REAL-talk-give $=2 \mathrm{SG}$
'Who told you?'
In (5.65) ini 'who’ functions as syntactic object.
(5.65) ro=na-ware-fana-a ini?

3PL=REAL-talk-give-TR who
'Whom did they tell?'
In (5.66) ini 'who' functions as the object of a preposition.
(5.66) ro=na-ware-ware PaPa ini?

3PL=REAL-talk-give-TR with who
'They talked with whom?'

### 5.5.3.7 How many?

The question word fira 'how many' can serve as the syntactic subject of nominal and verbal predications, and it can serve as the object of a transitive verb of a preposition. The Wuvulu word for 'how many?' is eytmologically related to POc *pica(n) 'how many?'

In (5.67) the word fira 'how many' serves adjectivally to modify the NP ramaia 'person'.
(5.67) fira rama?a na-walu?ai-mai
how.many person REAL-move-DIR
'How many people entered?'
In (5.68) the NP is implicitly understood and fira stands alone, functioning as syntactic subject.
(5.68) fira na-waluPai-mai how.many REAL-move-DIR 'How many entered?'

In (5.69) fira functions as the syntactic subject NP of a transitive clause.
(5.69) fira $n a-f o ? a=i a$
how.many REAL-hit=3SG
'How many hit him?'
In (5.70) fira functions as the syntactic object in a transitive clause. Note that the modified head noun pigeon can be omitted if understood from context.
(5.70) ro=na-fanunu-a fira palu

3PL-=REAL-see-TR how.many pigeon
'How many pigeons did they see?'
In (5.71) fira functions as the object of the predicate of a nominal construction, whose subject is a complex NP.
(5.71) fira Pei ware-a-и ba amи२o=nei-poPo-no-ruta how.many ART talk-DER-POSS.1SG COMP 2PL=DEON-INTS-go-sit
'And how many times have I said that you must really go and stay?' (lit. how many were my words that ...'

The word fira can also be glossed 'how much' and can be used with mass nouns such as water, sand, and cost.

### 5.6 Negation

Negative clauses in Wuvulu are indicated by the words lomi ' NEG ' and lope ' NEG ', which are in free variation. There is also a negator Pa?a 'NEG', and Paba which is a contraction of PaPa 'NEG', The word apuna 'do not' (taboo) is a prohibitive form, and the word aria 'on the contrary'. The inflectional morphemes neia

### 5.6.1 Verbal constructions

In negative verbal predications lomi/ lo?e 'NEG' occurs immediately before the verb.
(5.72) lomi laru=na-fi-fo?a-i

NEG 3DU=REAL-RECIP-hit-RECIP
'The two did not fight.'
(5.73) loPe laru=na-fi-foPa-i

NEG 3DU=REAL-RECIP-hit-RECIP
'The two did not fight.'
The sentence of (5.74) is grammatical, but the sentence of (5.75) is ungrammatical.
(5.74) minoa, lomi laru=na-fi-foPa-i
yesterday NEG 3DU=REAL-RECIP-hit-RECIP
'Yesterday, the two did not fight.'
(5.75) *lomi minoa laru=na-fi-fo?a-i

### 5.6.2 Nominal constructions

In (5.76) lomi ' NEG ' serves as a NP in a nominal clause. Note that $f i$-fo? $a-i-a$ is a derived noun (from the root fora 'hit' > fi-fo?a-i 'verb, fighting (reciprocal)' > fi-fora-i-a 'noun, fighting'.
(5.76) lomi fi-foPa-i-a.

NEG RECIP-hit-RECIP-DER
'(There is) no fighting.'

In (5.77), the negative word lomi forms a nominal predication with an animate indefinite article emea 'a (animate)'.
(5.77) lomi emea.

NEG one.ANIM
'There is not one (person).'
Example (5.78) is like the previous example with the exception that the inanimate indefinite article is used.
(5.78) lomi epalo

NEG one.INAN
'There is not one (thing).'
(5.79) lomi maPila

NEG few
'Not (even) a little.'
The intensifier pa?a is often collocated before one of the negators lomi, or lope.
In (5.80), the negator (lomi) occurs immediately before the subject (emea ro?ou 'one (of) them').
(5.80) pa?a lomi emea ro?ou na-?u-tau=ia.
very NEG one them REAL-stand-take.leaf=3SG
'Definitely not one of them stood (and) took it (leaf).'

### 5.6.3 Complements

The word Paba 'not that' is a contraction of PaPa ba 'not that'. The word Paba is used more frequently than the phrasal form. Both forms take a clause complement.
(5.81) minoa PaPa ba laru=na-fi-fo?a-i
yesterday NEG COMP 3DU=REAL-RECIP-hit-RECIP
'Yesterday the two did not fight.'
The more common negators loPe and lomi can also be used with a complement, but they are not as frequent.
(5.82) loPe ba $?=$ =?a-li-foPa-fa-maPe-a emea rama?a NEG COMP 2SG=IRR-go-hit-CAUS-die-TR ART person
'You should not go kill a person.'

### 5.6.4 Locatives

Locative words in the language can be negated with lomi/lope 'NEG'. Location negation is another form of nominal predication in which there is no copula, but simply the juxtaposition of the negative word and a location.
(5.83) lomi ieni

NEG here
'(It is) not here.'
(5.84) ia, lomi wiwe?e

PRON.3SG NEG PROPN
'He is not in Wewak.'

### 5.6.5 Prohibition

The word Papuna 'forbidden, taboo' is etymologically related to POc *tabu 'forbidden, taboo'. The word is typically used in an imperative form where a second person subject is assumed and the verb is unmarked with respect to aspect/mood.

```
(5.85) Papuna biri=Pia
    do.not work=3SG
    'Do not do it!'
```


### 5.7 Transitivity

### 5.7.1 Intransitive clauses

Clauses with intransitive verbs take at most a single NP argument that serves as syntactic subject. As mentioned previously, a typical clause has no overt NP. The subject of an intransitive clause can be a NP or a subject proclitic. In (5.86) the subject NP is the first person pronoun iau 'I'.
(5.86) na-ruta-falolo?api, iau

REAL-sit-sorry PRON.1SG
'I remained sorry.'
Alternatively, as shown in (5.87) and (5.88), respectively, an intransitive clause can have a subject clitic and no NP antecedent, or it can have both a subject clitic and a subject NP.
(5.87) Pu=na-ruta-faloloPaPi

1SG=REAL-sit-sorry
'I was sorry.'
(5.88) Pu=na-ruta-falolopaPi, iau 1SG=REAL-sit-sorry PRON.1SG
'I was sorry.'
Stative predications are also intransitive (cf. Chapter 4). In (5.89), the verb naarara 'REAL-black' serves as the predicate, and 'this skin of my body' serves as subject.
(5.89) na-paアi Pobao pine-u ma feni uli アunи-u na-arara REAL-have four leg-POSS.1SG and this skin body-POSS.1SG REAL-black 'I have four legs and the skin of my body is black.'

In (5.90) the predication naPilaPila 'is spotted' is modified by niu alo 'yellow'. In this case, the subject is an embedded possessive NP, where 'my body' is possessor and 'this skin' is possessed.
(5.90) na-Pilaßila niu alo feni uli ?ипи-и REAL-RED-spot coconut sun this skin body-1SG
'This skin of my body is spotted yellow.'

### 5.7.2 Transitive clauses

The syntax of the transitive clause of (5.91) is SVO. The verb has a transitive marker, and an NP direct object, his food. Also note that the subject NP, Barafi is crossreferenced on the verb by the third person singular clitic $P i=$.
(5.91) eai arewa Barafi Pi=na-bigi-Pa Pei ana-na
one day PROPN 3SG=REAL-work-TR ART CLASS.food-3SG
'One day Barafi prepared his food.'

### 5.7.3 Semi-transitive clauses

Dryer uses the term semi-transitive for clauses that share properties of both transitive and intransitive clauses (2005:38).

In many languages, however, there are some clauses that do not fall easily into one or the other of these two categories, where they behave in some ways like intransitive clauses, but in other ways like transitive clauses.

Dryer's (2005) examples involve verbs that take an obligatory adjunct. The details of Wuvulu are different, but there is still a basis for drawing a distinction between the behavior of transitive constructions, and verbs of motion that involve a destination, even if they are not called "semi-transitive" verbs.

A prototypical transitive clause in Wuvulu has as an actor argument and an undergoer argument, where the undergoer is an object that is directly affected by the action of the verb. A semi-transitive clause also takes two arguments, but they are syntactic subject, and a NP goal.

Semi-transitive constructions consist of verbs of motion that are grammatically marked by the morpheme -n $\bar{a}$ 'S.TR'. Verbs of motion may occur with or without semi-transitive marking. If a motion verb does not have semi-transitive marking, it does not take an obligatory goal argument, but if a motion verb has semi-transitive marking, a goal NP is obligatory. Transitive verbs are similar in that their verb roots can occur in intransitive constructions (in the absence of a transitive marker).

The marking of semi-transitivity in Wuvulu appears to be an innovation that was induced by analogy. In the case of transitive verbs that take a direct object, the transitive marker is of the form, $-\mathrm{C} \bar{a}$, where C can be one of five consonants. The semi-transitive marker is similar in form, but always uses the alveorlar nasal consonant, -n $\bar{a}$ 'S.TR'. The semi-transitive marker, $-n \bar{a}$ has a bi-moraic heavy nucleus, as do the variant transitive markers, $-\mathrm{C} \bar{a}$. And the semi-transitive marker is analogous to the transitive marker in that both require an "object" that immediately follows the marker.

For the purpose of comparison the transitive clause of (5.92) shows a transitive verb that takes an $n$-initial transitive marker. The transitive marker - $\mathrm{C} \bar{a}$ has a long ultima, and requires that a direct object NP immediately follow. ${ }^{21}$
(5.92) ro=na-timi-na Pei muro

3PL=REAL-throw-TR the.PL stone
'They threw the stones.'

[^19]The example with the semi-transitive In (5.93), the verb of motion, li 'go', takes the semi-transitive marker, $-n a$, and is immediately followed by the location NP, Port Moresby.
(5.93) ro=na-li-na Port Moresby

3PL=REAL-go-S.TR PROPN
'They went to Port Moresby'
Other motion verbs such as Paunu 'go', and lele 'crawl', can be used interchangeably with the verb li 'go'.
(5.94) ro=na-Paunu-na Port Moresby

3PL=REAL-go-S.TR PROPN
'They went to Port Moresby'
(5.95) mei balu na-lele-na polu
the child REAL-go-S.TR jungle
'The child crawled to the jungle.'
(5.96) Pi=po-we-li-na Aua ba Pi=li-na lori Aua.

PROPN 3SG=INTS-EV-go-S.TR PROPN COMP 3SG=REAL-go-S.TR belly Aua 'He would go to Aua to approach the shore of Aua.'

In the example given of (5.97) the verb ?aunu 'go' is used twice, first occurring without semi-transitive marking, then followed by the use of semi-transitive marking.
(5.97) naranara-u Pale-Pei ba iau, Pa-Paunu, Paunu-na Wewe?e. thinking-1SG like-ART.PL COMP PRON.1SG IRR-go go-S.TR PROPN 'My thinking is that I will go; I will go to Wewak.'

There is a temptation to classify the semi-transitive marker as a preposition that acts as the head of PP. Prosody argues against a PP analysis. As mentioned previously the semi-transitive marker bears ultima word stress on the verb, indicating it is part of the verb, rather than a free preposition.

It is possible that a preposition, $n a$ 'to' is going through a process of grammaticalization, whereby it is cliticizing to the final position of the verb stem. It is plausible that by analogy the cliticized $-n \bar{a}$ takes the shape of the transitive marker, $-\mathrm{C} \bar{a}$, and the location adjunct functions as a direct object.

### 5.7.4 Ditransitive clauses

There are several Wuvulu verbs that take three syntactic arguments, including fani 'give' (POc *pani), Palo 'send', and more recently, the borrowed word imel 'email'.

Grammatical arguments for ditransitives are Subject, Object, and Recipient.
Subject and Object are typically expressed overtly as NPs (or as agreement markers (§5.7.2)). A recipient can be specified as the object of a prepositional phrase, or as an enclitic that has been promoted from the clause core. A third, strategy that Wuvulu uses to express a recipient argument is by means of a possessive form, where the recipient is the possessor of a direct object NP.

### 5.7.4.1 Prepositional phrases

Wuvulu, like many Oceanic languages, uses "prepositional phrases" to express an indirect object of the verb 'give'. In particular, the locative part noun Pa?a 'with, to' is used to mark the recipient argument.

When a prepositional phrase is used to specify the recipient of the verb fani 'give', the direct object comes immediately after the verb, and is followed by a preposition (locative part noun) whose object is the recipient.
(5.98) laru=na-fan-a fei apara Pa?a mei rama?a 3DU=REAL-give-TR ART fishing.pole to ART person 'They gave the fishing pole to the person.'

In Wuvulu, prepositon-like locative part nouns can be inflected for singular possessive suffixes. An alternative analysis is to consider the possessive suffixes as clitics that attach to prepositions, but as mentioned in Chapter 3, "prepositions" act morphosyntactically like nouns.
(5.99) laru=na-fan- $a \quad$ fei apara $\quad$ PaPa-u 3DU=REAL-give-TR ART fishing.pole to-1SG
'They gave the fishing pole to me.'
(5.100) laru=na-fan-a fei apara PaPa-na

3DU=REAL-give-TR ART fishing.pole to-3SG
'They gave the fishing pole to him.'
Note that the verb fani 'give' loses its final vowel for either a transitive marker, $-a$, or an object enclitic (promotion).

### 5.7.4.2 Promotion of recipient

A recipient can be promoted from the clause core into the nucleus as an object clitic. The direct object is in a sense demoted to the clause core. In this case a recipient NP does not occur, because the recipient has been promoted into clause nucleus to occupy the position that typically marks a direct object, i.e., it is bound to the verb as an object clitic.
(5.101) ro=na-fan-au fei apara

3SG=REAL-give=1sg ART fishing.pole
'They gave me the fishing pole.'
(5.102) ro=na-fan=io fei apara

3SG=REAL-give=2SG ART fishing.pole
'They gave you the fishing pole.'
(5.103) ro=na-fan=ia fei apara

3SG=REAL-give $=3$ SG ART fishing.pole
'They gave him the fishing pole.'
A second form of promotion is that a recipient can be promoted syntactically into a position immediately following a verb with a transitive suffix. The direct object appears as a NP immediately after the promoted recipient.
(5.104) laru=na-fan-a emea rama?a fei apara

3SG=REAL-give-TR ART person ART fishing.pole
'They gave a person the fishing pole.'
(5.105) ?i=na-fan-a mei lofu-na fei apara

3SG=REAL-give-TR ART brother-3SG fishing.pole
'He gave his brother the fishing pole.'

### 5.7.4.3 Possessive constructions

In addition to promotion, Wuvulu ditransitive clauses can exploit one of the possession strategies in order to specify a recipient argument. Recall that possession can be expressed by the juxtaposition of NPs, or by an inalienable possessor suffix (Chapter 3). These possession strategies can ingeniously function in ditransitive constructions to indicate both the direct object and the recipient.

### 5.7.4.3.1 NP Juxtaposition

For the strategy of juxtaposed NPs, recall that the syntax is possessed NP, followed by possessor NP. (Note the first of juxtaposed NPs has ultima stress in all examples (according to a post-lexical rule).)
(5.106) ити ro?
house PRON.3PL
'Their house.'

This same structure serves to indicate the object arguments of a ditransitive clause, where the first NP is the direct object and the second object is the indirect object:
(5.107)roPou na-fani ити aтиРои

PRON.3PL REAL-give hourse PRON.2PL
'They gave your house (to you)'
This strategy can also be used with non-pronominal recipients, such as a proper nouns.
(5.108) ?i=we-alo pono?a James

3SG=EV-give pay PROPN
'He will send money to James (lit. He will send James's money)'
(5.109) laru=na-fani ana ro?olu

3DU=REAL-give CLASS.food PRON.3PL
'They gave food to them. (lit. The two gave their food)'
(5.110) laru=na-fani ape ropolu, ponoto

3DU=REAL-give CLASS.gen PRON.3PL dog
'They gave the dog to them. (lit. The two gave their possession, dog.)'

### 5.7.4.3.2 Possessor suffixes

Ditransitive constructions can also indicate direct and indirect objects by means of singular possessor suffixes that are attached to either an inalienable noun or an alienable classifier, where the noun or classifier is the direct object of the verb, and the possessor suffix is the indirect object.

$$
\begin{aligned}
& \text { (5.111) } r o=n a-\text {-fani ana- } u \\
& \text { 3PL=REAL-give CLASS.food-1SG } \\
& \text { 'They gave me food.' (lit., 'They gave my food.') }
\end{aligned}
$$

(5.112) ? $\hat{i=n a}$ fani ипи-ти

3SG=REAL-give CLASS.drink-2SG
'He gave you drink. (lit., He gave my drink)'
(5.113) laru=na fani ape-na

3DU=REAL-give CLASS.gen-3SG
'They gave the possession to her (lit., They gave his/her/its stuff).'

### 5.8 Syntactic variation

This section considers the syntactic variation of the Wuvulu clause in terms of the combination of $\mathrm{S}, \mathrm{V}, \mathrm{O}, \mathrm{s}=$, and $=0$, where S and O are NPs , and $\mathrm{s}=$, and $=0$ are clitics. There are six possible orders of major constituents: SVO, SOV, VSO, VOS, OSV, and OVS. But as shown in Table 5.2, only four possibilities are valid in Wuvulu: SVO, OVS, OSV, and VOS. When these four are considered in combination with verbal agreement markers, a symmetry emerges, with four combinations of VO syntax, and four combinations of OV syntax.

Table 5.2 Morphosyntactic configurations with $\mathrm{S}, \mathrm{V}$, and O

| clitics | Vmedial |  | Vfinal |  | Vinitial |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | SVO | *OVS | *SOV | *OSV | *VSO | VOS |
| only s $=$ | S sVO | *OsVS | *SOsV | *OSsV | *SVSO | sVOS |
| only =o | *SVoO | OVoS | *SOVo | OSVo | *VoSO | *VoOS |
| both s $=\&=0$ | *SsVoO | OsVoS | *SOsVo | OSsVo | *SVoSO | *SVoOS |

### 5.8.1 VO configurations

Each of the examples of this section are in VO order.
(5.114)
SVO

Pei ra?o na-talu-a fei paiwa
ART.PL whale REAL-bite-TR ART.SG shark
'The whales bit the shark.'

$$
\begin{equation*}
\mathrm{S}, \mathrm{sVO} \tag{5.115}
\end{equation*}
$$

?ei ra?o, ro=na-talu-a fei paiwa ART.PL whale 3PL=REAL-bite-TR ART.SG shark '(The whales,) they bit the shark.'

VOS
na-talu-a fei paiwa, ?ei ra?o
REAL-bite-TR ART.SG shark ART.PL whale
'The whales bit the shark (lit. bit the shark, the whales).'
(5.117) $\quad$ sVO, S
ro=na-talu-a fei paiwa, ?ei ra?o
3PL=REAL-bite-TR ART shark ART.PL whale
'The whales bit the shark (lit. they bit the shark, the whales).'

### 5.8.2 OV configurations

Each of the examples of this section are in OV order.
O, VoS
fei paiwa,na-talu=ia $\quad$ Pei ra?o
ART.SG shark REAL-bite=3SG ART.PL whale
'As for the shark, the whales bit it (lit. bit it, the whales).'
O, SVo
fei paiwa, Pei ra?o na-talu=ia
ART.SG shark ART.PL whale REAL-bite=3SG
'As for the shark, the whales bit it.'

$$
\begin{equation*}
\mathrm{O}, \mathrm{sVo}, \mathrm{~S} \tag{5.120}
\end{equation*}
$$

fei paiwa, ro=na-talu=ia $\quad$ Pei raßo
ART.SG shark 3PL=REAL-bite=3SG ART.PL whale
'As for the shark, they bit it-the whales.'
O,S, sVo
fei paiwa, Pei ra?o ro=na-talu=ia
ART.SG shark ART.PL whale $3 \mathrm{PL}=$ REAL-bite $=3 \mathrm{SG}$
'As for the shark, it is the whales that bit it.'
In Table 5.3 there are four valid combinations that include object agreement, all of which are $\mathrm{OV}(\mathrm{OV}-\mathrm{o})$, and there are also four combinations that include subject agreement, two of which are S-final.

Table 5.3 Allowable morphosyntactic configurations

| VO |  | OV |  |
| :--- | :--- | :--- | :--- |
| SVO | VOS | OVoS | OSVo |
| SsVO | sVOS | OsVoS | OSsVo |

In cases where there is both an argument and a co-referential agreement marker, the general semantic of the clause remains the same if the argument is omitted (aside from issues of focus and topicalization).

### 5.9 Adjuncts

In Oceanic languages, "peripheral arguments" are defined as "locative phrases, temporal phrases and other adverbial phrases" (LRC, 87). The terms, "non-core arguments", and "peripheral arguments" are used interchangeably by LRC.

A problem with adopting this terminology for the Wuvulu data is that under a functional analysis, arguments are by definition in the clause core. Furthermore, "other adverbial phrases" are morphosyntactically distinct from time and location adverbials, illustrated by the fact that Wuvulu time and location adverbials can appear before and after the clause core. Adverbial phrases, on the other hand, are always only post nuclear, but before a time or location adjunct.

### 5.9.1 Manner

Manner adverbials occur only after the core, and can be followed by a time or location adverbial. The morphology of manner adverbials provides added evidence for drawing a distinction between manner adverbials and time/location adverbials.

There are two kinds of manner adverbials-those that take the causative, $f a-$ 'CAUS', and those that do not. Prosodically, adverbials derived by the causative are considered to be part of the verb nucleus, in that they follow word stress rules of the verb, with no phonetic separation between the verb and the modifier.
(5.122) Pi=na-poni-fa-rawani

3SG=REAL-run-CAUS-good
'He ran well.'

Note that adverbials that take the causative cannot modify the verb without the causative.
(5.123) *Pi=na-poni rawani

```
(5.124) laru=na-biri-fa-we?i
    3DU=REAL-work-CAUS-strong
    'They worked hard.'
```

(5.125) *laru=na-biri we?i

Another set of adverbials do not take the causative. These adverbials are words that immediately follow the clause nucleus.

```
(5.126) Pi=na-poni maluare
    3SG=REAL-run quick
    'He ran quickly.'
```

Note that adverbials that modify the verb without a causative cannot take a causative.
(5.127) *Pi=na-poni-fa-maluare
(5.128) アi=na-ruta wiwiwili

3SG=REAL-sit happy
'He sat happily.'
(5.129) *?i=na-ruta-fa-wiwiwili

In addition to the syntactic constraints on manner adverbials, there is also morphological evidence that manner adverbials are distinct from time/location adverbials. In (5.126) we saw that maluare 'quick' is phonologically distinct from the verb and seems to operate as an adjunct to the core. But unlike time and location adverbials, manner adverbials that do not take the causative can be incorporated into the nucleus, by means of derivation.
(5.130) ro=na-biri-maluare- $i=n i a$

3PL=REAL-work-quick-DER=3SG
'They did it quickly.'
(5.131) ro=na-biri batafa

3PL=REAL-work fast
'They worked fast.'
(5.132) $r o=n a-b i r i-b a t a f a-i=n i a$

3SG=REAL-fast-DER=3SG
'They did it fast.'
Dik's model of fuctional grammar also distinguishes between manner and time/location adverbials (1997a:50). The model recognizes a core predication as a nuclear predication that is qualified by a manner adverbial and distinguishes an extended predication as a core predication that is located in time and space. From a morphological perspective it is clear that manner adverbs have a tighter relationship with the verb nucleus than do time and location adverbials (below).

### 5.9.2 Location

Locative adjuncts can be clause-initial or clause-final. In (5.133) the sentence-initial phrase iei fawelei rufu 'there in the vicinity of the village'.
(5.133) iei fawelei rufu, Pi=na-ware-fana=u.
there adjacent village 3 SG=REAL-talk-give $=1 \mathrm{SG}$
'There in the vicinity of (the) village she told me.'

In (5.134) the same location adjunct phrase from (5.133) is in the sentence-final position.

> (5.134) Pi=na-ware-fana=u iei fawelei rufu
> $3 \mathrm{SG}=$ REAL-talk-give $=1 \mathrm{SG}$ there adjacent village
> 'She told me there in the vicinity of (the) village.'

In (5.135), a time adjunct is sentence initial. Time adjuncts also occur in the sentence-final position.
(5.135) minoa ro=na-ruta-fa-malu Pi uти mei fatu
yesterday 3PL=REAL-sit-CAUS-quiet LOC house ART chief 'Yesterday they sat silently at the house of the chief.'

### 5.9.2.1 Locative part nouns

A locative part noun is optionally preceded by a locative marker, $3 i$.
(5.136) fei ponoto na-ruta ?i pafo wa the dog REAL-sit LOC above canoe 'The dog sat on the canoe.'

As a location adjunct, a locative part noun can occur sentence-final, or sentence-initial.
(5.137) Pi pafo-na ro=na-२au-ra Рei upи

LOC on-POSS.3SG 3PL=REAL-put-TR the coconuts
'On top of it, they put the coconuts.'
The locative preposition $P i$ is optional.
(5.138) fei wa nа-раРі Реі ири lalo-na
the canoe REAL-have the coconut inside-3SG
'Laru's canoe has the coconuts in it.'

### 5.9.2.2 Demonstratives

The words for here and there in the language are expressed by the forms iei/ieni/iena 'there/here/there'. These forms appear to be composed of a location marker POc $* i$ that has fused with the basic morphemes Peni (proximal), $\mathcal{P e i}$ (neutral), and Pena (non-proximal). As is the case with temporal demonstratives, there is a contrast between the non-proximal forms iena 'there' and iei 'there'. The difference is that iei 'there' specifies a location without information about relative distance.
(5.139) Pi=na-Pau=ria ieni
$3 \mathrm{SG}=$ REAL-put $=3 \mathrm{SG}$ here
'He put it here.'
(5.140) ro=nei-Pule iena

3PL-DEON-stay there
'They must stay there.'
(5.141) e-ai Parewa Barafi na-bigi-?a Pei ana-na class-one day PROPN REAL-work-TR ART food-PRON.3SG 'One day Barafi prepared his food.'
(5.142) Pi=na-ware-fana-u iei fawelei rufu
$3 \mathrm{SG}=$ REAL-talk-give $=1 \mathrm{SG}$ there area village
'She told me at the village.'

### 5.9.3 Time

Time adverbials can occur in the adjunct positions of clause (cf. §5.1). The time adjunct one day in (5.143) is clause-initial.
(5.143) e-ai arewa Barafina-bigi-Pa Pei ana-na CLASS one day PROPN REAL-work-TR the.PL CLASS.food-3SG 'One day Barafi prepared his food.'

In (5.144) the time adverbial, yesterday afternoon, occurs in the post-clause periphery.
(5.144) mei nanao na-pono-?a fei ape-na ponoto fafi minoa. the girl REAL-buy-TR the CLASS.gen-3SG dog afternoon yesterday. 'The young lady bought her dog yesterday afternoon.'
(5.145) fafi warieni ?a-ware-fani=o feni २u२ura Turafua.

Afternoon today IRR-talk-give $=2$ SG this story PROPN
'This afternoon I'm going to tell you this story of Turafua.'
The lexeme wariPeni is a fossilized form, it is composed of the morphemes wari 'regarding', and Peni 'now'. So, wari३eni 'today' literally means 'regarding now'. The Wuvulu word for 'now' is ?eni, which, as mentioned earlier, happens to be the proximal deictic form used for spatial reference. Table 5.4 provides a list of time adverbials. Note that time words occur as clausal adjuncts.

Table 5.4 Time adverbials

| aipoilao | 'two or more days before yesterday' |
| :--- | :--- |
| aipoi | 'day before yesterday' |
| minoa | 'yesterday' |
| wariPeni | 'today' |
| narani | 'tomorrow' |
| namafuo | 'day after tomorrow' |
| naPauru | 'two days after tomorrow' |
| na?aurulao | 'more than two days after tomorrow' |
| Pe?eni Pua | 'just now' (lit. 'here just') |
| Pana Peni ?ua | 'at this very moment' |
| Pana Pei ua | 'at that moment' (lit. 'too then just') |
| mina | 'in the past, once upon a time' |
| lomi Pi peluto | 'never ending' |
| inene | 'before' (cf. Table 5.5) |
| nene | 'after' (cf. Table 5.5) |

Wuvulu has a set of polar time dyads that distinguish between past and future time according to the presence or absence of a word initial $/ \mathrm{n} /$.

Table 5.5 Time dyads

| vowel-initial | PAST | n-initial | FUTURE |
| :--- | :--- | :--- | :--- |
| inene | 'before' | nene | 'after' |
| emea | 'a (person)' | nemea | 'a person (future)' |
| eai | 'one (thing)' | neai | 'one thing (future)' |
| efarani | 'sometime in the past' | nefarani | 'sometime in the future' |
| aira | 'when? (past)' | naira | 'when? (future)' |

There is a set of frequency adverbials that pattern syntactically with time adverbials, including efarani 'sometime (past)', nefarani 'sometime (future)', ranimai 'always', epepalo arewa 'each day', and mina ei arewa 'all days'.
(5.146) efarani, Pama-и ma Pina-u, laru=na-fa-rawani=au
sometime father-POSS.1SG and mom-1SG 3DU=REAL-CAUS-good=1SG
'Sometimes my father and mother, they would treat me well.'
(5.147) ranimai, ?о=?aunu-na ari always $2 \mathrm{SG}=$ go-S.TR sea 'You always go to the sea.'

### 5.10 Chapter summary

Typologically, although Wuvulu is an SVO language, it seems reasonable to presume that the synchronic constituent order may have originated from a VOS syntax that diachronically fronted the subject constituent, resulting in subsequent cliticization. In the investigation of constituent order patterns it is obvious that Wuvulu is a head-initial, VO language with a fair amount of flexibility with respect to syntactic subject and object arguments.

A Wuvulu clause is characteristically Oceanic in its morphosyntax, where most clauses have no overt NPs, and reference to syntactic constituents is made by means of co-referential subject and object clitics. The present analysis includes co-referential subject and object clitics in the clause nucleus, and NP arguments (syntactic and oblique) are extra-nuclear, but are in the core layer.

One area of residue in the analysis has to do with the boundary between the clause core and adjuncts to the core. In the functional grammar analysis of Foley \& Van Valin (1984), arguments are included in the clause core, and adjuncts to the core are on an outer peripheral layer. Dik (1997a/b) distinguishes an additional layer between the two as an extended core that encompasses manner adverbials. This additional layer of analysis seems to be appropriate for Wuvulu on the basis of morphosyntactic properties of manner adverbials.

## 6 <br> Complex constructions

### 6.1 Introduction

This chapter investigates complex constructions and serial verb constructions.
"Complex construction" here refers to sentences with multiple clauses. The features of complex constructions in Wuvulu are examined in light of what LRC (53) refers to as "complex sentences":

Oceanic languages generally do not have especially complicated systems of overt marking of subordination, and subordinate markers often perform other functions in these languages. Relative clause markers, for example, are often similar or identical in shape to demonstratives, and reason clauses are often expressed by means of a causal preposition. There is often a single subordinator that expresses a wide range of subordinating functions. It is not uncommon for clauses to be simply juxtaposed without any linking morphemes at all. The structural relationship between clauses may be shown instead by interdependence in inflectional marking between main and subordinate clauses, with the range of categories that are expressed in subordinate clauses typically being a subset of those encountered in main clauses. Conjoined sentences are generally linked by a small set of conjunctions. There is wide spread use of a lexical verb meaning 'say' marking subordinate clauses to verbs of location or perception.

The features of complex constructions in Wuvulu fit well with what is expected in Oceanic languages. Subordination can be expressed by a variety of means, including mood marking on juxtaposed main and subordinate clauses; conjunction for addition, alternation, and contrast; a complementizer $b a$ 'that' (PMP *ba); and functional words that introduce reason clauses. The complementizer $b a$ also functions to introduce purpose clauses.

There are additionally lexical items that signal logical relationships between clauses, such as reason and result clauses. The complementizer $b a$ 'comp' (PMP * $b a$ 'or, if, this, because'), for example, marks complements of speech, cognition, and perception; it also introduces purpose clauses; and it is used sentence-initially when a speaker states what s/he is about to do, as in ba ? (I'm about to go to the village).

The approach of the chapter is to look at complex constructions in light of POc features. Features related to complex constructions in POc have been posited by LRC, and Moyse-Faurie \& Lynch, 2004 (M-F \& L). The latter provides an excellent typology of coordination in Oceanic languages, but is admittedly, "focused heavily on Southern Melanesian and Polynesian languages, and has examined rather less data from other Oceanic subgroups" (M-F \& L, 482). The present chapter seeks to widen the focus by
contributing data from an area of the Oceanic subgroup from which there has been negligible linguistic documentation.

The chapter topics appear in the following order: §6.1 Introduction;
§6.2 Conjunction; §6.3 Subordination; §6.4 Serial verb constructions; §6.5 Recursion; and §6.6 Summary.

### 6.2 Conjunction

Wuvulu has clausal conjunctions for coordination, alternation, and contrast. The coordinating conjuction in Wuvulu ma 'and' is nearly ubiquitous in Oceanic languages (from POc *ma 'and'). The conjunction 30 'or' is used for alternation, and the conjunction ma? ${ }^{2}$ 'but' expresses contrast between clauses.

### 6.2.1 Coordination

Typologically, Oceanic languages can be characterized by whether they use multiple coordinators for various functions or a single coordinator that "deals with a whole constellation of values, translated, according to the language" (M-F \& L:447). Coordinative morphemes in many Oceanic languages "appear to cover other related semantic notions, all clustering around an 'additive' perspective" (ibid.). These functions include coordination of numerals, NPs, VPs, clauses, and sentences. Wuvulu uses just one coordinator for these functions, $m a$ 'and'.

### 6.2.1.1 Numbers

The coordinating conjunction $m a$ 'and' is used in the formation of numbers, for example seven and nine, because they involve the addition (conjunction) of epalo 'one'. The coordinator is also used for the conjunction of numbers in the tens place and units place (cf. Chapter 3).

### 6.2.1.2 NPs

Although NP coordination was discussed in Chapter 3, it is mentioned here again in the context of M-F \& L's typology. It should be noted that Wuvulu does not distinguish between how semantically tight or loose conjuncts are to one another, nor does it distinguish between the conjunction of common and proper NPs.
(6.1) ara laru Pei rama?a Barafi ma Pudeiafo name two ART person PROPN and PROPN
'The names of the two people are Barafi and Pudeiafo.'

### 6.2.1.3 VPs

The coordinator ma 'and' is used to conjoin VPs. The distinction between VP and clause coordination is made based upon whether the VPs share a subject and/or TAM marking. In (6.2) Barafi 'PROPN' serves as syntactic subject of the first VP, 'get-carryreturn the stone'. The second VP, 'put-return it again' has no overt expression of subject (i.e., the 3 SG subject clitic $P i=$ is absent), but shares the subject of the first VP.
(6.2) tißei, Barafi na-to-po-aliwe?i-na fei mugo therefore PROPN real-get carry-return-TR the stone
ma na-Pau-aliwe?i-li=nia Pi lalo fei tuta. and REAL-put-return-REP $=3 \mathrm{SG}$ LOC in the taro.garden
'Therefore, Barafi, carried the stone back, and returned it into the taro garden'
In (6.3) there are three conjoined VPs. The first of the VPs is marked for subject agreement and deontic mood. The other two VPs have no overt subject or mood marking, but share the subject and TAM marking of the first VP, i.e., the second person subject clitic $30=$ ' 2 SG ' and the mood marker nei- 'DEON' operate on all three VPs. An interesting feature of this example is that the third VP, 'give-see' is transitive and takes the second person object clitic, $=i o$ ' 2 SG' implying a reflexive semantic. The first two VPs are intransitive.

## (6.3) ?o=nei-talai ma mama?au ma fani-ma?a=io

$1 \mathrm{SG}=\mathrm{DEON}$-walk and fear and give-see=2SG
'Your must walk about, and fear, and watch yourself.'

### 6.2.1.4 Clauses

Baule, a singular proper noun is the syntactic subject of the first clause 'finally thinking'. The second clause has a different subject, marked by means of the third person plural clitic $r$ o $=$ ' 3 PL'. In (6.4) there is a switch of subjects from Baule 'PROPN, SG' in the first clause which is conjoined by $m a$ 'and' to the second clause and a different subject, the 3PL subject clitic ro=.
(6.4) ma Baule nawe-nara-nara
and PROPN finally-RED-think
ma ro=na-aliwe?ai-li-na pa3ulu,fa-lafe-li-na pa3ulu and 3PL=REAL-return-go-S.TR above CAUS-drift-go-S.TR above
'And Baule was finally thinking, and they returned above, caused to drift above.'

### 6.2.1.5 Discourse

The coordinator ma 'and' is commonly used in the initial position of a sentence to move the storyline forward. One of the prosodic indications of sentence conjunction of this sort is a sentence-final drop in the intonation of the preceding sentence followed by a pause. This prosodic pattern distinguishes this type of coordination from clause coordination within a sentence (§6.2.1.4).

Further possible signals of sentence conjunction are a change of subject or a switch in location. The sentence of (6.5) occurs in the introductory section of a famous narrative.
(6.5) e-Pai Parewa Barafi Pi=na-biri-Pa Pei ana-na CLASS-one day PROPN 3SG=REAL-work-TR the.PL food-3SG 'One day Barafi prepared his food'

The formulaic "once upon a time" statement in (6.5) is followed in (6.6) by a sentence with an initial $m a$ 'and'. Although the subject remains the same, a new participant Baule is introduced.
(6.6) Ma Pi=na-ware $\quad$ Pa?a Baule and 3SG=REAL-talk with PROPN
'And he (Barafi) talked with Baule.'
The discourse continues in (6.7), again employing the sentence-initial use of $m a$ 'and', and again, functioning with a scope that transcends the clause.
(6.7) Ma Pi=maРa-paPi=ia mei lofu-na, na-tiba and $3 \mathrm{SG}=$ see-have $=3 \mathrm{SG}$ the brother-3SG REAL-angry
'And his brother saw this and was angry'
The coordinating conjunction often precedes a conditional sentence that has a logical relationship with the preceding sentence. The example of (6.8) conjoins the
semantic of the preceding discourse which warns agains violating an Papuna 'prohibition'.
(6.8) Ma na?a ?o=?a-neneri-?иa=ia Pena naranara-mи ba, ... and if $2 \mathrm{SG}=\mathrm{IRR}$-follow-just=3SG those thinking-2SG COMP 'And when you just follow your own thinking...'

### 6.2.2 Contrast

The Wuvulu conjunction maPиa 'but' occurs between two clauses, and functions to show contrast. The contrastive conjunction functions in (6.9) to express the concession, that although I am sick, I am your bodyguard.
(6.9) na-fuпи, таРиа іаи иfa-ти

REAL-sick but PRON.1SG umbrella-2SG
'I'm sick, but I'm your bodyguard (lit. umbrella [of protection]).'
In (6.10) ma3ua 'but' contrasts the action of two different subjects, they finally went, but you will work.
(6.10) ro=na-we-barua таРиа, атиРои=na-faufau ?o=?a-re-biri 3 PL=REAL-EV-go.to.village but, $2 \mathrm{PL}=$ REAL-strong $2 \mathrm{SG}=$ IRR-DIR-work 'They will finally went to the village, but you who are strong will go work.'

In (6.11) the contrastive statement is we slept, but I didn't sleep.
(6.11) aiPoи=na-maРirи maРиа iau lomi na-maPirи

1PL.EXCL=REAL-sleep but PRON.1SG NEG REAL-sleep
'We slept, but I did not sleep.'

### 6.2.3 Alternation

The Wuvulu conjunction, ?o 'or', is used to specify alternates, and is used with NPs, VPs and clauses. The conjunction ?o 'or', also functions to indicate paraphrase, or a correction, and it can occur as a question prompt in clause-final position.

### 6.2.3.1 NP Alternation

Although NP alternation does not demonstrate complex predication, it is included here to show the range of function of Po 'or'. The sentence of (6.12) exemplifies an equative clause where the right side of the predication is an alternation of the NPs 'good time' versus 'bad time'.
(6.12) e-feni, Pau rawani, २o Pau afelo CLASS-this time good or time bad
'Is this a good time or is it a bad time?'
As a conjunction of NPs, 30 'or', occurs between the two conjuncts, for example 'good time or bad time' in (6.12), or 'the rat or the cat' in (6.13).
(6.13) $P i=l i \quad$ Pale-Pena fena balafai, Po fena pulipuli
$3 \mathrm{SG}=$ move like-those that rat or that cat
'It moves like the rat or the cat.'
(6.14) biri-biri fei talatala nia, Ро tamanu Pena PapaPa-mu.

RED-work the channel fish or what those knowledge-2SG 'Work on the fish channel, or whatever knowledge you have.'

### 6.2.3.2 VP alternation

The verb phrases of (6.15) are conjoined by ?o 'or'. The first VP takes the subject clitic $3 i={ }^{\prime} 3 \mathrm{SG}^{\prime}$, and the second VP is unmarked with respect to subject and shares both the subject clitic of the first VP, and the negation operator. Each VP takes an object clitic that has the same referent.
(6.15) lo२e Pi=to=nio, ?o panaro-fio

NEG 3 SG-get=2SG or hold=2SG
'It will not get you or hold you.'
The morpheme ?o 'or', can also serve as a locutionary prompt to the listener in order to elicit an alternative. In this context, the conjunction is very similar to the use of $m a$ 'and?', where a response to the elicitation is a conjunct. The question in (6.16) can either be interpreted as a yes/no question, or it can be taken as the elicitation of an alternative to ravman 'government'.
(6.16) e-feni titia feni, wa ini? gavman, ?o? CLASS-this ship this canoe who? government, or "This ship-whose ship is it? The government's, or (whose)?"

Table 6.1 Coordinators

| Coordinator | function | range of glosses | scope |
| :--- | :--- | :--- | :--- |
| $m a$ <br> (POc ${ }^{\prime}$ Pa $^{\prime} a$ <br> 'and, with') | additive coordination | 'and, with, <br> and then, <br> so' | numbers, nominals, <br> VPs, clauses, paragraphs |
| maPua | contrastive | 'but' | VPs, clauses |
| Po | alternation coordination | 'or', tag question | nominals, VPs, clauses |

### 6.3 Subordination

### 6.3.1 TAM marking

Subordination can be expressed by the TAM marking of juxtaposed clauses that have no overt coordinator. The subordinate clause is usually the first of the juxtaposed clauses and has a meaning of 'if' or 'when', depending on context.

If the verb of the subordinate clause is marked for irrealis mood, and the verb of the main clause is marked for realis mood as in (6.17), the meaning of the construction is that when the action of the main clause occurred the action of the subordinate clause occurred.

> (6.17) $r o=$ Pa-no-rai, $\quad$ Pi=na-re-to=nia 3PL=IRR-move-DIR 3SG=REAL-DIR-get=3SG 'When they came, he went and got it.'

If the verbs of both clauses are marked for irrealis mood, then it is an instance of coordination. The action of both clauses is cast into the near future.
(6.18) laru=?a-no-rai, $\quad$ ro=?a-re-to=nia
$3 \mathrm{DU}=$ IRR-move-DIR 3 PL=IRR-DIR-get=3SG
'The two will come (and) they will go get it.'
If the verbs of both clauses are marked for realis mood, the first clause must be preceded by a time adjunct $\mathcal{\text { Pei 'when' or Pena 'when' to indicate that when the action of }}$ the first clause occurs, the action of the second (irrealis) clause will occur.
(6.19) ?ei $\quad$ ro=na-no-rai, $\quad$ Pi=na-re-to=nia
when 3PL=REAL-move-DIR 3SG=REAL-DIR-get=3SG
'When they arrive and he will get it.'

One topic worthy of further research is the morphosyntax of mood and aspect markers. Example (6.20) has an initial dependent clause which is unmarked with respect
to mood Pi=no-rio 'she came' followed by a clause which is marked with fi-for simultaneity. The clause in which fi- occurs is interpreted as a dependent clause. The free translation follows the example.

> (6.20) ma Pi=no-rio, ana $3 i=$ fi-no-rio
> and 3SG=move-DIR also 3sG=SIM-move-DIR
'And when she came, she was also coming.'

### 6.3.2 Conditionals

A study of Wuvulu conditional constructions would be a worthy research project in its own right. This section provides an overview of the most common morphosyntactic forms for conditionals. Wuvulu conditionals generally involve a protasis, na?a/naba 'if', and an apodosis, often marked by $t e$ 'then'. Usually there is no overt marking of the apodosis by $t e$. But, regardless of whether $t e$ is present, the apodosis is always marked prosodically by a rising intonation in the first clause, and falling intonation in the second clause. In the examples, prosodic variation is indicated by use of a comma.

### 6.3.2.1 Simple conditions

The words naPa and naba are both glossed 'if' and the two forms generally seem to be in free variation. Native speakers claim that the forms can be interchanged with no change in meaning. There is, however, at least one context in the corpus in which napa 'if' occurs, but naba 'if' does not occur.

In eight of the 37 occurrences of na?a 'if' in the corpus, it is preceded by the morpheme ba 'comp': ba nara 'if it is the case that...'. In the 17 occurrences of naba 'if', it is never preceded by ba 'comp' (*ba naba).

The example in (6.21) is a conditional with the implication if you carve the top of the crooked, also the keel will be crooked.
(6.21) Ma naPa Po=a-tafi-?a fei pafo-na ma Pi=wa-wali, and if $\quad 1 \mathrm{SG}=$ IRR-carve-TR the top- 3 sg and $3 \mathrm{SG}=$ crooked
ana Pi=wawali fei puru-na
also 3SG=crooked the keel-3SG
'And if you carve its top and it is crooked, its keel will also be crooked.'

The aposdosis (6.22) is overtly marked by the conjunction, te 'then'. It should be noted that $t e$ 'so', is used in the sentence-initial position to indicate that the next sentence follows.
(6.22) ma na?a amu?ou-no-aliwe?i-mai, te Pa-poPo-fani-na pani and if 2 PL-move-return-dir then IRR-INTS-give-TR hand 'And if you return, then I will definitely help.'

The conjunction te often comes between a dependent condition clause and an independent clause and can be glossed as 'then, so', or it can conjoin two clauses when the second clause seems to chronologically follow as in (6.23).
(6.23) Po-Pa-fa-ruta-na fei ulu-na, te ro=na-we-fanunu-Pa fei wa $2 \mathrm{SG}=$ IRR-CAUS-sit-TR the prow-3SG, so 3PL=REAL-EV-see-TR art canoe 'When you place its prow, then they will finally evaluate the canoe.'

The conditional clause in (6.24) is a hypothetical statement.
(6.24) Ma naba lomi laru=na-fi-tiba-i, laru Pei fi-tafi-i, and if NEG 3DU=REAL-RECIP-anger-RECIP, PRON.3DU the RECIP-sister-RECIP
lomi $3 i=m a m a r a f e i ~ A u a ~ m a ~ F u f u l u . ~$
NEG 3SG=dry ART PROPN and PROPN
'And if the two sisters had not fought,
Aua and Wuvulu wouldn't have been created.'
Example (6.25) illustrates that the conditional, na?a 'if', can be used in combination with modal marking to express a condition of potential. The first clause is marked realis, and the second clause does not have mood marking.

$$
\begin{aligned}
& \text { (6.25) naPa Po-na-biri-fa-wePi, Po-to ponoPa-mu } \\
& \text { if } 2 \text { SG=REAL-work-CAUS-strong } 2 \text { SG-get pay-2SG } \\
& \text { 'If you work hard you will get your pay.' }
\end{aligned}
$$

### 6.3.2.2 Contrafactuality

Contrafactual propositions can be encoded using a conditional conjunction naba 'if' in the dependent protasis clause. Mood marking is the same in both clauses. There is a pause between the clauses, with Pale-?ei 'like' before the second clause.
(6.26) Naba Po=na-biri-fa-wePi, Pale-Pei ?o=na-to ponoPa-mи if $2 \mathrm{SG}=$ REAL-work-CAUS-strong like-PL $2 \mathrm{SG}=$ REAL-get pay-2SG 'If you had worked hard, you would have gotten your pay.'

### 6.3.2.3 Negation of conditional clauses

There are three ways of negating protases 'ifs' and apodoses 'thens' of conditional clauses: a protasis can be negated, an apodosis can be negated, or both the protasis and apodosis can be negated. An example of each of these is given below. The narrator is, himself, a master storyteller, and is known in the culture as an PanoPano 'master woodcarver, exceptionally skilled person'. Using a variety of negated conditional statements, the narrator emphasizes that if his advice is followed, disaster can be avoided.

### 6.3.2.3.1 Negation of protasis

There are several combinations of negators that go with either the protasis or apodosis of a conditional statement. Note that it is not uncommon for logical operations to be expressed by means of an interjection, as is the case of ?ea which has meaning at the discourse level, but which is not necessarily conventionalized-in this case, "if not X (then) Y". These types of expressions seem to have a logical function, and warrant further investigation.
(6.27) naPa loPe ro=na-fanunu-farawani=nia fena РиРитa-na, Рea, if NEG 3PL=REAL-look-CAUS-good=3SG those curse-3SG DISC
loPe Po=?aila-fa-rawani NEG 2SG=know-CAUS-good
'If you do not carefully consider its curse, then, you will not have good understanding.'
(6.28) ma naPa lomi ?o=fani-ma?a-io Pena biri-Pa-mu, and if NEG 2 SG=give-see=2SG those work-DER-2SG
?o tamanu manumanu ?o=na-paРi, Pi=panaro-fio, Реna manumanu or what thing 2 SG=REAL-have $3 \mathrm{SG}=$ hold -2 SG those thing
'And if you do not watch your work, or whatever thing(s) you have, those things will hold you.'

### 6.3.2.3.2 Negation of apodosis

(6.29) ma naPa $2 о=n a-n e n e r i-m a P a=i a ~ P e n i ~ w a r e-a-u, ~$ and if 2 SG=REAL-follow-see $=3 \mathrm{SG}$ these talk-DER-1SG

Paa, lo?e Pi=to-nio, Po panaro=fio
IJ NEG $3 \mathrm{SG}=$ get -2 SG or hold=2SG
'And if you carefully follow these words of mine, it will not get you, or hold you.'

Again, the author states that if you know the signs and curses (as he does) then you will not be surprised.

### 6.3.2.3.3 Negation of protasis and apodosis

In (6.30) both the protasis and the apososis are negated. The logic of the condition is similar to that of the previous examples.
(6.30) Ma naPa loPe Po=na-Paila Pei PuPuma feni malarufu warieni, and if NEG 2 SG=REAL-know ART.PL curse this ground today
lope Ponapaila
NEG 2SG=REAL-know

### 6.3.3 Reason and purpose

There are four words that imply reason or purpose relationships between clauses-Pua/Puatani 'because', Pamate 'because', te 'then, so', and ba 'COMP, in order that'.
(6.31) Pulei Pana lomi ba Pi=na-panaro=fia

PROPN also NEG comp 3SG=REAL-hold=3SG
Puatani Pina-li-nanamui-li=ria
because 3 SG=REAL=feel-CPLT=3SG
(6.32)
te, Pana mina Pena wara-u Pena, so, also all those word-Poss.1SG those ba lore nemea ba Pi=we-tama COMP NEG someone COMP 3SG-EV-paddle
'So, also all of those particular words of mine (are) in order that there is no one that travels.
(6.33) loРe $P o=$ fanunира $i=a \quad$ Pиа $\quad$ Pi=na-иrиa

NEG 2 SG=look-have $=3$ SG because 3 SG=REAL-grass
'We can't see it because it is overgrown.'
(6.34) talai-lao taba fei wali Pua Pei maroa-na, walk-DIR top the driftwood because the partner-POSS.3SG

$$
\begin{aligned}
& \text { ro-na-no-to-na fei wa ro?ou } \\
& \text { 3PL=REAL-move-get-TR the canoe their }
\end{aligned}
$$

'[He]walked about on the driftwood because his crew members took their canoe.'
(6.35) Pi=li-na fe-feroi ba Pi=to PapaPa-na.

3SG=go-S.TR RED-teach COMP $3 \mathrm{SG}=$ get knowledge-3SG
'She goes to school to gain knowledge.'

### 6.3.4 Complement clauses

A complement clause is marked by the complementizer ba 'comp' and serves as an argument of a matrix clause. In Wuvulu, sentential complements are used with verbs of ability, cognition, speech, and emotional states.

The mood marking of the verb in the complement clause depends on the context and semantics of the verbs in both the matrix clause and the embedded clause. The subject of the complement may be coreferential with the subject of the matrix clause, or it may be different. When it is coreferential with the matrix subject, an overt subject is not obligatory in the complement clause, e.g., (6.36).

### 6.3.4.1 Ability

The sentence of (6.36) has an added degree of complexity in that the embedded clause is itself composed of two clauses. Irrealis mood is marked on the verbs of both the matrix clause and the apodosis of the embedded clause (I'll be happy). The protasis (if) in the embedded clause is not marked for mood.
(6.36) iau Pa-awia ba Pa-ruta niPe-niPe naba Pi=no-rio PRON.1SG IRR-able COMP IRR-sit RED-happy if 3SG=move-DIR "I'll be able to be happy if he returns."

### 6.3.4.2 Cognition

Examples (6.37) and (6.38) have two different verbs of cognition in their matrix clauses. The matrix verbs of both examples are marked for realis mood. It is worth noting that the semantic of the cognition verb in (6.37) is know, and the mood marking of its complement is realis.
(6.37) Pi=na-aila ba Laru na-li-na umи PaloPalo 3SG=REAL-know COMP PROPN REAL-go-S.TR house store 'He knows that Lagu went to [the] store.'

But the semantic of the cognition verb in (6.38) is think, and it is unmarked for mood, but is marked for eventual aspect.
(6.38) Pi=na-nara ba ro=we-no-mai narai 3SG=REAL-think COMP $3 \mathrm{SG}=\mathrm{EV}-$ move-DIR tomorrow 'He thought that they would come tomorrow.'

Although it has not been borne out statistically, it is reasonable presume that the semantic of the matrix verb affects the modality of the complement.

### 6.3.4.3 Fear

The complement of the verb ma?au 'fear' expresses the object of fear.
(6.39) na-ma?au iau ba emea rama?a afelo 3 i=panaro-fa mei aro-u REAL-fear I COMP ART person bad $3 \mathrm{SG}=$ hold-TR the spouse-POSS.1SG 'I am afraid that an evil person will abduct my wife.'

### 6.3.4.4 Speech

Complements of speech are used with a variety of speech verbs, including talk, yell, and sing. The complementizer $b a$ is required both when the complement is reported speech, as in (6.40), or a direct quote, as in (6.41).
(6.40) Pi=na-ware ba Laru na-li-na umи PaloPalo 3SG=REAL-talk COMP PROPN REAL-go-S.TR house store 'He said that Lagu went to the store.'
(6.41) Pi=no-rio Piapilu Pi=na-ware ba "Haa amate anипи-и, 3SG-go-DIR PROPN 3SG=REAL-talk COMP IJ because reflection-1SG
fei ma fei anunu ini the and the reflection who
'When Piapilu came, he said, "Ha! Since that's my reflection, and so, whose reflection is that?"

### 6.3.5 Relative clauses

In Wuvulu, as in POc (LRC, 80) a relative clause (RC) occurs after the head noun that it modifies, and the determiner of the modified head noun is copied to the initial position of the RC. In (6.42) the NP meni pifine 'this woman' is being relativized, so a copy of the determiner meni 'this' marks the beginning of the RC. Note that there is a pause before and after relative clauses.
(6.42) meni pifine, [meni $3 i=n a-m a r e], ~ n a-p a t i ~$
this woman [this 3SG=REAL-cough] REAL-fall
'This woman who coughed fell.'
In (6.43) the determiner of ena pifine 'those women' is ena 'those'. A copy of ena 'those' occurs in the initial position of the RC.
(6.43) ena pifine, [ena ro=na-mare], na-pati
those women [those 3PL=REAL-cough] REAL-fall
'Those women who coughed fell.'
A similar syntax of DET N DET was discussed in §3.6.1.2.1, however in that case, a pause comes after the second determiner. For relative clauses the pause comes before the second determiner.

Keenan \& Comrie (1977) states that the ability to relativize applies to a continuous segment of the universal NP accessibility hierarchy. The implication is that if a language relativizes on some position along the hierarchy, it will also relativize on positions to the left of that position.
(6.44) Subject > Direct Object > Indirect Object > Oblique > Genitive > Object of comparison

About RCs in Oceanic, LRC says that, "These languages generally allow relativization of NPs well down the universal Accessibility Hierarchy" (43). Wuvulu
relativizes all the way down to objects of comparison, and as predicted, it relativizes everything to the left, i.e., every position of the hierarchy. As shown in the examples below, the position of relativization refers to an element inside the relative clause that agrees with the relative clause marker (which is itself an identical copy of a determiner that modifies the head noun.

### 6.3.5.1 Subject

The RC in (6.45) uses a pronominal clitic agreement strategy in which the subject clitic $P i=$ ' 3 SG' agrees with the relative clause marker mei 'the' in number.
(6.45) mei pifine, $[$ mei $3 i=n a-f o P a=u]$, $\quad n a$-pati the woman [the $3 \mathrm{SG}=$ REAL-hit $=1 \mathrm{SG}$ ] REAL-fall 'The woman who (she) hit me fell.'

In contrast with (6.45), example (6.46) is identical, except that a gap strategy is used: the subject clitic is absent.
(6.46) mei pifine, [mei na-fo?a=u], na-pati the woman [the REAL-hit=1SG] REAL-fall
'The woman who hit me fell.'

### 6.3.5.2 Direct object

In (6.47) a pronominal clitic agreement strategy is used. It is important to note that inside the RC there are two possible 3 sg clitics, but the correct extraction occurs because only one of them fits the allowable morphosyntactic constraints (OsVoS, cf. Table 5.3).
(6.47) fei nia, [fei アi=na-ana=ia fei ponoto], ?u-na-nafa=ia the fish [the $3 \mathrm{SG}-\mathrm{eat}=3 \mathrm{SG}$ the dog] $1 \mathrm{SG}=$ REAL-shot=3SG
'I speared the fish that the dog ate (it).'

### 6.3.5.3 Indirect object

In (6.48) a pronominal strategy is used, however, unlike the subject and object extractions of previous examples, the pronominal is an inalienable possessor suffix -na 'POSS. 3 SG ', as it is the object of a preposition.
(6.48) mei ramaPa,[mei John na-fani nia PaPa-na], na-pati the person [the John REAL-give fish to-POSS.3SG] REAL-fall 'The person to whom John gave the fish fell.'

### 6.3.5.4 Oblique

A pronominal strategy is used in (6.49) to extract the oblique object. An inalienable possessor suffix -na 'POSS. 3 SG' occurs inside the relative clause and is interpreted as coreferential with the head noun. The subject clitic is co-referential with the post-verbal subject, John.
(6.49) Pi=na-ma-mara fei tawa,[fei $3 i=r u t a$ pafo-na, John] 3SG=REAL-RED-dry the table [the 3SG=sit on-POSS.3SG PROPN] 'The table that John sat on is dry.'

### 6.3.5.5 Genitive

In (6.50) a pronominal strategy is employed to extract the inalienable possessor. An inalienable possessor suffix -na 'POSS. 3 SG' occurs inside the relative clause and is interpreted as co-referential with the head noun.
(6.50) mei ramaPa, [mei ити-па na-ruPa], na-lalai
the person [the house-POSS.3SG REAL-burn] REAL-marry
'The person whose [lit. (that) his] house burned got married.'

### 6.3.5.6 Object of comparison

Object extraction in (6.51) employs a pronominal strategy on the possessor suffix $-n a$ 'POSS. 3 SG '.
(6.51) fei wa, [fei MV.Tawi Pi=putuPoro-i PaPa-na], na-paPi tiPara the canoe [the PROPN 3SG=small-DER with-POSS.3SG] REAL-have rice 'The ship which is smaller than the MV Tawi has rice (on it).'

An exception to the general rule that the relative clause marker follows immediately after the specified head noun of the main clause is given in (6.52). In this case the determiner mei 'the' still marks the relative clause, but the NP immediately before it is the pronoun ia 'pron. 3 sg ', and a pronoun cannot take a determiner. The pronoun is the second NP in the verbless equative clause. The RC marker is copied from the first NP of the main clause mei balu mei 'that particular child'.
(6.52) mei balu mei, ia, $\quad[m e i ~ ? i=n a-t a m a-n a ~ A u a] ~$ the child the PRON.3SG [the $3 \mathrm{SG}=$ REAL-paddle-S.TR Aua] 'That particular child is the one who paddled to Aua.'

### 6.4 Serial verb constructions

Serial verb constructions are a feature of many Oceanic languages. LRC (47)
provides a characterization of the types of serialization that occur:

> Serial verb constructions in Oceanic languages differ in the extent to which the verbs in question are structurally linked. Some languages make a contrast between 'nuclear' serialisations, where the verbs are bound together and have only a single set of arguments (i.e the serial construction behaves just like a single verb), and 'core' constructions, where the verbs remain separate words and usually share just one argument, any other argument being the subject or object of just one of the component verbs.

Wuvulu has both nuclear and core serialization.

### 6.4.1 Nuclear serialization

Nuclear serialization consists of two or three verbs with preverbal morphemes on the first verb, and with post-verbal morphemes on the last verb. The serialization of nuclear verbs includes verb roots, and derived verbs. In (6.53) there are two verb roots, no 'move', and para 'contact'. The directional -lao 'away' is not considered to be a verb.
(6.53) ro=na-no-paPa-lao fei male afi

3PL=REAL-move-contact-DIR the ash fire
'[They] went up to the ashes of the fire.'
In (6.54) the serial verbs maPa 'see', and paii 'have' demonstrate serial verbs that share preverbal and postverbal inflections.
(6.54) ma Pi=maPa-paPi-a Barafi, Pi=na-tiba and $3 \mathrm{SG}=$ see-have-TR PROPN 3SG=REAL-angry
'And when Barafi saw it, he was angry.'
In (6.55), the action of the third verb, kill, is caused by the action of the second verb (hit).
(6.55) lo?e ba Po?ou-Pa-li-fo?a-fa-ma?e=ia

NEG COMP 1PL.INCL=IRR-go-hit-CAUS-die=3SG
'We will not go kill a person.'

Another semantic type of serialization is where the first verb is modified by a manner verb. In (6.56), the second verb watch is modified by the derived verb, translated carefully.
(6.56) Po=nei-mina-Рo-fa-fanunu-fa-rawani

2PL=DEON-totally-stay-RED-watch-CAUS-good
'You must totally stand watching carefully.'

### 6.4.2 Core serialization

The repetition of VPs is a rhetorical device that is frequently used in Wuvulu discourse to express elapsed time. VP repetition is distinguished from serial verbs by structural and functional properties. The morphosyntax of serial verbs is a series of verbs roots that have no intervening morphology, and that can be marked by a subject proclitic attached to the first verb root of the series, and an object enclitic attached to final verb of the series.

Another difference between serial verbs and clause repetition is the parataxis of clauses with prosodic space between each clause. And, with core serialization clauses can each carry prefixes and suffixes. Repeated clauses are most often verbs of motion which bear directional markers, as in example (6.57).
(6.57) ma アi=no-mai no-mai no-mai mina Pale?ei fi-mina-fo?a=ia and 3SG=move-DIR move-DIR move-DIR all like-PL SIM-totally-hit-SIM=3SG 'And he came, came, came all like killing him.'
(6.58) Pei re-rarapa, wawani?o, biri-?a ?ena pele nara-u.

ART DIR-wander, play, work-TR those end think-1SG
'Then go wander, play, do those things that came to mind.'
Although one of the distinguishing features of serial verbs is affixation of only the initial and final verbs, a similar pattern can occur with repeated clauses. Serial verbs, however, are tighter constructions, which are marked phonologically as a unit.
(6.59) fi-no-lao no-lao no-lao na-no-papa-lo feimale afi SIM-move-DIR move-DIR move-DIR REAL-move-touch-DIR the ash fire '[He] was going, going, going, going up to the sign of the fire'

The repeated clauses of (6.60) are transitives with direct object enclitics. As noted above, serial verbs are typically composed of non-identical roots, and are not separately inflected with object marking.
(6.60) ma larua-mina-fa-ru=ia, fa-ru=ia, fa-ru=ia, fa-ru=ia and 3 DU $=$ totally-feed $=3$ SG feed $=3$ SG feed $=3$ SG feed $=3$ SG 'And the two really fed it, fed it, fed it, fed it.'

### 6.5 Recursion

Hauser, Chomsky \& Fitch (2002:1569) hypothesize that recursion "is the only uniquely human component of the faculty of language." In Wuvulu, the complementizer, $b a$, is a means that is frequently invoked to form recusive constructions.

In (6.61), taken from a traditional narrative, there are three occurrences of $b a$ 'COMP', each marking an embedded clause. Like other languages (except perhaps Pirahã), Wuvulu has the ability to "infinitely" invoke recusive structures that embed clauses within clauses.
(6.61) ma inene Pi=na-ware Bau ba, 'ama Pi=po?o lomi nemea and later $3 \mathrm{SG}=$ REAL-talk PROPN COMP because $3 \mathrm{SG}=\mathrm{INTS}$ NEG anyone
ba Pi=na-po?o-Papa=Pia ba fei pulele tania-na comp 3SG=REAL-INTS-know=3SG COMP the belly umbilic-POSS.3SG
"And later Bau said, 'Is there really not one of you that definitely knows that the bellybutton is there."

### 6.6 Chapter summary

Wuvulu has an abundance of means available to express multi-clausal interaction, including conjunction such as coordination, contrast, and alternation; subordination by means of TAM marking, conditionals, reason and purpose clauses, complement clauses, and relative clauses; serial verb constructions; and recursion.

## 7 Summary and prospects

This chapter summarizes the main contributions of Chapters 1-6, and provides some ideas for future research on the Wuvulu language.

### 7.1 Summary

In the Introduction we looked at the linguistic genealogy of Wuvulu. From the perspective of geographic migration, the precursor of the Proto-Oceanic language was most likely spoken by people who moved eastward along the northern coast of New Guinea, prior to the Oceanic dispersion. LRC (97) states that:

> pre-POc speakers left their kin, who presumably lived near Cenderawasih Bay in Irian Jaya, and settled in the Bismarck Archipelago, possibly on the north coast of New Britain.

The, according to LRC (97), the settlement of the Admiralties is thought to have taken a circuitous route to Wuvulu:
"the outcome of an early departure from the homeland, a movement which all but reached a dead end...Oceanic speakers reached the Admiralties via the St. Matthias Islands, and their languages are directly descended from the language of the first settlers"

Because Wuvulu is the closest island of the Bismarck Archipelago from the New Guinean coast, the hypothesis that the people migrated first to New Britain or St. Matthias and then migrated back to Wuvulu seems counterintuitive. It is not clear that the "Matty Mystery" was ever solved, in terms of providing an explanation for the obvious difference between the physical features of Wuvulu people relative to others in the area. DNA sampling in the Bismarck Archipelago might shed light on whether the Wuvulu people have genes that are unique to them (and perhaps the Ninigo Islands to the east).

Wuvulu phonology presents an interesting example of sound change in progress, with the phoneme /r/demonstrating the unexpected allophony of [r], and the conditioned allophones $[\mathrm{g}]$ and $[\mathrm{x}]$. A hypothetical motivation for the backing of /r/ may have been a phonetic distribution of consonants that is more evenly balanced across the articulatory space. The deletion of [k] (or merger with [?]) would have freed up phonetic space for the [+back] velar allophones [x], and [g]. In the Wuvulu corpus, $50 \%$ of the consonant phonemes are coronal, with the remainder divided between consonant phonemes with
surface forms that are either [+anterior], or [+back]. When the velar allophones of $/ \mathrm{r} /$ are taken into account, consonant phones are distributed nearly evenly in the phonetic space between anterior, coronal, and back.

We saw that the structure of the Wuvulu VP is quite similar to that of the POc VP. We also we discussed the morphosyntactic features of a well-behaved, "canonical" Oceanic language, and saw that Wuvulu appears to be canonical. By examining Wuvulu in the light of POc features, we also saw that Wuvulu possesses the types of complex clauses that are expected for Oceanic languages, including relativization, and complementation. We also noted the use of the complementizer as a means of recursive embedding.

### 7.2 Prospects

Chants are rare, if non-existent in contemporary Wuvulu. While living on Wuvulu I obtained an audio recording of a chant from the last living puala 'priest'. The puala and his wife had the ability to intone chants that are perhaps known to no one else. Our principal linguistic informant told us that she could not interpret the chant, and that she would need help from the narrator and his wife. Unfortunately, our informant and the elderly couple are now deceased.

It is possible that the semantics of the song might never be recovered, but an effort should be made to obtain a transcription and translation of the chant. The recital of the chant was amazing. Although there is a consistent and repetitive metrical pattern, there were no repeated words. About four minutes into the chant, the narrator stopped and sat perfectly still for about 15 seconds before his wife supplied a word that he had forgotten. He then continued non-stop to the end. The chant was obviously memorized word-for-word by both the husband and his wife. This chant represents a potential trove of salvageable lexical items that will otherwise vanish from the Wuvulu record. And, there are almost certainly features of the morphosyntax that could indicate something more about the grammar of Proto-Admiralty, or an intermediate form of the grammar between POc and Wuvulu.

Of immediate value in the chant is its metrical structure. Regardless of the opacity of the semantics, the chant communicates a very clear meter that seems to support a prosody that is built on moraic trochees. Throughout the chant, there are two
beats (two syllables), followed by a heavy beat that lasts twice the duration of one of the two initial beats. The chant is available via the PARADISEC archive of Wuvulu audio files.

Another prospective line of future linguistic research would be to do a cross-Admiralty typological study of morphosyntactic features in order to compare degrees of affinity with the criteria of a canonic Oceanic language (found in Ross 2004). The Wuvulu grammar could be used as a basis of comparison for other Admiralty languages. ${ }^{22}$

Along these same lines, the morphological complexity of the Wuvulu verb raises questions about whether this level of complexity is found in other Admiralty languages, or even in other Oceanic languages. It is possible that the verbal morphology of other Admiralty languages is more complex than has been reported. Much of the previously published material on Admiralty languages had been based on small sets of elicited data. Possible exceptions are Hamel (1994), Stutzman (1997), Wozna \& Wilson (2005), and Bowern (2011). But even among the exceptions, Bowern (2011) is the only grammar that includes a critical mass of glossed texts; however, the texts are about 100 years old.

A further prospect is to archive and/or publish a collection of glossed narrative texts from Admiralty languages. The collection would include the two living Western Admiralty languages (Wuvulu and Seimat), and minimally the Eastern Admiralty languages of Kurti, Lele, Nali, Nyindrou, and Titan. There has been a history of SIL fieldwork in these languages, so part of the work may already exist in an unpublished form. The collection of texts could serve as a basis of comparison and could be archived in PARADISEC as a data source for continuing research.

Recursion and embedding were mentioned in Chapter 6. These topics could also be investigated further. The study would elicit different types of embedding, such as a complement clauses embedded in a relative clauses, relative clauses embedded recursively, complement clauses embedded recursively, and relative clauses embedded in complement clauses. Chapter 6 gives examples of only recursive complement clauses, but other types of embedding and recursion could be elicited. It would be interesting to

[^20]do tests on child acquisition of a variety of linguistic structures, including relative clauses and complement clauses.

In Wuvulu at least five categories of deixis can be identified-spatial, temporal, person, social, and discourse. ${ }^{23}$ There are presently no publications on deixis in the Admiralties subgroup of Oceanic languages. And, for the Oceanic languages for which there are e published descriptions of deixis, the work is restricted almost exclusively to the category of spacial deixis (Senft 1997, 2004a, b; Ross 2003).

Wuvulu demonstratives, however, are used in more than one category of deixis. This is illustrated by the demonstrative ?eni, which is typically glossed 'near' in spatial reference, but is also glossed 'now' in temporal reference, and 'close anaphor' in discourse reference. The semantic component [+PROXIMAL] is encoded by the deictic, Peni, and is interpreted according to the semantic domain, whether the referent is an object in space, a point in time, or a close antecedant in a discourse.

The three Wuvulu demonstratives ?ei/Reni/Rena 'the/these/those' are the basis of a coherent system of deixis in which particular grammatical forms are used crosscategorically according to shared semantic components of pragmatically bound distanceand person-oriented deictics, and are extended metaphorically into domains such as time, discourse anaphora, and social register.

Another area in dire need of further research is discourse analysis. Discourse analysis is typically neglected in linguistic descriptions, including Oceanic grammars. Longacre (1980) borrows the metaphor of a spectrum to discuss dynamism as it relates to the movement of a storyline in narrative discourse:
...the analysis of a narrative text reveals a cline of information which ranges from the most dynamic elements of the story to the most static (depictive) elements; successive positions along the cline correlate well (as a whole) with distinctions among the verb forms of a language. (1981:340)

The salience features of Figure 7.1 are given as a proposed cline of information in terms of a correlation between dynamism and verbal morphology.

[^21]

Figure 7.1 Wuvulu narrative salience spectrum
Events on the story line are encoded by realis mood, -na. Realis marking is ranked higher on the spectrum than the aspectual forms $-f i$ 'simultaneity', and -fane 'repeated action'. This is because realis marked clauses move the story along with greater velocity than do the aspectual forms. Stative clauses and equative clauses are about the same in dynamism, but stative forms are ranked higher higher in dynamism, because states seem to have a greater potential for change.

In the relatively short history of Oceanic linguistics, there has been little focus on Admiralty languages. Much of the low-hanging linguistic fruit has already been picked in places that are easily accessible. It is difficult and expensive to reach Wuvulu. There is a sense in which data from an exotic language in an area that has received so little attention make a disproportionately greater contribution to the typological picture of the Oceanic subgroup. As noted in the Introduction, Admiralty languages have not been well-documented. The hope is that the grammar and vocabulary of this dissertation will make at least a small contribution to the linguistic record of the Admiralty area.

## Part II: Vocabulary

## A - a

=a 3 SG object clitic.
-a DER, noun derivation from a verb.
-a TR, transitive marker.
aa $i j$. Наa!
aba 1. n. frond, 2. n. lip, 3. adj., linear.
abe $v$. grow.
abe (*abe?) $v$. hang.
abeabe $n$. rope.
afa $n$. section.
afaa $n$. westwind, west.
afafarai $n$. hairless, part line of scalp.
afai $v$. careful approach in hunting, spear fishing, approaching someone.
afamala $n$. Movement of water; e.g., bamboo, sugarcane.
afaru $n$. e.g., bamboo, sugarcane.
afau $n$. thigh.
afeafe $v$. masturbate.
afelo adj. bad.
afe $n$. blanket, food cover, shoes.
afi $n$. fire.
afoai propn. clan name.
afu $n$. Either a sponge with fleshy plates (Carteriospongia flabellifera, or something close to it) or a stony coral species (Acropora sp.) that also forms plate-like shapes. Both were identified with the same term from photos. See ?ugafu?. Carteriospongia flabellifera (?) or Acropora sp.(?).
afu (*afur) $v$. whip, hit, strike.
afua $n$. pepper vine.
afuafu $n$. fight stick, whip.
ai class. number classifier, e-ai, ru-ai, olu-ai
aiai $n$. tree, wood.
aie $v$. prompt someone to continue.
aino $v$. lie down.
aipani num. five.
aira $a d v$. when? (past).
airua pron. 1DU.EXCL.
aiwa $n$. Banyan tree. Also known as the Indian Banyan. It is named for Indian traders named Banyans. This tree is a huge evergreen and is sacred to the Hindus. It has aerial roots that grow earthwards from horizontal branches that support the tree, so that the tree can cover large areas. Ficus benghalensis.
aiwa $n$. Moreton Bay Fig tree. The underside of the leaves of this tree are smooth and rusty, and this feature is what distinguishes it from other fig trees. It begins its life
as an epiphyte, living in the branches of a larger host tree. Later, when its roots have reached the ground, it strangles the host tree, causing it to die and decay. Ficus macrophylla.
aipolu pron. 1PL.EXCL.
ala (*alaf) v. re-grease coconut.
alaba $n$. turtle.
alala $n$. croton.
alamaPe $n$. discarded coconut meat after having been squeezed.
ale $n$. friendship.
aleale $a d j$. seductive.
alelena $n$. Double-bar Spinefoot. Inhabits coral reefs, often seen in pairs. Distinguished by a pair of diagonal dark bars on the head and front of the body. Size to 30 centimetres. Siganus doliatus.
ali $n$. belly.
alia $n$. cod; the general name for this kind of fish.
alia $a d j$. pregnant, enlarged (abdomen).
alia bea $n$. Trout Cod. Inhabits coral reefs, usually seen around coral bommies in lagoons. Distinguished by overall dark coloration, a pattern of dark spotting, and white saddles on the forehead, the middle of the dorsal fin, and on the tail base. Size to 50 centimetres. Epinephelus maculatus.
alia namo $n$. Honeycomb Cod. Ihnabits protected inshore reefs and lagoons. Distinguished by a dense network of large spots on the body and fins--does not have the triangular white spots like the Hexagon Cod. Size to 28 centimetres. Epinephelus merra.
alia poa $n$. Camouflage Rockcod. Inhabits coral reefs in both lagoons and outer reefs. This fish is not a true cod, but belongs to the grouper family. It has no fear of humans and will swim straight over for a better look. This characteristic has made them rare, because they are easy to catch. They are distinguished by a pattern of spots and mottling with a series of irregular forward-slanting bars on the sides and have a pronounced black saddle on the tail base. Size to 61 centimetres. Epinephelus microdon. Also named Epinephelus polyphekadion.
alia roro $n$. Tomato Rockcod. It inhabits coral reefs, often in deeper water ( 25 to 80 metres). Distinguished by humped forehead and red to brown colour with small reddish spots. Juveniles are plain pinkish. Size to 58 centimetres. Cephalopholis sonnerati.
alia tuia $n$. White-spotted Rockcod. Inhabits shallow coral reefs and stays close to shelter. Distinguished by general dark colouration with irregular-shaped white spots and blotches on head and body. Size to 60 centimetres. Epinephelus caeruleopunctatus.
alia wawau $n$. Diagonal-banded Sweetlips. Inhabits coral reefs. Distinguished by blackspotted yellow fins and diagonal black bands on upper two-thirds of its body. Size to 50 centimetres. Plectorhinchus lineatus.
alialifa $n$. centipede.
alimau $n$. a swimming crab of the genus Portunidae. Charybdis $s p$.
alipu?i $n$. a variety of sponge that forms thin, fragile cups. Has probiscus. Two species were identified as belonging to this Wuvulu category. Compare Palapau.

## Kallypilidion sp. and Aka sp.

aliwe?ai $v$. return.
aliwe $2 \mathrm{i} v$. return.
alo $n$. sun.
alo $n$. Rufus Night-Heron (mature with black cap, or immature-streaked, some pinkish). Nycticorax caledonicus.
alo $v$. downward curl of the hand.
aloaina $n$. noon, $a d v$. good afternoon.
aloaloa adj. clear sky.
alolomi $n$. scoop liquid with a cup or small container.
alomi $v$. scoop liquid with a cup.
alu (*alum) $v$. help.
alu $n$. Great Barracuda. Inhabits coastal waters and offshore reefs. Feeds on fishes. Distinguished by faint oblique bars on back and usually has scattered black blotches on its sides. Size to 170 centimetres. Sphyraena barracuda.
alualu $n$. gun, slingshot, shooting marble.
aluawa $n$. temporary cook house.
aluawai propn. constellation
amatani $q$. why?
amai $n$. Rainbow Runner. Inhabits coral reefs and is usually seen in schools. Feeds on fishes and planktonic crustaceans. Distinguished by a pair of blue stripes on the middle of its sides and isolated small fins on the tail base. Size to 120 centimetres. Elagatis bipinnulata.
amamani $n$. sacrfice.
amamarua adj. indecisive.
amamarua
$\mathbf{a m o}=$ clitic. 2 PL subject proclitic.
Amuluna propn. Southern Cross.
Amuluna Pulu?a propn. false Southern Cross.
amuru $n$. a shiny silver reef fish, which prefers sandy areas. Average size is 30 cm .
amurua pron. 2DU.
amupolu pron. 2PL.
ana $n$. food, $v$. eat.
anaa $q$. really?
anai $n$. hibiscus.
anamo $n$. a species of tree commonly called wild cherry.
anana $v$. eat.
ani $n$. ask.
anitua (*anituaf) $v$. interrogate.
ani?u $n$. spirit, spirit of dead, Satan.
aniPu nofu $n$. reef watchman.
ano $n$. penis.
anu $n$. meaning.
anu $a d j$. baldness.
anunu $n$. shadow, silhouette, reflection, picture.
anuru $n$. torso back.
apafu $n$. taro species.
apaniu $n$. large wave.
apara $n$. 1) chief or king; so called because he holds the scepter (apara). 2) the main stem of the frond of a sago palm or bamboo used as a fishing pole.
aparanuru $n$. back bone.
apawai $n$. wisdom tooth.
apa?a $n$. knowledge.

- $v$. know.
ape class. poss.
apei $v$. watch.
apera $a d j$. dry.
aperara $v$. persecute.
api (*apir) v. rub.
apilotu $v$. huddle.
apipiri $n$. oil.
apipori $v$. hug, hugging.
apipu $n$. vine.
apiri $v$. rub oil.
apiroro $v$. embrace.
apitilo $n$. cyclone.
apipi $n$. squeeze, wring.
apunai $v$. crashing wave.
ara $v$. rub.
ara $n$. used figuratively for humans. Titi ara scratchy neck from smoking, or a longing to see someone.
araara $n$. seizure.
arafi propn. large stones at the southeast point of Wuvulu.
arafu $n$. clan name.
araia pula $n$. menstration.
aramaPaia $v$. rub two sticks to get fire.
arara $a d j$. black.
arara $n$. charcoal, sandpaper, black foreigner.
ararapa?o adj. black.
araPuu $n$. south, south wind.
are $n$. circle of coconut leaves 40 metre diameter, using heap of stones, then slapping surface of the water to scare fish into stones, then trap them in net.
arenua $n$. life, soul, spirit.
areoro $n$. a black, shiny snake.
ari $n$. large black ant.
aria $n$. Orange-striped Emperor. Inhabits coral reefs, often sheltering amongst branching corals during the day while taking on a mottled colouring. Distinguished by a general pale colour with a broad yellow stripe between the pectoral fin and the base of the tail. Size to 40 centimetres. Lethrinus obsoletus.
ariri $n$. infected sore.
aririi $n$. Jansen's Wrasse. Inhabits shallow coral reefs, often in water less than 1 metre deep. Feeds on gastropods, fishes, polychaetes and crustaceans. Distinguished by
broad dark bars on its body with yellowish spaces in between. Size to 20 centimetres. Thalassoma jansenii.
aripai $v$. pain from baby moving inside.
aro (*arof) $v$. call, name, call out. arofia: name him/her/it
aro $n$. a tree called garamut in Melanesian Pidgin, and also known by the names Vitex and bitum within Papua New Guinea. The common English name is New Guinea Teak. It is a medium to large tree, growing to 40 metres with a bole diameter of up to 130 cm . The trunk is usually not buttressed. Leaves are opposite and may have fine hairs on the underside; the tree is deciduous and sheds its leaves in the dry season. Flowers are white to pale purple; fruits are round to oblong, $5-12 \mathrm{~cm}$, contain 1-4 seeds and are dark violet when mature. The timber is pale and dense and has a leathery scent when freshly cut. It is difficult to treat with preservatives. Vitex cofassus.
aro $n$. spouse (traditionally also spouse's same-gender sib).
aro prep. under.
aroa $n$. married.
aroaro $n$. spongy part of pandanus (aroaroo tutu 'nipple').
aromaa $n$. tree species.
aroo $n$. Black Trevally. Inhabits coastal waters and offshore reefs. Distinguished by its dark colour ranging from dusky grey to dark brown. The median fins and scutes are also dark brown to black. Size to 80 centimetres. Caranx lugubris.
aropipila $n$. tree species.
arota $n$. clan name, location.
aru $n$. pancreas.
aru $n$. smoke.
aru $n$. dry coconut.
aru $v$. love.
aruaru $v$. sweat.
arui $n$. crab species. (arui unu-na: mature young man).
arulue $n$. drift coconut.
arulue $n$. trigger fish species.
aruru $n$. Coconut Crab. This is the largest of the hermit crabs, and lives its juvenile and adult life on land. The females lay their eggs by wading into the sea, and the larva live in the sea. Birgis latro.
aruu $n$. 1. dry coconut, 2. testicles.
aru?u $a d v$. excuse me.
atabaibai $n$. stomach ache.
ati $n$. bottom of container.
ati fora $n$. black tip reef shark.
atioi $v$. sneeze (onomatopoei).
ato (*atof) v. 1. smell, snif (atofa pula: ‘smell eyes' figurative for kiss), 2. taste.
ato $n$. outrigger stick.
atoma?aia test by smelling.
atu $n$. Nautilus. A cephalopod, related to squids and octopus. They live at a depth of 150 to 200 metres and cannot survive long in water that is warmer than 25 degrees Celcius. Nautilis pompilius.
atu $v$. scoop (using nautilus shell).
atu $v$. turtle mating. (figure of speech for intercourse).
atuana $n$. false labor.
au $n$. dew.
=au pron.. 1 SG object clitic.
Aua propn. Island 25 miles northeast of Wuvulu, whose inhabitants speak a dialect of Wuvulu.
aua $a d j$. swollen.
aufolo $n$. crosspiece, cross, crucifix.
Auna propn. Village on southwestern point of Wuvulu
auna $n$. breeze.
au?olua $a d j$. thick.
awa $n$. covering.
awa $n$. tree species.
awa $n$. fish species. Coronation Trout. Inhabits outer reef slopes. Distinguished by a bright pattern of elongated blue spots, and yellow edges on the fins and the crescent-shaped tail. Size to 80 centimetres. Variola louti.
awai (*awain) $v$. describe animate things (humans, animals, fish).
awawa $n$. tiny winged insects attracted to light.
aweawe $n$. Common Dart. Inhabits coastal waters, frequently in the surge zone off sandy beaches. Distinguished by strongly forked tail and 1 to 5 large spots along the middle of the side. Size to 61 centimetres. Trachinotus botla.
aweawe $n$. fish species.
aweni (*awenin) $v$. relieve.
aweri $n$. wrap-around garment. See: lawalawa.
aweri (*awerin) v. 1. adornment including grooming of the hair, 2. to bless someone or something.
awi (*awi?) v. cut.
awi $n$. Trochus. This cone-shaped mollusk is one of the most important commercial molluscs in the Pacific, as its shell is used to make shell buttons. It is found easily in intertidal waters or very shallow sub-tidal waters. Since it is so easy to harvest, many island states have had to make laws to limit the harvest and protect the Trochus from being decimated.
awi $n$. shark-tooth sword.
awi $a d j$. crooked, e.g., joint.
awia $v$. able
awiawi $n$. shark-tooth weapon.
ape $n$. originally referred to lungs, but meaning has become 'heart'.
a?i $n$. one of four types of pandanus; grows in the muddy swamp area.
aifa $n$. drum type.
a?ile propn. the original name before German replacement > Aile.
a?o $n$. from coconut leaves, but generally refers to roof of any material.
a?olo $n$. tree species.
a2olu $n$. turtle egg, chicken egg; spherical shape, including basketball, etc.
apu $v$. lie down.
$\mathbf{a} \mathbf{4} \mathbf{n}$. Dogtooth Tuna. Inhabits coral reefs; usually seen by steep outer reef slopes. Feeds
on fishes. Distinguished by large cone-shaped teeth, has a relatively large eye and wavy lateral line. Size to 150 centimetres. All tackle world record: 131 kg . Gymnosarda unicolor.
a?ua?u $n$. fever.
aPui $v$. stretch,
apui $v$. heat.
a?ule $n$. Mackerel Scad. Inhabits coastal waters and swims in schools. Distinguished by a clear to dusky tail and 0 to 4 scales in the straight part of the lateral line in front of bony scutes. Size to 32 centimetres. Decapterus macarellus.


## B - b

ba comp. that. Introduces complement clauses and purpose clauses.
bababau?u $v$. whisper, gossip.
babai adj.hot, high temperature--ambient, or of a person, liquid, or solid; figuratively for anger.
babanaii $n$. cover.
babanini $a d v$. quiet.
babare?a adj. scabbish.
babariana $v$. talk harshly.
babarii $n$. cooking pot or pan.
babarii $v$. cook. babarii du?ua cook food
babaro?i $n$. Azure Triggerfish. Inhabits steep outer reef slopes, sometimes seen far out at sea around logs or other floating debris. Distinguished by relatively long body, triangular dorsal and anal fins, a rounded caudal fin with the upper and lower lobes slightly longer. Its color can change from grey to blackish, and it often has small white spots covering the head and body. Size to 35 centimetres. Canthidermis maculatus.
babatua $n$. moving sea.
babau?u $n$. talking to self, gossip, whisper.
baba?orui $v$. nod off.
baba?u $n$. tree species.
babu $n$. whip.
bafu $n$. charcoal.
bafuro $n$. red coal.
bafuu $n$. black cod with blue spots.
bai $n$. puffer fish.
bai $v$. scoop or fetch water.
baibai $n$. mosquito.
baio?o $v$. interrupt.
baira (*bairapa) v. tear, rip.
balafai $n$. rat.
balai (*balain) v. slash.
balai $n$. tail.
balapea $n$. busy body.
balaturu $n$. Boxfish. Inhabits coral reefs. The young are bright yellow with black spots. Larger fish are brownish yellow with dark-edged pale spots. The largest adults are purplish brown with the spots faint or absent. This fish is also known as the BlackSpotted Boxfish. Size to 45 centimetres. Ostracion cubicus.
bala?ari $n$. Crescent Grunter. Inhabits inshore reefs, bays, harbours and river mouths. Distinguished by a pattern of curved dark stripes on its sides and dark bands on tail. Size to 32 centimeters. Eats excrement under the sea toilet. Terpon jarbua.
balaPuPu $v$. tremble.
balou $v$. bend down.
balu $n$. child.
bana (*bana?) $v$. join with something sticky, like glue.
banabana $a d j$. sticky.
banabana pine bala $n$. sticky tree used to catch bala(fai) $=$ rat.
banari $n$. scabies.
bani $v$. slam.
bao $n$. valley, box.
bao $n$. box.
bao $a d j$. hungry.
bapa2aa $v$. encounter.
bapa2i $v$. run into, discover.
bara $n$. location, coral, coconut cup.
Baraa propn. clan, location.
barafe $v$. disobey.
barafe $a d j$. premature.
Barafi propn. Barafi. [Anth: legendary hero]
baramapu $n$. rash.
baranafi $n$. cooking coral.
bareu $a d j$. eye pain.
bareu $v$. nap.
bare?a $v$. burp.
bari $v$. cook.
barito $n$. beetle hole
barito $a d j$. greedy (figurative from beetle).
barito $n$. the hard shell left behind by the beetle that eats taro and banana.
baritoro adj. sunken eyes.
baro adj. concave.
barofu $v$. snap, break.
barofu $n$. fracture line.
barofuna $n$. cliff.
baroro $a d v$. in container.
baroro $v$. stomach growl.
baru $v$. insert hand.
barua $v$. return to village or shore from bush.
barubaru $v$. a method of catching fish by reaching into the hole where they are hiding and pulling them out.
batafa $a d v$. hurry.
batanai $q$. how?
batiri $v$. splash, rustle.
batuetue $n$. small swell.
Bau propn. Bau. Legendary traditional leader.
bau $n$. old man.
baua adj. large.
baua $n$. headman.
baubara $n$. young man.
baubau afelo $a d j$. selfish.
baubau rawani $a d j$. generous.
baubau Pafelo $a d j$. not sharing.
baufele $a d j$. weak.
Baule propn. legendary leader who established peace between Wuvulu and Aua.
bawi adj. crooked.
ba?a $v$. tap, knock, pound, thump (onomatopoeic).
ba?a $n$. tap, knock, thump, pounding, explosion.
baPale $n$. basket.
baPananarai $n$. 1. violence, 2. recalcitrance.
ba2arere n. 1. money, from the onomatopoeic words from the 'tapping' (ba2a) and 'shaking' (rere) of coins, 2. coins.
baParofo $a d j$. startled.
baPautilai $a d j$. sparkle, shine, flash.
ba2awera $v$. start from sleep.
baPera $v$. burp, belch.
ba?ile?ile $v$. limping.
Ba2o propn. constellation.
baPo (*baPof) v. cut.
baio $n$. Xanthid-type crabs. These are the most typical crabs with which people are familiar. The three species listed were identified with this term.; crab; the general word for crabs. Atergatis floridus, Atergatis intergerrimus, Carpilius maculatus.
ba?o Panuta $n$. a xanthid-type crab of light-orange coloring with evenly scattered rounded rust-coloured spots. Liagore rubromaculatus.
ba2oro (*baPorof) v. interrupt.
ba?ua compound word from ba and ua. rel. that, in order to.
bea $n$. fruit bat.
beabea $n$. 1. Spotted Unicornfish. Inhabits coral reefs. Distinguished by a relatively long spike in front of the eyes and vertical dark lines on its sides (which may be small spots on the sides of fish not yet adult). This fish is also known as the Longnosed Unicornfish. Size to 50 centimetres. Naso brevirostris, 2. Sleek Unicornfish. Inhabits steep outer reef slopes, usually seen in schools. Feeds on zooplankton. It is brown to bluish-grey, but it can quickly change to pale blue. Rear edge of cheek and gill cover are often dark brown. Size to 75 centimetres. Naso hexacanthus.
Beatau propn. Beatau.
beberinamu $n$. guardian spirit.
bei $v$. blow.
bera $n$. husk.
beri (*beri?) v. 1 peel the skin of a betelnut fruit by biting and tearing away, 2. pick a cluster (of betelnut), 3. do and depart.
be?a $n$. Twin-leaved Coogera tree. A 6 to 7 metre tree growing in the rainforest understory and in the open. Fruits are yellow, red and black.
bibiei $a d j$. confused, crazy.
biei $v$. exasperate, vex. Tani i po'o biei? Why is he so annoying?
bilolo $n$. butterfly.
bilolo v. 1. dimming light Nabilolo, fei we?ai. The light has dimmed, is dimming, 2. descend. Nabilolo fei manufifidau. The bird descended.
binilo $n$. a black and white barred species of ribbon worm. Baseodiscus mexicanus.
biri (*biri?) v. work.
biro $v$. wink, pinch, blink, squint.
Biroti $v$. demolish, knockdown.
bitala $v$. used with searching in the grass or in hair, seaweed.
bitawe $v$. seperate.
biiofei $v$. 1. wag, 2. shake, esp. body part (head, leg)
bi?olei $v$. encircle.
bo $n$. pierce-hole.
bobo adj. very dry.
bobo?ai v. 1. cover, e.g., cover wound, 2. bandage, tie.
bobo?ai $v$. 1. imprison.
bobo?i $n$. bundle rope.
boru $v$. go.
boru $n$. a fish species.
buniwa $n$. window. A window opening on traditional homes that could be sealed mosquito-tight. This type of window is referred to in one of the famous legends of Wuvulu going to Aua and enforcing a peace treaty.

## E-e

e- $a f f$. CLASS.
eai num. one, used to count days, weeks, years. eai arewa inanomai Barafi. One day Barafi came. Woro ba o fapeduria laloo eai ua arewaa. I think we can finish it in only one day. See: neai. [used temporally to refer to an indefinite time in the past].
eai art. indefinite article. eai arewaa Baule na tamanaa Aua. One day Baude sailed to Aua.
efa det. some, shortened form of efipa. efa manumanu na panarofau 'Some things held me'
efarani $a d v$. sometime. efarani na'aununaa Sometimes I go to Wewak See: nefarani, sometime (future).
efawala $n$. particular location.
efipa det. some.
elaa $n$. tree species.
elarui num. two anim.
elelerui $a d v$. two-by-two. (cf. em-emea (animate), and epepalo (inanimate)).
eli $a d v$. conviction, guiltily.
elu $n$. mud.
ememea $a d v$. each person, one-by-one (animate).
enaa $n$. tree species.
epepalo $a d v$. each thing, one-by-one (inanimate).
epapau num. each pandanus box.
erere $n$. a guard, (erere pie 'guards of the beach'.
ero $n$. crab species.
eru (*eru?) $v$. scoop water.
eruai num. a set of two.
etuwi num. half.

## F-f

fa- aff. caus.
-faa aff. TR. transitive suffix, allomorphic with other historical consonants, Caa.
fafa (*fafa?) $v$. piggyback.
Fafala propn. loc.
fafanao $v$. steal.
fafanini $v$. tickle.
fafara $n$. toilette paper, coconut leaf tp.
fafari $v$. wipe arse.
fafaruru adj. slow.
fafau adj. low ceiling, $v$. humble.
fafa?arai $a d j$. 1. clean, pure.
fafelo $a d v$. damage, ruin.
fafeloia $v$. break, destroy(a carving,eg).
fafi $n$. afternoon, adv. afternoon greeting.
fafifipi $v$. challenge.
fai $n$. substitute word. substitute for words, e.g., intercourse
faimamea num. nine anim.
faimapalo nит. nine inanim.
fainaroa num. eight.
faipania $n$. friday.
fairuaia $n$. tuesday.
faipana $n$. affirmation.
fala (*falar) $v$. split.
falalapa $v$. act irresponsibly, misbehave.
falalapa $v$. misbehave.
falari $v$. ascend, adv. upright.
falatiti $v$. skid.
falatuu $n$. tree species.
fali $v$. laugh, smile.
faliawe $n$. coral branch. Lambis truncata.
faloloaiìi $a d v$. sorry, sad, mercy.
falu $v$. nail.
falulu $v$. judge.
falure $v$. oppose.
faluri $v$. give backside.
famalu $v$. be silent.
famamaPaia $v$. tidy.
famanu $v$. gone forever.
famaPa $a d v$. before.
fameto $v$. humping.
famini $v$. smile.
fana $n$. gift.
fanafana $v$. swim (fish).
Fanamao propn. clan name, location. Fala?utu chief's son born ti (plant) at Fanamao...Chifanamao (Max) name derives from.
Fanaro propn. 1. clan name, 2. location.
fanataoa $n$. hammerhead shark.
fana?uu $n$. Lined Monocle-Bream. Inhabits sandy areas near coral reefs. Distinguished by bold black stripes on upper half of body. Size to 24 centimetres. Scolopsis lineatus. fana swim, ?u
fane $v$. climb.
fane- asp. habitually.
fanema?aia $v$. try to climb.
fani $v$. give.
fanini $n$. Hexagon Rockcod. Inhabits coral reefs; usually found in exposed outer reef areas in shallow water. It is similar to the Spotty Cod, but has a pattern of 6 -sided dark spots, separated by small triangular white dots. Size to 30 centimetres. Epinephelus hexagonatus.
fanitoo $v$. give take back.
fanunu $v$. look.
fanunu laraia $a d v$. mistaken identity.
fapalari $v$. lean back, recline.
fapapanai $n$. parasite plant, abut.
fapere $a d v$. gone.
fapi2o adj. pregnant.
fara $n$. spongy sphere in new coconut, used metaphorically for "brain".
farafara $n$. spirit medium.
farefuau $a d v$. happy.
fare $2 \mathrm{i} v$. close.
faria (*fagian) $v$. punish.
fariri $a d v$. slowly, gently, softly.
faru $v$. feed.
fatete $v$. return from sea, finish food, finish giving birth.
fatila $n$. pregnant.
fatititi $v$. surf.
fatipia $v$. patient, endure.
fatu $n$. 1. base, tree trunk, 2. leader, lord, God, source.
fatu $v$. poke.
fatupau $n$. shoulder blade.
=fau 1 SG object enclitic.
faufau $a d j$. strong.
faufau $n$. strength, rope.
faufau $n$. rope.
fautio $n$. a species of cuttlefish. It is able to change its colour and texture, but is easily recognized when displaying its yellow colour pattern. Sepia latimanus.
fawawalua $a d j$. sad.
fawawia $v$. wait.
fawelei $n$. area.
fawenai $v$. breathe.
faweweni $n$. life, breath.
fawi (*fawi?) $v$. lock, tighten.
fawiwiPa $v$. wait, be patient.
fapa $v$. depart.
fapa (*fapan) $v$. displace.
faPaia $v$. inform.
fapana $n$. migrant.
fa?awatai $n$. pressure.
fa?awatai $v$. to pressure.
fa?a?a adj. straight.
fapa?a $a d v$. straight.
faPenai $v$. spy, confirm, verify check.
fa?obao $n$. thursday.
fa?oluaia $n$. wednesday.
faPono (*faPonom) v. cause or teach to sing. faPonomau teach/cause me to sing
fapua adj.
— adv. true.
fefe $v$. squeeze out, bow, kneel.
fei $a r t$. the.
felo $v$. bend.
felofelo $n$. pocket knife.
fena dem. that.
feni dem. this.
feroi $v$. teach.
feta (*fetan) $v$. do.
fetanai $a d v$. doing. Oi fetanai? What are you doing?
feti $v$. slip.
—adj. slippery.
feto $v$. retract. trigger, retract foreskin, lever, light.switch
fetu $v$. wash.
fe?o
fe2oa $v$. speak.
fi- $A S P$. simultaneous.
fi- -i $A S P$. reciprocal circumfix.
$=$ fia pron. 3 SG object enclitic.
fiarenii $v$. arguing with each other (reciprocal).
fiaroi $a d v$. paired.

- $n$. couple.
fifani (*fifanin) $v$. juggle.
fifanunui $v$. good to one another. literally look at one another
fifilei $a d v$. food drink preference.
fifirai (*fifirain) $v$. play, be rambunctious.
fifipi $n$. head sore.
fifipii Punu $n$. temper.
filati $v$. cutting dialogue.
file $a d j$. tangled.
filii $n$. Intermediate or Great Egret. Egretta intermedia or Egretta alba.
filori ( $*$ filorin) $v$. exchange, change.
fimina?ei $a d v$. same.
fina?uii $a d j$. parent child. parent child relationship
finefine $n$. any type of material, weapons, clothes, etc.
fineu $v$. fishing type (women at night).
$=$ fio pron. 2 SG subject proclitic.
fipana?ii $n$. unity, touching, adjacency.
fipapa?ii $a d v$. two things touching.
fipetoi $a d v$. this is derivable from the grammar.
fipoai $a d v$. facing one-another.
fipui (*fipuin) $v$. combine.
fira $q$. how many?
firafira $v$. 'schooling' fish.
firafipii $a d v$. too close.
firi $v$. pry, pull out fishgills, flick. pry out coconut meat.
firialo $n$. white foreigner.
firifiri $n$. small, 2 cm . crustacean that is light in color and can startle a person by its ejective action against the skin. Gonodactylus $s p$.
firipopo?o $a d j$. swelling of a puffer-fish, or the inflation of a ball.
firitataa $a d j$. overworked, forked.
fitani $v$. press down.
fitanii $q$. How are they related?
fitatafii $v$. romance.
fititibai $v$. continuous conflict.
fiwalei $v$. race.
fi2alarii $v$. divorce.
fi2i $v$. pain.
fipupui $a d j$. grandma pa child.
fipupui (*fipupuin) v. clench teeth.
fofolaa $n$. bully.
foitai $v$. toss and turn.
folari $v$. stretch.
folo (*folor) v. cut type.
folo?e?e adj. flat.
fora $v$. pull a rope, or pull=influence a person. foraiaa pinena influence, pulling a story
fora $n$. coconut grease $\backslash \mathrm{ps} n$.
foranini $v$. compound of pull and rip.
foraPaPari $v$. extremely windy.
forefore $n$. shoulder.
fota $n$. flower.
fotaa $v$. bloom.
fotaroo $n$. a tree commonly called kerosene wood in Papua New Guinea because of the dark smoke it gives off when it is burned. Corsia subcordata.
fo?a $v$. hit, fight.
fo?u $n$. louse.
fua $n$. fruit.
fua $v$. rise.
fuaipita
fuara $n$. crocodile.
fuefue $n$. vine type.
fufu (*fufur) $v$. extract, uproot.
fufu $n$. baby step.
fufulu propn. Wuvulu.
fufumoumou $v$. learning to walk, walk and fall.
fula $n$. taro species.
funi $v$. shake to waken.
funu $a d j$. sick
funua $n$. sickness.
funurere $v$. shiver, as from fever or fear.
fuowo $n$. tree species.
furafura $n$. poison.
furo $v$. get ready.
furofuro $a d j$. sandy skin.
furoi (*furoin) $v$. hold down.
furu $n$. tree species.
futo $v$. erase.
ia $a d v$. where as a question only for people.
ia pron. 3 S .
=ia 3SG object clitic.
iau pron. 1SG.
iei $a d v$. there.
ieni $a d v$. here.
ine $n$. footprint.
inene $a d v$. later.
ini $q$. whoever, who?, anyone.
inoru $n$. tree species.
inu $n$. a sponge with a frosted-looking outer surface and a very flabby texture. It is found in inshore areas, often on overhangs or beneath ledges. Prianos osiros.
io $n$. spear.
io $o b j$. 2SG.
io malai $n$. spear Malaysia.
ioi pron. 2 S .
ipo $n$. anchor.
itani $q$. where?
i2i $a d v$. yes.


## L-I

labari (*labarin) v. search.
labe $v$. catch, caught, run aground.
labeta $n$. Banded Sergeant. Inhabits shallow reefs exposed to surge to a depth of about 3 metres. Feeds mainly on algae. Distinguished by 6 to 7 greyish bars. Size to 17 centimetres. Abudefduf septemfasciatus.
lafe $v$. drift.
lafe $a d j$. unlucky.
lafelafe $n$. current.
lafiri $v$. cut.
lafulafu $v$. light rain, pray.
lailai $n$. trochus shell. Trochus niloticus.
lala $n$. sign.
lala (*lala?) $v$. request, summon, invite.
lalai (*lalain) v. marry.
lalamira $n$. twister, tornado.
lalaofa $n$. 1. white tip shark. Inhabits coral reefs, usually in lagoon passes or near to outer reef dropoffs. Feeds on squid, crabs and fishes. Distinguished by a black margin on the tail. This is a dangerous shark that quickly forms a feeding frenzy. Size to 255 metres. Carcharhinus amblyrhynchos, 2. Tiger Shark. Inhabits inshore and deeper offshore reefs. Feeds at night and hides in deeper areas during the day; eats anything that moves. Distinguished by its blunt snout, stripes on its side (although the stripes are faint or absent in large adults) and by a bony ridge on the side of the tail base. It is grey with a pale belly. This is a very dangerous shark. Size to 650 centimetres. Galeocerdo cuvier.
lalapa $n$. disrespect.
lalare $n$. wind.
lauri $v$. sing.
lala?o $n$. poisonous leaves, causes pain.
lala?o Pari $n$. a delicate soft coral with eight-branched tentacles that look like little palm trees. Clavularia sp.
lalili (*lalilin) $v$. examine, inspect, choose.
lalo prep. in, inside.
lama $n$. sea.
lama pula $n$. pupil.
lamaa $a d j$. blustery (sea).
lamalama $a d j$. very smart.
lamalama $n$. puddle, flood.
lao $n$. voice, fly.
-lao dir. from spkr.
laoa $n$. figurative for someone who is upset.
lapai $n$. Fringelip Flathead. It inhabits sandy bottoms adjacent to coral reefs and usually buries itself in the sand. It feeds mainly on crabs and prawns. Distinguished from other New Guinean flatheads by skin flaps on the edge of its lips. Size up to 25 centimetres. Thysanophrys otaitensis.
lapari $v$. slap.
lapena $n$. Northern Threadfin. Inhabits coastal waters, frequently off sandy beaches.
Feeds on crabs, shrimps and certain worms. Distinguished by a divided pectoral fin
with the lower part containing 5 free filamentous rays, and a blunt snout with a subterminal mouth. Size to 45 centimetres. Polydactylus plebius.
lapopo $n$. tree species.
lara $v$. lara uwi = lust.
lara $v$. drip, run(ny).
larai $v$. to mistake a person for someone else.
laraia $v$. change form.
Laree $n$. clan name, location.
lari $n$. skipjack tuna.
lari $a d j$. upright.
laro $n$. particles: sand, cereal, etc.
larofi $v$. splash, interrupting throught, sudden realization.
laru $n$. Red Firefish. It inhabits coral reefs, usually in caves or under ledges during the day, but is often seen in the open at dusk or at night when they are feeding. It mainly feeds on crabs and prawns, but will also eat fishes. Distinguished by broad filamentous pectoral rays. Size up to 38 centimetres. Pterois volitans.
laru= pron. 3DU subject proclitic.
larua pron. 3DU.
latelate $n$. coral species.
lato $v$. loss of arm or leg.
lato $a d j$. shortened cylindrical object: finger, pencil, stick.
lau $n$. seed, clan name, location.
laua n. Pennantfish (Giant trevally) Inhabits coastal waters and offshore reefs. Distinguished by steep angular forehead profile. The juvenile has long, filamentous fin rays. The adult has a relatively large eye. Size to 130 centimetres. Alectes
ciliaris.
laur $v$. carry a bag or something with handles that hangs.
laura $n$. song.
lauri $v$. sing.
lauruao $n$. type of ginger, yellowish inside.
lauru?ua adj. brave.
lawalawa $n$. wrap-around skirt, laplap. From: Tok Pisin.
lawara $n$. barrier.
lawari $v$. block.
lawa?ulo $n$. spider web.
lawe adj. high, far.
la?uri $v$. example: something that abutts another object so can't be moved.
lea $n$. shelf, store.
Leaa aruru $n$. location.
leatai $n$. a big red ant.
lele $v$. walk, crawl, locamotion.
leru $n$. tree species.
leru $v$. oil hair (apply oil to hair).
leti $n$. by tail, like a tube underneath that eggs are delivered through.
lewa $n$. green before blue sea.
Lewore $n$. a beach on the western north shore of Wuvulu Is. with a natural pool (by Lumiri and Lumiriri).
li $v$. go.
liai $a d v$. again.
liala $n$. taro species.
liba $n$. scar.
libaitina $n$. Black and White Snapper. Inhabits coral reefs, most commonly found on outer reef slopes to at least 90 metres deep. Feeds on plankton. Juvenile form has striking black and white markings. The adult is black with lighter spots on the upper back and a lighter stripe down the middle side. Size to 60 centimetres. Macolor niger.
Lifa propn. clan name, location.
lifapupu $n$. midnight.
lifo $n$. tooth.
lifowai $n$. scorpion.
lili $a d j$. spotted.
lilipitii $n$. shoreline.
liliwe?a $n$. skin spotting, lit. spots of an eel.
lio $n$. vagina.
li- $a s p$. PERF.
lira $n$. small, just-hatched louse.
lira $v$. rip meat.
lirare $a d j$. argumentative.
loa $n$. a kind of jellyfish. It often drifts ashore when blown in by wind and current. Porpita pacifica.
loai $v$. dance.
loaloaia $n$. leaf dance.
loati $n$. grille, small knife.
lofu $n$. males bro, fathers bros son.
loli $n$. Lunar-tailed Bigeye. Inhabits coral reefs, living in caves during the day and coming out to feed on fishes and small invertebrates at night. Looks similar to the Duskyfin Bigeye, but is distinguished by its lunar- or crescent-shaped tail. Its colour can change rapidly from pinkish silver to intense red. Size to 40 centimetres. Priacanthus hamrur.
loliloli $v$. indecisive about which direction to go.
loli (*lolin) $v$. decide.
lolo $v$. sink down.
lolo $n$. dirt.
loloa adj. dirty.
loloma2u $n$. grass species.
lomi neg. no, not.
lopi $n$. cup, container.
lora $a d j$. charred food.
lora $v$. cut through or traverse waves to go to deep sea.
loralora $n$. sore.
lore $n$. dragonfly.
lori $n$. belly.
lori (*lorin) $v$. end
loto $v$. block.
lotoloto adj. constipated.
lotu $n$. 1. worship (from Tok Pisin lotu 'worship'), 2. church.
lou $n$. swollen belly..
lo?e neg. no.
loPo $n$. abcess.
lo?o- $a d v$. Verbal prefix indicating first in a sequence.
luae $a d j$. paralyzed.
luafi $n$. ash.
lufa adj. fragrant.
lufu $n$. remainder; Of the five fish, two remain.
lulu adj. 1. dull, esp. a cutting tool. 2. stupid.
lulua $n$. court trial.
luluna $n$. pillow.
Lumiri propn. clan name.
Lumiriri propn. clan name, location.
lumu $n$. algae.
lupu $v$. swell.
lupua prep. among. Ina ude dupua ei nia. It was among the fish.
lupua mefi $a d v$. between dreams.
lupulupu $n$. mound.
lura $_{1} n$. feather.
lure $v .1$. support an object, 2 . support/encourage a person.
lure $n$. 1. brace, 2. cane

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lure n. eye-cyst.
luri (*lurin) v. get person.
lurii }n\mathrm{ . taro species.
luPu n. knee.
luPu v. chew, crush.
luPua n. food.
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ma conj. and.
ma $a d v$. so?
-maa aff. TR.
mafa adj. ashamed.
mafawe $n$. earlobe.
mafo $a d v$. dried (sore).
mafufuo $n$. morning.
mafufuo $a d v$. morning greeting.
mafufuoi $n$. leftover for breakfast.
-mai dir. to spkr.
maia $n$. clan chief, location.
maila $n$. moss.
mala n. Black-Lipped Pearl Oyster. Oysters like this produce commercially valuable pearls. Pinctada margaritifera.
malaa $a d j$. long.
malafofo $n$. feeling when fingernails against chalkboard.
malafu $n$. plant species.
malai $n$. an upright stony coral which has flattened branches with pale ends.; a barrel sponge. One of the largest sponges on the coral reef. It is found in a wide variety of habitats and colours. Its shape is globular with sharp vertical ridges. Pocillopora eydouxi.; Xestospongia (species?).
malala $n$. 1. ground, 2. area.
malalaa $n$. Common Dolphinfish. Other names for this fish are Mahimahi and Dorado. It inhabits oceanic waters well offshore. Feeds on fishes and is often sighted around floating logs or other debris. Distinguished by its laterally compressed body and unusual shape with long-based dorsal and anal fins. Males have a bulging forehead profile and yellowish color on the belly. Females are less colorful and do not have the bulging forehead. Size to 200 centimetres. Coryphaena hippurus.
malalaa wero $n$. fish species.
malarufu $n$. ground, Earth, world, soil, dirt.
malau n. Blue-lined Surgeonfish. Inhabits coral reefs exposed to wave action. Distinguished by blue and yellow stripes. The caudal spine is venomous. This fish is also known as the Striped Surgeonfish. Size to 38 centimetres. Acanthurus lineatus.
malawa $n$. Eastern Curlew. Numenius madagascariensis.
malaPare $n$. loquatious person.
mala?upu adj. sick feeling.
Male propn. clan name, trace sign.
malefa $v$. daydream.
malefa $a d j$. astonished, suprised.
malefalefa $a d j$. nauseated.
malele $a d j$. scent, odor.
maleu $n$. tree species.
malewa $a d j$. transparent liquid.
mali $a d j$. salty eyes.
malianaa $n$. vibrant green.
malii $v$. endure, continue, persist. I malilao... After quite a while...
malii $a d v$. long time. Namina malii noranamai. He/it is taking a long time to come.
malili $v$. lost, trapped, stranded.
malimali $n$. plant species, poisonous plant used to kill fish.
malimalii pula $n$. tree species.
malino adj. calm sea.
malipo?ai $v$. gusting wind.
malipi (*malipin) $v$. forget.
malo $n$. ant.
malomalo $n$. cyst.
malopa $n$.
malopa $v$. dent.
maluafi $n$. ash.
maluare $a d v$. hurried, quickly.
malumu $a d j$. quiet, humble.
maluofo $v$. taken aback.
maluru $a d j$. tired.
maluta $a d j$. soft.
malu?are $v$. hurry.
mama pilaua $n$. Jack Fruit tree. Also spelled Jak Fruit or Jac Fruit. This tree is a relative of the Breadfruit tree, and comes from Malaysia or India. The fruits grow on the trunk, and can weigh up to 30 kilograms each. The ripe fruit has an unpleasant odor, but the taste is good. The yellowish flesh can be eaten raw, boild, or fried and is delicious in curries. The large white seeds are also good roasted, tasting something like chestnuts. Artocarpus heterophyllus.
mamaa $n$. breadfruit, breadfruit tree; Breadfruit tree. This tree came from Malaysia. It grows 10 to 20 metres high and has large split leaves that can be 40 to 100 centimetres long. The round fruits can weigh up to 8 kilograms. The wood has been used for canoes, the bark for making tapa cloth, and the sap to fill in the seams of canoes and tapa. One or two breadfruit trees provides enough food for a family for a year. The fruit is high in carbohydrates, and is a source of Vitamin A, B, and C. Artocarpus incisus.
mamalai $n$. temple at side of eyes.
mamalaro $v$. desire to eat fish.
mamalawia $a d v$. feeling good.
mamaliai $a d j$. forgetful.
mamalo $n$. joint.
mamalou adj. sad.
mamamaia $n$. visionary, prophet.
mamapu $n$. Smooth Flutemouth. It inhabits coastal waters near reefs, feeds on fishes, and is distinguished by its long snout and the trailing filament on its tail. Size up to 163 centimetres. Fistularia commersoni.
mamara adj. dry.
mamari $a d v$. sting sensation.
mamario adj. shady.
mamaruru $n$. pride, gloating, boast, happy, joyful.
mamaua $n$. breaking wave.
mamaunua $a d j$. rainy.
mamawa $v$. yawn.
mama?a adj. cleared out.
mama?a $v$. waken.
mamaPaa $n$. clear area.
mama?irua $n$. Sunday.
mami $n$. Double-headed Maori Wrasse. Inhabits coral reefs, usually seen on steep outer slopes at 10 to 100 metres deep. Feeds on molluscs, fish, crustaceans, brittle stars, urchins, and crown-of-thorns starfish. Distinguished by its huge size and the hump on its forehead. This fish is also known as the Humphead Maori Wrasse. It usually swims alone. Size up to 229 centimetres and 190 kilograms. Cheilinus undulatus.
mamo $v$. swing to side.
mamomamo adj. rocking sideways.
manafiri $a d j$. thin.
manawa $v$. choke on food, center of area, center of head.
mani (*mani?) v. try.
maniwa $n$.

- conche.shell. Trumpet Triton. This is a predator of echinoderms, such as starfish. Charonia tritonis.
mano $n$. termite.
manopuwao $n$. overhang edge.
mano?u $v$. hiccup.
manu $a d v$. invisible.
manuaa $n$. Little Grebe. Tachybaptus ruficollis.
manufau $a d j$. new.
manufi $n$. cheek.
manufifilu $n$. bird.
manulelele $n$. legged animal.
manumanu $n$. thing.
manupila $n$. spongy moss.
manuro $n$. red flea.
manuPaa $n$. type of unicornfish.
mao $a d j$. bruised.
mapu $v$. sweat.
mapu $n$. sweat.
Mapua propn. clan name, location.
mapulufa/raipo $n$. sweet-smelling tree.
Mara propn. clan name, location.
mara $a d j$. ripe yellow.
- $n$. Mimic Surgeonfish. Inhabits coral reefs. Distinguished by a dark brown area on the lower and rear part of the head and a yellow edge on the tail. Size to 25 centimetres. Acanthurus pyroferus.
marafu $n$. clam.
maralee $n$. Archer Cherry. This bush is common in drier parts of coastal rainforests. In some conditions it is able to grow as high as 15 metres. The droopy stems and shining wavy leaves look a lot like the coffee plant. The soft red fruits contain about 10 hard seeds. Sometimes the fruits are orange or purple. The flowers are creamy white and fragrant. Aidia racemosa. Also known as Randia cochinchinensis.
maralele adj. worn out.
marana parafu $n$. Freckled Hawkfish. Inhabits coral reefs. Feeds mainly on fishes. Distinguished by numerous brown to red spots on its head. This fish is also known as the Blackside Hawkfish. Size to 23 centimetres. Paracirrhites forsteri.
marao $n$. bird species.
marapapa $n$. Gold-spotted Spinefoot. Inhabits coral reefs, usually seen in pairs. Distinguished by a dense network of small dark-edged orange spots. This fish is also known as the Spotted Spinefoot. Size to 40 centimetres. Signaus punctatus.
marapati $n$. rotten fruit.
marapu?i $n$. mushroom, fungus.
marapu?ia $a d j$. bad-tasting.
marari $n$. Dash-dot Goatfish. Inhabits sand-rubble bottoms near coral reefs. Distinguished by a black stripe from the snout through the eye then continuing on the upper side, and a black spot on the tail base. Size to 50 centimetres. Parupeneus barberinus.
marata $v$. smash.
marauwi $n$. green coconut.
marawa $a d j$. green.
maraPe adj. smooth.
mare $v$. cough.
marereroi $n$. Scrub Bloodwood tree. The bark of this tree exudes a pale sap when it is cut that soon changes colour to bright red. This is why the tree?s common name is Pbloodwood?. The wood is so full of resin, or sap, that it will burn when it is still green. The Srub Bloodwood has long-lasting red and green fruits and is often found growing on the edges of the rainforest or in stony places beneath it. Baloghia inophylla.
marewa $n$. peripheral vision.
mariri $a d j$. cold, e.g., liquid, body.
mariwee $n$. Yellowlip Emperor. Inhabits coral reefs. Distinguished by yellow-brown to olive colouring, sometimes with indistinct dark spots scattered on the side, and its upper lip is yellow or orange. Size to 60 centimetres. Lethrinus xanthochilus.
maroa $n$. group.
maru $a d j$. full, satisfied.
maruru $n$. sudden death. used metaphorically, if someone's words stun another person.
matafofo $v$. sudden conviction.
matala $v$. disperse, crumble, dissipate.
matanii $n$. poisonous turtle that can be fatal. The smallest of the three sea-turtles that visit Wuvulu. Its shell is reddish.
matapa?a $n$. wild passionfruit.
matarawe $n$. trochus species.
matata $n$. monotone voice.
matawa $n$. sea anemone. This word was used to identify several sea anemone species from photos. Heteractis magnifica, Heteractis crispa, 2 Heteractis sp., and Macrodactyla doreensis.
matoa $a d j$. urine smell.
matonu $n$. tremble, earthquake.
matorutoru $v$. cry breathe, sob.
matue $v$. overflow liquid.
mau $n$. a thing class, character, characteristic, crocodillian longtom.
$=\mathbf{m a u}$ pron. 1SG object enclitic.
maua $v$. 1. arrive, 2. appear.
maruaru $v$. sweat.
maui $n$. left hand.
maunu $n$. rain.
mauri $a d j$. healthy.
mauPu adj. smelly.
ma?a $v$. see.
maPa prep. front; eg. of a canoe, shirt.
ma?ala $v$. untie, unloose.
ma2alaa $n$. sea urchin with long, skinny, sharp black spines. Diadema savignyi.
ma?amea $n$. Trevally. Inhabits coastal waters and offshore reefs. Distinguished by its steep forehead profile and silvery to dusky colouration. It is also known as the Lowly Trevally. Size to 170 centimetres. Caranx ignoblis.
maParaa $n$. rash.
maPatutu $n$. fetus.
ma2au $a d j$. right handed.
ma2au $v$. fear.
mape $v$. die.
ma?i $n$. low tide.
ma?ila $a d j$. few, some.
Ma?ilolo propn. particular constellation.
ma?iru adj. sleepy.
maPiru $v$. sleep.
ma2iPi $n$. landslide.
ma?ua adj. strong, firm.
ma?uaa conj. but, however.
ma叉uu $n$. Hump-headed Parrotfish. Also known as the Bumphead Parrotfish. Inhabits
coral reefs. Distinguished by its large size and the hump on its forehead. Bluish colour. Usually swims in schools. Size to 120 centimetres.; Humpback Unicornfish. Inhabits coral reefs. Distinguished by the angular profile of its back. The adult male has a long tapering ?spike? in front of the eye, the female has only a bump. Size to 60 centimetres. Bolbometopon muricatum.; Naso brachycentron.
mefi $v$. dream.
mefo $n$. whisker, beard.
mei art.anim. the.
melomelo $n$. big belly.
meme $n$. debris, trash.
memero $n$. epilepsy, seizure.
memewa $a d j$. middle.
memewai $v$. scream.
meme?ii $n$. tree species.
mena dem.anim.sg.dist. that.
meni dem.anim. this.
mere $a d j$. full liquid.
meru addr. 2DU address form (hey, you two...), used to refer to one's in-law.
metu $v$. overflow.
mewai $v$. loud exclamation.
me?o $a d d r$. 2PL address form (hey, everyone...).
me?o $n$. Red Bass. Inhabits coral reefs to at least 70 metres deep. Distinguished by a deep groove or pit from the nostril to the front of its eye, a reddish colored belly and lower sides and a prominent black upper edge of the pectoral fin. This is a good eating fish, but large specimens should be avoided because of possible ciguatera poisoning. Size to 75 centimetres. Lutjanus bohar.
mi- dir. to spkr.
$=\mathbf{m i a}$ pron. 3SG object enclitic.
mimi $n$. urine.
$\operatorname{mimi} v$. urinate.
mina $a d j$. all, totally.
mina- $a d v$. before.
minamina $a d v$. long ago.
mini $n$. ray tail.
minoa $a d v$. yesterday.
$=\boldsymbol{m i o}$ pron. 2 SG object enclitic.
mole $v$. deficate.
molemole $n$. Parrotfish. This is the general word used for at least two species seen in Wuvulu waters. Parrotfish feed on algae growing on dead coral, eating this vegetable matter and excreting a fine white sand. Scarus ghobban and Hipposcarus longiceps.
momo $n$. dry coconut shell.
momo $n$. tree species.
momole $n$. golfball sized new coconut.
momo?ai $v$. turn around.
mona $n$. pandanus with small red corn like fruit.
monu $n$. Smooth Squirrelfish. This fish inhabits coral reefs, frequently found amongst branching corals. It is distinguished by its mainly silver colour with faint spots forming longitudinal lines on its side. It has a plain dorsal fin. Size up to 25 centimetres. Neoniphon argenteus.
mori $n$. tree species.
moro (*moro?) v. transverse cut, split wood.
motararaa $n$. Paddletail. Inhabits coral reefs. Distinguished by its forked caudal fin with rounded lobe, a deep notch in the rear margin of the cheek, and obliquely oriented scale rows both above and below the lateral line. This fish is not recommended for eating because it has frequently caused ciguatera poisoning. Size to 50 centimetres. Lutjanus gibbus.
motu $v$. sever.
mou $v$. fall.
moubiabia $a d j$. no food.
mopi $v$. tie around.
mu poss. 2 SG .
mua (*muan) $v$. win.
mulau $n$. frog.
mumuni $n$. mute.
mumuni $v$. rinse mouth.
mumu?a $v$. vomit.
munai adj. unfortunate, unlucky.
muri prep. behind.
Murii propn. clan name, location.
muro $n$. stone.
muropuolewa $a d j$. soil high in phosphate.
muti $v$. diarrhea, watery fart.
muti $n$. diarrhea, watery fart.
mupui $v$. grunt.
na $i j$. affirm.
na- mood. REAL.
-naa aff. TR.
-naa aff. S.TR. 'semi-transitive'
-na aff. poss.3SG.
naba conj. if.
nafa $v$. shake down.
nafa $v$. spear, throw, shoot.
nafala?uri $v$. bump.
nafaruii $v$. hold together.
nafi $n$. servant.
nafu $n$. arm band.
naira $q$. when? (future).
naira $a d v$. later.
nalenale $n$. flame.
nali $i j$. okay.
namafuo $n$. two days hence.
naminamia $a d j$. unsalted.
namo $n$. shallow reef.
namo $n$. blood.
Namorii propn. name of a small namo, location by Dumuri.
Namua propn. clan name, location.
nanaa $n$. pus.
nanafita $a d j$. stubborn.
nanamui (*nanamuin) $v$. feel.
nanao $n$. female adolescent, young woman.
nanauwi $v$. teach, model behavior, imitate.
napi $n$. groin lymph node.
nara $v$. think.
nara $n$. thought.
narani $a d v$. tomorrow.
nari $v$. scrape.
nariana $v$. unfortunate, unluckily.
narinari $a d j$. tingle.
naro $v$. bark.
naro $v$. confront.
nati $n$. tree species.
=nau pron. 1SG object enclitic.
nawe- asp. finally.
nawi $n$. tree species.
nawi $v$. peel.
na2a $a d v$. nearly, when.
naPa conj. if.
na?a $v$. warm, e.g., to warm one's self by fire.
na?a $n$. rock.
na2auru $a d v$. three days hence.
na?i $v$. write.
Na?ina?i $a d j$. tight string, or tight trousers.
na2u $n$. child, tree species.
na?u matawa $n$. Spine-Cheek Anemonefish. Lives with sea anemones (usually Entamaca quadricolor) both on sheltered inshore reefs and on outer slopes. Feeds on zooplankton and algae. Disinguished by overall red colour, three pale bars, and an enlarged spine below the eye. They are found in pairs where the female is usually 2 or 3 times larger than the male and the female's colour is less brilliant. Size to 16 centimetres. Premnas biaculeatus.
na?u piye $n$. Blood Mouth Conch. It gets its name from the red color inside the shell opening. Commonly found in sandy bottoms around reefs. Strombus luhuanus.
neai one (future).
nefarani $a d v$. later.
nefi $v$. scratch body.
nei- mood. deontic.
nemea art. SG.ANIM.
nene ( $*$ nener) $v$. follow.
nene $a d v$. later.
nene prep. behind.
nenetaipoa $n$. food preference.
Nenewa?au propn. Milky way.
nera $a d j$. sexually aroused.
nera $n$. erection.
ne?i $v$. write, paint, draw.
ni $a d v$. take!
nia $n$. fish.
$=$ nia pron. 3 SG object enclitic.
nia tawa $n$. Bridled Parrotfish. Inhabits coral reefs, usually swims in small groups. Distinguished by abruptly lighter areas on the lower half of its head and rear of its body. The female has 6 to 7 darkish stripes on its sides and reddish fins. This fish is also known as the Six-Banded Parrotfish. Size to 40 centimetres. Scarus frenatus.
Nifele propn. clan name, location.
nifi rawa $a d j$. bad mood, wrinkle forehead, frown.
nifirei $v$. inhale, clear throat.
nimanima $n$. slight breeze.
nimaufina $n$. rough sea (strong enough to sink a canoe).
nini $v$. shred.
ninio $n$. a beetle that eats coconut.
ninirara $v$. about to strike.
ninito $a d j$. senseless.
niniwai $n$. chest.
=nio pron. 2SG object enclitic.
nirofi $v$. force into.
nito $v$. fat (widening) person appears to shrink vertically.
niu $n$. Coconut Palm. This tree may live as long as 100 years. It has a single trunk 20-30 metres tall, with smooth grey bark marked by ringed scars left by fallen leaf bases. Leaves are 4 to 6 metres long, pinnately compound; fruits are as big as a man's head and weigh $1-2 \mathrm{~kg}$. Cocos nicifera $L$.
niPe $a d j$. happy.
no $v$. move.
nofi $v$. fill.
nofii $n$. contents.
nofu $n$. Smallscale Scorpionfish. This fish inhabits coral reefs, usually lying motionless on rock or coral. It feeds on fishes and crustaceans. Distinguished from other New Guinean scorpionfishes by its large size and elaborate branched skin flaps on its head. Its colour varies--usually mottled brown in shallower water, but reddish below 10 to 15 metres. Size up to 30 centimetres. Scorpaena oxycephala.
noi $v$. beg.
nono $n$. wall.
nono $n$. Noni tree, also called the Indian Mulberry tree. This is a small tree with leaves that are about 20 centimetres long. The fruits look like tiny breadfruits that turn from light green to white when ripe. The bark produces red dye and the root produces yellow dye. In a myth from Tonga, Maui was brought back to life when the leaves of the "Nonu" were placed on his body. Morinda citrifolia.
nono $n$. sandfly.
nono $v$. penetrate.
nonomi (*nonomin) $v$. remember.
nopa $n$. sleep house.
noria $v$. accompany.
noro adj. heavy.
noro adj. wet.
noroi $v$. snore.
no?oa $a d v$. forever.
no?u $n$. treetop, mast, prow, pinnacle.
no?u $v$. raise voice.
nubanuba $n$. open space, low voice.
nuei $v$. shake.
nufi $v$. wash body.
numa $n$. drink.
nunu (*nunuf) $v$. wash body.
nunu $n$. tree species.
nunu $n$. ebb tide.
nunumi (*nunumin) $v$. desire, want.
nunurui $n$. in-out current.
nunuta $v$. resign, give up.
nunuta $a d j$. lonely.
nure $n$. nose.
nurui $v$. current shore to sea.
nutu $v$. sprout.
nutunutu $v$. cut-in (in line).
nutunutu $a d v$. crowded.
nuwenuwe $a d j$. happy.


## O-o

o $i j$. oh.
o- aff. address. Address morpheme, combines with kin terms and positions (leader, teacher, etc.).
-o pron. 2SG object enclitic.
Oabea propn. location.
Oalau propn. location.
Oalau adj. north

Oalau $n$. north wind.
oapu $n$. grave.
Oapuu propn. location.
of $n$. nest.
ofatauneneru $v$. go inland from shore.
ofe $v$. persuade.
oi $a d v$. term of endearment.
oi $n$. sweetheart.
olaa $n$. fish species.
Olaola propn. constellation Pleades.
oli (*oli?) $v$. replace, repay.
olo $n$. sprout tip.
oloniu n. Gold-saddled Goatfish. Inhabits coral reefs. Has two colour phases, one yellowish grey to dark brown with blue markings on scales and a yellow saddle on top of the tail base, and the other entirely yellow. Size to 50 centimetres. Parupeneus cyclostomus.
Onne propn. village name.
ope $v$. empty liquid.
ope $v$. urinate.
opi $n$. old woman.
ora $v$. chew.
oreore $v$. block.
ori $v$. tie, mark something, hook.
ori $a d j$. rough.
oriori $n$. traditional spear.
oro $n$. buttocks.
orua $n$. Australian Pelican. Pelecanus conspicillatus.
ota $v$. literally to speak, but used figuratively for verbal attack.
oto $n$. planted in ground used to husk coconut.
o?o adj. satisfied.

## $\mathbf{P}-\mathbf{p}$

pa $n$. basket.
pa anana $n$. stomach.
pafea $a d v$. above, heaven.
pafo prep. on, above.
pafua $n$. standby, reserve.
pai $n$. Blue-Spotted Stingray. Inhabits sand bottoms, frequently near coral reefs. Feeds mainly on molluscs. Distinguished by diamond-shaped body and blue to brownish spots. It has venomous spines on the tail. Size to 45 centimetres width of body, 70 centimetres total length. Dasyatis kuhlii.
pai $n$. family line or geneology. pai $v$. put into a basket, fill (a basket).
pai roe $n$. Spotted Eagle Ray. Inhabits coastal waters near reefs, often seen in lagoons of along outer reef slopes. Feeds mainly on molluscs. Distinguished by protruding head and snout and white spots on dark background. There are 2 to 6 barbed spines at the base of the tail. Size to 350 centimetres body width. Aetobatus narinari.
paipai $v$. swim.
paiwa $n$. shark.
Paiwa Timiri propn. Scorpion star.
pasi?aunu $v$. leave group.
pala $v$. jump type.
palapala $v$. traditional dance.
palawe $a d j$. very high.
paleai $n$. Military Seapike. Inhabits coastal waters and offshore reefs; often seen in schools on outer reef slopes. Feeds on fishes. It looks similar to the Great Barracuda, but it lacks the black blotches and has black bars that extend well below the middle of the sides. Size to 90 centimetres. Sphyraena qenie.
palo $n$. thing.
Palu propn. constellation.
palu $n$. Pacific Imperial Pigeon. Ducula pacifica.
palu lama $n$. Blue Fusilier. Inhabits coral reefs, forms mid-water schools. Distinguished by its deep blue colour and black tips on the lobes of the tail. The tail and tail base may be yellow in juveniles, but the black tips are still present. Size to 40 centimetres. Caesio lunaris.
palupalu $n$. continuous waves.
pana (*pana?) v. to stick, adhere, hold.
pana arara $n$. literally hold black (raincloud).
panapana $n$. lit. when rain touches skin.
panarafi2i (*panarafiiin) $v$. grab close.
panaro (*panarof) v. grab.
panau $n$. tree species.
pani $n$. hand, arm, club.
Panimala propn. clan name, location.
panui $v$. out of sight.
pao $n$. figurative calm sea like oil.
papa prep. side, beside.
papaa $a d j$. lightweight.
papai $v$. put on skirt.
papalei $n$. cloud.
papani $v$. guard.
papapa $n$. Manta Ray. Inhabits coastal reefs, most often seen along theedge of the outer reef slopes. Feeds on small planktonic organisms. Distinguished by its large size, shape, and a pair of protruding flaps at the front of the head. This is a harmless species that often makes leaps above the surface. Size to 600 centimetres body width and weight over two tons. Manta birostris.
paparafi $n$. tree species.
papararai $v$. shouting.
papauri $n$. dagger.
papa?ana $v$. touch.
para $n$. pandanus species.
parafa $n$. back of knife.
parafo $n$. plant species.
parafu $n$. banana, both the plant and its fruit. Musa (there are over 300 varieties worldwide).
parafufufu $n$. herb species.
parapara $a d j$. unwilling.
parara $a d j$. flat.
pararaa $n$. thunder.
pararaa $n$. Brown Noddy. Anous stolidus.
para?a $a d j$. bitter.
pare $n$. Bird's Nest fern. This fern grows in a wide variety of locations throughout most rainforests. It can grow as an epiphyte on large trees but may also be seen on rocks on the forest floor if good light is available. Asplenium australasicum.
parepare $a d j$. shallow.
pari $v$. prepare.
patapata $n$. worn around waiste.
pataruru $v$. inject.
pati $v$. fall.
patioo $n$. giblet.
patu $n$. clamshell.
pau $n$. pandanus.
pau $n$. pandanus leaf boxes used to cook fish.
pau $n$. 1. side fins of fish, 2. turtle fins.
pawe $n$. Moses Perch. Inhabits inshore waters and offshore coral reefs. Distinguished by its pinkish colour and a black spot (which may be faint) on its back. Size to 45 centimetres. Lutjanus russelli.
pa2a $a d v$. very, definitely.
paPafi $n$. 1. reason, cause, 2. front of torso, 3. fishgun stock.
pa2afora $n$. coconut for grease.
pa2afu $n$. plant species.
pa?ai $a d j$. lost.
pa?aia $v$. light fire.
papale $n$. dolphin.
paPania quan. tens place.
paPapa2a $n$. tree trunk.
paPapa?ai $n$. calf of leg.
pa2aro $n$. breast or chest.
papataa $n$. Native Monstera Vine. The large leaves of this vine are deeply cut. It may grow up to 15 to 20 metres. Mature plants produce small creamy flowers on spikes, which later form soft green fruits which are edible. Epipremnum pinnatum. Also known as Raphidophora pinnata.
pa2ato $n$. tree species.
pa2atoo $n$. land lubbers.
paPera $n$. residue around tip of penis.
pa?i $v$. have.
pa2ie $n$. dorsal fin.
papu $n$. fishing stonewall.
pa2u $n$. hammer, club.
pa?ulu $a d v$. above.
pa?uru $n$. fishing from canoe with a sago frond (apara).
pea $n$. bait fish.
pele $n$. endpoint.
Pelee propn. location.
pelu (*pelur) $v$. finish.
pelu $a d v$. completely.
penu $n$. coconut husk.
pepe $v$. defecate.
pepea $n$. intestines.
pepei prep. yonder.
pepeluu $n$. tree species.
pepetu $a d j$. full.
pepe2a $n$. snap break.
pere $v$. die out, diminish, extinguish fire.
pero $n$. fart.
pero $v$. fart.
peto prep. behind.
petu $v$. displace by squeezing, e.g., toothpaste.
pera $v$. ignite.
pe?i $n$. 1. taro bank, 2. container.
pe?i $v$. float.
pe2i $v$. moor.
pe2i fo?afo?a $n$. early labor.
Pe2ipa propn. location.
pia $n$. taro species.
piania $n$. Warty-lipped Mullet. Inhabits sandy lagoons and shallow seaward reef flats. Feeds on detritus and algae. Distinguished by its emarginate tail with pointed lobes, the dark stripes on its sides, and by its thick lips having 1 to 10 rows of warty projections. Size to 40 centimetres. Crenimugil crenilabris.
piapia $n$. Sago palm. This tree is not a true palm; it is a cycad. These trees have erect, sturdy trunks that are $30-60 \mathrm{~cm}$ in diameter. The trunk is rough and retains the old leaf bases. Leaves are 31 to 1.5 metres, or longer if the tree is in the open sun. Leaves can be used for making morota (roof thatching), fishing poles, etc. The inside of the trunk is a starchy food-source. Cycas revoluta.
pie $n$. 1. sand, 2. beach.
Piyefuro propn. location.
Piemai propn. location.
piepie poa $a d j$. appears in mouths of babies.
piepiena $a d j$. sandy.
pifine $n$. woman.
pifinei $v$. become woman.
pila $n$. coward.
pila $n$. Buff-banded Rail. Rallus philippensis.
pilaua $n$. foreigner.
pile (*piler) $v$. wrestle.
pilewai $v$. twist.
pilu $n$. Blue Trevally. Inhabits coastal waters and offshore reefs. Distinguished by scaleless areas on breast and the base of the pectoral, and 5 or 6 somewhat chevron-shaped dark bars on the sides. Size to 70 centimetres. Carangoides ferdau.
pinai $n$. leg, foot.
pinini $v$. high pitched voice.
pinipini $n$. very small seashell.
pipi $n$. Sea Hearse tree. This is a coast-loving tree which frequently grows at the high water mark on the beach. Its height is usually 10 to 15 metres. Leaves tend to crowd toward the end of the branches, and the leaf stalk attaches to the leaf some distance in from the leaf edge, somewhat like the leaf of the water-lily. The white flowers form in groups of three, and evolve into transluscent waxy globes surrounding the fruit. Fruits are black, round and strongly-ribbed, and contain a hard inner seed. Hernandia nymphaeifolia. Also known as Hernandia peltata.
pira $n$. squirrel fish.
pira welo $n$. Red Soldierfish. It inhabits coral reef caves and ledges, usually on the outer slopes below 20 metres. It is distinguished by its bright red-orange colour and white tips on the dorsal spines. Size is up to 20 centimetres. Myripristis vittata.
pirapira/pirowai $n$. vine species.
pirea $n$. crazy person, demon, lunatic, mad man.
piri $n$. tree species.
piri Palia $n$. ear lobe.
pirio $n$. meat, muscle.
piru $v$. roll, translate.
piru $v$. twist joint.
pitapita $n$. Pink Ash tree. A common pioneer tree in rainforest regrowth. Its broad, silver-backed leaves are rusty when young. The bark and leaves contain methyl salicylate, and smell like liniment if rubbed. Alphitonia petriei. same as malimali pula
pitii Palia $n$. Tawny Nurse Shark. Inhabits shallow reefs, sometimes seen resting on the bottom during the day. Feeds on bottom invertebrates such as lobsters, crabs and octopus, but also eats fishes. Distinguished by equal-sized dorsal fins and barbels on its snout. Harmless. Size to 320 centimetres. Nebrius ferrugineus.
pitione $n$. a white, larger sandfly; doesn't fly, but hops.
piPalee $n$. Beach Calophyllum tree. This tree likes to grow right above the high water mark on the beach. It has a short, massive trunk with low, spreading branches that overhang the beach. The leaves are glossy and exude a milky sap. The flowers are white, and the fruits are yellow-ish and contain a seed that floats and is dispersed by the sea. The seed can yield a thick, dark-green, scented oil which is poisonous but can be used for lighting and for making a bright yellow soap. Calophyllum
inophyllum.
pi?o adj. pregnant.
pi?u $n$. star.
PiPu pafo propn. Jupiter.
Pipu Parewa propn. Morning star.
poa $n$. 1. mouth, 2. opening, 3. door.
poa $n$. axe.
poa ord. ordinal base: e-poa 'first', rua-poa 'second', olu-poa 'third'.
poafi $n$. Red-flushed Rockcod. Inhabits coral reefs usually near caves or under ledges.
Distinguished by elevated shape of its body, dark colouring and often by a pale vertical streak on the side of the belly. Size up to 60 centimetres. Aethaloperca rogaa.
Poaliba propn. location.
poapoa $a d j$. crazy.
poepoe $n$. wild yam with vine.
poi $n$. night.
poi $a d v$. night greeting.
poipoi $n$. Yellow-margined Seaperch. Inhabits coral reefs. Distinguished by its dark tail and soft dorsal fin, both of which have a narrow white margin, and by its yellow anal, pelvic and pectoral fins. Size to 40 centimetres. Lutjanus fulvus.
poiri $n$. a species of zoanthid that looks like a coral head.; Either a rounded, dark-colored, relatively smooth-surfaced sponge which has commercial value if prepared properly, or a stony coral of similar rounded shape. These two species were identified with the same term from photos. $\underline{\text { Palythoa tuberculosa.; Hippospongia }}$ ammata(?) or Astreopora gracilis(?).
pololoi (*pololoin) v. rock baby.
polope $n$. excrement.
polu $n$. jungle.
polupolu $n$. tree species.
poma $n$. white color used to paint canoes and houses; also used to clean diving masks.
pomaure $n$. grows among the taro.
poni $v$. run.
ponoto $n$. figuratively as "police".
ponopa $n$. cost.
pono (*ponoRa) v. buy.
ponu $n$. the largest of the three species of sea-turtle that visit Wuvulu. It lays its eggs on the beach.
popo $n$. mid section.
popola $a d j$. swollen.
popona $v$. running exercise.
poponai $a d j$. upside-down.
popo?o $v$. 1. swell, 2. inflate, 3. expand.
pore $n$. canoe paddle, gums.
poro (*poro?) v. carry, lift.
potea $n$. taro bread.
poupou $n$. rubbish basket.
po?ai $a d j$. finished, rusty.
po?i $a d j$. white.
po?o $n$. blister.
po?o- mood. intensifier.
pu $a d v$. below.
puala $n$. sorcerer.
puawi $v$. embrace.
pua?o $n$. rainbow.
pufaba?a quan. thousands place.
pula $n$. eye, moon, month.
pula roro $n$. moonless.
pula wera $a d j$. blind.
pula wera $n$. White-Cheeked Surgeonfish. Distinguished by its overall dark color with a white patch under the eye and behind the mouth and yellow stripe at base of dorsal and anal fins; tail is white with a yellow bar near the outer edge. The razor-sharp spine on the caudal peduncle is also yellow. The spine is used for defence and to ward off intruders. Size to 21 centimetres. Acanthurus glaucopareinis / glaucoparius. Also named Acanthurus nigricans.
pula 2a?a $v$. seasonal sign.
pularo $n$. angry face.
pularoo $n$. small type trevally.
Puleiafo propn. name.
pulele $n$. squash.
pulepulewiana $n$. snail found in the buch.
pulewa $n$. Portuguese Man-of-War jellyfish. This jellyfish is one of the most painfully stinging and dangerous. Its tentacles may extend as far as 6 metres underwater. It has no means of propulsion and drifts with the wind. Physalia physalis.
Puli propn. location.
pulita $n$. harpoon.
pulo $n$. buttocks (Aua dialect).
pululu adj. humble, ignorant.
pulumi $v$. hands together.
puluru ( ${ }^{*}$ puluruf) $v$. submerge.
pulurufai $a d j$. submerged, baptized.
pulu?i (*puluPin) $v$. join, bind.
pulu?u $v$. bend.
pumanurawe $n$. blue sky.
punapuna $n$. Narrow-banded Batfish. Another name for this fish is the Orbicular Batfish. It inhabits coral reefs. Distinguished by two wide black bars, one of which passes through the eye, and a blackish margin on dorsal and anal fins. Size to 50 centimetres. Platax orbicularis.
pune $n$. White-breasted Fruit Dove, mainland race. Ptilinopus rivoli.
pune tifiri $n$. Orange-fronted Fruit Dove. Ptilinopus aurantiifrons.
puneafi $n$. coral stove.
punene $n$. small javelin.
punenei $v$. skim the punene; a game to see who can skim it farthest.

Punenerufu $n$. northwest wind.
punu?u $n$. asthma.
puo $n$. sharpening stone.
pupona $v$. attack, invade.
puponi $a d j$. completed house.
pupu $n$. triggerfish; the general word for this kind of fish.
pupu arulue $n$. Black Triggerfish. Inhabits outer reef slopes, usually seen in groups. Distinguished by its black colouration and narrow white stripe at the base of the dorsal and anal fins. Size to 35 centimetres. Melichthys niger.
pupu falewaa $n$. Wedge-Tailed Triggerfish. Inhabits coral reefs, usually seen on outer reef flats exposed to surge. Distinguished by broad black diagonal band from the eye to the anal fin base and a black wedge-whaped mark on the tail base. Size to 24 centimetres. Rhinecanthus rectangulus.
pupu maratawai $n$. Yellow-Margin Triggerfish. Inhabits coral reefs. Distinguished by raised spines on the sacles of its tail base, yellow margins on the fins, and a crosshatch pattersn on the sides. Size to 60 centimetres. Psuedobalistes flavimarginatus.
pupu marawa $n$. White-Barred Triggerfish. Inhabits coral reefs, usually seen in sandrubble flats. Distinguished by three rows of raised black spines on the tail base, a dark brown area on the middle of the side, white diagonal bars above the anal fin base, and a yellow stripe between the mouth and the lower pectoral fin base. Size to 25 centimetres. Rhinecanthus aculeatus.
pupu meroo $n$. type of orangish trigger fish.
pupu namo $n$. Black-Patch Triggerfish. Inhabits sheltered coral reefs, including silty inshore areas. Distinguished by a large black patch on the lower side and a narrow brown bar through the eye to the pectoral fin base. Size to 23 centimetres. Rhinecanthus verrucosus.
pupu roiaa $n$. Yellow-Spotted Triggerfish. Inhabits coral reefs. Distinguished by overall darkish colouration with bluish markings on the head. The young are yellowish with blue lines and spots. Adults have prolonged caudal fin tips. Size to 55 centimetres. Psuedobalistes fuscus.
pupu tapa?a $n$. Starry Triggerfish. Inhabits mud or silty sandbottoms near coral reefs. Distinguished by its relatively long shape, very slender tail base, blue to orange spotting on the body, and frequently with three white patches on the back at the base of the dorsal fin. Size to 60 centimetres. Abalistes stellatus.
pupu Papati $n$. Orange-Lined Triggerfish. Inhabits coral reefs. Distinguished by narrow orange to red diagonal stripes on the head and body. Also known as the Red-Lined Triggerfish. Size to 30 centimetres. Balistapus undulatus.
pupua $n$. mold growth, ridge cap.
pupualai $a d j$. supernatural power.
pupule $n$. tree species.
pupulee $n$. hermit crab--the kind that live on the shore. (As opposed to the marine kind that spend their life under water.)
pupulee ?ari $n$. marine hermit crab. Dardanus megistos.
pupulita $n$. a short, fat, black sea cucumber. Actinopyga miliaris.
pupulu $a d j$. equidistant.
pupuno $n$. tree species.
pupupua $a d j$. slightly rough sea.
pura $n$. small beige lizard with short tail.
puraa $n$. stages of coconut: momole, puraa, upu muraa, paPa upu, duaPa, aru.
purapura $v$. foam.
pure $n$. bellybutton.
puro?a $n$. cockroach.
purufatu $n$. lower back.
purufora $n$. taro species.
purumi (*purumin) v. add firewood.
purutawepira $n$. Estuary Cod. Inhabits silty inshore coral reefs. Distinguished by its large size and forward slanting brown bars over a pattern of numerous small redbrown spots on head, body and fins. Size to 100 centimetres. Epinephelus coioides.
puru?ia $n$. lower abdomin.
putei $n$. Golden Trevally. Inhabits coastal waters and offshore reefs; sometimes swims in schools. Distinguished by large fleshy lips, a lack of discernable teeth and its golden belly. The juvenile form is bright yellow with dark bars. Size to 111 centimetres. Gnathanodon speciousus.
puti $n$. sperm.
puto $v$. yank.
putu?o adj. small.
putu?oro adj. small.
PuPalie propn. location.
pupu quan. hundreds place.
puiu $n$. Beach Barringtonia tree. Other English names are Box Fruit and Fish-Killer Tree. This is a beach plant that occurs in coastal rainforests. The flowers are white with long stamens, bloom mostly at night and last less than a day. The leaves are large and glossy and grow mostly in clusters at the end of the branches, which can form an uneven canopy which often spreads to ground level. The trunk can be massive and the tree grows anywhere from 5 to 30 metres high, though the most common height is 5 to 8 metres. The box-like fruit yeilds a potent fish stunner when pounded. Barringtonia asiatica.
pu?ufurimo $a d j$. between shoulder blades.

## R-r

ra $n$. a red hardwood (ironwood).
-raa aff. TR. transitive marker.
raba $n$. bag.
rafa $v$. bird pecking, capsize.
rafe adj. competent.
rafei (*rafein) v. select.
rafema?aia $n$. strong suit, specialty.
rafile $a d j$. inability, bad at.
rafile $n$. striped lizard, larger than the gecko but similar.
rafilele $a d j$. weak.
rafipi $v$. proximal.
Rai propn. Eastwind, east.
-rai dir. from.
raia $a d j$. stinky.
Raiara?uu propn. southeast, southeast wind.
rama $v$. cut open, fishing type.
rama $n$. rama is a torch made of dried coconut leaves.
rama $n$. type of fishing at night with a torch.
ramarama adj. transparent.
Ramawa Talo propn. Venus.
rama?a $n$. person, in-law.
ramea $n$. Flag-tailed Rockcod. This fish inhabits coral reefs. Distinguished by an overall brown colour (darker toward the rear), faint dark bars, and a pair of oblique white marks on the tail. Size up to 27 centimetres. Cephalopholis urodeta.
ramu?a $n$. Diamond-scale Mullet. Inhabits coastal waters, frequently in mangrove areas. Feeds on algae and detritus. Distinguished by square-shaped tail and a network pattern of dark scale margins. Size to 55 centimetres. Liza vaigiensis.
ranimai $a d v$. always.
ranu $n$. fresh water.
ranulufa $n$. tree species.
ranuwa $v$. water breaking (birth).
rao $a d j$. pain.
rao $n$. light ray, reflection
Raorao propn. comet.
raorao $n$. broom.
rapa $v$. avoid.
rapirapi $a d j$. protected.
rapirapii $n$. shield.
rapu $v$. shake hands.
rapu?ana $v$. receding (tidal).
rara $n$. branch.
rara $v$. warm by fire.
raraa $n$. blood.
raraa ?unu $a d j$. healthy.
raraba $a d j$. heavy.
rarafii $n$. extra teammates or workers.
rarafipii $n$. fem pad.
rarai $v$. to dry something, or when tide goes out $=>$ dry.
rarai alo $n$. brittlestar starfish; the general term for this kind of starfish. Various: Ophionereis porrecta, Ophiothrix purpurea, Ophionereis porrecta, Macrophiothrix sp., Ophioarachna incrassata, Ophiomastix sp., Ophiolepis cincta, etc..
raramai $n$. big toe.
raramomo $n$. stinging pain.
rarapa $v$. wander.
raraulu $n$. breadfruit sap.
rarawe?i $n$. lime.
raru $n$. seaward wave.
raruwa $n$. tree species.
rata $a d j$. difficult.
rau $n$. leaf.
=rau pron. 1SG object enclitic.
rau anai $n$. Lemon Damsel. Also known as the Golden Damsel. Inhabits steep outer reef slopes 12 to 25 metres deep. Lives alone and guards a small and diverse area of the coral reef; feeds mainly on zooplankton. Distinguished by its circular body shape and deeply incised dorsal spines, as well as its bright yellow color. Size to 6 centimetres. Amblyglyphidodon aureus.
rau rufu $n$. island visibility.
raua $a d v$. far.
raulei $a d v$. rauleni $=$ this side, raulena=other side.
rauporaa $n$. tree species.
rautii $n$. One-spot Seaperch. Inhabits coral reefs. Distinguished by overall light grey to yellowish colour without stripes. The black spot on the upper side may be faint or absent in adults. In Tahiti this fish is not eaten because of problems with ciguatera poisoning, but apparently this is not a problem in Papua New Guinea (as of 1993). Size to 50 centimetres. Lutjanus monostigma.
rauwe $a d j$. noisy.
rauwe $n$. fish species.
rauwe ?umu $n$. tale bearer.
Rawa $n$. clan name, location.
rawa $v$. release, water flow, flood. with object rawaia = to throw away
rawa $v$. 1. flow, 2. flood.
rawa Pa?afai $v$. literally, to give up carrying.
rawai $a d j$. incoming (tide).
rawani $a d j$. good, excellent.
rawani $a d v$. thank you.
rawarawa $a d j$. first.
rawaura $n$. rainfall rivulette.
rawe $a d j$.lucky, fortunate.
rawe $n$. Spiny Chromis. Inhabits coral reefs from the shallows to 65 metres. The young stay with the parents after hatching. Feeds on plankton. Distinguished by 17 dorsal spines and overall dark color. Size to 14 centimetres. Acanthochromis polyacanthus.
rawee pula $n$. eyelash.
rawerawe $n$. tounge.
rawe? $v$. taste.
rapo $n$. whale.
re- dir. from spkr.
Rea propn. tradition has that there was quicksand there.
rea $n$. twig used for pau boxes and brooms.
reai $a d j$. in line.
refu (*refu?) $v$. cut off base.
refu $a d j$. excited.
rere $v$. vibrate, shake, wind stop, tremble.
rerefai $v$. spy.
rerei $v$. shaking. narerei fei io the spear is shaking
rereni $v$. cry.
rewa $a d j$. grey (hair).
rewa rau ra $a d j$. color of ra leaf, new leaf.
Rewi propn. clan name, location.
re?ere?e $a d v$. impatience.
re2i $v$. gut fish.
=ria pron. 3SG object enclitic.
ribau n. Black Booyong tree, also called the Tulip Oak. This is one of the large, buttressed trees of the mature rainforest canopy. The shiny leaves are usually in groups of 7 leaflets arranged palmately, like fingers around the palm of a hand. Its flowers are white and bell-shaped, and are followed by winged brown fruits. When the fruits are ripe they spiral down from the tree, drifting some distance away even when there is no wind. Another Wuvulu name for this tree is ?tolalai?. Argyrodendron actinophyllum ssp. actinophyllm. Also called Heritiera actinophylla.
rifarifa $n$. white sea bird.
rime?ai $n$. flickering.
rimo $n$. voice box.
rimo $n$. tree species.
-rio dir. to spkr.
rio pron. 2 SG object enclitic.
riorio adj. overcast.
ripe $a d j$. large.
rirei $n$. door.
riri $v$. open.
riri $a d j$. open.
ririi $a d j$. slow.
ro ( ${ }^{*}$ rof) $v$. sweep.
ro- pron. 3PL subject proclitic.
roa $n$. shooting star.
roa $a d j$. red.
roa $v$. cut.
roalo $n$. Rufous Night-Heron (mature with black cap, or immature--streaked?). Nycticorax caledonicus.
roba $v$. cut grass.
rofa $v$. grab.
rofo $v$. jump.
roi (*roin) v. care for someone, esp. elderly.
roiroi $n$. scratch sound.
roma $n$. seaweed species.
ropa $v$. rain.
ropi $n$. Butterfly fish. Chaetodon, various species.
Rorina propn. clan name, location.
roro $v$. go ashore.
roroa $n$. dock.
rorofa $a d j$. wet.
roroi $v$. name person.
roroma $n$. darkness.
roroii $v$. bind.
rotiroti $n$. Gold-spotted Trevally. Inhabits coastal waters and offshore reefs. Distinguished by scattered gold or yellowish spots on sides. Looks a lot like the Orange-spotted Trevally, except that the Gold-spotted Trevally has a steeper snout profile and its body is longer. Size to 130 centimetres. Carangoides fulvoguttatus.
Rou propn. clan name, location.
roPai (*ropain) v. stretch out.
ro?o adj. delicious.
ro?olu pron. 3PL.
ru adj. short.
rua num. two.
ruafi $v$. choke someone.
ruai (*ruain) $v$. hear.
ruana $n$. grass.
ruana ani?u $n$. grass species.
ruana pinai $n$. grass species.
ruana rea $n$. Filmy Maidenhair Fern. This fern is rarely more than 30 centimetres high. It has black stems and prefers damp and cool locations. Adiantum diaphanum.
ruarua $v$. fish with line.
ruarua $v$. dying.
ruarua $n$. tree kangaroo.
ruaruai $n$. cultural dance.
ruatiti $n$. sunstroke.
Ruaumu propn. The wife of Puleiafo.
rua?aunu $v$. faint.
rufi $v$. ladle water, blow.
rufu $n$. village.
rufuanana $n$. lit. house-eater.
rui $n$. bone.
rui tiro $n$. tree species.
rui ua $n$. collarbone.
ruia $a d j$. strong.
ruirui $n$. White Tern; used figuratively for a caucasian person. Gygis alba.
ruo $n$. necklace.
rupu $n$. bunch.
rupu $n$. can refer to a grouping regardless of animacy.
rupurupu $n$. group.
ruru $v$. inject, poke into.
ruruai $v$. listening.
rurualia $n$. grass species.
rurufarao $n$. anesthesia.
rurui $v$. plant peg.
ruta $v$. sit.
ruta falafe $a d v$. care free.
rutaruta $n$. chair.
ruweruwe $v$. wiggle.
ru?a $v$. burn.
ruPu (*rupun) v. curse.
ruPu (*rupun) v. smash.

## T-t

taba $n$. head.
taba bala?ari $a d j$. obstinate.
taba fora $n$. reef edge.
taba naPa $n$. at Tatabee, Dumiri, Dumiriri, Pie Sure, Pie Furo.
Tabaa propn. location.
tabara?o $n$. praying mantis.
tabarii $n$. Longfin Emperor. Inhabits coral reefs. Distinguished by a dark band from eyes to snout and light bars are usually present on the rear half of the body. Size to 50 centimetres. Lethrinus erythropterus.
tabe $v$. serve food.
tafe $n$. rim of penis, ship run aground.
tafi $n$. sister of female.
tafi $n$. friend.
tafi (*tafi?) v. carve.
tafunu $n$. cradle cap, head scabs, head crust.
tafuri $v$. splash water.
Tafutufuare propn. location.
tai $n$. tree species, fruit.
taina $n$. plant species.
tala $n$. road.
talai (*talain) $v$. walk.
talama $n$. a dark-colored starfish. Possibly, Echinaster luzonicus.
talanenei $v$. scatter.
talara $n$. fern species.
talaraa $n$. Gristle Fern. The new growth of this hardy fern is pink. It can be found on dry hillsides under tall forests, or in swampy places. Gristle Ferns in the rainforest may have darker leaves, and the mature fronds are tough and leathery. Blechnum cartilagineum.
talatala $v$. hunt.
Talaure propn. location.
tale $a d j$. fast.
talema2a $a d j$. unconscious.
talili (*talilin) v. 1. exclude, 2. set aside.
talili $(*$ talilin) $v$. detour.
taliweloi $v$. spin.
taliwe?a adj. global.
taloa $n$. firewood.
talonalonalo adj. skinny.
talu $v$. bite.
talu adj. sharp.
talu poa $v$. kiss.
talulire $v$. bite rip.
tama $n$. outrigger.
tama $v$. row.
tamafoi $a d j$. 1. tired, 2. lazy, 3. fed-up.
tamanu pron. whatever, what?
tama?a $n$. voyage.
tama?ai (*tamaPain) v. prohibit.
tamelo $n$. hired servant.
tanari $n$. head.
tanarii $n$. Spanish Mackerel. Inhabits coastal waters, often near reefs. Feeds on fishes. Distinguished by its long, slender shape and pattern of bars on its sides. Another name for this fish is the Narrow-barred Mackerel. Size to 235 centimetres. All tackle world record is 44.9 kilograms. Scomberomorus commerson.
$\boldsymbol{\operatorname { t a n }} q$. why?
$\boldsymbol{t a n u} v$. write song.
tao n. Papaya tree. Also called Pawpaw, Tree Melon, and Mummy Apple. There are about 45 species of papaya. Its leaves are deeply lobed and cluster at the top of a hollow trunk. The fruit contains Vitamins A, C, and G, and most parts of the tree contain papain, a digestive enzyme which can be used as a meat tenderizer. Carica papaya.
tapanau $n$. tree species.
tapio $n$. Tapioca. The Wuvulu word tapi?o?o is borrowed from English. Another English name for the plant is cassava. This bush grows 1 metre to 3 metres high and has been a source of food since early times. The long, tuberous roots that look like sweet potato are high in starch. Although the sap is poisonous, the poison disappears with cooking and washing. Manihot esculenta. Also known as Manihot utilissima.
tapora $n$. 1. mist, 2. blur, 3. smudge.
tapu $n$. fog, clouded thinking.
tapu $v$. walk fast from ocean to bush.
tapurere $v$. 1. shiver, 2. tremble.
$\boldsymbol{t a r a}(* \operatorname{taraf}) v$. snatch.
tarafia pula $a d j$. sleeping, grab under nose.
tarara $n$. gassy dirrahea.
taraupu $n$. grasshopper.
tara?umu?io $n$. type of vine.
tare $a d j$. tall.
tare $v$. overthrow.
tari $a d j$. skinny.
tari $a d j$. short.
tata ruru $a d j$. squeamish.
Tatabe propn. location.
tatarara wala?e $n$. soft stool.
tatarere adj. bad mood.
tatari $n$. small path.
tatariana $n$. shortage.
tatariri $a d j$. little.
tatawei $v$. fidget.
tatawewe $v$. enjoy.
tataPai $v$. sudden fright, give way.
tau $v$. hold.
tau $v$. go sleep.
tau $n$. fishing style.
tau fa?uria $v$. welcome.
tau lama $n$. middle of ocean.
tau polu $a d j$. in the bush.
taua $v$. catch sickness.
taua $v$. hold.
tauaforefore $v$. encourage.
taubea $n$. tree species.
taufunufunu $a d j$. weak from hunger.
taulara $a d j$. hanging.
tautau $v$. hand by hand.
Tawa $n$. location.
tawa $n$. 1. table, 2. platform, 3. bed.
tawai $n$. Betelnut Palm. Grows to 10 metres. The trunk is dark green with light-coloured rings. This palm is grown for its fruit throughout SE Asia (and in the lowland areas of Papua New Guinea) The fruit is chewed for its intoxicating effect and for its supposed beneficial side effects as an aid to digestion and in controlling internal parasites and dysentery. Areca catechu.
tawara $a d j$. tooth gap.
tawariari $a d j$. 1. malnourished, 2. thin.
tawariri $n$. 1 . small bed, 2 . small passage.
tawatulai $n$. a soft, sticky, encrusting sponge. Its colour may vary from near-white to a deep blue-purple, but its surface texture is always marked by little holes. $\underline{\text { Haliclona }}$ $s p$.
tawe v. 1. transplant, 2. adopt.
tawetawe $n$. Black-banded Seaperch. Inhabits coral reefs, usually between 10 and 30 metres deep. Distinguished by a series of dark bars on its side and a large dark spot on the tail base. Size to 35 centimetres. Lutjanus semicinctus.
tawi (*tawi?) v. sew.
te conj. because, so, then.
tela v. 1. escape, 2. save.
temu $a d j$. out of breath.
temu awawai $v$. gasping for air.
terateraa $a d j$. striped.
Tere propn. clan name, location.
teretere $n$. Yellowstripe Goatfish. Inhabits sandy areas near coral reefs, often seen in schools. Similar to the Yellowfin Goatfish (iyoo), but does not have yellow fins and has a dark spot above the pectoral fin. Size to 40 centimetres. Mulloides flavolineatus.
tete $v$. chase.
tetefolo $n$. season between afaa and rai where the wind direction is indeterminate.
tetewa $n$. northeast wind, northeast.
ti (*tip) v. sting.
ti $n$. plant species.
ti- aff. points at, indicates.
tiafa $n$. magic potion.
tiai $n$. unfertilized egg, impotence.
tiarani $n$. small snail that lives by the sea.
tiba $v$. angry.
tiba $n$. anger.
tibarao $n$. swordfish.
tibatiba $n$. angry person.
tiba?ulo $n$. stinging.caterpillar.
tifana $n$. plant species.
tifelo $v$. bend over.
tifi $v$. deceive, lie.
tifiri $n$. Red-flanked Lorikeet. Charmosyna placentis.
tile (*tile?) $v$. burn.
timi $n$. birthmark.
timi (*timin) v. discard.
Timii propn. clan name, location.
Timiri propn. constellation.
timitimi $n$. tree species.
tina $n$. Maori Seaperch. Inhabits inshore and offshore reefs to a depth of at least 50 metres. Distinguished by fleshy lips, wavy lines on its head, and yellow-edged fins. Size to 65 centimetres. Lutjanus rivulatus.
tinafei $n$. Silvertip Shark. Inhabits steep outer reef slopes, usually below 20 metres. Feeds on fishes. Distinguished by white tips and margins on all fins. This shark is curious and may approach people closely; will attack if provoked. Size to 300 centimetres. (great white also?). Carcharhinus albimarginatus.
tinifolo $a d j$. wide-eyed.
tinoro $v$. sleep deeply.
tio $n$. short rainbow.
tiowai $n$. a bird with whiskers.
tipawa $n$. plant species.
tipopo $n$. grille.
tipou $n$. firm when dry.
tiri $v$. swim.
tiriri $a d j$. thirsty.
Tiro propn. clan name, location.
tiro $n$. short knife.
Tiroaa propn. cave once used for hiding from enemies.
tirotera $n$. Singing Starling, mature plumage. Aplonis cantoroides.
titi $v$. slide.
titibaroo $n$. Mangrove tree, also called the Oriental Mangrove tree. This tree has many roots that grow right in the water. The wood is hard and tough and has been used for bows. The flowers are red, pink and yellow. Bruguiera gymnorhiza. Also known as Bruguiera conjugata.
titii $a d j$. itchy.
titiri $n$. dawn.
titiri $v$. shave.
tiPara $n$. rice (borrowed).
tiPei $a d v$. therefore, and so.
to (*ton) v. get.
to pula $v$. menstruate, literally get moon.
toa $n$. hip.
toai $n$. style, fashion, technique.
tofilein $v$. select.
tofu $n$. drift grass.
tofu ?umu $n$. expression of anger.
tofurai $v$. clear snorkle or blow out water.
toiri $v$. give space.
tolalau $n$. Black Booyong tree, also called the Tulip Oak. This is one of the large, buttressed trees of the mature rainforest canopy. The shiny leaves are usually in groups of 7 leaflets arranged palmately, like fingers around the palm of a hand. Its flowers are white and bell-shaped, and are followed by winged brown fruits. When the fruits are ripe they spiral down from the tree, drifting some distance away even when there is no wind. Another Wuvulu name for this tree is ?gibau?. Argyrodendron actinophyllum ssp. actinophyllm. Also called Heritiera actinophylla.
tolara $v$. misunderstand.
tolo?aa $v$. intercede.
toneneru $n$. shoreline to vegetation.
topuae $a d v$. loudly.
topuei $a d j$. unison laughter.
toro $v$. conceive.
toru $n$. frog.
torui $n$. croak.
tu (*tum) v. cover.
tua $v$. paddle.
tuabe $n$. no show. ma?e tuabe $=$ widow
tuafia $v$. pass each other.
tualuma $n$. backup help.
tuapea malino adj. very calm.
tuari $v$. manipulate with stick.
tuaroi $n$. Double-spotted Queenfish. Inhabits coastal waters, often seen in schools. Feeds on fishes. Distinguished by spike-like dorsal spines and a double row of 6 to 8 dark spots on its side. Size to 70 centimetres. Scomberoides lysan.
tuatua $a d j$. stiff, muscular.
tuei (*tuein) v. contract muscle.
tufe $n$. Fragrant Fern. This fern may be found climbing on trunks of trees or rocks or on the ground. The fronds may be simple and 5 to 10 centimetres long, or the may be deeply lobed and up to 50 centimetes long, depending on their age. Some think this fern is fragrant, but others think it smells like squashed insects. It is very similar to the Kangaroo Fern (Microsorum diversifolium), but the Kangaroo Fern has stiffer, more leathery fronds and a bigger, more fleshy rhizome.; Tailspot Squirrelfish. Inhabits coral reefs, frequently in caves and under ledges, but often out in the open. It is distinguished by a silvery-white spot behind the base of the dorsal fin, or the entire rear part of the fish may be silvery-white. Up to 21 centimetres. Microsorum scandens.; Sargocentron caudimaculatum.
tufu $v$. sprout.
tufu $n$. Ehrenberg's Seapearch. Inhabits coral reefs and inshore areas, sometimes gathers under wharves. Distinguished by its whitish overall colour, horizontal orange stripes and a dark spot on its upper back. Size to 35 centimetres. Lutjanus ehrenbergi.
tufudai $v$. arrive.
tula $v$. poke fruit stick.
tulai $n$. fish species, small dark cowrie.
tulele $n$. back of head.
tulu $n$. grey hair.
tuma $v$. catch.
tumale $n$. blue marlin.
tumaloli $v$. turn around.
tumara $n$. a small black bird, smaller than the starling.
tumarii $n$. nari rosewood.
Tumu propn. location.
tumulei prep. other side.
Tumuwe propn. location.
tura $v$. mark.
Ture propn. clan name, location.
turiaa $n$. Lesser Golden Plover. Pluvialis dominica.
turo $n$. Crocodilian Longtom. It inhabits open waters near reefs, feeds on fishes, and is distinguished by its large size and the fleshy ridge on the side of the tail base. Size to 130 centimetres. Tylosurus crocodilus.
tuta $n$. taro swamp.
tuta $v$. obstruct.
tutu $n$. cover.
tutu $v$. suck.
tutubai $n$. mosquito net.
tutuni $v$. push, shove.
tutupara $n$. small wart.
tutupoa $v$. kiss.
tuturu adj. sloped.
tutururu $n$. crumple sound, static.
tutuwii $n$. tree species.
tuwituwi $v$. chirp (lizard).
tuwulei prep. other side.

## $\mathbf{U}-\mathbf{u}$

-u poss.1SG.
-u pron. 1SG object enclitic.
ua $n$. neck.
uapu $n$. 1. grave, 2. hole, 3. pit.
Uapuu propn. location.
ube $n$. empty container.
ubee maraa $n$. empty clamshell.
ufi $n$. giant clam.
ufi $n$. dustpan.
ufu (*ufur) $v$. disclose.
ufu $v$. pick fruit.
uli $n$. skin, tree bark, fruit skin.
ulia $n$. namesake.
uliri $n$. a small white snake.
ulu $a d j$. peeling, sunburned.
ulua $n$. high tide.
ulura $n$. a whitish sponge that has petal-like formations on a larger plate-like base. It
looks somewhat like a cabbage. Spongia sp.
umu $n$. house.
umuwa $n$. slave.
una $n$. 1. fingernail, 2. toenail
una $n$. footprint.
una $n$. fish scale.
uni $v$. shrill call out.
unu (*unum) $v$. drink, back up.
ununu $n$. sponge; the general word for sponges. This word was also given for a blue vase sponge, Cribrochalina olemda, which is common on reefs and frequently found on inshore patch reefs.
uoa rufu $a d j$. homesick.
upi2i $v$. join.
upu $n$. green coconut.
ura n. spiny lobster or crawfish; used to tie. Panulirus versicolor or Panulirus

## pencillatus.

ura $a d j$. yes answer.
ure $n$. taro garden.
urere $n$. cowrie species.
uri $v$. mount transport (canoe, ship, bike).
uria $v$. follow.
uro $n$. hair.
uro ano $n$. pubic hair.
uroa $a d j$. hairy.
uro?opo $n$. back of turtle, back of crabl.
uru $n$. coconut fiber.
uru $v$. wipe.
uru (*uruf) $v$. blow.
urua $n$. grassy.
uruana $n$. na'urua.
urufeti $v$. slide.
urupenu $n$. coconut pen.
ururu $n$. tree species.
utila $n$. lightning.
utouto $n$. large wart.
utu $n$. elbow, heel.
utu $n$. elbow.
uwa $n$. ribs.
uwi $n$. saliva.
uwiPa $n$. octopus. Octopus macropus (identified with this term from photos).
u?o $n$. tree species.
u?0o $n$. Golden-lined Spinefoot. Inhabits sheltered harbours and lagoons, also seen among mangrove roots. Distinguished by orange-yellow stripes on its side and a large yellow spot below the rear part of the dorsal fin. Size to 43 centimetres. Siganus lineatus.

## W - w

wa $n$. canoe.
wafaa $n$. odor.
wafu adj. stinky.
wai $a d j$. difficult.
waiapinai $n$. ankle.
waile $n$. gravel.
wairi adj. noisy.
waiwa adj. cold.
waiwai adj. hard, difficult.
wala adj. center.
walaa aweawe $n$. Black-spotted Dart. Inhabits coastal waters, frequently in the surge
zone off sandy beaches. Distinguished by a strongly forked tail and 1 to 5 small black spots along the middle of the side. Size to 54 centimetres. Trachinotus bailloni.
walafei $a d j$. in an area.
walalo adj. deep.
walamanu?a $n$. type of unicornfish.
walapulu $a d j$. clumsy.
walaruu adj. short.
walawala $n$. hole.
walaPee $n$. excrement.
wale $v$. gouge.
walefo $n$. vagina (Aua dialect).
walifei $n$. tree species.
walimou $n$. Bluestripe Squirrelfish. It inhabits coral reef caves and ledges; distinguished by its plain red colouring and faint bluish stripes on lower sides. Size up to 33 centimetres. Sargocentron tiere.
waliwali $n$. driftwood.
walu $n$. knife.
walu $v$. carve out.
waluafi $n$. gun, literally fire knife.
waluai $v$. go in.
waluero $n$. crab hole.
Walupi propn. location.
waluwaa $n$. fishing spear.
waluwalu $n$. adze, traditionally made with clamshell.
Walu?a propn. clan name, location.
wana $n$. midwife.
wananaa $n$. mud.
wanene $v$. make someone happy.
wanewane $a d j$. straight.
wanini $v$. give birth.
waniri $n$. tree species.
waniwani $n$. breeze.
waniwanina $n$. current.
wano $v$. come ashore.
wano?o?o?ui $a d j$. coming to shore with no fish and head down.
wanu $n$. tropical ulcer.
wanua paiwa $a d j$. receding hairline.
wanuenue $v$. hear coconut water in a dry coconut (aru).
Wanura propn. clan name, location.
wanura $a d j$. slack (skin in older people).
wanuranura $n$. slack skin, wrinkle.
wanutufai $v$. mess up order.
wao $n$. string, rope.
wao raraa $n$. vein, literally blood rope.
waoro $v$. cut off.
wapo $n$. plant species.
Wara propn. Wara.
wara $v$. rip.
wara $n$. root.
wara $n$. plant species.
wara $n$. fish species.
waranalia $n$. vine species.
wararu $a d j$. spoiled.
warataa $n$. Bandicoot Berry. This shrub grows 1 to 3 metres high in moist sheltered areas of lowland rainforests. The long-lasting fruits gradually darken from green through red-brown to black. Leea indica.
wara?a $v$. tear cloth.
ware $v$. talk.
warei $v$. count.
warelalo $v$. guess.
wareu adj. pregnant.
ware?oni $a d j$. hypocrite.
wari $a d j$. related to.
wariau $n$. Either of two species of branching red to pinkish hydroid, or a sea fan of similar appearance (identified from photos). Stylaster sanguineus or Distichopora borealis, or Subergorgia mollis.
warieni $a d v$. today.
waripi (*waripin) v. care for things or people.
waripu?u $n$. hard rain.
waro $n$. grass knife.
waroa $n$. Bluefin Trevally. Inhabits coastal and offshore reefs, sometimes seen in schools. Distinguished by blue fins and dark speckling on upper half of body. Size to 100 centimetres. Caranx melampygus.
waroba $n$. phosphate.
Waroo propn. clan name, location.
waroti $n$. miscarriage.
Waruaa propn. star.
warumo $n$. Common Rasp Fern. This fern have small curved teeth and thickened margins on the leaf segments give the leaves a harsh feel. They grow both in moist rainforests and in tall open forests. Doodia media ssp. media.
waru?u bara $a d j$. heart-broke.
wata $n$. tooth decay.
wataa $n$. twins.
wataaro $n$. divorced, widow.
wataruru $n$. junction.
watau $n$. placenta.
wataula $a d v$. much.
watawata $n$. leprosy.
watiwati $n$. sodomy.
watobatoba $n$. empty.
watola prep. between.
watolaa $n$. Climbing Pandanus. When there is enough light, this vine forms dense columns, hiding its supporting tree trunk or rock. It sends out long untidy stems which droop and then turn upwards and look like long-legged green centipedes. There is another vine named Pothos (Pothos longipes) that looks similar but does not put out these long stems. The Climbing Pandan?s flower has an orange bract which surrounds a closely packed flower spike that later produces bright-red pointed fruits crowded on an oblong head. These fruits are edible. Freycinetia excelsa.
watutu $n$. mucus.
watutu $v$. blow nose.
-wau dir. away.
wauro adj. cut-off.
wau?apa $v$. bounce.
wawa $n$. mid wife.
wawa $n$. Scribbled Leatherjacket. Inhabits coral reefs, usually seen on outer slopes. Distinguished by its large size, fan-shaped tail (often the edge is ragged), and irregular blue scribble markings on the head and body. This fish is also known as the Scrawled Leatherjacket. Size to 75 centimetres.
wawaa pure $n$. umbilical cord.
wawailea $a d j$. stoney.
wawairi $a d j$. noisy.
wawalua $a d j$. lonely, sadness.
wawane $n$. man, immature male.
wawanei $n$. mature male.
wawanini $a d j$. weak.
wawani?o $v$. child play.
wawaoroo $v$. slight urination.
wawaroro $n$. grossed out.
wawatutu $n$. mucus.
wawaupu $v$. drown.
wawau?u $n$. tree species.
wawawa $n$. baby carrier.
wawawa Palia $n$. ear lobe plug.
wawa?ai $a d j$. selfish, greedy.
wawa?auna adj. hot and sweaty.
wa?a $n$. snake, worm, larva, caterpillars.
waPa ro $n$. reddish.snake.
wapa talara $n$. a long.brittle.snake.
wa?awa?ai $n$. maggot.
wa?i $n$. A monitor lizard, most likely the mangrove monitor. The skin is very dark with yellow speckles. This is probably the same species known as the kundu lizard within Papua New Guinea (so called because its skin is used for making kundu drums). It is generally disliked because it eats chicks and chicken eggs. Varanus indicus (or a very similar species).
wa?ue $n$. oil on fish scales.
we- $a s p$. eventual.

Welii propn. location.
weliweli $n$. water spring.
welo $n$. spinning toy.
weloi $v$. spin, circle.
welowelo adj. round.
wenu $v$. pull out.
wera $v$. wake from sleep.
wera pula $a d j$. blind.
werawara $a d j$. open eyes.
wero $n$. fish species.
wero Papia $n$. fish species.
wero ?uri $n$. fish species.
weruweru $v$. blaze.
weta $n$. smashing waves.
weta $a d j$. two currents meeting.
wewe $n$. louse egg.
wewea $n$. hard worker.
wewela $a d j$. many stars visible.
weweti (*wewetin) v. inspect.
we2a $n$. Painted Moray eel. Inhabits shallow reef flats and tidepools. Feeds mainly on crabs. Distinguished by pepper-like spot pattern. it is harmless, but may frighten reef-walkers if disturbed. Size to 100 centimetres.; bald because it looks like an eel head. Siderea picta.
we?i $a d j$. 1. strong, 2. ripe.
wi- dir. away.
wia $n$. grease, jovial, friendly.
wia $a d j$. jovial, friendly.
wileri adj. incompetent.
wini $v$. pinch.
wirii $v$. flow (liquid).
wiro adj. misaligned, crooked.
Wiwi propn. clan name, location.
wiwili $a d v$. happily, interesting.
wiwitoi $v$. gossip.
wiwiPa adj. contented.
wiPi?i $n$. fat cheeks.
woroo $a d v$. perhaps, suppose.
woroti $n$. miscarriage.
woroti $v$. miscarry.
wowo?ii $n$. vine.

2a- aff. irrealis mood.
-2aa aff. TR. transitive marker.
Paba $a d v$. not.
2abarii $n$. tree species.
?abaru?a adj. murky.
?abaPaba $n$. lip sore.
Pabe $n$. armpit.
?afaia $q$. which? (inanimate)/
2afala $v$. split.
?afero $v$. sprain.
Rafeto adj. crippled.
Pafi $n$. strainer.
Pafola $v$. rip cloth.
?afuana propn. islet off Wuvulu.
Pafurafura $a d v$. overflow (dry material).
?afuto adj. erased.
Pai (*Pair) $n$. drone sound, cry.
Paila $n$. wise person.
Paila $v$. know, understand.
Paimao $v$. lose consciousness.
Paipoi $a d v$. two.days.ago.
2aipoilao $a d v$. three days ago.
Pala (*?alar) adj. free, removed, without.
Palabe $n$. trip (e.g., while walking).
Palai $v$. lean over
2alai $n$. clamshell adze.
2alapaa $v$. regret.
Palapau $n$. Giant clam. Tridacna gigas.
Palatai $n$. chain.
?alawata $a d j$. naked.
?alawera adj. pale.
PalaPala $a d j$. naked.
Pale- $a d v$. like.
Pali $n$. swamp bank.
Tali $n$. belt.
Palie $n$. pili nut tree, or okari nut.
Palimao $n$. large brown crab.
Palite $v$. curl.
Palipali $v$. fish (style of fishing).
2alo (*2alor) v. send.
?aloe adj. loose.
PaloPalo $n$. messenger, angel.
Pama $n$. 1. father, 2. father's brother.
?amaia $q$. where? (animate).
Pamate conj. because, since.
2ama?ana $v$. move to.
Pamelo adj. broken.

Pamero $v$. dislocate.
Pameromero $a d j$. refers to canoe.
Pamoa $a d j$. finished.
?amuraa $a d v$. expert.
Pana $a d v$. also.
Pana $q$. really?
Pana $a d v$. rflxv.
Panaa ulu $n$. show-off.
Panafelo $n$. herb species.
Panalapa $n$. 1. big toe, 2. thumb.
Panalo $n$. east, sunrise.
Panari $n$. pinky.
Pana?ana $n$. 1. finger, 2. toe.
Pani (*?anin) v. lift.
Panini $v$. rip.
Paniuii $a d j$. violent, fierce.
Paniwa adj. hungry.
Pano prep. outside.
Pano $n$. world.
Pano $n$. field.
Pano?ano $n$. expert carver, expert, knowledgeable person, skilled person.
2apa $n$. brace stick.
Papai $v$. gather people, search.
Papalele $v$. relax.
Paparanono $n$. one side of back.
Papari $v$. brush off.
Paparii $n$. The Bigeye Trevally. Inhabits coastal waters and offshore reefs. Distinguished by a relatively large eye with well developed gelatinous membrane, well developed scutes, and a white tip on the dorsal and anal fin lobes. Size to 78 centimetres. Caranx sexfasciatus.
Papatii $n$. blackpatch triggerfish. It has an orange stripe from mouth to pectoral fin base. Rhinecanthus verrucosus.
2apaii $v$. know.
Papia $n$. wooden bowl.
Papia pine $n$. calf of leg.
?apiaore $n$. goose bumps.
Papiaore adj. hair-raising.
Papile $n$. greenish, somewhat transparent.
Papilewa $n$. iguana.
Papipi adj. out of place.
Papipiri baPoa n. Candle Bush. Other names for this same plant include Golden Bush, Seven Golden Candlesticks, GodPs Candle, and Roman Candle. The closely packed yellow flower spikes look like yellow candles. The bark can be used for tanning. Cassia alata.
2apitai $v$. endure.
2apoi (*Rapoin) $v$. finish.

Papuna adj. sacred.
Papuna $n$. Burrawang Palm. The leaves are shiny and evenly arranged. It grows in moist open forest and rainforest margins, and its height can be from 2 metres to 5 metres.
The seeds are highly poisonous. Lepidozamia peroffskyana.
2apuna $n$. prohibition.
?apuna $v$. prohibit.
2apuri $v$. stab.
Papuru adj. toothless.
Para $v$. look up.
Paraa $n$. Spiny Squirrelfish. It inhabits coral reef caves and ledges; distinguished by its large size, a very long spine on the lower corner of the cheek, and yellow-ish fins. Size up to 45 centimetres. Sargocentron spiniferum.
Parafalu $n$. coconut leaf cover.
Parara adj. black.
Pararati (*Pararatin) v. slander.
ParaPara adj. eyes turned up.
Pare (*Paren) v. 1. punish, 2. attack with words. fiarenii arguing with each other (reciprocal)
Parenai pani $n$. palm of the hand.
Parenai pine $n$. sole of the foot.
Parene $a d j$. accidental.
?arere adj. generous.
Parero $n$. a black, smooth snake (compare to harehoro--lizard. Is this the same thing?).
?arewa $n$. dawn.
Parewa $a d j$. well-lit, clear thinking.
?arewaa $n$. day.
Parewaa $n$. Blue-green Chromis. Inhabits inshore reefs, passages, and outer reefs areas. Swims in large schools that feed on plankton. Distinguished by sky-blue color and having no black dot at the pectoral axis. Size to 8 centimetres. Chromis viridis.
Pare?e $v$. go ashore.
Pari $n$. sea, salt.
Pari $n$. opposite gender sibling.
Pari (*?arif) v. dig, fan, blow.
Paria $a d v$. no.
Pariafelo $a d j$. rough sea.
ParifaPaPa $n$. straight wind.
Parima $a d j$. shiny.
PariPai adj. painful (birth).
PariPari $n$. fan.
2arua pron. 1DU.INCL.
?arua- pron. 1DU.INCL subject proclitic.
Paruei $v$. scrape coconut.
Paruru $v$. extract (e.g., tooth).
?aru?aru adj. toothless.
Paru?aru $n$. ruffian.
2ata $v$. climb.

Patabaibai adj. painful (stomach).
Patafilefile $v$. side-winding movement like a snake or shark.
Patawali $a d j$. crooked, bent.
?ata?ata $v$. undulating, snaking.
Patifora $n$. Black-Tip Reef Shark. Inhabits shallow coral reefs, often the most common shark in this habitat. Feeds on small fish and crustaceans. Distinguished by prominent black tips on fins, especially the first dorsal. Harmless unless cornered. Size to 180 centimetres. Carcharhinus melanopterus.
Patioi $n$. sneeze.
Patiti $v$. slide down, diminish.
2atiPa $v$. get up.
2atoifurai $v$. spit sneeze.
Patona $n$. Monday.
2au $n$. time period.
Pau $n$. constellation.
2au (*?aur) v. put.
$=$ =2au pron. 1SG object enclitic.
Pau ufupa $n$. harvest season.
Paualo $n$. literally time of sun.
Paunu v. go.
?awata adj. heavy.
Pawata $n$. used figuratively for a problem or burden.
?awei $v$. warn.
Pawela $v$. pop eyes out.
Pawero $n$. red coral branch.
2a?a $i j$. disagree.
2aPa $a d v$. neg.
2a?a prep. with.
2aPafi $v$. carry, clean.
PaPafi $v$. clean.
PaPanai $v$. clear throat.
PaPapo $a d j$. final.
PaParati $v$. insult.
2aPare $a d j$. stinking (fish smell).
Pa?ariri $v$. breaking (wave).
PaParo $n$. chicken, borrowed word from Melanesian Pidgin kakaruk.
PaParoia $n$. rooster crow.
2aPawa propn. location.
2a?e $v$. growing (baby).
PaPe $v$. uproot.
PaPu adj. adolescent 15-17 years of age.
?e $n$. excrement.
Peaa $n$. Dusky Moorhen. Gallinula tenebrosa.
?eba?eba $n$. rising tide.
Tee $i j$. discourse marker.
Pei dem. plural, definite demonstrative.

2ei $a d v$. when.
Pena dem. plural, definite, distal demonstrative.
?ena $a d v$. when.
Penai $v$. glimpse.
Peni dem. plural, definite, proximal demonstrative.
?eni $a d v$. now.
2e?e $v$. step.
Pe?ea $n$. floor.
Pe?eni $a d v$. now, these, think of someone.
Pe?e?e $v$. walk on reef.
ii prep. at.
$\mathbf{i}=$ pron. 3 SG subject proclitic.
Pia $n$. belly.
$=$ ?ia pron. 3SG object enclitic.
Pialama adj. southwest.
Piara $n$. path between suta (taro gardens), hallway.
?iba $n$. charred coconut-shell cup.
pila $n$. freckle, mole.
2ilaPila $a d j$. blackheads, black spots.
Pilia $n$. a beetle that eats taro and banana.
2ilo $v$. touch.
2ilo?ilo $n$. kerosine wood; same as fotaro.
Pilo?o $n$. clock (from Tok Pisin kilok).
Pina $n$. mother, mother's sister.
Pinilala $n$. a sea urchin with thick, blunt spines most visible. Heterocentrotus trigonarius.
Pinoru $n$. Beach Naupaka, also called the Half Flower. This spreading shrub grows wild on beaches throughout the tropics. Its height can be 1 to 3 metres, and the small white flowers are streaked with purple. The flowers are unusual because they look like just half of a flower. It produces berries which are white when ripe. According to Polynesian legend, lovers were separated leaving the half flower of the young man blooming alone in the mountains, and the girl blossoming alone on the beach. (There is a variety of Naupaka called Mountain Naupaka that grows only in the mountains.) Scaevola taccada.
2io $n$. Yellowfin Goatfish. Inhabits sandy areas near coral reefs, often seen in schools. Distinguished by bright yellow fins and yellow stripe on the middle of the side. Size to 38 centimetres. Mulloides vanicolensis.
$=$ ?io pron. 2 SG object enclitic.
2io?io $n$. taro species.
2io?io $n$. Beach Kingfisher. Halcyon nigrocyanea.
Piri $v$. pour.
Piriri $n$. a beetle that eats breadfruit.
?iro $v$. 1. look down, 2. read.
Pirolaraia $v$. misread.
2ita alo $v$. gesture come.
Pitai $v$. feel, touch.
Pitalafui $v$. put in order, analyze.

Piti?a $v$. arise, get up.
2iu $n$. tree species.
Piwa $v$. yell, bark.
2iwa?iwai $n$. shin.
2iPiba $n$. Flashlight Fish. It inhabits reef crevices and ledges. It is a nocturnal fish with a large luminous organ below the eye. This fish has two dorsal fins and travels in schools. Its size is up to 12 centimetres. There is another, similar fish that has only one dorsal and travels singly. Its name is Photoblepharon palpebratus. Size to 12 centimetres. Anomalops katoptron.
piiifi (*?ipifin) v. bury.
PiPiloi $v$. gardening.
PiPire $n$. taro species.
2iPire purufora $n$. taro species.
PiPiri (*PiPirin) v. ask.
PiPitaa $n$. Pacific blue-tailed skink. Emoia caeruleocauda.
PiPolu $n$. vine species.
?o conj. or.
?o $n$. cane, walk stick.
20- pron. 2SG subject enclitic.
Poa $n$. Kwila; also known as merbau or ifil. A medium to large tree, up to 15 m in height and 150 cm in diameter. The bark is grey; the base of the trunk is often buttressed. The leaves are compound and dark green. Flowers have a single pinkish-white petal and three stamens. The fruit is a leathery pod, $10-30 \mathrm{~cm}$ long, containing large, flattened, brown seeds. The wood is dense, reddish brown and highly termite resistant. Intsia bijuga or Intsia palembanica.
?oa $v$. stay, abide.
Poala $n$. northwind, wind.
Poapune $n$. a species of tree.
?oaro $n$. plant disease.
2oba $n$. box, pouch, sheath.
Pobao num. four.
PobaPoba $n$. cheek.
?ofafaufau $v$. get ready.
Pofalure $v$. stand against.
Pofea $v$. influence.
2ofoa propn. clan name, location.
Pofu $n$. butt.
Poila $n$. Convict Surgeonfish. Inhabits coral reefs, sometimes seen in schools. Distinguished by six narrow black bars on the head and body. Size to 26 centimetres. Acanthurus triostegus.
Pola $n$. mother's brother, dad's sister.
2olo $n$. tree species.
Poloroa num. six.
Poloromea num. seven (six and one).
Polumanu num. three.
Poma?a $v$. watch.

2oma?a $v$. care for.
PomaPa $v$. wait.
Poma?oma $v$. blinking (of a star).
?oma?oma $v$. oversee.
?oma?oma $n$. overseer, care taker.
?onne propn. Onne village.
2ono v. 1. swallow, 2. sing.
Ponopono $n$. throat.
Popaluria $v$. turn against, ignore.
Topapani $v$. stand by.
?ope $v$. urinate.
Popi $v$. inhale.
Pore $v$. cut.
Pore?ore $n$. knife.
Pori $n$. lizard species.
Pori banabana $n$. sticky gecko.
Poroa $n$. companion.
PoroPoro $v$. throbbing pain.
Potei $v$. contemplating, struggling, thrashing.
2oti $n$. mouth.
202ou= pron. 1 PL.INCL subject proclitic.
2o?i $n$. hiccup.
2o?olu pron. 1PL.INCL pronoun.
Po?olui num. three anim.
2o?onai $a d j$. encouraging.
Po?onu $n$. low throb sound.
PoPora?a $n$. a synaptid holothurian that looks like a giant hollow worm. They are very soft and flexible, and their bodies are expanded by water. Their surface is sticky, and they can travel across the sandy bottom surprisingly quickly by expanding and contracting their bodies like an accordian. Euapta godeffroyi, possibly also Opheodesoma sp.
?o?ote $n$. skin problem between fingers and toes.
$\mathbf{2 0 2 0 2 0} n$. Stripe-face Unicornfish. Inhabits coral reefs. Distinguished by yellow-edged dark stripe on the snout and yellow-orange tail-base. Also known as Orange-spine or Poll Unicornfish. Size to 45 centimetres. Naso lituratus.
20202u adj. confident.
202o?ui adj. head-down.
2o?o?ui $v$. bow.
2u (*?ur) v. stand.
$\mathbf{~ u} \boldsymbol{n}$. post.
$\mathbf{P u}=$ pron. 1 SG subject proclitic.
?ua $a d v$. only.
?uaa conj. because.
?uatani $a d v$. because, why?
Pubatai $n$. tree species.
?uba?uarai $a d v$. sudden.

Pufa $n$. umbrella.
?ufafefe $v$. ready posture.
?ufalo $n$. taro species.
?ufaluria $v$. stand back to person.
?ufa?ufa $v$. dance.
?ule $v$. stay.
Pulo $n$. Surge Demoiselle. Inhabits shallow reefs exposed to surge. Feeds on algae, fish eggs and small benthis invertebrates. Two colour forms are commonly seen--one variety is mainly yellow with a brilliant blue stripe along the back and the other is a dark variety with white bars. Size to 8.5 centimetres. Chrysiptera leucopoma.
Pulo $n$. spider.
Pulo afea $n$. a kind of spider that does not make a web.
?ulo puli $n$. a kind of spider with dots like a leopard.
Pulofo $n$. top.
Pululu $n$. commander.
Pulururu $a d v$. dissatisfied.
PumaPua adj. firstborn.
?umu $n$. mouth.
Pumu $v$. curse.
Pumulo $n$. mute, quite person.
?umurauwe $n$. tale bearer.
?umuri adj. next born.
?una $v$. kick with heel or sole, for example starting motorbike.
?una reflx. self.
Punalifai $v$. go back.
?unari $n$. scabies, grille.
?uni v. point, show.
Punifani $v$. show someone.
Punilalo $v$. guess.
?unu $n$. body.
Punu (*Punur) $v$. to slide or pull one object out of a pile of many.
?unuaa $n$. young coconut meat, egg white.
?unuwenuwe $a d v$. excited.
?upe?upe $v$. imagine romance.
Pupu $n$. grandparent, grandchild.
Pupu $v$. descend.
Pupua Pari $n$. first menstration.
Pupunaa pani $v$. born arms first.
?upunaa pinai $v$. born legs first.
?urafu $n$. coral species.
?uratauneneri $v$. yes with crowd.
?ura?ura $v$. pulsing, throbbing, beating.
?urere $n$. Tiger cowry. A dark-spotted cowry, popular as a curio item. Cypraea tigris.
?urua pula $n$. swollen eyes.
?urufana $v$. show.
Purupeni $v$. step on.

Purupi propn. location, clan name.
?urupula $n$. eyebrow.
?uruPuru $v$. drip.
Putafe?ai $v$. hold on.
2utaroba $n$. phosphate.
Putauai $n$. stand firm, hold on.
?utoma?a $v$. hold try.
Putupulepule $n$. hermit crab shell.
Puwarau $n$. Black-blotched Moray eel. Inhabits coral reef crevices. Feeds on fishes.
Distinguished by bold dark spotting on white ground colour. It is usually harmless but can cause serious injury if provoked. Size to 180 centimetres. Gymnothorax favagineus.
?u?ale $n$. tree species.
Pu?na?aa $v$. remove.

PuPu (*?uPur) v. narrate, storytell.
?u?ufai $n$. fish species.
PuPumi (*?uPumin) v. recognize.
PuPupu $v$. go down.
Pu?upua propn. location.
?upura $n$. story.
Pu?urafu $n$. stationary cloud on the horizon.
Pu?urai $a d j$. different, seperate, alone, unique.
?upuri (*?upurin) v. separate.
PuPuru $v$. drip.
Pu?uu $n$. a bird like a pigeon, walks (instead of flying).

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[^0]:    ${ }^{1}$ The GPS coordinates of Wuvulu are $1^{\circ} 43^{\prime} 0^{\prime}{ }^{\prime} \mathrm{S}, 142^{\circ} 49^{\prime} 59^{\prime}{ }^{\prime} \mathrm{E}$.

[^1]:    ${ }^{2}$ The International Organization for Standards (ISO) created the alpha-3/639-3 standard "to provide as complete an enumeration of languages as possible, including living, extinct, ancient, and constructed languages, whether major or minor, written or unwritten." Each of the world's languages is specified by a unique 3 -character code enclosed in square brackets.

[^2]:    ${ }^{3}$ Ortiz de Retes is the captain who named the island of New Guinea (Nueva Guinea) although it had already been discovered by Jorge de Menedez in 1526.

[^3]:    ${ }^{4}$ In Wuvulu society before the time of the plantation, each house had a unique name. Houses were constructed of hardwoods and were fitted together such that the gaps between the planks wouldn't allow mosquitos inside (there were fitted doors and windows as well).

[^4]:    ${ }^{5}$ Hafford 1999 and Wozna \& Wilson 2005 are brief sketch-level grammars on Wuvulu and Seimat, respectively.

[^5]:    ${ }^{6}$ The Wuvulu research project is grateful to the president of Crown Audio who donated the PZM-6D microphone.

[^6]:    ${ }^{7}$ The Eastern Admiralty languages Bipi, Khehek, Kurti, and Lele each have at least two of the following consonant phonemes: $/{ }^{\mathrm{m}} \mathrm{b} /, / \mathrm{p}^{\mathrm{w}} /, / \mathrm{m}^{\mathrm{w}} /, /^{\mathrm{m}} \mathrm{w} /, /^{\mathrm{n}} \mathrm{d} /, /^{\mathrm{n}} \mathrm{dr} /$.

[^7]:    ${ }^{8}$ Phoneme inventories of Admiralty languages in the Manus Province include: Bipi (19 phonemes), Khehek (18), Kurti (20), Lele (22), Loniu (23), Lou (22), Nali (21), Nyindrou (26), Seimat (20). Phoneme inventory data is from http://www-01.sil.org/pacific/png/show_lang.asp?list=Manus\&by=province (June 10, 2013).

[^8]:    ${ }^{9}$ The present author had the privilege of working for Professor Blust to keyboard all of his Admiralty field notes, including the languages Wuvulu, Seimat, Nyindrou, Bipi, and Lou. Blust's field notes have 51 transcriptions of [k]. In my own work, I have not heard [k] spoken, and in fact, the utterance of [k] is actually avoided by native speakers. It is possible that Blust's informant spoke [k] idiolectically. Another possibility is that the language informant was accommodating. In my 10 years of immersion in the Wuvulu language and culture, I have actually witnessed a situation in which a native speaker intentionally substituted [k] for [x] in order to accommodate an English-speaking man who visited Wuvulu. The English speaker answered [nakawani] 'good' in response to a Wuvulu greeting, "How are you?" (rather than [naxawani]). The Wuvulu speaker then mimicked the [k] pronunciation when the English speaker greeted him. That night, the story of the " $[\mathrm{k}]$ response", nakawani, was humorously retold in the village.

[^9]:    ${ }^{10}$ The Hafford corpus has /ururu/ [ugugu] 'thunder,' and /utila/ [usida] 'lightning'.
    ${ }^{11}$ Trussel 2013 continues to list /muki/ 'stern of canoe' even though Blust (2008:291) has switched the underlying phoneme from $/ \mathrm{k} /$ to $/ \mathrm{x} /$.

[^10]:    ${ }^{12} \mathrm{C}$ is has been lost from word-final position and reanalyzed as part of a transitive morpheme in Wuvulu. This phenomenon is widespread in the Oceanic subgroup with language-specific variations in grammatical function of the morpheme in which C appears.

[^11]:    ${ }^{13}$ Orthographic representation is specified by angle brackets. Speakers of the two dialects consider their own variety to be the most prestigious. In contemporary Wuvulu society, Onne has the largest population, and is home to most of the island's wood-carvers (an important source of income), yet people from both villages know that in plantation times, Auna was the center of traditional leadership. Prior to the advent of the SDA Church in the 1950s, Onne and Auna were enemies. Contemporary Wuvulu society could be described as tranquil; the villages live in harmony and the crime rate is very low.

[^12]:    ${ }^{14}$ The national government of PNG supports vernacular education with funding for teachers, teacher-training, and materials production. Wuvulu has vernacular education for grades K-2 with English instruction beginning in grade 3 .

[^13]:    ${ }^{15}$ In personal communication, Blust shared that the tentative title of his forthcoming volume is Eight languages of the Admiralty Islands, Papua New Guinea (presently 149 pages): the eight languages for which sketches will be provided are: 1. Likum, 2. Lindrou, 3. Levei, 4. Drehet, 5. Loniu, 6. Bipi, 7. Sori, and 8 . Seimat.

[^14]:    ${ }^{16}$ Mosquito-tight homes were built of planks of $r a$ 'red ironwood' that were hewn with clamshell adzes. When people were required to resettle, they disassembled their homes that were built along the shore, around the perimeter of the island. Homes were reassembled in two locations, Auna and Onne. People who lived from the northwest point of the island (clockwise) to the southeastern point of Wuvulu were resettled into Onne; the rest were resettled into Auna Village.

[^15]:    ${ }^{17}$ The POc NP structure given by LRC (75) implies by the absence of parenthesis that an article is obligatory, yet LRC (70) states that, "The first element of the POc noun phrase was often an article..." (emphasis added).

[^16]:    ${ }^{18}$ In (4.2) the forward slash '/, of (mood/aspect-) indicates that one or both can be present.

[^17]:    ${ }^{19}$ For convenience vowel length is not written for the transitive marker -C $\bar{a}$, but it is marked in the lexicon.

[^18]:    ${ }^{20}$ Lichtenberk1991 correlates physical movement with time and aspect, "GO for continuative and future, COME for ingressive and future".

[^19]:    ${ }^{21}$ As noted previously, the transitive marker - $\mathrm{C} \bar{a}$ is written without the dicritic throughout this text, although transitive suffixes have long vowels in the lexicon.

[^20]:    ${ }^{22}$ Blust (forthcoming, on Admiralty languages) will hopefully reveal the degree to which canonic features are found across Admiralty languages. If not, this could be a worthy object of research.

[^21]:    ${ }^{23}$ The first four are Bühler's Zeigarten 'kinds of pointing' (1990). The category of discourse deixis in Wuvulu includes anaphoric/cataphoric, and imaginary reference.

